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U.S.-Pacific Islands Trade and Investment: Impediments and Opportunities

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Abbreviations and Acronyms

ACIAR	Australian Center for International Agricultural Research
ADB	Asian Development Bank
AFF	agriculture, forestry, and fishing
AGOA	African Growth and Opportunity Act
AVE	ad valorem equivalent
BaTiS	Balanced Trade in Services dataset (OECD-WTO)
BDC	beneficiary developing country (GSP)
BPO	business process outsourcing
CBERA	Caribbean Basin Economic Recovery Act
CBP	U.S. Customs and Border Protection
CBR	correspondent banking relationship
CNL	competitive need limitations
Compact	Compact of Free Association
Commission	U.S. International Trade Commission
DME	direct micro expelling
EEZ	exclusive economic zone
EPI	export potential indicator (International Trade Centre, Geneva)
EU	European Union
FAS	Freely Associated States
FDI	foreign direct investment
FOC	flag of convenience
GAO	U.S. Government Accountability Office
GDP	gross domestic product
GSA	U.S. General Services Administration
GSP	U.S. Generalized System of Preferences
GTAS	Global Trade Analytics Suite database (S&P Global)
HS	Harmonized Commodity Description and Coding System (Harmonized System, World Customs Organization)
HTS	Harmonized Tariff Schedule of the United States
ICT	information and communications technology
IFC	International Finance Corporation (World Bank)
ILO	International Labour Organization
IMF	International Monetary Fund
IRA	Inflation Reduction Act of 2022
ITPD	International Trade and Production Database (USITC)
ITU	International Telecommunication Union (United Nations)
IUU	illegal, unreported, and unregulated (fishing)
KPO	knowledge process outsourcing
LDBDCs	least-developed beneficiary developing countries (GSP)
M&A	merger and acquisition
MSEs	micro and small enterprises
MTRV	metric tons raw value
NRCA	normalized revealed comparative advantage index
NTR	normal trade relations
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PACER	Pacific Agreement on Closer Economic Relations
PACER Plus	Pacific Agreement on Closer Economic Relations Plus
PDI	product diversification indicator (International Trade Centre, Geneva)

U.S.-Pacific Islands Trade and Investment

PHAMA Plus	Pacific Horticultural and Agricultural Market Access Plus Program
PICTA	Pacific Island Countries Trade Agreement
PIF	Pacific Islands Forum
PNG	Papua New Guinea
POETCom	Pacific Organic and Ethical Trade Community
PPML	Poisson pseudo maximum likelihood
PTI	Pacific Trade Invest
RBD	refined, bleached, and deodorized
RCA	revealed comparative advantage index
ROOs	rules of origin
SIDS	small island developing states
SITC	Standard International Trade Classification (UN Statistical Commission)
SMEs	small and medium-sized enterprises
SPARTECA	South Pacific Regional Trade and Economic Cooperation Agreement
SPS	sanitary and phytosanitary
TEU	twenty-foot equivalent unit
Trade Representative	U.S. Trade Representative
TRQ	tariff-rate quota
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNWTO	United Nations World Tourism Organization
USAID	U.S. Agency for International Development
USDA	U.S. Department of Agriculture
USITC	U.S. International Trade Commission
USTR	Office of the U.S. Trade Representative
VCO	virgin coconut oil
WTO	World Trade Organization

Executive Summary

This report provides information on and analysis of Pacific Island exports to the United States and U.S. investment in the Pacific Islands. It begins by describing the unique characteristics of the Pacific Islands, especially the conditions surrounding their geography, economies, trade, and employment, as well as impediments to increasing trade and investment. Related to Pacific Island goods exports to the United States, the report analyzes the importance to the Pacific Islands of the U.S. Generalized System of Preferences (GSP) program, as well as other U.S. preferential trade access.

Drawing from quantitative and qualitative analysis, the report then identifies and profiles several sectors as having potential for increasing Pacific Island exports to the United States and for U.S. investment. These sectors are fish, nickel, spices, virgin coconut oil, cocoa, kava, coffee, tourism, internet-enabled services outsourcing, and renewable energy. Cross-sector initiatives in the Pacific Islands are also presented in the report, with a focus on initiatives that support trade and investment.

The Request and Approach

The U.S. Trade Representative (Trade Representative) requested this investigation and report in a letter received by the U.S. International Trade Commission (Commission or USITC) on September 29, 2022. The Trade Representative requested that the report provide analysis on Pacific Islands trade with the United States, including the identification of goods and services in 22 Pacific Islands with the greatest potential for export sales to the United States, sectors with U.S. investment potential, and factors that impede trade and investment with the United States. The Trade Representative also requested a description of the use of the GSP program by the Pacific Islands.

The 22 Pacific Island economies covered in this report are American Samoa, the Cook Islands, Fiji, French Polynesia, Guam, Kiribati, the Federated States of Micronesia, Nauru, the Northern Mariana Islands, the Marshall Islands, New Caledonia, Niue, Palau, Papua New Guinea, the Pitcairn Islands, Samoa, the Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna.

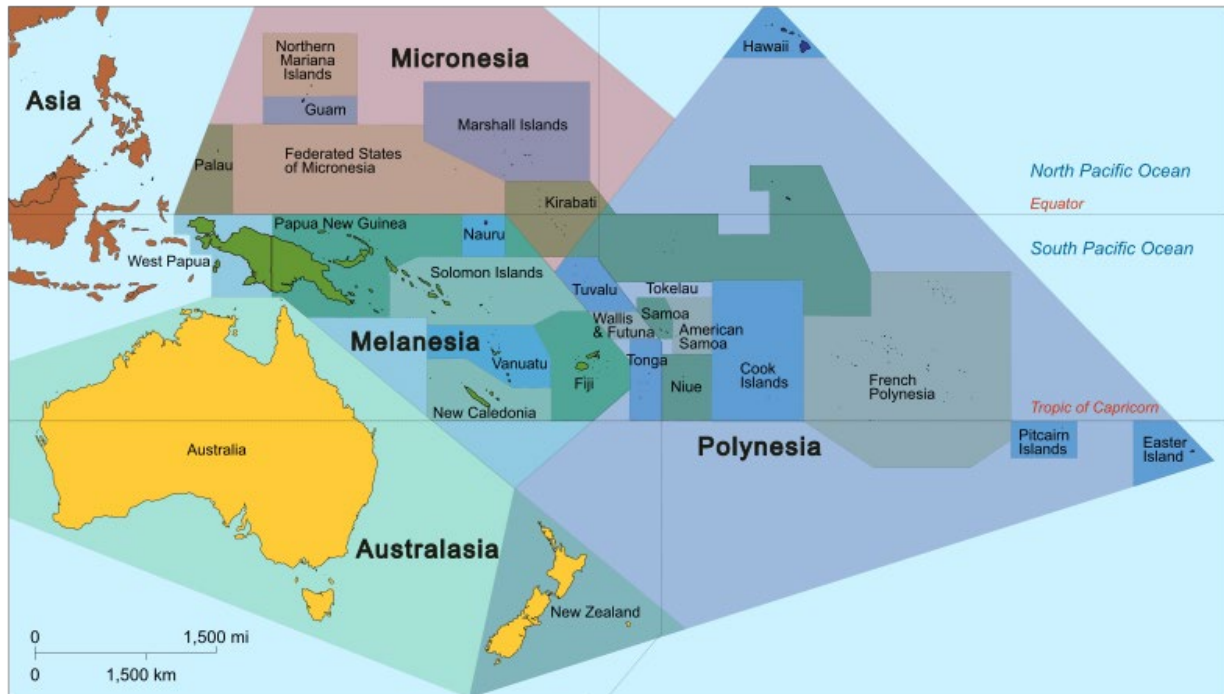
To respond to the Trade Representative's request, the Commission based this report on an analysis of trade and investment data, a review of relevant literature and reports, and information obtained from industry, government, and academic sources; international and regional organizations; nongovernmental organizations; and other sources through virtual and in-person interviews. The report also includes information drawn from a public hearing the Commission held on February 14, 2023, and written submissions. In addition, in March and April 2023, Commission staff conducted fieldwork in American Samoa, Australia, Fiji, Papua New Guinea, Samoa, and Vanuatu.

Geography and Sovereignty

The Pacific Island economies covered in this report can be grouped into three regions: Melanesia, Micronesia, and Polynesia (figure ES.1). Melanesia includes the largest economies and populations in the Pacific Island region: Fiji, Papua New Guinea, and the Solomon Islands, as well as New Caledonia and Vanuatu. Micronesia covers an arc of island chains north of Melanesia, including Guam, Kiribati, the Northern Mariana Islands, the Marshall Islands, the Federated States of Micronesia, Nauru, and Palau.

Polynesia spans the largest area, characterized by smaller islands with greater distances between them, and includes American Samoa, the Cook Islands, French Polynesia, the Pitcairn Islands, Samoa, Tonga, Tuvalu, and Wallis and Futuna.

Figure ES.1 Map of Melanesia, Micronesia, and Polynesia



Source: Cruickshanks.

The 22 Pacific Island economies can also be grouped into four sovereignty categories as defined by the Trade Representative in her request letter: (1) independent states, (2) nonindependent states and territories, (3) the Freely Associated States (FAS), and (4) U.S. territories (table ES.1). The four sovereignty categories have implications for trade and investment that are explored in the report.

Table ES.1 Sovereignty categories of the Pacific Islands

Sovereignty Category	Pacific Island economy
Independent states	Fiji Kiribati Nauru Papua New Guinea Samoa The Solomon Islands Tonga Tuvalu Vanuatu
Nonindependent states and territories	The Cook Islands (New Zealand) French Polynesia (France) New Caledonia (France) Niue (New Zealand) The Pitcairn Islands (United Kingdom) Tokelau (New Zealand) Wallis and Futuna (France)
Freely Associated States (with the United States)	The Federated States of Micronesia Palau The Marshall Islands
U.S. territories ¹	American Samoa Guam The Northern Mariana Islands

Source: The Trade Representative's request letter.

Note: In this report, the Freely Associated States are states that are in free association with the United States. Some Pacific Island states are in free association with countries other than the United States, e.g., Niue, which is freely associated with New Zealand.

Main Findings

Economic Activity

The largest economies covered in this report—Papua New Guinea, New Caledonia, French Polynesia, Guam, Fiji, the Solomon Islands, and the Northern Mariana Islands—represent the bulk of total economic activity in the region. Economic activity is concentrated in the services sector; tourism is the main services export, with a few economies highly dependent on tourism for revenue. Agriculture and fishing, however, likely provide the bulk of rural household income and consumption. With narrow resource bases and a general lack of economies of scale, manufacturing is typically confined to the processing of extracted raw materials. The economies, regardless of size, are all dependent on imports of energy, food, and most consumer goods. A few sectors related to the specific endowments of each economy, account for most goods exports.

¹ The U.S. territories are also referred to as “insular possessions.” According to the U.S. Department of Interior, insular possession is equivalent to territory and is the term typically used in federal legislation, but insular possession is of less current colloquial usage than territory. This report uses “insular possession” when discussing legislation that uses this term, but otherwise uses “U.S. territories.”

Goods and Services Trade

Pacific Island goods and services trade—despite the COVID-19 pandemic disruption in 2020—experienced an overall modest growth trend between 2017 and 2021. Regional export growth has been driven by increased exports to relatively nearby Asian economies, particularly China, Japan, and South Korea. The European Union is also a significant destination for Pacific Island exports. Although Australia, Taiwan, and the United States remain among the leading destinations for Pacific Island exports, exports to all three markets decreased between 2017 and 2021. Finally, analysis of exports in specific categories shows that most exports are in extractive industries such as natural gas, minerals, and metals, as well as from the sectors of fisheries, tourism, and some niche agricultural commodities.

Analysis of Pacific Island goods exports to the United States reveals several trends. Although the Pacific Island economies collectively export mostly extractive commodities like natural gas, minerals, and metals to the world, their exports to the United States are mostly fishery and agriculture products like tuna, water, coffee, and cocoa beans. The value of goods exported to the United States from the region decreased slightly between 2017 and 2021 because increases in exports from French Polynesia and New Caledonia did not offset declines from Papua New Guinea, the largest economy of the Pacific Islands, during the period. Finally, Pacific Island exports of services to the United States, largely through tourism, declined during the COVID-19 pandemic, but began to recover in 2021.

Preferential Access to the U.S. Market for Goods

All but 3 of the 22 Pacific Island economies covered in this report have preferential trade access for goods to the U.S. market. The majority of these economies have such access through GSP (table ES.2). GSP is a U.S. trade preference program. When the program is authorized, it makes a wide range of covered products from beneficiary developing countries (BDCs) eligible for duty-free treatment. Thirteen Pacific Island economies are BDCs. For two groups in the Pacific Island region—the U.S. territories (also known as insular possessions) and the FAS—the United States maintains distinct trade preference systems that provide more expansive trade preferences than the preferences received through GSP. For products from the U.S. insular possessions, the United States has offered duty-free treatment longer (since the early 20th century) than it has for any other region, and these preferences are more extensive than those for the FAS. Congress created unique trade preferences for the FAS when approving the Compacts of Free Association that outline relations between the United States and the FAS.

Table ES.2 Pacific Island economies with preferential access, by trade preference system, to the U.S. market

Trade preference system	Covered Pacific Island economies
U.S. Generalized System of Preferences	The Cook Islands, Fiji, Kiribati, Niue, Papua New Guinea, the Pitcairn Islands, Samoa, the Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna, referred to collectively as the Pacific Island BDCs
Insular possessions	American Samoa, Guam, and the Northern Mariana Islands
Compacts of Free Association	The Marshall Islands, the Federated States of Micronesia, and Palau

Sources: 19 C.F.R. § 7.2; USITC, *Harmonized Tariff Schedule*, January 2023, General Notes 3(a)(iv), 4, 10.

Low levels of GSP trade but high GSP utilization rates

As a group, the Pacific Island BDCs have a relatively low level of trade of GSP-eligible products, averaging \$21.1 million annually during 2017–21, but have a high GSP utilization rate (measured as the percentage of GSP-eligible products claiming GSP benefits upon entry to the United States). The utilization rate is driven mainly by Fiji. U.S. imports of GSP-eligible products comprised a small share (6.2 percent) of overall U.S. imports from Pacific Island BDCs during 2017–21. U.S. imports of GSP-eligible products from Pacific Island BDCs were predominantly in the agricultural sector (76.4 percent of these imports during 2017–21), followed by the fisheries sector (11.6 percent). Pacific Island BDCs as a group, however, have had a high utilization rate of GSP (about 86.8 percent during 2017–21).

At a country and sector level, however, GSP trade and utilization patterns have varied. Several factors impacted GSP trade with Pacific Island BDCs, including their comparative advantages and the Pacific Island BDCs' characteristics as small island economies. In addition, various factors appear to be associated with GSP utilization during 2017–21. At the sector level, U.S. imports of GSP-eligible agricultural and fishery products had higher GSP utilization rates. This was likely the result of being better able to meet the GSP rules of origin because of the lesser degree of processing, if any, involved in Pacific Island exports of these products. Machinery and manufactured products from the Pacific Island BDCs also had comparatively low GSP utilization rates. Higher GSP utilization rates were also observed for GSP-eligible products from the Pacific Island BDCs that had higher U.S. customs duties, higher import values, or were more consistently imported. In addition, qualitative information indicates a link between utilization rates at a country level and the level of stakeholder familiarity with GSP among the Pacific Island BDCs. Finally, a lack of consistent GSP authorization also appears to impact both GSP trade and utilization of the program.

Mixed levels of trade and utilization for other preferential access systems

Trade under the insular possessions preferences represents by far the highest value of the three preference systems. U.S. imports of covered products from the insular possessions averaged \$351 million annually during 2017–21. This trade, which had almost full preference utilization, was in two canned tuna products from American Samoa. Trade with the FAS under the Compacts of Free Associations shows the opposite characteristics: U.S. imports of covered products were very low (about \$1.4 million annually) and had little preference utilization. Overall, preference trade and utilization of insular possessions and Compacts of Free Association preferences are likely impacted by the same factors that impact GSP trade and utilization.

Investment

Global foreign direct investment (FDI) in the Pacific Islands is mostly in a handful of economies and sectors. According to reported FDI positions, the largest destinations for FDI in the Pacific Islands are Papua New Guinea, the Marshall Islands, and Fiji, and the largest reported sources of investment in U.S. dollar terms are Australia, the United States, China, and France. Analysis of investment at the sector level shows that investments are mostly in extractive industries, followed by investments in financial services, business services, and the food and beverage sector.

Analysis of U.S. investment in the Pacific Islands revealed several key trends. During 2017–21, only three U.S. investments (two greenfield projects in Fiji and a merger and acquisition deal in Papua New Guinea) were reported. While the Marshall Islands has received the majority of U.S. FDI according to official U.S. FDI statistics, this is primarily the result of data suppression (to protect confidentiality) for other countries and the fact that the Marshall Islands' FDI values reflect assets tied to ship registrations, not revenue-generating activity. Most long-standing U.S. FDI in the Pacific Islands is in extractive industries, albeit in a small number of high-value projects like ExxonMobil's \$19 billion liquid natural gas joint venture in Papua New Guinea. Unlike the rest of global FDI to the region that flows largely to financial and business services, most of the remaining U.S. FDI is in hotels, primarily in Fiji, which has a robust tourism sector.

Impediments to Trade and Investment

As a region of small island developing states (SIDS), Pacific Island economies share characteristics that the United Nations identifies as posing unique economic, environmental, and social challenges. Economies in the Pacific Island region typically have small, dispersed populations and land areas that are extremely remote, both from one another and from large external markets. This remoteness, a factor of both geographic distance and low digital connectivity between markets, can be a major deterrent to U.S. trade and investment opportunities. In addition to remoteness, several other major impediments relate to the physical geography of small island developing states. These include a lack of economies of scale, high fixed costs for production, limited institutional capacity, and limited economic diversification. These challenges hinder Pacific Island economies' ability to attract FDI and export large volumes competitively in the global market.

Environmental and social challenges—and the potential to adapt to these challenges—influence U.S. trade and investment opportunities in the Pacific Island region. Climate change impacts, natural disasters, and issues with land use rights can deter investment in the private sector and disrupt or limit production in economic sectors that demonstrate potential for development and export growth.

Key agricultural sectors profiled in this report, including cocoa, kava, spices, and coffee, suffer from environmental challenges, such as declining availability of land suitable for cultivation, changing growing seasons, and growth and harvest disruptions due to increased frequency of flooding and intensity of cyclones. Complex or unclear land use rights in customary tenure systems is a common barrier faced by producers and investors in both key goods and services sectors in Pacific Island economies. Initiatives to mitigate these environmental and social challenges can promote trade and investment in Pacific Island economies.

Sectors with Potential for Increased Trade and Investment

This report identifies sectors with the potential for increased export to the United States or investment from the United States. Using both quantitative and qualitative analyses, seven goods sectors and two services sectors were identified as having potential for increased export to and, in some cases, investment from the United States. The sectors are fish, nickel, spices, virgin coconut oil, cocoa, kava,

coffee, tourism, and business process outsourcing. An additional sector, renewable energy, was identified exclusively for its investment potential from the United States.

In most of these sectors, Pacific Island economies are developing strategies to add more value to their products and services or to differentiate their products and services to compete with larger sources of supply outside of the Pacific Island region. In particular, the push for renewable energy across the region presents an opportunity for investment from the United States. All the sectors identified face common challenges related to the distance from the U.S. market, the cost of shipping, and the cost of production.

Fish

The Pacific Island region is home to some of the world's most productive fishing grounds, particularly for tuna. In 2019, it was estimated that approximately 54 percent of the world's tuna supply came from the western and central Pacific, which are the waters surrounding the 22 Pacific Island economies. Tuna harvested from these waters is a critical input in the global tuna canning industry. It is also an important product in the fresh and frozen tuna market, which supplies growing demand for products such as sushi. Tuna accounts for most of the exports of fish from the region, with opportunities for the Pacific Island economies to export other types of fish, including farmed species, which are becoming more important as a share of global seafood supply.

Pacific Island fisheries are already well established, and potential for increased fish exports to the United States mostly comes from adjustments to existing supply chains that would allow for export of higher value products from the region. The highest value potential increase in fish exports to the United States from the Pacific Island region is likely in fresh and frozen tuna. Canned tuna and farmed fish products also present opportunities for increased exports. U.S. demand trends point toward increased seafood consumption, particularly of fresh and frozen products and increasingly from aquaculture, supporting the identification of Pacific Island fisheries as areas of potential export growth.

Nickel

Nickel is a critical mineral used in alloying to produce stainless steel and, increasingly, is a vital component in lithium-ion batteries in electric vehicles. Certain Pacific Island economies produce unprocessed nickel from mines, processed ferronickel that is primarily used in stainless steel, and intermediate nickel products that are suitable for use in lithium-ion batteries.

New Caledonia is a leading global producer and exporter of nickel and a potential source of trade and investment opportunities for the United States. Its nickel sector is positioned to potentially supply the United States and other nations with nickel for use in renewable energy applications. For instance, Tesla recently agreed to purchase nickel under a five-year agreement that made a New Caledonian mining company a key supplier to the U.S. electric vehicle maker. Export and investment opportunities in New Caledonia are likely enhanced by U.S. efforts to secure supply chains for critical minerals, including nickel. New Caledonia has potential opportunities for private investment and upgrades to nickel-processing facilities. Additional processing capacity that produces nickel intermediates for the lithium-ion battery sector could feed into battery supply chains beyond New Caledonia.

Turmeric, Ginger, and Other Spices

Because of their tropical climates, Pacific Island economies produce many spices, including ginger and turmeric, important to local and global markets. Fiji is the largest Pacific Island exporter of ginger and turmeric, and small amounts of one or both are also exported by other Pacific Islands. Global familiarity with existing Pacific Island producers and niche health markets affording premiums for high-quality products contribute to the potential for increased exports of turmeric and ginger to the United States. Moreover, the possibility of producing further-processed turmeric and ginger products provides an additional opportunity for growth in the industry and increased exports to the United States and the world. Other spices produced in the Pacific Islands identified as having export potential include vanilla, pepper, and nutmeg.

Virgin Coconut Oil

Virgin coconut oil (VCO) has recently emerged as an opportunity for Pacific Island economies to generate a higher-value coconut product. Commercialized production methods allow VCO to be extracted from fresh coconut meat. VCO can be consumed without further processing and has a wide range of applications, including as a base in cosmetics, a carrier oil for aromatherapy and massage oils, and edible products. The potential for Pacific Island VCO exports rests not on volume but on the ability to produce and export differentiated VCO, primarily for use in high-end personal care and cosmetics. Increasing U.S. demand for these products underpins the potential for expanding Pacific Island VCO exports to the United States.

Cocoa

Cocoa has been grown in the Pacific Islands for more than 130 years, both for export and as part of local food culture. Papua New Guinea is the largest Pacific Island cocoa producer, with the Solomon Islands, Vanuatu, Samoa, Fiji, the Federated States of Micronesia, and Tonga producing small amounts. Pacific Island economies have potential for increased exports to the United States throughout the cocoa and chocolate confectionary supply chain. In particular, they can benefit from product differentiation because they are able to produce cocoa beans with unique flavor profiles and process the cocoa into chocolate confectionary goods, a potential not found in the major growing countries in West Africa. Additionally, U.S. demand for the sustainable cocoa products that Pacific Island economies produce is increasing.

Kava

Kava is a shrub native to the Pacific Islands. The kava root contains active compounds that can produce a calming sensation when ingested. The Pacific Island economies with large-scale production and exports of kava are Fiji and Vanuatu—both of which also have large domestic markets for the product—but the Solomon Islands, Tonga, and Samoa produce more limited volumes of kava. In the United States, kava is consumed as a beverage or in a supplement. The beverage is sometimes consumed in kava bars, which have reportedly increased in popularity over the past several years. The Pacific Island economies have potential for increasing exports of kava to the United States by increasing the volume of existing exports and expanding processing to create new products. This potential is enhanced by credible initiatives to improve kava production and marketing in the Pacific Islands, strong demand in the United States, and

U.S. tariff and regulatory treatment that is favorable in comparison to other export markets. Improved understanding of U.S. market requirements and reliability of supply would further bolster this potential.

Coffee

Coffee is one of the Pacific Island region's most important and lucrative crops and is almost exclusively grown in Papua New Guinea. Most notably, Papua New Guinea coffee has potential for increased exports to the United States related to the high-quality, specialty coffee market. Papua New Guinea coffee production and exports can be bolstered by increasing marketing and promotion of the industry, especially as a specialty coffee supplier; implementing regulatory reforms on licensing to raise efficiencies and reduce costs; and ensuring credit is more widely available.

Tourism

Tourism is a major contributor to Pacific Island economies, though the level of development in the tourism sectors varies widely across the region. Fiji, Palau, Samoa, Tonga, and Vanuatu are described as having relatively more advanced tourism sectors. The Federated States of Micronesia, Kiribati, the Marshall Islands, Tuvalu, the Solomon Islands, and Papua New Guinea are described as having less advanced sectors. Tourist arrivals grew by almost a quarter from 2011 to 2019, before the onset of the COVID-19 pandemic and its related effects caused significant declines. After the onset of the pandemic, recovery has been uneven across the region.

Exports of travel services to the United States have the potential to increase, particularly with better tourism marketing and improved transportation connectivity. The main U.S. travel season runs counter-seasonal to the other Southern Hemisphere sources of tourists for some Pacific Island economies, allowing these islands to increase the number of tourists without experiencing capacity constraints. Increased investment in hotels—as well as other tourism infrastructure and supply chains—also has potential to increase tourism. Improving flight connections between the United States and the region, as well as reducing the high costs of inputs, such as food and energy, could improve this potential.

Internet-Enabled Services Outsourcing

Significant improvements in information and communications technology have enabled increased outsourcing of services activities and have facilitated the provision and consumption of services in different locations. Because of these improvements, the Pacific Islands are increasing the provision of services outsourcing, particularly business process outsourcing and knowledge process outsourcing, especially in American Samoa, Fiji, Samoa, Tonga, Papua New Guinea, and Vanuatu. The outsourcing sector in the Pacific Islands is relatively small and undeveloped, but factors such as low labor costs, advantageous time zones, and widespread fluency in English suggest it has potential for future growth. At the same time internet connectivity is slow in the Pacific islands, acting as an impediment to growth.

Renewable Energy

The need for reliable, low-cost electricity generation, coupled with ambitious renewable energy targets, provides significant opportunity for investment in the Pacific Islands. The key renewable resources with the most potential include solar photovoltaic (PV), hydroelectric power, biomass, and wind. Despite the region emitting only a 0.03 percent share of global greenhouse gas emissions, most Pacific Island

economies have ambitious renewable energy targets. The threat of climate change, coupled with a heavy reliance on costly diesel imports, has prompted increases in the amount of electricity generation provided by hydroelectric power, solar PV, and, to a lesser extent, wind. The amount of renewable electricity generation needed to meet future targets provides significant opportunity for U.S. investment in the region, in partnership with utility providers or as independent power producers.

Initiatives and Technical Assistance to Address Impediments to Pacific Island Exports and Investment

The Pacific Island region is highly dependent on foreign aid, largely a result of the unique challenges to their development as SIDS. Initiatives in the region may directly address major impediments to Pacific Island trade and investment, such as climate change, land rights insecurity, and infrastructure and connectivity challenges, or more broadly support trade and investment opportunity.

Large external partners, including Australia, China, Japan, New Zealand, and the United States, and multilateral donors such as the World Bank and the Asian Development Bank provide the bulk of official development assistance to Pacific Island economies. Primary partners for initiatives in the Pacific Islands tend to vary by subregion. Australia is generally the primary partner for initiatives in Melanesia; New Zealand tends to support initiatives in Polynesia. The United States, with close economic relationships with the FAS and U.S. territories, has historically focused development assistance and initiatives in Micronesia.

The regional aid-for-trade strategy identifies comprehensive connectivity as a major priority area to improve trade opportunities. Therefore, a wide range of initiatives focus on improving physical and digital infrastructure connectivity. Initiatives to support transportation infrastructure include expanding capacity at seaports and airports and enhancing the ports' climate resilience. Digital infrastructure initiatives—especially critical to the growth of key services sectors—include construction of subsea cable and last mile infrastructure, satellite projects, and e-commerce access.

Existing initiatives to support trade and investment opportunities in Pacific Island economies inform gaps and areas that could benefit from greater U.S. engagement. Industry and government stakeholders provided the Commission with information on potential U.S. engagement and initiatives in the Pacific Island region. One broad recommendation emphasized by foreign government officials and representatives from multilateral institutions is to support existing regional initiatives wherever possible to reduce duplication of efforts and ensure that U.S. engagement is supporting priorities voiced by Pacific Island economies. For example, one recommendation offered in hearing testimony, written submissions, and interviews with regional stakeholders is for the United States to join the Pacific Trade Invest network. Mandated through the Pacific Islands Forum, a regional intergovernmental organization headquartered in Fiji, the network is designed to promote trade with and investment in Pacific Island economies, with offices currently in Australia, China, and New Zealand.

Other options detailed as potential areas for U.S. engagement include technical training to help exporters navigate and comply with U.S. market access requirements, updates to preferential market access programs, and support for implementation of the WTO Agreement on Fisheries Subsidies.

Chapter 1

Introduction

This report, *U.S.-Pacific Islands Trade and Investment: Impediments and Opportunities*, was requested by the U.S. Trade Representative (Trade Representative) in a letter received by the U.S. International Trade Commission (Commission or USITC) on September 29, 2022 (appendix A). In her letter, the Trade Representative requested an analysis of Pacific Islands trade with the United States, including the identification of goods and services in 22 Pacific Islands² with the greatest potential for export sales to the United States, sectors with U.S. investment potential, factors that impede trade and investment with the United States, and initiatives that could address such impediments to trade and investment. The Trade Representative also requested a description of the use of the U.S. Generalized System of Preferences (GSP) program by the Pacific Islands.³

The Request

In her letter, the Trade Representative asked that the Commission's report include the following:

1. An overview of the Pacific Island economies, including major sectors in production, consumption, trade, and employment.
2. A description of goods and services exports from the Pacific Islands during the period 2017–21 and identification of major factors that impact those exports to the United States.
3. A description of the use of the GSP program by the Pacific Islands and identification of the goods from the Pacific Islands that enter the United States under GSP, sectors in which these programs might be underutilized, and factors affecting utilization of GSP.
4. A description of foreign investment in the Pacific Islands during the period 2017–21 and identification of major factors affecting investment from the United States.
5. Identification of major products (including goods covered by the GSP program) and services in the Pacific Islands with greatest potential for increasing export sales to the United States, sectors with U.S. investment potential, and the factors that impede trade and investment with the United States for these products and sectors using qualitative analysis and, to the extent data are available, quantitative analysis.
6. A description of examples of initiatives and/or technical assistance that could address such impediments to trade and investment.

² The 22 Pacific Island economies covered in this report are American Samoa, the Cook Islands, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, New Caledonia, Niue, the Northern Mariana Islands, Palau, Papua New Guinea, the Pitcairn Islands, Samoa, the Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna.

³ This report generally uses the terms “Pacific Islands” or “Pacific Island economies” for the 22 entities examined in this report. The report generally does not use “countries” because several of the 22 Pacific Island economies are not independent countries.

Analytical Approach and Information Resources

To respond to the Trade Representative's request, the Commission based this report on an analysis of trade and investment data, a review of relevant literature and reports, and information obtained from industry, government, academia, international and regional organizations, nongovernmental organizations, and other sources through virtual and in-person interviews. The report also includes information drawn from a public hearing the Commission held on February 14, 2023, and written submissions received in response to a notice published in the *Federal Register*.⁴ In addition, in March and April 2023, Commission staff conducted fieldwork in five Pacific Island economies and Australia.⁵

For this report, the Commission used statistics on U.S. and global merchandise trade from the U.S. Census Bureau and S&P Global's Global Trade Analytics Suite (GTAS) database; services trade data from the World Trade Organization (WTO) and the United Nations World Tourism Organization; and investment data from the U.S. Bureau of Economic Analysis, the International Monetary Fund, Bureau van Dijk's Orbis M&A database, and the Financial Times fDi Markets database of cross-border greenfield investments. Building on these data and other information it obtained, the Commission used several quantitative methodologies and qualitative analysis to identify a list of products and services with export and investment potential. The four quantitative methodologies included export trend analysis, revealed comparative advantage, gravity modeling, and export potential assessment methodology. This report presents a detailed description of these methodologies in chapters 6 and 7 and appendixes E and F.

Data limitations had some impacts on the analysis and are described in various sections in this report. For instance, limits on usable Pacific Island goods export data necessitated use of mirror import data (see the tables and first footnote in chapter 3). The lack of official bilateral services trade data necessitated constructed estimates (see box 3.2). Limitations for foreign direct investment (FDI) at the country and sector levels, primarily due to data suppression (to protect confidentiality), impacted trends analysis for both global and U.S. FDI positions (see chapter 5).

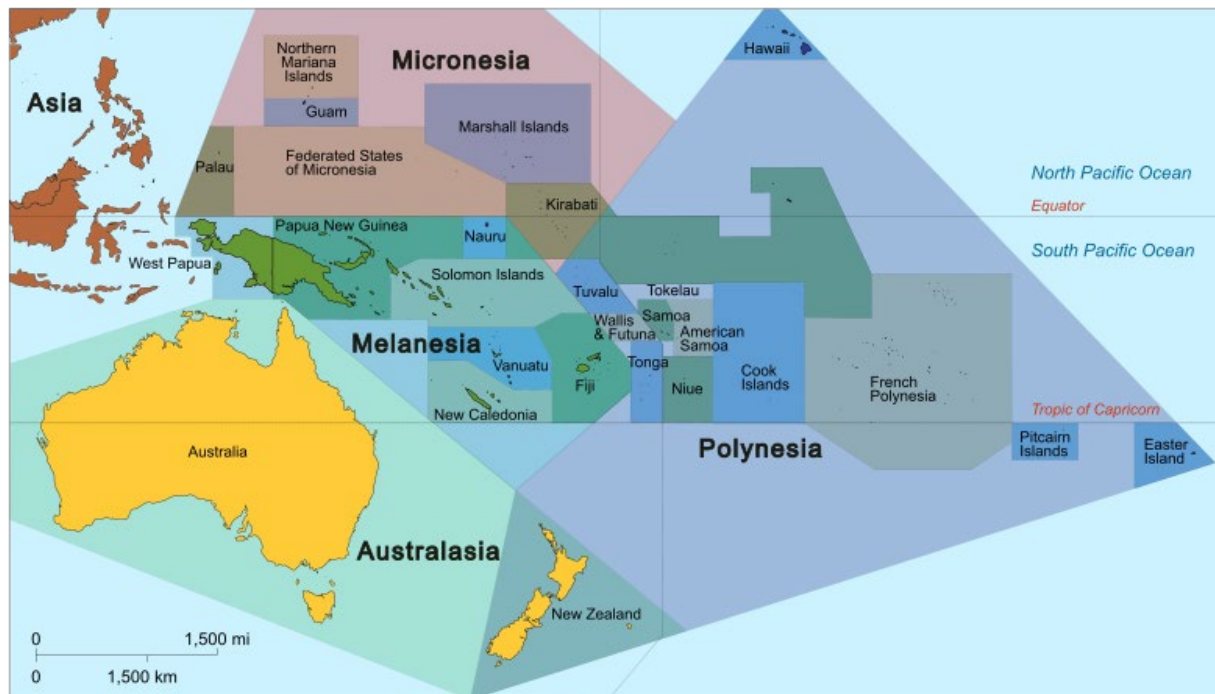
Pacific Island Background

The Pacific Island economies covered in this report historically have been grouped into three geographic regions: Melanesia, Micronesia, and Polynesia (figure 1.1). Melanesia includes the largest economies and populations in the Pacific Island region: Fiji, Papua New Guinea, and the Solomon Islands, as well as New Caledonia and Vanuatu. Micronesia covers an arc of island chains north of Melanesia, including Guam, Kiribati, the Northern Mariana Islands, the Marshall Islands, the Federated States of Micronesia, Nauru, and Palau. Polynesia spans the largest area, characterized by smaller islands with greater distances between them, and includes American Samoa, the Cook Islands, French Polynesia, Niue, the Pitcairn Islands, Samoa, Tokelau, Tonga, Tuvalu, and Wallis and Futuna.⁶

⁴ 87 Fed. Reg. 66323 (Nov. 3, 2023). See appendixes C and D of this report for hearing participants and summaries of views of interested parties.

⁵ As part of this investigation, USITC staff visited American Samoa, Australia, Fiji, Papua New Guinea, Samoa, and Vanuatu.

⁶ University of Hawaii, "Hawai'i & the Pacific: Regions," accessed May 4, 2023.

Figure 1.1 Map of Melanesia, Micronesia, and Polynesia

Source: Cruickshanks.

The 22 Pacific Island economies can also be grouped into four sovereignty categories as defined by the Trade Representative in her request letter: (1) independent states, (2) nonindependent states and territories, (3) the Freely Associated States (FAS), and (4) U.S. territories (table 1.1).

The U.S. Department of State defines an “independent state” as a state whose people have politically organized into a sovereign state, with a defined territory, and that is recognized as independent by the United States.⁷ The independent states, as listed in the Trade Representative’s letter, are Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. The U.S. Department of State defines nonindependent states and territories as those under the sovereignty of a state other than the United States.⁸ The nonindependent states and territories, as listed in the Trade Representative’s letter, are the Cook Islands (New Zealand), French Polynesia (France), New Caledonia (France), Niue (New Zealand), the Pitcairn Islands (United Kingdom), Tokelau (New Zealand), and Wallis and Futuna (France).⁹

⁷ USDOS, “Independent States in the World,” April 4, 2023.

⁸ USDOS, “Dependencies and Areas of Special Sovereignty,” accessed June 9, 2023.

⁹ In September 2022, President Biden indicated that the Cook Islands and Niue would be recognized as sovereign states following appropriate consultations, but as of April 2023, the U.S. Department of State continues to categorize these islands as being under the sovereignty of New Zealand. White House, “Remarks by President Biden at the U.S.-Pacific Island Country Summit,” September 29, 2022; USDOS, “Dependencies and Areas of Special Sovereignty,” April 4, 2023.

Table 1.1 Pacific Island sovereignty categories

Sovereignty category	Pacific Island economy
Independent states	Fiji Kiribati Nauru Papua New Guinea Samoa The Solomon Islands Tonga Tuvalu Vanuatu
Nonindependent states and territories	The Cook Islands (New Zealand) French Polynesia (France) New Caledonia (France) Niue (New Zealand) The Pitcairn Islands (United Kingdom) Tokelau (New Zealand) Wallis and Futuna (France)
Freely Associated States (with the United States)	The Federated States of Micronesia Palau The Marshall Islands
U.S. territories	American Samoa Guam The Northern Mariana Islands

Source: The Trade Representative's request letter.

The U.S. Department of the Interior defines the FAS as states that have entered a Compact of Free Association with the United States, and these compacts provide that the FAS are sovereign and self-governing and have the capacity to conduct foreign affairs, but have placed full responsibility for military defense with the United States.¹⁰ The FAS, as listed in the Trade Representative's letter, are the Federated States of Micronesia, Palau, and the Marshall Islands. The Pacific Island U.S. territories, also known as U.S. insular possessions,¹¹ are under the sovereignty of the United States but are neither a state nor federal district.¹² The U.S. insular possessions, as listed in the Trade Representative's letter, are American Samoa, Guam, and the Northern Mariana Islands. These U.S. territories are also considered unincorporated, meaning that Congress has not fully applied the U.S. Constitution or federal laws to these territories.¹³

¹⁰ USDO, "Definitions of Insular Area Political Organizations," accessed June 13, 2023.

¹¹ For purposes of this report, the terms "U.S. territories" and "U.S. insular possessions" are interchangeable.

¹² USDO, "Definitions of Insular Area Political Organizations," accessed June 13, 2023.

¹³ For unincorporated territories, Congress has broad leeway in whether or how to apply federal laws, and as a result, the application of federal laws may differ between these territories and the U.S. mainland, and even between territories. See, e.g., Leibowitz, "The Applicability of Federal Law to Guam," Fall 1975; *Harvard Law Review*, "American Samoa and the Citizenship Clause," April 2017. For analysis of where divergences in federal law impact the competitiveness of industries in the territories, see chapter 2 (Jones Act and air cabotage restrictions), chapter 4 (minimum wage rates), and chapter 7 (data privacy and federal courts). The eligibility of the insular possessions for federal funding and programs may also diverge from that of states, and chapter 8 analyzes their eligibility for internet infrastructure funding and agricultural programs.

Pacific Island Trade Agreements

The Pacific Island economies have pursued several regional trade agreements, mostly under the auspices of the Pacific Islands Forum (PIF), a regional intergovernmental organization.¹⁴ In 1980, PIF members adopted the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), a nonreciprocal trade agreement in which Australia and New Zealand offer duty-free access for specific products originating from the Pacific Island signatories.¹⁵ In 2001, PIF members adopted the Pacific Agreement on Closer Economic Relations (PACER), a framework agreement on future trade relations.¹⁶ Although PACER did not have any trade liberalization provisions, several PIF members simultaneously adopted the Pacific Island Countries Trade Agreement (PICTA), a reciprocal free trade agreement to gradually establish a free trade area among Pacific Island states.¹⁷ Nine PIF members have ratified PICTA.¹⁸

In 2017, several PIF members signed the Pacific Agreement on Closer Economic Relations Plus (PACER Plus), which also included Australia and New Zealand.¹⁹ PACER Plus is a reciprocal free trade agreement that covers goods, services, investment, and movement of people.²⁰ The Plus in the name represents the addition of trade-related development assistance for signatories.²¹ Ten PIF members have ratified PACER Plus; the two largest Pacific Island economies—Fiji and Papua New Guinea—have not signed it.²² The United States does not currently have a free trade agreement with any Pacific Island economy but, as discussed in chapter 4, offers preferential trade access for imports from GSP-eligible economies, the insular possessions, and the FAS. At a global level, six Pacific Island economies—Fiji, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu—are members of the WTO.²³

¹⁴ The organization was founded in 1971 as the South Pacific Forum and renamed the Pacific Islands Forum (PIF) in 1999. The current PIF members are Australia, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Kiribati, the Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. Tokelau is an associate member. Of the 22 economies covered in this report, 17 are PIF members or associate members.

¹⁵ South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), opened for signature on July 14, 1980; PIF, “Regional Trade Development and Integration,” accessed June 9, 2023.

¹⁶ The Pacific Agreement on Closer Economic Relations (PACER) opened for signature on August 18, 2001.

¹⁷ UNESCAP, “Trade Agreements and Arrangements in the Pacific Subregion,” June 2021.

¹⁸ PICTA has been ratified by the Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, the Solomon Islands, and Tonga. Pacific Islands Legal Information Institute, “Pacific Islands Treaty Series,” accessed June 27, 2023.

¹⁹ The Pacific Agreement on Closer Economic Relations Plus (PACER Plus) opened for signature on June 14, 2017.

²⁰ PACER Plus, June 14, 2017.

²¹ Subject matter expert, interviews by USITC staff, March 8 and 29, 2023.

²² PPI, “Members,” accessed June 27, 2023.

²³ WTO, “Members and Observers,” accessed June 8, 2023. For more detail on Pacific Island trade agreements, see chapter 8.

Report Organization

This report is organized into eight chapters and several appendixes:

- Chapter 2 describes the general characteristics of Pacific Island economies—especially as small island developing states (SIDS)—and highlights the implications for trade and investment. It also presents information on the current economic state of the Pacific Islands.
- Chapter 3 covers trends in Pacific Island exports of goods and services globally and to the United States between 2017 and 2021.
- Chapter 4 examines Pacific Island GSP trade and GSP utilization, as well as the distinct U.S. trade preferences for the U.S. territories and the FAS.
- Chapter 5 assesses trends in U.S. and global investment in the Pacific Islands.
- Chapter 6 analyzes Pacific Island goods with potential for increased exports to the United States. Goods identified as having potential for increasing export sales to the United States are fish, nickel, virgin coconut oil, cocoa, kava, coffee, and spices (particularly turmeric and ginger).
- Chapter 7 analyzes Pacific Island services with potential for increased exports to the United States and the potential for U.S. investment. Services with potential for increasing export sales to the United States are tourism and business processing outsourcing. The chapter also presents information on renewable energy as having potential for U.S. investment.
- Chapter 8 presents an overview of cross-sector initiatives in the Pacific Islands, with a focus on initiatives that support trade and investment.²⁴
- The appendixes present background information, including a detailed description of the quantitative approaches.

²⁴ Although the report mentions some major initiatives, it does not contain an exhaustive cataloging of all projects in the region.

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White House. “Remarks by President Biden at the U.S.-Pacific Island Country Summit.” September 29, 2022. <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/09/29/remarks-by-president-biden-at-the-u-s-pacific-island-country-summit/>.

World Trade Organization (WTO). “Members and Observers.” Accessed June 8, 2023. https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

Chapter 2

Overview of Pacific Island Economies

This chapter describes characteristics of the Pacific Islands; the nature of Pacific Island economies' production, employment, and trade; and associated impediments to trade and investment. The United Nations (UN) characterizes Pacific Island economies as “small island developing states (SIDS)” and—more recently—“large ocean states.”²⁵ These economies typically have small, isolated populations and land masses and uniquely abundant marine resources.

The largest economies account for the bulk of total economic activity. Most economic activity stems from the services sector, particularly travel and tourism. Agriculture and fishing, however, likely provide the bulk of rural household income and consumption. Manufacturing is typically limited to the processing of raw-extracted and agricultural commodities. All Pacific Island economies, regardless of size, import energy, food, and consumer goods. Goods exports tend to be concentrated among a few products uniquely related to the natural endowments of each Pacific Island economy.

Distance from external markets presents trade and investment challenges. Lack of scale and high fixed costs tend to make large-volume global exports uncompetitive and deter investment. Climate change, natural disasters, land use rights insecurity, and inadequate or unreliable infrastructure increase uncertainty in Pacific Island economies, reflected in both inconsistent production and higher risks for investors. Lack of physical and digital connectivity with the global market, largely unique to the Pacific Islands, is a major economic barrier. The section on impediments to trade and investment discusses these challenges in more detail.

Characteristics of Pacific Islands

Pacific Islands as Small Island Developing States

The Pacific Islands are one of three geographic regions in the world characterized as a collection of SIDS.²⁶ The UN identifies 38 member states and 20 nonmembers as SIDS, which together account for less than 1 percent of the global population.²⁷ SIDS are home to “diasporic societies”—societies that formed from forced and voluntary migrations throughout history—which have created some of the world’s most culturally diverse populations.²⁸ The isolation of small islands leads to rich concentrations, or “hotspots,” of biodiversity that cannot be found elsewhere. The Pacific Island region alone is home to 476 globally threatened species.²⁹ Culture, environment, and traditional economies in SIDS are closely

²⁵ Lopez-Calva, “Finance, Partnerships and Innovation,” November 1, 2018.

²⁶ Two other SIDS regions are the Caribbean and the Indian Ocean and South China Sea (AIS). UN, “About Small Island Developing States,” accessed March 17, 2023.

²⁷ Although some are not on the UN’s SIDS list for technical reasons, all 22 Pacific Island economies discussed in this report share SIDS characteristics. UN-OHRLS, *Small Island Developing States in Numbers*, 2017, 4.

²⁸ UNESCO, “Cutting Edge: Small Island Developing States,” February 23, 2022.

²⁹ UN-OHRLS, *Small Island Developing States in Numbers*, 2017, 8.

connected. In the Pacific Islands, knowledge of cultural, social, and regulatory contexts is important to conduct business and form meaningful relationships.³⁰

With their rich cultural and environmental diversity, SIDS face a unique set of social, environmental, and economic challenges. SIDS rely on a narrow resource base due to small, dispersed populations and land mass.³¹ With low levels of resources, SIDS cannot achieve economies of scale in many sectors, and domestic industries often must source inputs from foreign markets. Half of global SIDS import more than 80 percent of their food, and most are entirely dependent on fossil fuel imports.³² More than 71 percent of SIDS' gross domestic product (GDP) is linked to trade.³³ Technical standards and international trade regulations can strain the limited capacity of SIDS governments, which increases the difficulty of exporting to larger or new markets.³⁴

Distance and remoteness from larger markets create challenges.³⁵ Tuvalu is ranked as the most remote country in the world, and nine of the 10 most remote countries are Pacific Island economies, underscoring that SIDS' challenges are compounded in the Pacific Islands.³⁶ According to one source, in the Pacific Islands, a 1 percent increase in distance to an export market corresponds with an estimated 2.3 percent decline in exports.³⁷

The Pacific Islands are particularly vulnerable to climate change impacts, including ocean acidification, droughts and reduced freshwater access, sea level rise, and the increasing frequency of flooding and severity of extreme weather events (particularly more intense cyclones).³⁸ On the international stage, Pacific Island government officials have expressed concern that climate change is the greatest threat to economic security in the region.³⁹ At the 19th Asia Security Summit in June 2022, Fijian Defense Minister Inia Seruiratu said regarding this concern that, “[m]achine guns, fighter jets . . . are not our primary security concern. The single greatest threat to our very existence is climate change.”⁴⁰

³⁰ Subject matter expert, interview by USITC staff, Australia, April 17, 2023; SPC, *Cultural Etiquette in the Pacific*, 2020, 9–13.

³¹ Mellor, “Small Pacific Island States: Development of International Trade,” 1997.

³² Mead, “Small Islands, Large Oceans,” March 29, 2021, 3; Government of Canada, “Improving Development Impact in Small Island Developing States,” December 13, 2022, 6, 11.

³³ Mead, “Small Islands, Large Oceans,” March 29, 2021.

³⁴ Many government offices in the Pacific Island region are staffed by a single person. Subject matter experts, interview by USITC staff, February 8, 2023; PIFS, *Trade Mainstreaming Guidelines for Pacific Island Countries*, 2017.

³⁵ Distance is a geographic measure between markets; remoteness is lack of comprehensive connectivity. UNCTAD identifies transport connectivity, distance from financing sources and cultural or political centers, and digital connectivity as dimensions of remoteness. UNCTAD, “Remoteness,” June 11, 2021.

³⁶ UNCTAD, “Remoteness,” June 11, 2021. Tuvalu is followed by Tonga, Vanuatu, Samoa, the Solomon Islands, Kiribati, Fiji, the Marshall Islands, and Federated States of Micronesia as nine of the ten most remote countries.

³⁷ Chen et al., “Pacific Island Countries: In Search of a Trade Strategy,” August 2014, 16.

³⁸ IPCC, *Special Report on the Ocean*, 2019, 5, 20, 27, 28, 663; IPCC, *Climate Change 2022 – Impacts, Adaptation and Vulnerability*, 1st ed., June 22, 2023, 46, 74; WMO, *State of the Climate in the South-West Pacific*, 2023; Freestone and Çiçek, *Legal Dimensions of Sea Level Rise: Pacific Perspectives*, 2021; Parsons, “The Pacific Islands,” May 23, 2022.

³⁹ IISD, “Pacific Islands Forum Issues Strongest-Ever Statement on Climate,” August 20, 2019; IISS, *IIS Shangri-La Dialogue*, September 2022, 90.

⁴⁰ IISS, *IIS Shangri-La Dialogue*, September 2022, 90.

The Blue Pacific Continent: Pacific Island Economies as Large Ocean States

SIDS have extensive marine resources in their exclusive economic zones (EEZs) that can provide economic opportunities. Generally, an EEZ extends up to 200 nautical miles from the shore of a coastal state, and gives the state exclusive rights and responsibility to manage the marine resources in that zone.⁴¹ On average, SIDS have an EEZ that is 28 times the size of their land, and these zones collectively cover 30 percent of the world's oceans and seas.⁴² At the 2017 UN Oceans Conference, the Samoan Prime Minister introduced the concept of the Blue Pacific, reframing the Pacific Island region as a collection of “large ocean states” rather than “small island states.”⁴³ The Blue Pacific concept was accompanied by regional strategies to develop the blue economy, which refers to all sustainable economic activities related to oceans and coastlines.⁴⁴ Pacific Island fisheries, a strong goods export sector in the region, supply nearly a third of the global tuna market. In services exports, tourism is closely linked to blue economy activities.⁴⁵

Pacific Island economies share an abundance of marine resources, but their resource management varies. In 2017, the Cook Islands designated the first 50 nautical miles of its EEZ from shore as a marine protected area, which prohibits large-scale commercial fishing.⁴⁶ Most recently, Niue became the first country to commit 100 percent of its territorial waters to maritime conservation, only permitting sustainable local fishing in its 317,000 square kilometer EEZ.⁴⁷

Despite fishery management mechanisms that have been successful in many ways (as described in the tuna profile in chapter 6), illegal, unreported, and unregulated (IUU) fishing occurs in the region. In a prior report, the Commission estimated that, in 2019, the United States imported \$279 million in IUU seafood harvested from the Western Central Pacific, which includes the Pacific Island economies' EEZs, and that 19.3 percent of the harvest in the Western Central Pacific was caught via IUU fishing.⁴⁸ In June

⁴¹ WTO, “Glossary,” accessed August 7, 2023; UNDOALOS, “Chronological Lists of Ratifications of Accessions and Successions,” May 23, 2023. The United Nations Convention on the Laws of the Sea (UNCLOS) defines the EEZ for parties to that agreement. UNCLOS, Preamble, Part V. All Pacific Island economies that are UN members, along with the Cook Islands and Niue (which are not UN members), are parties to UNCLOS. Consistent with international law, a presidential proclamation defined the EEZ for the United States as a zone contiguous to the territorial sea of the United States and its overseas territories and possessions. The EEZ extends “200 nautical miles from the baseline from which the breadth of the territorial sea is measured.” Proclamation No. 5030, 48 Fed. Reg. 10605 (March 14, 1983).

⁴² UN, “About Small Island Developing States,” accessed March 17, 2023; Mead, “Small Islands, Large Oceans,” March 29, 2021, 5.

⁴³ Wyeth, “Paying Attention to the Blue Pacific,” October 30, 2018.

⁴⁴ Mead, “Small Islands, Large Oceans,” March 29, 2021, 5; Bhattacharya and Dash, “Drivers of Blue Economy in Asia and Pacific Island Countries,” July 2020, 1.

⁴⁵ Conservation International, “Sustaining Pacific Island Fisheries,” accessed March 24, 2023; Bhattacharya and Dash, “Drivers of Blue Economy in Asia and Pacific Island Countries,” July 2020, 1; Everett, *Tourism as a Driver of Growth in the Pacific*, June 22, 2018.

⁴⁶ Conservation International, “Marae Moana,” accessed May 26, 2023.

⁴⁷ Broom, “This Pacific Island Is Protecting 100% of Its Ocean Territory,” June 8, 2022.

⁴⁸ USITC, *Seafood Obtained via Illegal, Unreported, and Unregulated Fishing*, February 2021, 117.

2022, the WTO Agreement on Fisheries Subsidies targeted reduction of harmful fishery subsidies and promotion of sustainable fish stocks, aiming to benefit developing members.⁴⁹

Range of Pacific Island Economies' Population and Natural Resources

Of the 22 Pacific Island economies covered in this investigation, Papua New Guinea is a regional outlier in both population and land mass. It has the largest population, nearly 10 million in 2021, greater than 10 times that of Fiji, the second-most populated economy in the region.⁵⁰ The land mass of Papua New Guinea covers 452,860 square kilometers, while the smallest Pacific Island in this investigation—Tokelau—is only 10 square kilometers.⁵¹ Natural resource endowments depend on physical geographies of small island economies, which vary in the Pacific Island region. Continental islands⁵² such as Fiji, Papua New Guinea, the Solomon Islands, and Vanuatu tend to have richer, mineral-bearing soils that support many types of vegetation in contrast to low coral islands and atolls.⁵³ Kiribati—a country of 810 square kilometers—has the 12th-largest EEZ in the world, with jurisdiction over 3.4 million square kilometers of ocean, or a water-to-land ratio of almost 4,300 to 1.⁵⁴ Table 2.1 provides a summary of key indicators for the 22 Pacific Island economies covered in this report.

⁴⁹ WTO, “12th Ministerial Conference—a Snapshot,” January 2022, 34–35. The Agreement will enter into force once two-thirds of WTO members have ratified it. As of September 2023, 17 members have ratified the Agreement, including the United States, but none of the 22 Pacific Island economies has. WTO, “Members Submitting Acceptance of Agreement on Fisheries Subsidies,” accessed September 12, 2023.

⁵⁰ World Bank, “Population, Total - Papua New Guinea,” 2022; World Bank, “Population, Total - Fiji,” 2022.

⁵¹ Tisdell, “Economic Prospects for Small Island Economies,” November 2006, 3.

⁵² “Continental islands” are islands that were once connected to a continent but separated as a result of shifting tectonic plates. National Geographic Society, “Island,” accessed September 6, 2023.

⁵³ West and Foster, “Pacific Islands,” June 6, 2023.

⁵⁴ Hume et al., “Towards an Ocean-Based Large Ocean States Country Classification,” December 1, 2021.

Table 2.1 Key indicators, by economy, 2021

In numbers and square kilometers (sq km). n.a. = not available. F.S. Micronesia = the Federated States of Micronesia; N. Mariana Islands = the Northern Mariana Islands.

Economy	Population (number)	Land area (sq km)	Exclusive Economic Zone size (sq km)	Islands (number)	Inhabited islands (number)
American Samoa	45,035	200	404,391	7	5
The Cook Islands	15,342	240	1,830,000	15	13
Fiji	924,610	18,270	1,282,980	332	110
French Polynesia	304,032	3,471	4,767,240	118	67
Guam	170,534	540	221,504	1	1
Kiribati	128,874	810	3,441,810	33	20
The Marshall Islands	42,050	180	1,990,530	34	24
F.S. Micronesia	113,131	700	2,996,420	607	65
Nauru	12,511	20	308,480	1	1
New Caledonia	271,030	18,280	1,422,540	11	n.a.
Niue	1,549	260	450,000	1	1
N. Mariana Islands	49,481	460	749,268	14	n.a.
Palau	18,024	460	603,978	340	8
Papua New Guinea	9,949,437	452,860	2,402,290	1,400	n.a.
The Pitcairn Islands	50	47	836,108	4	1
Samoa	218,764	2,780	127,950	6	4
The Solomon Islands	707,851	27,990	1,553,440	992	347
Tokelau	1,501	10	319,031	3	n.a.
Tonga	106,017	720	659,558	171	36
Tuvalu	11,204	30	749,790	9	11
Vanuatu	319,137	12,190	663,251	84	65
Wallis and Futuna	11,369	140	258,269	23	3

Sources: Pacific Community, Pacific Data Hub, “Population densities” and “Pocket summary,” accessed June 22, 2023; World Bank, World Development Indicators database, “Population, total” and “Land area (sq. km),” accessed June 22, 2023; CIA, *The World Factbook*, Countries, for each of the 22 Pacific Island economies listed in the table above, accessed July 31, 2023; New World Encyclopedia, Oceania, for each of the 22 Pacific Island economies listed in the table above, accessed July 31, 2023; Worlddata.info, Statistics and Data of All Countries in Oceania, for New Caledonia and Palau, accessed July 31, 2023; Pacific RISA, “Federated States of Micronesia,” accessed July 31, 2023; Government of Palau, Ministry of Finance, Bureau of Budget & Planning, “Physical Features,” accessed July 31, 2023; PNG High Commission – Canberra, “Geography,” accessed July 31, 2023; Samoa Tourism Authority, “The Islands of Samoa,” accessed July 31, 2023; Solomon Islands Government, “Learn about the Solomon Islands,” accessed July 31, 2023.

Note: Land area is an economy’s total area excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes. There is no binding and globally valid definition of the word “island,” so the number of islands and inhabited islands may include atolls and islets.

Economic Overview of Pacific Island Economies

Regional macroeconomics and trade during 2017–21 were subjected to external shocks such as natural disasters, COVID-19 pandemic-related travel restrictions and supply chain disruptions, and global food and energy price inflation.⁵⁵ Pacific Island economies reliant on travel and tourism were especially hard

⁵⁵ Unless otherwise noted, trade data throughout this section were compiled by the USITC from the S&P Global, GTAS database and the U.S. Census Bureau via the USITC DataWeb database. S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade

hit after the 2019 outbreak of COVID-19, which the World Health Organization declared a pandemic in March 2020. These economies continued to experience pandemic-related disruptions through 2021.⁵⁶ Despite travel-related disruptions to migration and labor mobility schemes,⁵⁷ remittances were robust as Pacific Islanders living and working abroad continued to send support to their families that remained on the islands.⁵⁸ Given the Pacific Island economies' high level of dependence on imports of food and energy, most were hard hit by food and energy price shocks associated with supply chain disruptions and the Russian invasion of Ukraine.⁵⁹

Production

Production as measured by GDP is highly concentrated in Pacific Island economies. The largest seven economies with more than \$1 billion in GDP each—Papua New Guinea, New Caledonia, French Polynesia, Guam, Fiji, the Solomon Islands, and the Northern Mariana Islands—accounted for 92.5 percent of total regional GDP during 2021 (table 2.2). Papua New Guinea alone accounted for 44.0 percent of regional GDP. French Polynesia and New Caledonia—both French-administered territories⁶⁰—combined produce 26.7 percent of regional GDP. GDP of the U.S. territories—primarily Guam—contributed nearly 12.4 percent of regional GDP. Fiji and the Solomon Islands, respectively, contributed 7.1 percent and 2.7 percent of regional GDP. The 15 smallest Pacific Island economies averaged less than 1 percent of regional GDP.

Although total regional production of goods and services appears to have recovered from the negative impact of the COVID-19 pandemic, some individual economies continue to struggle. GDP for the Pacific Island region was \$60.5 billion in 2021 (table 2.2), 6.9 percent greater than 2017 despite a 5.0 percent pandemic-related contraction in 2020. Total regional GDP growth suggests some recovery from pandemic-related effects, although the GDPs of Fiji, Samoa, the Solomon Islands, Palau, the Northern Mariana Islands, and the Cook Islands in 2021 had not returned to 2017 levels. For example, the Fijian economy—among the largest and most dependent on tourism—contracted 18.3 percent in 2020 and its GDP in 2021 was 19.7 percent below the 2017 level.⁶¹

Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS Chapters 1 through 97 only.

⁵⁶ Gould and Baltabaev, *Pacific Economic Update*, February 2023, 9.

⁵⁷ See description of labor mobility schemes in the Labor Migration and Mobility Agreements section below.

⁵⁸ Gould and Baltabaev, *Pacific Economic Update*, February 2023, 9.

⁵⁹ Gould and Baltabaev, *Pacific Economic Update*, February 2023, 7.

⁶⁰ The French-administered areas of Overseas France, or *France d’outre-mer*, consists of 13 divisions outside Europe. Two—French Polynesia and Wallis and Futuna—are administered as overseas collectivities created under France’s constitutional reform of March 28, 2003; another, New Caledonia, has been a special-status (*sui generis*) collectivity since 1998. Arndt, “Everything You Need to Know About the Overseas Territories of France,” January 12, 2018; EU, The European External Action Service (EEAS), “Overseas Countries and Territories,” September 16, 2021; Government of France, MEFA, “Overseas France,” accessed May 16, 2023.

⁶¹ Gould and Baltabaev, *Pacific Economic Update*, February 2023, 10.

Table 2.2 Key Pacific Islands macroeconomic and trade indicators, by economy, 2021

In dollars, thousands of dollars, and percentages. n.a. = not available. n.c. = not calculable. ** = rounds to zero. F.S. Micronesia = the Federated States of Micronesia; N. Mariana Islands = the Northern Mariana Islands.

Economy	GDP (thousand \$)	Share of regional GDP (%)	GDP per capita (\$)	Trade to GDP ratio (%)	Imports of goods (thousand \$)	Exports of goods (thousand \$)	Imports of services (thousand \$)	Exports of services (thousand \$)
American Samoa	709,000	1.2	15,743	81.2	150,864	338,148	83,000	4,000
The Cook Islands	228,732	0.4	14,909	142.9	167,133	31,536	60,900	67,300
Fiji	4,296,305	7.1	4,647	76.9	2,003,701	632,125	499,300	169,900
French Polynesia	6,054,677	10.0	19,915	55.3	1,600,128	147,160	1,151,000	447,000
Guam	6,123,000	10.1	35,905	32.6	818,716	25,610	1,050,000	104,000
Kiribati	207,031	0.3	1,606	143.0	159,945	102,600	32,000	1,600
The Marshall Islands	259,539	0.4	6,172	4,659.6	10,537,691	1,488,660	66,100	1,100
F.S. Micronesia	404,029	0.7	3,571	107.3	119,648	195,612	87,200	31,200
Nauru	133,219	0.2	10,648	265.9	92,471	207,276	40,800	13,700
New Caledonia	10,071,352	16.7	37,160	47.4	2,217,935	1,976,323	341,000	236,000
Niue	30,684	0.1	19,809	n.c.	36,697	6,982	7,200	8,400
N. Mariana Islands	1,177,117	1.9	23,789	n.c.	63,914	2,713	94,000	112,000
Palau	217,800	0.4	12,084	81.4	111,435	5,714	45,300	14,800
Papua New Guinea	26,594,306	44.0	2,673	64.2	4,169,432	11,859,577	934,700	98,000
The Pitcairn Islands	n.a.	n.c.	n.c.	n.c.	3,262	957	n.a.	n.a.
Samoa	843,842	1.4	3,857	70.6	405,910	31,593	89,300	68,800
The Solomon Islands	1,631,487	2.7	2,305	72.1	465,194	526,298	141,200	43,900
Tokelau	11,175	**	7,445	n.c.	8,990	23,587	n.a.	n.a.
Tonga	469,231	0.8	4,426	73.8	228,202	13,865	64,700	39,600
Tuvalu	63,101	0.1	5,632	461.7	126,141	127,871	30,700	6,600
Vanuatu	956,333	1.6	2,997	78.6	321,141	280,033	119,600	30,900
Wallis and Futuna	n.a.	n.c.	n.c.	n.c.	49,187	372	n.a.	n.a.

Sources: Pacific Community, Pacific Data Hub, "Gross Domestic Product for Pacific Island Countries and Territories," accessed June 22, 2023; World Bank, World Development Indicators database, "GDP (current US\$)," accessed June 22, 2023; UNCTADStat database, WTO, USITC estimates; S&P Global, GTAS, accessed July 20 and July 25, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023; WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021; WTO, "Commercial Services Exports by Sector and Partner-Annual (Million US Dollar)," accessed October 17, 2022; American Samoa Department of Commerce, Statistics Division, American Samoa Statistical Yearbook, 2020, December 1, 2022, 212; Government of the Cook Islands, Ministry of Finance and Economic Management, Balance of Payments: 2015–21, 2023, 3; Government of Niue, Statistics Niue, Balance of Payments-Niue, February 16, 2019; USDOC, "GDP for American Samoa," September 1, 2022; USDOC, "GDP for the Commonwealth of the Northern Mariana Islands (CNMI)," January 31, 2023; USDOC, "GDP for Guam," November 2, 2022; World Bank, "Commercial Service Exports (Current US\$)-Marshall Islands," accessed July 6, 2023; World Bank, "Commercial Service Imports (Current US\$)-Marshall Islands," accessed July 6, 2023.

Notes: Goods imports shown as global exports to individual economies. Goods exports shown as global imports from individual economies. The Pacific Island economies are listed in alphabetical order. The GDP data for most of the Pacific Island economies are sourced from the World Bank. The GDP data for the Cook Islands and Tokelau are sourced from the Pacific Island Datahub. The 2021 GDP data for Niue and the Northern Mariana Islands are USITC estimates based on available data growth rates, the 2020 estimates equal the reported 2019 GDP multiplied by 0.9309 and the 2021 estimates equal the 2020 estimates multiplied by 1.0698. According to the Pacific Island Datahub, Wallis and Futuna's last reported GDP was in 2015, \$140 million. The Pitcairn Islands had no reported GDP data. Services trade data for the Northern Mariana Islands are from 2020 and for Niue from 2018. The trade to GDP ratio is calculated by dividing the sum of the value of exports and imports of goods trade and services trade by GDP.

Services represent the largest portion of GDP among most Pacific Island economies.⁶² Data suggest that production of services likely accounts for more than half of regional GDP, ranging from about 42 percent in Papua New Guinea during 2017–19 to more than 78 percent of economic activity in Palau during 2018. The services sector, which includes services related to tourism, was the most affected by COVID-19 pandemic-related disruptions. Data suggest that services GDP increased slightly from 2017 to 2019, before pandemic-related restrictions were imposed in early 2020. Data suggest that, from 2019 to 2021, services GDP likely decreased by 15-25 percent. The value of services produced in 2021 in Fiji and Palau, which are among the most tourism-dependent economies in the Pacific Island region, were below 2019 pre-pandemic levels by 19 percent and 24 percent, respectively. For Papua New Guinea, which is less dependent on tourism and has a smaller share of GDP from services, services GDP decreased by 0.2 percent from 2019 to 2020.⁶³

Agriculture, forestry, and fishing (AFF) accounts for the next-largest share of GDP, although official data may underestimate that sector's importance to local economic activity because of informal economic activity.⁶⁴ Data suggest that AFF contributed 15–20 percent of regional GDP, ranging from less than 10 percent in Samoa to about a third of GDP in the Solomon Islands. Other sources, however, suggest that AFF has a much larger and more widespread impact on the livelihood and well-being of Pacific Islanders than these data suggest. Some estimates suggest that around 80 percent of Pacific Islanders are subsistence or semi-subsistence households that depend on AFF for their livelihoods.⁶⁵ For Papua New Guinea, 85 percent of the population lives in rural communities that are heavily reliant on subsistence agriculture for food and cash income (e.g., coffee and cocoa).⁶⁶ Because AFF production is more vulnerable to natural disasters, the Australian Centre for International Agricultural Research has suggested that subsistence and semi-subsistence households on the Pacific Islands are likely more vulnerable to the long-term impact of climate change and natural disasters.⁶⁷

Given the lack of scale in most Pacific Island economies, the industrial sector in the Pacific Islands is focused on input extraction and processing of AFF products, small light manufacturing (e.g., food, beverages, and tourism-related products such as handicrafts), and the production of other items, many

⁶² Data on distribution of GDP by sector are limited; however, the World Bank's World Development Indicators database provides data on a sample of Pacific Island economies. These values include larger (Papua New Guinea and Fiji) and smaller (Kiribati, the Federated States of Micronesia, Palau, Samoa, the Solomon Islands, Tonga, and Tuvalu) economies. World Bank, World Development Indicators DataBank.

⁶³ World Bank, World Development Indicators DataBank.

⁶⁴ "Agriculture" refers to AFF throughout this section. In the primary data sources, agriculture generally includes employment in crop production; livestock production; agricultural services; forestry; and fishing, hunting, and trapping, but does not include processing. In some sources, the total sector may be simply referred to as "agriculture," but for most purposes this sector includes production from all SIC sectors from 01 to 09. SICCODE.com, "SIC Code Lookup - Standard Industrial Classification," accessed May 16, 2023; World Bank, World Development Indicators DataBank; ACIAR, "ACIAR Annual Operational Plan 2021-22: Pacific Island Countries," 2021.

⁶⁵ Subsistence or semi-subsistence households, including many smallholder farmers, produce local foods to sustain their own diets and sell surplus production to urban populations. Georgeou et al., "Food Security and Small Holder Farming," April 11, 2022, 2, 9, 14.

⁶⁶ ACIAR, "ACIAR Annual Operational Plan 2021-22," 2021, 63.

⁶⁷ ACIAR, "ACIAR Annual Operational Plan 2021-22," 2021, 53.

of which are too costly to transport over large distances.⁶⁸ Data suggest that the industrial sector, including construction and manufacturing, accounted for about 15 percent of regional GDP.⁶⁹ The industrial share of GDP is similar to that of AFF, but, as mentioned above, a large portion of AFF production likely is unaccounted for because it takes place in the informal economy. For Papua New Guinea, at the top of the range, the industrial sector contributes more than 30 percent of GDP.⁷⁰ The manufacturing subset of the industrial sector—which would include the initial processing of agriculture, forestry, fisheries, and extracted goods for export—represents less than 10 percent of GDP in those economies where it was reported.⁷¹

Employment

The structure of employment across the region varies. Each Pacific Island economy faces different factors and conditions, although data suggest some general trends.⁷² The services sector appears to be the leading source of employment for many Pacific Island economies, representing more than half of employment in 8 of the 11 economies for which the International Labour Organization (ILO) reported data. Services represented only 29 percent and 30 percent of employment in Vanuatu and Papua New Guinea, respectively, but represented 80 percent or more of employment in the Marshall Islands, the Cook Islands, and Palau. These three economies with high rates of services sector employment also had the highest percentages of urban populations. Moreover, Pacific Island economies with higher service employment also appeared to have higher percentages of employees who worked for wages or salaries as opposed to those being classified with self-employment jobs.⁷³

Papua New Guinea and Vanuatu had the highest rates of employment in agriculture at 56 and 57 percent, respectively. Agricultural employment ranged from 3 percent to 37 percent in the other nine Pacific Island economies with available data.⁷⁴ Papua New Guinea and Vanuatu also had among the lowest urban populations at 14 and 26 percent, respectively, and the lowest rates of wage and salaried work at 25 and 32 percent, respectively. Some sources, including the ILO, suggest that agricultural employment is severely underreported and the reliance on agriculture is higher than these data suggest because of the heavy reliance on subsistence and semi-subsistence AFF activities.⁷⁵

⁶⁸ ADB, *Pacific Approach, 2016-2020*, August 31, 2016; ADB, *Re-Invigorating Private Sector Investment*, June 1, 2013; ADB, *Pacific Approach, 2021-2025*, September 16, 2021, 5.

⁶⁹ World Bank Development Indicators database, accessed May 16, 2023.

⁷⁰ World Bank Development Indicators database, accessed May 16, 2023.

⁷¹ World Bank Development Indicators database, accessed May 16, 2023.

⁷² Fact sheets on employment and the environment produced by the ILO covered the Cook Islands, Fiji, Kiribati, the Marshall Islands, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. ILO Regional Office for Asia and the Pacific, “Country Fact Sheets on Employment and Environmental Sustainability,” November 30, 2022.

⁷³ As defined by the ILO, wage and salaried employment is often associated with more job security, more regular income, and greater access to and eligibility for social protection and is often subject to employment regulation. Self-employment jobs include employers, own-account workers, and contributing family workers, many of whom are likely working in informal situations. ILO Regional Office for Asia and the Pacific, “Country Fact Sheets on Employment and Environmental Sustainability,” November 30, 2022.

⁷⁴ ILO Regional Office for Asia and the Pacific, “Country Fact Sheets on Employment and Environmental Sustainability Across Asia and the Pacific,” November 30, 2022.

⁷⁵ ACIAR, “ACIAR Annual Operational Plan 2021-22: Pacific Island Countries,” 2021.

The industrial sector accounts for the smallest share of employment in many Pacific Island economies.⁷⁶ Employment in this sector ranged from 7 percent in Palau to 31 percent in Tonga. Industrial sector employment did not exceed services employment in any of the 11 economies with reported data and only exceeded agricultural employment in the Cook Islands, Tonga, and Palau. Employment in the industrial sector, as in the services sector, is more likely to be wage or salary based.

Labor Migration and Mobility Agreements

The Pacific Island region has had large migrant outflows for many years. This permanent migration, along with the temporary labor migration described below, has made it difficult for some local businesses to maintain a workforce.⁷⁷ Nearly 450,000 Pacific Islanders were identified as living abroad in 2017, mostly from Fiji (48 percent), Samoa (26 percent), and Tonga (14 percent).⁷⁸ New Zealand has given full residential work rights to various Pacific Islanders, including Cook Islanders, Niueans, and Tokelauans. The United States has granted permanent residence status to Marshall Islanders, Micronesians, and Palauans, allowing them to live and work in the United States with some restrictions pursuant to their respective Compacts of Free Association.⁷⁹ In 2017, most permanent migrants from the Pacific Islands lived in New Zealand (34 percent), Australia (29 percent), the United States (20 percent), and Canada (6 percent).⁸⁰

In 2006, the World Bank identified the ability to provide sufficient productive employment opportunities for growing young populations as a challenge for Pacific Island economies.⁸¹ In other parts of the Pacific, New Zealand and Australia were experiencing shortages of seasonal labor in selected agricultural industries (e.g., horticulture and viticulture).⁸² Both countries have developed temporary labor migration programs to support this increased need for seasonal labor. By 2018, more than 11,000 workers participated in the New Zealand program and 9,000–14,000 workers participated in the Australian program.⁸³ Tonga, Vanuatu, and Samoa supplied nearly three-quarters of these workers to New Zealand, while Tonga and Vanuatu supplied about 80 percent to Australia. Tonga, Vanuatu, and Samoa have relatively small populations, so these programs have a correspondingly large negative effect on the local labor supply.⁸⁴ The incentive to participate in these programs appears to be substantial—a 2014 study estimated that households on Tonga and Vanuatu with workers participating in seasonal employment programs had per capita incomes that were 34–43 percent greater than households without a participant in these programs.⁸⁵

⁷⁶ ILO Regional Office for Asia and the Pacific, “Country Fact Sheets on Employment and Environmental Sustainability,” November 30, 2022.

⁷⁷ Industry expert, interview by USITC staff, Australia, April 17, 2023.

⁷⁸ Voigt-Graf and Kanemasu, *Labour Mobility in Pacific Island Countries*, November 2019, 4.

⁷⁹ Voigt-Graf and Kanemasu, *Labour Mobility in Pacific Island Countries*, November 2019, 4; Pub. L. No. 99-239, § 141, 99 Stat. 1770, 1804 (1986); Pub. L. No. 99-658, § 141, 100 Stat. 3672, 3682 (1986). For more discussion on Compacts of Free Association, see chapters 4 and 8.

⁸⁰ Voigt-Graf and Kanemasu, *Labour Mobility in Pacific Island Countries*, November 2019.

⁸¹ World Bank, *Pacific Islands at Home and Away*, September 2006.

⁸² Gibson and Bailey, “Seasonal Labor Mobility in the Pacific,” March 22, 2021.

⁸³ Gibson and Bailey, “Seasonal Labor Mobility in the Pacific,” March 22, 2021, 6; industry expert, interview by USITC staff, Australia, April 17, 2023.

⁸⁴ Industry expert, interview by USITC staff, Australia, April 17, 2023.

⁸⁵ Gibson and Bailey, “Seasonal Labor Mobility in the Pacific,” March 22, 2021, 15.

Benefits of labor migration include increased employment rates, remittances that support local households and services, increased education, and development of skills. Remittances are the main economic benefit of migration; 10 Pacific Island economies combined received \$689 million in remittances in 2018.⁸⁶ As noted above, this mobility can have negative effects on local labor markets. Two major losses related to permanent migration are skill loss and brain drain. Despite remittances, some local officials believe that even temporary migration programs create an unsustainable situation because they encourage permanent migration—including of doctors and nurses—that affects the provision of health services.⁸⁷ Skill loss due to migration has reduced capacity in industries, including construction, tourism management, and teaching.⁸⁸

Trade

Goods Imports and Consumption

Pacific Island economies tend to depend on imports, especially with respect to goods for consumption, including machinery, energy, food, and manufactured consumer goods.⁸⁹ Total regional imports were equivalent to 39.4 percent of GDP in 2021 (table 2.2). The value of imports relative to GDP varied greatly among the individual economies and appears to be related to two factors: the overall size of the economy and whether an economy has an open vessel registry.⁹⁰ For the seven largest Pacific Island economies, imports equaled 20.3 percent of GDP in 2021. The imports of the remaining economies average more than 4 times GDP. After separating countries with open vessel registries, where imports were 533 percent of GDP (primarily driven by the Marshall Islands where imports were roughly 4,100 percent of GDP), the remaining 10 smaller economies' ratio of imports to GDP was 45.1 percent, closer to the overall average for the region, but still more than twice that of the largest economies in the region.⁹¹

Total regional imports of goods decreased from \$26.5 billion in 2017 to \$23.2 billion in 2020 (12.0 percent) and then recovered slightly to \$23.9 billion in 2021 (2.6 percent). Imports from the top eight sources, including the eighth-ranked United States, were valued at \$18.3 billion in 2021, representing 76.6 percent of total Pacific Island goods imports. China was the leading supplier of goods to the Pacific Island economies in 2021 (\$5.5 billion), representing 22.9 percent of all Pacific Island imports. South Korea was the second-leading supplier in 2021 (\$4.0 billion, 16.7 percent) but was the leading supplier during 2017–21 with an annual average of \$4.8 billion compared with an annual average from China of \$4.7 billion. The United States supplied \$725 million (3.0 percent) of Pacific

⁸⁶ Voigt-Graf and Kanemasu, *Labour Mobility in Pacific Island Countries*, November 2019, vi.

⁸⁷ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁸⁸ Voigt-Graf and Kanemasu, *Labour Mobility in Pacific Island Countries*, November 2019, vi.

⁸⁹ Trade data throughout this section include imports and exports for HS chapters 1 through 97 and do not include data for trade classified under chapters 98 and 99. Various import and export dependency indicators have been used to measure reliance on goods such as food and energy. These are typically calculated as ratios and usually stated as a percentage. In this report, a gross measure of import dependency was calculated by dividing total imports by total GDP. UNCTAD, “State of Commodity Dependence,” 2021.

⁹⁰ Open vessel registries are also known informally as “flags of convenience.” For more information on impact of open vessel registries on trade trends of Pacific Island economies, see box 3.1 in chapter 3.

⁹¹ The five Pacific Island economies with open vessel registries are the Cook Islands, the Marshall Islands, Palau, Tonga, and Vanuatu. ITF Seafarers, “Current Registries Listed as FOCs,” accessed June 14, 2023.

Islands goods imports in 2021, down from a little more than \$1.1 billion in 2019, but 50.5 percent greater than \$482 million in 2020. The leading imports from China and South Korea combined included vessels (HS chapter 89), fuel (HS chapter 27), and machinery (HS chapter 84).

The leading product import of Pacific Island economies by HS chapter was vessels (HS chapter 89). These imports are driven by the five Pacific Island economies with open vessels registries, primarily the Marshall Islands, which is the third-leading country for vessel registrations globally. These transactions do not necessarily represent sales of vessels to buyers with actual shipping operations based in or operated from the Pacific Islands, but rather to subsidiary entities created to meet minimum local ownership requirements for registering vessels, as described in box 3.1 in the next chapter. Vessel imports averaged \$9.4 billion annually and accounted for 38.6 percent of total imports during 2017–21 but decreased from \$12.5 billion in 2017 to \$8.3 billion in 2021. Without this \$4.2 billion decrease in vessel imports, the remaining imports increased from \$13.9 billion to \$15.5 billion between 2017 and 2021.

Fuel and oil imports (HS chapter 27), the second-leading import by HS chapter, increased from \$2.7 billion in 2017 to \$3.9 billion in 2021, averaging 13.9 percent of 2017–21 total import value. Imports of agricultural and food goods (HS chapters 1–24 combined) averaged more than \$2.5 billion during 2017–21, ranging from a low of \$2.4 billion in 2020 to a high of \$2.7 billion in 2021 and averaging 10.5 percent of total imports during 2017–21. The variability in food and energy imports is most likely related to the price variability of these commodities. Other leading imports include machinery (HS chapter 84), vehicles (HS chapter 87), electrical machinery (HS chapter 85), articles of iron and steel (HS chapter 73), iron and steel (HS chapter 72), plastics (HS chapter 39), and pharmaceuticals (HS chapter 30).

Dependence on imported fossil fuels imposes a high cost on the regional economy and accounts for 5–15 percent of GDP, making the region vulnerable to price and supply shocks.⁹² Among the Pacific Island economies, only Papua New Guinea has proven viable oil and gas resources.⁹³ Moreover, the sparse population distribution means that the economies of scale for large power grid development are lacking. Pacific Islanders generally rely on diesel generators to supply electric power.⁹⁴ Oil supplies about 80 percent of the Pacific Island region’s energy; 52 percent of oil supplies are used for transportation, 37 percent for electricity generation, and 12 percent for other applications such as process heating.⁹⁵

Though fresh fish and seafood obtained through subsistence production are a primary source of protein, the transition away from traditional diets is reflected in increasing import demand for packaged foods such as canned meats, instant noodles, cereals, rice, and sugar-sweetened beverages (see box 2.1). Consistent with this assessment, the top 10 imports at the HS 4-digit heading level account for nearly half of all agriculture and food imports and include various processed foods (HTS 2106), rice (HTS 1006), poultry (HTS 0207), frozen fish (HTS 0303), wheat (HTS 1001), bakery mixes and doughs (HTS 1905),

⁹² UNESCAP, “Pacific Perspectives 2022,” December 6, 2022, 3.

⁹³ UNESCAP, “Pacific Perspectives 2022,” December 6, 2022, 38.

⁹⁴ *Economist*, “How to Power Pacific Islands,” March 3, 2022.

⁹⁵ May not add to 100 percent because of rounding. Ferrari, Ranjan Basu, Roseberry, “Making the Energy Transition a Reality in the Pacific,” January 23, 2023.

lamb and goat meat (HTS 0204), processed fish (HTS 1604), processed meat (HTS 1602), and beverages (HTS 2202).

Box 2.1 Improving Food Security in Pacific Island Economies

Food security is “the economic, social, and physical ability to access sufficient, safe, and nutritious food.”^a The loss of food security is a growing concern in the Pacific Islands, as dependence on imported foods has risen sharply since the mid-1990s, driven by factors including population growth, lower domestic food production due to migration and increased production costs, and ongoing trade liberalization. In particular, Pacific Island economies have become dependent on imports of rice, wheat, meat, and highly processed foods.^b More recently, the COVID-19 pandemic, the Russian invasion of Ukraine, and related supply chain disruptions have worsened food insecurity in the Pacific Islands.

Pacific Island governments are attempting to shore up domestic agricultural production and reduce import dependence. Papua New Guinea is growing more beans and exploring expansion into domestic rice production to increase food security.^c One Papua New Guinean company has capitalized on the high transportation costs embedded in imported foods to support local food production. The company’s farms produce the only local supply of domestic dairy and fresh vegetables to the capital and largest city, Port Moresby.^d

Increased supply of processed food imports relative to domestic production of traditional foods has led to public health problems.^e Experts have identified the transition away from nutrient-rich, traditional diets toward increased consumption of imports of grain and processed food as a major contributor to increased rates of diabetes, obesity, and cardiovascular disease in the Pacific Islands.^f In Vanuatu, an industry representative expressed concern that residents in rural areas are dependent on imported rice rather than native crops and contended that this has contributed to higher levels of diabetes and other chronic health issues.^g The representative also noted that government initiatives focused on developing strong hybrids of native food crops and encouraging farmers to grow them could serve as a form of import substitution and improve both the trade balance and health outcomes.

^a Charlton et al., “Fish, Food Security and Health in Pacific Island Countries and Territories,” March 24, 2016.

^b Brewer et al., “The Role of Trade in Pacific Food Security and Nutrition,” March 2023, 1.

^c Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

^d Industry representatives, interviews by USITC staff, Papua New Guinea, April 19 and 20, 2023.

^e Brewer et al., “The Role of Trade in Pacific Food Security and Nutrition,” March 2023, 1; Charlton et al., “Fish, Food Security and Health in Pacific Island Countries and Territories,” March 24, 2016.

^f Brewer et al., “The Role of Trade in Pacific Food Security and Nutrition,” March 2023, 1; Charlton et al., “Fish, Food Security and Health in Pacific Island Countries and Territories,” March 24, 2016.

^g Industry representative, interview by USITC staff, April 18, 2023.

Exports Relative to GDP

Overall, the provision of services represents more than half of regional GDP, including exported services. Services exports, however, are primarily related to tourism and thus suffered greatly because of COVID-19 pandemic-related disruptions. Service exports totaled more than \$6.4 billion during 2019, representing 10.9 percent of total regional GDP. By 2021, services exports had decreased to \$1.4 billion, representing 2.3 percent of regional GDP. For Fiji, a tourism-dependent economy, services exports totaled about \$1.5 billion in 2019, representing about 27.5 percent of GDP. - travel disruptions drove Fiji’s services exports down to slightly less than \$500 million in 2021, or 3.7 percent of GDP. For Papua New Guinea—among the least tourism-oriented economies—services exports in 2019 were about \$319

million and represented 1.3 percent of 2019 GDP, compared with \$98 million (0.4 percent of GDP) in services exports in 2021.

Goods exports represented a lower percentage of GDP than imports and averaged 29.8 percent of GDP for the entire Pacific Island region in 2021 (table 2.2) but also demonstrated more variation. The average for the seven largest economies was near the regional average for exports relative to GDP, at 27.0 percent. Variation among these seven economies, however, was greater for exports than for imports. Goods exports from Papua New Guinea contributed 44.6 percent of GDP in 2022. By contrast, goods exports from Guam represented less than 1 percent of GDP and those from French Polynesia supplied less than 3 percent in 2021 (table 2.2). As was the case with imports, goods exports from the economies with open vessel registrations contributed a much greater percentage of GDP than goods exports from the other economies. For the open registry economies, goods exports represented 85.4 percent of GDP in 2021. For further detail on Pacific Island goods and services exports, see chapter 3.

Impediments to Trade and Investment

The Pacific Island economies generally share several characteristics that impede trade and investment. The major impediments identified in this investigation are lack of scale, limited economic diversification, economic disruptions from natural disasters and climate change, limited institutional capacity, lack of access to use or secure rights to the land, high energy costs, and physical and digital infrastructure challenges associated with remoteness. Connectivity weaknesses associated with remoteness from both major global markets and the closest neighbor are particularly pronounced in the Pacific Islands.⁹⁶ In a survey of 200 firms across 14 Pacific Island economies,⁹⁷ 52 percent of firms identified high costs of export (fuel, transport costs, and limited shipping routes) as among the main barriers to exporting products from the Pacific Islands.⁹⁸

Pacific Island economies do not experience these impediments evenly. Compared to the other economies, Papua New Guinea and Fiji have large populations, land resources, and the opportunity to scale production.⁹⁹ Natural disasters, especially cyclones and flooding, historically occur more frequently in the South Pacific, affecting Fiji, Papua New Guinea, the Solomon Islands, and Vanuatu in particular. Droughts are more common in the North Pacific (the Marshall Islands, Palau, Kiribati).¹⁰⁰ Connectivity is better for the Pacific Islands that have direct flights to the continental United States and other large countries; but Tokelau, for example, is accessible only by a 24 to 33.5-hour boat trip from Samoa.¹⁰¹ In

⁹⁶ World Bank, “Small States: Overlapping Crises, Multiple Challenges,” in *Global Economic Prospects -- January 2023*, 2023; Becker, “Small Island States in the Pacific: The Tyranny of Distance?,” September 2012. The PIF 2020–2025 Pacific Aid-for-Trade Strategy identifies comprehensive connectivity as a key priority for mobilizing aid-for-trade projects in the region. PIFS, *Pacific Aid for Trade Strategy 2020–2025*, 2020, 4.

⁹⁷ The Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu.

⁹⁸ If the survey sample excludes tourist-focused businesses, the share increases to 70 percent of the sample. PTI Australia, “Pacific Islands Export Survey 2022,” July 2022, 48.

⁹⁹ Subject matter expert, interview by USITC staff, Australia, April 17, 2023.

¹⁰⁰ Lee and Zhang, “The Economic Impact of Disasters in Pacific Island Countries,” June 13, 2022.

¹⁰¹ Government of Tokelau, “Tourist Information,” accessed May 1, 2023.

order to understand the complexities of impediments to trade and investments that these economies face, it is useful to examine the prevalence and severity of these challenges.

Lack of Economies of Scale

Economies of scale are often necessary for domestic industries to become export competitive. Narrow resource bases have deterred many sectors in Pacific Island economies from achieving a sufficient economy of scale to become export competitive on volume.¹⁰² Several Pacific Islands have little to no arable land for agricultural production. Of total land mass in Palau and Kiribati, 2.2 and 2.5 percent, respectively, is arable; none of Tuvalu's 30 square kilometers is tillable.¹⁰³ In the services sector in the smaller Pacific Island economies, commercial offices can be a high fixed expense simply because of a lack of space. Industry representatives in American Samoa noted this as an issue.¹⁰⁴

Beyond resource availability, domestic production must overcome high fixed input costs, including energy, transportation, and regulatory compliance. Low production volume often bars timely and cost-effective freight shipments.¹⁰⁵ Regional agencies and officials acknowledge that export sectors must compete on quality and in niche markets in global trade.¹⁰⁶ Higher-quality specialty goods and services markets are smaller and can be more difficult to identify and target, but they can be a successful avenue for exporters and benefit micro and small enterprises such as smallholder farmers.¹⁰⁷

For both private and public sector funding, expansion potential for development projects can limit foreign investment in the region. Funders often require an existing or potential level of operation that Pacific Island economies cannot offer.¹⁰⁸ International organizations operating in developing economies may target investments at \$15–20 million, a level that is often not suitable for smaller economies. In Pacific Island economies, the appropriate investment level for many worthwhile economic development projects is closer to \$100,000, and funding projects at that scale is often deterred by high transaction costs.¹⁰⁹ One regional expert estimated that every dollar of aid the Pacific Islands receive costs three dollars to administer.¹¹⁰ As a result of the high transaction costs, companies in the private sector are either large or small, with few medium-sized operations. For businesses in Vanuatu, for example, banking transaction costs can run as high as 30 percent of transaction value.¹¹¹ In Papua New Guinea, a larger family-owned business seeking 6–9 million kina (\$1.7–2.5 million) is seen as too large for small medium enterprise funds but too small for international donors.¹¹² Banking services in Pacific Island

¹⁰² With narrow resource bases in mind, historical U.S. trade preference programs for U.S. territories encouraged islands to import raw materials to further process for export (see chapter 4).

¹⁰³ Becker, "Small Island States in the Pacific: The Tyranny of Distance?," September 2012, 12.

¹⁰⁴ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹⁰⁵ Industry representative, interview by USITC staff, Australia, April 17, 2023.

¹⁰⁶ Industry expert, interview by USITC staff, March 2, 2023.

¹⁰⁷ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

¹⁰⁸ Industry expert, interview by USITC staff, March 2, 2023; subject matter expert, interview by USITC staff, February 8, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; industry expert, interview by USITC staff, Fiji, March 21, 2023.

¹⁰⁹ Industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; subject matter expert, interview by USITC staff, Australia, April 17, 2023.

¹¹⁰ Subject matter expert, interview by USITC staff, Australia, April 17, 2023.

¹¹¹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

¹¹² Industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023.

economies also suffer from issues of scale and the costs of regulatory compliance (see box 2.2), especially those operating in U.S. territories subject to U.S. banking regulations. At least one small bank was forced to exit the market in Guam and American Samoa because of the high fixed regulatory costs spread across a small customer base.¹¹³

Box 2.2 Correspondent Banking Relationships in Pacific Island Economies

Correspondent banking relationships (CBRs) are formal agreements between banks to provide financial services to one another. CBRs enable the cross-border financial transactions that are essential for international trade, foreign direct investment, and remittances.^a

Although these relationships can facilitate international financial activity and trade, they can also pose significant risk for the correspondent bank. Under current internationally agreed anti-money laundering and countering the financing of terrorism regulations, if a respondent bank violates those regulations, then the correspondent bank (or banks) may bear financial and regulatory liability for the former's violations.

Because of this liability and resulting concerns about profitability, some banks are severing CBRs with smaller banks in potentially higher-risk developing and emerging markets.^b Bank “de-risking” has led to a substantial drop in the number of CBRs over the past decade, especially in the Pacific Island region where CBRs have fallen 50 percent since 2011.^c A decline in the number of banks with CBRs in the Pacific Islands has negatively affected import and export activity (e.g., the withdrawal of CBRs from the Solomon Islands in 2018 threatened logging exports that same year because of the companies’ potential inability to receive payments).^d The decline may potentially hinder the flow of remittances, which, for example, accounted for more than 40 percent of Tongan GDP in 2021.^e Because of the importance of CBRs for trade and investment, the reduced access to correspondent banking services in the Pacific Islands can be a significant impediment.

^a BIS, “Correspondent Banking,” July 2016, 6.

^b Subject matter experts, interview by USITC staff, January 25, 2023; CRS, “Overview of Correspondent Banking,” April 8, 2022.

^c IMF, “Pacific Islands Monitor,” October 2021, 9.

^d IMF, “Pacific Islands Monitor,” October 2021, 9; IMF, “Solomon Islands,” November 2018.

^e Industry representative, interview by USITC staff, American Samoa, March 30, 2023; IMF, “Pacific Islands Monitor,” October 2021.

Limited Economic Diversification

Economies concentrated in fewer sectors are more vulnerable to shocks than diversified economies. Connected to the ability to achieve economies of scale, limited capital can prevent the development of mature industries, leaving most income and revenue generation reliant on only a few sectors. In the Pacific Islands, most economies are dependent on either tourism or fisheries or are otherwise reliant on primary goods exports with little value added in the supply chain. The COVID-19 pandemic hurt tourism-dependent economies most; the GDP in Fiji and Palau fell 20 and 25 percent, respectively, from 2019 to 2021. Data on export product categories from 1996 to 2014 indicate Samoa, the Solomon Islands,

¹¹³ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

Tonga, and Vanuatu all rank in the lowest category for economic diversification, with less than 50 product categories exported per year.¹¹⁴

Export diversification has been found to benefit economic growth, particularly in economies with small populations.¹¹⁵ An International Monetary Fund report on Pacific Island trends estimated that a 1 percent increase in GDP of an exporting island was associated with a 0.27 percent increase in exports. This lag in export growth could be attributed to an inward orientation of Pacific Island economies. Export growth in the region similarly lags GDP growth of trade partners, likely attributed to lack of product differentiation and exports, primarily in agriculture and minerals commodities.¹¹⁶ The lag in export growth associated with limited economic diversification contributes to chronic trade deficits and reliance on external assistance for government revenue.

Institutional Capacity

Small populations with low connectivity can limit institutional capacity to support and promote trade and investment opportunities globally. In smaller Pacific Island economies, one person may be serving in a capacity equivalent to several institutional roles in the United States or other large, developed trade partners (e.g., one government official with limited resources coordinating foreign direct investment).¹¹⁷ According to industry representatives, regulatory procedures are inefficient and slow in many Pacific Island economies, partially because of limited institutional resources; for example, Kiribati reportedly has only three people working in most government ministries.¹¹⁸ Many business owners may serve in several other capacities as well, including roles supporting the government.¹¹⁹

Organizations with development initiatives in the region note that projects move slowly, and timeline expectations for capacity building are often unrealistic.¹²⁰ Limited institutional and absorptive capacity is a major contributor to compliance challenges for Pacific Island exporters.¹²¹ The Rapid Needs Assessment for implementation of the Pacific Agreement on Closer Economic Relations Plus (PACER Plus), a regional free trade agreement, identifies institutional capacity-building in especially small Pacific Island economies as an urgent priority for successful and effective implementation.¹²² Regional organizations cite institutional capacity to assist with compliance in the agricultural sector as a major

¹¹⁴ Fiji and Papua New Guinea fall into the second-lowest grouping of 51–500 product categories. This is relative to high-income exporters China and the United States, which export more than 4,500 product categories annually on average. WTO, “IV. Special Topic: Export Diversification,” in *World Tariff Profiles 2017*, 2017, 217.

¹¹⁵ Murphy-Braynen and Thurman, “The Relationship between Export Diversification & Economic Growth,” October 2019, 73, 81.

¹¹⁶ Chen et al., “Pacific Island Countries: In Search of a Trade Strategy,” August 2014, 16.

¹¹⁷ U.S. government official, interview by USITC staff, February 8, 2023.

¹¹⁸ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

¹¹⁹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

¹²⁰ Subject matter experts, interview by USITC staff, March 31, 2023.

¹²¹ Absorptive capacity refers to the amount of foreign capital and aid that a recipient can use productively. Subject matter experts, interview by USITC staff, March 31, 2023; industry experts, interview by USITC staff, Australia, April 17, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹²² Institute for International Trade, *Pacer Plus Rapid Needs Assessment: Final Report*, July 31, 2021, 5.

impediment to exporting agricultural products to the United States.¹²³ Export facilitators emphasize that the challenges include basic understanding of export market requirements and expectations.¹²⁴

Climate Change and Natural Disasters

The Pacific Islands have been experiencing climate change impacts, such as increases in ocean temperatures, sea levels, drought, ocean acidification, and extreme weather.¹²⁵ Scientists expect these trends to continue.¹²⁶ Climate change impacts, particularly sea level rise, threaten the inhabitability of some islands in the region.¹²⁷ Many Pacific Island economies are vulnerable to various natural disasters because of their location and physical characteristics. The World Bank estimates that, between 1950 and 2011, extreme weather–related events in the Pacific Islands region affected approximately 9.2 million people, caused 10,000 deaths, and resulted in damages of about \$3.2 billion.¹²⁸ The frequency of reported natural disasters in the Pacific Island region has increased since 1996.¹²⁹ Fiji and Papua New Guinea face a 70.7 percent and 80.5 percent annual likelihood of a natural disaster, respectively.¹³⁰ Climate change and natural disasters are thus factors when analyzing the potential for increased Pacific Island exports and receipt of investment.

Pacific Island stakeholders assert that economic growth and security hinge on resilience to climate change.¹³¹ Increasing freshwater scarcity is an immediate threat to inhabitability and is encouraging consideration of adaptation options.¹³² For instance, Kiribati, a collection of low-lying atolls vulnerable to droughts and sea-level rise, already relies on desalination to provide clean drinking water for its population.¹³³ Several economies have also begun longer-term contingency planning in advance of potential land uninhabitability. Kiribati purchased 5,500 acres in Fiji as part of a “migration with dignity” strategy, and Tuvalu launched an initiative to upload a digital version of the country in the metaverse using satellite imagery, drone footage, and photos.¹³⁴

Regional infrastructure and cash crops worth an estimated \$112 billion are at risk of damage due to climate change and natural disasters.¹³⁵ An analysis of 225 natural disasters from 1980 to 2020 in 12

¹²³ Industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023; industry expert, interview by USITC staff, Vanuatu, April 13, 2023.

¹²⁴ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹²⁵ NOAA Fisheries, Pacific Islands Regional Action Plan, 2023.

¹²⁶ IPCC, Climate Change 2022 – Impacts, Adaptation and Vulnerability, 1st ed., June 22, 2023, 46, 74; IPCC, Special Report on the Ocean, 2019, 5, 20, 27, 28, 663; WMO, “Climate Change Impacts Increase in South-West Pacific,” August 17, 2023.

¹²⁷ USGS, Pacific Coastal and Marine Science Center, “The Impact of Sea-Level Rise and Climate Change on Pacific Ocean Atolls,” June 27, 2022.

¹²⁸ Lee and Zhang, “The Economic Impact of Disasters in Pacific Island Countries,” June 13, 2022, 2.

¹²⁹ Lee and Zhang, “The Economic Impact of Disasters in Pacific Island Countries,” June 13, 2022, 4.

¹³⁰ Lee and Zhang, “The Economic Impact of Disasters in Pacific Island Countries,” June 13, 2022, 3.

¹³¹ PIF, “Boe Declaration on Regional Security,” 2018.

¹³² Freshwater access is increasingly limited as sea levels rise and seawater contaminates groundwater supply. Cassella, “There’s a Climate Threat Facing Pacific Islands That’s More Dire Than Losing Land,” September 19, 2019.

¹³³ Industry expert, interview by USITC staff, Australia, April 17, 2023.

¹³⁴ The small islet of Te Afualiku in Tuvalu has already been digitally rendered. UN, “Climate Change-Induced Sea-Level Rise,” February 14, 2023; Hodge, “Tuvalu Plans to Survive in the Metaverse,” April 26, 2023.

¹³⁵ World Bank, *Acting on Climate Change and Disaster Risk for the Pacific*, 2013, 7.

Pacific Island economies found that the average damage from a disaster is equivalent to 13.4 percent of GDP, with several disaster damages exceeding 100 percent of a Pacific Island economy's GDP.¹³⁶ Regional observers note the cumulative impact of climate change is growing, with countries like Vanuatu being in a state of near-constant recovery from more frequent natural disasters.¹³⁷

Natural disaster vulnerability increases costs for exporters and risks for investors. In the aftermath of severe disasters, the trade balance of Pacific Island economies tends to worsen, with both declining exports and increasing imports.¹³⁸ A 2022 survey of regional exporters found 72 percent of businesses reported impacts from extreme weather in the last 12 months. Reported impacts included decreases in productivity, damages to export products and property, and increased supply costs.¹³⁹ Key production and export sectors like coconut, kava, vanilla, and fisheries are increasingly susceptible to shrinking viable habitats and disruptions to the growing and harvest cycle because of cyclones and flooding (see chapter 6).¹⁴⁰

Land Use Rights

Local communities in Pacific Island economies often have unique customary land tenure systems rooted in indigenous groups' culture and history, and aspects of these systems may complicate access to or the security of land use rights. Such land rights are commonly held by groups rather than individuals. These groups make collective decisions on how land is allocated or used and often restrict use to recognized members of the group (e.g., a family or tribe).¹⁴¹ In most Pacific Island economies, more than 80 percent of the land is subject to customary rules, with the remainder classified as public or freehold (private property).¹⁴² Customary land tenure systems can be a key adaptive tool for communities to manage resources during times of conflict and environmental shocks, though the security and authority of such systems have weakened as a result of rapid population growth and migration, the introduction of new technologies, and increased trade with global partners.¹⁴³

When land use rights cannot be formally acknowledged and enforced, as sometimes occurs with customary land tenure systems, foreign investment and economic growth may be deterred.¹⁴⁴ Many customary systems do not have written records, which can undermine the rights and trust of both

¹³⁶ Lee and Zhang, "The Economic Impact of Disasters in Pacific Island Countries," June 13, 2022.

¹³⁷ Subject matter expert, interview by USITC staff, Australia, April 17, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹³⁸ Lee and Zhang, "The Economic Impact of Disasters in Pacific Island Countries," June 13, 2022, 8.

¹³⁹ PTI Australia, *Pacific Islands Export Survey*, July 2022.

¹⁴⁰ Industry expert, interview by USITC staff, Australia, April 17, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023; industry representative, interview by USITC staff, April 18, 2023.

¹⁴¹ AusAID, *Making Land Work, Volume One*, June 2008, 5–7.

¹⁴² One exception is Tonga, in which all land is subject to customary rules. Although its customary system designates all land as publicly owned, some individuals may hold hereditary usage rights that may restrict or regulate access. AusAID, *Making Land Work, Volume One*, June 2008, 4, 119; foreign government official, interview by USITC staff, Fiji, March 23, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

¹⁴³ Secure land tenure is "the certainty that a person's or a group's rights to land will be recognized by others and protected in cases of challenge." AusAID, *Making Land Work, Volume One*, June 2008, 10.

¹⁴⁴ USAID, "Securing Land Tenure and Property Rights for Stability and Prosperity," accessed March 27, 2023; AusAID, *Making Land Work, Volume One*, June 2008, 108.

landowners and investors.¹⁴⁵ Industry representatives in American Samoa acknowledged that investors are hesitant to invest in land that they cannot purchase outright, and that most foreign businesses prefer to work with freehold or public land.¹⁴⁶

For land-dependent sectors like mining and agriculture, access to or the security of land use rights can be an additional barrier to advancing operations.¹⁴⁷ The mining sector faces challenges in the leasing of rights on customary land. Mining in Papua New Guinea is an example of how the lack of clarity or written records can deter investment and growth. Unequal access to information among landowners, the government, and mining companies regarding mineral deposits, expected pricing, and environmental impacts leads to frequent contract disputes.¹⁴⁸ The lack of demarcation between some farms in Vanuatu has presented obstacles to achieving organic certifications—which require distinct, defined boundaries on farmland—for high-quality crops and produce.¹⁴⁹

Regional experts suggest that customary land tenure should neither be abandoned nor radically changed with outside intervention.¹⁵⁰ They propose that formally connecting customary systems with legal and economic institutions can both recognize customary authority and provide security for investments with state-supported avenues to resolve disputes.¹⁵¹ In this process, they emphasize that key adaptations to bridge customary systems with formal institutions, such as land registries and consultive processes with landowning groups, must be tailored to local communities.¹⁵²

High Energy Costs and Unreliable Power Supply

Reliable, accessible, and affordable energy is needed for growth and investment opportunities. Remoteness; small, dispersed populations; and infrastructure architecture on low-lying atolls and islands add to the challenge of establishing modern energy infrastructure in the Pacific Islands. In Papua New Guinea, 80 percent of the population does not have access to electricity and the capital, Port Moresby, suffers from daily power brownouts.¹⁵³ Industrial facilities on the grid often require comprehensive standby power, with grid outages happening multiple times a week. The province of Madang in Papua New Guinea has only 40–45 percent grid reliability and can suffer from three to five outages a day. One industry representative noted that for one company, frequent disruptions to energy service wore down the motors on its diesel generator, leading the company to pursue rooftop solar and a backup

¹⁴⁵ AusAID, *Making Land Work, Volume One*, June 2008, 35.

¹⁴⁶ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹⁴⁷ Industry expert, interview by USITC staff, Australia, April 17, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

¹⁴⁸ Duncan and Duncan, “Improving Security of Access to Customary-Owned Land in Melanesia,” in *The Governance of Common Property in the Pacific Region*, 2013, 74.

¹⁴⁹ Industry expert, interview by USITC staff, Vanuatu, April 13, 2023; Coleman, “Guide for Organic Crop Producers,” November 2012, 14.

¹⁵⁰ Iati, “Customary Land Rights and Pacific Islands Security and Stability,” April 19, 2018; AusAID, *Making Land Work, Volume One*, June 2008, 106.

¹⁵¹ AusAID, *Making Land Work, Volume One*, June 2008, xii, 108.

¹⁵² AusAID, *Making Land Work, Volume Two*, 2008, vi–ix.

¹⁵³ Industry expert, interview by USITC staff, Australia, April 17, 2023.

generator.¹⁵⁴ Another industry representative stated that their business could not operate three to four days of the week without using a backup generator.¹⁵⁵

Without domestic fossil fuel production capacity, Pacific Island economies rely on imported petroleum fuels for 80 percent of regional energy supply. This imported fuel costs \$6 billion annually, or roughly 5–15 percent of economies' GDPs.¹⁵⁶ For many Pacific Island economies, the cost of diesel alone is the largest component in their foreign exchange bill.¹⁵⁷ Sources in American Samoa stated the cost of utilities has doubled since 2021, while stakeholders in Vanuatu note that energy is the greatest driver of high business costs.¹⁵⁸ Per capita energy import dependency—the share of domestic energy needs met by imports—was 93 percent for Pacific Island economies as of 2019.¹⁵⁹ The ongoing installation of renewable energy infrastructure and increased investment in such infrastructure—as detailed in chapter 7—will likely reduce the energy dependence of the Pacific Island economies.

Infrastructure and Connectivity Challenges

Physical remoteness and unreliable internet connectivity limit access to global markets for Pacific Island exporters, presenting a major challenge.¹⁶⁰ This section considers some of the impediments to trade associated with the need for further development of the transportation and internet infrastructure in Pacific Island economies. The first part of this section covers transportation infrastructure, including sea and airports, shipping, air freight, and passenger services. The second part covers internet infrastructure, such as broadband networks and submarine cables, which—when operational—can facilitate e-commerce, help buyers and sellers connect, improve market information about the tourism sector, and enable the development of internet-based services exports.

Transportation Infrastructure

The quality of transportation infrastructure—including ports, maritime shipping routes, flight routes, and airports—is a key determinant of overall trade patterns. For example, Limão and Venables (2001) estimated that 40 percent of total transport costs for coastal countries are related to the quality of transportation infrastructure, and Djankov, Freund, and Pham (2010) found that time delays related to shipping goods can reduce trade by more than 1 percent for every day the cargo is delayed.¹⁶¹ Improvements in transportation infrastructure (and related trade facilitation measures) can boost trade overall (Donaubaur et al. 2018), increase the diversity of products exported (Dennis and Shephard 2011), and increase the probability that small and medium-sized enterprises (SMEs) will export (Albarran

¹⁵⁴ Industry representatives, interview by USITC staff, Papua New Guinea, April 21, 2023; industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁵⁵ Industry representative, interview by USITC staff, Papua New Guinea, April 20, 2023.

¹⁵⁶ Ferrari, Ranjan Basu, Roseberry, “Making the Energy Transition a Reality in the Pacific,” January 23, 2023.

¹⁵⁷ Industry experts, interview by USITC staff, Australia, April 17, 2023.

¹⁵⁸ Industry representative, interview by USITC staff, American Samoa, March 31, 2023; foreign government official, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁵⁹ Lal and Kumar, “Energy Security Assessment of Small Pacific Island Countries,” May 1, 2022, 5.

¹⁶⁰ World Bank, “Small States: Overlapping Crises, Multiple Challenges,” in *Global Economic Prospects -- January 2023*, 2023, 133.

¹⁶¹ Limão and Venables, “Infrastructure, Geographical Disadvantage, Transport Costs, and Trade,” 2001; Djankov, Freund, and Pham, “Trading on Time,” 2010.

et al. 2013).¹⁶² In light of the importance of transportation infrastructure for trade in general, this section details infrastructure-related limitations in shipping, air freight and passenger services, airports, and seaports in Pacific Island economies.

Shipping

Shipping routes in the Pacific Island region are primarily determined by the volume of imports of durable goods and consumer goods. In 2019, 80–100 percent of these imports arrived via seaports.¹⁶³ The three major providers of container shipping services in the Pacific Islands are Kyowa Shipping Co., Ltd. (headquartered in Japan), Neptune Pacific Direct Line (NDPL) (headquartered in the United States), and Swire Shipping Pte. Ltd. (headquartered in Singapore).¹⁶⁴ The current shipping routes in the Pacific Islands for these three companies—which together serve all Pacific Island economies, except Tokelau and the Pitcairn Islands—are illustrated in figure 2.1.¹⁶⁵ Fiji serves as a hub in the region, but other Pacific Island exporters and New Zealand, Australia, and Asian economies also have direct connections. Direct shipping routes to the United States, however, are considerably more limited: only Swire Shipping has direct routes from the Pacific Islands (American Samoa and French Polynesia) to the U.S. mainland. This lack of direct routes means that products may take indirect routes, such as through New Zealand, to reach the U.S. mainland.¹⁶⁶ In the early months of the COVID-19 pandemic, these limited routes were further restricted. For example, in June 2020, some islands in Kiribati began to experience food shortages because ships had not visited the islands since March 2020.¹⁶⁷

Section 27 of the Merchant Marine Act of 1920 (also referred to as the Jones Act) limits container shipping services between U.S. ports (such as between Guam and Hawaii) to vessels that are built and registered in the United States and owned and crewed by U.S. citizens.¹⁶⁸ In general, the costs of building and operating a Jones Act–compliant vessel tend to be higher than for non–U.S.-flagged vessels or U.S.-flagged vessels on international routes.¹⁶⁹ Given that two of the three main shipping companies in the Pacific Islands are not U.S.-owned companies, they cannot operate routes between U.S. ports in Guam and Hawaii and the U.S. mainland.¹⁷⁰ American Samoa, however, is exempt from the Jones Act

¹⁶² Donaubauer et al., “A New Index of Infrastructure,” 2018; Dennis and Shepherd, “Trade Facilitation and Export Diversification,” 2011; Albarran, Carrasco, and Holl, “Domestic Transport Infrastructure and Firms’ Export Market Participation,” 2013.

¹⁶³ Arslanalp, Koepke, and Verschuur, “Tracking Trade from Space,” August 20, 2021, 6.

¹⁶⁴ Neptune Pacific Direct Line (NPDL) is a subsidiary of Los Angeles-based The Wonderful Company LLC, which also owns Fiji Water. NPDL, “About Us,” June 23, 2021; Swire Shipping, “Our Offices,” accessed August 1, 2023; Kyowa Shipping Co., Ltd., “About Us-History,” accessed August 1, 2023.

¹⁶⁵ A global shipping provider, the Marine Stewardship Council, began offering shipping services in the region, with its Noumea Express Service expanding service connecting Australia to New Caledonia and Fiji starting in November 2022. Marine Stewardship Council, “MSC Updates Noumea Express Service,” October 6, 2022.

¹⁶⁶ Industry representative, interview by USITC staff, Samoa, March 29, 2023.

¹⁶⁷ Arslanalp, Koepke, and Verschuur, “Tracking Trade from Space,” August 20, 2021, 25.

¹⁶⁸ Pub. L. No. 66-261, § 27, 41 Stat. 988, 999 (1920) (codified as amended at 46 U.S.C. § 55101).

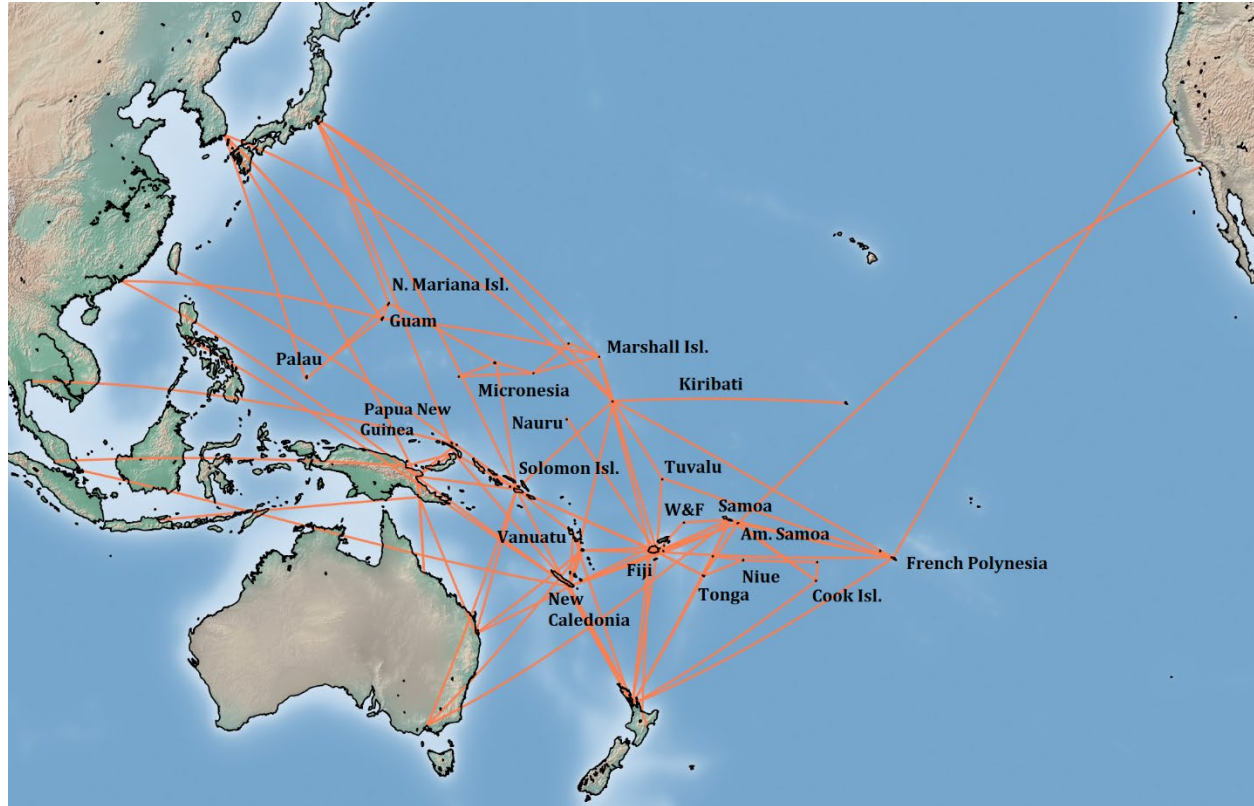
¹⁶⁹ Frittelli, *Shipping U.S. Crude Oil by Water*, July 21, 2014, 13. Given these higher shipping costs, Guam has in the past requested, but not received, an exemption to the Jones Act similar to that used by American Samoa and the Northern Mariana Islands. See, e.g., GAO, *Issues Affecting U.S. Territory and Insular Policy*, GAO-85-44, 1985, 31.

¹⁷⁰ Although NDPL is a U.S.-owned company, its ships are registered under the Singaporean flag, suggesting its current operations would not meet Jones Act requirements. NDPL, “Our Fleet,” July 6, 2021; VesselFinder,

and the Northern Mariana Islands is only partially subject to the law.¹⁷¹ As a result, Swire Shipping, whose vessels are not Jones Act compliant, is able to offer a route between the U.S. mainland and American Samoa.

Figure 2.1 Container shipping routes in Pacific Islands, 2023

W&F = Wallis and Futuna, N. Mariana Isl. = the Northern Mariana Islands, Am. Samoa = American Samoa, Marshall Isl. = the Marshall Islands, Micronesia = the Federated States of Micronesia, Cook Isl. = the Cook Islands.



Sources: USITC compilation from Kyowa Shipping Co., Ltd., "Service Routes," accessed March 23, 2023; Swire Shipping, "East South Asia Service," July 28, 2022; Swire Shipping, "Micronesia Service," February 2022; Swire Shipping, "New Zealand Eastern Pacific Service," September 2021; Swire Shipping, "North Asia Service," January 2023; Swire Shipping, "Pacific North Asia Service," January 2023; Swire Shipping, "Polynesia Service," accessed March 23, 2023; Swire Shipping, "South East Asia Service," December 2022; Swire Shipping, "Pacific Islands Service," January 2023; Swire Shipping, "North Asia Express," January 2023; Swire Shipping, "Pacific Weekly Express," January 2023; Swire Shipping, "Papua New Guinea Service," January 2023; NDPL, "New Zealand Schedule," March 22, 2023; NDPL, "South Pacific Service (SPS) Schedule," March 22, 2023; NPDL, "Fiji Schedule," accessed March 23, 2023; NPDL, "Island Schedule," March 22, 2023; NPDL, "Australia Schedule," March 22, 2023; Mariana Express Lines PTE, "New Zealand to Guam, Saipan & Micronesia," March 22, 2023.

Notes: Maritime shipping connections between non-Pacific Island countries (such as between Australia and New Zealand) are excluded to improve the readability of map.

"Capitaine Baret," accessed June 8, 2023; Vesselfinder, "Capitaine Dampier," accessed June 8, 2023; Vesselfinder, "Capitaine Kupe," accessed June 8, 2023; Vesselfinder, "Capitaine Magellan," accessed June 8, 2023; Vesselfinder, "Capitaine Tasman," accessed June 8, 2023; Vesselfinder, "Capitaine Tupaia," accessed June 8, 2023; Vesselfinder, "Capitaine Wallis," accessed June 8, 2023; Vesselfinder, "Southern Pearl," accessed June 8, 2023.

¹⁷¹ 46 U.S.C. § 55101(b). Congress exempted American Samoa from this requirement in 1934 given international obligations to Germany and Great Britain made at the time of the islands' annexation. H.R.J. Res. 340, 73rd Cong., 48 Stat. 963 (1934). The Covenant Agreement for the Northern Mariana Islands included an exemption from the "coastwise laws of the United States" except for the activities of government workers and contractors in the Northern Mariana Islands. Pub. L. No. 94-241, § 503(b), 90 Stat. 268 (1976).

Exporters in the Pacific Islands have identified several challenges associated with shipping in the region. Respondents to a survey conducted by Pacific Trade Invest Australia noted that, in 2021, shipping costs were high and could be improved by more direct and regular routes.¹⁷² Several industry representatives noted the high costs of freight shipping in general and to the United States, with one stating that shipping costs can sometimes exceed the value of the products.¹⁷³ For example, The Summit Vanuatu, which sells skincare products, has stopped accepting online orders because of high shipping costs.¹⁷⁴ Shipping costs also increased during the COVID-19 pandemic. One industry representative stated that freight charges in 2023 were twice as high as in 2021; others asserted that the region was the only place where shipping costs have not decreased as the global pandemic subsided.¹⁷⁵

The low volume of exports also increases costs and shipping times for goods exports from Pacific Island economies. One industry representative in Vanuatu noted that it can be difficult for goods producers to fill a cargo container completely and to time the filling of a container with the schedule of a freight vessel.¹⁷⁶ Another industry representative noted that shipping times have increased because shipping companies now wait for containers to be filled before releasing them, leading to reduction in the shelf life of agricultural products once they reach their destination.¹⁷⁷ When small firms in the Pacific Islands cannot meet the volume requirements for maritime shipping services, they tend to rely on shipping infrastructure that is put in place for larger companies, such as Fiji Water (a U.S.-based company) in Fiji, kava exporters in Vanuatu, and StarKist Tuna (a South Korean-based company) in American Samoa.¹⁷⁸ This means that if larger companies exit the export market, smaller firms may also be forced to stop exporting because of a lack of alternative, affordable shipping infrastructure.

Air Freight and Passenger Services

Limited air transportation affects exports of goods and services (particularly tourism) that involve the travel of consumers to Pacific Island markets. Exporting goods via air is an attractive option for goods with a high ratio of value to size (like vanilla) and time-sensitive goods (like perishable fruits and vegetables), because of the speed of air transport relative to shipping and the low risk of losing or damaging goods in transit.¹⁷⁹ Air cargo can be transported in the checked baggage storage of passenger flights (i.e., “belly cargo”) or via dedicated cargo or postal service planes (freight). Industry representatives noted that commercial airlines prioritize fuel storage and passengers (and their bags)

¹⁷² PTI Australia, “Pacific Islands Export Survey 2022,” July 2022, 54.

¹⁷³ Industry representatives, interview by USITC staff, Fiji, March 21, 2023; industry representatives, interview by USITC staff, Vanuatu, April 13–14, 2023.

¹⁷⁴ The Summit Vanuatu, “Sandalwood, Tamanu & Nangai Oil Products,” accessed May 17, 2023.

¹⁷⁵ Data on freight costs over time for the Pacific Islands specifically are not readily available; between January 2021 and January 2022, global freight rates increased from \$5,252 to \$9,477 per 40-foot container. Industry representatives, interview by USITC staff, American Samoa, March 31, 2023; industry representatives, interview by USITC staff, Vanuatu, April 13–14, 2023; MacroMicro, “Global Container Freight Rate Index,” May 10, 2023.

¹⁷⁶ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁷⁷ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁷⁸ Industry representatives, interview by USITC staff, American Samoa, March 31, 2023; industry representatives, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁷⁹ This value to size consideration is evident in data for total U.S. imports; from 2017 to 2021, air cargo represented 27.6 percent of U.S. imports by value, but only 0.5 percent of imports by volume. Zhang and Zhang, “Issues on Liberalization of Air Cargo Services,” September 2002, 276; USDOT, BTS, “U.S. International Trade by Transportation Mode,” July 2022.

over cargo, so the availability of belly cargo as a means of transporting goods can be limited when passenger demand is high.¹⁸⁰ At the same time, industry representatives note that dedicated freight planes are rare in the region and converting a plane from passenger to fully freight costs \$12–14 million.¹⁸¹

The frequency and number of commercial flights to Pacific Island economies vary considerably. For example, Fiji had commercial flight connections to 19 countries and 142 inbound flights per week in 2019, but Tuvalu was connected to only 2 other countries and had only 4 inbound flights per week.¹⁸² Commercial flights in the Pacific Islands are provided by regional carriers headquartered in Pacific Island economies, as well as by airlines headquartered in countries such as the United States, Australia, China, Japan, New Zealand, and South Korea (figure 2.2). Among Pacific Island carriers, Fiji Airways had the most connections between Pacific Island economies in 2023.¹⁸³ Most of the domestic routes and connections between islands are offered by local airlines; other airlines primarily connect their home markets to destinations in the Pacific Islands.¹⁸⁴ Direct flights to the U.S. mainland are available only in Fiji and Tahiti (in French Polynesia).

Where direct flights to the U.S. mainland exist, prices tend to be high, particularly when only a single airline offers a particular route.¹⁸⁵ For example, the 2023 U.S. General Services Administration (GSA) contract rates used by U.S. federal government employees for flights from the U.S. mainland to American Samoa, Fiji, French Polynesia, and Guam averaged \$1,686 one way.¹⁸⁶ Other challenges with commercial flights include navigating the international dateline (particularly between Samoa and American Samoa), limited ability to book flights online, and high prices related to price insensitivity of Pacific Island consumers, many of whom are traveling for family events, such as funerals.¹⁸⁷

As with maritime shipping, U.S. laws and regulations can limit trade via air transportation. In the United States, air cabotage restrictions prohibit foreign-owned aircraft from delivering cargo or passengers between locations in the United States, including insular possessions like American Samoa, Guam, and the Northern Mariana Islands.¹⁸⁸ These cabotage restrictions can limit flights between U.S. territories in

¹⁸⁰ Industry representatives, interview by USITC staff, Fiji, March 25, 2023; industry representatives, interview by USITC staff, Australia, April 17, 2023.

¹⁸¹ Industry representative, interview by USITC staff, Fiji, March 25, 2023.

¹⁸² Two Pacific Island economies, Tokelau and the Pitcairn Islands, do not have airports and are only reachable by boat. UNOCHA, “Pacific Air Routes-Fiji,” February 14, 2020.

¹⁸³ FlightConnections.com, “Airline Flight Map,” 2023.

¹⁸⁴ One exception is the United Airlines “Island Hopper” service, which runs from Hawaii through the Federated States of Micronesia, the Marshall Islands, and Guam and transports individuals, mail, and perishable cargo, such as fresh meat, to the islands. FlightConnections.com, “Airline Flight Map,” 2023; Dwyer, “Pacific Island Hopper,” December 4, 2018.

¹⁸⁵ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

¹⁸⁶ Given the discounts typically negotiated by GSA for federal government travelers, this average likely underestimates costs for private travelers. Data report average discounted unrestricted (YCA) fares, which cover the last seat available on a given flight. USGSA, “FY23 Contract Awards,” 2023.

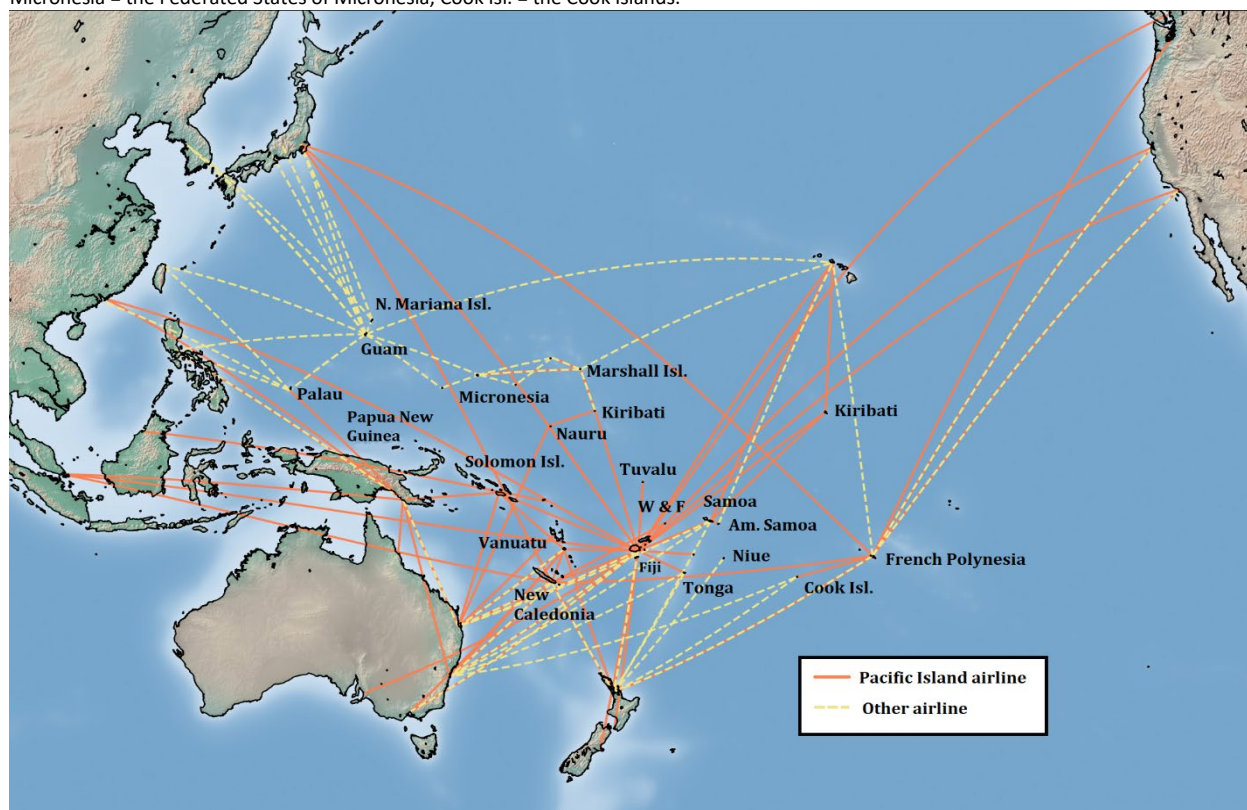
¹⁸⁷ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

¹⁸⁸ Cabotage refers to the transportation of goods or passengers between two places in the same country. In contrast to the Jones Act, all insular possessions are subject to airline cabotage regulations. 49 U.S.C. § 41703(c). The U.S. Department of Transportation may grant temporary 30-day exemptions from these restrictions in emergency situations when domestic U.S. carriers cannot accommodate traffic. 49 U.S.C. § 40109(g). In 2018,

the Pacific Island economies, because local carriers are unable to offer, for example, “island hopping” services that connect to the U.S. mainland through stops in the insular possessions or Hawaii, reducing competition on these types of routes.¹⁸⁹

Figure 2.2 Commercial airline routes in Pacific Island economies, by type of carrier, 2023

W&F = Wallis and Futuna, N. Mariana Isl. = the Northern Mariana Islands, Am. Samoa = American Samoa, Marshall Isl. = the Marshall Islands, Micronesia = the Federated States of Micronesia, Cook Isl. = the Cook Islands.



Sources: USITC compilation using data from FlightConnections.com, “Airline Flight Map,” 2023; Talofa Airways, “Flights between Samoa, American Samoa and Tonga,” accessed May 11, 2023.

Note: Commercial airline connections between islands in the same economy by Pacific Island airlines (such as Tahiti to Bora Bora, both in French Polynesia) are excluded to improve the readability of the map.

The COVID-19 pandemic also disrupted air transportation services in the Pacific Islands, both in terms of flight availability and prices. Between 2019 and 2020, U.S. carriers reported a 77.1 percent decrease in the number of air passengers traveling from the United States to destinations in the Pacific Islands and a 49.6 percent decrease in the total volume of air freight imports from those markets.¹⁹⁰ Additionally, pandemic-related emergency surcharges increased prices for air freight shipments. For example, as of

American Samoa received a broadened 180-day exemption for travel between the islands of Tutuila and Manu’a following the end of the only domestic line between these islands, and the U.S. Department of Transportation may renew this exemption every 180 days as long as no other domestic service is available. 49 U.S.C. § 40109(g)(2)(C); Ravich, “Cabotage and Deregulatory Anomalies,” 2022.

¹⁸⁹ Industry representatives, interviews by USITC staff, American Samoa, March 31, 2023.

¹⁹⁰ Pacific Island economies in these data include the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, the Marshall Islands, Nauru, New Caledonia, Palau, Papua New Guinea, Samoa, and Vanuatu. Bureau of Transportation Statistics (BTS), “T-100 International Market (US Carriers Only),” accessed January 3, 2023.

April 2022, DHL charged Pacific Island economies a pandemic-related surcharge of 0.20–1.25 Euros (\$0.22–\$1.36) per kilogram to ship goods to the Americas.¹⁹¹

Airports and Seaports

The scale and quality of airports and seaports affect Pacific Island exporters of both goods and services. In 2021, the Pacific Island region had 817 airports, with the vast majority (561) in Papua New Guinea. As of 2021, every Pacific Island economy with an airport has at least one paved runway, though on average only 52 percent of all runways in the region are paved.¹⁹² The length of runways—given the limited level land area of many Pacific Islands—can limit the size of planes that can land in the region.¹⁹³ Additionally, some airports in the Pacific Islands, such as those in the Federated States of Micronesia, lack control towers or radar for navigation, meaning that pilots rely on GPS and their own judgment to land.¹⁹⁴

Because seaports can serve both cargo vessels and cruise ships, they are important for both goods and services trade. Seventy seaports span the Pacific Island economies.¹⁹⁵ The National Geospatial-Intelligence Agency classifies 53 of these seaports as “very small,” 16 as “small,” and 1 (Guam) as “medium-sized.” The ship types that can anchor at Pacific Island seaports include feeder vessels (300 to 1,000 20-foot equivalent units (TEUs)) and less-than-full-capacity Panamax vessels (up to 5,000 TEUs).¹⁹⁶ In 2019, the average size of container ships traveling to Pacific Island economies was 1,428 TEUs.¹⁹⁷ Papeete, the capital of French Polynesia, is the only seaport with the capacity to conduct major ship repairs in the region.¹⁹⁸

Industry representatives have identified several shortcomings of seaport facilities in the Pacific Islands, including deficient infrastructure, lack of maintenance, limited storage capabilities, and lack of port security.¹⁹⁹ Industry representatives have also noted that infrastructure needs in the region are basic, such as more roads, wharfs, and storage (including cold storage).²⁰⁰ In some cases, the presence or quality of a port can depend on private enterprises on an island or whether a private shipping company invests in maintenance.²⁰¹ Climate change and natural disasters also impact the reliability of ports in the region. Ports in Pacific Island economies primarily face adverse weather conditions related to tropical cyclones and heavy rainfall.²⁰² In a study of global seaports’ exposure to climate change, Izaguirre et al.

¹⁹¹ American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, and the Northern Mariana Islands are categorized as part of the “Americas” by DHL and face the lower 0.20 Euro surcharge. DHL, “Emergency Situation Surcharge Adjustment,” April 2022.

¹⁹² CIA, “Airports with Paved Runways,” 2021; CIA, “Airports,” 2021.

¹⁹³ ADB, *Oceanic Voyages: Aviation in the Pacific*, 2007, 19.

¹⁹⁴ Dwyer, “Pacific Island Hopper,” December 4, 2018.

¹⁹⁵ USDOD, NGA, “World Port Index,” accessed May 23, 2023.

¹⁹⁶ A Panamax vessel refers to the maximum vessel size able to traverse the Panama Canal before 2016. DHL, “A Shipper’s Guide to Cargo Vessel Sizes,” accessed May 25, 2023.

¹⁹⁷ Average includes American Samoa, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, New Caledonia, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu.

¹⁹⁸ USDOD, NGA, “World Port Index,” accessed May 23, 2023.

¹⁹⁹ Industry representatives, interview by USITC staff, Australia, April 17, 2023.

²⁰⁰ Subject matter experts, interview by USITC staff, Fiji, March 20, 2023; industry representatives, interview by USITC staff, Australia, April 17, 2023.

²⁰¹ Industry representatives, interview by USITC staff, American Samoa, April 1, 2023; industry representatives, interview by USITC staff, Australia, April 17, 2023.

²⁰² Izaguirre et al., “Climate Change Risk to Global Port Operations,” 2021, 16.

(2021) found that ports in the Pacific Islands are currently at the highest risk of negative impacts of climate change, considering factors such as changes in waves, storm surges, wind, precipitation, temperature, tropical cyclones, and sea level rise.²⁰³

Internet Infrastructure

In general, businesses and consumers in the Pacific Islands suffer from high internet costs and poor internet quality. These issues arise from high costs for infrastructure, energy, telecommunications equipment imports, and natural disaster risks. These high costs likely contribute to low digital literacy rates and impede economic growth. This section highlights obstacles to internet infrastructure in the region and their impact on internet usage rates. Chapter 8 discusses internet improvement initiatives in the Pacific Islands.

Broadband access is considered unaffordable for most Pacific Islands residents and is least affordable in Papua New Guinea.²⁰⁴ As a result, internet connectivity in the Pacific Islands lags behind the rest of the world; in 2018, mobile internet penetration was at 18 percent of the population.²⁰⁵ During the same year, mobile internet penetration was at 40 percent in low- and middle-income countries and 75 percent in high-income countries.²⁰⁶ Broadband subscription rates in the Pacific Islands are even lower, at 4.9 percent in 2020 compared to the global average of 16.1 percent.²⁰⁷ Moreover, Pacific Island internet speeds are generally slow. Almost half of mobile connections are third generation (3G) networks or slower, which is too slow for video streaming and high-definition videoconferencing.²⁰⁸ This lack of internet access hampers e-commerce in the region, forcing many businesses to sell through expensive third-party service providers.²⁰⁹ Research shows that increased internet connectivity can boost international trade, drive economic growth, and mitigate the challenges of geographic remoteness, particularly for small and medium-sized enterprises.²¹⁰

Subsea Cable Networks

Many internet issues in the Pacific Islands stem from a lack of connectivity to subsea (submarine) cable infrastructure, which provides the backbone for global internet infrastructure. These cables, which carry

²⁰³ Izaguirre et al., “Climate Change Risk to Global Port Operations,” 2021, 14–15.

²⁰⁴ According to the Broadband Commission for Sustainable Development, a public-private partnership established by ITU/UNESCO, broadband is “affordable” when the cost of broadband services is less than 5 percent of a country’s gross national income per capita. As of 2018, the threshold has been adjusted to less than 2 percent for low- and middle-income countries. ITU, UNESCO, “Broadband Advocacy Target 2,” accessed March 31, 2023; UNESCAP, *Broadband Connectivity in Pacific Island Countries*, 2018, 26.

²⁰⁵ GSMA, *The Mobile Economy Pacific Islands*, 2019, 3.

²⁰⁶ GSMA, *The State of Mobile Internet Connectivity 2019*, 2019.

²⁰⁷ Author’s calculations. World Bank, “Fixed Broadband Subscriptions (per 100 People),” accessed March 31, 2023. The following Pacific Island economies are included in this dataset: Fiji, French Polynesia, Kiribati, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Vanuatu, the Federated States of Micronesia, the Marshall Islands, and New Caledonia.

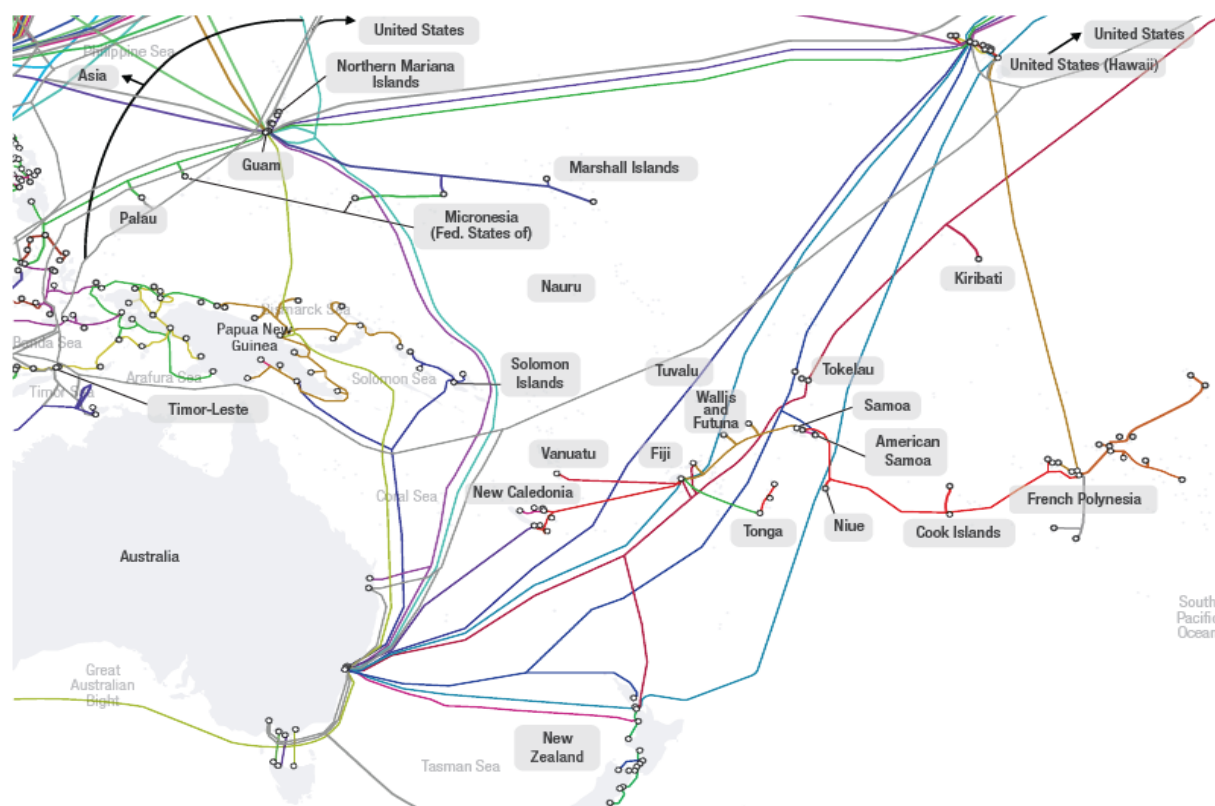
²⁰⁸ GSMA, *The Mobile Economy Pacific Islands*, 2023, 11.

²⁰⁹ Industry representative, interview by USITC staff, Samoa, March 25, 2023.

²¹⁰ See UNCTAD, “Remote But Well Connected?,” 2021; Niebel, “ICT and Economic Growth – Comparing Developing, Emerging and Developed Countries,” April 1, 2018; Bertschek et al., “The Economic Impacts of Broadband Internet,” December 1, 2015.

95 percent of global internet traffic, span approximately 1.3 million kilometers across the ocean floor (figure 2.3).²¹¹ Because of the geographical remoteness of the Pacific Island economies, cables must be laid over long distances to connect to regional hubs like Australia, Fiji, Hawaii, and Guam. Guam and Fiji both serve as subsea cable junctions, making these areas outliers in the region's limited internet infrastructure.²¹²

Figure 2.3 Subsea cable network connecting Pacific small island developing states (SIDS)



Sources: UNCTAD, "The Submarine Cable Network Connecting Pacific SIDS; Based on TeleGeography, Submarine Cable Map," in *Digital Economy Report: Pacific Edition 2022; Towards Value Creation and Inclusiveness*, 2023.

Note: Different colors in the figure represent different cables.

The cost of connecting the Pacific Islands to regional hubs, coupled with the low population density, results in high internet costs.²¹³ Industry representatives in American Samoa further explain that its high prices for broadband services are partially due to interest payments on a large loan to connect American

²¹¹ USITC, *Recent Trends in U.S. Services Trade*, May 2022, 91; MAPFRE Global Risks, *Submarine Cables*, April 1, 2022, 2.

²¹² Swinhoe, "What Is a Submarine Cable?," August 26, 2021; University of the South Pacific, "Pacific Needs Interchange Arrangements," August 2017, 16.

²¹³ Deloitte, *Why Are Internet Prices High in Papua New Guinea?*, October 2016, v–vi; ITU, "Maximizing Availability of International Connectivity in the Pacific," 2018, 3–4; Paulus, "Why Getting Pacific Island Nations on the Internet Is Difficult," June 14, 2017.

Samoa to the Hawaiki subsea cable, a subsea cable completed in 2018 linking Australia, New Zealand, American Samoa, Hawaii and the west coast of the United States.²¹⁴

Subsea cable connections are limited in the Pacific Islands. Seven of the 22 Pacific Island economies have only one such connection; Tuvalu and the Pitcairn Islands have none.²¹⁵ Having multiple cable routes is critical in case a cable is damaged from fishing equipment or geological disasters.²¹⁶ If a country does not have redundant cable routes, such damage can render the entire economy offline. For example, a recent volcanic eruption in Tonga and tropical cyclones in Vanuatu resulted in significant disruptions to internet connectivity.²¹⁷ Moreover, as the Pacific Islands develop internet infrastructure, their risk of cyberattack increases, further necessitating multiple connections. This vulnerability is exacerbated by the region's lack of cybersecurity expertise and the region's geostrategic importance to the United States, China, and other nations.²¹⁸

Domestic Internet Infrastructure

Internet connectivity challenges in the Pacific Islands extend to last mile delivery.²¹⁹ Connecting areas within each economy is complicated because of low population densities separated by long distances.²²⁰ Hardwire cable infrastructure, suitable for urban areas, requires extensive infrastructure to connect such long distances, and traditional satellite internet is much slower than hardwire internet. Further, the region's terrain, characterized by dense vegetation and ruggedness, may limit the efficacy of fixed wireless broadband for last mile delivery.²²¹ Additionally, local monopolies, U.S. warranties, licenses, minimum orders for technology shipments, and import taxes raise costs for devices, equipment, and internet services.²²² The Pacific Islands are exploring the potential for new satellite technologies, such as satellite constellations and geostationary satellites, to reduce the need for terrestrial internet infrastructure. These initiatives are discussed in chapter 8.

²¹⁴ Sagapolutele, "ASTCA Now Fully Owns American Samoa Branching Unit of Hawaiki Cable," January 16, 2019; BW Digital, "BW Digital Completes Acquisition of Hawaiki Submarine Cable," May 16, 2022; industry representative, interview by USITC staff, American Samoa, March 31, 2023.

²¹⁵ Compiled by USITC. This count includes proposed cable connections and cables currently under construction. TeleGeography, "Submarine Cable Map," accessed March 31, 2023.

²¹⁶ Since 1959, fishing caused 40.8 percent of subsea cable faults and geological disasters were responsible for 4.7 percent of faults. Clare, *Submarine Cable Protection and the Environment*, March 2021, 7.

²¹⁷ Bateman, "Tonga Is Finally Back Online," February 23, 2022; Watson, "Limited Communication Cables for Pacific Island Countries," February 27, 2022; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

²¹⁸ ITA, "Fiji - Country Commercial Guide," accessed March 31, 2023; Watson, "Undersea Internet Cables in the Pacific Part 2," 2021.

²¹⁹ ITU, "The Last Mile Internet Connectivity Solutions Guide," 2020.

²²⁰ USITC, hearing transcript, February 14, 2023, 137–38 (testimony of Alan Tidwell, Georgetown University).

²²¹ World Bank, "Forest Area (% of Land Area)," accessed March 31, 2023; Foster and West, "Pacific Islands," March 9, 2023; Afflerbach, "Fixed Wireless Technologies and Their Suitability for Broadband," June 22, 2022; Muhammad, Rahman, and Rahim, "The Effects of Foliage on 5.8GHz Broadband Fixed Wireless Access," 2010.

²²² Contreras, "Making Rural Fiber Deployments Cost Effective," accessed March 31, 2023; industry representative, interview by USITC staff, American Samoa, March 31, 2023.

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Chapter 3

Trends in Pacific Island Exports of Goods and Services

This chapter describes the levels and trends of Pacific Island goods and services exports globally and to the United States.²²³ The analysis shows that Pacific Islands' goods and services trade is concentrated by destinations, products, and services. Despite the COVID-19 pandemic-related disruption in 2020, Pacific Island goods exports to the world showed an overall modest growth trend between 2017 and 2021. Pacific Island services exports to the world in 2021, dependent on tourism, remained well below 2017 levels. Pacific Island economies' goods export growth has been driven by increases in goods exported to relatively nearby Asian economies, particularly China, Japan, and South Korea, as well as the European Union (EU). Australia and the United States remain among the leading destinations for Pacific Island goods exports, but exports to both decreased during the period. Finally, analysis of exports by specific categories shows that exports to the world are concentrated in extractive industries, fisheries, tourism, and some specific agricultural commodities.²²⁴

Analysis of Pacific Island goods exports to the United States revealed several trends. Pacific Island exports to other destination markets consist largely of extractive commodities; exports to the United States primarily consist of fishery and agriculture products, including tuna, water, coffee, and cocoa beans. The United States was a top destination for Pacific Island services exports, and such exports to the United States were largely in the form of tourism, indicating the important role that tourism plays for many Pacific Island economies.

²²³ The goods data reported in this section are constructed export statistics (also known as “mirror data”) based on general imports and cover Harmonized Commodity Description and Coding System (Harmonized System or HS) chapters 1 through 97 only. Import data for HS chapters 98 and 99 were excluded from this analysis owing to the nature of the goods and the values of that data. Chapter 98 trade data represented goods not originally produced in the Pacific Islands, described in the *Harmonized Tariff Schedule of the United States* (HTS) as “Products of the United States when returned after having been exported, or any other products when returned within 3 years after having been exported, without having been advanced in value or improved in condition by any process of manufacture or other means while abroad.” For the Pacific Islands, the value of this trade was \$756 million during 2017–21, of which the vast majority was with the United States. Chapter 99 data represented goods covered under special importing provisions and was not available at a sufficiently disaggregated level for analysis. For the Pacific Islands, the value of these imports was \$123 million during 2017–21. Unless otherwise noted, trade data throughout this chapter were compiled by the USITC from the S&P Global, GTAS database, and U.S. Census via the USITC DataWeb database. S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS Chapters 1 through 97 only; USITC, “Harmonized Tariff Schedule, 2023 Revision 9,” 98-I-2.

²²⁴ Extractive industries cover those processes involved with extracting raw materials from the earth (such as oil, metals, minerals, and aggregates) and processing them for utilization by manufacturers and consumers.

Pacific Island Goods Exports

Total Pacific Island regional exports of goods generally grew from 2017 to 2021, except during the pandemic-affected year of 2020 (table 3.1).²²⁵ Total exports from the region grew 15.4 percent during the period. However, the negative impacts of the COVID-19 pandemic contributed to a 12.2 percent decrease between 2019 and 2020, although not all Pacific Island economy exports were affected equally. Despite the COVID-19 pandemic-related decrease, regional exports recovered in 2021, ending the period with a five-year high of \$18.0 billion. The 2017–21 average annual increase for the region was 3.7 percent, compared to a 5.5 percent average global increase over the same period.²²⁶

Goods exports from individual Pacific Island economies varied widely (table 3.1). Export trends by economy ranged from an 86.9 percent decrease from Niue to a 1,305.3 percent increase from Tuvalu.²²⁷ Reactions to the COVID-19 pandemic did not appear to negatively affect goods exports from all Pacific Island economies; from 2019 to 2020, nine economies experienced growth or no change in exports. Several economies with the largest trade, including Papua New Guinea and the Marshall Islands, however, experienced declines between 2019 and 2020 and drove the total regional trend before recovering significantly by 2021.

Goods exports from the region were highly concentrated among a few Pacific Island economies (table 3.1). Papua New Guinea—the Pacific Island economy with the largest population and GDP—was the largest exporter, accounting for 66.8 percent of annual average regional exports during 2017–21. New Caledonia—one of the French Overseas Collectives—accounted for an average of 11.3 percent of all regional exports. The Marshall Islands—a Freely Associated State with the United States—accounted for 5.6 percent of regional exports.²²⁸ The only other economies that averaged more than 3 percent of the regional total were the Solomon Islands (4.3 percent) and Fiji (3.7 percent).

²²⁵ Unless otherwise noted, trade data throughout this section were compiled from multiple sources as follows. S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS Chapters 1 through 97 only. Throughout this section, “HS” identifies international trade data at the chapter (2-digit), heading (4-digit), and subheading (6-digit) levels where data were combined across countries following the Harmonized System; “HTS” identifies U.S. trade data at the subheading (6- or 8-digit), or statistical reporting (10-digit) levels where data classification was based on the *Harmonized Tariff Schedule of the United States*.

²²⁶ Global exports decreased by 6.5 percent from 2019 to 2020 and increased by 26.0 percent from 2020 to 2021.

²²⁷ In many cases the volumes and values of trade were very small; thus, what may appear as small changes in volume or value relative to a larger economy can create large percentage changes between periods for these small economies.

²²⁸ The Marshall Islands is the world’s third-leading open vessel registry state. Thus, a substantial portion of the Marshall Islands’ trade is related to vessel registration, not necessarily the actual import and export of vessels for use in the Marshall Islands territorial waters. For more detail, see box 3.1, below.

Table 3.1 Pacific Island economies' goods exports to the world, by exporting economy, 2017–21.

In millions of dollars and percentages. ** = rounds to zero. F.S. Micronesia = the Federated States of Micronesia. N. Mariana Islands = the Northern Mariana Islands.

Economy	2017 (million \$)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	Annual average share, 2017–21 (%)	Percentage change, 2017–21 (%)
Papua New Guinea	10,545	11,087	11,771	9,952	11,860	66.8	12.5
New Caledonia	1,634	2,103	1,789	1,835	1,978	11.3	21.0
The Marshall Islands	647	762	964	765	1,499	5.6	131.7
Fiji	654	588	602	595	637	3.7	-2.6
The Solomon Islands	842	918	708	543	526	4.3	-37.5
American Samoa	346	446	379	424	338	2.3	-2.1
Vanuatu	164	178	152	190	280	1.2	70.6
Nauru	23	16	39	116	208	0.5	801.5
F.S. Micronesia	101	135	157	146	196	0.9	93.9
French Polynesia	189	205	146	72	147	0.9	-22.0
Tuvalu	9	33	21	13	128	0.2	1,305.3
Kiribati	174	146	123	101	103	0.8	-40.8
Samoa	38	32	35	44	32	0.2	-15.9
The Cook Islands	46	44	31	28	32	0.2	-32.0
Guam	19	22	26	14	26	0.1	35.9
Tokelau	72	40	14	40	24	0.2	-66.5
Tonga	14	12	13	9	14	0.1	0.9
Niue	54	132	64	80	7	0.4	-86.9
Palau	26	31	24	14	6	0.1	-77.6
N. Mariana Islands	5	4	4	3	3	**	-45.9
The Pitcairn Islands	1	2	1	1	1	**	23.4
Wallis and Futuna	1	**	2	2	1	**	-34.5
Total	15,603	16,935	17,064	14,987	18,044	100.0	15.6

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Note: These data on exports are constructed using global imports from the Pacific Island economies from HS chapters 1 through 97 only. The Pacific Island economies are shown in descending order of exports in 2021.

Leading Global Destinations for Pacific Island Exports

The three leading destinations for Pacific Island exports in 2021 were China, Japan, and the European Union (EU) (table 3.2). Asian destinations close to the Pacific Islands were particularly important for exports. China was the destination for about a quarter of these exports. Asian destinations among the top 10 (including China and Japan) accounted for an average of 60.7 percent of the regional total during 2017–21. Ranking fourth in 2021 but third overall for the period, Australia was also a particularly important destination market. The United States was the seventh-largest market for the Pacific Island exports in 2021.

Table 3.2 Pacific Island economies' goods exports, by leading destination market, 2017–21

In millions of dollars and percentages.

Destination market	2017 (million \$)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	Annual average share, 2017–21 (%)	Percentage change, 2017–21 (%)
China	3,473	4,652	4,665	3,821	4,392	25.4	26.5
Japan	2,885	2,803	3,073	2,419	3,392	17.6	17.6
European Union	1,607	1,671	1,570	1,642	2,462	10.8	53.2
Australia	2,762	2,853	3,023	2,523	1,892	15.8	-31.5
South Korea	555	860	863	844	1,414	5.5	154.5
Taiwan	1,000	830	939	791	906	5.4	-9.4
United States	792	807	779	808	773	4.8	-2.4
Thailand	533	550	586	484	657	3.4	23.4
Singapore	255	259	201	307	442	1.8	73.0
Philippines	398	280	206	182	260	1.6	-34.6
All other markets	1,343	1,371	1,161	1,163	1,455	7.9	8.3
Total	15,603	16,935	17,064	14,987	18,044	100.0	15.6

Sources: S&P Global, GTAS, accessed May 30, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Note: These data on exports are constructed using global imports from the Pacific Island economies from HS chapters 1 through 97 only. The destination markets are shown in descending order of exports in 2021.

As mentioned above, total goods exports from the Pacific Island region increased by \$2.4 billion from 2017 to 2021, disrupted only in 2020 by the COVID-19 pandemic (table 3.2). Exports to China increased by \$919 million, the largest absolute increase between 2017 and 2021; however, the recovery in 2021 did not boost exports to 2018 and 2019 levels. Exports to Australia decreased by \$870 million during the period, the largest absolute decrease, after peaking in 2019, then dropping in 2020 and failing to recover in 2021 to levels experienced during 2017–19. Exports to South Korea increased by \$858 million, representing the largest percentage increase among top 10 destinations, between 2017 and 2021.

Global Pacific Island Exports by Leading Harmonized System Chapters

The types of goods exported from the Pacific Islands generally include semi-processed or processed goods from inputs sourced from extraction, fisheries, and certain agricultural inputs (table 3.3). Measured at the Harmonized System (HS) chapter level, 92.8 percent of all goods exported from the Pacific Island economies were classified under 10 HS chapters during 2017–21. These exports classified under the top three HS chapters—representing (1) fuels and oils, (2) precious metals, and (3) ores—each averaged more than \$1 billion annually during 2017–21 and together contributed more than 50 percent of total exports during the period. Despite little or no production of modern ships, boats, and floating structures in the region, data for goods exports show that products classified in chapter 89, ships, boats, and floating structures, were among the leading goods exported, though this predominantly represents the value of vessels registered—not manufactured—in the Pacific Islands (see box 3.1).

Table 3.3 Pacific Island economies' goods exports to the world, by leading products, 2017–21

In millions of dollars and percentages. — = not applicable.

HS chapter description	HS chapter	2017 (million \$)	2018 (million \$)	2019 (million \$)	2020 (million \$)	2021 (million \$)	Annual average share, 2017–21 (%)	Percentage change, 2017–21 (%)
Fuels, oils, and their distillations	27	4,850	4,990	5,592	4,198	5,921	30.9	22.1
Pearls, precious stones, and precious metals	71	2,336	2,420	2,775	2,558	1,991	14.6	-14.8
Ores, slag, and ash	26	1,337	1,437	1,565	1,571	1,879	9.4	40.5
Ships, boats, and floating structures	89	532	801	843	704	1,605	5.4	201.7
Wood and wood articles	44	1,391	1,638	1,272	1,061	1,074	7.8	-22.8
Fats and oils	15	730	643	544	627	1,028	4.3	40.8
Nickel and nickel articles	75	715	926	837	800	948	5.1	32.6
Fish, crustaceans, and other seafood	03	940	967	929	784	892	5.5	-5.1
Iron and steel	72	816	1,116	940	868	849	5.6	4.0
Edible preparations of meat, fish, and other seafood	16	608	709	695	779	671	4.2	10.3
All other products	—	1,347	1,288	1,073	1,036	1,186	7.2	-11.9
Total	—	15,603	16,935	17,064	14,987	18,044	100.0	15.6

Sources: S&P Global, GTAS, accessed May 30, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Note: These data on exports are constructed using global imports from the Pacific Island economies from HS chapters 1 through 97 only. The HS chapters are shown in descending order of exports in 2021.

Box 3.1 Where Are Those Boats Coming From? Trade and Open Vessel Registration Classified Under Harmonized System Chapter 89

Harmonized System (HS) chapter 89 classifies ships, boats, and floating structures. It covers cruise ships, excursion boats, ferry-boats, container ships, cargo ships, barges, fishing vessels, yachts, tankers, tugs, sailboats, and other vessels.

The value reported for Pacific Island exports of such goods is large, especially given the lack of evidence that ships, boats, or floating structures of modern design and construction are being produced in the region. Trade in those goods is likely related to Pacific Island economies that operate open vessel registration, or "flagging," services in the region, most prominently in the Marshall Islands.

In general, the United Nations Convention on the Law of the Sea (UNCLOS) requires that ships must be registered with a country, often called the ship's "flag state." The requirement that ships be registered with a flag state derives from customary international law that was codified in UNCLOS through the requirement that "ships shall sail under the flag of one State only . . ." and that ships without a flag state would be subject to boarding and inspection on the high seas.^a Vessels must operate under the laws and regulations of the country to which they are registered. Vessels' owners pay initial registration

fees and other annual fees related to services, such as required inspections, provided by the flag state or their agent, thus generating revenue for the flag state’s government.

Among the 22 Pacific Island economies, the International Transport Workers’ Federation (ITF) identified five as flags of convenience (FOC) or open registry countries.^b These are the Cook Islands (189 registered vessels), the Marshall Islands (4,042 vessels), Palau (304 vessels), Tonga (32 vessels), and Vanuatu (331 vessels). The Marshall Islands has the third-largest vessel registry globally, which comprises 1,879 bulk carriers, 276 container ships, 1,023 oil tankers, 62 general cargo ships, and 802 other ships.^c The Marshall Islands registry is reportedly desirable because the Marshall Islands have participated in the U.S. Coast Guard Qualship 21 program for more than 20 years. The aim of the Qualship 21 program is to eliminate substandard shipping and identify poor-quality vessels.^d

Trade data reflect that, during 2017–21, \$45.7 billion in goods were imported under HS chapter 89 into the Marshall Islands, primarily from major shipbuilding and exporting countries South Korea, China, and Japan. During the same period, trade data also reflect that the Marshall Islands’ exports of goods under HS chapter 89 were nearly \$3.8 billion (83.9 percent of the Pacific Island regional total value).^e Given the extensive vessel registration in the Marshall Islands, this trade is likely related to open vessel registration services. The Marshall Islands’ vessel registration rules require a qualified owner, demonstrated by proof of title and bill of sale.^f The bill of sale is likely reported to authorities in the shipbuilding country and recorded by the shipbuilding country as an export to the Marshall Islands, where the vessel is registered. This is the case even if the ship is not actually transported from the shipbuilding country to the Marshall Islands. If a vessel that was previously registered in the Marshall Islands is reregistered in another country, this may be recorded as an export from the Marshall Islands.^g

^a UNCLOS, Pt. VII, Art. 92. Requirements for registering vessels vary by country. The strictest countries register only vessels owned by companies or persons that are residents of that country; these registries are often called “traditional” or “national” registries. The least strict countries register vessels owned by companies or persons from many countries; these registries are often called “open” registries and in some cases referred to as “flags of convenience.” No strict definition separates open registry from flags of convenience. The difference often appears to be related to the level of regulation imposed and enforced by the flag state. Law Offices of Charles D. Naylor, “What Is a Flag of Convenience and Is It Needed?” February 22, 2019; United Nations: Oceans and Law of the Sea, “Overview - Convention and Related Agreements,” July 13, 2022; HG.org Legal Resources, “Ship Registration Law,” accessed July 12, 2023.

^b Open registry and flags of convenience are not necessarily synonymous. Although a flag of convenience is generally associated with an open registry system, not all open registry systems are necessarily referred to as flags of convenience. Although the ITF FOC list, in 2009, included the Cook Islands, Kiribati, Tuvalu, and Vanuatu, it did not include the Marshall Islands, which began its open registry in 1990. International Registries Inc., “The Marshall Islands Registry,” accessed May 24, 2023; Carlisle and Rodney, “Second Registers: Maritime Nations Respond to Flags of Convenience, 1984–1998,” July 2009, 320–321; ITF Seafarers, “Current Registries Listed as FOCs,” accessed June 14, 2023; ITF Seafarers, “FOCs: About Flags of Convenience,” accessed June 14, 2023.

^c CIA, “Field Listing—Merchant Marine,” accessed June 14, 2023.

^d In January 2001, the U.S. Coast Guard implemented the Qualship 21 program to identify high-quality ships and provide incentives to encourage quality operations. To be enrolled in the program, the ship’s country of registry must qualify for the program. Industry representatives, interview by USITC staff, January 13, 2023; United States Coast Guard, Port State Control Division (CG-CVG-2), “Qualship 21 Initiative,” accessed June 14, 2023.

^e S&P Global, GTAS; accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

^f Government of the Marshall Islands, “Vessel Registration and Instrument Recording MI-100,” January 2023; industry representatives, interview by USITC staff, January 13, 2023.

^g Changing the registration, or “re-flagging,” of an older vessel likely creates the same transaction as flagging a new vessel because the vessel ownership must be “transferred” from an owner registered with the Marshall Islands, for example, to an owner registered with another country. International Registries Inc., “The Marshall Islands Registry,” accessed May 24, 2023.

Exports classified under most of the top 10 HS chapters increased during 2017–21. The three chapters under which exports decreased, however, are HS chapter 71, pearls, precious stones, and precious metals (–\$346 million); HS chapter 44, wood and wood articles (–\$317 million);²²⁹ and HS chapter 03,

²²⁹ Most wood and wood products are exported to China. Several Pacific Island economies have experienced illegal logging. Nicholas, “The \$3bn Bargain,” May 30, 2021; Beck, “Logging is Corrupting These Islands,” January 3, 2020.

fish, crustaceans, and other seafood (–\$48 million). These decreases were, however, offset by large increases under two other chapters: HS chapter 27, fuels, oils, and their distillations (\$1.1 billion) and HS chapter 89, ships, boats, and floating structures (\$1.1 billion). Three other chapters with large percentage increases are HS chapter 15, fats and oils; HS chapter 26, ores, slag, and ash; and HS chapter 75, nickel and nickel articles.

Leading Global Pacific Island Goods Exports by HS 6-Digit Subheadings

For goods classified at the HS 6-digit subheading level, high-value trade flows involved a limited number of goods and Pacific Island economies. Fifteen HS subheading product categories each had a total export value exceeding \$1 billion during 2017–21. Exports in these 15 subheadings had a combined total of \$68.8 billion and represented 83.2 percent of all exports. The top five export product subheadings were in mining or extractive industries. Each made up 4.8 percent or more of total exports; they were HS subheadings 2711.11–natural gas (\$19.9 billion, 24.0 percent), HS subheading 7108.12–gold (\$11.2 billion, 13.5 percent), HS subheading 7202.60–ferronickel (\$4.5 billion, 5.4 percent), HS subheading 7501.20–nickel oxide sinters and other intermediate nickel products (\$4.2 billion, 5.1 percent), and HS subheading 2603.00–copper ores and concentrates (\$4.0 billion, 4.8 percent).²³⁰

The largest—and for the most part, the only—exporter of natural gas (HS subheading 2711.11) was Papua New Guinea.²³¹ Its top three export destinations during 2017–21 were Japan (nearly \$9 billion, 45.1 percent), China (\$6.5 billion, 32.8 percent), and Taiwan (\$3.6 billion, 18.2 percent). Overall, the value of Papua New Guinea’s natural gas shipments increased by 32.0 percent between 2017 and 2021.²³²

Papua New Guinea also led in gold (HS subheading 7108.12) exports valued at \$10.9 billion during the five-year period, representing 97.3 percent of regional exports. Other smaller exporters of gold included Fiji (\$288 million during all five years), Nauru (\$1 million in 2018), and the Solomon Islands (\$8 million total in 2017 and 2021). The value of gold exports from Papua New Guinea peaked at nearly \$2.6 billion in 2019 and was lowest at \$1.7 billion in 2021. Most of Papua New Guinea’s gold exports during the five-

²³⁰ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheadings 2711.11, 7108.12, 7202.60, and 2603.00.

²³¹ A very small amount of natural gas reportedly shipped from American Samoa to Samoa in 2019. S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 2711.11.

²³² S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 2711.11.

year period were destined for Australia (\$10.4 billion, 96.0 percent) with the remainder going mostly to Italy (\$315 million, 2.9 percent).²³³

New Caledonia was the only exporter of ferronickel (primarily used in the manufacture of stainless steel) (HS subheading 7202.60). Ferronickel exports totaled nearly \$4.5 billion during 2017–21. Export value peaked in 2018 at a little less than \$1.1 billion and was a little more than \$792 million in 2017. During the five-year period China was the leading destination market, with \$2.8 billion, or 61.3 percent of the total. Taiwan was the second-largest destination market (\$439 million, 9.8 percent), followed by Japan (\$329 million, 7.3 percent), Spain (\$237 million, 5.3 percent), and the United States (\$216 million, 4.8 percent).²³⁴

During 2017-21, the Pacific Islands region had two large exporters of nickel oxide sinters and other intermediate nickel products (HS subheading 7501.20): Papua New Guinea (\$2.5 billion, 59.8 percent) and New Caledonia (\$1.7 billion, 40.2 percent). Of the five-year total, 93.6 percent was exported to China, with 97.0 percent to China in 2021.²³⁵ Export value peaked at nearly \$950 million in 2021 and was the lowest in 2017 at \$715 million.²³⁶

Copper ores and concentrates (HS subheading 2603.00) were exclusively exported from Papua New Guinea, with most of the five-year total of nearly \$4.0 billion going to Japan (\$2.4 billion, 60.9 percent). Annual export values ranged from \$743 million in 2020 to \$875 million in 2021. Other leading destinations included South Korea (\$672 million), China (\$391 million), and Germany (\$254 million).²³⁷

²³³ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 7108.12.

²³⁴ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 7202.60.

²³⁵ Nickel oxide sinters are used in steel making to improve resistance to corrosion, improve strength, reduce the coefficient of expansion, and increase elasticity. OEC, “Nickel Oxide Sintors, Intermediate Nickel Products,” accessed August 7, 2023.

²³⁶ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 7501.20.

²³⁷ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 2603.00.

Pacific Island Goods Exports to the United States

The United States was among the leading destinations for Pacific Island regional exports during 2017–21.²³⁸ During this period, overall goods exports to the United States fell slightly and Pacific Island exports to the world increased. Pacific Island exports to the United States decreased by \$18.7 million from 2017 to 2021 (table 3.4) or 2.4 percent, compared to the 15.6 percent growth of Pacific Island exports to all destinations. Large export increases to the United States from French Polynesia (\$27.2 million) and Fiji (\$19.0 million) were offset by larger decreases from Papua New Guinea (\$45.6 million) and New Caledonia (\$20.1 million). Though total Pacific Island exports globally decreased from 2019 to 2020, during the first year of the COVID-19 pandemic, exports to the United States increased by \$29.4 million, making 2020 exports to the United States the largest of the five-year period. This was facilitated by a \$53.1 million increase in exports from American Samoa, driven by increased U.S. demand for canned tuna.

Pacific Island economies' exports to the United States were highly concentrated by exporting economy. The top three exporting economies during 2017–21—American Samoa, Fiji, and Papua New Guinea — accounted for 83.3 percent of all Pacific Islands' export value to the United States (table 3.4). Exports from American Samoa largely consisted of prepared and preserved tuna classified under HTS subheading 1604.14 (99.5 percent). Exports from Fiji included mostly water classified under HTS subheading 2201.90 (46.8 percent) and prepared and preserved tuna classified under HTS subheading 1604.14 (30.5 percent). Goods exported to the United States from Papua New Guinea were mostly coffee classified under HTS subheading 0901.11 (52.2 percent) and cocoa beans classified under HTS subheading 1801.00 (23.8 percent).

French Polynesia, the fifth-largest exporter to the United States based on annual average share (table 3.4), primarily exported artwork under Chapter 97 (38.0 percent), pearls and other precious stones and metals under Chapter 71 (25.8 percent), and fresh fishery products under Chapter 3 (24.9 percent). New Caledonia and the Marshall Islands, the fourth- and sixth-largest exporters to the United States, are covered later in this chapter. The 16 smallest exporters to the United States, each with less than 1 percent of the regional total, combined to supply just 4.3 percent of all exports from the Pacific Islands to the United States during 2017–21. Exports from these smallest exporters decreased from a 2019 peak of \$39 million to less than \$31 million in 2021 (a drop of \$8 million or 20.8 percent).²³⁹ Combined, the largest exports to the United States from these 16 smallest exporters included fisheries products under Chapter 3 (15.6 percent of the five-year total), oil seeds under Chapter 12 (14.8 percent),²⁴⁰ and machinery under Chapters 84 and 85 (11.7 percent and 10.0 percent, respectively). The leading exporters of fisheries products under Chapter 3 during 2017–21 were Kiribati (nearly \$10.0 million, 37.7 percent of total), Tonga (\$5.8 million, 21.8 percent), and Vanuatu

²³⁸ All values in the text of this section refer to five-year totals, unless otherwise specified. S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²³⁹ The differences between the largest and smallest exporters globally and to the United States are few. The Solomon Islands was among the top six global exporters in the Pacific Island region but was replaced by French Polynesia among the top six Pacific Island exporters to the United States.

²⁴⁰ See the Virgin Coconut Oil sector profile in chapter 6.

(\$4.7 million, 17.6 percent).²⁴¹ Vanuatu was the leading exporter of oil seeds (\$21.4 million, 85.4 percent of total). The largest exporters of machinery under Chapters 84 and 85 were Nauru (\$11.1 million, 30.2 percent of total), Guam (\$8.8 million, 24.0 percent), and Samoa (\$4.3 million, 11.7 percent).

Table 3.4 Pacific Island economies' goods exports to the United States, by exporting economy, 2017–21.

In thousands of dollars and percentages. ** = round to zero. F.S. Micronesia = the Federated States of Micronesia. N. Mariana Islands = the Northern Mariana Islands.

Economy	2017 (thousand \$)	2018 (thousand \$)	2019 (thousand \$)	2020 (thousand \$)	2021 (thousand \$)	Annual average share, 2017–21 (%)	Percentage change, 2017–21 (%)
American Samoa	308,378	377,029	352,538	405,655	304,864	44.2	-1.1
Fiji	217,711	217,293	243,670	220,540	236,731	28.7	8.7
French Polynesia	45,641	31,479	27,116	16,818	72,826	4.9	59.6
Papua New Guinea	116,663	80,692	66,032	78,240	71,120	10.4	-39.0
New Caledonia	63,408	54,630	42,445	29,297	43,302	5.9	-31.7
The Marshall Islands	7,748	9,728	7,982	26,714	13,413	1.7	73.1
Samoa	4,547	6,730	6,969	4,669	8,769	0.8	92.8
Vanuatu	5,298	6,919	6,027	5,082	6,245	0.7	17.9
Guam	4,128	4,243	5,061	2,986	3,932	0.5	-4.8
Tonga	3,103	2,517	4,477	2,335	2,509	0.4	-19.1
Nauru	1,412	2,621	4,015	3,691	2,205	0.4	56.1
F.S. Micronesia	668	717	1,304	2,345	1,779	0.2	166.2
The Solomon Islands	3,155	4,045	5,102	3,271	1,747	0.4	-44.6
The Cook Islands	2,785	698	447	2,419	1,055	0.2	-62.1
Kiribati	3,403	2,532	2,439	1,051	892	0.3	-73.8
Niue	52	328	304	602	662	**	1,166.2
Palau	458	1,064	1,391	428	454	0.1	-0.8
Tuvalu	125	77	107	41	281	**	125.2
Tokelau	1,581	3,050	1,142	918	218	0.2	-86.2
N. Mariana Islands	1,623	596	292	336	177	0.1	-89.1
Wallis and Futuna	19	15	42	738	43	**	132.9
The Pitcairn Islands	34	16	3	94	4	**	-88.7
Total	791,939	807,018	778,903	808,272	773,226	100.0	-2.4

Sources: USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Note: These data on exports are constructed using global imports from the Pacific Island economies from HS chapters 1 through 97 only. The Pacific Island economies are shown in descending order of exports in 2021.

Pacific Island Exports to the United States by Leading Product Categories

Although Pacific Island exports to other destination markets consist largely of extractive commodities, the top exports to the United States include agriculture-, fishery-, and natural resource-based goods. At the HTS 6-digit subheading level, top exports to the United States include tuna, water, ferronickel,

²⁴¹ These values represent five-year totals. S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

coffee, cocoa, parts of plants, and artwork (table 3.5).²⁴² The top 10 exports under those subheadings to the United States represented 86.0 percent of all Pacific Islands exports to the United States during 2017–21. The leading export was prepared and preserved tuna, mostly from American Samoa, while fresh and chilled tuna (yellowfin and big eye) were also in the top 10. Water was the second-largest export, consisting primarily of the Fiji Water brand from Fiji. Together, canned tuna and water account for two-thirds, or 66.4 percent, of regional exports to the United States.

Table 3.5 Pacific Island economies' goods exports to the United States, by leading products and HTS subheading, 2017–21

In thousands of dollars and percentages. — = not applicable.

HTS subheading description	HTS subheading	2017 (thousand \$)	2018 (thousand \$)	2019 (thousand \$)	2020 (thousand \$)	2021 (thousand \$)	Annual average share, 2017–21 (%)	Percentage change, 2017–21 (%)
Prepared or preserved tunas, skipjack, and bonito	1604.14	373,799	445,541	422,631	490,264	366,501	53.0	-2.0
Non-mineral or non-aerated water	2201.90	101,496	109,058	114,795	86,050	120,144	13.4	18.4
Paintings, drawings, and pastels	9701.10	19,590	538	166	168	45,320	1.7	131.3
Coffee	0901.11	43,143	50,265	41,747	37,185	43,176	5.4	0.1
Ferronickel	7202.60	60,621	50,326	38,794	25,564	41,131	5.5	-32.1
Plants and parts of plants used in perfumery, pharmacy, or pesticides	1211.90	10,816	16,313	16,235	18,745	19,262	2.1	78.1
Cocoa beans	1801.00	21,193	17,340	10,783	29,855	19,124	2.5	-9.8
Turmeric	0910.30	1,670	1,785	2,269	5,403	9,376	0.5	461.4
Fresh or chilled yellowfin tunas	0302.32	8,930	9,003	9,729	3,561	9,048	1.0	1.3
Fresh or chilled big eye tunas	0302.34	7,020	7,803	7,570	5,489	9,048	0.9	28.9
All other products	—	143,663	99,045	114,187	105,988	91,095	14.0	-36.6
Total	—	791,939	807,018	778,903	808,272	773,226	100.0	-2.4

Sources: USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Note: These data on exports are constructed using global imports from the Pacific Island economies ("constructed export statistics") from HS chapters 1 through 97 only. The top HTS subheadings are shown in descending order of exports in 2021.

²⁴² The top five exports to the United States by annual average share between 2017 and 2021 (see table 3.5) are profiled below. In this section, product categories at the 6-digit level are referred to using HTS rather than HS. At the 6-digit level, the HTS and HS product descriptions are the same. HTS is used because these data represent exports to the United States and are derived from U.S. trade data.

Growth from 2017 to 2021 among the top 10 Pacific Island HTS subheading exports was varied and sometimes sporadic. Turmeric was the fastest growing Pacific Island export to the United States among the top 10 and grew consistently during the period. Hand-executed artwork had the second-fastest growth from 2017 to 2021, but exports were sporadic and very small between 2017 and 2021. Exports of parts of plants had the third-highest growth rate and consistently increased during the period. Exports of canned tuna decreased 2.0 percent from 2017 to 2021 but grew substantially from 2017 to 2020 (31.2 percent).

Tuna

Ocean-based resources are a vital source of production, consumption, employment, government revenue, and exports for many Pacific Island economies. Some of the most important tuna fisheries are contained within Pacific Island exclusive economic zones, and tuna made up most of the fish and seafood exports from the Pacific Islands to the United States. These exports consisted mostly of prepared and preserved tuna and bonito classified under HTS subheading 1604.14.²⁴³

Tuna exports from the Pacific Islands averaged \$443 million and accounted for 97.7 percent of average total fisheries export to the United States by value during 2017–21 (table 3.5). Prepared and preserved tuna and bonito (“canned tuna”) increased from \$374 million in 2017 to \$490 million in 2020 (31.2 percent) but decreased to \$367 million in 2021 (25.2 percent), ending the period 2.0 percent less than the value in 2017.

Exports to the United States accounted for 61.5 percent of all canned tuna exports from all Pacific Island economies. Exports to the United States from American Samoa averaged \$348 million annually and accounted for 82.9 percent of the Pacific Islands region’s canned tuna exports to the United States. The remaining amount was from Fiji and the Solomon Islands. Canned tuna exports from the Pacific Islands accounted for 29.5 percent of all U.S. imports of canned tuna. American Samoa accounted for 24.5 percent of total U.S. canned tuna imports, Fiji for 4.9 percent, and the Solomon Islands for less than 1 percent.²⁴⁴ StarKist, a South Korean–based company, owns the only operating tuna cannery on American Samoa; all other canneries on American Samoa closed between 2007 and 2018.²⁴⁵ The StarKist tuna cannery is the largest private employer and the second-largest employer overall on American Samoa and had about 2,250 employees in 2021.²⁴⁶

Water

Water exports, classified under HTS heading 2201, from the Pacific Island economies to the United States were exclusively from Fiji and likely exported primarily by U.S. company Fiji Water. These exports averaged \$107 million during 2017–21, increasing from \$102 million in 2017 to \$115 million in 2019 (13.3 percent). Water exports, however, dropped to \$87 million in 2020 (a decline of 24.7 percent from 2019) but then increased to \$120 million in 2021, 39.3 percent above the 2020 level and 18.8 percent

²⁴³ HTS subheadings that include tuna are 0302.31, 0302.32, 0302.34, 0303.42, 0303.44, 0304.87, and 1604.14. For detailed information on factors affecting Pacific Island tuna exports to the United States, see chapter 6.

²⁴⁴ S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁴⁵ GAO, *American Samoa*, June 2020, 25.

²⁴⁶ Sagapolutele, “StarKist Comments on Efforts to Help out Workforce during Pandemic,” April 25, 2022; GAO, *American Samoa*, June 2020, 19.

above the 2017 level. Nearly all water exports to the United States were classified under HTS subheading 2201.90 (water, other than mineral or aerated water).²⁴⁷

The Fiji Water operations and brand have been owned by the California-based Wonderful Company since 2004.²⁴⁸ The plant originally opened in 1996 and in 2010 (latest data available) reportedly employed 400 workers.²⁴⁹ Although Fiji Water is largely viewed as a premium bottled water in the United States,²⁵⁰ the broader U.S. bottled water market is estimated to be valued at \$15 billion, with Fiji Water estimated to account for \$150 million of U.S. sales (a 1 percent share), and well behind leading domestically produced brands such as Dasani, Niagara, and Aquafina.²⁵¹

The Fiji Water company is economically important in Fiji, accounting for 17.8 percent of all exports from Fiji during 2017–21 and about 3 percent of GDP.²⁵² Between 2008 and 2010, the company and the Fijian government engaged in a dispute over how much tax the company should pay on the water that it exported. The Fijian government increased the export tax paid from 3.96 Fijian cents (about \$0.02) per 12-liter carton to 180 Fijian cents (about \$0.81).²⁵³ At the current tax rate, the average annual exports of about 315 million liters to the United States during 2017–21 would generate about \$21 million in annual revenue for the Fijian government.²⁵⁴

Ferronickel and Other Nickel Products

New Caledonia was the third-leading global nickel producer by volume in 2017, falling to fourth by 2021. At the end of 2017, the New Caledonian nickel industry employed more than 6,000 people, with 89 percent in mining and metallurgy and the remainder in associated industries.²⁵⁵ Ferronickel is a ferroalloy of about 35 percent nickel and 65 percent iron.²⁵⁶ The primary uses of ferronickel include

²⁴⁷ A small but growing share of U.S. imports of mineral and aerated waters that entered under HTS subheading 2201.10 were from Fiji. Imports under this HTS subheading increased from \$8,000 in 2017 to nearly \$470,000 in 2021. S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023, HTS subheading 2201.10.

²⁴⁸ David Gilmour, a Canadian businessman, began investing in luxury hotels in Fiji in the late 1960s and founded Fiji Water in 1994. The Wonderful Company, currently owned by Stewart and Lynda Resnick, also owns POM Wonderful (pomegranate juice), Teleflora, Wonderful Halos (mandarins), Wonderful Pistachios, and Justin Vineyards and Winery. *Sydney Morning Herald*, “Hollywood Couple Buys Fiji Water for \$63m,” November 30, 2004; The Wonderful Company, “Who We Are,” accessed June 14, 2023.

²⁴⁹ Dornan, “The Fiji Water Saga,” December 18, 2010.

²⁵⁰ Cision PR Newswire, “FIJI Water Implements New Retail Distribution Model,” July 10, 2018.

²⁵¹ WorldAtlas, “Is Fiji Water Made In Fiji?,” January 19, 2020.

²⁵² S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, “U.S. Trade with Puerto Rico and U.S. Possessions (FT895),” accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 2201.10; Dornan, “The Fiji Water Saga,” December 18, 2010.

²⁵³ Dornan, “The Fiji Water Saga,” December 18, 2010; Wise, “Currency Converter,” accessed June 16, 2023.

²⁵⁴ S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, General Imports, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023, HS subheading 2201.10.

²⁵⁵ Buteyn, *The Mineral Industry of New Caledonia*, February 2022, 20.1.

²⁵⁶ AZO Materials, “Ferronickel - Properties, Applications,” August 21, 2013; USGS, National Minerals Information Center, “Nickel Statistics and Information,” accessed April 25, 2023.

production of cryogenic steels, stainless steels, superalloys, ultrahigh-strength steels, and wrought steels; the largest use is in stainless steel production.²⁵⁷

New Caledonia is the only Pacific Island exporter of ferronickel classified under HS subheading 7202.60. Although ferronickel was a leading export from New Caledonia to the United States, exports to the United States represented only 4.8 percent of New Caledonia's total ferronickel exports during 2017–21.

In 2017, the United States consumed about 38,600 tons of ferronickel, of which more than 99 percent was used in stainless and heat-resistant steels, representing about 8.0 percent of U.S. nickel consumption used in these types of steel and about 5.7 percent of total U.S. nickel consumption.²⁵⁸ On a nickel content basis, globally, about 65 percent of nickel is used in the production of austenitic stainless steel;²⁵⁹ 12 percent is used for superalloys in the production of turbine blades and discs and other critical parts of jet engines; and the remaining 23 percent goes into various uses, including rechargeable batteries, catalysts and other chemicals, coinage, foundry products, and plating.²⁶⁰ The United States does not produce ferronickel.²⁶¹

New Caledonia's ferronickel exports to the United States decreased from \$61 million in 2017 to less than \$26 million in 2020 (a drop of 57.8 percent) and then increased to \$41 million in 2021 (by 60.9 percent) for a 32.1 percent decrease from the 2017 level. New Caledonia contributed 19.8 percent of all U.S. imports of ferronickel classified under HTS 7202.60.²⁶² Nickel demand, both globally and in the United States, is expected to increase with the growth of electric vehicles.²⁶³ For additional detail on New Caledonia's nickel industry and potential exports to the United States, see chapter 6.

Coffee

Coffee classified under HTS subheading 0901.11—unroasted and not decaffeinated—was the fourth-largest export from the Pacific Island economies to the United States during 2017–21. As with the other leading products described above, these exports are mostly from one source. In this case, Papua New Guinea supplied more than 99 percent of regional exports of coffee to the United States during 2017–21.

Papua New Guinea is among the top 25 global producers of green (unroasted) coffee.²⁶⁴ Green coffee production in Papua New Guinea averaged 45,650 metric tons annually during 2017–21.²⁶⁵ Other Pacific

²⁵⁷ Schulte, *2018 Minerals Yearbook: Ferroalloys [Advance Release]*, August 2022, 25.3.

²⁵⁸ These data were reported as 13,500 tons on a nickel-content basis, which represents about 38,600 tons of ferronickel at 35 percent nickel content. USGS, *2018 Minerals Yearbook: Nickel [Advance Release]*, August 2023, 51.10.

²⁵⁹ Austenitic stainless steels contain significant amounts of chromium and nickel. It is the most widely used stainless steel in industrial markets. Olsen, "What Is Austenitic Stainless Steel?," December 1, 2020.

²⁶⁰ USGS, National Minerals Information Center, "Nickel Statistics and Information," accessed April 25, 2023.

²⁶¹ Schulte, *2018 Minerals Yearbook: Ferroalloys [Advance Release]*, August 2022, 25.3.

²⁶² S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁶³ USGS, "Mineral Commodity Summaries: Nickel 2023," 2023.

²⁶⁴ UN, FAO, "FAOSTAT," accessed August 10, 2023.

²⁶⁵ UN, FAO, "FAOSTAT," accessed August 10, 2023.

Island economies that produce coffee include Vanuatu, French Polynesia, Tonga, Fiji, Samoa, New Caledonia, and the Cook Islands, though none produced more than 40 metric tons annually.²⁶⁶

Papua New Guinea is the leading exporter of unroasted coffee classified under HTS subheading 0901.11 among the Pacific Island economies, with global exports averaging \$159 million during 2017–21 and representing more than 99 percent of total regional unroasted coffee exports. Unroasted coffee was Papua New Guinea’s 12th-largest export at the 6-digit HTS level during 2017–21. Papua New Guinea’s exports to the United States averaged \$43 million during 2017–21, 27.2 percent of Papua New Guinea’s global total. Papua New Guinea and other Pacific Island exporters accounted for less than 1 percent of all U.S. imports classified under HTS subheading 0901.11. Other leading export destinations for Papua New Guinea’s coffee included Germany (\$40 million, 25.4 percent) and Australia (\$24 million, 14.9 percent).²⁶⁷

The total value of Papua New Guinea’s global unroasted coffee exports decreased from \$184 million in 2017 to \$127 million in 2020 (–30.9 percent), then increased to \$173 million in 2021 (35.8 percent), but were still below the 2017 level by 6.1 percent in 2021. Exports to the United States varied over the period, from a high of \$50 million in 2018 and dropping to a low of \$37 million in 2020.²⁶⁸

Though Papua New Guinea’s coffee exports represent only a small fraction of its total exports, the impact of these exports on rural areas, where about 87 percent of Papua New Guinea’s population lives, is much larger.²⁶⁹ Unroasted coffee represents only 1.4 percent of Papua New Guinea’s total export value. Most production is by smallholder farmers with less than two hectares of production. More than 450,000 households supporting 3.3 million people grow coffee.²⁷⁰ For additional detail on the Pacific Island coffee industry and the potential for coffee exports to the United States, see chapter 6.

Cocoa

Cocoa classified under HTS subheading 1801.00—beans, whole or broken, raw or roasted—was the fifth-largest export from the Pacific Island economies to the United States. The source of these exports is highly concentrated, and Papua New Guinea supplied more than 99 percent of all cocoa bean exports from the Pacific Island economies to the United States during 2017–21.

Papua New Guinea is the 11th-largest producer of cocoa beans globally, unofficially harvesting an annual average of 37,180 metric tons of cocoa beans during 2017–21.²⁷¹ The next-largest producer among Pacific Island economies was the Solomon Islands with annual average production of 4,600 metric tons of cocoa bean production during this period.²⁷² Other Pacific Island economies with cocoa bean production include Vanuatu, Samoa, Fiji, and the Federated States of Micronesia.²⁷³

²⁶⁶ UN, FAO, “FAOSTAT,” accessed August 10, 2023.

²⁶⁷ S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁶⁸ S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁶⁹ World Bank, “World Bank Open Data,” accessed August 4, 2023.

²⁷⁰ Motteux, “A Guide to Papua New Guinea’s Coffee Sector,” December 13, 2021; Mercanta, “The Rich Volcanic Island of Papua New Guinea,” accessed April 26, 2023; Keenan, “Papua New Guinea,” February 26, 2014.

²⁷¹ UN, FAO, “FAOSTAT,” accessed August 10, 2023.

²⁷² UN, FAO, “FAOSTAT,” accessed August 10, 2023.

²⁷³ UN, FAO, “FAOSTAT,” accessed August 10, 2023.

Papua New Guinea is the leading exporter of cocoa beans among the Pacific Island economies, with global exports averaging \$82 million during 2017–21 and representing nearly 85 percent of total regional cocoa bean exports. Papua New Guinea’s exports to the United States averaged \$19.6 million during 2017–21, 24.0 percent of the Papua New Guinean global total. Cocoa beans from Papua New Guinea and a very small amount from Fiji accounted for a little less than 1.9 percent of all U.S. imports entered under HTS subheading 1801.00. Other leading export destinations for Papua New Guinea’s cocoa beans included Malaysia (\$30 million, 37.0 percent) and Indonesia (\$13 million, 15.8 percent).²⁷⁴

The total value of Papua New Guinea’s cocoa bean exports varied during 2017–21, though the trend appears to be generally increasing. Papua New Guinean global cocoa bean exports were \$82–83 million during 2017–18, decreased to \$63 million in 2019, and then rebounded to \$91–92 million during 2020–21. The value of Papua New Guinea’s exports to the United States varied even more. Similar to global values, the value of these exports to the United States was lowest in 2019 at about \$11 million. The highest value was nearly \$30 million in 2020, with the other three years varying between \$17 million and \$21 million.²⁷⁵

Cocoa exports contribute only a small fraction of the total value of Papua New Guinean exports, but, as with coffee, the impact of these exports on rural areas, where about 85 percent of Papua New Guinea’s population lives, is much larger.²⁷⁶ Cocoa beans represent only 0.7 percent of Papua New Guinea’s total export value, with most cocoa produced by smallholder farmers with less than two hectares of production. More than 150,000 households (more than 1 million people) grow cocoa.²⁷⁷

Pacific Island Services Exports

Services exports from the Pacific Island economies are largely travel-related services. As a result, the COVID-19 pandemic and associated restrictions on the movement of people across international borders represented a considerable disruption to Pacific Island services exports between 2017 and 2021.²⁷⁸ In the pre-pandemic period of 2017–19, services exports from the Pacific Islands grew 0.4 percent annually on average, increasing from \$6.36 billion in 2017 to \$6.40 billion in 2019.²⁷⁹ Because travel accounts for a substantial share of most Pacific Island economies’ services exports, total services trade declined considerably during the pandemic. Between 2019 and 2020, services exports declined by 69.0 percent across all Pacific Island economies and declined an additional 30.5 percent on average from 2020 to

²⁷⁴ S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁷⁵ S&P Global, GTAS, accessed February 28, 2023; USITC DataWeb/Census, accessed June 28, 2023.

²⁷⁶ World Bank, “World Bank Open Data,” accessed August 4, 2023.

²⁷⁷ Sete, “PNG Cocoa Flavours Global Chocolate Trade,” August 10, 2018.

²⁷⁸ Here and throughout the report, services exports refer to commercial service exports which include all types of services exports except government-related services.

²⁷⁹ Totals exclude the Pitcairn Islands, Tokelau, and Wallis and Futuna for all years because data are unavailable. WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021; WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022; American Samoa Department of Commerce, Statistics Division, *American Samoa Statistical Yearbook, 2020*, December 1, 2022, 212; Government of the Cook Islands, Ministry of Finance and Economic Management, *Balance of Payments: 2015–2021*, 2023, 3; Government of Niue, Statistics Niue, *Balance of Payments-Niue*, February 16, 2019.

2021 for islands where data are available.²⁸⁰ Given the major disruption to services exports due to the pandemic, this section focuses primarily on pre-pandemic export trends.

In 2019, major tourist destination Fiji was the largest services exporter among the Pacific Island economies, with \$1.5 billion in services exports (23.6 percent of all services exports by Pacific Island economies for which data are available), followed by Guam (\$1.3 billion, or 20.4 percent) and French Polynesia (\$1.1 billion, or 16.6 percent).²⁸¹ The smallest services exporter, according to available data, was the Marshall Islands, with \$900,000 in services exports (0.01 percent) in 2019 (table 3.6).²⁸² In contrast to global trends, where services exports made up only 24.5 percent of total exports in 2019, in many Pacific Island economies, services exports exceeded goods exports.²⁸³ In particular, comparing table 3.6 to table 3.1 shows that in 2019, services exports were larger than goods exports in the Cook Islands, Fiji, French Polynesia, Guam, the Northern Mariana Islands, Palau, Samoa, Tonga, Tuvalu, and Vanuatu.

²⁸⁰ Data for 2020 are unavailable for Niue, the Pitcairn Islands, Tokelau, and Wallis and Futuna, and the data for 2021 are unavailable for Niue, the Northern Mariana Islands, the Pitcairn Islands, Tokelau, and Wallis and Futuna.

²⁸¹ WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022; WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021.

²⁸² WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022.

²⁸³ WTO, “Merchandise Exports by Product Group,” accessed July 12, 2023; WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022.

Table 3.6 Pacific Island economies' services exports to the world, by economy, 2017–21

In millions of dollars. n.a. = not available. F.S. Micronesia = the Federated States of Micronesia. N. Mariana Islands = the Northern Mariana Islands.

Economy	2017	2018	2019	2020	2021
French Polynesia	915	1,065	1,032	460	447
New Caledonia	371	394	372	189	236
Fiji	1,391	1,538	1,508	341	170
Guam	1,036	1,082	1,312	303	104
Papua New Guinea	257	356	319	102	98
Samoa	241	259	286	78	69
The Cook Islands	304	312	298	66	67
The Solomon Islands	121	138	125	43	44
Tonga	77	87	94	78	40
F.S. Micronesia	48	84	61	32	31
Vanuatu	321	365	334	97	31
Palau	125	116	102	58	15
Nauru	20	19	20	10	14
Tuvalu	11	14	10	6	7
American Samoa	26	25	23	5	4
Kiribati	11	8	10	1	2
The Marshall Islands	22	37	1	1	1
N. Mariana Islands	1,059	634	459	112	n.a.
Niue	8	8	n.a.	n.a.	n.a.
Total	6,364	6,517	6,406	1,984	1,378

Sources: WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021; WTO, "Commercial Services Exports by Sector and Partner-Annual (Million US Dollar)," accessed October 17, 2022; American Samoa Department of Commerce, Statistics Division, *American Samoa Statistical Yearbook, 2020*, December 1, 2022, 212; Government of the Cook Islands, Ministry of Finance and Economic Management, *Balance of Payments: 2015–2021*, 2023, 3; Statistics Niue, *Balance of Payments-Niue*, February 16, 2019; USDOC, "GDP for American Samoa," September 1, 2022; USDOC, "GDP for the Commonwealth of the Northern Mariana Islands (CNMI)," January 31, 2023; USDOC, "GDP for Guam," November 2, 2022; World Bank, "Commercial Service Exports (Current US\$)-Marshall Islands," accessed July 6, 2023; World Bank, "Commercial Service Imports (Current US\$)-Marshall Islands," accessed July 6, 2023.

Notes: Data are unavailable for the Pitcairn Islands, Tokelau, and Wallis and Futuna. Data from Niue and the Cook Islands are converted from New Zealand dollars, using average official yearly exchange rates. World Bank, "Official Exchange Rate New Zealand," 2023.

Official data on services exports by destination are not available for many Pacific Island economies,²⁸⁴ but estimates of bilateral trade flows published in the WTO-OECD Balanced Trade in Services (BaTiS) database suggest that, in 2019, for Pacific Island economies the top services export destinations included the United States, China, Australia, Taiwan, and Thailand.²⁸⁵ Using the BaTiS dataset as a starting point, Pacific Island exports to the United States totaled an estimated \$164 million in 2021, down from a peak of \$906 million in 2019, before the COVID-19 pandemic. In the 2017-2019 pre-pandemic period, these estimates suggest that Pacific Islands services exports to the United States were larger than goods exports (comparing tables 3.4 and 3.7).²⁸⁶ Fiji and French Polynesia represent the top

²⁸⁴ Notably, the U.S. Bureau of Economic Analysis trade-in-services data, commonly used in USITC investigations, does not report cross-border commercial services trade data for any of the Pacific Island economies.

²⁸⁵ WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021.

²⁸⁶ S&P Global, GTAS, accessed November 22, 2022; WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021, and USITC staff calculations using data from the OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021; WTO, "Commercial Services Exports by Sector and Partner," accessed October 17, 2022; American Samoa Department of Commerce, Statistics Division, *American Samoa Statistical Yearbook, 2020*, December 1, 2022, 212; Government of the Cook Islands, Ministry of Finance and Economic Management, *Balance of Payments: 2015–2021*, 2023, 3; Government of Niue, Statistics Niue, *Balance of Payments-Niue*, February 16, 2019, 7.

sources of Pacific Islands' exports to the United States in 2019 (accounting for 56.6 percent of services exports to the United States), followed by Guam and Samoa (table 3.7).

Table 3.7 Pacific Island economies' services exports to the United States, by economy, 2017–21

In millions of dollars. ** = rounds to zero (e.g., export value is less than \$500,000). F.S. Micronesia = the Federated States of Micronesia. N. Mariana Islands = the Northern Mariana Islands.

Economy	2017	2018	2019	2020	2021
Fiji	330	360	361	77	31
French Polynesia	140	149	152	43	51
Papua New Guinea	17	25	17	8	14
New Caledonia	24	23	24	9	14
Guam	113	118	143	33	11
Samoa	37	41	46	16	10
The Cook Islands	33	34	32	7	7
Tonga	12	14	14	13	7
N. Mariana Islands	115	69	50	12	7
F.S. Micronesia	5	9	7	4	3
Vanuatu	39	32	37	10	3
Palau	14	13	11	6	2
Nauru	2	2	2	1	1
The Solomon Islands	8	7	6	2	1
American Samoa	3	3	3	1	**
Niue	1	1	2	**	**
Kiribati	1	1	1	**	**
Tuvalu	**	**	**	**	**
The Marshall Islands	2	4	**	**	**
Total	897	904	906	243	164

Sources: WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021 and USITC calculations using data from the WTO, WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021; WTO, "Commercial Services Exports by Sector and Partner, Annual" accessed October 17, 2022; American Samoa Department of Commerce, Statistics Division, *American Samoa Statistical Yearbook, 2020*, December 1, 2022, 212; Government of the Cook Islands, Ministry of Finance & Economic Management, *Balance of Payments: 2015–2021*, 2023, 3; Statistics Niue, *Balance of Payments-Niue*, February 16, 2019, 7.

Notes: Estimates unavailable for Pitcairn Islands, Tokelau, and Wallis and Futuna. Because of rounding, figures may not add up to totals shown.

The remainder of the services trade discussion details global services exports by product and economy, covering each economy to the extent possible. Box 3.2 provides additional information on estimates of Pacific Island exports to the United States by economy.

Box 3.2 Estimates of Pacific Island Services Exports to the United States

The lack of official bilateral data hinders the understanding of services export trends between the Pacific Island economies and the United States. Recent efforts by the Organisation for Economic Cooperation and Development (OECD) and World Trade Organization (WTO) to estimate bilateral services trade flows for some Pacific Island economies provided a starting point for additional estimates for the region. Additional detail on both the OECD-WTO Balanced Trade in Services (BaTiS) database and extensions of that work is provided below.

First, for 10 of the 22 Pacific Island economies, the BaTiS database provides estimates of services exports by trade partner through 2021.^a To estimate these trade flows, the BaTiS database gathers available official data on service exports to the world for each country in the region, then uses a gravity model, which predicts trade flows on the basis of characteristics of the trade partners.^b In particular, the BaTiS database builds a model that uses existing services data to predict the value of services exports for

missing country pairs using the GDP of the importer and exporter; the exporter's GDP per capita; distance between the two countries; the existence of a common border, language, or colonial relationship; the value of merchandise trade exports; and tourist arrivals.^c The estimates suggest that on average, Pacific Island economies exported about 10.9 percent of their total services to the United States between 2017 and 2021. This share of total services exports differs across islands, ranging from 1.5 percent (Tuvalu) to 22.4 percent (Fiji).^d

Two assumptions were relied on to extend these estimates to a larger set of Pacific Island economies and years (presented in table 3.7). First, for economies whose aggregate services export data were available, 10.9 percent of these exports were assumed to be to the United States (example: Nauru). Second, for economies whose aggregate data were only available in some years, the region's aggregate services export growth rates were used to estimate aggregate services trade in missing years, then the 10.9 percent share was used to estimate exports to the United States (example: the Northern Mariana Islands in 2021).

^a Economies for which the figures from the BaTiS database were used are Fiji, French Polynesia, Kiribati, New Caledonia, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu.

^b For more information on gravity models, see Yotov et al., *An Advanced Guide to Trade Policy Analysis*, November 15, 2016.

^c Liberatore and Wettstein, "Balanced Trade in Services Database," January 2021, 14–17.

^d USITC calculations using data from WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021.

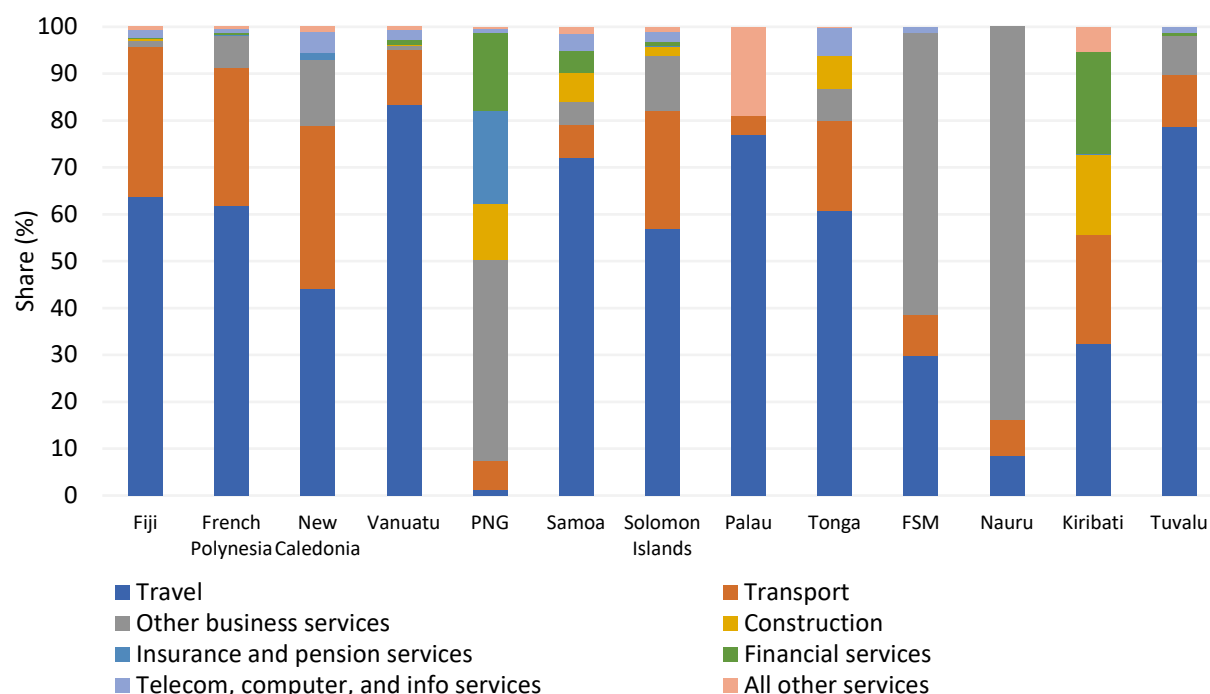
Services Exports to the World by Product and Pacific Island

Travel services—which encompass tourism-, education-, healthcare-, personal-, and business-related travel—is the largest services export category for most Pacific Island economies.²⁸⁷ In other markets, such as Papua New Guinea, the Federated States of Micronesia, and Nauru, however, the sector of other business services was the top services export in 2019 (figure 3.1).

²⁸⁷ Travel services exports occur when residents of other countries travel to Pacific Island economies to consume goods and services, such as an American tourist purchasing lodging and dining at restaurants when on vacation in Fiji. Similarly, travel services exports in education or healthcare would involve U.S. citizens traveling to Pacific Island economies to attend university or access medical care. Although estimates of Pacific Island exports to the United States are available at the aggregate level, estimates of Pacific Island exports to the United States are not possible at the product level. Because of these data limitations, data on services exports by product are only discussed at the global level.

Figure 3.1 Top Pacific Island services exports to the world, by sector and economy, 2019.

In percentages. FSM = the Federated States of Micronesia. PNG = Papua New Guinea. Underlying data for this figure can be found in appendix H, [table H.1](#).



Sources: WTO, "Commercial Services Exports by Sector and Partner, Annual," accessed October 17, 2022; WTO, "OECD-WTO Balanced Trade in Services (BaTiS) database," January 2021.

Notes: Pacific Island economies are ordered by total services export size, from largest to smallest in 2019. All other services include manufacturing services on physical inputs owned by others; maintenance and repair services; charges for the use of intellectual property; and personal, cultural, and recreational services. Because of differences in product coverage, other services for Palau also include construction, insurance and pension services, telecommunications, computer and information services, financial services, and other business services.

For 8 of the 13 economies in figure 3.1 (Fiji, French Polynesia, Tuvalu, Palau, Tonga, Samoa, the Solomon Islands, and Vanuatu), travel services made up more than half of total services exports in 2019. Personal travel, which includes both tourism and other personal travel (such as visits to family), is likely the largest component of these services.²⁸⁸ For example, in 2019, personal travel exports contributed 70.4 percent of total travel services exports by the Solomon Islands, 87.3 percent by Vanuatu, and 92.6 percent by Tonga and Fiji. The World Bank defines 5 of these 8 economies (Fiji, Palau, Samoa, Tonga, and Vanuatu) as "tourism-reliant," suggesting that they were particularly vulnerable to the COVID-19 pandemic-related declines in international travel.²⁸⁹ Although education- and healthcare-related travel exports are a small component of travel services overall, they may also be important segments for trade between Pacific Island economies. For example, Pitcairn Island residents typically travel to French Polynesia for major medical procedures.²⁹⁰

²⁸⁸ Further breakdowns of trade flows into tourism and other personal travel are unavailable for Pacific Island economies.

²⁸⁹ The Solomon Islands and Tuvalu are not categorized as "tourism-reliant" by the World Bank. World Bank, "Small States: Overlapping Crises, Multiple Challenges," in *Global Economic Prospects -- January 2023*, 2023, 138, 154.

²⁹⁰ AFP, "UK's Remote Pitcairn Islanders See No Brexit Bounty," November 18, 2022.

In addition to the Pacific Island economies presented in figure 3.1, several other economies are primarily travel services exporters. Specifically, travel services were the main services export category for the Cook Islands (comprising 76.6 percent, or \$227.8 million, of that economy's total service exports in 2019), Niue (comprising 94.4 percent, or \$12.7 million, in fiscal year June 2017/18), and the Marshall Islands (comprising 51 percent, or \$9.4 million, in 2017).²⁹¹

Among U.S. territories in the Pacific Islands, only American Samoa publishes statistics on international trade in services. Although disaggregated data on exports by specific service sector are not available, the large drop in American Samoa's services exports between 2019 and 2020 from \$23 million to \$5 million suggests that the category of travel services likely forms a large component of total services trade.²⁹² Travel services likely also makes up a significant share of services exports for the Northern Mariana Islands and Guam. In 2019, the Northern Mariana Islands had 487,000 nonresident visitor arrivals, compared to a total population of about 50,000, and there were 1.7 million nonresident visitor arrivals in Guam.²⁹³ In 2021, during the COVID-19 pandemic, Guam introduced a "vaccine tourism" initiative, allowing foreign tourists to stay in Guam and buy excess doses of COVID-19 vaccines.²⁹⁴

The Pitcairn Islands has limited opportunity for trade in services because of its small size and remoteness, but it does export some travel services. In 2023, 26 passenger vessels (capacity for 12 passengers each) are scheduled to transport visitors to the Pitcairn Islands, and 24 cruise ships (holding between 100 and 2,250 passengers) are scheduled to stop for short excursions.²⁹⁵ In FY 2018, the Pitcairn Island's financial statements show \$176,800 in revenue for passenger fares.²⁹⁶ Wallis and Futuna's tourism industry is very small, welcoming about 100 visitors per year.²⁹⁷ Although no services export statistics are available for the economy, New Zealand reported importing \$100,000 in travel services from Wallis and Futuna in 2017.²⁹⁸

²⁹¹ The Cook Islands and Niue data were converted to U.S. dollars from New Zealand dollars using average annual exchange rate data for 2018 and 2019. Government of the Cook Islands, Ministry of Finance and Economic Management, *Balance of Payments: 2015–2021*, 2023, 3. Statistics Niue, *Balance of Payments-Niue*, February 16, 2019; World Bank, "Official Exchange Rate New Zealand," 2023; WTO, "Commercial Services Exports by Sector and Partner-Annual (Million US Dollar)," accessed October 17, 2022.

²⁹² Industry representatives indicated that travel to American Samoa is largely composed of family visitors, rather than commercial tourism. American Samoa Department of Commerce, Statistics Division, *American Samoa Statistical Yearbook, 2020*, December 1, 2022, 212; industry representative, interview by USITC staff, American Samoa, March 31, 2023.

²⁹³ UNWTO, *Arrivals-Northern Mariana Islands*, March 2, 2022; CIA, "Northern Mariana Islands," April 20, 2023; World UNWTO, *Arrivals-Guam*, March 2, 2022.

²⁹⁴ Excess doses of the COVID-19 vaccine refer to vaccine doses allocated to Guam by the U.S. government that remained after vaccinating the local population. Li, "'Vaccine Snob' Travelers Head to Guam for Sun, Sea—and Shots," September 6, 2021.

²⁹⁵ Pitcairn Islands Office, "Pitcairn Island Cruise Ship Schedule," February 23, 2023; Pitcairn Islands Office, "Shipping Schedule," accessed February 16, 2023.

²⁹⁶ FY 2018 refers to the period of March 2018 to March 2019. Data were converted to U.S. dollars from New Zealand dollars using average annual exchange rate data for 2018. Pitcairn Islands Office, *Summary Financial Statements, March 2019*, January 16, 2020, 1; World Bank, "Official Exchange Rate New Zealand," 2023.

²⁹⁷ Government of Wallis and Futuna, "Travel," accessed May 2, 2023.

²⁹⁸ The European Union also reports some imports from Wallis and Futuna. These statistics, however, also include government services, which makes it difficult to disentangle services exports from foreign aid. WTO, "Commercial Services Imports by Sector and Partner," accessed October 17, 2022.

Following travel services, transportation services is another major services trade category for many Pacific Island economies. Transportation services—a trade category that encompasses maritime and air transportation, port services, and logistics services—accounts for a considerable share of total services exports for New Caledonia, Kiribati, Tonga, the Solomon Islands, French Polynesia, and Fiji (19.1 percent to 35.0 percent of total exports by these economies). Air transportation (both passenger and freight) contributed the majority of total transportation services exports by Fiji (91.7 percent), Kiribati (100 percent), and the Solomon Islands (65.6 percent) in 2019; maritime transportation services accounted for 52.8 percent of Tongan transportation services exports.²⁹⁹ The importance of air transportation services in many of these markets likely reflects both the importance of tourism and the presence of local airline companies, such as Fiji Airways, Air Kiribati, and Solomon Airlines, which all offer international flights.³⁰⁰ Large shares of maritime transportation services are likely related to goods exports.³⁰¹

As indicated above, and in contrast to most Pacific Island economies, the majority of services exports by Nauru and the Federated States of Micronesia and a substantial share of services exports by Papua New Guinea (43.0 percent) fell under the broad category of “other business services” in 2019. Other business services also represented a considerable share of total exports by the Marshall Islands in 2017 (with \$7.3 million, or 35.4 percent).³⁰² Other business services encompass a wide range of services, including accounting, legal, consulting, research and development, and architecture and engineering services. Aggregate export data suggest that most Papua New Guinean exports in this category are in architecture, engineering, scientific, and other technical services.³⁰³ Some examples of architecture and engineering exports could include management of construction projects and technical support to development projects in other Pacific Island economies.³⁰⁴

For Nauru, the Marshall Islands, and the Federated States of Micronesia, additional data on the composition of the “other business services” trade category are not available. In Nauru, these services exports are likely related to the Australian Regional Processing Center (RPC) located in the country.³⁰⁵ Exports of engineering and architecture services may be a key component of the Federated States of Micronesia’s business service exports, because a 2021 list of the largest companies in the Federated States of Micronesia included several engineering and construction companies that operate in both the Federated States of Micronesia and Guam.³⁰⁶

Papua New Guinea and Kiribati export relatively high shares of financial and insurance services. In 2019, Papua New Guinea exported \$53.0 million in financial services (16.6 percent of Papua New Guinea’s

²⁹⁹ Disaggregated data on transportation by type are unavailable for New Caledonia and French Polynesia. WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022.

³⁰⁰ The international offerings of Fiji Airways are more developed than Solomon Airlines (which offers international routes to Australia, Fiji, and Vanuatu) and Air Kiribati (which offers international services to Tuvalu). Fiji Airways, “Route Map,” accessed May 8, 2023; Solomon Airlines, “Where We Fly,” accessed May 8, 2023; Air Kiribati, “Air Kiribati,” accessed May 8, 2023.

³⁰¹ See the mining and logging sectors in the Solomon Islands as described in chapter 5.

³⁰² WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022.

³⁰³ WTO, “Commercial Services Exports by Sector and Partner,” accessed October 17, 2022.

³⁰⁴ Industry representative, interview by USITC staff, Australia, April 17, 2023.

³⁰⁵ The RPC is a facility for detaining and processing individuals seeking asylum in Australia. IMF, *Republic of Nauru*, February 2022, 8.

³⁰⁶ *Guam Business Magazine*, “2021 Top Companies in Micronesia,” November 5, 2021.

total services exports) and \$63.9 million in insurance services (20.0 percent). The financial sector in Papua New Guinea is more developed than in other Pacific Island economies, and it is one of only two Pacific Island economies with a stock exchange.³⁰⁷ Insurance exports from Papua New Guinea may be driven by demand for reinsurance services,³⁰⁸ which industry representatives note is underprovided in the region.³⁰⁹ In the Pacific Islands region, the only reinsurance company is Pacific Re Limited, which is headquartered in the capital city, Port Moresby.³¹⁰

Kiribati's financial services exports made up 21.6 percent of that country's total services exports in 2019 but totaled only \$2.1 million. Given that the only bank in Kiribati is a joint venture between ANZ Banking Group (based in Australia and New Zealand) and the government of Kiribati, these exports may reflect transactions and other related interactions between ANZ Kiribati and ANZ headquarters.³¹¹

Data on services trade are not available for Tokelau. Revenue from subscriptions associated with sales of the ".tk" domain name—which accounted for about one-sixth of total GDP for this economy in 2015³¹²—likely accounts for the largest share of services exports by the island. Like the Pitcairn Islands, the size and remoteness of Tokelau limits its opportunity for services trade. The government of Tokelau notes that it has no established tourist industry and is reachable only via 24-hour boat ride from Apia, Samoa.³¹³

³⁰⁷ Fiji also has a stock exchange. ADB, *Pacific Finance Sector Briefs*, August 1, 2019, 2, 4.

³⁰⁸ Reinsurance is insurance for insurance companies. When an insurance company (primary insurer) sells an insurance policy that protects a policyholder against losses due to property damage, for example, the insurance company pays the policyholder for losses as outlined in the details of the contract. Insurers are required to maintain a certain level of capital, according to the regulations in their home jurisdiction, to be able to pay potential future claims (i.e., they must retain enough money to pay possible liabilities). Although this protects policyholders, it also constrains the amount of insurance an insurance company can sell. To increase the amount of insurance it can issue, a primary insurance company can transfer (i.e., cede) part of the liability it has to its policyholders to another insurance company called a reinsurer. Insurance Information Institute, "Reinsurance," January 12, 2014.

³⁰⁹ Industry representative, interview by USITC staff, Australia, April 17, 2023.

³¹⁰ Pacific Re Limited, "About Us," accessed February 1, 2023.

³¹¹ ADB, *Pacific Finance Sector Briefs*, August 1, 2019.

³¹² Murphy, "A Tiny Island Nation Has More Web Addresses," January 16, 2015.

³¹³ Government of Tokelau, "Tourist Information," accessed May 1, 2023.

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Chapter 4

The Generalized System of Preferences and Other Preferential Access Systems

All but 3 of the 22 Pacific Island economies covered in this report have preferential trade access to the U.S. market.³¹⁴ The majority of these economies have such access through the U.S. Generalized System of Preferences (GSP) (table 4.1). GSP is a U.S. trade preference program that makes a wide range of products from beneficiary developing countries (BDCs) eligible for duty-free treatment when GSP is authorized.³¹⁵ Thirteen Pacific Island economies are BDCs. For two groups in the Pacific Island region—the U.S. insular possessions and the Freely Associated States (FAS)—the United States maintains distinct trade preference systems that provide more expansive trade preferences than GSP. For products of the U.S. insular possessions, the United States has offered duty-free treatment longer (since the early 20th century) than any other region, and these preferences are more extensive than those for the FAS. The Compacts of Free Association (Compacts), that outline relations between the United States and the FAS, created unique trade preferences for these economies.

Table 4.1 Pacific Island economies with preferential access to the U.S. market

Trade preference system	Covered Pacific Island economies
U.S. Generalized System of Preferences	The Cook Islands, Fiji, Kiribati*, Niue, Papua New Guinea, the Pitcairn Islands, Samoa*, the Solomon Islands*, Tokelau, Tonga, Tuvalu*, Vanuatu*, and Wallis and Futuna, referred to collectively as the Pacific Island beneficiary developing countries
Insular possession	American Samoa, Guam, and the Northern Mariana Islands
Compacts	The Marshall Islands, Federated States of Micronesia, and Palau

Sources: 19 C.F.R. § 7.2; USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Notes 3(a)(iv), 4, 10.

* = least-developed beneficiary developing country. USITC, HTS at General Note 4(b)(i).

This chapter presents an overview of each of these three trade preference systems. All three systems have designated covered products (although product coverage varies among the systems). A covered product imported from a beneficiary country is eligible for duty-free treatment. Not all eligible products, however, qualify for duty-free entry. To qualify for duty-free entry, eligible products must meet

³¹⁴ French Polynesia, Nauru, and New Caledonia do not have preferential access to the U.S. market. These economies do not meet the eligibility criteria for any preferential access systems covered in this chapter. All three are high-income economies, and, as explained in the GSP Country Eligibility section below, this means they are not eligible for GSP. World Bank, “World Bank Country and Lending Groups (2023),” High Income Economies, accessed August 22, 2022.

³¹⁵ For purposes of this chapter, “GSP authorization” refers to the President’s authority to provide duty-free treatment for eligible articles from beneficiary developing countries under 19 U.S.C. § 2461. GSP authorization expired on December 31, 2020, and it has not been renewed by Congress as of August 2023. As explained in the GSP authorization section below, even when GSP is not authorized, CBP encourages importers to continue to claim GSP. As such, analysis of GSP utilization includes 2021. CBP, “Generalized System of Preferences (GSP),” accessed June 9, 2023.

additional requirements as discussed below. This chapter also presents quantitative information on U.S. imports of eligible products—both the overall value of imports and the range of product imported—of each trade preference system and utilization rates for each trade preference system. As explained in the GSP utilization section, “utilization rates” are a specifically defined concept in the context of preference programs that encompass the share of eligible products claiming the duty-free benefit under the program when entering a country (the United States for this report). Note that these utilization calculations can highlight areas where GSP (or the other trade preference systems) might not be fully utilized. For GSP, the chapter also examines the factors affecting eligible Pacific Island BDCs’ GSP trade and utilization of the program.

As a group, Pacific Island BDCs have a relatively low level of trade of GSP-eligible products (averaging \$21.1 million annually during 2017–21) but have a high GSP utilization rate, a trend driven mainly by Fiji.³¹⁶ U.S. imports of GSP-eligible products comprised a small share (6.2 percent) of overall U.S. imports from Pacific Island BDCs during 2017–21. U.S. imports of GSP-eligible products from Pacific Island BDCs were highly concentrated in the agricultural sector (76.4 percent of these imports during 2017–21) followed by the fisheries sector (11.6 percent). Pacific Island BDCs as a group, however, have had high GSP utilization rates (about 86.8 percent during 2017–21). At a country and sector level, however, a range of GSP trade and utilization patterns exists.

Several factors impacted trade of GSP-eligible products with Pacific Island BDCs, including their comparative advantages and small island economy characteristics. At the sector level, U.S. imports for GSP-eligible agricultural and fishery products had higher GSP utilization rates, likely the result of being better able to meet the GSP rules of origin because of the lesser degree of processing, if any, involved in Pacific Island exports of these products compared to machinery and manufactured products from Pacific Island BDCs, which had very low GSP utilization. Higher GSP utilization rates were also observed for GSP-eligible products that had higher customs duties, higher import values, or were more consistently imported. In addition, qualitative information indicates a link between utilization rates at a country level and the level of stakeholder familiarity with GSP. Finally, a lack of consistent GSP authorization also appears to impact both GSP-eligible trade and GSP utilization of the program.

Trade under the insular possessions preferences represents by far the highest value of these three preference systems. U.S. imports of eligible products averaged \$351 million annually during 2017–21 and had almost full insular possession preference utilization (99.5 percent during 2017–21). This trade was highly concentrated in just two canned tuna products from American Samoa. Trade with the FAS under the Compacts shows the opposite characteristics. U.S. imports of eligible products were very low (about \$1.4 million annually) and had little Compact preference utilization (6.1 percent during 2017–21). Overall trade preference and utilization of insular possessions and Compact preferences are likely impacted by similar factors that impact GSP-eligible trade and GSP utilization.

³¹⁶ Unless otherwise noted in this chapter, the trade data are from USITC DataWeb/Census, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023. U.S. imports for consumption of GSP covered products, on March 7, 2023 (2021 data), April 27, 2022 (2020 data), May 4, 2023 (2017–18 data), and May 5, 2023 (2019 data) (with adjustments per appendix G and Census, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.) and, for total U.S. imports for consumption from Pacific Island BDCs (not specific to GSP), accessed July 6, 2023.

GSP and Pacific Island Beneficiaries

The GSP program is a unilateral trade preference program that was established by the Trade Act of 1974.³¹⁷ Although GSP's authorization expired December 31, 2020, historically after GSP authorization lapsed, it has been renewed (see the GSP Authorization Consistency section below).³¹⁸ GSP provides duty-free treatment for U.S. imports of certain products from BDCs in any region, including the Pacific Island region.³¹⁹ As of June 2023, BDCs numbered 119 globally; of these, 13 were in the Pacific Island region: the Cook Islands, Fiji, Kiribati, Niue, Papua New Guinea, the Pitcairn Islands, Samoa, the Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna (collectively referred to as the Pacific Island BDCs in this chapter). GSP also provides additional duty-free access to BDCs that the President designates as least-developed beneficiary developing countries (LDBDCs).³²⁰ As of June 2023, GSP had 44 LDBDCs globally, of which 5 were in the Pacific Island region: Kiribati, Samoa, the Solomon Islands, Tuvalu, and Vanuatu.³²¹

GSP Country Eligibility Requirements

Countries must meet certain requirements to qualify and maintain their status as GSP BDCs.³²² In administrating the program, the Office of the U.S. Trade Representative (USTR) has grouped these requirements into graduation criteria and other country eligibility criteria. GSP requires a BDC to graduate from the program if it becomes a high-income country, as defined by the World Bank.³²³ BDCs can also be removed from GSP, if, after a review, the President determines they have made advances in economic development and trade competitiveness.³²⁴ USTR also refers to this as a country

³¹⁷ Title V of Pub. L. No. 93-618, §§ 501–505, 88 Stat. 1978, 2071 (1975) (codified at 19 U.S.C. § 2461 et seq.). GSP is “unilateral” in the sense that it is not a reciprocal international agreement with BDCs. WTO, “Regional Trade Agreements and Preferential Trade Arrangements,” accessed May 25, 2023.

³¹⁸ See, e.g., Title II of Pub. L. No. 114-27, § 201(a), 129 Stat. 362, 371 (2015) (reauthorizing GSP nearly two years after authorization had lapsed).

³¹⁹ GSP defines “countries” eligible to be designated as BDCs as any foreign country or territory, including any overseas dependent territory or possession. 19 U.S.C. § 2467(2); USTR, *GSP Guidebook*, November 2020, 14–15; USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Notes 4, 7, 16; USDOC, ITA, “Trade Preference Programs,” accessed April 5, 2023.

³²⁰ 19 U.S.C. § 2463(a)(1)(B).

³²¹ USTR, *GSP Guidebook*, November 2020, 14–15; USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Note 4.

³²² 19 U.S.C. § 2462; USTR, *GSP Guidebook*, November 2020, 11. The President decides whether to add or remove a country or a product from GSP. The GSP Subcommittee of the interagency Trade Policy Staff Committee (TPSC), which is chaired by staff from the Office of the U.S. Trade Representative (USTR), provides advice on these decisions. 19 U.S.C. § 1872; Exec. Order No. 11846, 40 Fed. Reg. 14291 (March 31, 1975); 15 C.F.R. Pt. 2007 (procedures for GSP reviews); USTR, *GSP Guidebook*, November 2020, 8.

³²³ The International Bank for Reconstruction and Development (better known as the “World Bank”) has four income groups ranging from high to low. World Bank, “World Bank Country and Lending Groups (2023),” accessed August 22, 2022. Income graduation is a “mandatory graduation” pursuant to the statute. When GSP is authorized, USTR assesses income levels of BDCs annually. 19 U.S.C. § 2462(e); USTR, *GSP Guidebook*, November 2020, 11.

³²⁴ Graduation for economic development or trade competitiveness reasons is determined by the President pursuant to a review of a country's eligibility. 19 U.S.C. § 2462(c); USTR, *GSP Guidebook*, November 2020, 11.

graduation.³²⁵ As of August 2023, Nauru was the lone Pacific Island economy to have graduated GSP after becoming a high-income country, effective July 1, 1988.³²⁶

GSP's other country eligibility criteria cover a range of issues, including worker rights, child labor, forced labor, arbitral awards, and intellectual property rights.³²⁷ Once designated as a BDC, USTR conducts triennial assessments of all BDCs to determine if they are meeting these country eligibility criteria. Using these assessments, or in response to a petition from an interested party, a BDC may be subject to a formal GSP country practice review.³²⁸ Fiji has been subject to multiple country practice reviews concerning worker rights, with the U.S. Trade Representative closing the most recent review in 2017 without changing Fiji's beneficiary status.³²⁹ As of August 2023, no Pacific Island BDCs had an active country practice review.³³⁰

Congress normally terminates a country's BDC-status upon entry into force of a free trade agreement that they sign with the United States. This is not a GSP statutory criteria. Rather, per Congress's discretion, such removals from GSP are done through the U.S. implementing legislation of the trade agreement.³³¹ When their Compacts with the United States went into effect, the FAS were removed from GSP. This was effective in 1989 for the Marshall Islands and the Federated States of Micronesia and in 1994 for Palau.³³²

GSP Product Benefits and Eligibility

The major benefit offered under GSP is duty-free access for U.S. imports of GSP-eligible products from BDCs. As laid out in detail below, for a product to enter duty free under GSP, it must be a GSP-eligible product from a BDC and meet other statutory requirements, including GSP rules of origin.³³³

³²⁵ USTR, *GSP Guidebook*, November 2020, 11.

³²⁶ Presidential Memorandum, 52 Fed. Reg. 19271 (May 22, 1987); Proclamation No. 5805, 53 Fed. Reg. 15785 (May 4, 1988).

³²⁷ All criteria are assessed when a country asks to join GSP. 19 U.S.C. §§ 2462(b)(2) & (c).

³²⁸ 19 C.F.R. § 2007.0 et seq. (procedures for parties requesting GSP review). USTR announced the initiation of triennial country reviews in 2017 through a press release, although it has not amended GSP regulations to reflect this practice. 19 C.F.R. § 2007.3 (timetable for GSP reviews); USTR, "USTR Announces New Enforcement Priorities for GSP," October 24, 2017; USTR, *GSP Guidebook*, November 2020, 9.

³²⁹ 59 Fed. Reg. 35970 (July 14, 1994) (concluding country practice review after finding that Fiji was taking necessary steps to provide internationally recognized worker rights); 82 Fed. Reg. 7915 (January 23, 2017) (concluding country practice review in view of progress made by Fiji in providing internationally recognized worker rights).

³³⁰ USTR, "Current Reviews," accessed August 10, 2023.

³³¹ CRS, *Generalized System of Preferences*, July 20, 2022, 13. See, e.g., Pub. L. No. 112-43, § 201(a)(2), 125 Stat. 497, 501 (2011) (codified at 19 U.S.C. § 3805 note).

³³² Proclamation No. 6030, 54 Fed. Reg. 40839 (October 3, 1989); Proclamation No. 6726, 59 Fed. Reg. 49,777 (September 29, 1994) (proclaiming Palau Compact entered into force October 1, 1994); Proclamation No. 6763, 60 Fed. Reg. 1008 (December 23, 1994) (terminating Palau's GSP designation and amending the HTS to designate Palau as an FAS for tariff purposes). Although the Compacts for the Marshall Islands and the Federated States of Micronesia were completed in 1986, these islands remained GSP beneficiaries until 1989, as further discussed below in the section on Preferences under Compacts.

³³³ USTR, *U.S. Generalized System of Preferences: Guidebook*, November 2020, 7; 19 C.F.R. §§ 10.171–10.178.

GSP-Eligible Products

GSP-eligible products are defined at the 8-digit subheading level in the Harmonized Tariff Schedule of the United States (HTS). As such, the terms “product” or “item” in this chapter refer to an 8-digit HTS subheading, and product counts are based on the number of HTS 8-digit subheadings available to GSP BDCs (and not on the actual volume or value of products entering under those HTS subheadings). Because the exact count of GSP-eligible products changes over time, this chapter presents approximate product counts and shares based on a count of the maximum number of eligible products in the January 2023 HTS.³³⁴

Factors affecting GSP-eligible product counts include adjustments to the HTS and to what products are eligible for GSP. For example, the HTS had 11,111 products in 2021 but 11,414 products in January 2023.³³⁵ In addition, the regular GSP review process, which is conducted annually when the program is authorized, allows for petitions by stakeholders to add or remove products from the program.³³⁶ Import-sensitive products, however, as identified in GSP legislation, are legally prohibited from becoming GSP-eligible products, including most textiles and apparel, watches, footwear, and glass articles, as well as any product that the President determines is import-sensitive in the context of GSP.³³⁷

A wide range of products are covered by GSP, although exact access can vary among BDCs. Under GSP, a BDC generally may be eligible for preferences for a maximum of about 3,600 covered products. These cover a wide range of products, including agricultural, chemical, stone and ceramic products, metal and metal products, and certain manufactured goods.³³⁸ GSP preferences combined with products that are duty-free under normal trade relations (previously most favored nation status), result in about 69 percent of all products in the HTS being eligible for duty-free treatment for BDCs.³³⁹ LDBDCs are eligible to receive duty-free access for an additional 1,500 covered products (for a total of about 5,100 GSP-eligible products). This results in LDBDCs being eligible for duty-free access to about 83 percent of all products in the HTS.³⁴⁰ GSP-eligible products available only to LDBDCs include additional dairy, fruit, and vegetable products, certain fisheries products, including at least one over-quota canned tuna product (not in oil) (HTS subheading 1604.14.30), glass and glassware, and clocks and watches.³⁴¹

³³⁴ The HTS uses “Special Program Indicators” (SPI) to denote which country(s) are eligible for the special rates of duty for relevant products. For GSP the SPIs are: (1) A, GSP-covered products for all BDCs; (2) A*, GSP-covered products where one or more BDCs are no longer eligible for duty-free treatment under GSP; or (3) A+, GSP-covered products for LDBDCs only. USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Note 4.

³³⁵ USITC, “The 2021 HTS Item Count,” accessed July 6, 2023; USITC, “The 2022 HTS Item Count,” accessed July 6, 2023; USITC, “The 2023 HTS Item Count,” accessed March 16, 2023.

³³⁶ See, e.g., 85 Fed. Reg. 71391 (November 9, 2020); USITC, *Generalized System of Preferences*, August 2020; USTR, “GSP Annual Product Review - Final Decisions,” accessed April 18, 2023.

³³⁷ Other GSP prohibited products include flat goods, work gloves, leather apparel, steel, and electronic articles. 19 U.S.C. § 2463(b); USTR, *U.S. Generalized System of Preferences: Guidebook*, November 2020, 6.

³³⁸ USITC, DataWeb: Annual Tariff Data, 2022, accessed February 27, 2023.

³³⁹ USITC, “The 2023 HTS Item Count,” accessed March 16, 2023.

³⁴⁰ Count based on LDBDCs duty free access under GSP plus products that are normal trade relations duty free. USITC, “The 2023 HTS Item Count,” accessed March 16, 2023; USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Note 4 (b-d).

³⁴¹ USITC, DataWeb: Annual Tariff Data, 2022, accessed February 27, 2023.

Certain facets of the GSP statute can limit product access for some BDCs. Under GSP, products imported from BDCs (which are not also LDBDCs) are subject to quantitative ceilings on GSP benefits called competitive need limitations (CNL) and may lose duty-free access for imports that exceed a CNL.³⁴² In addition, BDCs can have some product benefits withdrawn as part of a country practice review (e.g., Thailand).³⁴³ As of August 2023, no Pacific Island BDCs had any limits to their list of GSP-eligible products.³⁴⁴

GSP Rules of Origin and Other Statutory Requirements for Duty-Free Entry

U.S. imports of GSP-eligible products must meet the GSP rules of origin (ROOs) and two other statutory requirements to enter duty free. In trade preference programs, ROOs help ensure that program benefits accrue to the intended beneficiaries.³⁴⁵ GSP ROOs include a local content requirement to ensure that the product has been grown, produced, or manufactured in the BDC. The local content is measured by the sum of the cost or value of materials and the direct costs of processing which in total must equal at least 35 percent of the appraised product value when the product enters the United States.³⁴⁶ GSP also allows for cumulation by GSP-eligible regional associations, so that inputs from any members are counted toward the 35 percent value requirement.³⁴⁷ As of August 2023, no Pacific Island BDCs were part of any GSP-eligible regional association of countries (see box 4.1). In addition to meeting GSP ROOs, to receive duty-free treatment GSP-eligible products must be directly shipped to the United States³⁴⁸ and the U.S. importer must proactively claim duty-free access under GSP when they enter the United States.³⁴⁹

Box 4.1 The U.S. Generalized System of Preferences, Eligible Regional Associations, and the Pacific Island Economies

The U.S. Generalized System of Preferences (GSP) allows eligible regional associations of countries to be treated as a single entity for purposes of meeting the program's rules of origin for GSP-eligible products.^a

In the past, the President has required that regional associations comply with factors impacting GSP country designation, including that the association request to be so designated.^b As of August 2023, six regional associations were GSP eligible, however, none include Pacific Island economies.^c Reportedly, the Pacific Island economies had not formally requested to be treated as an association under GSP as of 2022.^d However, since then, interest has been expressed, by countries in the region and others, in

³⁴² 19 U.S.C. § 2463(c); USTR, *GSP Guidebook*, November 2020, 9–10.

³⁴³ 19 U.S.C. § 2462(d)(1); see, e.g., Proclamation No. 9955, 84 Fed. Reg. 58567 (October 31, 2019).

³⁴⁴ USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Note 4.

³⁴⁵ S. Rep. No. 93-1298 at 225 (1974) (discussing ROOs in creation of GSP).

³⁴⁶ Imported products can be used toward the GSP 35 percent local content if it undergoes double substantial transformation. 19 U.S.C. § 2463(a)(2); USTR, *GSP Guidebook*, November 2020, 11–12.

³⁴⁷ 19 U.S.C. § 2467(2); USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, General Note 4; USTR, *GSP Guidebook*, November 2020, 11–12.

³⁴⁸ 19 U.S.C. § 2463(a)(2)(A)(i); 19 C.F.R. § 10.175 (defining direct shipment). In general, products may transit through other countries so long as they do not enter into the commerce of another country.

³⁴⁹ 19 C.F.R. § 10.172.

establishing Pacific Island regional association status under GSP to help facilitate the creation of regional supply chains able to meet GSP rules of origin.^e

At the February 2023 U.S.-Pacific Islands Trade and Investment Dialogue, an official from the Office of the U.S. Trade Representative stated that beneficiary developing country members of the Pacific Islands Forum could be considered for a GSP-eligible regional association to maximize GSP utilization.^f However, no formal action is expected to occur on a GSP regional association if GSP is not authorized. By one assessment, establishing a GSP Pacific Island regional association may be most likely to benefit Fiji and economies near it, including Vanuatu, Tonga, and Samoa. This is because Fiji's light manufacturing base (which is primarily focused on food production) positions it to use inputs from neighboring economies that are focused on primary production (e.g., agriculture and fisheries) of exportable products.^g

^a 19 U.S.C. § 2467(2). Within GSP-eligible regional associations, least-developed beneficiary developing countries (LDBDCs), who have access to more covered products than beneficiary developing countries (BDCs), can use inputs from any the association's BDCs and LDBDCs to meet the rules of origin. However, BDCs members of the GSP-eligible regional associations do not gain duty-free access for products reserved for LDBDCs.

^b See, e.g., 18 Weekly Comp. Pres. Doc. 343 (March 22, 1982) (letter to Congress explaining designation of members of Caribbean Common Market as one country for GSP purposes); 19 U.S.C. § 2462(c) (factors to be considered by President in designating country as BDC); USTR, *GSP Guidebook*, November 2020, 12.

^c USTR, *GSP Guidebook*, November 2020, 16; USITC, *Harmonized Tariff Schedule, Revision 10*, July 2023, General Note 4.

^d Havice, Campling, and McCoy, *Markets and Trade Dynamic*, June 2022, 92.

^e See, e.g., USITC, hearing transcript, February 14, 2023, 12 (testimony of Satyendra Prasad, Embassy of Fiji), 81 (testimony of Edward Gresser, Progressive Policy Institute); Pacific Islands Forum Secretariat, posthearing brief submission to the USITC, March 10, 2023, 1; USTR, "Readout of the First Senior Officials Meeting," March 1, 2023.

^f USTR, "Readout of the First Senior Officials Meeting," March 1, 2023.

^g Subject matter expert, interview by USITC staff, March 16, 2023.

U.S. Imports of GSP-Eligible Products

This section provides the value of U.S. imports of GSP-eligible products from Pacific Island BDCs, including information on these imports by sector and the range of products imported. Factors impacting Pacific Island BDCs' GSP trade are presented in the subsequent section.

Data on imports under GSP from all 13 Pacific Island BDCs are found in table G.1 in appendix G. This report's analysis of GSP trade and utilization, however, focuses on 6 of the 13 Pacific Island BDCs: Fiji, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu. As explained in detail in appendix G, in June 2023, the U.S. Census Bureau corrected certain misclassifications of U.S. imports of GSP-eligible products for many Pacific Island BDCs (i.e., U.S. imports were improperly assigned to Pacific Island BDCs instead of their true country of origin).³⁵⁰ All U.S. merchandise trade data in this report, including information in this chapter, have incorporated these revisions. In this chapter, in light of these identified misclassifications and similar data concerns and information on the Pacific Island BDCs' economies, additional amounts of U.S. imports of GSP-eligible products were excluded: (1) relating to all trade with seven Pacific Island BDCs, and (2) relating to a portion of trade with the Solomon Islands, Tonga, and Vanuatu.³⁵¹ Together these data exclusions accounted for less than 2 percent of all U.S. imports (by value) of GSP-eligible products from Pacific Island BDCs during 2017–21.

³⁵⁰ U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

³⁵¹ For data on U.S. imports under GSP for all Pacific Island economies, including the Cook Islands, Kiribati, Niue, the Pitcairn Islands, Tokelau, Tuvalu, and Wallis and Futuna, see table G.1. An example of U.S. import values excluded from the analysis above were those that pertain to products requiring advanced manufacturing processes that were exported inconsistently from Pacific Island economies with little manufacturing capacity.

During 2017–21, U.S. imports of GSP-eligible products from Pacific Island BDCs never exceeded one-tenth of 1 percent of U.S. imports of GSP-eligible products from all BDCs. U.S. imports of GSP-eligible products from Pacific Island BDCs in this period fluctuated but reached a period low of \$19.3 million in 2021 (table 4.2). For the region, U.S. imports of GSP-eligible products from Pacific Island BDCs accounted for just 6.2 percent of total U.S. imports of all products from these countries during 2017–21. This regional average, however, is primarily driven by Fiji and masks a wide range of trends at the country level (figure 4.1). For example, during 2017–21, GSP-eligible products from Pacific Island BDCs often accounted for a notable share of U.S. imports from the Solomon Islands and, to a lesser extent, Samoa. For Papua New Guinea and Vanuatu, however, they were generally minimal.

Table 4.2 U.S. imports of GSP-eligible products from Pacific Island BDCs, by Pacific Island BDC, 2017–21

In dollars. BDC = beneficiary developing country.

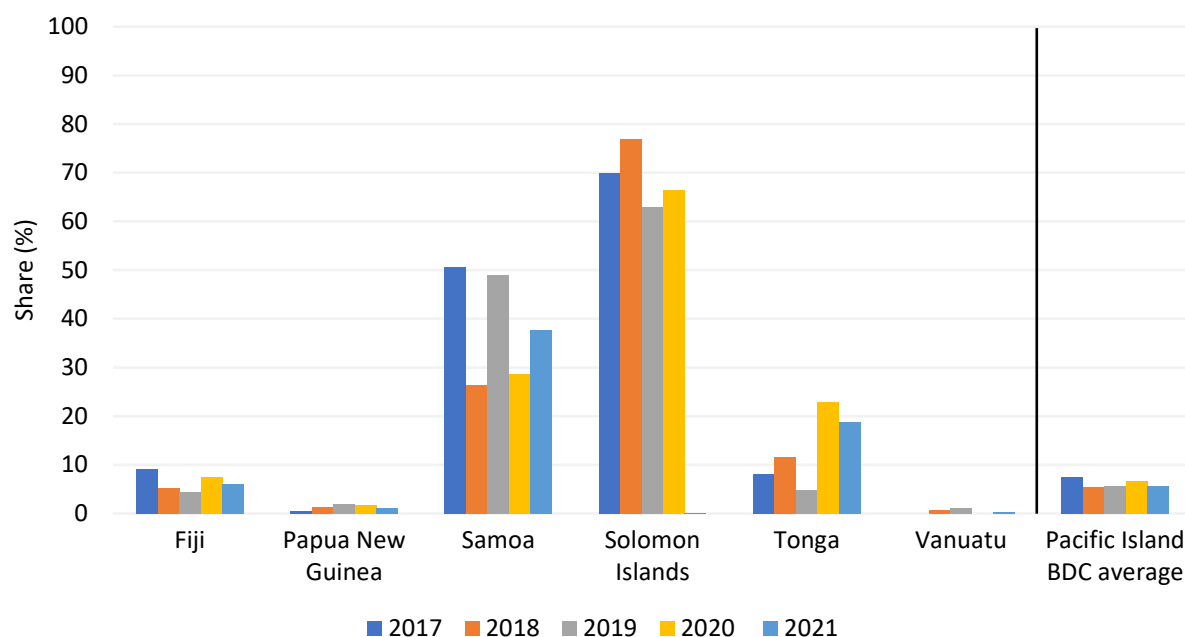
Pacific Island BDC	2017	2018	2019	2020	2021
Fiji	20,434,884	11,590,930	10,779,282	16,621,535	14,420,224
Samoa	2,502,018	1,829,501	3,479,009	1,416,224	3,518,038
Papua New Guinea	600,742	1,192,196	1,366,706	1,571,928	806,783
Tonga (see note)	283,296	321,311	228,696	655,596	572,242
Vanuatu (see note)	0	57,040	73,920	0	15,796
The Solomon Islands (see note)	2,333,348	3,132,984	3,672,512	2,209,304	2,488
Modified total	26,154,288	18,123,962	19,600,125	22,474,587	19,335,571
Removed	223,621	651,457	469,329	553,856	47,680
Total, all Pacific Island BDCs	26,377,909	18,775,419	20,069,454	23,028,443	19,383,251

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Note: As discussed above this table, data shown for the Solomon Islands, Tonga, and Vanuatu exclude certain products not being analyzed in this chapter. Those volumes are included in the “not analyzed total” line along with other Pacific Island BDCs data. A more detailed walkthrough of these data are presented in appendix G.

Figure 4.1 U.S. imports of GSP-eligible products as a share of total imports from Pacific Island BDCs, 2017–21

In percentages. BDC = beneficiary developing country. Underlying data for this figure can be found in appendix H, [table H.2](#).



Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, May 5, 2023, and July 6, 2023; Census, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

As table 4.2 shows, the vast majority of U.S. imports of GSP-eligible products was concentrated in just a few Pacific Island BDCs during 2017–21. Fiji was by far the largest supplier of these products throughout 2017–21. It supplied between 55.0 percent (2019) and 78.1 percent (2017) of analyzed total GSP-eligible products from Pacific Island BDCs. For most of this period, the Solomon Islands was the second-largest supplier of GSP-eligible products. U.S. imports of GSP-eligible products from the Solomon Islands, however, declined a dramatic 99.9 percent between 2020 and 2021. This occurred because, in 2021, the United States had no imports of tuna loins (HTS subheading 1604.14.40) or certain other tunas or skipjack tuna in airtight containers (HTS subheading 1604.14.3) from the Solomon Islands. Before 2021, they were the primary U.S. import from the Solomon Islands. This shift in trade is likely related to a combination of factors, including the expiration of GSP benefits, the Solomon Islands gaining duty-free access to the Australian and New Zealand markets in 2020 as part of the PACER Plus agreement, and increases in shipping costs stemming from COVID-19 pandemic-related transport disruptions.³⁵² During most of 2017–21, Samoa was among the top three largest Pacific Island BDC GSP suppliers and supplied between \$1.4 and \$3.5 million of GSP-eligible products from Pacific Island BDCs annually. Papua New Guinea was the only other Pacific Island BDC from which U.S. imports of GSP-eligible products sometimes exceeded \$1 million.

³⁵² Bilua, “PACER Plus Assists,” July 29, 2022; PTI Australia, *Pacific Islands Export Survey*, July 2022, 3, 5; “Freight Assistance Package,” accessed August 3, 2023. See chapter 8 for more information on PACER Plus. See the GSP Authorization Consistency section, below.

U.S. imports of GSP-eligible products from Pacific Island BDCs can fluctuate notably from year to year, although, during 2017–21, Fiji, the Solomon Islands, Samoa, Papua New Guinea, and Tonga consistently had at least some GSP trade. The Solomon Islands and Vanuatu each saw at least one year where imports rose or fell by more than 90 percent from the previous year.

Sector and Product Imports

During 2017–21, Pacific Island BDCs supplied the United States with a very a small share of the full range of products available for duty-free entry under GSP. In terms of numbers of products, U.S. imports of GSP-eligible products were heavily concentrated in the agricultural sector (which represented 76.4 percent of all U.S. imports of GSP-eligible products from Pacific Island BDCs). The next largest sector was fisheries (11.6 percent), followed by the machinery and manufactured products sector (8.1 percent).³⁵³ Over the 2017–21 period, the United States imported just 252 different GSP-eligible products from the six Pacific Island BDCs analyzed here.³⁵⁴ This is less than 7 percent of GSP-eligible products available for duty-free entry for all BDCs.

By value, U.S. imports of GSP-eligible products from Pacific Island BDCs were also highly concentrated. During 2017–21, the top 15 products accounted for 83.0 percent of total value of GSP-eligible products from Pacific Island BDCs (table 4.3). In that period, the sum of U.S. imports exceeded \$1 million for only 14 GSP-eligible products. Many of these products were imported from the largest overall Pacific Island BDC supplier, Fiji (box 4.2). Most of the highest value GSP-eligible products were consistently imported (i.e., in all five years) throughout 2017–21. Two of the top 15 products—both of which cover different types of packaged tuna products—are GSP-eligible products reserved for LDBDCs. These tuna products were all supplied by the Solomon Islands.³⁵⁵ These two products are also included in the leading Pacific Island exports to the United States identified in chapter 3: prepared or preserved skipjack and bonito (HTS subheading 1604.14). Beyond that, Pacific Island economies' leading exports to the United States did not overlap with top GSP-eligible products from Pacific Island BDCs.

³⁵³ The agricultural sector here is defined as GSP-eligible products in HS chapters 1–2, 4–15 and 17–24. Although other chapters of the HTS include additional agricultural products (e.g., fibers such as wool and cotton), the United States did not import any of these products from Pacific Island BDCs. The fisheries sector is defined as GSP-eligible products in chapters 3 and 16 and the machinery and manufactured sector as those in HS chapters 84–96.

³⁵⁴ Because of subheading changes in the 2018 HTS, certain fruit juices are covered by two subheadings (HTS 2009.89.60 and 2009.89.70). HTS subheadings 2009.89.60 and 2009.89.70 were counted as one product for this product count.

³⁵⁵ The two tuna products were HTS subheadings 1604.14.40 and 1604.14.30. Only the four other Pacific Island LDBDCs are eligible to supply these tuna products to the United States duty-free under GSP. These products from Fiji are not covered by GSP because Fiji is not an LDBDC.

Table 4.3 U.S. imports of GSP-eligible products from Pacific Island BDCs, top 15 products and total imports by value, aggregated 2017–21

In dollars. — = not applicable; BDC = beneficiary developing country. n.e.s.o.i. = not elsewhere specified or included; * Indicates that the GSP benefit for the HTS subheading is only available to LDBDCs.

HTS subheading description	HTS subheading	U.S. imports (\$)	Pacific Island BDC supplier(s)
Certain other cane sugar	1701.14.10	34,763,884	Fiji
Certain sugar preserved ginger root	2006.00.30	13,922,735	Fiji
Certain tuna loins	1604.14.40*	9,729,966	The Solomon Islands
Certain fresh or chilled taro	0714.40.10	7,493,937	Fiji; Samoa
Certain other fruit juices of a single fruit	2009.89.60; 2009.89.70	3,994,521	Fiji; Samoa
Certain other baked products, including corn chips and pizza	1905.90.90	3,451,170	Fiji
Certain ceiling fans for permanent installation	8414.51.30	2,565,152	Samoa
Certain frozen taro	0714.40.20	2,154,161	Fiji; Samoa; Tonga
Certain frozen cassava	0714.10.10	2,122,512	Fiji; Tonga
Certain oilcake and other solid residues extracted from coconut or copra	2306.50.00	1,678,419	Papua New Guinea
Certain other tunas or skipjack tuna in airtight containers	1604.14.30*	1,421,804	The Solomon Islands
Certain mineral waters and aerated waters	2201.10.00	1,276,063	Fiji
National flags and other made-up articles of textile materials, including face masks, n.e.s.o.i.	6307.90.98	1,213,641	Fiji; Papua New Guinea; Samoa; Tonga
Certain prepared or preserved other fruit, nuts, and edible plants products	2008.99.91	1,144,369	Fiji; Samoa; Tonga
Other parts for power trains	8708.99.68	810,643	Papua New Guinea
All other products	—	17,945,556	—
Analyzed GSP-eligible products	—	105,688,533	—

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; USITC, “HTS Search,” accessed January 20, 2023 and June 29, 2023; USITC, *Harmonized Tariff Schedule of the United States (2018) Basic Edition*, January 2018, Chapter 20; USITC, *Harmonized Tariff Schedule of the United States (2018) Revision 14*, November 2018, Chapter 20; USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G

Notes: Because of subheading changes in the 2018 HTS, certain fruit juices are covered by two subheadings (HTS 2009.89.60 and 2009.89.70). Certain small volumes of trade (as discussed in and around table 4.2) were separated out and not analyzed in this chapter. Full details of the data not analyzed in this chapter are presented in appendix G.

Box 4.2 Pacific Island Sugar Production and Trade with the United States

Certain other cane sugar, classified under HTS subheading 1701.14.10, is the largest U.S. import of GSP-eligible products from the Pacific Island beneficiary developing countries (BDCs). Sugar imported under HTS subheading 1701.14.10 is subject to a tariff-rate quota where Fiji and Papua New Guinea are the only Pacific Island economies that receive allotments. Although several economies in the Pacific Island region have historically produced cane sugar, current production in the Pacific Island BDC region is limited. Fiji is the largest producer in the Pacific Island region followed by Papua New Guinea.^a U.S. sugar imports from the region under GSP were supplied exclusively by Fiji, which has one sugar producer, the Fiji Sugar Corporation Ltd.^b Papua New Guinea did not supply raw cane sugar to the United States under GSP or otherwise during 2017–21.

The United States, which considers sugar products import sensitive, maintains sugar tariff-rate quotas. In addition, GSP covers only certain in-quota sugar HTS subheadings or tariff lines, including HTS

subheading 1701.14.10.^c Cane sugar imported under that subheading is subject to quantitative limits specified in U.S. Additional Note 5 to Chapter 17, often referred to as the raw sugar tariff-rate quota.^d

The U.S. Secretary of Agriculture sets the aggregate quantity for the market year (October 1 through September 30 of the following year), at not less than 1,117,195 metric tons raw value (MTRV) and the specific country allocations are determined by the U.S. Trade Representative. In any year, initial country allocations are based on historical shipments when the tariff-rate quota was established in 1982.

During 2017–21, Fiji received initial allocations of 47,385 MTRV (9,477 per year) plus additional allocations and reallocations of 12,648 MTRV during 2017–21 for a “combined” total allocation of 60,033 MTRV. Fiji’s initial allocations and subsequent reallocations each accounted for less than 1 percent of MTRV quantities allocated by the USDA, or reallocated by USTR, respectively, during 2017–21.^e Papua New Guinea received initial allocations totaling 36,290 MTRV during 2017–21.^f

^a Production was also identified in French Polynesia which is not a Pacific Island BDC. UN Data, Sugar Cane, accessed May 10, 2023; USDA, FAS, PSD Online: Sugar, accessed May 10, 2023; Tok Pisin English Dictionary, “Sugar Cane in Papua New Guinea,” September 6, 2015.

^b FCSE, “Fiji Sugar Corporation,” accessed May 10, 2023.

^c USITC, Harmonized Tariff Schedule, Basic Edition, January 2023, Chapter 17; USDA, ERS, “Sugar & Sweeteners Policy,” accessed May 10, 2023.

^d USITC, Harmonized Tariff Schedule, Basic Edition, January 2023, Chapter 17.

^e The USDA may increase the total import allocation if domestic production is less than forecast or Mexico’s excess supplies are insufficient to fill domestic shortfalls. USTR consults with countries that have not filled their initial allocations by a certain time in the marketing year and then reallocates those quantities, as well as additional quantities, to countries that are more likely to fill quota amounts. Compiled by USITC. 81 Fed. Reg. 33729; 82 Fed. Reg. 32599; 82 Fed. Reg. 36070; 82 Fed. Reg. 36071; 83 Fed. Reg. 33971; 84 Fed. Reg. 29927; 84 Fed. Reg. 33798; 85 Fed. Reg. 7377; 85 Fed. Reg. 20017; 85 Fed. Reg. 59586; 85 Fed. Reg. 36315; 86 Fed. Reg. 47703; and 86 Fed. Reg. 60961.

^f USDA ERS, “Sugar and Sweeteners Yearbook Tables,” May 19, 2023, Table 57; USITC DataWeb, HTS subheading 1701.14.10, accessed August 3, 2023; U.S. CBP, “Historical TPL Fill List-17 AUSN 5 Raw Sugar,” accessed August 8, 2023.

Factors Affecting U.S. Imports of GSP-Eligible Products

Pacific Island BDC exports (GSP-eligible and otherwise) are concentrated in agricultural products and, to a lesser extent, fisheries products, reflecting their relative comparative advantage in natural resources as compared to manufacturing. Many of the agricultural products exported by Pacific Island economies, however, are primary tropical products, which are largely subject to NTR duty-free rates. Other top regional exports, such as most water from Fiji under 2201.90.00, also enter duty-free. For fisheries products, despite some of the most important tuna fisheries being contained within Pacific Island exclusive economic zones, tuna exports from the Pacific Island consisted mostly of canned tuna.³⁵⁶ Access for GSP-eligible canned tuna products is available only to LDBDCs, of which only one of the five Pacific Islands LDBDCs (i.e., the Solomon Islands) has the ability to export.³⁵⁷ This significantly limits GSP benefits for non-LDBDC Pacific Island canned tuna exporters such as Fiji and Papua New Guinea.³⁵⁸ As noted above, only two of the top-exported products from Pacific Island economies are GSP-eligible products, both canned tuna products.³⁵⁹ Unlike most other Pacific Island BDCs, Fiji has light

³⁵⁶ HTS subheadings that include tuna are 0302.31, 0302.32, 0302.34, 0303.42, 0303.44, 0304.87, and 1604.14. For detailed information on factors affecting Pacific Island tuna exports to the United States, see chapter 6.

³⁵⁷ As explained in chapter 6, the Solomon Islands is the only Pacific Island LDBDC that has a large tuna canning facility. USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, chap. 16.

³⁵⁸ Fiji and Papua New Guinea are two BDCs with tuna canning operations that do not have GSP eligibility for canned tuna products (see chapter 6 for more information on tuna canning operations in the Pacific Islands).

³⁵⁹ The two tuna products were HTS subheadings 1604.14.40 and 1604.14.30 and were imported from the Solomon Islands.

manufacturing—focused on agricultural products—which better positions it to supply a greater range of GSP-eligible products and which is reflected by its relatively large GSP trade from the region.³⁶⁰

What GSP-eligible products Pacific Island BDCs can export is also impacted by other factors, including the ability to meet export requirements and standards in the importing market, investment, geography, and transportation linkages.³⁶¹ An Organisation for Economic Co-operation and Development (OECD) report, which focused on the food and agriculture sector, found that the low level of exports to the United States and the European Union under preference programs is not as much due to difficulties they have in meeting preference program requirements, as it is due to difficulties they face meeting sanitary and phytosanitary requirements and the general quality levels required by the importing market.³⁶² Statements from Pacific Island BDC stakeholders support this finding, indicating that these challenges also impact exports from Pacific Island BDCs.³⁶³ For example, the Fijian Ambassador to the United Nations and United States testified that Fiji does not have the necessary treatment facility to meet U.S. phytosanitary import requirements for papayas.³⁶⁴ Although this is an impediment, it signals an area of potential growth if such obstacles can be overcome (see chapters 6 and 8). As explained in chapter 2, Pacific Island BDCs' trade, including in GSP-eligible products, is also disadvantaged by Pacific Island economies' lack of scale, high energy and transportation costs, lack of linkages (which may hinder the ability to directly ship product), and overall remoteness, especially from the U.S. mainland.³⁶⁵

Other than factors specific to the Pacific Island BDCs, uncertainty also appears to be a likely factor affecting the level of GSP trade. Reports have pointed to the lack of predictability and revisions made to GSP as causing market instability and hampering the ability to establish trade flows, which are necessary to support export capacity-building investments.³⁶⁶ A report for the Pacific Islands Forum Fisheries

³⁶⁰ Subject matter expert, interview by USITC staff, March 16, 2023; subject matter expert, interview by USITC staff, Fiji, March 20, 2023; Investment Fiji, "Sector Profile: Manufacturing," 2, accessed August 3, 2023. See also chapter 3.

³⁶¹ OECD, *Preferential Trading Arrangements*, March 18, 2005, 11–12, 65; WTO, "What Drives the Utilization of Trade Preferences?," April 7, 2022, Kent Shigetomi (USTR).

³⁶² OECD, *Preferential Trading Arrangements*, March 18, 2005, 11–12, 65.

³⁶³ Foreign government officials, interviews by USITC staff, Fiji and Vanuatu, March 22, 2023, March 24, 2023, April 13, 2023; industry representatives, interviews by USITC staff, Samoa and Vanuatu, March 9, 2023, and April 14, 2023.

³⁶⁴ The U.S. Department of Agriculture's (USDA's) Animal and Plant Health Inspection Service requires papayas to undergo an approved treatment to prevent the spread of fruit flies, an agricultural pest. Fiji currently only has a High Temperature Forced Air phytosanitary treatment facility, which does not comply with the USDA's papaya requirements, pending further data and review on the efficacy of this treatment. Irradiation treatment is an approved treatment; however, Fiji does not have an irradiation facility, and, although the fruit can be irradiated upon arrival in the United States, the U.S. West Coast, where Fiji Airways has direct flights, has no such facilities. USITC, hearing transcript, February 14, 2023, 12 (testimony of Satyendra Prasad, Embassy of Fiji), 18-19; U.S. Government representative, interview by USITC staff, August 24, 2023; Foreign government official, interview by USITC staff, Fiji, March 22, 2023; Industry representative, interview by USITC staff, Fiji, March 25, 2023.

³⁶⁵ Chapter 2; Chen et al., *Pacific Island Countries*, August 2014, 5–6.

³⁶⁶ Other countries' GSP programs (including, e.g., the European Union GSP) are identified as having these challenges. Havice, Campling, and McCoy, *Markets and Trade Dynamic*, June 2022, 90; OECD, *Preferential Trading Arrangements*, March 18, 2005, 13, 88.

Agency noted the recurring lapses in U.S. Congressional authorization for GSP contributed to this lack of certainty about market access (see the GSP Authorization Consistency section below).³⁶⁷

GSP Utilization

Utilization rates are one way to analyze preference program performance. GSP utilization rates are defined as the value of all U.S. imports that claim duty-free access under GSP divided by the value of all imports of GSP-eligible products.³⁶⁸ GSP utilization rates estimate the actual benefits received versus the theoretical maximum benefits available for imports of GSP-eligible products.³⁶⁹ GSP utilization is examined below; the following section addresses factors that can impact utilization rates.

GSP utilization in the Pacific Island region is higher than GSP utilization by all BDCs collectively.³⁷⁰ As a group, the Pacific Island BDC's GSP utilization rates averaged 86.8 percent during 2017–21 (table 4.4), compared to total global GSP utilization of 51.5 percent during the same period.³⁷¹ This higher-than-average GSP utilization largely reflects the high utilization rates of Fiji and, to a much lesser extent, Tonga. For all six Pacific Island BDCs, GSP utilization was lower by the end of the 2017–21 period. For 2021, as is explained in the GSP Authorization Consistency section, below, this seems linked to the lack of GSP authorization after December 30, 2020. However, as table 4.4 shows, GSP utilization among the Pacific Island BDCs varied significantly.

³⁶⁷ Globally, general systems of preference are identified as contributing to this form of market instability. Havice, Campling, and McCoy, *Markets and Trade Dynamic*, June 2022, 90.

³⁶⁸ As requested by USTR, this chapter presents GSP utilization rates. GSP utilization calculations exclude imports claimed under another preference program. Certain GSP-eligible products are eligible to enter the United States duty free under other preference programs such as the World Trade Organization's Agreement on Trade in Civil Aircraft (Civil Aircraft Agreement). During 2017–21, such imports under other preference programs accounted for just 0.2 percent of all U.S. imports of GSP-eligible products from Pacific Islands BDCs (based on all analyzed trade of GSP-covered products). These imports were primarily from Papua New Guinea. On a country level, Papua New Guinea's other preference program utilization rate ranged from zero in 2017 to 7.6 percent in 2020.

³⁶⁹ These are theoretical maximum benefits because to receive duty-free treatment, imports of GSP-eligible products from a BDC must meet GSP ROOs and be shipped directly from the BDC. Data are not available to determine the share of U.S. imports of GSP-eligible products that meet GSP ROOs or the direct shipment requirement.

³⁷⁰ As explained in appendix E, according to a regression analysis that controls for certain factors, Pacific Island BDCs have a lower GSP utilization rate than the other countries in the modeling sample, though this result is not statistically significant.

³⁷¹ During 2017–21, GSP utilization ranged from a low of about 45.9 percent in 2021 to a high of about 56.4 percent in 2018.

Table 4.4 Annual GSP utilization rates for analyzed Pacific Island BDCs, 2017–21

In percentages; BDC= beneficiary developing country; n.c. = not calculable.

Pacific Island BDC	2017	2018	2019	2020	2021
Fiji	95.8	94.4	95.4	95.4	89.3
Papua New Guinea	65.8	34.5	40.9	51.1	22.4
Samoa	55.6	50.3	83.2	30.3	17.9
The Solomon Islands	93.8	95.0	99.9	99.3	0.0
Tonga	100.0	98.1	99.8	99.2	95.7
Vanuatu	n.c.	100.0	100.0	n.c.	0.0
All analyzed Pacific Island BDCs	91.1	86.2	90.9	90.0	73.6

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: Certain small volumes of trade (as discussed in and around table 4.2) were separated out and not analyzed in this chapter. Full details of the data not analyzed in this chapter are presented in appendix G. GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Sector and Product Utilization

More than 88.0 percent of U.S. imports of GSP-eligible products from Pacific Island BDCs were in the agriculture or fisheries sector during 2017–21.³⁷² In that period, both sectors had high average GSP utilization rates: 95.4 percent for the agricultural sector and 97.1 percent of the fisheries sector. Most agricultural and fisheries sector products had full or above-average GSP utilization (i.e., above the Pacific Island BDC average GSP utilization rate of about 87 percent). Just seven agricultural products had below Pacific Island BDC-average GSP utilization rates but above zero (table 4.5). By far the largest product in this group was certain mineral and aerated waters without sugar (HTS subheading 2201.10.00). The second-largest product group was mineral and aerated waters containing added sugar, sweeteners, or flavors (HTS subheading 2202.10.00). Both types of mineral water were consistently and exclusively supplied by Fiji during the period. Both products had high GSP utilization rates—100 percent in most years—but in 2021 utilization rates plummeted to 11.7 percent (for HTS subheading 2201.10.00) and 13.3 percent (HTS subheading 2202.10.00) respectively.³⁷³ Eleven mostly low-value, inconsistently imported GSP-eligible agricultural products had no GSP utilization.³⁷⁴

³⁷² All but 2 of the top 15 products listed in table 4.2 belong to agriculture, fisheries, or machinery and manufactured products sectors. The exceptions are national flags and certain other made-up articles of textile materials, including face masks (HTS 6307.90.98) and certain other parts for power trains (HTS 8708.99.68). Overall, GSP utilization of certain other made-up articles of textile rose in 2020, as did overall imports, driven by Fiji and Samoa. The surge in imports was likely due to increased imports of masks and other products driven by rising demand during the COVID-19 pandemic. See, e.g., USITC, *Shifts in U.S. Merchandise Trade, 2020*, November 2021, sec. Textiles and Apparel. During 2017–21, no imports of certain other parts for power trains were claimed under GSP, so these imports had no GSP utilization.

³⁷³ See the GSP Authorization Consistency section, below.

³⁷⁴ These products are HTS subheadings 0706.90.40, 0709.99.90, 0811.20.20, 0811.20.40, 0811.90.80, 0813.40.90, 1209.30.00, 1209.99.41, 1302.19.41, 2101.20.90, and 2202.99.37. Collectively, U.S. imports of these products from Pacific Island BDCs totaled \$735,859 during 2017–21. Certain frozen fruit (HTS subheading 0811.90.80) from Samoa accounted for 45.8 percent of these imports and was the only repeatedly imported product. HTS subheading 0811.90.80 is a GSP-covered subheading for LDBDCs only.

Table 4.5 U.S. imports of GSP-eligible agricultural products from Pacific Island BDCs with below average GSP utilization rates, by product, during 2017–21

In dollars and percentage. PIBDC = Pacific Island beneficiary developing country; n.e.s.o.i. = not elsewhere specified or indicated.

HTS subheading description	HTS subheading	Sum of U.S. imports from PIBDCs (\$)	GSP utilization (%)	Number of years shipped
Certain other plants and parts of plants, primarily with certain uses (e.g., perfumery, pharmacy, or for insecticidal)	1211.90.40	14,305	17.8	3
Certain mineral and aerated waters, containing added sugar, sweeteners or flavors	2202.10.00	704,512	34.4	5
Certain crushed or ground ginger	0910.12.00	345,026	46.2	5
Certain mineral waters and aerated waters without sugar	2201.10.00	1,276,063	64.2	5
Certain other food preparations containing cocoa	1806.90.90	6,942	70.3	2
Certain other food preps n.e.s.o.i., including preps for the manufacture of beverages, nondairy coffee whiteners, herbal teas, and flavored honey	2106.90.98	434,108	71.2	5
Mixtures of spices	0910.91.00	163,206	85.3	5

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: Certain small volumes of trade (as discussed in and around table 4.2) were separated out and not analyzed in this chapter. Full details of the data not analyzed in this chapter are presented in appendix G. GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Over two-thirds of the remaining GSP-eligible products imported from Pacific Island BDCs fell into the machinery and manufactured products sector. This sector had very low GSP utilization, just 5.1 percent on average during 2017–21. The majority (79.1 percent) of products in this group had no utilization, including 7 of the 10 largest U.S. imports (by value) from Pacific Island BDCs of machinery and manufactured products.

For the Pacific Island region overall, on a product basis, U.S. imports of GSP-eligible products from Pacific Island BDCs were skewed at the extreme ends of the utilization rate spectrum. About 48.8 percent of GSP-eligible products from Pacific Island BDCs had no GSP utilization, and 34.5 percent of these products had very high to full GSP utilization (defined here as above 90 percent). Only 16.7 percent of GSP-eligible products from Pacific Island BDCs had utilization rates below 90 percent but above zero (i.e., no utilization).

Factors Affecting GSP Utilization

Though the regional utilization rate is relatively high, the utilization rate varies across countries. Several factors may impact Pacific Island BDC GSP utilization, including compliance with GSP ROOs and the cost of compliance, the preference margin (i.e., duty savings), value of imports, consistency of imports, familiarity with GSP, and the lack of predictability for the program. The analysis below uses quantitative and qualitative information to assess if these factors can be linked to the utilization rates of Pacific Island BDC GSP products.

Compliance with Rules of Origin and Compliance Costs

Many sources identified the inability of exporters to comply with ROOs as a factor likely contributing to low utilization rates for GSP.³⁷⁵ Some also noted that information about whether products meet ROOs is generally not available, complicating any analysis on the impact of ROOs. A key challenge in complying with ROOs is meeting the local content requirements. The OECD found that countries may not always have sufficient inputs available in local markets to meet the local content requirements, especially in cases where cumulation (e.g., the ability to use inputs from within a regional associations) is limited.³⁷⁶ Difficulties in obtaining enough raw materials and intermediate inputs to meet ROOs have been reported as particularly problematic for small countries.³⁷⁷ Such conditions are common among Pacific Island BDCs, which generally have small economies and limited manufacturing and, as explained above, are not members of a GSP-eligible regional association. The Pacific Islands Forum Secretariat has stated that GSP ROOs are generally problematic for its members (it has requested a change to the 35 percent local content threshold or the establishment of a GSP-eligible regional association).³⁷⁸ The inability to meet ROOs likely contributes to the general lack of GSP utilization for U.S. imports of GSP-eligible machinery and manufactured products.³⁷⁹

The related costs for recordkeeping to prove a product meets the ROOs requirements for local content have been pinpointed as another challenge and possible contributor to low preference-program utilization, particularly if the preference margin is low, as described in the next section.³⁸⁰ The U.S. Customs and Border Protection (CBP) has several recordkeeping requirements for licensed customs brokers (e.g., importers), including for those claiming duty-free access under GSP and other preference programs.³⁸¹ Failure to provide records upon request to CBP can result in fines or the loss of a broker's license.³⁸² Studies have also found that administrative costs generally rise as products move downstream (i.e., unprocessed or minimally process products have lower ROOs compliance costs than more highly processed or manufactured products).³⁸³ Notably, many of the top U.S. imports of GSP-

³⁷⁵ WTO, "What Drives the Utilization of Trade Preferences?," April 7, 2022; GAO, *U.S. Trade Preference Programs*, March 2008, 75–78; OECD, *Preferential Trading Arrangements*, March 18, 2005, 87.

³⁷⁶ OECD, *Preferential Trading Arrangements*, March 18, 2005, 87.

³⁷⁷ Bureau, Chakir, and Gallezot, "The Utilisation of Trade Preferences," 2007, 187.

³⁷⁸ PIF Secretariat, posthearing brief submission to USITC, March 10, 2023, 1.

³⁷⁹ Industry representative, interview by USITC staff, Samoa, March 27, 2023.

³⁸⁰ The estimated preference program compliance costs, measured as a tariff equivalent, appear to generally range from about 2 to 6 percent. Notably, some debate exists over whether fixed or variable costs have a greater impact on preference utilization. See, e.g., Hakobyan, "Accounting for Underutilization of Trade Preference Programs," 2015, 411–13; OECD, *Preferential Trading Arrangements*, March 18, 2005, 11, 87; Bureau, Chakir, and Gallezot, "The Utilisation of Trade Preferences," 2007, 187–88. Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012.

³⁸¹ Requirements include maintaining records for five years that demonstrate an item qualifies for duty-free treatment and how it was shipped to the United States. See, e.g., 19 C.F.R. §§ 111.21 & 111.23; USDHS, CBP, *U.S. Rules of Origin*, May 2004, 15, 22; USDHS, CBP, *Recordkeeping*, January 2005; CBP, *African Growth Opportunity Act*, August 2003, 10–11; USTR, *U.S. Generalized System of Preferences: Guidebook*, November 2020, 7–8.

³⁸² 19 C.F.R. §§ 111.25 (requiring that brokers provide records to CBP upon request) & 111.53(c) (allowing revocation of broker license for violation of any CBP rules); USDHS, CBP, *Recordkeeping*, January 2005, 19.

³⁸³ Hakobyan, "Accounting for Underutilization of Trade Preference Programs," 2015, 411–12; OECD, *Preferential Trading Arrangements*, March 18, 2005, 11, 87.

eligible agricultural products from Pacific Island BDCs, which generally have high utilization rates, undergo minimal processing (e.g., milling, preserving, chilling, or juicing).³⁸⁴

Preference Margin

Some studies have shown that trade preference program utilization is higher for products with larger duty rates because of the greater duty-saving benefits. Such duty savings are also more likely to warrant the associated compliance costs.³⁸⁵ Under this theory, incurring the compliance costs may not warrant claiming GSP benefits for products with low NTR tariffs.³⁸⁶

An econometric analysis of the relationship between the NTR duty rates and GSP utilization for all BDCs shows that GSP utilization is slightly higher when the potential tariff reduction or potential duty savings is larger. For a sample of U.S. imports of GSP-eligible products between 2017 and 2021, at the sample's average NTR duty rate of 4.5 percent, a one percentage point increase in the potential tariff reduction results in approximately a 0.3 percentage point increase in GSP utilization.³⁸⁷

An econometric analysis was not possible for Pacific Island BDCs because of the low level of U.S. imports of GSP-eligible products from Pacific Island BDCs (i.e., insufficient data). However, an examination of Pacific Island BDC's trade data indicate that this linkage likely holds. For example, during 2017–21, 58.5 percent of GSP-eligible products from Pacific Island BDCs with duties below 5 percent, as measured by an ad valorem equivalent, had no GSP utilization and only 20.7 percent had full utilization. Of GSP-eligible products with ad valorem equivalent duties above 10 percent, 44.4 percent had no GSP utilization and one-third had full utilization.

Import Value

The value of imports appears to positively influence the GSP utilization rate. As a general rule, U.S. imports of GSP-eligible products with larger values had higher utilization rates than those with smaller values.³⁸⁸ As figure 4.2 shows, products that had utilization rates above 90 percent contributed over three-quarters of the value of U.S. imports of GSP-eligible products from Pacific Island BDCs during 2017–21. Less than one-third of GSP-eligible products are in this group, indicating a concentration of value in the products. Conversely, GSP-eligible products that had no GSP utilization (which made up 52.4 percent of products) accounted for only 8.7 percent of the value of total U.S. imports of GSP-eligible products from Pacific Island BDCs. This indicates that most imports not utilizing GSP had relatively small values. Econometric analysis of all GSP trade during 2017–21 confirms this relationship,

³⁸⁴ See table 4.2, above.

³⁸⁵ OECD, *Preferential Trading Arrangements*, March 18, 2005, 87; USITC, *African Growth and Opportunity Act*, March 2023, 68–70; WTO, “What Drives the Utilization of Trade Preferences?,” April 7, 2022, Özlem Tayta Öztürk (Republic of Turkey Ministry of Trade).

³⁸⁶ OECD, *Preferential Trading Arrangements*, March 18, 2005, 87.

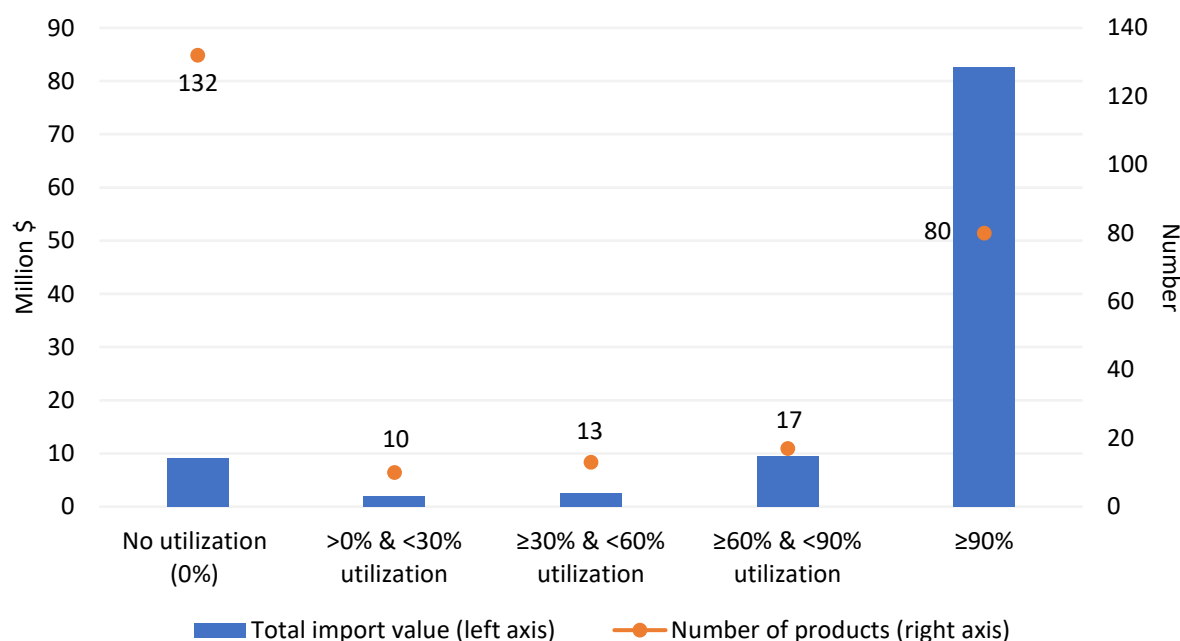
³⁸⁷ Appendix E, table E.1.

³⁸⁸ This pattern has been found in other U.S. and foreign trade preference programs, including the African Growth and Opportunity Act (AGOA). See e.g., USITC, *African Growth and Opportunity Act*, March 2023, 68–70; Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012, 3, 5, 17–18.

although the increase is small (about a 0.04 percentage point increase in GSP utilization for every 1 percent increase in the overall value of U.S. imports of a given GSP-eligible product).³⁸⁹

Figure 4.2 Value of GSP-eligible imports from Pacific Island BDCs and number of products, by utilization rate group, 2017–21

In millions of dollars and number. BDC= beneficiary developing countries. Underlying data for this figure can be found in appendix H, [table H.3](#).



Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting GSP ROOs.

Small quantity shipments may have corresponding administrative requirements to comply with the rules of a preference program that make compliance relatively expensive (see the Compliance and Compliance Cost section above).³⁹⁰ One industry expert noted that many small-value products may be imported by buyers of goods who originate from the Pacific Islands and want a product from home but are less likely to be familiar with GSP benefits.³⁹¹

Import Consistency

How consistently a Pacific Island BDC GSP product is imported appears positively associated to GSP utilization (and to higher import values). U.S. imports of GSP-eligible products from Pacific Island BDCs

³⁸⁹ This result holds for several model specifications. Appendix E, table E.1, regressions (1) and (2).

³⁹⁰ OECD, *Preferential Trading Arrangements*, March 18, 2005, 13.

³⁹¹ The industry expert anticipated that these importers likely select these goods for personal or family reasons, including for use in restaurants or sale at ethnic grocery stores. Subject matter expert, interview by USITC staff, March 16, 2023. For more on the U.S. Pacific Island diaspora and the associated export opportunities for Pacific Island economies, see chapter 6.

can be put into one of three groups: inconsistently imported (imported in only one year of the period), repeatedly but not consistently imported, and consistently imported (imported in all years of the period). As table 4.6 shows, GSP-eligible products from Pacific Island BDCs that were inconsistently imported into the United States were much more likely to not utilize GSP than the other two product groups. Consistently imported products were much more likely to have very high GSP utilization rates (more than 90 percent) as well as be larger in terms of import value.³⁹² Two of the three consistently imported GSP-eligible products from Pacific Island BDCs not utilizing GSP were of machinery and manufactured products, which likely do not comply with GSP ROOs, according to an industry representative.³⁹³

Table 4.6 U.S. imports of Pacific Island BDCs GSP-eligible products by consistency group, 2017–21

In number, millions of dollars, and percentages. PIBDC = Pacific Island beneficiary developing country.

Consistency group	Number of GSP-eligible products in group	Sum of U.S. imports from PIBDCs (million \$)	Share of group with no GSP utilization (%)	Share of group with over 90% GSP utilization (%)
Inconsistently imported	175	6	60.0	30.9
Repeatedly but not consistently imported	39	18	38.5	30.8
Consistently imported	38	81	7.9	55.3
Total	252	106	48.8	34.5

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Familiarity with GSP

Qualitative information from three Pacific Island BDCs indicates that familiarity with GSP is positively related to GSP utilization rates. Duty-free access under GSP must be claimed by importers; therefore, in USTR training sessions, exporters of GSP-eligible products are encouraged to educate their buyers about GSP access as a selling point (box 4.3).³⁹⁴ Fiji’s utilization rates are among the highest of Pacific Island BDCs and many in its industry and the government appear to have a high level of familiarity with GSP.³⁹⁵ One industry expert described Fijian government officials in trade as having a sophisticated knowledge of GSP and how it works.³⁹⁶ Despite GSP outreach in 2018, the situation differs for Papua New Guinea, which has had relatively low and falling GSP utilization. Stakeholders there expressed that there is a general lack of familiarity with GSP or confusion about the program’s actual requirements.³⁹⁷ In

³⁹² Consistently imported products accounted for 73 percent of the total value of U.S. imports of GSP-eligible products from Pacific Island BDCs during 2017–20.

³⁹³ Industry representative, interview by USITC staff, Samoa, March 27, 2023.

³⁹⁴ USTR, “Papua New Guinea and the GSP,” October 2018; USTR, “Fiji and the GSP,” October 2018.

³⁹⁵ Subject matter expert, interview by USITC staff, March 16, 2023; industry representatives, interviews by USITC staff, Fiji, March 21, 2023, March 22, 2023, and March 23, 2023; foreign government officials, interviews by USITC staff, Fiji, March 24, 2023.

³⁹⁶ Subject matter expert, interview by USITC staff, March 16, 2023.

³⁹⁷ Industry representatives, interview by USITC staff, February 6, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 19, 2023.

Samoa—which had high utilization in 2019 but overall below average and declining rates—knowledge of GSP seemed mixed. Stakeholders made it clear that some sectors or exporters were unfamiliar with the program, but others were familiar with GSP, including exporters of taro and noni juice.³⁹⁸ Taro, a root vegetable primarily imported in fresh, chilled, or frozen form, and noni juice, made from the fruit of an evergreen shrub or tree are among the top 15 U.S. imports of GSP-eligible products from Pacific Island BDCs and have high or very high utilization rates.³⁹⁹

Box 4.3 U.S. Government Generalized System of Preferences Outreach to and Training for Pacific Island Beneficiary Developing Countries

U.S. Generalized System of Preferences (GSP) training in and outreach to the Pacific Island region has historically been limited. In October 2018, staff from the Office of the U.S. Trade Representative (USTR) gave multiple training presentations in Fiji and Papua New Guinea on GSP, including on how to use it to expand Pacific Island economies' exports.^a USTR staff conducted outreach visits, including meetings and facility tours, with several groups in each country.

Before that, in 2015, USTR staff presented synchronous virtual training on expanding exports under GSP at a U.S.-Pacific Islands Forum Workshop on Trade, Investment and Private Sector Development held in Fiji.^b These training sessions reportedly reached a range of stakeholders, including those in government, multiple Pacific Islands Forum members, business, and academia.^c Although not specific to any region, USTR offers public information on the program and on its website publishes the *U.S. Generalized System of Preferences Guidebook*.^d

^a Edward Gresser, prehearing brief submission to USITC, February 14, 2023, 1; subject matter expert, interview by USITC staff, March 16, 2023; U.S. government official, interview by USITC staff, March 28, 2023; USTR, "Fiji and the GSP," October 2018; USTR, "Papua New Guinea and the GSP," October 2018.

^b Bill Jackson, Expanding Pacific Island Country Exports, August 19, 2015; Andie Fong Toy, Deputy Secretary General Andie Fong Toy's Welcome Remarks, August 19, 2015.

^c Subject matter expert, interview by USITC staff, March 16, 2023; U.S. government officials, interview by USITC staff, March 28, 2023.

^d USTR, *GSP Guidebook*, November 2020.

GSP Authorization Consistency

One visible trend on a country level is the decline in GSP utilization by a number of Pacific Island BDCs (figure 4.3) after the expiration of GSP authorization.⁴⁰⁰ Over the past three decades, GSP authorization has been for shorter time periods, and GSP authorization has lapsed several times, including between January 1 and April 21, 2018.⁴⁰¹ The latest expiration, which has become the longest in the program's

³⁹⁸ Foreign government officials, interview by USITC staff, Samoa, March 27, 2023; industry representative, interview by USITC staff, Samoa, March 27, 2023.

³⁹⁹ Noni juice is reportedly imported under certain other fruit juices of a single fruit (HTS subheading 2009.89.60/2009.89.70), which appears in table 4.3.

⁴⁰⁰ GSP was initially authorized for a 10-year period, but shorter periods of authorization have become the norm. Title V of Pub. L. No. 93-618, § 505, 88 Stat. 1978, 2071 (1975); see also 19 U.S.C. § 2465 (date of termination for GSP benefits, currently December 31, 2020).

⁴⁰¹ Some renewals have been as short as a year. OECD, *Preferential Trading Arrangements*, March 18, 2005, 88; USITC, *U.S.-Haiti Trade: Impact*, December 2022, 18, 41. See, e.g., Pub. L. No 106-170, § 508, 113 Stat. 1860, 1923 (1999); Pub. L. No 107-210, Division D, Title XLI, § 508, 116 Stat. 933, 1040 (2002); Title VIII of Pub. L. No 109-432, § 8002, 120 Stat. 2922, 3195 (2006); Pub. L. No 110-436, § 4, 122 Stat. 4976, 4981 (2008) (one-year extension of GSP from December 31, 2008, to December 31, 2009); Title II of Pub. L. No 114-27, § 201, 129 Stat. 362, 371 (2015).

history, started January 1, 2021.⁴⁰² GSP remained unauthorized as of August 2023. CBP encourages importers to continue to claim GSP even when the program is not authorized so that if, as has historically occurred, Congress includes a retroactive refund clause in a GSP authorization renewal, CBP can refund any duties paid.⁴⁰³ Without GSP authorization, however, some U.S. importers appear to have stopped claiming GSP preferences for otherwise eligible GSP products.⁴⁰⁴ For example, certain types of mineral water (HTS subheadings 2202.10.00 and 2201.10.00) had GSP utilization rates below 14 percent in 2021 despite having full utilization during most of 2017–20. This suggests a connection to the lack of program authorization, since factors tied to consistently low utilization are unlikely to be impacting these specific products. An industry expert stated they would be surprised if the Pacific Island BDC’s decline in GSP utilization was not related to the current lack of GSP authorization. This expert also noted, given the compliance costs associated with claiming GSP preferences, the longer GSP remains unauthorized, the more importers are likely to see the necessary record keeping as not worth the cost and resources.⁴⁰⁵ The Pacific Islands Forum Secretariat stated that the lack of predictability with GSP “can have a chilling effect on export market development” and disadvantages the Pacific Island BDCs compared to countries with access to other U.S. preference programs (e.g., AGOA).⁴⁰⁶

⁴⁰² 19 U.S.C. § 2465; Pub. L. No 115-141, Division M, Title V, § 501, 132 Stat. 348, 1050 (2018) (extending GSP to December 31, 2020); CRS, *Generalized System of Preferences*, July 20, 2022, 33–34; USITC, *U.S.-Haiti Trade: Impact*, December 2022, 18, 41.

⁴⁰³ CBP, “Generalized System of Preferences (GSP),” accessed June 9, 2023. Although not guaranteed with any lapse, historically, when Congress has reauthorized GSP it has also authorized a retroactive application of duty-free entry for eligible products. See, e.g., CBP, “GSP Refund Process,” accessed January 17, 2023; WTO, “What Drives the Utilization of Trade Preferences?,” April 7, 2022, Kent Shigetomi (USTR). USTR, “GSP Expiration: Frequently Asked Question,” January 2021.

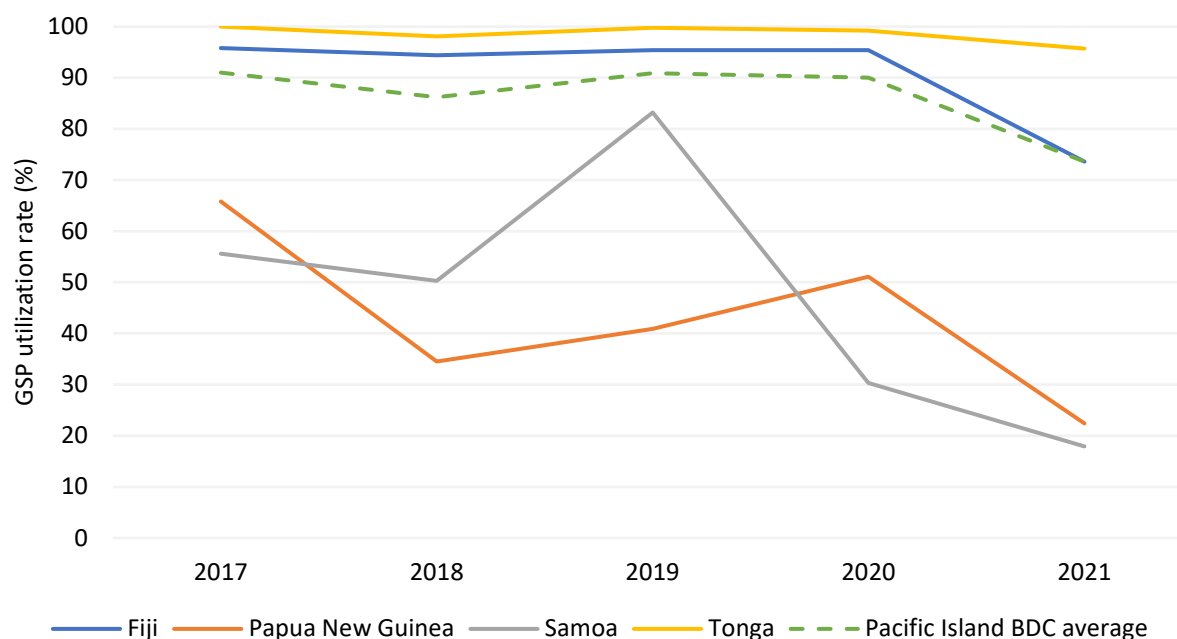
⁴⁰⁴ As explained above, certain imports can enter the U.S. market duty-free under more than one preference program. Research shows that, when such a choice is available, the lack of predictability for GSP can lead U.S. importers to claim other preferences (e.g., Civil Aircraft Agreement) over GSP. Bureau, Chakir, and Gallezot, “The Utilisation of Trade Preferences,” 2007, 186–87.

⁴⁰⁵ Subject matter expert, interview by USITC staff, March 16, 2023.

⁴⁰⁶ PIF Secretariat, posthearing brief submission to USITC, March 10, 2023, 1; USITC, hearing transcript, February 14, 2023, 16 (testimony of Satyendra Prasad, Embassy of Fiji).

Figure 4.3 GSP utilization rates for certain Pacific Island BDCs, and overall Pacific Island BDC utilization, 2017–21

In percentages; BDC =beneficiary developing country. Underlying data for this figure can be found in appendix H, [table H.4](#).



Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: Certain small volumes of trade (as discussed in and around table 4.2) were separated out and not analyzed in this chapter. Full details of the data not analyzed in this chapter are presented in Appendix G. GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Preferences for Insular Possessions

American Samoa, Guam, and the Northern Mariana Islands are U.S. territories in the Pacific region and are referred to as insular possessions in federal legislation.⁴⁰⁷ They are outside the U.S. customs territory, making their exports to the U.S. dutiable.⁴⁰⁸ For over a century, the United States has offered duty-free treatment for the products of its insular possessions to encourage economic development. This duty-free treatment helped spur the growth of assembly operations but brought objections from manufacturers in the U.S. mainland. These objections led Congress to impose product-specific restrictions on this duty-free treatment, which ultimately curtailed several of these industries, including watches, buttons, and ethyl alcohol.⁴⁰⁹ The seemingly precarious nature of this duty-free treatment

⁴⁰⁷ USDOT, “Definitions of Insular Area Political Organizations,” June 12, 2015.

⁴⁰⁸ 19 C.F.R. § 101.1 (defining customs territory of the United States as being “the States, the District of Columbia, and Puerto Rico”); 19 C.F.R. § 7.2 (indicating that Guam, American Samoa, and Northern Mariana Islands are outside customs territory of the United States).

⁴⁰⁹ Pub. L. No. 89-805, § 1(b), 80 Stat. 1521 (1966) (quota limits on watches from insular possessions); see also Presidential Statement on signing Bill With Respect to Dutiable Status of Articles, 46 Weekly Comp. Pres. Doc. 1681

ultimately limited the growth of assembly operations in the insular possessions (see box 4.4).⁴¹⁰ Nonetheless, as explained below, Congress continued to prioritize the insular possessions' overall U.S. market access when later crafting other preference programs, including GSP and the Caribbean Basin Economic Recovery Act (CBERA).

Since 1954, the United States has provided duty-free treatment for products that were the growth or product of an insular possession, or that underwent manufacturing in an insular possession and whose total value contained no more than 50 percent foreign content.⁴¹¹ The provision of duty-free treatment for goods assembled from foreign materials proved particularly effective at creating assembly operations in the insular possessions.⁴¹² These trade preferences were extended to the Northern Mariana Islands in 1977, when the trade provision of its Covenant Agreement, which established the terms under which the Northern Mariana Islands became a U.S. territory, came into effect.⁴¹³

(November 21, 1966); Pub. L. No. 89-806, § 2(a), 80 Stat. 1523 (1966) (eliminating duty-free treatment for buttons with any foreign content from insular possessions); Pub. L. No. 99-514, § 423, 100 Stat. 2085, 2230 (1986) (requiring that ethyl alcohol be made from source materials in an insular possession to qualify for duty-free treatment).

⁴¹⁰ Van Cleve, *The Office of Territorial Affairs*, 1974, 69, 90. (indicating plans in the 1960s to establish watch assembly in American Samoa were abandoned after imposition of the watch quota in 1966, and that plans to process foreign wool in Guam for export to the United States were abandoned after congressional members from wool-producing districts proposed excluding such products from duty-free treatment).

⁴¹¹ Pub. L. No. 83-768, §§ 401–402, 68 Stat. 1136, 1139 (1954). The Customs Simplification Act of 1954 sought to standardize rules regarding preferences for U.S. territories, which had varied before 1954, and also to set foreign content limits that struck a balance between encouraging assembly of products from foreign materials but requiring sufficient work be done in U.S. territories. See, e.g., Pub. L. No. 61-5, § 718(5), 36 Stat. 11, 83 (1909) (allowing up to 20 percent foreign content for products of Philippines); Pub. L. No. 81-630, § 27, 64 Stat. 384, 392 (1950) (allowing any amount of foreign content for products of Guam); *Customs Simplification Act of 1954: Hearings on H.R. 9476 Before H. Comm. on Ways and Means*, 83rd Cong. 17 (1954) (testimony of H. Chapman Rose, Secretary of the Treasury) (indicating that firms had undertaken minimal operations in insular possessions when obtaining duty-free treatment for articles and advocating sufficient limits on foreign content).

⁴¹² S. Rep. 89-1679 at 2–3 (1966) (listing 42 products assembled or manufactured in the insular possessions that had qualified for duty-free treatment); Van Cleve, *The Office of Territorial Affairs*, 1974, 114. (indicating that no manufacturing occurred in the U.S. Virgin Islands when products were limited to 20 percent foreign content, but that the increase to 50 percent foreign content for products proved successful in attracting manufacturers).

⁴¹³ Although the Covenant Agreement did not fully come into effect until 1986, the trade provisions took effect earlier, in 1977. Pub. L. No. 94-241, § 603(c), 90 Stat. 263, 270 (1976) (codified at 48 U.S.C. § 1801 note) (granting the Northern Mariana Islands same treatment as imports from Guam); see also Proclamation No. 4534, 42 Fed. Reg. 56593 (October 27, 1977); Proclamation No. 5564, 51 Fed. Reg. 40399 (November 7, 1986) (terminating Trust Territory of the Pacific Islands and establishing Northern Mariana Islands as U.S. territory).

Box 4.4 The Assembly of Watches in Guam

One of the most prominent assembly operations to emerge in the insular possessions was that of watches. The insular possessions' watch industry expanded from zero production in 1958 to exports of over 4 million units in 1965, which at that time accounted for more than a third of U.S. consumption of mechanical watches. The assembly firms were primarily in the U.S. Virgin Islands and Guam.^a

Notwithstanding this success, federal policy veered between support and suppression of the industry. The explosive growth of watch shipments from the insular possessions brought concerns that they had harmed the “domestic,” meaning U.S. mainland, watch industry. In response, Congress in 1966 imposed quotas on the units of watches eligible for duty-free treatment. Under these quotas, total imports of watches from the insular possessions could not exceed 1/9 of apparent U.S. consumption in the preceding calendar year, and the quotas would be distributed primarily to the U.S. Virgin Islands, with smaller amounts to Guam and American Samoa.^b Further controversy arose in the 1970s over the use of pre-assembled watch movements from the Soviet Union, which were widely relied upon by firms in Guam.^c The U.S. Department of Commerce responded by prioritizing higher-value assembly work, such as the assembly of watch movements, in its allocation of quotas. While this change did not directly address the use of Soviet movements, it had the effect of advantaging firms in the U.S. Virgin Islands that assembled watch movements from Swiss parts and paid higher local wages than firms in Guam.^d In the 1980s, when the rise of digital quartz watches was supplanting demand for the mechanical watches assembled in the insular possessions, Congress offered support for the mechanical watch industry. Measures adopted by Congress included the elimination of restrictions on foreign content in watches to qualify for duty-free treatment and rebates to firms for wages paid in the insular possessions.^e

The last watch assembly firm in Guam ceased operations in 1992.^f In a 2017 statement looking back at the history of Guam's watch industry, the Governor of Guam indicated that inconsistent federal policy had made the tariff preferences “an anchor rather than . . . a platform from which Guam's economy could be launched.”^g

^a S. Rep. 89-1679 at 3 (1966). In 1965, 16 watch manufacturing plants were in the U.S. Virgin Islands and five in Guam. Watch assembly operations were more limited in American Samoa, with a single producer operating in the territory from 1972 to 1977. 43 Fed. Reg. 60313, 60319 (December 27, 1978) (indicating shipments of watches assembled in American Samoa started in 1972); 44 Fed. Reg. 61403 (October 25, 1979) (indicating sole producer in American Samoa ceased operations in 1977).

^b Pub. L. No. 89-805, § 1(b), 80 Stat. 1521 (1966); S. Rep. 89-1679 at 6–7 (1966) (explaining rationale to protect the “domestic” watch industry, simultaneously privileging imports from insular possessions over imports from other sources).

^c S. Rep. 95-30, at 19 (1978).

^d 43 Fed. Reg. 60313 (December 27, 1978) (Commerce rulemaking on allocating quotas of watches in insular possessions); *Jerlian Watch Co. Inc. v. United States Department of Commerce*, 597 F.2d 687 (9th Cir. 1979) (challenge to Commerce rules by Guam watch companies alleging rules punished firms for relying on Soviet parts and had no justification in law; dismissed on jurisdictional grounds).

^e Pub. L. No. 97-446, § 110, 96 Stat. 2329, 2331–2333 (1983); H. Rep. 97-837 at 38–40 (1982).

^f 58 Fed. Reg. 26119, 26120 (April 30, 1993).

^g Guam Governor, “A Lesson From History,” July 24, 2017.

Even as Congress restricted access for specific products from the insular possessions, it continued to prioritize overall U.S. market access for the insular possessions when developing new trade preference programs starting in the 1970s. When creating GSP, Congress stated that “the products of the U.S. insular possessions should under no circumstances be treated less advantageously than those of foreign countries.”⁴¹⁴ Accordingly, the Trade Act of 1974 clarified that products imported from an insular possession “shall receive duty-free treatment no less favorable than the treatment afforded such articles from a beneficiary developing country,” meaning that products from the insular possessions

⁴¹⁴ S. Rep. 93-1298 at 223 (1974).

could have the higher threshold of 65 percent foreign content permissible under GSP if the product had been made eligible for GSP.⁴¹⁵ When considering whether to designate articles as eligible for GSP, the President is also to take into account whether such treatment would adversely affect the manufacture of articles in the insular possessions.⁴¹⁶ For example, to maintain the “overall competitive position” of the insular possessions relative to Caribbean states when creating the Caribbean Basin Economic Recovery Act (CBERA), Congress increased the allowable value of foreign content in products under the insular possession’s preferences, to 70 percent for products that were also eligible for CBERA.⁴¹⁷ Finally, some articles were statutorily excluded from GSP and CBERA to protect industries in the insular possessions, including the exclusion of watches from GSP and CBERA and of canned tuna from CBERA.⁴¹⁸

Currently, duty-free treatment for products of the insular possessions is codified at General Note 3(a)(iv) of the HTS and 19 C.F.R. § 7.3 of CBP regulations, which provide rules that function similarly to ROOs in GSP.⁴¹⁹ Articles must be the growth or product of an insular possession, or undergo manufacturing in an insular possession and be made from foreign materials that do not exceed 70 percent of a product’s total value, or do not exceed 50 percent of a product’s total value if the product is excluded from CBERA.⁴²⁰ For goods assembled from foreign materials, the manufacturing in the insular possession must be sufficient to make the finished good “a new and different article of commerce.”⁴²¹ Articles must also be directly shipped from an insular possession to the United States.⁴²² Any product is eligible for duty-free treatment with only limited exceptions. Imports of watches eligible for duty-free treatment are

⁴¹⁵ Pub. L. No. 93-618, § 502(d), 88 Stat. 1978, 2068–69 (1975) (codified at HTS General Note 3(a)(iv)(C)).

⁴¹⁶ S. Rep. 93-1208 at 223 (1974).

⁴¹⁷ Pub. L. No. 98-67, §214(a), 97 Stat. 369, 392–93 (1983); see also H.R. Rep. 98-266, at 22 (1983) (explaining rationale for increase in foreign content for products from insular possessions). For products statutorily excluded from CBERA, the limit of foreign content for duty-free treatment from the insular possessions remained at 50 percent. *Id.*

⁴¹⁸ Pub. L. No. 93-618, § 503(c)(1)(B), 1978, 2069 (1975) (designating watches as import sensitive and ineligible for GSP); amended by Pub. L. No. 100-418, § 1903, 102 Stat. 1107, 1313 (1988) (allowing designation of watches for GSP only if President determined doing so would not cause material injury to assembly operations in the United States or its insular possessions); USITC, *Probable Economic Effects of Providing Duty-Free Treatment for Watches*, April 1989 (including analysis of watch assembly industry in the U.S. Virgin Islands and Guam); Pub. L. No. 98-67, § 213(b), 97 Stat. 369, 388 (1983) (codified at 19 U.S.C. § 2703(b)(1)(C) & (E)) (excluding watches and canned tuna from CBERA-eligible products); H.R. Rep. 98-266, at 15 (1983) (noting tuna was a major industry in Puerto Rico and American Samoa and that lower wages in Caribbean could imperil industries in these territories if duty-free treatment were included in CBERA).

⁴¹⁹ 58 Fed. Reg. 40095, 40097 (July 27, 1993) (explaining need for additional rules to establish ROOs for insular preferences similar to those in GSP).

⁴²⁰ As further described above, the Trade Act of 1974 initially ensured the insular possessions enjoyed duty-free access no worse than GSP beneficiaries (e.g., foreign content could not exceed 65 percent) and CBERA subsequently increased the threshold of foreign content to 70 percent to ensure the insular possessions had better market access than CBERA beneficiaries. USITC, *Harmonized Tariff Schedule*, January 2023, General Note 3(a)(iv)(A); 19 C.F.R. § 7.3(a). Customs regulations also detail the methodology for calculating the value of foreign content. 19 C.F.R. § 7.3(d).

⁴²¹ 19 C.F.R. § 7.3(b).

⁴²² 19 C.F.R. § 7.3(e).

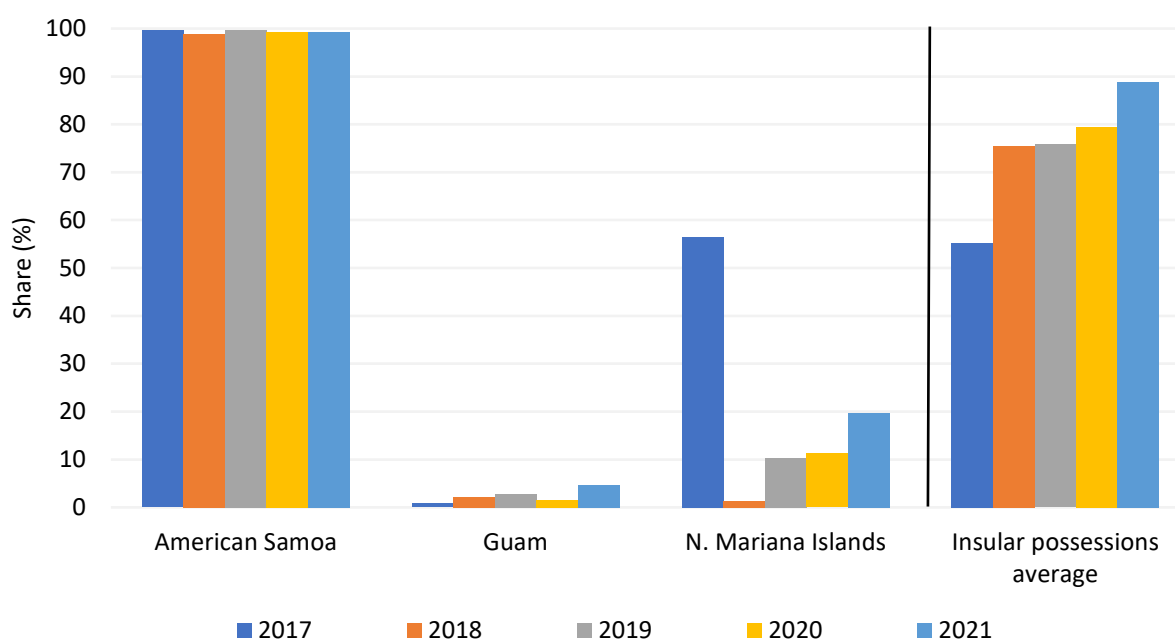
subject to quotas, and imports of buttons or ethyl alcohol cannot contain foreign content to qualify for duty-free treatment.⁴²³

U.S. Preference-Eligible Imports and Utilization of Insular Possessions Preferences

U.S. imports of preference-eligible products⁴²⁴ from American Samoa, Guam, and the Northern Mariana Islands make up a large and growing share of overall U.S. imports from these three insular possessions: average imports of preference-eligible products increased from 55 percent in 2017 to 89 percent in 2021 (figure 4.4).⁴²⁵ However, this trend masks very different experiences across the three economies as American Samoa accounts for most of this trade. During 2017–21, the United States imported minimal amounts of preference-eligible products from Guam. The share of imports of these products from the Northern Mariana Islands was erratic.

Figure 4.4 U.S. imports of preference-eligible products as a share of total imports from Pacific Island insular possessions, by economy, 2017–21

In percentages. N. Mariana Islands = Northern Mariana Islands. Underlying data for this figure can be found in appendix H, [table H.5](#).



Source: U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 5, 2023.

⁴²³ USITC, *Harmonized Tariff Schedule*, January 2023, General Note 3(a)(iv)(A); chapter 91, Additional Note 5 (quotas on imports of watches from insular possession); chapter 96, Additional Note 2 (excluding buttons with foreign content from duty-free treatment for insular possessions); 19 C.F.R. § 7.3(a)(1); 19 U.S.C. § 2703 note (excluding ethyl alcohol with foreign content from duty-free treatment for insular possessions).

⁴²⁴ U.S. imports of preference-eligible products refers to products from U.S. territories that are eligible for duty-free treatment under General Note 3(a)(iv) and 19 C.F.R. 7.3.

⁴²⁵ Unless otherwise mentioned, insular possessions data are U.S. imports for consumption of preference-covered product for insular possessions from USITC DataWeb/Census, accessed February 2, 2023.

During 2017–21, U.S. imports of preference-eligible products from the insular possessions were roughly 15 to 17 times larger than imports under GSP from Pacific Island BDCs, depending on the year. However, these U.S. imports were extremely concentrated. Reflecting the region’s comparative advantage in fisheries, over 99 percent were composed of only two tuna products (HTS subheadings 1604.14.30 and 1604.14.10) from American Samoa (box 4.5).⁴²⁶ Because of this, American Samoa accounts for nearly all U.S. imports of preference-eligible products from the insular possessions (table 4.7). American Samoa also had a preference utilization rate of nearly 100 percent, driven by the U.S. imports of these tuna products. This resulted in an overall Pacific Island insular possessions utilization rate of 99.5 percent for 2017–21. (For discussion of calculation of utilization rates, see the GSP utilization section above.) Guam’s utilization rates ranged from a low of 5.7 percent (2017) to a high of over 22 percent (2019). The Northern Mariana Islands had no utilization of insular possessions preferences, except in 2017.⁴²⁷ Overall preference trade and utilization of preferences available for insular possessions are likely impacted by similar factors that impact GSP trade and utilization.

Box 4.5 Minimum Wage Laws and Their Impact on American Samoa’s Tuna Industry and the Northern Mariana Islands’ Apparel Industry

To support the competitiveness of export-oriented industries, Congress has allowed the insular possessions to diverge from federal minimum wage rates. Starting in the 1950s, Congress allowed individual industries in American Samoa to set lower minimum wage rates than those specified in the Fair Labor Standards Act (FLSA) given concerns over the impact of higher wages on the nascent tuna canning industry.^a Congress also exempted the Northern Mariana Islands from federal minimum wages in its Covenant Agreement.^b Export-oriented industries would emerge in both territories, including American Samoa’s tuna industry and the Northern Mariana Islands’ apparel industry. But the treatment of foreign, or “alien,” workers in the Northern Mariana Islands resulted in these exemptions becoming controversial in the 1990s.^c During this time, the U.S. Department of Interior found that alien workers in the Northern Mariana Islands’ textile industry faced abuses such as wage theft, unsafe working conditions, and recruitment scams. As a result, several class action lawsuits were filed in federal courts over these conditions.^d Given these controversies, Congress revoked the territories’ exemptions from federal minimum wage rates in 2007, albeit in a gradual transition.^e Currently, all industries in the Northern Mariana Islands are subject to federal minimum wage rates. American Samoa continues to operate at a lower wage-rate schedule that varies by industry.^f

⁴²⁶ HTS subheading 1604.14.30 was by far the larger of these two alone accounting for almost 84 percent of U.S. imports of preferential products from insular possessions. For more on comparative advantages in the Pacific Islands, see Chen et al., *Pacific Island Countries*, August 2014, 5–7.

⁴²⁷ As with GSP-eligible products, insular possession preference-eligible products can enter the United States duty free under other preference programs, including the Civil Aircraft Agreement. As a group, the Pacific Island insular possessions’ other preference utilization rate was 0.3 percent during 2017–21 (using all trade in insular possession preference-eligible products as the denominator). On an individual level, however, there was significant variation in utilization rates. American Samoa’s other preference program utilization rates were minimal (never exceeding 0.1 percent) and erratic. During 2017–21, the Northern Mariana Islands had utilized another preference program only once, in 2017. In contrast, Guam’s other preference utilization rates, specifically under the Civil Aircraft Agreement, were far higher than its insular possession preference rate. During 2017–21, such imports occurred consistently, and Guam’s other preference program utilization averaged 41.6 percent. Guam’s actual program utilization rates (i.e., all imports of insular possession preference-eligible products entering duty free under all preference systems) ranged from a low of 36.9 percent in 2017 to a high of 56.4 percent in 2019.

^a Pub. L. No. 84-1023, § 2, 70 Stat. 1118 (1956) (allowing the establishment of special industry committees to determine wage rates for specific sectors and industries within American Samoa); H.R. Rep. 84-2469, at 4 (1956) (indicating concerns that immediate application of federal minimum wage to American Samoa would force nascent tuna canning industry to close).

^b Pub. L. No. 94-241, § 503, 90 Stat. 263 268 (1976). In contrast, Congress has consistently required that federal minimum wage rates apply to Guam. Pub. L. No. 85-231, § 1, 71 Stat. 514 (1957); see also H.R. Rep. No. 85-808, at 5 (1957) (discussing application of FLSA to Guam).

^c “Alien” refers to any person that is not a citizen of the United States. 8 U.S.C. § 1101(a)(3).

^d S. Rep. 110-324, at 4 (2008) (summarizing controversies around immigration and wage systems in Northern Mariana Islands); U.S. Government Accountability Office, “Northern Mariana Islands: Garment and Tourist Industries Play a Dominant Role in the Commonwealth’s Economy,” 2000.

^e Title VIII of Pub. L. No. 110-28, § 8102, 121 Stat. 112, 188 (2007) (codified at 29 U.S.C. § 206 note). Congress has numerous times delayed the phase-in of federal minimum wage rates at the request of officials from these territories. See, e.g., Pub. L. No. 113-34, § 2, 127 Stat. 518 (2013) (delaying future minimum wage increases in Northern Mariana Islands); Pub. L. No. 114-61, § 1(a), 129 Stat. 545 (2015) (delaying future increases in American Samoa).

^f U.S. Department of Labor, “Northern Mariana Minimum Wage Poster,” accessed May 26, 2023; U.S. Department of Labor, “American Samoa Minimum Wage Poster,” accessed May 26, 2023.

Table 4.7 U.S. imports of preference-eligible products from Pacific Island insular possessions, by economy, 2017–21

In dollars. N. Mariana Islands = Northern Mariana Islands.

Economy	2017	2018	2019	2020	2021
American Samoa	308,056,674	374,778,701	352,152,246	403,561,457	303,595,687
Guam	2,115,723	2,430,334	3,221,370	1,674,125	1,763,452
N. Mariana Islands	1,506,932	33,646	105,720	144,934	79,649
Total	311,679,329	377,242,681	355,479,336	405,380,516	305,438,788

Source: U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 5, 2023.

Note: U.S. imports of preference-eligible products refers to products from U.S. territories that are eligible for duty-free treatment under General Note 3(a)(iv) and 19 C.F.R. 7.3.

Preferences Under Compacts of Free Association

The Marshall Islands, the Federated States of Micronesia, and Palau are collectively referred to as the FAS, connoting their close economic and historic ties with the United States. The FAS emerged from the Trust Territory of the Pacific Islands (Trust Territory), which was created following the Second World War.⁴²⁸ The islands were in trusteeship under the United Nations (UN) and administered by the United States, which agreed to promote the social, political, and economic development of the islands while they transitioned toward self-government or independence.⁴²⁹ As described below, enhanced trade preferences have long been proposed for the states making up the FAS, but it took decades before they came into effect.

Given the similarity of its role governing the insular possessions and Trust Territory, the United States proposed in 1948 giving the Trust Territory similar duty-free treatment for imports.⁴³⁰ Despite repeated

⁴²⁸ The Trust Territory of the Pacific Islands (Trust Territory) encompassed islands that had been governed by Japan, used as military bases during the Second World War, and then conquered by Allied forces. The islands were then referred to as the Marshall Islands, Caroline Islands, and Mariana Islands. S. Rep. 80-471, at 4 (1947).

⁴²⁹ U.N. S.C. Res. 318 (April 2, 1947) (approving Trustee Agreement with United States); see also Pub. L. No. 80-204, 61 Stat. 397 (1947) (authorizing President to enter into Trusteeship Agreement for the Territory of the Pacific Islands).

⁴³⁰ See, e.g., H.R. Rep. No. 88-605, at 4–5 (1963) (indicating that the United States’ role as administering authority was similar to relationship with insular possessions, and proposing that Trust Territory be treated as insular

attempts in the following decades, Congress did not enact trade preferences for the Trust Territory given objections to the operations of preferences for the insular possessions.⁴³¹ Only with the creation of GSP in the Trade Act of 1974 did the Trust Territory become eligible for duty-free treatment for exports to the United States.⁴³²

In the 1980s, President Ronald Reagan proposed trade preferences based on those available to the insular possessions in the Compacts of Free Association (Compacts) that were negotiated to end the UN trusteeship and establish the FAS as independent states.⁴³³ Congress, however, rejected that sovereign nations should be granted the same preferences as the insular possessions, noting that their independence from federal laws would give the FAS potential cost advantages over the insular possessions.⁴³⁴ Nonetheless, Congress acknowledged that a “generous trade preference” was appropriate given the close ties the FAS had to the United States, and instead provided for trade preferences similar to those available to Caribbean islands under CBERA.⁴³⁵ The Compact trade preferences approved by Congress went into effect in 1989 for the Marshall Islands and the Federated States of Micronesia and in 1994 for Palau.⁴³⁶

possession for tariff purposes). In 1948, the United States received the first ever waiver from the General Agreement on Tariffs and Trade (GATT) obligations under Article 1(1) to grant duty free treatment to imports from the Trust Territory. General Agreement on Tariffs and Trade, Request of the United States for a Waiver under Article XXV of the GATT in Respect of Preferential Treatment for the Trust Territory of the Pacific, GATT/CP.2/WP3/6 (1948).

⁴³¹ See, e.g., H.R. 3198, 88th Cong. § 3 (1963); S. Rep. 88-1258, at 2 (1964) (bill proposing that Trust Territory be considered an insular possession for tariff purposes, but Senate report indicating removal from final law); S. 860, 92nd Cong. § 401 (1971) (proposing that Trust Territory be considered as an insular possession for tariff purposes); S. Rep. No. 92-76, at 9 (1971) (noting objections to 1971 bill from U.S. Department of Commerce officials who argued that exports from insular possessions entering duty-free had been “harmful to American industry”).

⁴³² Pub. L. No. 93-618, § 502(a)(3), 88 Stat. 1978, 2066 (1975) (indicating that for purposes of GSP, countries eligible to be designated a BDC included the Trust Territory of the Pacific Islands); see also Exec. Order No. 11844, 40 Fed. Reg. 13295 (March 26, 1975) (designation of Trust Territory as BDC for purposes of GSP).

⁴³³ H.R. Doc. 98-192, at 54 (1984) (President’s transmission of Compacts for the Federated States of Micronesia and the Marshall Islands for congressional approval); H.R. Doc. 99-193, at 89 (1986) (President’s transmission of Compact for Palau for Congressional approval).

⁴³⁴ See, e.g., H.R. Rep. 99-188, pt. II, at 28–30 (1985). As further discussed in chapter 1, however, application of U.S. law in the insular possessions can diverge from the rest of the United States. In contrast to the FAS, Congress approved providing the Northern Mariana Islands the same trade preferences as the insular possessions in the Covenant Agreement that established them as a U.S. territory. Pub. L. No. 94-241, § 603(c), 90 Stat. 263, 270 (1976).

⁴³⁵ H.R. Rep. 99-188, at 29 (1985); Pub. L. No. 99-239, § 401, 99 Stat. 1770, 1838 (1986) (amended trade preferences for Compacts for the Marshall Islands and the Federated States of Micronesia); Pub. L. No. 99-658, § 242, 100 Stat. 3672, 3692 (1986) (trade preferences for Compact with Palau).

⁴³⁶ While the Compacts for the Marshall Islands and the Federated States of Micronesia went into effect in 1986, there was a three-year delay before their trade preferences were implemented by Presidential Proclamation in 1989. Proclamation No. 5564, 51 Fed. Reg. 40399 (November 3, 1986) (proclaiming that Compacts with the Marshall Islands went into effect on October 21, 1986, and for the Federated States of Micronesia on November 3, 1986). President Reagan initially redesignated the islands as BDCs for GSP rather than implement the unique Compact preferences. Proclamation No. 5617, 52 Fed. Reg. 7265 (March 10, 1987). Only in 1989 did President Bush terminate the GSP designation and amend the HTS to reflect the Compacts. Proclamation No. 6030, 54 Fed. Reg. 40839 (October 3, 1989). Palau’s Compact went into effect in 1994 following its approval by an UN-observed

These trade preferences incorporate elements from CBERA, GSP, and the insular possessions to create a unique program.⁴³⁷ Like CBERA, duty-free treatment extends to any product unless specifically excluded.⁴³⁸ The products excluded from duty-free treatment in the Compacts are similar, although not identical, to those in CBERA, encompassing textiles and apparel, watches and watch parts, buttons, footwear, handbags, luggage, and flat goods.⁴³⁹ The Compacts incorporate ROOs requirements and competitive need limitations from GSP.⁴⁴⁰ Finally, the Compacts' trade preferences are similar to those of the insular possessions in that they are not subject to eligibility criteria or Presidential review, nor do they require renewal by Congress.⁴⁴¹ The FAS trade preferences have remained unchanged in subsequent amendments to and reviews of the Compacts.⁴⁴²

U.S. Preference-Eligible Imports and Utilization of the Freely Associated States Compact Preferences

U.S. imports of Compact preference-eligible products from the FAS were very small both in terms of total value and share of U.S. imports from these three economies.⁴⁴³ Overall, these imports never exceeded \$2 million and always accounted for less than 10 percent of total U.S. imports from the FAS in any given year during 2017–21 (table 4.8). As a group the FAS's Compact preferences utilization rate was

plebiscite, and President Clinton implemented the trade preferences shortly afterward. Proclamation No. 6726, 59 Fed. Reg. 49,777 (September 29, 1994) (proclaiming Palau Compact entered into force October 1, 1994); Proclamation No. 6763, 60 Fed. Reg. 1008 (December 23, 1994) (terminating Palau's GSP designation and amending the HTS to designate Palau as one of the FAS for tariff purposes).

⁴³⁷ USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, Chapter 10.

⁴³⁸ Pub. L. No. 99-239, § 401(a), 99 Stat. 1770, 1838 (1986); Pub. L. No. 99-658, § 242(a), 3672, 3692 (1986) (codified at HTS General Note 10(b)); see also 19 U.S.C. § 2703(a) (CBERA eligible products). This is unlike GSP, which authorizes the President to designate specific articles as eligible for duty-free treatment. 19 U.S.C. § 2461.

⁴³⁹ Compare HTS General Note 10(d) with 19 U.S.C. § 2703(b). Both the Compacts and CBERA exclude from duty-free treatment imports of HTS lines for over-quota agricultural products. Unlike CBERA, the Compacts allow for a limited amount of canned tuna to enter duty-free, in amounts not to exceed 10 percent of U.S. consumption in the preceding year.

⁴⁴⁰ See, e.g., Pub. L. No. 99-658, § 242(a), 100 Stat. 3672, 3692 (1986) (incorporating by reference portions of GSP); compare HTS General Note 10(b) with 19 U.S.C. § 2463(b) (GSP ROOs requirements). As explained above, GSP's ROOs requirements include direct shipment, and that the value of materials/processing operations in beneficiaries be no less than 35 percent. To the Commission's knowledge, no competitive need limitation proceeding has ever been initiated regarding a product from an FAS country.

⁴⁴¹ Compare Pub. L. No. 99-239, § 401, 99 Stat. 1770, 1838 (1986) & Pub. L. No. 99-658, § 242, 100 Stat. 3672, 3692 (1986) (Compact preferences without eligibility requirements) with 19 U.S.C. §§ 2462 (President's authority to designate BDCs for GSP and eligibility criteria) & 2702 (President's authority to designate countries for CBERA and eligibility criteria). The Compacts' provision of grants to the FAS has an expiration, but the trade provisions do not. See, e.g., Pub. L. No. 108-188, § 216, 117 Stat. 2720, 2775 (2003) (providing timetable of grants to governments of the Marshall Islands and the Federated States of Micronesia through 2023).

⁴⁴² The Compacts for the Marshall Islands and the Federated States of Micronesia were amended in 2003. Pub. L. No. 108-188, § 242, 117 Stat. 2720, 2779 (2003) (unchanged trade preferences). The Compact for Palau underwent a review and amendments in 2010. Pub. L. No. 99-658, § 432, 100 Stat. 3672, 3699 (1986) (allowing amendments to Compact after review and mutual agreement of parties); see also *Agreement Between the Government of United States of America and the Government of the Republic of Palau Following the Compact of Free Association Section 432 Review*, T.I.A.S. 18-919 (2010) (not changing trade preferences).

⁴⁴³ Unless otherwise noted, data of U.S. imports for consumption of Compact preference-eligible product for the FAS from USITC DataWeb/Census, accessed February 2, 2023.

low, just 6.1 percent for 2017–21. In that period, only U.S. imports from the Federated States of Micronesia had Compact preference utilization. Its utilization rates were initially high (about 73–100 percent), but they fell in 2020–21 to about 9–10 percent. The Federated States of Micronesia’s Compact preference utilization was exclusive to U.S. imports of certain other basketwork and other articles of vegetable materials (HTS subheading 4602.19.80). During 2017–21, Palau and the Marshall Islands did not have any Compact preference utilization.⁴⁴⁴ For example, tuna sourced from the Marshall Islands is exported to the United States as canned tuna. These exports, however, are not claimed under the FAS preference for canned tuna because they are canned in Asia before export and therefore do not meet the ROOs requirements.⁴⁴⁵ Overall preference trade and utilization of preferences available to the FAS are likely impacted by similar factors that impact GSP trade and utilization.⁴⁴⁶

Table 4.8 U.S. imports of Compact preference-eligible products from the FAS economies, 2017–21

In dollars. FAS= freely associated states. HTS= Harmonized Tariff Schedule of the United States.

Economy	2017	2018	2019	2020	2021
The Marshall Islands	826,378	1,791,150	786,280	613,846	1,274,204
F. S. Micronesia	118,194	146,715	91,041	621,632	532,016
Palau	14,282	0	22,000	37,182	2,500
FAS total	958,854	1,952,703	899,321	1,272,660	1,808,720

Source: USITC DataWeb/Census, Imports for Consumption, accessed February 2, 2023.

Note: The data were limited to 8-digit HTS subheadings that are Compact covered.

⁴⁴⁴ As with GSP-eligible products, Compact preference-eligible products can enter the United States duty-free under other preference programs including the aforementioned Civil Aircraft Agreement. During 2017–21, there was only one such entry from the FAS. In 2018, the United States imported \$14,838 of starter motors and dual-purpose starter-generators (HTS 8511.40.00) from Palau duty free under the Civil Aircraft Agreement (i.e., a 100 percent actual utilization rate). This was the only year this product was imported from Palau and there is no indication that Palau had the capability to manufacture this product.

⁴⁴⁵ Subject matter expert, interview by USITC staff, December 19, 2022.

⁴⁴⁶ As with the GSP Pacific Island BDCs, there may also be misclassifications of U.S. imports of Compact preference-eligible products from the FAS. As such, actual U.S. imports of Compact preference-eligible products during 2017–21 may be lower than shown.

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Chapter 5

Investment Trends in the Pacific Islands

Overview of Foreign Direct Investment in Pacific Island Economies

This chapter describes, to the extent data are available, global and U.S. foreign direct investment (FDI) in Pacific Island economies and the factors affecting this investment. The analysis shows that global FDI in the Pacific Islands is highly concentrated in a handful of economies and sectors. Reported FDI positions indicate the largest destinations for FDI in the Pacific Islands are Papua New Guinea, the Marshall Islands, and Fiji, and that the largest reported sources of investment, in terms of dollar value, are Australia, the United States, China, and France.⁴⁴⁷ Analysis of investment at the sector level shows that investments are heavily concentrated in extractive industries, followed by investments in financial services, business services, and the food and beverage sector.

Analysis of U.S. investment in the Pacific Islands pinpoints several key trends. Putting aside U.S. FDI in the Marshall Islands related to ship registry services that is not tied to revenue-generating activity in the country, U.S. investment in the region is heavily concentrated in extractive industries, albeit in a small number of large-value projects. Unlike the rest of global FDI in the Pacific Islands region that is mostly in financial and business services, most of the remaining U.S. FDI is concentrated in hotels, primarily in Fiji, which has a robust tourism sector.

Data limitations at the country and sector levels, primarily due to data suppression (to protect confidentiality), impact the analysis of trends over the reference period for both global and U.S. FDI positions. As such, much of the analysis in this chapter is derived from project-specific or transaction-level databases focused on greenfield (new) investment projects as well as merger and acquisition (M&A) deals.⁴⁴⁸ Throughout this chapter, FDI is defined as an ownership interest (10 percent or more) in a company or project in one country by an investor from another country.⁴⁴⁹ FDI can occur via greenfield investment, M&A deals, or joint ventures. FDI is different from other investment, such as portfolio investment, which concern investments with less than a 10 percent ownership interest in an enterprise. The ownership and control aspect of FDI also differentiates it from other forms of investment that may

⁴⁴⁷ FDI positions represent the value of the stock of direct investment at the end of a given reference period, in this case 2021. OECD, “Foreign Direct Investment Statistics,” accessed June 14, 2023. The U.S. position in this ranking is driven primarily from investment in the Marshall Islands, which is related to ship registry services for vessels that will most likely never stop in the Marshall Islands nor contribute to economic activity in the country. For more information, see the Marshall Islands section below and box 3.1 in chapter 3.

⁴⁴⁸ The databases rely on a variety of sources, including ownership records, press releases, and news articles. The flow of capital into the respective projects can occur in the year in which the deal or project was announced or can happen over the course of several years.

⁴⁴⁹ OECD, “Foreign Direct Investment,” accessed May 22, 2023.

enter from one country to another, such as official development assistance. For more information on official development assistance in the Pacific Islands, see chapter 8.

Foreign Direct Investment in Pacific Island Economies

FDI in Pacific Island economies appears to be affected by factors consistent with academic literature on the determinants of inward FDI.⁴⁵⁰ These factors include large market size, availability of natural resources, geographic proximity to the investing country, and domestic factors such as robust regulatory environments and the rule of law, among others. Therefore, countries with large reserves of natural resources and larger consumer markets, such as Papua New Guinea and Fiji, tend to attract more foreign investment.⁴⁵¹

As highlighted in the country sections below, the majority of investment, in terms of value, are in natural resource sectors and are concentrated in resource-based economies such as Papua New Guinea, the Solomon Islands, and, to a lesser extent, Fiji. The size of the domestic market, its growth prospects, and, therefore, potential scalability, are also significant determinants of FDI. The larger the domestic market, in terms of gross domestic product (GDP) or population, the more desirable the location may be for market-seeking investors, and countries with a larger economy will offer more opportunities for investment, as is the case with Fiji and Papua New Guinea.

Likewise, the impediments discussed in chapter 2 can hinder investment in the region. These impediments include lack of scale, limited economic diversification, weak institutional capacity, lack of access to or security of land use rights, high energy costs, and the infrastructure and connectivity challenges associated with remoteness. Indeed, as reflected in global and U.S. FDI data presented below, some of the smallest and remotest Pacific Islands receive little to no FDI.

This chapter proceeds with an overview of global and U.S.-specific investment positions in Pacific Island economies. The rest of the chapter focuses on foreign investment in individual countries, detailing the major investor countries and destination sectors, where available, using project-level data from multiple sources.

Global

Bilateral FDI data at the country and sector levels are generally not available for Pacific Island economies. This analysis, therefore, uses total and bilateral inward FDI position data from the International Monetary Fund (IMF) Coordinated Direct Investment Survey (CDIS), which is a collection of reported FDI positions from CDIS partner countries, for global investment values. Investment data from the CDIS, however, are limited in that they may not include investment from non-reporting countries or

⁴⁵⁰ For literature on the determinants of FDI, see Blonigen and Piger, “Determinants of Foreign Direct Investment,” January 2011; Walsh and Yu, “Determinants of Foreign Direct Investment,” August 2010.

⁴⁵¹ Literature on the relationship between FDI and natural resources has found that natural resources increase FDI in the natural resources sector but can crowd out investment in other sectors given weak institutional environments that are associated with many resource-rich countries, leading to less overall investment. Asiedu, “Foreign Direct Investment, Natural Resources and Institutions,” March 2013.

from reporting countries where the values are suppressed for confidentiality purposes.⁴⁵² Thus, the FDI values presented in this report should generally be treated as a lower bound.⁴⁵³ Sector-level information is not available from the CDIS; instead, project-level data on M&A and greenfield projects at the sector level are used.⁴⁵⁴

According to reported FDI positions for 2021, Papua New Guinea is the largest destination for investment among the Pacific Island economies considered in this report, followed by the Marshall Islands and Fiji (table 5.1). Project-level data indicate the majority of investment in Papua New Guinea is in extractive industries, including liquified natural gas and gold and copper mining, and the largest reported source of investment in Papua New Guinea is from Australia. The majority of investment in the Marshall Islands is in transport services (i.e., ship registration); sector investment in Fiji is more diverse, with business services, financial services, and tourism among the top industries.⁴⁵⁵ Like Papua New Guinea, the majority of investment in Fiji comes from Australia, according to direct investment positions data.⁴⁵⁶ Although not clear from the table below because of country reporting omissions, transaction-level data suggest that Samoa is one of the largest investment destinations in the region due to its status as a tax haven.⁴⁵⁷ Much of these investments are in offshore companies tied to Taiwan, China, the British Virgin Islands, and the Cayman Islands.⁴⁵⁸

The largest reported sources of investment in the Pacific Islands ranked by position (dollar value) are Australia, the United States, China, and France.⁴⁵⁹ Focusing on the number of greenfield investment projects, the composition changes slightly, with Australia, the United States, the United Kingdom, France, and China as the leading sources of investment.

In terms of the number of greenfield projects, the extractive sector is the largest destination for investment, primarily in Papua New Guinea. The second- and third-largest sectors for investment are business services, primarily in Papua New Guinea and Fiji, and financial services, which has been primarily directed to Fiji. The next largest sectors are food and beverages, with projects across the Pacific Islands but half in Papua New Guinea, and metals, with projects in New Caledonia, Papua New

⁴⁵² For example, reported FDI positions from Australia to Papua New Guinea were reported as confidential in 2019 and 2020. Because 16 of the 20 Pacific Island economies, including Papua New Guinea, are not reporting countries, their FDI stock totals were derived from the reported outward investment stocks of the 129 reporting countries; therefore, these values will exclude any investment from non-reporting countries.

⁴⁵³ It is not possible to quantify how much these FDI values are underestimated, and the level of underestimation likely varies by country.

⁴⁵⁴ Merger and acquisition data were obtained through Bureau van Dijk's Orbis M&A database. Bureau van Dijk, Orbis M&A database, accessed November 15, 2022. Greenfield investment data were obtained through *Financial Times* fDi Markets database. *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁵⁵ *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁵⁶ IMF, "CDIS Table 6: Direct Investment Positions by All Reporting Economies Cross-Classified by Counterpart Economies - IMF Data," accessed January 4, 2023.

⁴⁵⁷ European Council, "Taxation," accessed August 7, 2023; Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁴⁵⁸ Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁴⁵⁹ IMF, "CDIS Table 6: Direct Investment Positions by All Reporting Economies Cross-Classified by Counterpart Economies - IMF Data," 6, accessed January 4, 2023.

Guinea, and Fiji.⁴⁶⁰ Sector-level investment in specific countries is detailed in the country profile sections below.

Table 5.1 FDI positions (stock) in Pacific Island economies, by economy, 2017–21

In millions of dollars. F.S. Micronesia = the Federated States of Micronesia. N. Mariana Islands = the Northern Mariana Islands.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	14,955	14,119	3,202	4,077	20,676
The Marshall Islands	6,178	6,482	6,416	6,801	6,196
Fiji	4,546	4,817	5,171	5,730	5,914
New Caledonia	-880	1,678	1,737	1,666	1,566
Samoa	34	502	508	491	1,426
The Solomon Islands	583	570	588	591	612
French Polynesia	541	537	519	568	534
Palau	411	424	449	445	443
Guam	5,951	5,989	464	474	357
Vanuatu	94	215	157	135	157
Kiribati	8	24	34	57	156
Tokelau	5	0	6	149	133
American Samoa	26	34	94	104	125
N. Mariana Islands	217	202	177	155	115
The Pitcairn Islands	35	0	35	37	42
Tonga	2	10	12	14	31
Nauru	0	8	0	-3	25
F. S. Micronesia	1	10	10	14	12
Niue	29	3	6	32	11
Tuvalu	1	1	0	0	0
Wallis and Futuna	0	0	0	0	0

Source: IMF, Coordinated Direct Investment Survey, accessed January 4, 2023.

Note: The Coordinated Direct Investment Survey (CDIS) presents detailed annual data on inward direct investment positions starting from end-2009 cross-classified by economy of immediate investor (direct investment into the reporting economy), and data on outward direct investment positions (direct investment abroad by the reporting economy) cross-classified by economy of immediate investment. Currently 129 countries participate in the CDIS. Considering that the values above may not include investment from non-reporting countries, nor may they include investment from reporting countries where the values are suppressed for confidentiality purposes, they should be treated as a lower bound. For example, reported FDI positions from Australia to Papua New Guinea are reported as confidential in 2019 and 2020; because 16 of the 20 Pacific Island economies, including Papua New Guinea, are not reporting countries, their FDI stock totals were derived from the reported outward investment stocks of the 129 reporting countries; therefore, these values will exclude any investment from non-reporting countries. Furthermore, because a country may not report investment into a Pacific Island economy in a given year for confidentiality reasons, it is possible for the data to show \$0 in that year, if investment positions were reported in the years before and after.

United States

Official data from the U.S. Bureau of Economic Analysis (BEA) on U.S. FDI positions in Pacific Island economies by country and industry is limited (table 5.2).⁴⁶¹ As with global investment data, official U.S. FDI data are supplemented with project-level data on M&A and greenfield projects by U.S.

⁴⁶⁰ *Financial Times*, “fDi Markets,” accessed November 15, 2022. fDi Markets includes the value of capital investment for each project, but most of these values are estimates and may not be reflective of the actual investment value. Therefore, the number of projects was used to inform this analysis. Additionally, the number of M&A deals by sector was not used in this analysis because acquisition deals associated with offshore entities in Samoa and ship assets in the Marshall Islands would have skewed the analysis. Individual M&A deals, however, are presented below in the country profiles.

⁴⁶¹ Data are limited because country-level industry data are suppressed to protect company confidentiality, which can result in the suppression of total FDI positions in a country if investment is primarily focused in that one sector.

multinationals in the region.⁴⁶² An analysis of these data sources reveals that the region has little U.S. investment outside of a few economies with relatively sizeable investments. For the 2017–21 period, only three U.S. investments (two greenfield projects in Fiji and an M&A deal in Papua New Guinea) were reported. In addition, several longer-standing, high-value investments by U.S. firms are important for local economies. Many of the factors affecting global FDI, including availability of natural resources and market size, also affect these U.S. investments. Official BEA data on FDI stock (table 5.2) indicate the Marshall Islands received the majority of U.S. FDI; however, this is primarily a result of data suppression for other countries and the fact that the Marshall Islands' FDI values reflect ship registrations, not revenue-generating activity.⁴⁶³ Project-level data show the majority of U.S. FDI projects are concentrated in two countries, both with natural resources and relatively large, diversified markets: Papua New Guinea and Fiji.

Table 5.2 U.S. FDI positions (stock) in Pacific Islands, by economy, 2017–21

In millions of dollars. F.S. Micronesia = the Federated States of Micronesia. d.s. = data are suppressed to protect confidentiality; ** = rounds to zero.

Economy	2017	2018	2019	2020	2021
The Marshall Islands	3,082	3,231	3,344	3,426	3,633
United Kingdom Islands, Pacific	35	d.s.	30	33	37
Samoa	20	20	5	5	5
Palau	10	10	-3	-1	1
French Islands, Pacific	17	12	d.s.	d.s.	d.s.
Fiji	153	d.s.	d.s.	d.s.	d.s.
F.S. Micronesia	d.s.	d.s.	d.s.	d.s.	d.s.
Papua New Guinea	d.s.	d.s.	d.s.	d.s.	d.s.
Kiribati	0	0	**	**	**
Tuvalu	**	**	0	0	0
Nauru	0	0	0	0	0
The Solomon Islands	0	0	0	0	0
Tonga	0	0	0	0	0
Vanuatu	0	0	0	0	0

Source: USDOC, BEA, Balance of Payment statistics.

Note: The BEA does not specify which economies are included in "French Islands, Pacific" and "United Kingdom Islands, Pacific." For the purpose of BEA's U.S. International Economic Accounts, the United States consists of all 50 U.S. states, Washington, DC, Puerto Rico, the U.S. Virgin Islands, and all other U.S. territories and possessions, including American Samoa and Guam. Bilateral FDI data from the BEA (table 5.2) will not include separate breakouts for investment into American Samoa and Guam, as any FDI into these territories will only show up in aggregated FDI into the United States. FDI values from the United States to Pacific Island economies will include investment from American Samoa and Guam. The BEA updated FDI position values for 2019-21 on June 28, 2023. The break between 2018 and 2019 may reflect newly revised source data, not actual divestment in the case of Samoa and Palau. BEA, "U.S. International Economic Accounts," 2023.

The majority of U.S. FDI is concentrated in natural resources, predominantly in Papua New Guinea. This includes ExxonMobil's \$19 billion liquified natural gas joint venture in Papua New Guinea, which began producing in 2014.⁴⁶⁴ It also includes the 2019 acquisition of Bismarck Mining Corporation (Papua New Guinea), a deep-sea mining company with an exclusive exploration license for deep sea gold deposits

⁴⁶² Merger and acquisition data were obtained through Bureau van Dijk's Orbis M&A database. Greenfield investment data were obtained through the *Financial Times* fDi Markets database. Bureau van Dijk, Orbis M&A database, accessed November 15, 2022; *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁶³ For more information, see the Marshall Islands profile below.

⁴⁶⁴ ExxonMobil affiliates are responsible for the construction and operation of the Papua New Guinea liquid natural gas (LNG) project as well as holding a 33.2 percent interest in the project. ExxonMobil PNG Limited, "About - Co-Venturers," accessed August 7, 2023; ExxonMobil PNG Limited, "About," accessed January 12, 2023.

adjacent to Lihir Island in Papua New Guinea, by Odyssey Marine Exploration, a U.S. deep-sea mining company.⁴⁶⁵ Finally, Fiji Water, owned by The Wonderful Company, a U.S. company, was one of the first U.S. investments in Fiji in 2004. The company has near exclusive access rights to a 17-mile aquifer on the north coast of Viti Levu.⁴⁶⁶

After natural resources, the primary sector destinations for U.S. investment are concentrated in hotels and tourism, solely in the larger economies of Fiji and, to a lesser degree, Papua New Guinea. U.S. hotel chains are significant investors in Fiji's developed tourism industry. Earlier hotel investments include a Radisson in 2007, a Sheraton in 2014, and more recently, in 2017, a Hilton and a Marriott.⁴⁶⁷ Not explicitly FDI, Coca-Cola has licensing agreements with bottlers in both Fiji and Papua New Guinea.

The country profiles below detail both global and U.S. investments in individual economies. They also include discussions on impediments to investment that are relevant to both U.S. and global investors.

Investment by Country

Papua New Guinea

As noted above, CDIS data indicate Papua New Guinea was the largest destination for foreign direct investment in the Pacific Islands, with a reported \$20.6 billion in FDI stock as of 2021, a 38.3 percent increase from 2017 (table 5.1).⁴⁶⁸ The vast majority of this reported investment by value is from Australia, at roughly 84 percent.⁴⁶⁹ Official data on U.S. FDI positions in Papua New Guinea are suppressed to maintain company confidentiality and are therefore suppressed in the CDIS data. In terms of the number of projects, Australia and Malaysia are the largest investors.⁴⁷⁰ Project-level data also show substantial U.S. investment in the country, primarily in liquid natural gas (LNG).⁴⁷¹

Like for the broader region, most FDI in Papua New Guinea has been in natural resources. Extractive sectors, including oil, LNG, and gold, have historically experienced significant values of FDI because of the country's substantial reserves. ExxonMobil's development of natural gas extraction in Papua New Guinea, noted above, began in 2004, leading to the 2014 commencement of production at the \$19 billion PNG LNG Project.⁴⁷² As noted in chapter 3, Papua New Guinea is the largest exporter of LNG

⁴⁶⁵ Odyssey Marine Exploration, "Lihir Gold Project," accessed June 8, 2023; Odyssey Marine Exploration, "Odyssey Marine Exploration Expands Mineral Portfolio," accessed August 7, 2023.

⁴⁶⁶ *Sydney Morning Herald*, "Hollywood Couple Buys Fiji Water for \$63m," November 30, 2004; *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁶⁷ *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁶⁸ CDIS values for several countries are suppressed and therefore these totals should be considered a lower bound. For example, project-level data indicate that the United States is a substantial investor in Papua New Guinea; however, these data are suppressed in official U.S. statistics and in the CDIS data as well.

⁴⁶⁹ It should be noted that because data are confidential for certain source countries with substantial investments, like the United States, these percentages are upper bounds.

⁴⁷⁰ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁴⁷¹ ExxonMobil's investment in Papua New Guinea is considered the country's largest single investment by value. Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁴⁷² ExxonMobil PNG Limited, "History," accessed January 12, 2023.

in the region. The majority of these exports are shipped to Papua New Guinea's long-term major LNG customers in China, Japan, and Taiwan.⁴⁷³

Other substantial investment includes the Frieda River Project, a copper and gold mine owned by PanAust Limited, an Australian incorporated company that is owned by China's Guangdong Rising H. K. Limited.⁴⁷⁴ The project will be the second largest in Papua New Guinea's history, with an estimated cost of \$7 billion.⁴⁷⁵ Because of the remoteness of the project location, investment also includes all associated infrastructure including roads, a 160 megawatt hydroelectric dam, a power station, and a port.⁴⁷⁶

Although the largest investments have been in the extractive sector, industry representatives have noted that the number of oil and gas licenses have been decreasing during the past several years.⁴⁷⁷ Others have suggested that the Mining Regulatory Authority licensing process is lengthy and that the government has renegotiated already agreed-on mining contracts, which could discourage future investment.⁴⁷⁸

Papua New Guinea has also experienced significant investment in transportation services, business services, and food and beverages. This includes relatively recent investment by the United Kingdom's Ashurst in legal services and investment by the Philippines' International Container Terminal Services in transportation services.⁴⁷⁹ A significant number of these services investments are to support the extractive sector.⁴⁸⁰

The large domestic market and ample natural resources have spurred investment, but substantial impediments have concerned investors. These include security concerns, lack of regulatory clarity, governance issues and corruption, the high cost of electricity, and challenges surrounding security of land use rights.⁴⁸¹ In terms of the general business environment, business representatives have noted that starting a business in Papua New Guinea is relatively easy and can be done online, but problems can arise afterward related to accessing capital, foreign exchange, and engaging with regulatory authorities.⁴⁸² They further note that issues with security and overall law and order significantly increase the cost of doing business there, and that in addition to the high cost of electricity, aging energy infrastructure makes power brownouts and outages a daily occurrence.⁴⁸³

⁴⁷³ ExxonMobil PNG Limited, "Project Overview," accessed August 7, 2023.

⁴⁷⁴ Guangdong Rising H. K. Limited is a wholly owned subsidiary of Guangdong Rising Holding Group Co., Ltd. (GRHG), a Chinese state-owned company. PanAust Limited, "Company Profile," accessed May 17, 2023.

⁴⁷⁵ Industry representative, interview by USITC staff, Australia, April 17, 2023.

⁴⁷⁶ Mining Technology, "Frieda River Copper and Gold Project, Papua New Guinea," September 9, 2014.

⁴⁷⁷ Industry representatives, interview by USITC staff, Papua New Guinea, April 21, 2023.

⁴⁷⁸ Industry representatives, interviews by USITC staff, March 13, 2023; industry representatives, interview by USITC staff, Australia, April 19, 2023.

⁴⁷⁹ *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁴⁸⁰ Industry representatives, interview by USITC staff, February 6, 2023.

⁴⁸¹ Industry representatives, interview by USITC staff, February 6, 2023.

⁴⁸² Industry representatives, interviews by USITC staff, February 6, 2023; industry representatives, interview by USITC staff, Australia, April 21, 2023.

⁴⁸³ Industry representatives interviews by USITC staff, February 6, 2023, April 17, 2023, and April 21, 2023.

The Marshall Islands

The Marshall Islands was the second-largest destination for global investment positions, with a total of \$6.2 billion in 2021 (table 5.1). Half of this total originates from the United States, for which the Marshall Islands was one of the largest reported destinations for investment in the Pacific Islands in 2021 (\$3.6 billion) (table 5.2). The next-largest source of investment was from South Korea. Inward investment has been stable since 2017.

Most official data for the Marshall Islands are suppressed at the industry level, but project-level data reveal that the majority of global and U.S. investment positions are in transport services, including recent acquisitions in LNG sea transport services.⁴⁸⁴ The majority of this investment is not in revenue-generating transport services based out of the Marshall Islands, but instead is directed toward ships, including LNG tankers, registered under the Marshall Islands flag (see box 3.1 in chapter 3).⁴⁸⁵ The majority of these ships never stop in the Marshall Islands.⁴⁸⁶ Although the services are not based in the Marshall Islands, the country does make money through ship registration fees.⁴⁸⁷

Aside from ship registrations, investment in the Marshall Islands is scarce because investors face several substantial impediments, including remoteness, a small domestic market, poor infrastructure, high utility costs, and limited natural resources.⁴⁸⁸ Additionally, like in many Pacific Island economies, regulations affecting land use can be an impediment. Under the Marshall Islands customary land system, land title is shared among multiple clan chiefs and elders, and noncitizen investors must negotiate leases with these groups. Negotiations of such leases may be complex due to the multiple land holders and a lack of written documentation of land titles.⁴⁸⁹

Fiji

Fiji was the third-largest destination of foreign direct investment in the Pacific Islands, with a reported \$5.9 billion in FDI stock as of 2021, a 30.1 percent increase from 2017 (table 5.1). As of 2021, most of the reported investment was from Australia (roughly 47 percent), followed by France (9 percent). Official FDI statistics from the United States are suppressed for 2021, but the most recent reported values from 2017 show U.S. investment totaling \$153 million. Factors that have encouraged substantial investment in Fiji include its relatively developed economic sector, comparatively good governance and laws, established land lease system, and availability of natural resources, including spring water.⁴⁹⁰

⁴⁸⁴ Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁴⁸⁵ For a ship to be registered in the Marshall Islands, it must register a company in the country and ship assets are held under that affiliate. Those assets, when they are bought and sold, are considered acquisitions, and captured as such in FDI statistics. See box 3.1 in chapter 3.

⁴⁸⁶ Industry representatives, interview by USITC staff, January 13, 2023. The Marshall Islands were recently added to the EU list of non-cooperative jurisdictions for tax purposes. European Council, “Taxation,” accessed August 7, 2023.

⁴⁸⁷ Industry representative, interview by USITC staff, January 13, 2023.

⁴⁸⁸ Holden and Holden, *Republic of the Marshall Islands*, May 2003.

⁴⁸⁹ USDOS, “Marshall Islands,” accessed June 14, 2023.

⁴⁹⁰ Industry representatives, interview by USITC staff, March 2, 2023, and March 13, 2023; industry representative, interview by USITC staff, May 3, 2023.

Overall, sectoral investment in Fiji is slightly more diverse than the countries noted above. According to project level data, the largest sectoral destination for investment has been in financial services, predominantly from Australian, French, and Papua New Guinean banks; business services; and tourism. One of the original, and perhaps largest, sources of U.S. investment in the country was the acquisition of Canadian-owned Natural Waters of Viti Ltd by U.S.-owned The Wonderful Company in 2004, which subsequently became Fiji Water LLC. Fiji Water also acquired its own shipping company, in 2007, Neptune Pacific Line (now Neptune Pacific Direct Line after an acquisition in 2014), which serves 16 countries and 22 ports in the South Pacific.⁴⁹¹ More recently, U.S. investment has been concentrated in the hotel and tourism sector, including hotel investments by Hilton and Marriott in 2017.⁴⁹²

Although Fiji is one of the largest destinations for FDI, investors have noted that several challenges remain. Worker shortages, for both skilled and unskilled workers, are an issue as Fijians migrate out of country for work.⁴⁹³ Indeed, according to one industry representative, 80,000 people have migrated since the onset of the COVID-19 pandemic.⁴⁹⁴ Additionally, challenges exist with infrastructure and with utilities not generating enough energy to meet demand.⁴⁹⁵

New Caledonia

Investment in New Caledonia, a French territory, has primarily been allocated to metals mining, particularly nickel and, to a lesser extent, cobalt. New Caledonia is the fourth-largest producer of nickel ore, behind Indonesia, the Philippines, and Russia, and has been mined since the late 1800s.⁴⁹⁶ Foreign investment in New Caledonian nickel mining historically originated from Switzerland and Brazil. Glencore, a Swiss nickel producer and marketer, has a 49 percent ownership share in Koniambo Nickel, a joint venture with New Caledonian mining company Société Minière du Sud Pacifique SA (SMSP), that was created to manage the construction and operation of a ferronickel processing plant on the Koniambo massif with a nominal capacity of 60,000 tons per year.⁴⁹⁷ Vale, the Brazilian mining conglomerate, operated the Goro nickel and cobalt mine in New Caledonia from 2010 to 2021.⁴⁹⁸ In 2021, Vale sold its New Caledonia assets to a consortium called Prony, which includes Société de Participation Minière du Sud Calédonien SAS (SPMSC), Prony employees, and Trafigura, a multinational commodity trading company and raw materials trader based in Singapore, after protracted operational issues, including chemical spills and riots.⁴⁹⁹

⁴⁹¹ Industry representatives, interview by USITC staff, Australia, April 17, 2023; NPDL, “About Us,” accessed May 18, 2023.

⁴⁹² *Financial Times*, “FDI Markets,” accessed November 15, 2022. These investments are full branding and hotel operations deals; however, they are locally owned.

⁴⁹³ Industry representatives, interview by USITC staff, Fiji, March 23, 2023; industry representatives, interview by USITC staff, Australia, April 17, 2023.

⁴⁹⁴ Industry representative, interview by USITC staff, Fiji, March 21, 2023.

⁴⁹⁵ Industry representative, interview by USITC staff, Fiji, March 21, 2023.

⁴⁹⁶ New Caledonia Business, “Mining,” accessed April 4, 2023. For more information on nickel production, trade, and investment potential, see chapter 6.

⁴⁹⁷ SMSP, “Koniambo Nickel SAS,” accessed March 21, 2023; SMSP, “Glencore,” accessed May 23, 2023.

⁴⁹⁸ Jamasmie, “Vale Sells New Caledonia Nickel Assets to Trafigura,” March 31, 2021.

⁴⁹⁹ The consortium also includes La Compagnie Financière de Prony, which includes industrial investors, clients, and the management of Prony Resources. With 51 percent ownership with SPMSC and Prony employees, the Goro

Data on non-mining investment are limited but include financial and business services.⁵⁰⁰ The BEA does not report official U.S. investment positions for New Caledonia, and no examples of U.S. greenfield or M&A deals exist in available project-level databases.

Samoa

In 2021, global investment positions in Samoa totaled \$1.4 billion (table 5.1), with \$5 million in investment from the United States (table 5.2). Transaction-level M&A data suggest, however, that the majority of this investment was directed toward offshore companies registered in Samoa, with little investment generating economic activity.⁵⁰¹ Since 2017, the EU has considered Samoa to be an offshore financial center and tax haven.⁵⁰² Data from M&A transactions show a significant number of these transactions originate from Taiwan, China, and other offshore centers such as the Cayman Islands.⁵⁰³

Data on the sectoral destinations of U.S. investment are scarce. Project-level data, however, reveal that a U.S. soap company, Dr. Bronner's, established a joint venture—Serendi Coco Samoa—with Pacific Oil, Samoa's largest producer and exporter of organic copra coconut oil.⁵⁰⁴ Samoa, alongside Sri Lanka, Ghana, and the Philippines, supplies Dr. Bronner's with the majority of the coconut oil for its pure-castile liquid soaps.⁵⁰⁵

Although government officials note that the investment process for foreign investors is straightforward, the biggest impediment is land leasing since foreign investors are prohibited from owning land in Samoa.⁵⁰⁶ Eighty percent of land in Samoa is held under customary (communal) ownership, 11 percent is freehold land, and 9 percent is owned by the government.⁵⁰⁷ Because most land is held communally by villages that reside on it, it can be difficult for certain large investments, such as a resort, to access sizeable amounts of land without relocating the community.⁵⁰⁸

mine is now majority owned by New Caledonia investors. Jamasmie, "Vale's New Caledonia Nickel Plant under Siege, up to \$30m in Damage," May 27, 2014; Trafigura, "Prony Resources Announces Completion of Transfer of Ownership," March 31, 2021.

⁵⁰⁰ *Financial Times*, "fDi Markets," accessed November 15, 2022; Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁵⁰¹ An offshore company is a company that is incorporated in a jurisdiction outside of where the firm's operations occur. This can be for beneficial tax reasons or for a laxer regulatory environment. VOA News, "What Is an Offshore Company?," April 4, 2016; Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁵⁰² Resident companies in Samoa are subject to a 27 percent corporate tax; registered offshore companies are free from local taxes, including taxes on profits, capital gains, and transactions. Other Pacific Island economies included in the EU's list of noncooperative jurisdictions are American Samoa, Fiji, Guam, the Marshall Islands, Palau, and Vanuatu. European Council, "Taxation," accessed August 7, 2023; Lyons, "Samoa Defends Its Offshore Industry," October 11, 2021.

⁵⁰³ Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁵⁰⁴ Samoa requires a joint venture with local partners for investment in restricted sectors, such as virgin coconut oil production. Foreign government officials, interview by USITC staff, Samoa, March 28, 2023; Fair for Life, "Certified Operators," accessed May 22, 2023.

⁵⁰⁵ Facebook, "Serendi Coco Samoa," accessed May 22, 2023; Industry representative, interview by USITC staff, Samoa, March 29, 2023.

⁵⁰⁶ Foreign government officials, interview by USITC staff, Samoa, March 28, 2023.

⁵⁰⁷ Foreign government officials, interview by USITC staff, Samoa, March 29, 2023.

⁵⁰⁸ Foreign government officials, interview by USITC staff, Samoa, March 28, 2023.

The Solomon Islands

In 2021, reported FDI positions in the Solomon Islands totaled \$612 million (table 5.1), with zero reported U.S. investment (table 5.2). The top sources of foreign investment originate from Australia, Malaysia, and China.⁵⁰⁹ The majority of investment has been directed toward extractive industries, including gold mining and, recently, nickel mining. Projects have been slow to come online, however, and have been fraught with regulatory hurdles, corruption, land use issues, and natural disasters. Foreign multinationals are also heavily involved in logging and bauxite mining. Other than banking, little investment has been made in services.⁵¹⁰

The history of gold mining in the Solomon Islands has been volatile. The first gold mine was constructed in 1997 by the Australian firm, Ross Mining; however, the mine was closed in 2000 because of regional ethnic conflict.⁵¹¹ After subsequent changes of foreign ownership and a series of disasters, the mine was sold by Australian firm St. Barbara to a local landowner group for a token \$100 in 2015. This landowner group subsequently secured a deal with Australian-Chinese resource investment company ATX and Hong Kong-listed Wanguo International Mining Group to revive the gold mine in addition to building and controlling port facilities, railways, roads, and a power station.⁵¹² Wanguo has contracted state-owned China State Railway Group to complete the work for \$825 million.⁵¹³

Recent investment has also been made in nickel mining. Nickel deposits in the Solomon Islands were identified in 1957; however, little development has occurred because of legal battles between foreign firms concerning prospecting licenses, in addition to firm ownership changes.⁵¹⁴ In 2021, Pacific Nickel Mines, an Australian firm, acquired an 80 percent stake in the Kolosori Nickel project, with the remaining 20 percent stake held by the traditional landowners.⁵¹⁵ The government awarded the mining lease in September 2022, and the project is currently at the advanced planning stage; development had yet to start at the time of writing.⁵¹⁶

Foreign multinationals, predominantly from Malaysia, Indonesia, and China, are also heavily involved in logging and bauxite mining operations. Like gold, the history of both industries in the Solomon Islands has been fraught. The Solomon Islands' largest export is timber, the vast majority of which goes to China.⁵¹⁷ Chinese demand, however, has led to excessive logging and the country's Ministry of Finance

⁵⁰⁹ Bureau van Dijk, Orbis M&A database, accessed November 15, 2022. Besides recent investments from China in the Gold Ridge mine (see below), the Solomon Islands have also received substantial aid from China in the form of grants and loans. For more information on Chinese aid, see chapter 8. Cave and Abbott, "China's Mad Dash into a Strategic Island Nation Breeds Resentment," January 23, 2023; Liu, "What the China-Solomon Islands Pact Means," accessed May 4, 2022.

⁵¹⁰ *Financial Times*, "fDi Markets," accessed November 15, 2022.

⁵¹¹ Tolia and Petterson, "The Gold Ridge Mine, Guadalcanal, Solomon Islands' First Gold Mine," January 2005.

⁵¹² Wanguo will maintain ownership of all project-related infrastructure. EUI, "Works Begins on Solomon Islands' Key Gold Mine," accessed May 22, 2023.

⁵¹³ *ABC News*, "Chinese Redevelopment of Solomon Islands' Gold Ridge Mine," October 30, 2019.

⁵¹⁴ Regan, "Axiom Wins Long Battle to Develop Solomons Nickel," September 24, 2014.

⁵¹⁵ De Freitas, "Pacific Nickel Mines (ASX:PNM) Acquires 80pc of Kolosori Nickel Project," May 12, 2021.

⁵¹⁶ Pacific Nickel Mines Limited, "Kolosori Nickel Project: Pacific Nickel Mines Limited," accessed July 6, 2023.

⁵¹⁷ Cowan, "Better Logging Regulations," July 23, 2021; Wilson, "How the Solomon Islands Became a Flashpoint," July 31, 2023.

has suggested that its commercially viable forest will be depleted by 2036.⁵¹⁸ A report on the Solomon Islands' logging industry suggests that the timber is at high risk of being illegally logged because companies may not be obtaining the relevant landholders' permission or may be logging in non-permitted areas.⁵¹⁹

Sustainability is also a concern for bauxite mining operations. On Rennell Island, which has been mined since 2014, an estimated 50 percent of the island's bauxite-rich soil has already been exported.⁵²⁰ It is also the location of the country's worst man-made disaster. A bulk carrier merchant ship, hired by Indonesian mining subcontractor Bintan Mining Solomon Islands Ltd. to load bauxite for export to China, ran aground on the Kongobainiu reef in 2019, spilling 300 tons of oil.⁵²¹ The spill resulted in the loss of more than 10,000 square meters of reef.⁵²²

Other Pacific Islands

American Samoa

Total reported FDI in American Samoa was \$125 million in 2021 (table 5.1). One of the largest investments in American Samoa is South Korea's StarKist tuna cannery, which is the largest private employer and the second-largest employer overall on American Samoa.⁵²³ The broadband industry has also seen recent investment. Fiji-based Amalgamated Telecom Holdings acquired Bluesky Communication, formerly owned by Spain's Amper S.A.⁵²⁴ Industry representatives, however, have noted that demand for broadband is low because of a lack of cellular subscriptions.⁵²⁵ Industry representatives have also noted several challenges to investment in American Samoa, including the onerous process of obtaining a business license, such as physically having to travel to different departments, costly electricity, and restrictions on foreigners purchasing land.⁵²⁶

Guam

Total reported FDI in Guam was \$357 million in 2021 (table 5.1). The largest investor in Guam is South Korea. In July 2022, South Korea-based energy group Korea Electric Power (KEPCO) completed a \$200 million 60-megawatt solar project with 32 megawatts of storage capacity on the island.⁵²⁷ The company is also constructing a 198-megawatt gas combined thermal power plant that is slated to be

⁵¹⁸ Hunt, "Logging Ravaging the Solomon Islands' Forests," May 25, 2019.

⁵¹⁹ Global Witness, "Paradise Lost: Solomon Islands under Threat from Logging," October 18, 2018.

⁵²⁰ Skidmore, "Mining Operation Owes Millions of Taxes to Solomon Islands," November 10, 2021.

⁵²¹ Bevege, "Australia Sends More Help for Solomon Islands Oil Spill," March 3, 2019; Skidmore, "Mining Operation Owes Millions of Taxes to Solomon Islands," November 10, 2021; Puia, "They Failed Us," May 30, 2021.

⁵²² Skidmore, "Mining Operation Owes Millions of Taxes to Solomon Islands," November 10, 2021.

⁵²³ The American Samoan government is the largest employer in the territory. *PBS*, "Sea of Obstacles," February 15, 2020; GAO, *American Samoa*, June 11, 2020.

⁵²⁴ Sagapolutele, "ATH Acquisition of Bluesky in Am. Samoa Progressing Well," July 6, 2018.

⁵²⁵ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵²⁶ U.S. government official, interview by USITC staff, American Samoa, March 30, 2023; industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵²⁷ Tsanova, "KEPCO to Build 60-MW PV Park with Storage in Guam," May 18, 2022; Oh, "KEPCO Completes New Solar Farm Construction in Guam," July 20, 2022.

commissioned in 2024.⁵²⁸ In 2019, telecommunications provider Docomo Pacific, a subsidiary of Japan-based Nippon Telegraph and Telephone (NTT), opened a 5G testing facility at its site in Tamuning.⁵²⁹

Vanuatu

Total reported FDI in Vanuatu was \$157 million in 2021 (table 5.1), with no U.S. investment in the country. Recent investments in Vanuatu include the opening of offices for the UK-based online trading platform Deriv and a tuna factory. The factory is a joint venture between the Vanuatuan government and China National Fishery Corporation and is primarily intended for approved Chinese fishing vessels to offload their catch in Vanuatu instead of Fiji.⁵³⁰ In 2023, the joint venture Sino-Van announced it will open a small cannery to serve the domestic market.⁵³¹

Telecommunications have also seen investment in Vanuatu. Fiji-based Amalgamated Telecom Holdings Limited acquired Telecom Vanuatu Limited in 2017.⁵³² The government notes it is developing a national investment strategy to facilitate investment, but the current process for licenses and permits is lengthy and the costs of electricity and logistics are high.⁵³³ Internet connectivity has also been an issue that is exacerbated by natural disasters.⁵³⁴

⁵²⁸ Oh, “KEPCO Completes New Solar Farm Construction in Guam,” July 20, 2022.

⁵²⁹ *Financial Times*, “fDi Markets,” accessed November 15, 2022.

⁵³⁰ IntraFish, “China National Fishery Corporation Opens Vanuatu Tuna Factory,” October 25, 2019.

⁵³¹ *Islands Business*, “Tuna Cannery Still in the Pipeline in Vanuatu,” February 21, 2023.

⁵³² Bureau van Dijk, Orbis M&A database, accessed November 15, 2022.

⁵³³ Foreign government officials, interview by USITC staff, Vanuatu, April 13, 2023.

⁵³⁴ Industry representatives, interviews by USITC staff, April 13, 2023.

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Chapter 6

Pacific Island Export and Investment Potential for Goods

Overview

This chapter identifies major products in the Pacific Islands with the greatest potential for export sales to the United States, any associated U.S. investment potential, and the factors that impede trade and investment with the United States for these products and sectors. The focus is on goods sectors with export potential, including goods covered by the Generalized System of Preferences (GSP) program and is a companion to chapter 7 of this report, which covers services sectors with export and investment potential.

Through quantitative and qualitative analyses, seven goods sectors were identified as being among those with the greatest potential for increased exports to the United States. Those seven, profiled in the sections below, are fish, nickel, spices (particularly turmeric and ginger), virgin coconut oil, cocoa, kava, and coffee. While there are sector-specific factors that affect potential in these industries as described in the profiles, they have some commonalities. In most of these sectors, the Pacific Island economies are developing strategies to add more value to their products or to differentiate their products in order to compete with larger sources of supply. For instance, in the agricultural sector, efforts are underway to distinguish products according to their unique attributes such as flavor and sustainability that stem from their origin in the Pacific Islands (referred to below as “origin branding”).

Each profiled sector faces common challenges—as described in chapter 2—including the distance from the U.S. market, the cost of shipping, and the cost of production. Two factors contributing to the high cost of production for many of the sectors profiled are an inadequate supply of electricity and the competition for trained workers. Most of the sectors have also faced challenges related to climate change and natural disasters, as described below.

Identifying Potential for Increased Exports and Investment

For the purposes of this investigation, products may be identified as having potential for exports sales of goods from a Pacific Island economy to the United States by falling into one or more of three categories:

- Products that the region already exports to the United States and that have the potential to increase.
- Products that the region already exports to third countries but not to the United States.
- Products that the region does not currently produce or produces only for the domestic market, but which with investment could develop and be exported over time.

Some product sectors may fall into more than one category, either because related products fall into various categories, or because the same product falls into various categories depending on the Pacific Island economy that is exporting. For example, the fish profile describes both established products with the potential for increased export volume to the United States (frozen tuna) and products with nascent potential (farmed fish). Similarly, the cocoa profile describes the potential for the most established producer in the region (Papua New Guinea) to export more volume and a more diverse group of products to the United States, as well as potential for smaller producers like Vanuatu, that already export to other countries, to export to the United States.

Qualitative analysis and four different quantitative approaches—export trend analysis, revealed comparative advantage, gravity modeling, and export potential assessment methodology—were used to help identify goods sectors that offer potential for growth in Pacific Island exports to the United States. As described below, each approach has advantages and limitations, and no single method is definitive in identifying potential sectors. By using a range of approaches, however, key sectors with the most export potential emerged. The quantitative approaches that rely on recent trade data help identify potential sectors where Pacific Island economies are already exporting either to the United States, third countries, or both (i.e., these approaches cover the first and second potential export categories listed above). The qualitative analysis, including desk research and interviews with country and sectoral experts, is the main tool used to identify sectors with little to no current exports (the third category of potential exports listed above), but where investments in production capacity could create potential export opportunities. Qualitative assessment of such exports is also important to determine which of the sectors identified as having potential from the quantitative analysis might be hampered by very high impediments not accounted for by the quantitative analysis.

Quantitative Analysis

Export Trend Analysis

Trend analysis of Pacific Island economies' exports during 2015–21 was used to identify sectors with export potential. Under this approach, it is assumed that Pacific Island sectors with strong growth in exports to the United States and the rest of the world in recent time periods are likely to be the ones with the most potential to increase in the future. Using data on bilateral exports among the individual Pacific Islands and other countries (including the United States), this approach was used to identify product categories with export growth over various timespans, accounting for changes before and after the COVID-19 pandemic.⁵³⁵ Trend analysis was combined with other analysis of export potential to the United States, based on U.S. demand and existing suppliers, to determine which Pacific Island products have the most potential for growth.⁵³⁶ Because it relies on existing trade, this technique identifies product groups corresponding to the first and second bullets above.

⁵³⁵ The analysis was conducted using trade data at the Harmonized System heading (HS 4-digit) level.

⁵³⁶ A detailed description of how the export trend analysis was performed is included in appendix F.

Normalized Revealed Comparative Advantage

One well-established approach to identify an economy's most competitive sectors is the use of international trade data to compute the revealed comparative advantage index.⁵³⁷ The revealed comparative advantage for Pacific Island economies is computed by comparing the share of the economy's exports of a product to total exports of the economy, relative to the share of the world's exports of the same product to total world exports.⁵³⁸ If the share of the Pacific Island economy's exports of a product is larger than the share of the world's exports of the same product, then this relationship implies that the economy has a revealed comparative advantage for exporting the product. This provides insight into products for which an economy currently has a comparative advantage but does not identify new sectors where trade is nonexistent, so it is used in conjunction with other forms of analysis.

Gravity Modeling

Gravity modeling is another analytical tool for predicting trade flows between trade partners. Trade flows between the United States and Pacific Island economies are predicted based on actual trade and certain characteristics of the bilateral relationships, such as the distance between markets, a common language, shared borders, and colonial and other ties. The predicted trade flows generated by the model were compared to actual trade flows and were used to estimate the potential Pacific Island exports to the United States.⁵³⁹ The gravity model used data on 2015–19 trade flows for 22 Pacific Island economies and 153 product groups and reflects trade flows between Pacific Island economies and the United States as well as their third-party trading partners.⁵⁴⁰ Because the data used for the analysis include within-country trade, the gravity modeling is able to identify sectors that fit into all three bullets (potential for increased exports to the United States, potential to begin exporting to the United States, and products produced domestically with potential to begin exporting to the United States).

Export Potential Assessment Methodology

The identification of sectors also considered an export potential assessment methodology developed by the Geneva-based International Trade Centre.⁵⁴¹ It is designed to assist developing countries to create medium-term export strategies or development programs by identifying products and sectors with promise for export growth. The International Trade Centre has developed a publicly available portal for accessing this tool, which can identify export potential for individual exporters, markets, and products.⁵⁴² The approach offers two measures of export potential—the export potential indicator and the product diversification indicator. The export potential indicator identifies sectors where exports already exist and have strong prospects to be globally competitive in the future (potential export

⁵³⁷ A detailed description of how the revealed comparative advantage is calculated is included in appendix F. WTO, *A Practical Guide to Trade Policy Analysis*, 2012, 26.

⁵³⁸ Detailed export data are not reported by Pacific Island economies, so the revealed comparative advantage is calculated using mirror trade data (i.e., import data reported by Pacific Island trading partners).

⁵³⁹ A detailed description of the gravity modeling methodology is in appendix F.

⁵⁴⁰ USITC, *U.S. Trade and Investment with Sub-Saharan Africa*, April 2018, 363.

⁵⁴¹ International Trade Centre, *Export Potential Map*, accessed May 1, 2023.

⁵⁴² See Decreux and Spies, "Export Potential Assessments," December 2016, 2.

categories listed in the first and second bullets above). This indicator is based on a model that factors in supply and demand trends, as well as market access conditions and bilateral relationships between countries. The product diversification indicator uses product space methodology to identify products that are not currently exported by a country (the potential export category described in the third bullet above).⁵⁴³

Qualitative Analysis

In addition to the four quantitative methods described above, extensive qualitative analysis was used to identify potential export sectors for Pacific Island economies. This approach was especially important in identifying export and investment opportunities for sectors with no or minimal trade. Qualitative analysis was based on information gathered from a wide range of sources. The Commission solicited opinions from public and private sector experts through numerous interviews, including interviews conducted during staff visits to Pacific Island economies. In addition, staff conducted a thorough review of relevant economic and trade journals to pinpoint potential growth sectors. Information on potential sectors was also provided by witnesses at the Commission’s public hearing and via written submissions provided by several interested persons.

Qualitative analysis was also used to provide a “reality check” on those sectors viewed as having potential according to the quantitative analysis. This is because the quantitative analysis does not fully consider the feasibility or desirability of exporting products identified as having potential. Products identified by quantitative analysis may not be feasible because of a lack of workers with the needed skills or because they are viewed as too risky to attract investment. Similarly, other products may not be desirable, such as those that may be environmentally unsustainable if exported in larger volumes from Pacific Island production locations.

Final Selection

After reviewing the results from all four quantitative techniques and balancing them against qualitative information, the seven sectors noted above and described in more detail below were chosen for inclusion in this chapter. These sectors were all identified by multiple screening techniques, and their potential was confirmed by experts in the Pacific Island economies. Many products imported from the region are already duty free under normal trade relations (NTR), as described in chapter 4; however, attention was also paid to products that are GSP-eligible that are subject to NTR rates above zero (referred to as products with GSP relevance) (table 6.1).

⁵⁴³ A product space methodology “identifies products which the exporting country does not yet competitively export but which seem feasible given the country’s current export basket and the export baskets of similar countries.” International Trade Centre, “Export Potential and Diversification Assessments,” accessed August 17, 2023.

Table 6.1 Methods used to select sectors with potential for increased exports to the United States

Y indicates that this method was used to select this sector. N indicates that this method was not relied on to select this sector.

Sector	Export trend analysis	Revealed comparative advantage	Gravity modeling	Export potential assessment (International Trade Centre)	Qualitative analysis	GSP relevance
Fish	Y	Y	Y	Y	Y	Y
Nickel	Y	Y	Y	N	Y	N
Turmeric and ginger	N	N	Y	N	Y	Y
Virgin coconut oil	Y	Y	Y	Y	Y	N
Cocoa	N	Y	Y	Y	Y	Y
Kava	Y	Y	Y	N	Y	N
Coffee	N	N	N	Y	Y	N

Source: USITC.

Note: "Export potential assessment" is the umbrella term for both the "export potential indicator" and "product diversification indicator" described above.

Fish

The Pacific Island region is home to some of the world's most productive fishing grounds, particularly for tuna. In 2019, it was estimated that approximately 54 percent of the world's tuna supply came from the Western and Central Pacific, which are the waters surrounding the 22 Pacific Island economies.⁵⁴⁴ Tuna harvested from these waters is a critical input in the global tuna canning industry. It is also an important product in the fresh and frozen tuna market, which supplies growing demand for products such as sushi. Although most fish exports from the region are tuna, the Pacific Islands have potential to export other types of fish, including farmed species, which are becoming more important as a share of global seafood supply.

The Fisheries Sector

Many Pacific Island economies are active in harvesting and processing fish from the wild, but the aquaculture industry in the region is nascent or absent in most economies (as described in additional detail below). When fish are harvested from the wild in the region, Pacific Island economies may benefit economically by selling rights to fish in their waters, by fishing those waters with their own fleets, or by handling and processing fish onshore once they are caught. Major foreign commercial fishing fleets authorized to fish in the region are those of South Korea, Taiwan, the United States, and Japan.⁵⁴⁵ These are all tuna fleets. The fish harvested by these fleets are considered to be the product of the country of the vessel catching them unless and until they are processed by another country. To this end, the Pacific

⁵⁴⁴ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 193.

⁵⁴⁵ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 197. Payments received by Pacific Island economies in exchange for fishing rights may be considered as international trade in services, recorded as "government goods and services, n.i.e. [not indicated elsewhere]," in the international balance of payments, provided the government is taking an active role in monitoring and restricting the issuance of the licenses. Otherwise, the payments would be considered taxes. FAO, "Trade in Fisheries and Aquaculture Services," Tables 8–11, 2019.

Islands have made efforts to continuously increase their own fleets' share of the tuna harvest, and they have made progress toward this goal. Combined tuna catches by the Pacific Island fleets were about equal to catches by foreign fleets in 2019.⁵⁴⁶

The four main tuna species that are harvested commercially in the Pacific Islands are skipjack, yellowfin, albacore, and bigeye. Tuna may be harvested by various types of fishing boats, but the two most common are purse seine vessels, which use very large nets to catch the fish, and longline vessels, which use a main line that may stretch for miles outfitted with many baited hooks. The difference between these two types of vessels is important because they are regulated differently and catch mostly different types of tuna. In 2019, purse seine vessels accounted for an estimated 70 percent of the tuna catch in the region. Purse seine vessel activity is closely tied to the canning market because the main tuna targeted by these vessels is skipjack, which is a key input in the canning industry. Skipjack makes up more than two-thirds of the purse seine catch in the Western and Central Pacific. The remaining catch by purse seine vessels is yellowfin (20–30 percent) and bigeye (2–5 percent).⁵⁴⁷ Longline vessels typically catch yellowfin and bigeye tuna for the fresh and frozen tuna market, as well as albacore for the canning market.⁵⁴⁸

Tuna harvested in the Pacific Islands is often canned in countries outside the region that are home to large-scale canning operations, including Thailand and Ecuador. The region does, however, have some commercial-scale canneries. Among these is a StarKist cannery in American Samoa, which is operated by Dongwon Industries, the South Korean owner of the StarKist brand.⁵⁴⁹ In Fiji, a government-owned plant cans tuna for the local market and produces tuna loins (an intermediate product of the canning industry, as described in the tariff treatment section, below) under contract for the Bumble Bee brand, which packs some of those loins into cans at a U.S. facility.⁵⁵⁰ The Solomon Islands is home to the SolTuna cannery, partly owned by the Italian company, Bolton Group.⁵⁵¹ Papua New Guinea has seven canneries, all of which are focused on serving the European market.⁵⁵²

Exports

The Pacific Island economies exported about \$1.5 billion annually of fish and processed fish products to the world during 2017–21 (table 6.2). Of these total exports, at least 96 percent was tuna in each year during 2017–21. Thailand, which is a major tuna canning hub, was the largest importer of fish from the Pacific Islands, accounting for \$462 million of the region's total exports in 2021. The second- and third-largest markets were the United States and the European Union (EU).

⁵⁴⁶ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 209.

⁵⁴⁷ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 197.

⁵⁴⁸ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 197.

⁵⁴⁹ StarKist, "About StarKist Co.," accessed July 14, 2023.

⁵⁵⁰ *Fiji Sun*, "PAFCO Bumble Bee Seafoods Processing Agreement," February 18, 2023.

⁵⁵¹ White, "Tri Marine Sold to Bolton Group," July 8, 2019.

⁵⁵² Foreign government official, interview by USITC staff, Papua New Guinea, April 21, 2023.

Table 6.2 Pacific Island economies' exports of fish to the world, by economy, 2017–21

In thousands of dollars. F.S. Micronesia = the Federated States of Micronesia.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	465,361	485,197	434,889	346,422	372,958
American Samoa	312,489	382,780	351,515	404,419	303,351
F.S. Micronesia	98,674	132,196	155,645	142,481	192,335
Nauru	1	1,787	22,944	97,645	138,156
Vanuatu	96,081	103,459	112,778	136,773	128,998
Fiji	130,574	107,592	107,633	112,671	90,253
Kiribati	160,971	139,517	112,379	97,718	84,658
The Marshall Islands	70,956	80,587	102,146	72,056	77,393
The Solomon Islands	92,634	101,991	113,155	82,394	66,342
Tuvalu	7,764	29,421	12,408	10,790	20,553
The Cook Islands	30,176	22,862	18,185	20,029	20,171
French Polynesia	8,028	10,267	11,379	5,138	13,780
All other economies	27,288	26,878	21,670	3,810	3,238
Total	1,500,997	1,624,535	1,576,727	1,532,345	1,512,185

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS headings 0302, 0303, 0304, 0305, and 1604.

Notes: Exports shown as global imports from individual economies. The economies are in descending order of 2021 data.

The top product, accounting for \$660 million of the \$1.5 billion in total fish exports from the Pacific Islands in 2021, was canned tuna. Canned tuna is exported mostly from American Samoa and Papua New Guinea because these are the economies in the region with the most significant canning capacity. After canned tuna, the next-largest export category was frozen whole tunas (including skipjack, yellowfin, bigeye, and albacore species) and frozen skipjack fillets. Major exporters of frozen whole tuna in 2021 were the Federated States of Micronesia, Nauru, Papua New Guinea, Kiribati, the Marshall Islands, and Vanuatu. Nauru became a significant exporter during the 2017–21 period, owing largely to the completion of a port improvement project that resulted in the opening of that economy's first international port.⁵⁵³ Fiji was by far the largest exporter of frozen skipjack fillets, followed by Kiribati and Vanuatu. Beyond tuna, Vanuatu is a significant exporter of swordfish, and many Pacific Islands export small amounts of other fish types.

Compared to the Pacific Islands' fish exports to the world, exports to the United States are more concentrated (see table 6.3). Canned tuna from American Samoa makes up a large majority of U.S. imports of fish from the region. Fiji is the second-largest regional exporter of fish to the United States, and these exports are also mostly canned tuna, with frozen skipjack fillets a distant second. French Polynesia supplies some fresh, whole tuna (yellowfin and bigeye) to the U.S. market, and the Marshall Islands supplies fresh bigeye tuna as well as some frozen tuna fillets.

⁵⁵³ The project was funded by the Asian Development Bank, the governments of Australia and Nauru, and the Green Climate Fund. ADB, "Port Upgrade Throwing a Lifeline," January 27, 2020; IMF, "Republic of Nauru," February 2022.

Table 6.3 Pacific Island economies' exports of fish to the United States, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
American Samoa	307,732	374,573	351,470	403,374	303,351
Fiji	80,678	78,234	76,754	90,197	70,029
French Polynesia	7,474	9,919	10,678	4,612	12,833
The Marshall Islands	5,393	5,330	5,267	5,057	7,849
Kiribati	2,301	1,398	1,347	809	868
All other economies	5,375	5,726	7,173	3,627	618
Total	408,952	475,181	452,689	507,676	395,547

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS headings 0302, 0303, 0304, 0305, and 1604.

Notes: Exports shown as U.S. imports from individual economies. The economies are in descending order of 2021 data.

Import Requirements and Tariff Treatment

Most, but not all, fish and fish products are imported into the United States on a duty-free basis for all countries with which the United States has normal trade relations. All fresh and frozen tuna products receive this duty-free treatment. Canned tuna imports face a tariff-rate quota, with a small volume of in-quota imports charged a lower rate of 6 percent and over-quota imports charged a rate of 12.5 percent.⁵⁵⁴ An additional product commonly imported is tuna loins. Loins are processed and cooked tuna that is packed into cans in the United States; they are an intermediate product of the canning industry. U.S. tariffs on imported loins are assessed by volume rather than value and are 1.1 cents per kilogram. Canned tuna is eligible for duty-free treatment under GSP only when imported from least-developed beneficiary developing countries (LDBDCs), and these countries are eligible to receive this benefit on both the in-quota and over-quota imports. Among the LDBDCs, the main tuna canning operation is the Solomon Islands facility noted above.⁵⁵⁵

The United States maintains several nontariff measures applicable to imports of fish. The Seafood Import Monitoring Program, administered by National Oceanic and Atmospheric Administration (NOAA), sets traceability requirements for seafood species at risk of illegal, unreported, and unregulated (IUU) fishing and fraud, including tuna and swordfish. Although the program may bolster confidence in imported fish among some consumers, industry representatives in Fiji reported that the costs of compliance with this measure (both monetary and in terms of time) can be high and that they would like the U.S. government to recognize the Fijian system as equivalent.⁵⁵⁶ Other important nontariff measures include country of origin labeling for fresh and frozen seafood (administered by the U.S. Department of Agriculture (USDA)) and a requirement that seafood processors adhere to a Hazard Analysis and Critical Control Points (HACCP) program administered by the U.S. Food and Drug Administration (FDA).

Fisheries Governance

The harvest of fish from the wild in the region is governed by a complex set of bilateral, multilateral, and international agreements. The interaction among these agreements is particularly complex for tuna,

⁵⁵⁴ Rates are for canned tuna not packed in oil, which is the most common product in the U.S. market. Canned tuna in oil accounts for a small share of the market; the tariff rate for tuna in oil is 35 percent.

⁵⁵⁵ See chapter 4 for an additional description and listing of LDBDCs.

⁵⁵⁶ Industry representative, interview by USITC staff, Fiji, March 21, 2023.

given the value of the species and the fact that tuna migrate long distances, crossing many areas of ocean during their lives. Within the Pacific Islands' exclusive economic zones (EEZs), which generally extend up to 200 nautical miles from shore, fishing is governed by the country or territory with jurisdiction over those waters. More tuna is caught within EEZs in the Pacific Islands compared to other tuna-fishing regions of the world (where a higher share is caught on the high seas), according to one regional expert, who stated that is a benefit because it gives the Pacific Islands additional control over their tuna resources.⁵⁵⁷

Many Pacific Islands also grant access to their waters to other fishing fleets through fishery access agreements. The revenue gained from these agreements is often very important to the Pacific Island economies, particularly for the smaller islands. For instance, one analysis found that of all tuna harvested in the EEZs of the 22 Pacific Islands, 95 percent is caught in the EEZs of 10 economies.⁵⁵⁸ These 10 are all considered to be tuna-dependent small island developing states. For these tuna-dependent small island developing states, the earnings from fishery access agreements comprised an average of 37 percent of all government revenue.⁵⁵⁹ International payments for fishing access may, under certain circumstances, be considered international trade in services. When Pacific Island economies increase the revenue they collect from foreign fishing fleets, they may likewise be increasing their exports of services.⁵⁶⁰

Some fishery access agreements are bilateral, but others are multilateral, including the agreement that governs fishing by the U.S. purse seine fleet in the region. The South Pacific Tuna Treaty between the United States, Australia, New Zealand, and 14 Pacific Island economies entered into force in 1988 and was revised and updated in 2016.⁵⁶¹ Under that treaty, the U.S. purse seine fleet is permitted to fish for tuna in the EEZs of Pacific Island economies that are parties to the treaty in exchange for access fees and benefits under the associated Economic Assistance Agreement.⁵⁶² In 2022, a new 10-year package of economic assistance totaling \$600 million was proposed; this would be a nearly threefold increase from the prior package.⁵⁶³ The new Economic Assistance Agreement had not been passed by the U.S. Congress, however, as of September 2023.⁵⁶⁴ On the Pacific Islands side, many aspects of the treaty's administration are handled through the Forum Fisheries Agency, which is a regional body that coordinates on fisheries-related matters for its members.

Historically, an additional important contribution of the Forum Fisheries Agency was the negotiation of the Nauru Agreement. Concluded in 1982, the Nauru Agreement was the first mechanism in the region for coordinated management of foreign fishing vessels' activities.⁵⁶⁵ In 2010, the eight Pacific Islands

⁵⁵⁷ Subject matter expert, interview by USITC staff, July 17, 2023.

⁵⁵⁸ These 10 are the Cook Islands, the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, the Solomon Islands, Tokelau, and Tuvalu.

⁵⁵⁹ Bell et al., "Pathways to Sustaining Tuna-Dependent Pacific Island Economies during Climate Change," July 29, 2021, 900.

⁵⁶⁰ Classified as "government goods and services, n.i.e." FAO, "Trade in Fisheries and Aquaculture Services," Tables 8–11, 2019.

⁵⁶¹ NOAA, "South Pacific Tuna Treaty," accessed August 9, 2023.

⁵⁶² USDOJ, "South Pacific Tuna Treaty," February 28, 2011.

⁵⁶³ White House, "Vice President Harris Announces Commitments to Strengthen U.S. Partnership with the Pacific Islands," July 12, 2022.

⁵⁶⁴ Peake and Pohle, "Six Months in, Where Does the U.S.' Pacific Islands Strategy Stand?," April 12, 2023.

⁵⁶⁵ Campling, Havice, and Ram-Bidesi, *Pacific Island Countries, the Global Tuna Industry*, April 2007, 138.

known as the Parties to the Nauru Agreement (PNA) created a separate office for their organization, distinct from the Forum Fisheries Agency.⁵⁶⁶ The EEZs of the PNA countries account for about 80 percent of the tuna caught in the Western and Central Pacific and 50 percent of the world's supply of skipjack tuna.⁵⁶⁷ The PNA sets limits on fishing activity in its members' waters through a cap-and-trade-type system that allows for paid transfers of fishing rights between members.⁵⁶⁸ The PNA also makes additional regulations aimed at conservation and reduction of the risk of IUU fishing.⁵⁶⁹

Some of the tuna caught in the region is harvested on the high seas, outside of countries' EEZs. The organization responsible for regulating tuna fishing on the high seas in the region is the Western and Central Pacific Fisheries Commission (WCPFC). With participation from member economies that are either located in the Western and Central Pacific or are authorized to fish there, the WCPFC manages the economically important fisheries in the region by setting catch limits, restricting fishing activity, or both (depending on the species). The WCPFC also sets many other rules that govern tuna fishing in the region, including mandating measures to reduce bycatch, monitor fishing vessels, and reduce the risk of IUU fishing. The United States and 14 of the 22 Pacific Island economies covered in this report are among the members of the WCPFC, and another 7 of the Pacific Island economies covered in this report engage with it as "participating territories."⁵⁷⁰

Numerous other agreements and mechanisms govern fishing in the region beyond those noted here. Combined, the effect of these regulatory efforts has been a significant improvement in fisheries management in the Pacific Islands. One analysis credited the system of fisheries management in the region with the fact that none of the purse seine tuna fisheries in the region are listed as being overfished.⁵⁷¹ Another analysis noted that the Pacific Islands is the only region of the world's oceans where tuna is not listed as overfished.⁵⁷² A regional industry expert cautioned, however, that most of these successes (such as the achievements of the PNA) apply mostly to the purse seine fleet, and that cooperation and management mechanisms for the longline fleet—which is smaller and relies on much older and less sophisticated vessels—lag far behind.⁵⁷³ In addition, those familiar with Pacific Island tuna fisheries reported at the Commission's hearing that the region would benefit from additional assistance combating IUU fishing because it can be difficult to conduct enforcement over such a large area. One of these witnesses, Fiji's Ambassador to the United States, also noted that such assistance would improve the region's ability to profit from its legal fishing operations.⁵⁷⁴

⁵⁶⁶ The parties to the Nauru Agreement are the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, the Solomon Islands, and Tuvalu.

⁵⁶⁷ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 204.

⁵⁶⁸ Duke Nicholas Institute, "Cooperation Aimed at Sustainable Fisheries," August 18, 2016.

⁵⁶⁹ Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 205.

⁵⁷⁰ The Pitcairn Islands are not a member of WCPFC. WCPFC "participating territories" are participants that are not independent nations. WCPFC, "About WCPFC," accessed May 29, 2023.

⁵⁷¹ Bell et al., "Pathways to Sustaining Tuna-Dependent Pacific Island Economies during Climate Change," July 29, 2021, 901.

⁵⁷² Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 196.

⁵⁷³ Subject matter expert, interview by USITC staff, July 17, 2023.

⁵⁷⁴ USITC, hearing transcript, February 14, 2023, 29, 59–61 (testimony of Satyendra Prasad, Embassy of Fiji); 93 (testimony of Edward Gresser, Progressive Policy Institute); 98–100 (testimony of Alan Tidwell, Georgetown University).

Potential for Increased Fish Exports to the United States

Because Pacific Island fisheries are already well established, potential for increased exports to the United States mostly comes from adjustments to existing supply chains that would allow for greater value addition within the region. The highest value potential increase in fish exports to the United States from the Pacific Island region is likely in fresh and frozen tuna, with some opportunities for canned tuna as well. Opportunities also exist to expand beyond tuna into additional products, such as farmed fish. U.S. demand trends that point toward increased seafood consumption, particularly of fresh and frozen products and increasingly from aquaculture, support the identification of these as the areas of potential.

Fresh and Frozen Tuna

Fresh and frozen tuna are increasingly in demand in the United States as compared to canned tuna, although some opportunities for increased exports of higher-value canned tuna exist, as described below. Expanding exports of higher-value fresh and frozen tuna from the Pacific Islands, as opposed to lower-value canned tuna, to the United States is challenging because of the need for infrastructure that is largely absent in the region, such as freezing capabilities (which rely on affordable and readily available electricity) and reliable flight schedules. One expert on the industry in the region described these two constraints as an either/or proposition: tuna for export to the fresh and frozen market can either be “superfrozen” to preserve quality for high-end applications like sushi, which means it can then travel by ocean freight, or it needs to be shipped by air to reach the fresh market in time to preserve quality.⁵⁷⁵

French Polynesia, the Marshall Islands, and Fiji are the Pacific Island economies that have established the ability to ship fresh and frozen fish to the United States.⁵⁷⁶ All three benefit from reliable air cargo connections to the United States. Exports of fresh tuna from the Marshall Islands may have been bolstered by the Marine Stewardship Council’s certification of its longline bigeye and yellowfin tuna fishery, which was achieved in October 2019.⁵⁷⁷ Highlighting the importance of air cargo connections to this trade flow, however, the Marshall Islands declared a state of emergency in 2023 after the U.S. Federal Aviation Administration grounded all flights by Asia Pacific Airlines from February 1 to May 5 over safety concerns related to pilot training, keeping fresh tuna from being exported from the country.⁵⁷⁸

For other Pacific Islands looking to increase exports of fresh and frozen tuna, a 2015 analysis by Conservation International, a U.S. nonprofit environmental organization, highlighted some important steps to capture value in that market. The first was to work on building an “origin brand” for fresh and frozen tuna. An origin brand uses the geographic origin of a product as a marker of quality. An example familiar to U.S. seafood consumers is Maine lobster. The second step pinpointed in the analysis was to establish direct links with end-market buyers of fresh and frozen tuna (i.e., restaurants and retailers). By

⁵⁷⁵ Subject matter expert, interview by USITC staff, December 16, 2022.

⁵⁷⁶ S&P Global, GTAS, accessed February 8, 2023.

⁵⁷⁷ Marine Stewardship Council, “MSC Updates Noumea Express Service,” October 6, 2022.

⁵⁷⁸ Johnson, “Marshalls Declares State of Emergency,” March 27, 2023; Jedra, “Feds Ground Asia Pacific Airlines,” February 3, 2023.

doing this, both the Pacific Island economies and the restaurant or retailer can cut costs by eliminating the need for a distributor. The analysis stressed that both opportunities depend on well-managed fisheries and reliable supply in order to compete in the fresh and frozen market.⁵⁷⁹ Efforts to ensure a sustainable supply of tuna harvested for the fresh and frozen market, including efforts to reduce IUU fishing, would likely help boost exports of fresh and frozen tuna to the United States.

Canned Tuna

Opportunities to expand exports of canned tuna are limited. The canned tuna market is mature, as described in the section on U.S. demand below, and Pacific Island canneries must compete against highly competitive global suppliers, such as Thailand and Vietnam. In cases where tuna from the Pacific Islands is canned outside the region, however, opportunities exist to assist islands seeking to capture more of the value from their tuna. For example, major canner Chicken of the Sea agreed to purchase tuna from the PNA countries for its higher value, niche canned yellowfin tuna in olive oil (sold in the United States under the Genova brand). This was a collaboration with the Pacific Islands' own Pacifical brand tuna, which helped ensure that the tuna provided for this premium line was Marine Stewardship Council certified.⁵⁸⁰

Another example of investment in the canned tuna supply chain in the region has been the creation of Pacific Island Tuna, a company founded through a partnership between the Nature Conservancy (a U.S.-headquartered environmental organization) and the government of the Marshall Islands, with support from Bain & Company, a U.S. management consulting firm. This initiative aims to differentiate tuna for canning by ensuring traceability. This is done through on-vessel dockside monitoring, eliminating the risk of transshipment at sea (which is associated with risk of IUU fishing). In support of these goals, Pacific Island Tuna's fish is all landed in the Marshall Islands. By landing the tuna, the Marshall Islands also gained the opportunity to improve its dockside services and cold storage industries, which in turn has created jobs and benefited other sectors.⁵⁸¹ The tuna is then sent to Asia for canning before being sold in the U.S. market in Walmart stores under that company's own Great Value brand.⁵⁸² Those involved in the initiative see it as a model that could work well in other Pacific Islands, particularly the Federated States of Micronesia and Kiribati.⁵⁸³

Aquaculture

Although wild-caught tuna (and secondarily, other wild-caught species) makes up nearly all fisheries production in the Pacific Islands at present, an increasing share of the world's consumption of seafood comes from farming (i.e., aquaculture). Aquaculture is therefore a potentially important part of the fish sector's future potential in the region. It is unclear if food safety or other U.S. regulations for aquaculture production would be an impediment to trade.

At present, aquaculture production in the Pacific Islands is very small. Where such production exists, it is mostly of freshwater fish grown for local consumption, often to improve food security. For example,

⁵⁷⁹ Conservation International, "Value Creation Opportunities for WCPO Island Nations," March 2015, 22–24.

⁵⁸⁰ Pacifical, "Chicken of the Sea Partners with Pacifical," February 27, 2018.

⁵⁸¹ Industry representative, interview by USITC staff, December 15, 2022.

⁵⁸² Industry representative, interview by USITC staff, December 15, 2022.

⁵⁸³ Industry representatives, interviews by USITC staff, December 15 and 19, 2022.

Papua New Guinea has some inland production of carp and tilapia, and Fiji has a producer of tilapia and eel. Industry representatives familiar with efforts to develop aquaculture in American Samoa similarly reported that any production of farmed fish would be focused on the local market first, before looking at export opportunities.⁵⁸⁴ At the same time, some niche aquaculture products have found success in export markets. This section focuses on finfish, but blue shrimp farming has been successful in New Caledonia, with the shrimp being exported to Japan and France. The success of this niche suggests additional potential for aquaculture production in the region.

Recent research has focused on opportunities to expand aquaculture production in the Pacific Islands. In 2022, NOAA issued a report reviewing options for expanding marine aquaculture in U.S. waters of the Pacific.⁵⁸⁵ The report noted that kanpachi, also known as Almaco jack or longfin yellowtail, is raised commercially in Hawaii and is native to the rest of the Pacific. It also reported that farming of this species reduces the risk of ciguatera fish poisoning, which can result in illness to humans when this fish is harvested from the wild.⁵⁸⁶ The fish is used in high-value applications, including sushi. Industry representatives in American Samoa stated that most aquaculture products that are viable in Hawaii could likely be grown in American Samoa. They also mentioned that they hoped the knowledge of fish farming being developed in the nascent local-market aquaculture sector could eventually be applied to products for the mainland U.S. market, such as kanpachi.⁵⁸⁷

A number of factors suggest potential for increased fish farming in the Pacific Islands. Aquaculture allows Pacific Island economies to tap into natural advantages, which include a favorable climate, large EEZs relative to their land area, providing ample space for marine aquaculture, experience handling fish, and in some cases, inputs from the wild-caught fish industry. For example, tuna processing operations result in waste products that can be used in aquaculture feeds.⁵⁸⁸

U.S. Demand

The U.S. seafood market is growing, but most of this growth is in the fresh and frozen segments of the industry. Consumption of canned tuna has declined over the long term, although it increased slightly in recent years. U.S. per capita consumption of canned tuna was 2.6 pounds in 2020, which was up from 2.1 pounds in 2017, but still well below historical figures (for example, annual per capita consumption averaged 3.4 pounds between 1990 and 2000).⁵⁸⁹ Meanwhile, total U.S. seafood consumption has consistently increased. In 2020, total per capita consumption of seafood in the United States was 19.0 pounds, up from 16.0 pounds in 2017 and 15.2 pounds in 2000.⁵⁹⁰ The USDA Economic Research Service notes that the share of U.S. seafood consumption coming from fresh and frozen products has increased over time, owing largely to a growing supply of these products that has been enabled by

⁵⁸⁴ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵⁸⁵ U.S. waters for purposes of the report include the EEZs around Hawaii, American Samoa, the Marianas Archipelago, and remote areas under the jurisdiction of the United States such as Wake Island. NOAA, *Pacific Islands Aquaculture Management*, August 2022.

⁵⁸⁶ NOAA, *Pacific Islands Aquaculture Management*, August 2022, 68.

⁵⁸⁷ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵⁸⁸ Industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵⁸⁹ National Marine Fisheries Service, *2020 Fisheries of the United States*, May 2022, 25.

⁵⁹⁰ National Marine Fisheries Service, *2020 Fisheries of the United States*, May 2022, 25.

increased global aquaculture production.⁵⁹¹ These trends are expected to continue; for example, in 2022, 41 percent of U.S. consumers reported that they wanted to eat more seafood.⁵⁹² This creates opportunities for Pacific Island economies to benefit from U.S. demand trends, particularly as they move into additional parts of the fish supply chain, as described above.

Impediments

High Delivery Costs for Processing

Nearly every cost of processing fish in the Pacific Islands is higher than in other fish-processing countries. For example, as described throughout the report, utility costs are high, and electricity can be unreliable in some places. These costs affect both fresh and frozen tuna and canned tuna, and they would also affect the development of aquaculture. The cost of getting finished products to the United States, whether by air or sea, can also be high, given the distance and lack of freight connections. Low labor availability further increases the cost of processing fish in many of the Pacific Islands. Fish processors have to compete with other industries for a relatively small number of potential workers, affecting their ability to produce fresh fish fillets and canned products.⁵⁹³ For these reasons, the greatest potential for increased fish exports from the Pacific Islands is generally in products that require less processing. Still, even the freezing of whole tuna for the fresh and frozen market, which requires much less processing than is done in a cannery, often relies on more infrastructure (reliable electricity and freezing capacity) than is readily available in the Pacific Islands.⁵⁹⁴

Preferential Trade Programs

Because tuna processing is a low-margin industry, tariff preferences often have a major effect on where processing happens. For example, historically, U.S. trade preferences for Ecuador made tuna processing there more competitive. Industry representatives in American Samoa report that tuna vessels, particularly those fishing further east of the territory, often offload in Ecuador rather than American Samoa due to the competitive canning sector that developed there as a result of tariff preferences that were previously in place.⁵⁹⁵

Pacific Islands' trade agreements with other import markets can also ensure that most of the products of those islands go to those markets. For example, nearly all canned tuna from Papua New Guinea goes to the EU market and Papua New Guinean government officials report that this is entirely due to the

⁵⁹¹ USDA, ERS, "Fresh and Frozen Shellfish Lead the Growth in Seafood Availability," October 18, 2016.

⁵⁹² Fuhrman, "2022 Seafood Report: The Breakthrough Continues," February 18, 2022.

⁵⁹³ Industry expert, interview by USITC staff, Fiji, March 21, 2023; industry representative, interview by USITC staff, American Samoa, March 31, 2023.

⁵⁹⁴ Conservation International, "Value Creation Opportunities for WCPO Island Nations in the Tuna Industry," March 2015, 35–39.

⁵⁹⁵ U.S. tariff preferences for Ecuador under the Andean Trade Preference Act and the Andean Trade Preferences and Drug Eradication Act were in effect from 1991 to 2013. Since then, canned tuna from Ecuador has not been eligible for preferences.

tariff preferences they receive in that market under the EU-Pacific States Interim Economic Partnership Agreement (Papua New Guinea does not have duty-free access for canned tuna in the United States).⁵⁹⁶

Initiatives

Pacific Islands Forum Roadmap

In 2015, the Pacific Islands Forum, the intergovernmental organization that represents many of the regional economies, released its *Regional Roadmap for Sustainable Pacific Fisheries* (Roadmap). This document was endorsed by the members of the Pacific Islands Forum and set goals for improved sustainability, value creation, employment, and food security from the region's tuna fisheries. In connection with the Roadmap, the Forum Fisheries Agency and Pacific Community release an annual "report card" measuring progress toward those goals. The 2022 report card highlighted three areas of improvement in the tuna sector since 2015. First, improved management of bigeye tuna has reduced the risk of overfishing for that species. Second, there was an increase in the share of the tuna catch value caught by members' own fishing fleets (from 39 percent in 2015 to 56 percent in 2021). Third, the share of tuna caught in members' waters that was processed or handled in those countries increased 50 percent between 2015 and 2021, with this share reaching 17 percent in 2021. The report card notes that this increase was mainly due to the opening of a Chinese fish-handling facility in Vanuatu, the opening of a plant in Federated States of Micronesia, and an increase in vessel offloading in Fiji.⁵⁹⁷

Access Fees

An additional effort that has been successful in the region is charging more for tuna fisheries access. This does not directly result in additional exports or investment, but it has been a way that the Pacific Islands have received access to funds to improve the sector in the region. Starting in 2011, the PNA countries agreed to raise access fees, resulting in a 10-fold increase of revenue from these fees, from \$50 million in 2010 to \$500 million in 2020.⁵⁹⁸ Although this increase in access fees has at times led to strained negotiations with the countries that would like to fish in the region, most outside observers cite the system as a success in both economic and environmental terms.⁵⁹⁹ At least one economy has attempted to directly tie access fees to expanded canning opportunities in the region. In 2018, Papua New Guinea implemented a system that required tuna caught in the country's waters and processed elsewhere to pay the full access fee, but tuna processed in Papua New Guinea would be eligible for a rebate of a portion of those fees.⁶⁰⁰ The rebate began to be reduced, however, starting in 2022 with the goal of eventually phasing out the program because of its cost and the government's intent that it only be a short-term intervention.⁶⁰¹

⁵⁹⁶ Foreign government official, interview by USITC staff, Papua New Guinea, April 21, 2023.

⁵⁹⁷ FFA, "Tuna Fishery Report Card 2022," 2022, 4.

⁵⁹⁸ Pala, "How Eight Pacific Island States Are Saving the World's Tuna," March 5, 2021.

⁵⁹⁹ Pala, "How Eight Pacific Island States Are Saving the World's Tuna," March 5, 2021; subject matter expert, interview by USITC staff, July 17, 2023; Hanich et al., "Tuna Fisheries Conservation and Management," October 19, 2021, 208.

⁶⁰⁰ Pacifical, "Chicken of the Sea Partners with Pacifical," February 27, 2018.

⁶⁰¹ Kirarock, "Holistic Tuna Fisheries Development," February 2022, 7.

Opportunities for U.S. Assistance and Investment

U.S. investment, whether public or private, that would enable increased exports of fish from the Pacific Islands could be targeted at improving electric reliability and cold storage, which would enhance the region's ability to participate in the fresh and frozen tuna market. Other investment opportunities could include investment in aquaculture from private U.S. companies that have successfully developed niche aquaculture products in other relevant locations (including Hawaii) and have the scientific expertise needed to grow this sector. Finally, agreements between the Forum Fisheries Agency and the U.S. Coast Guard have led to increased cooperation in the policing of IUU fishing in Pacific Island economies' EEZs.⁶⁰² Continued assistance from the United States on enforcement would be welcome, according to a Fijian government representative.⁶⁰³

Nickel

Nickel is a metallic element with a silvery-white, shiny appearance. It is the fifth-most common element on the planet and occurs extensively in the Earth's crust and core. Nickel is a critical mineral resource that is essential in hundreds of thousands of products. Its biggest use is in alloying (the mixing of metals), particularly with chromium and other metals to produce stainless steel, and it has recently emerged as a critical component in many types of lithium-ion batteries for electric vehicles.⁶⁰⁴ Nickel is produced all over the world; the United States has limited nickel mine production and lacks domestic nickel-processing capabilities. Hence, the United States is reliant on recycled scrap and imports to meet domestic demand.⁶⁰⁵ Certain Pacific Island economies produce unprocessed nickel from mines, processed ferronickel that is primarily used in stainless steel, and intermediate nickel products that are suitable for use in lithium-ion batteries with further processing. Recent U.S. federal government initiatives aimed at building domestic supply chains for lithium-ion battery materials and electric vehicles are expected to increase U.S. demand for nickel products.⁶⁰⁶ New Caledonia, a special collectivity of France, stands out in the Pacific Islands as a leading global producer and exporter of nickel and a potential source of trade and investment opportunities for the United States.

The Nickel Sector

Nickel mining and processing in the Pacific Island region is concentrated primarily in New Caledonia and, to a lesser extent, in Papua New Guinea.⁶⁰⁷ New Caledonia is prominent owing to its vast nickel resources and production capacity and is the focus of this section.⁶⁰⁸ Although New Caledonia has a long

⁶⁰² USDOS, "Pacific Islands Forum – U.S. Engagement in the Pacific Islands," August 17, 2019; USITC, hearing transcript, February 14, 2023, 98–100 (testimony of Alan Tidwell, Georgetown University); USCG, "USCGC Oliver Henry returns to Guam," April 17, 2023; USITC, IUU Fishing, 2021, 157.

⁶⁰³ USITC, hearing transcript, February 14, 2023, 29, 59–61 (testimony of Satyendra Prasad, Embassy of Fiji).

⁶⁰⁴ Nickel Institute, "About Nickel," accessed April 16, 2023.

⁶⁰⁵ USGS, *Mineral Commodity Summaries 2023: Nickel*, 2023.

⁶⁰⁶ White House, "Remarks by President Biden on the Bipartisan Infrastructure Law," October 19, 2022.

⁶⁰⁷ USGS, *Minerals Yearbook 2019: Nickel*, 2023.

⁶⁰⁸ Two major types of nickel deposits supply most of the world's nickel: underground sulfide deposits (such as those found in Russia, Canada, and Australia) and near-surface laterite deposits (such as those in Cuba, New

history of mining mineral resources, many such as coal, gold, copper, lead, zinc, and antimony were not found in sufficient volumes for commercial recovery.⁶⁰⁹ Nickel, however, became New Caledonia's most valuable mineral resource, and nickel mining has continued for more than a century.⁶¹⁰ Nickel mine production in New Caledonia has been relatively steady from 2016 to 2022, hovering around 200,000 metric tons of nickel metal content per year. In 2022, New Caledonia ranked fourth among global nickel producers after Indonesia, the Philippines, and Canada. New Caledonia was forecast to increase its production by 18 percent from 2022 to 2024, which could make it the third-leading nickel producer in the near future.⁶¹¹ Historically, the majority of mine production is higher grade nickel ore typically used in ferronickel, with the remainder in the form of lower grade laterites—a type of near-surface nickel-bearing ore deposit commonly found in New Caledonia—that are associated with intermediates for batteries.⁶¹² The majority of the processed nickel produced in New Caledonia was in the form of ferronickel.⁶¹³ Overall, from 2017 to 2021, New Caledonia exported about 40–50 percent of the raw nickel (by metal content) produced in mines and processed the other half into ferronickel or intermediate products (that require further downstream processing before use) for export.⁶¹⁴

New Caledonia has about 7.1 million tons of nickel reserves—the fifth-most in the world—and nickel production typically accounts for between 7 percent and 10 percent of the country's gross domestic product (GDP).⁶¹⁵ One recent study found that one-quarter of the private sector employees in New Caledonia depend either directly or indirectly on nickel production.⁶¹⁶ Other Pacific Island economies with mining sectors, notably Papua New Guinea, generally have not had the financial means to buy equity in their extractive projects and have relied on payroll taxes, company taxes, production royalties, export levies, and various forms of compensation regimes to keep some of the financial returns from mining onshore. By contrast, New Caledonia has been able, with the backing of the French state, to pursue the objective of owning the means of production.⁶¹⁷

Caledonia, and Indonesia). International Energy Agency (IEA), *The Role of Critical Minerals in Clean Energy Transitions*, May 2022, 144.

⁶⁰⁹ Nickel is also produced in Papua New Guinea but the focus in this profile is New Caledonia owing to its relatively larger share of nickel production and projects. Nickel mine production in Papua New Guinea has historically been low compared to that in New Caledonia (less than one-fifth by quantity) and assessing nickel reserves in Papua New Guinea is challenging as these data are not readily available. The main source of nickel production in Papua New Guinea is the Ramu Nickel Cobalt Project which is a joint venture between China Metallurgical Group Corporation (MMC) Ramu (85 percent ownership) and other local and foreign partners with smaller shares. Idoine et al., *World Mineral Production 2017–2021*, 2023, 49; Mineral Resources Development Company Ltd, "Ramu Nickel Cobalt Project | MRDC," accessed August 17, 2023.

⁶¹⁰ Government of New Caledonia Department of Industry, Mines and Energy, "Le secteur minier [The Mining Sector]," July 10, 2019.

⁶¹¹ USGS, *Mineral Commodity Summaries 2023: Nickel*, 2023.

⁶¹² ISEE, "Nickel Sector," accessed April 17, 2023; IEA, *The Role of Critical Minerals in Clean Energy Transitions*, May 2021, 144.

⁶¹³ Buteyn, *The Mineral Industry of New Caledonia*, February 2022.

⁶¹⁴ Government of New Caledonia Department of Industry, Mines and Energy, "Bulletin Mines & Métallurgie NC Public [Bulletin of Mines and Metallurgy NC Public]," accessed July 12, 2023.

⁶¹⁵ Australian Trade and Investment Commission, "Mining to New Caledonia," accessed April 17, 2023.

⁶¹⁶ Institute of Statistics and Economic Studies, "L'économie Calédonienne Forte Des Retombées Du Nickel [Caledonian Economy Strong from Nickel Fallout]," January 2022.

⁶¹⁷ Burton, *Just Transitions and the Pacific-Case Study 2: Nickel in New Caledonia*, May 2022.

The nickel sector in New Caledonia is export oriented, and industry observers expect that nickel will continue to account for a very high proportion of export earnings in 2023–24. The industry in New Caledonia faces challenges to remain competitive with other nickel-producing nations that have lower operating costs and surging production, such as Indonesia and the Philippines. Nickel production costs in New Caledonia are among the highest in the world because of relatively high costs for labor, energy, and inland transport and shipping.⁶¹⁸ Some members of New Caledonia's nickel industry believe that a transition to green energy is required to differentiate itself in the market. To that end, a solar energy firm signed an agreement in 2021 with a nickel producer to build a new \$180 million solar power plant capable of generating 160 megawatts, which would provide power for several nickel mines in the Southern Province.⁶¹⁹

Nickel Production

Seven firms in New Caledonia have either active mining activities or assets under maintenance. The Directorate of Industry, Mines, and Energy of New Caledonia is responsible for the territory's mining and metallurgical industry. It promotes, organizes, and coordinates the development of mineral resources while integrating extractive activity into the territory's social and economic development.⁶²⁰ Three vertically integrated companies on New Caledonia's main island of Grand Terre mine, process, and export nickel.⁶²¹ These nickel-processing facilities operate in different regions, and the three operating companies maintain different approaches to mining, extraction, and refining nickel.⁶²² In the north, Koniambo Nickel SAS (KNS) is a joint venture that is 51 percent owned by Société Minière du Sud Pacifique SA (New Caledonia) and 49 percent by Glencore (Switzerland). KNS is responsible for the operation of the Northern metallurgical plant, with a nominal production capacity of 60,000 tons per year of ferronickel, and the mining activity on the Koniambo massif located in Northern Province.⁶²³ The lower grade ore from the mine that cannot be processed at the plant in New Caledonia is exported to South Korea, where it is processed.⁶²⁴ In the middle of the island, Société Le Nickel (SLN) is partly owned by Eramet, a French government-backed company. SLN is made up of five mining sites across the country and one production facility, Doniambo, in the heart of Noumea.⁶²⁵ SLN's Doniambo facility is one of the largest single producers of ferronickel in the world. The company also exports lower-grade nickel ore that it cannot process in New Caledonia.⁶²⁶

The southern part of the island is home to Prony Resources. Prony Resources is owned by New Caledonia entities (51 percent); a conglomerate of institutional investors, customers, and management Compagnie Financière de Prony (30 percent); and international commodities trader Trafigura

⁶¹⁸ Foreign government official, interview by USITC staff, April 12, 2023.

⁶¹⁹ EIU, *One-Click Report: New Caledonia*, July 1, 2023.

⁶²⁰ Stainless Steel World, "An Overview of World Nickel Resources," January 1, 2023.

⁶²¹ Beyond the three vertically integrated nickel companies, other producers mine and export nickel ore to China and South Korea. Burton, "New Project Output," 2022; Nickel Mining Company, "La Société NMC [The NMC Company]," accessed May 4, 2023.

⁶²² Australian Trade and Investment Commission, "Mining to New Caledonia," accessed April 17, 2023.

⁶²³ SMSP, "Koniambo Nickel SAS," accessed April 17, 2023.

⁶²⁴ SMSP, "Upgrading the Value of Mining Resource," accessed April 19, 2023.

⁶²⁵ SLN, "La Production Minière [Mining Production]," accessed April 17, 2023.

⁶²⁶ SLN, "Chiffres Clés [Key Figures]," accessed April 17, 2023.

(19 percent).⁶²⁷ Prony acquired the idled nickel mine and processing facility from Brazilian-based metals producer Vale NC and restarted operations in April 2021.⁶²⁸ The plant is focused on producing an intermediate nickel product called nickel hydroxide cake, which is composed of 37 percent nickel and 2–3 percent cobalt and is intended for use in lithium-ion batteries. Rising demand for this type of intermediate product, a result of growing demand for electric vehicles, has supported Prony’s decision to shift the facility away from producing nickel for use in stainless steel production. Projects in 2023 include new methods for processing and storing mine waste using environmentally friendly techniques. Overall operations are expanding so that production can be increased to at least 36,000 metric tons of nickel per year.⁶²⁹ Prony Resources has stated that it has all the assets to develop a competitive product for international markets and to create a “battery center of excellence” in New Caledonia.⁶³⁰ Some industry observers believe Prony’s nickel operations are currently best positioned in New Caledonia to increase production to supply the global battery market.⁶³¹

In a move that will potentially distinguish its operations from others in New Caledonia and the Pacific Island region, Prony has also moved to incorporate renewable sources of energy into the infrastructure of the facility, in the form of solar power. Prony intends to achieve carbon neutrality at the processing site by 2040.⁶³²

Exports

New Caledonia’s nickel sector is almost entirely export oriented because domestic consumption of nickel products essentially does not exist. As shown in table 6.4, exports of major nickel product types have increased in value from 2017 to 2021, with most exports destined for China, South Korea, and Japan. During 2017–21, exports of ferronickel were the leading category, by value, followed by ores and concentrates and intermediates. Ferronickel was the primary form of nickel exported to the United States, where it is used in steel manufacturing.

Table 6.4 New Caledonia’s exports of nickel products, by product, 2017–21

In millions of dollars. — = not applicable.

HS subheading description	HS subheading	2017	2018	2019	2020	2021
Ferronickel	7202.60	792	1,094	922	854	826
Nickel ores and concentrates	2604.00	347	434	482	579	786
Nickel oxide sinters and other intermediate products of nickel metallurgy	7501.20	351	397	302	338	307
Total	—	1,490	1,926	1,706	1,771	1,919

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023.

Notes: Exports shown as global imports from individual economies. The products are in descending order of 2021 data.

⁶²⁷ Prony Resources, “Prony Resources,” accessed April 17, 2023.

⁶²⁸ Kinch, “Trafigura, New Caledonia Group Complete Takeover of Vale’s Goro Nickel, Cobalt Unit,” March 31, 2021.

⁶²⁹ Trafigura, *2022 Trafigura Annual Report*, December 8, 2022, 37.

⁶³⁰ Prony Resources, “Prony Resources,” accessed April 17, 2023.

⁶³¹ Foreign government official, interview by USITC staff, April 12, 2023.

⁶³² Kinch, “Trafigura,” March 31, 2021; Business Wire, “New Caledonia,” January 8, 2022.

Import Requirements and Tariff Treatment

Tariffs are generally not a factor that restricts imports of nickel products into the United States. Most nickel products, including raw and processed nickel (e.g., ferronickel and refined nickel), are imported into the United States on a duty-free basis for all countries with which the United States has normal trade relations.⁶³³

Potential for Increased Nickel Exports to the United States

New Caledonia's robust nickel sector is positioned to potentially supply the United States and other nations with nickel for use in renewable energy applications, such as lithium-ion batteries. Producers in New Caledonia, such as Prony Resources, have demonstrated an interest in supplying material to U.S. customers for this purpose. In October 2021, Prony announced that Tesla had agreed to purchase around 42,000 metric tons of nickel per year in a five-year agreement that made the New Caledonian miner a key nickel supplier to the U.S. electric vehicle maker. Prony stated that the agreement with Tesla will ensure the quality of the nickel hydroxide cake product as well as the reliability and optimization of the industrial process while guaranteeing supply for Tesla factories in Asia, Europe, and the United States. Tesla also agreed to bring its technical expertise in the development and improvement of the industrial process and in the exploration of new forms of renewable energy storage. Prony is hoping to increase production to 44,000 metric tons of nickel per year by 2024.⁶³⁴

Export and investment opportunities in New Caledonia are potentially enhanced by U.S. efforts to secure supply chains for critical minerals, such as nickel.⁶³⁵ In a recent multiagency report on U.S. supply chains published by the White House, lack of domestic nickel refining capabilities was identified as a supply chain weakness. In response to the gap in capacity, the report recommended investing in both building domestic capacity and refining nickel in coordination with allies. The report recommended a plan to work with allies and partners to expand global production and ensure access to supplies necessary for advanced-battery minerals such as nickel.⁶³⁶ According to interviews with nickel producers, government officials in New Caledonia, and a nickel consumer, opportunities exist for export of nickel intermediates to the United States as well as potential investment in nickel processing capabilities in New Caledonia.⁶³⁷

Nickel used in lithium-ion batteries has seen significant demand growth in recent years thanks to the high energy density of nickel-containing cathodes. The increasing adoption of high nickel intensity cathodes has led to many forecasts for rapid growth in nickel demand in the battery sector in the next

⁶³³ USITC, *Harmonized Tariff Schedule of the United States*, June 2023.

⁶³⁴ Burton and Trompiz, "New Caledonia's Prony to Supply Nickel to Tesla in Multi-Year Deal," October 13, 2021.

⁶³⁵ Nickel was included in the U.S. Geological Survey's list of mineral commodities critical to the U.S. economy and national security after an extensive multi-agency assessment. USGS, "2022 List of Critical Minerals," accessed May 30, 2023.

⁶³⁶ White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, And Fostering Broad-Based Growth: 100-Day Reviews Under Executive Order 14017*, June 2021, 140.

⁶³⁷ Foreign government official and industry representatives, interviews by USITC staff, April 12, 2023, May 8, 2023, and May 10, 2023.

two decades. The total amount of nickel used by electric vehicles in the world is forecast to grow by more than 800 percent from 70,000 metric tons in 2018 to approximately 600,000 metric tons by 2025.⁶³⁸ Longer-range forecasts predict that demand may reach 1 million tons by 2030 and 3 million tons by 2040.⁶³⁹ In the United States, federal initiatives such as the Bipartisan Infrastructure Law, the American Battery Materials Initiative, and the Inflation Reduction Act are expected to boost domestic supply chain capabilities as well as demand for minerals such as nickel that are used in lithium-ion batteries.⁶⁴⁰ Securing reliable sources of nickel supply will be critical for U.S. firms engaged in producing lithium-ion batteries, especially in light of the limited amount of domestic production.

Some of the raw nickel mined in New Caledonia could also enter the United States after undergoing further processing in other countries. The limited downstream production capacity in New Caledonia has led to supply agreements between certain producers in Australia, South Korea, and New Caledonia. Some of the existing nickel mine production from New Caledonia is suitable for use in lithium-ion batteries; however, the processing capacity does not exist in New Caledonia.⁶⁴¹ Nickel from New Caledonia is processed for use in lithium-ion batteries mostly in Asia or Australia, where General Motors recently announced a collaborative supply agreement with Queensland Pacific Metals to secure nickel and cobalt for use in batteries for electric vehicles. General Motors is investing in the new project in Australia where Queensland Pacific Metals plans to process nickel laterite ore imported from New Caledonia into battery-grade nickel and cobalt products.⁶⁴²

Impediments

Energy Prices

Mining and processing nickel is extremely energy intensive, which presents one of the biggest competitive challenges for firms engaged in these activities.⁶⁴³ Industry observers consistently mentioned the type and price of energy as one of the biggest challenges for nickel producers interested in expanding into refining in New Caledonia.⁶⁴⁴ In general, nickel refining in New Caledonia faces higher production costs than firms in other leading nickel-producing countries such as China or Indonesia.⁶⁴⁵ One report estimates it cost \$18,798 to produce a metric ton of nickel in New Caledonia in 2022, compared to the world average of \$10,979 per metric ton.⁶⁴⁶ Higher production costs in New Caledonia are associated with higher energy costs. Industry observers note that a transition to renewable energy

⁶³⁸ Statista, “Battery Minerals Worldwide,” accessed May 15, 2023, 39.

⁶³⁹ Meng, “An Overview of World Nickel Usage,” October 2022.

⁶⁴⁰ White House, “Biden-Harris Administration Driving U.S. Battery Manufacturing and Good-Paying Jobs,” October 19, 2022.

⁶⁴¹ Global, “POSCO to Build \$200 Mn Nickel Refining Plant to Ramp up Battery Materials,” accessed April 19, 2023.

⁶⁴² General Motors, “GM Enters Collaboration Agreement,” accessed April 19, 2023.

⁶⁴³ Foreign government official, interview by USITC staff, April 12, 2023.

⁶⁴⁴ Industry representative, interview by USITC staff, May 10, 2023.

⁶⁴⁵ Burton, *New Project Output*, 2022.

⁶⁴⁶ Government of Western Australia Department of Jobs, Tourism, Science and Innovation, *Western Australia Battery and Critical Minerals Profile*, March 2023.

could help New Caledonia reduce its energy import dependence, ensure the security of supply, guarantee a competitive energy price, and reduce environmental impacts.⁶⁴⁷

Environmental Concerns

Environmental concerns related to mining and processing nickel in New Caledonia are tied to its delicate and diverse tropical environment. Issues such as deforestation, waste management, and impacts on coral reefs are increasingly relevant. New Caledonia has one of the world's largest marine parks, part of which surrounds Prony's nickel processing plant. Its coral systems are also recognized as a United Nations Educational, Scientific and Cultural Organization World Heritage site. The rivers, reefs, and vegetation are critical resources that help sustain the indigenous inhabitants.⁶⁴⁸ In light of these potential environmental concerns, New Caledonia participates in the 2050 Strategy for the Blue Pacific Continent, which offers a unifying strategy for sustainable resource and economic development in Pacific Island economies.⁶⁴⁹

Trade Agreements and Preferential Treatment

The Inflation Reduction Act, signed into law in August 2022 by President Joseph R. Biden, Jr., offers tax credit for electric vehicle purchases where at least 80 percent (by 2027) of the lithium, cobalt, nickel, and manganese used in their construction has been extracted or processed in the United States—or in a country with which it has a free trade agreement.⁶⁵⁰ Industry stakeholders mentioned that the lack of a free trade agreement is a disadvantage for New Caledonia in terms of exporting nickel (and cobalt) products to the United States.⁶⁵¹ Nickel that is mined in New Caledonia and undergoes processing in a country that has an agreement with the United States that qualifies as a free trade agreement for purposes of the Inflation Reduction Act would still qualify for the tax credit.⁶⁵²

Opportunities for U.S. Assistance and Investment

New Caledonia has ample nickel-mining resources, with potential opportunities for private investment and upgrades to nickel-processing facilities.⁶⁵³ Additional processing capacity that produces nickel intermediates for the lithium-ion battery sector could feed into battery supply chains outside of New Caledonia. Logistically, New Caledonia has infrastructure installed (e.g., deep seaport) to facilitate the export of nickel to foreign customers.⁶⁵⁴ Industry stakeholders have indicated that potential investment opportunities exist for increasing downstream nickel production capacity, such as in facilities that produce nickel sulfate, for lithium-ion batteries.⁶⁵⁵

⁶⁴⁷ European Commission, "New Caledonia | Clean Energy for EU Islands," accessed April 19, 2023.

⁶⁴⁸ Mongabay, "All Eyes on Tesla as It Invests in a Troubled Nickel Mine," June 22, 2022.

⁶⁴⁹ PIF, "2050 Strategy for the Blue Pacific Continent – Forum Sec," 2022.

⁶⁵⁰ U.S. Treasury, "Treasury Releases Proposed Guidance on New Clean Vehicle Credit," May 18, 2023.

⁶⁵¹ Foreign government official and industry representatives, interviews by USITC staff, April 12, 2023, and May 8, 2023.

⁶⁵² U.S. Treasury, "Treasury Releases Proposed Guidance on New Clean Vehicle Credit," May 18, 2023.

⁶⁵³ For a summary of historical foreign investment allocated to nickel and other metals in New Caledonia, see chapter 5.

⁶⁵⁴ Foreign government official, interview by USITC staff, April 12, 2023.

⁶⁵⁵ Industry representative, interview by USITC staff, May 8, 2023.

Turmeric and Ginger

Spices are unique and often high-value agricultural products. Owing largely to their tropical climates, Pacific Island economies produce a number of spices important to local and global markets, including ginger and turmeric.⁶⁵⁶ Turmeric is a golden-orange rhizome (horizontal underground stem) commonly used for its anti-inflammatory properties.⁶⁵⁷ A relative of turmeric, ginger is a rhizome that is also grown in tropical climates and valued in culinary and medicinal applications.

The Turmeric and Ginger Sector

Turmeric Production

Turmeric and ginger grow similarly, but turmeric requires a longer growing time, taking 11 months from planting to harvest.⁶⁵⁸ Turmeric thrives in rainy and tropical climates and can withstand higher temperatures than ginger.⁶⁵⁹ Although turmeric can grow on a number of islands in the region, most is produced in Fiji. Three varieties are produced in Fiji: true turmeric (*Curcuma longa* L.), identified by the rhizome's yellow-to-orange color; white turmeric or mango ginger (*Curcuma amada* Roxb.), identified by the rhizome's white-to-light yellow color; and *Curcuma aeruginosa* Roxb, identified by the rhizome's bluish-green color. All three varieties are used locally in food and medicinal preparations, but only true and white turmeric are exported.⁶⁶⁰ Turmeric has historically been valued by the Fijian population for its medicinal properties.⁶⁶¹

Turmeric is becoming one of Fiji's largest export crops.⁶⁶² In 2021, turmeric was Fiji's fourth-largest agricultural export to the world by value behind raw cane sugar, plants for perfumery, and taro. Most turmeric harvested in Fiji is wild-harvested true turmeric, though efforts to begin cultivating turmeric alongside other crops such as cocoa are taking root (see box 6.1). Once harvested, mature turmeric rhizomes are steamed for about 30 minutes and then dried for 28 hours before being ground into turmeric powder. The powder is used on its own as a spice or blended with others to produce curry powder and other blended spices.⁶⁶³ Processing into powder occurs at a centralized facility in the Namaka Industrial Zone in Nadi, Fiji.⁶⁶⁴

Box 6.1 Agroforestry and Intercropping

Intercropping is the simultaneous cultivation of at least two crops.^a Agroforestry is a type of intercropping that incorporates trees in at least 10 percent of agricultural land.^b The trees can be used for timber or for the production of other crops such as spices and cocoa.^c Root plants and rhizomes,

⁶⁵⁶ Other spices of interest include vanilla, peppercorn, and nutmeg, as described below.

⁶⁵⁷ Brown, "Turmeric Benefits," December 15, 2022.

⁶⁵⁸ Byczynski, "Turmeric," June 10, 2021.

⁶⁵⁹ Byczynski, "Turmeric," June 10, 2021; McCormick Science Institute, "Turmeric," accessed May 31, 2023.

⁶⁶⁰ Kandianan, Prasad, and Hussein, "Economically Important Curcuma Species," December 2020, 81.

⁶⁶¹ Kandianan, Prasad, and Hussein, "Economically Important Curcuma Species," December 2020, 82.

⁶⁶² Vucukula, "Ministry Records Increase in Crop Exports," May 13, 2022.

⁶⁶³ Kandianan, Prasad, and Hussein, "Economically Important Curcuma Species," December 2020, 82.

⁶⁶⁴ Kandianan, Prasad, and Hussein, "Economically Important Curcuma Species," December 2020, 83.

such as ginger and turmeric, are particularly well suited to intercropping within an agroforestry setting.^d Agroforestry is relatively common in the tropics and provides several benefits.^e First, intercropping products with a relatively short production time can help provide income to farmers, giving trees and slower-growing crops a chance to fully mature.^f Second, intercropping—and agroforestry in particular—is beneficial for the environment because the system ensures sufficient shade and coverage for crops that do not thrive in full sun and also helps to retain soil nutrients.^g This has the secondary benefit of increasing yields.^h Additionally, agroforestry limits crops' risk of exposure to diseases, pests, and natural disasters such as tropical cyclones.ⁱ Furthermore, agroforestry is an effective strategy for addressing deforestation.^j

Agroforestry is common within the Pacific Islands. Pacific Island economies like American Samoa have incorporated agroforestry informally for centuries.^k Additionally, several initiatives promote the use of agroforestry—and intercropping more generally—in agricultural production. In Samoa, the World Bank initiated a project to develop 300 hectares of dynamic agroforestry, working with farmers to intercrop turmeric with banana, cocoa, and coconut trees.^l Similarly, the U.S. Forest Service has encouraged the continued use of agroforestry in American Samoa.^m

Following Cyclone Pam in 2015, the organization Live & Learn Vanuatu, in collaboration with a variety of public and private sector partners, began implementing agroforestry plots in the rebuilding of the provinces most impacted by the cyclone. These efforts helped address food insecurity and promote more resilient agriculture.ⁿ The Australian Center for International Agricultural Research (ACIAR) has also established projects to promote agroforestry in both Vanuatu and Fiji. ACIAR's projects sought to improve underutilized land and help Vanuatu and Fiji reduce dependence on imports and diversify their agricultural exports into fruits, nuts, and root crops.^o The Secretariat of the Pacific Community also conducted agroforestry trainings in Fiji before the ACIAR's projects.^p Local leaders and government officials have driven initiatives in Papua New Guinea to introduce agroforestry as a conservation strategy.^q

^a Burgess, Correa Cano, and Parkes, "The Deployment of Intercropping and Agroforestry as Adaptation to Climate Change," June 2022, 145.

^b Burgess, Correa Cano, and Parkes, "The Deployment of Intercropping and Agroforestry as Adaptation to Climate Change," June 2022, 147.

^c Burgess, Correa Cano, and Parkes, "The Deployment of Intercropping and Agroforestry as Adaptation to Climate Change," June 2022, 147; DeeJay Farms, "Intercropping and It's Benefits," November 29, 2019.

^d Jaswal, Mishra, and Verma, "Intercropping Ginger and Turmeric with Poplar (*Populus Deltoides* 'G-3' Marsh.)," May 1, 1993; Armbrrecht, "Agroforestry and Turmeric in Nicaragua," May 18, 2022; Kampai, "Post-Cyclone Agroforestry Is Helping to Solve Food Insecurity in Vanuatu," Experience Capitalization, November 2018.

^e Burgess, Correa Cano, and Parkes, "The Deployment of Intercropping and Agroforestry as Adaptation to Climate Change," June 2022, 147.

^f World Bank, *Samoa - Agriculture and Fisheries Productivity and Marketing Project*, January 28, 2019, 82.

^g UN, "Agroforestry in the Pacific Islands: Systems for Sustainability," accessed June 16, 2023; Misa and Vargo, "Indigenous Agroforestry in American Samoa," 1993.

^h Reinhardt, "What Is Cacao Agroforestry?," September 7, 2022.

ⁱ UN, "Agroforestry in the Pacific Islands: Systems for Sustainability," accessed June 16, 2023; Misa and Vargo, "Indigenous Agroforestry in American Samoa," 1993; World Cocoa Foundation, "How Cocoa Agroforestry Systems Can Help Farmers in West Africa," October 6, 2019.

^j World Bank, *Samoa - Agriculture and Fisheries Productivity and Marketing Project*, January 28, 2019; UN, "Agroforestry in the Pacific Islands: Systems for Sustainability," accessed June 16, 2023; World Cocoa Foundation, "How Cocoa Agroforestry Systems Can Help Farmers in West Africa," October 6, 2019.

^k Misa and Vargo, "Indigenous Agroforestry in American Samoa," 1993.

^l Industry representative, interview by USITC staff, Samoa, March 29, 2023; World Bank, *Samoa - Agriculture and Fisheries Productivity and Marketing Project*, January 28, 2019, 34, 82.

^m Misa and Vargo, "Indigenous Agroforestry in American Samoa," 1993, 85.

ⁿ Kampai, "Post-Cyclone Agroforestry Is Helping to Solve Food Insecurity in Vanuatu," Experience Capitalization, November 2018; Pacific Farmer Organizations, "How Agroforestry Is Resolving Food Insecurity in Vanuatu," June 2019.

^o Kamin and Harrison, *Promoting Sustainable Agriculture and Agroforestry to Replace Unproductive Land-Use in Fiji and Vanuatu*, October 18, 2019.

^p World Agroforestry, "Agroforestry for Sustainable Farming in Fiji," December 13, 2013.

^q Mongabay Environmental News, "Agroforestry Supports Food Security and Conservation in Papua New Guinea," November 26, 2018.

Ginger Production

Ginger production is both labor and capital intensive and requires irrigation, specialized equipment for planting and harvesting, and planting materials.⁶⁶⁵ Ginger, however, may require less labor than other root crops because of the option to produce immature ginger, known as newborn ginger. Newborn ginger can be harvested in 5–6 months, but fully mature ginger is considered a long-season crop that can take up to 10 months from seeding to harvest.⁶⁶⁶ Ginger production is most effective in tropical climates with average temperatures ranging from 70 to 90 degrees Fahrenheit.⁶⁶⁷

Ginger grows across the Pacific Island region, but it is primarily produced in Fiji. Two varieties of ginger are produced in Fiji: red (also known as Queensland pink) and Canton (also known as white).⁶⁶⁸ Ginger has been produced in Fiji since the 1950s and has been identified as a priority commodity by the Fijian government because of its nutritional benefits as well as the potential for income and employment. Fijian ginger is cultivated for both domestic and international markets.⁶⁶⁹ It is considered to be high quality. Ginger of all varieties can also be USDA Certified Organic, although many Fijian ginger farmers use chemical herbicides and experience constraints in the transition to organic farming.⁶⁷⁰ In 2021, Fiji reportedly produced 13,815 metric tons of ginger, accounting for 0.3 percent of global production by volume.⁶⁷¹

The majority of ginger grown in Fiji is red ginger, often used as a medicinal ingredient and reportedly exported to Asia. Canton ginger is primarily grown for the global sparkling beverage market. More than 2,300 metric tons of mature Canton ginger has been exported to North America annually since the 1980s.⁶⁷² In 2021, ginger in all forms was Fiji's fifth-largest agricultural export by value.⁶⁷³ According to the Fijian Ministry of Agriculture, ginger cultivation yielded values up to \$0.46⁶⁷⁴ per kg for newborn ginger and \$2.43 per kg⁶⁷⁵ for mature ginger, with an average market price of \$1.35⁶⁷⁶ per kg in 2020.⁶⁷⁷ While complete updated data are not available, information from the Fijian Ministry of Agriculture appear to indicate these prices have increased since 2020 to a current average market price of \$2.66 per kg.⁶⁷⁸

⁶⁶⁵ State of Queensland, "The Australian Ginger Industry," 2009, 11; Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 262; AgriFutures Australia, "Ginger," accessed June 16, 2023.

⁶⁶⁶ Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 262.

⁶⁶⁷ Wilcox, "Ginger," May 19, 2023.

⁶⁶⁸ Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 261.

⁶⁶⁹ Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 262–63; Ministry of Agriculture Fiji, "5 Year Strategic Development Plan 2019–2023," 2019, 30.

⁶⁷⁰ Industry representative, interview by USITC staff, Fiji, March 23, 2023; Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 266.

⁶⁷¹ FAO, "Crops and Livestock Products," accessed May 3, 2023.

⁶⁷² Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 262.

⁶⁷³ S&P Global, GTAS, HS subheadings 0910.11 and 0910.12, accessed July 20, 2023.

⁶⁷⁴ F\$0.95. OANDA, "Currency Converter," December 31, 2020.

⁶⁷⁵ F\$5.00. OANDA, "Currency Converter," December 31, 2020.

⁶⁷⁶ F\$2.79. OANDA, "Currency Converter," December 31, 2020.

⁶⁷⁷ Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 262.

⁶⁷⁸ F\$5.99. Based on staff calculations using data from the Fijian Ministry of Agriculture Market Price Data Workbook. Government of Fiji, Ministry of Agriculture and Waterways, "Market Price Data," accessed August 9, 2023; OANDA, "Currency Converter," August 9, 2023.

Exports

Virtually all (99.9 percent in 2021) Pacific Island turmeric and ginger exports to the world come from Fiji (see table 6.5). Of these exports, 86.6 percent in 2021 were turmeric (see table 6.6). Exports of both turmeric and ginger grew significantly from 2019 to 2021, about doubling each year. Although several factors may be contributing to this growth, industry representatives report that good weather and increased prices have contributed to the growth of both crops. Additional incentives from the Fijian government to grow ginger have further contributed to an oversupply of ginger.⁶⁷⁹ Vanuatu and French Polynesia exported small amounts of both turmeric and ginger during the 2017–21 period. During that same period, Tokelau and Samoa exported only turmeric and Tonga, the Cook Islands, the Marshall Islands, and Papua New Guinea exported only ginger. The vast majority (98.0 percent) of all Pacific Island exports of turmeric in 2021 were destined for the United States, followed by New Zealand (1.7 percent) and Australia (0.2 percent). In that same year, 75.5 percent of all ginger exports were destined for Australia, followed by New Zealand (13.7 percent) and the United States (6.9 percent).⁶⁸⁰

Table 6.5 Pacific Island economies' exports of turmeric and ginger to the world, by economy, 2017–21
In dollars.

Economy	2017	2018	2019	2020	2021
Fiji	2,702,182	2,629,155	2,859,590	6,296,328	11,055,889
Vanuatu	0	0	0	5,441	107
French Polynesia	0	53	76	594	102
Tokelau	0	0	0	42	11
Samoa	192	10,121	69	133	0
All other economies	52	525	387	0	0
Total	2,702,425	2,639,854	2,860,122	6,302,538	11,056,109

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS subheadings 0910.11, 0910.12, and 0910.30.

Note: Exports shown as global imports from individual economies. The top economies are in descending order of 2021 data.

Table 6.6 Pacific Island economies' exports of turmeric and ginger to the world, by product, 2017–21
In dollars. — = not applicable.

HS subheading description	HS subheading	2017	2018	2019	2020	2021
Turmeric (Curcuma)	0910.30	1,795,453	1,963,171	2,423,027	5,584,479	9,572,010
Ginger, neither crushed nor ground	0910.11	659,026	578,716	277,024	482,085	859,404
Ginger, crushed or ground	0910.12	247,946	97,716	159,751	235,974	624,695
Total	—	2,702,425	2,639,854	2,860,122	6,302,538	11,056,109

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS subheadings 0910.11, 0910.12, and 0910.30.

Note: Exports shown as global imports from individual economies. The products are in descending order of 2021 data.

⁶⁷⁹ Industry representative, interview by USITC staff, Fiji, March 25, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023; Norris, "Shine A Light," March 27, 2023; Lui, "Ginger Loan Facility Launched," May 27, 2022; Qalubau, "Govt Targets \$25m Ginger Export In 5yrs," March 11, 2022.

⁶⁸⁰ S&P Global, GTAS, HS subheadings 0910.11, 0910.12, 0910.30, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023.

Fiji was the only Pacific Island source of U.S. imports of ginger from 2017 to 2021, and Fiji and Samoa were the only Pacific Island sources of U.S. imports of turmeric (table 6.7). As with exports to the world, virtually all exports of both ginger and turmeric to the United States in 2021 were sourced from Fiji. Almost all of these U.S. imports (98.9 percent in 2021) were of turmeric (table 6.8).

Table 6.7 Pacific Island economies' exports of turmeric and ginger to the United States, by economy, 2017–21

In dollars.

Economy	2017	2018	2019	2020	2021
Fiji	5,201,959	4,718,273	5,110,032	8,575,712	11,502,997
Samoa	0	6,480	0	0	0
Total	5,201,959	4,724,753	5,110,032	8,575,712	11,502,997

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS subheadings 0910.11, 0910.12, 0910.30, and 2006.00.30.

Note: Exports shown as U.S. imports from individual economies. The economies are in descending order of 2021 data.

Table 6.8 Pacific Island economies' exports of turmeric and ginger to the United States, by product, 2017–21

In dollars. — = not applicable.

HS subheading description	HTS subheading	2017	2018	2019	2020	2021
Turmeric (Curcuma)	0910.30	1,670,025	1,785,398	2,268,652	5,403,007	9,376,283
Ginger, neither crushed nor ground	0910.11	155,724	63,738	74,232	22,609	28,024
Ginger, crushed or ground	0910.12	207,794	22,006	22,628	18,682	73,916
Ginger root, preserved by sugar	2006.00.30	3,168,416	2,853,611	2,744,520	3,131,414	2,024,774
Total	—	5,201,959	4,724,753	5,110,032	8,575,712	11,502,997

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS subheadings 0910.11, 0910.12, 0910.30, and 2006.00.30.

Note: Exports shown as U.S. imports from individual economies.

Import Requirements and Tariff Treatment

Ginger imports from Pacific Island economies are categorized in HTS subheadings 0910.11 (neither crushed nor ground), 0910.12 (crushed or ground), and 2006.00.30 (ginger root, preserved by sugar). Turmeric is categorized in the HTS subheading 0910.30. All turmeric, as well as ginger that is not crushed or ground, enters the United States NTR duty free. Crushed or ground ginger enters the United States with an NTR tariff rate of \$0.01 per kg. It is eligible for duty-free treatment under GSP for LDBDCs. Fiji is not an LDBDC, however, and is thus subject to the NTR duty rate. Crystallized ginger (ginger root preserved by sugar) enters the United States with an NTR ad valorem tariff of 2.4 percent and is also eligible for duty-free treatment under GSP for all beneficiary developing countries.⁶⁸¹

Imports of turmeric and ginger must also comply with U.S. food safety requirements. Multiple agencies are responsible for regulating the safety of imported food into the United States, including the USDA

⁶⁸¹ For more information on GSP designations in the Pacific Islands, see chapter 4.

and the FDA. These agencies each have different standards that must be met.⁶⁸² Given that regulations for the same products may be required to meet multiple standards from different agencies, exporters report confusion meeting requirements for exporting products to the United States.⁶⁸³ For example, both fresh and processed turmeric and ginger (i.e., dried, ground, pickled, juice) are required to meet USDA APHIS inspections and requirements demonstrating there are no diseases or pests such as fruit flies.⁶⁸⁴ Processed turmeric and ginger products are also required to meet FDA requirements under the Food Safety Modernization Act and the Federal Food, Drug, and Cosmetic Act including being produced in facilities registered under the Foreign Supplier Verification Programs rule.⁶⁸⁵ Furthermore, depending upon the final use of the processed product (consumption in food either as an ingredient or final product, use in pharmaceuticals, or use in cosmetics), the product may be handled by different offices within the FDA.⁶⁸⁶ In addition to these regulatory requirements, U.S. importers and buyers often request that their suppliers meet additional standards or obtain certifications that may overlap with or exceed what is legally required.⁶⁸⁷

Potential for Increased Turmeric and Ginger Exports to the United States

Global familiarity with existing Pacific Island producers and niche health markets affording premiums for high-quality products contribute to the potential for increased exports of both turmeric and ginger to the United States. The Pacific Islands, and Fiji in particular, are already relatively established global sources of both rhizomes. Exporters in the Pacific Island economies can tap into niche health food markets for turmeric and ginger products and market red ginger, a variety unique to the Pacific Islands. Finally, the possibility of the production of further-processed turmeric and ginger products provides an additional opportunity for growth in the industry and increased exports to both the United States and the world.

Further Processing

The further processing of turmeric and ginger provides additional opportunities for Pacific Island economies to grow their industries and increase exports. Although turmeric is typically sold in dried ground form, it is increasingly being processed into juice and incorporated into health beverages and supplements. Ginger juice is similarly being incorporated into health beverages. Reportedly, processed

⁶⁸² Industry representative, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁶⁸³ Industry representative, interview by USITC staff, Fiji, March 23, 2023; industry representative, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁶⁸⁴ 7 C.F.R. pt.319; USDA, APHIS, “Ginger (Rhizome, Root) from All Countries,” May 25, 2022; USDA, APHIS, “Fresh, Frozen, or Pasteurized Juice from the Zingiberales Order,” February 6, 2023; USDA, APHIS, “Cooked, Dried and Other Processed Produce from the Zingiberales Order,” August 2, 2023.

⁶⁸⁵ FDA, CFSAN, “FDA Recognizes DUNS Number as Acceptable,” December 12, 2017; FDA, CFSAN, “FSMA Final Rule on Foreign Supplier Verification Programs,” July 13, 2023.

⁶⁸⁶ FDA, CFSAN, “Center for Food Safety and Applied Nutrition (CFSAN),” June 1, 2023; FDA, CDER, “Center for Drug Evaluation and Research (CDER),” August 14, 2023; FDA, CFSAN, “Importing Cosmetics,” March 17, 2021.

⁶⁸⁷ Liu, “Private standards in international trade,” 2009.

juices are exported as frozen juice, bulk juice, and bottled for consumption.⁶⁸⁸ Crystallized ginger, where pieces of fresh ginger are soaked in sugar and water before being dried, is increasingly popular.⁶⁸⁹ Fiji produces various processed ginger products, including crystalized and candied ginger, jam, juices and shots, and pickled sushi ginger.⁶⁹⁰ These processed products also have the benefit of an extended shelf life.⁶⁹¹

U.S. Demand

U.S. demand for ginger is high. From 2018 to 2022, total U.S. imports of ginger grew, despite a slight downward tick of 0.35 percent from 2021 to 2022.⁶⁹² This general upward trend of ginger consumption is driven by the food and beverage industry and can be linked to consumer demand for the product's perceived health benefits. Similarly, demand for turmeric in the United States has increased as the rhizome's reputation as a "superfood" has gained traction in the global market. Given increasing applications in food, cosmetics, and pharmaceuticals, this demand is anticipated to continue to grow.⁶⁹³

Ginger and turmeric both have the reputation of being healthy "functional" foods with well-documented anti-inflammatory and other beneficial properties.⁶⁹⁴ Turmeric and ginger are common ingredients in processed products like supplements and juice shots. Given their reputation as health foods, organic and other food certifications appear to play a larger role in U.S. demand than for some other agricultural products. Companies such as Island Magic Fiji work to obtain and maintain USDA Organic certification, among others such as the Food Safety System Certification 22000.⁶⁹⁵

Initiatives

In its most recent five-year Strategic Development Plan (SDP), the Fijian Ministry of Agriculture targeted the creation of competitive and sustainable non-sugar agriculture.⁶⁹⁶ Through the SDP, the Ministry has

⁶⁸⁸ Industry representative, interview by USITC staff, Fiji, March 23, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023.

⁶⁸⁹ Foreign government official, interview by USITC staff, Fiji, March 24, 2023; Green, "Crystallized Ginger," July 11, 2018.

⁶⁹⁰ Industry representative, interview by USITC staff, Fiji, March 23, 2023; Zing Ginger Fiji, "Our Products," accessed July 24, 2023.

⁶⁹¹ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁶⁹² USITC DataWeb/Census, General Imports, HTS subheadings 0910.11, 0910.12, 0910.30, 2006.00.30, accessed July 20, 2023.

⁶⁹³ Industry representative, interview by USITC staff, Fiji, March 24, 2023; Fiji Consulate General & Trade Commission, "Global Demand for Turmeric Rises," June 22, 2021; Vucukula, "Ministry Records Increase in Crop Exports," accessed May 31, 2023.

⁶⁹⁴ Al-Suhaimi, Al-Riziza, and Al-Essa, "Physiological and Therapeutical Roles of Ginger and Turmeric," 2011; Zhou et al., "Synergistic Anti-Inflammatory Activity of Ginger and Turmeric," June 16, 2022; Healthline, "Turmeric and Ginger," March 28, 2023; Brown, "Turmeric Benefits," December 15, 2022; Kandianan, Prasad, and Hussein, "Economically Important Curcuma Species," December 2020, 82.

⁶⁹⁵ Produce Blue Book, "Island Magic Fiji Turmeric Root," September 14, 2022; Island Magic Fiji, "Certifications | High Grade Organic Turmeric Root from Fiji," accessed May 31, 2023.

⁶⁹⁶ Government of Fiji, Ministry of Agriculture, "5 Year Strategic Development Plan 2019–2023," 2019, 6.

worked to develop product and safety standards for agricultural products, increase private sector engagement and relationships, and organize farmer networks and commodity clusters.⁶⁹⁷

The Fijian government has identified ginger as a priority commodity and has worked to create a business environment that encourages investment, promotes growth, and increases returns for farmers. Efforts benefiting ginger producers in Fiji include construction and general improvements to infrastructure, market access expansion, better access to market information, reevaluation of pertinent legislation, and elimination of regulatory barriers.⁶⁹⁸

Impediments

Sanitary and Phytosanitary Measures

Understanding and complying with sanitary and phytosanitary measures is reportedly a major impediment to the exports of turmeric and ginger to the United States. For foods like ginger and turmeric that can be consumed fresh, processed, as an ingredient, and as a dietary supplement, the overlap in regulations between the USDA and the FDA can reportedly be confusing and challenging for exporters.⁶⁹⁹ Industry representatives report that they view the relevant regulations as reasonable, but compliance with these regulations can be costly and time consuming.⁷⁰⁰ An additional challenge is an apparent lack of technical capacity to meet regulations, such as adequate laboratory facilities for testing products like turmeric and ginger.⁷⁰¹

Inconsistent Supply

Despite efforts by the Fijian government to support ginger production, challenges in the industry remain. Primarily, producers struggle with water scarcity and access to high-quality planting materials. Furthermore, the industry struggles with the export of expertise (brain drain) as well as the export of higher quality planting materials, leaving less for domestic production.⁷⁰² Land tenure issues in rural areas limit land access in some Pacific Island economies, and access to credit is needed to enable long-term investment decisions in developing the ginger and turmeric industries.⁷⁰³

⁶⁹⁷ Government of Fiji, Ministry of Agriculture, “5 Year Strategic Development Plan 2019–2023,” 2019, 10–12.

⁶⁹⁸ Sharma, Sachan, and Krishna, “Ginger Production Constraints,” 2021, 262–63.

⁶⁹⁹ Industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023; foreign government official, interview by USITC staff, Fiji, March 22, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Fiji, March 27, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023; industry representative, interview by USITC staff, Fiji, March 25, 2023; industry representative, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

⁷⁰⁰ Industry representative, interview by USITC staff, Fiji, March 24, 2023; industry representative, interview by USITC staff, Fiji, March 25, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023.

⁷⁰¹ Foreign government official, interview by USITC staff, Fiji, March 20, 2023; foreign government official, interview by USITC staff, Vanuatu, April 13, 2023; foreign government official, interview by USITC staff, Fiji, March 22, 2023; foreign government official, interview by USITC staff, Fiji, March 27, 2023.

⁷⁰² Sharma, Sachan, and Krishna, “Ginger Production Constraints,” 2021, 262.

⁷⁰³ Government of Fiji, Ministry of Agriculture, “5 Year Strategic Development Plan 2019–2023,” 2019, 10.

Perhaps the main impediment regarding increases in Fijian exports of ginger and turmeric is related to the environment and climate change. The Fijian government stated that Fiji is already adversely affected by natural disasters such as tropical Cyclone Winston and loss of productive farmland from saltwater intrusion.⁷⁰⁴ Additionally, salinization and desertification have forced the shifting of cultivation onto marginal slope land.⁷⁰⁵ A number of pest pressures including nematodes, soft rot, and scale insects are present in both ginger and turmeric production.⁷⁰⁶

Supply of turmeric and ginger is often inconsistent because of poor infrastructure, including storage and processing facilities, which impacts stocks and exports of products. Furthermore, poor road quality hampers farmers' access to markets. Because lack of credit is a challenge, these impediments are exacerbated by a lack of financial resources for farmers to build infrastructure and gain access to technical resources. Postharvest knowledge is an additional impediment to supplies of ginger and turmeric. Generally, a low uptake of new technologies and growing practices by farmers and lack of expertise impede the potential for continued growth in ginger and turmeric exports to the United States.⁷⁰⁷

Additional Spices with Potential for Increased Exports to the United States

The unique climate of the Pacific Islands allows production of a wide range of spices with the potential for exports to U.S. and global markets. The volcanic nature of many of the islands yields rich soil, varied elevation, lush tropical forests, and coastal plains.⁷⁰⁸ Turmeric and ginger seem to offer the greatest potential for expanded exports to the United States, but vanilla, peppercorn, and nutmeg have potential as well.

Vanilla

The global vanilla industry is characterized by concentrated production and volatile prices. According to the Food and Agriculture Organization of the United Nations (FAO), only 15 countries produced vanilla in 2021. Most vanilla in the world is grown in Madagascar. In 2021, Papua New Guinea was the fourth-largest global producer and the largest Pacific Island producer, producing 490 tons of vanilla and accounting for 6.7 percent of global production.⁷⁰⁹ Papua New Guinea accounted for 83.7 percent of all vanilla exports from the region in 2021, followed by French Polynesia (15.5 percent). Vanuatu, Tonga, New Caledonia, Niue, and Fiji also exported vanilla, each accounting for less than one half of 1 percent of regional exports.⁷¹⁰ Samoa also reportedly produces and exports small amounts of vanilla, but trade

⁷⁰⁴ Government of Fiji, Ministry of Agriculture, "5 Year Strategic Development Plan 2019-2023," 2019, 6.

⁷⁰⁵ Government of Fiji, Ministry of Agriculture, "5 Year Strategic Development Plan 2019-2023," 2019, 11.

⁷⁰⁶ Sharma, Sachan, and Krishna, "Ginger Production Constraints," 2021, 264–66; Wilcox, "Ginger," May 19, 2023; Wages, "Disease Management of Ginger and Turmeric," accessed June 21, 2023.

⁷⁰⁷ Government of Fiji, Ministry of Agriculture, "5 Year Strategic Development Plan 2019-2023," 2019, 11.

⁷⁰⁸ PI-CASC, "Climate in the Pacific," accessed June 5, 2023.

⁷⁰⁹ FAO, "Crops and Livestock Products," accessed May 3, 2023.

⁷¹⁰ S&P Global, GTAS, HS subheadings 0905.10, 0905.20, accessed July 20, 2023; Niue Vanilla, "About Us," accessed June 28, 2023.

data are not available.⁷¹¹ In 2021, the United States imported \$5.7 million worth of vanilla from the Pacific Islands, of which 80.8 percent was from Papua New Guinea, 18.3 percent was from French Polynesia, and the remainder from Vanuatu.⁷¹² From 2017 to 2021, the value of U.S. imports of vanilla from all sources fell, driven by a drop in vanilla prices. The volume of U.S. imports of vanilla from both the Pacific Islands and the world increased during the same period.⁷¹³

Vanilla production is labor intensive with a strict schedule of inputs and a demanding niche market. The tropical vine orchid takes two to four years to begin producing pods. When the vanilla plant is mature, the flower opens for just one day a year and must be hand-pollinated. After pollination, it takes nine months for the vanilla pods to ripen and several more months for the pod to be blanched, sweated, and dried.⁷¹⁴ The difficulty in producing vanilla can lead to global scarcity, which creates the potential for large jumps in prices.⁷¹⁵ One industry representative noted that, even though vanilla may be challenging to grow and process, it is a good secondary crop or economic activity for extra cash, particularly for women.⁷¹⁶ Additionally, properly dried and cured vanilla can be stored for extended periods, allowing farmers to sell at optimal times.⁷¹⁷ Vanilla is also conducive for airfreight shipping because of its light weight and high value.⁷¹⁸

Geographic origin branding for vanilla can allow Pacific Island economies to move into niche markets, as is already the case with Tahitian vanilla.⁷¹⁹ Price volatility, however, can also create uncertainty for vanilla producers. This uncertainty combined with the long production time, labor shortages, and climate change can create inconsistent supplies, impeding the potential for increased exports.⁷²⁰ This combination of factors has reportedly led to the near collapse of vanilla production in Vanuatu.⁷²¹ Furthermore, difficulties with getting vanilla to market have been reported. Vanilla production tends to be more successful in remote areas, which creates difficulties achieving the volume required to access the bulk world market. The best opportunity identified by regional organizations for increased exports is through the promotion of vanilla from the Pacific Islands as a niche product, with the support of established firms like Venui Vanilla in Vanuatu or Vanilla Plantations in Fiji.⁷²²

⁷¹¹ Industry representative, interview by USITC staff, Samoa, March 25, 2023.

⁷¹² New Caledonia and Tonga have also previously exported vanilla to the United States. USITC DataWeb/Census, HS subheadings 0905.10, 0905.20, accessed July 20, 2023.

⁷¹³ S&P Global, GTAS, HS subheadings 0905.10, 0905.20, accessed July 20, 2023; USITC DataWeb/Census, accessed July 20, 2023.

⁷¹⁴ Pacific Farmer Organizations, *The Vanuatu Spices Network*, 3, 5, accessed June 5, 2023; *Economist*, “Why There Is a Worldwide Shortage of Vanilla,” March 28, 2018; Barclay and Fulton, “Real Vanilla Isn’t Plain,” August 29, 2014.

⁷¹⁵ *Economist*, “Why There Is a Worldwide Shortage of Vanilla,” March 28, 2018.

⁷¹⁶ Industry representative, interview by USITC staff, Samoa, March 25, 2023.

⁷¹⁷ Pacific Farmer Organizations, *The Vanuatu Spices Network*, 2, accessed June 5, 2023.

⁷¹⁸ Industry representative, interview by USITC staff, Samoa, March 25, 2023.

⁷¹⁹ Tahiti is an island in French Polynesia. Tahiti Vanille, “Why Is Terroir Important?,” accessed June 5, 2023; Barclay and Fulton, “Real Vanilla Isn’t Plain,” August 29, 2014.

⁷²⁰ Industry representative, interview by USITC staff, April 18, 2023.

⁷²¹ Industry representative, interview by USITC staff, April 18, 2023.

⁷²² Pacific Farmer Organizations, *The Vanuatu Spices Network*, 3, 9, accessed June 5, 2023; Vanilla Plantations, “New Fiji Project Addressing Vanilla Bean Scarcity,” accessed June 14, 2023.

Pepper

Pepper includes the genus *Piper* (commonly known as peppercorn), black and white, which may be sold whole, crushed, or ground. Several dozen countries can reportedly produce pepper, most commonly located in tropical climates near the equator. Globally, most pepper is produced in Vietnam, India, Brazil, China, and Sri Lanka.⁷²³ Fiji is the largest producer and exporter of pepper among Pacific Island economies, accounting for 73.1 percent of the region's exports of pepper to the world in 2021.⁷²⁴ Vanuatu and Guam were the only other Pacific Island economies exporting pepper in 2021.⁷²⁵ Fiji was the only source of U.S. imports of pepper from the Pacific Islands in 2021.⁷²⁶

Pepper requires warm, tropical climates with consistent rainfall.⁷²⁷ The plant grows as a vine and begins to bear fruit in about three years. The same plant can be used to produce both white and black pepper. For black pepper, the fruit is harvested green, boiled, and then sun-dried until it is a black or dark brown color.⁷²⁸ For white pepper, the fruit is harvested when it is fully ripe, fermented in water for eight days, washed, and then sun-dried until it is a pale tan color.⁷²⁹ Pepper is one of the most popular spices globally and can provide additional income and product diversification for farmers, given its small land-area needs and ability to be stored for extended periods of time.⁷³⁰ Additionally, geographic origin marketing opportunities exist. Pohnpei in the Federated States of Micronesia has been able to market their "world-renowned" Pohnpeian black pepper because of its potent aroma and availability year-round.⁷³¹ As with all other spices, meeting import standards (see the impediments section above) and not having adequate labor to properly process pepper are concerns.⁷³²

Nutmeg

Nutmeg, which originated in Indonesia, is a tree spice grown in humid tropical forests near the equator.⁷³³ Along with the Pacific Islands, nutmeg is produced in Indonesia, the Caribbean, Sri Lanka,

⁷²³ FAO, "Crops and Livestock Products," accessed May 3, 2023; The Jungle, "Where Does Black Pepper Come From?," October 14, 2016; Le Couteur and Burrenson, *Napoleon's Buttons*, 2004, 19–20.

⁷²⁴ FAO, "Crops and Livestock Products," accessed May 3, 2023; S&P Global, GTAS, HS subheadings 0904.11, 0904.12, accessed July 20, 2023.

⁷²⁵ Historically, New Caledonia and Samoa were major exporters of pepper, with reported exports from New Caledonia of about \$22,000 in 2015 and exports from Samoa of about \$1.1 million in 2016, but no exports of pepper have been reported from either country after 2016. S&P Global, GTAS, HS subheadings 0904.11, 0904.12, accessed July 20, 2023.

⁷²⁶ USITC DataWeb/Census, HS subheadings 0904.11, 0904.12, accessed July 20, 2023.

⁷²⁷ Agri Farming India, "Spice Farming, Cultivation Practices," June 14, 2018; Jennings, "12 Herbs and Spices to Grow," October 21, 2020; Carla, "Pepper from the South Pacific," July 3, 1991.

⁷²⁸ Jennings, "12 Herbs and Spices to Grow," October 21, 2020; Carla, "Pepper from the South Pacific," July 3, 1991.

⁷²⁹ Carla, "Pepper from the South Pacific," July 3, 1991; Le Couteur and Burrenson, *Napoleon's Buttons*, 2004, 20.

⁷³⁰ Industry representative, interview by USITC staff, April 18, 2023; Pacific Farmer Organizations, *The Vanuatu Spices Network*, 2, accessed June 5, 2023; Carla, "Pepper from the South Pacific," July 3, 1991; The Jungle, "Where Does Black Pepper Come From?," October 14, 2016.

⁷³¹ *The Diplomat*, "Micronesia," August 11, 2005; 20th Micronesia Island Fair, "Pohnpei, Federated States of Micronesia," accessed June 12, 2023; Federated States of Micronesia Tourism, "Local Food & Drink," accessed June 12, 2023.

⁷³² Industry representative, interview by USITC staff, April 18, 2023; subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

⁷³³ Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227; Naeem et al., "Nutmeg," 2016, 107.

India, Philippines, Tropical America, and East Africa.⁷³⁴ Indonesia and Grenada account for about 95 percent of global production.⁷³⁵ Exports of nutmeg from Pacific Island economies during 2011–21 have been sporadic. Papua New Guinea was the Pacific Islands’ largest total exporter during the past decade, largely because of a reported spike in exports in 2018.⁷³⁶ Fiji was the most consistent exporter of nutmeg, with reported exports from 2015 to 2019. The only Pacific Island economy with reported exports in 2021 was Tokelau. No U.S. imports of nutmeg from any Pacific Island economies were reported during 2011–21.⁷³⁷

Nutmeg requires very specific growing conditions, and cultivation beyond the southern Pacific Islands has historically been difficult.⁷³⁸ Propagation is primarily done from seeds. When grown from seeds, the nutmeg tree begins to flower and produce fruit in six to eight years.⁷³⁹ For optimal fruit production, nutmeg also requires a specific ratio of male to female plants, typically one male plant for every 10 female.⁷⁴⁰ The fruit is harvested and the outer flesh is separated from the seed and the aril. The nutmeg seed is either dried mechanically or sun-dried. The nutmeg is then sold whole or ground.⁷⁴¹

As with many spices, nutmeg is thought to have medicinal properties.⁷⁴² Several other potential uses for nutmeg include in cooking and as an essential oil used in the manufacture of many chemicals and perfumes.⁷⁴³ The wide range of uses combined with relatively few manufacturers provides an opportunity for producers in the Pacific Islands to capture a larger market share by increasing production and exports, including exporting to the United States. As shown in Indonesia, nutmeg has the potential to provide additional income to farmers intercropping nutmeg with other products in an agroforestry system (see box 6.1, above).⁷⁴⁴ Indonesia also offers examples of the difficulties associated with cultivation, including the long time to fruiting and expertise required to maintain the proper male to female ratios. This, along with the relatively small volumes of production, may hinder potential growth.⁷⁴⁵ Another export barrier may be the limited ability to differentiate nutmeg on the basis of origin. Unlike vanilla and peppercorn, nutmeg is typically not marketed according to where it is grown.

⁷³⁴ Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227–28; Eagles, “Cultivating Fiji’s True Flavours,” March 8, 2023; Naeem et al., “Nutmeg,” 2016, 107.

⁷³⁵ Naeem et al., “Nutmeg,” 2016, 107.

⁷³⁶ 2018 was also the last year of reported exports of nutmeg from Papua New Guinea. S&P Global, GTAS, HS subheadings 0908.11, 0908.12, accessed July 20, 2023.

⁷³⁷ S&P Global, GTAS, HS subheadings 0908.11, 0908.12, accessed July 20, 2023; USITC DataWeb/Census, accessed July 20, 2023.

⁷³⁸ Le Couteur and Burrenson, *Napoleon’s Buttons*, 2004, 26, 34.

⁷³⁹ Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227–28; Plant Village, “Nutmeg,” accessed June 14, 2023.

⁷⁴⁰ Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227–28.

⁷⁴¹ Mace also comes from the same plant, the red aril surrounding the nutmeg nut is dried and ground. Le Couteur and Burrenson, *Napoleon’s Buttons*, 2004, 30; Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227–28.

⁷⁴² Fern, “Myristica Argentea,” accessed June 9, 2023; Naeem et al., “Nutmeg,” 2016, 108–9.

⁷⁴³ Naeem et al., “Nutmeg,” 2016, 108–9; Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 228.

⁷⁴⁴ Van Alfen, *Encyclopedia of Agriculture and Food Systems*, 2014, 227–28; Audrey, Herman, and Riadh, “Productivity of Nutmeg,” March 2017, 70, 72.

⁷⁴⁵ Audrey, Herman, and Riadh, “Productivity of Nutmeg,” March 2017, 75.

Opportunities for U.S. Assistance and Investment

Two main opportunities exist for U.S. assistance and investment. The first would likely be technical assistance to help Pacific Island economies gain access to the U.S. market, including assistance liaising with U.S. regulators such as the FDA.⁷⁴⁶ This could help these economies better understand the U.S. standards for products like turmeric and ginger, how to meet these standards, and how to market appropriately. Assisting firms in obtaining certifications like organic is another area for potential assistance or investment in the turmeric and ginger industries.⁷⁴⁷ An additional opportunity for U.S. private investment is in the further processing of turmeric and ginger.⁷⁴⁸

Virgin Coconut Oil

Coconuts are a small part of the vast “vegetable” oil complex, which extracts oil from oilseeds and oleaginous fruit.⁷⁴⁹ Coconut oil and its constituent oleochemicals have a wide range of uses and are preferred for certain applications.⁷⁵⁰ These include nonedible uses, such as glycerin, personal care (e.g., soaps, shampoo, and lotions), cosmetics, and pharmacological uses, as well as edible uses (e.g., cooking oil and processed food ingredients).⁷⁵¹ Coconut oil comprises about 3 percent of global oil use in edible and nonedible applications.⁷⁵² The Philippines and Indonesia are the dominant global suppliers of all types of coconut oil but production also occurs in the Pacific Island economies.⁷⁵³

Coconut oil is derived from the meat (fresh or dried) of mature coconuts. Traditionally, coconut oil was generated from copra (i.e., dried coconut kernel pieces with the meat attached).⁷⁵⁴ When copra is crushed, it generates crude copra oil which must be processed into refined, bleached, and deodorized (RBD) oil, which is yellow in color, for downstream use.⁷⁵⁵

⁷⁴⁶ Industry representative, interview by USITC staff, Fiji, March 25, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

⁷⁴⁷ Foreign government official, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Fiji, March 27, 2023; industry representative, interview by USITC staff, Fiji, March 24, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁷⁴⁸ Foreign government official, interview by USITC staff, Fiji, March 27, 2023.

⁷⁴⁹ Beyond oils, the coconut industry produces a range of items including fresh coconuts, flakes, beverages, and timber. AECOM, *Coconut Sector Review*, 2019, 6; McGregor and Sheehy, *An Overview*, 2017, 3–6.

⁷⁵⁰ Coconut oil is a lauric oil (i.e., lauric acid content of about 50 percent) which is preferred in high quality soaps and certain food uses (e.g., ice cream). McGregor and Sheehy, *An Overview*, 2017, 1, 8–9.

⁷⁵¹ For some applications, including many edible and some personal care and cosmetic uses, oils can be used with little to no refinement, but others require highly refined oils or oleochemicals. See McGregor and Sheehy, *An Overview*, 2017, 2; PARDI, *Coconut Value Chain*, November 2011, 4.

⁷⁵² McGregor and Sheehy, *An Overview*, 2017, 8.

⁷⁵³ McGregor and Sheehy, *An Overview*, 2017, 1, 13; USDA, Foreign Agriculture Service, “PSD Online,” Oil, Coconut, accessed May 26, 2023.

⁷⁵⁴ Alpha Health Products, “How Does DME Virgin Organic Coconut Oil Help,” November 21, 2013, minute 11:20–11:30; McGregor and Sheehy, *An Overview*, 2017, 1, 5.

⁷⁵⁵ RBD production is concentrated at large producers located in Europe and the Philippines. McGregor and Sheehy, *An Overview*, 2017, 1–3, 5, 16, 26; Bawalan, *Processing Manual*, 2011, 12; PARDI, *Coconut Value Chain*, November 2011, 3–4.

More recently, commercialized production methods allow virgin coconut oil (VCO) to be extracted from fresh coconut meat.⁷⁵⁶ VCO, the focus of this profile, is a clear oil that can be consumed without further processing. Although VCO and RBD oil are alike in certain physical and chemical characteristics, they have different sensory attributes and VCO has a wider range of applications, including as a base in cosmetics, a carrier oil for aromatherapy and massage oils, and edible applications.⁷⁵⁷ Copra oil production remains widespread and low value, but the niche VCO is higher valued. Many Pacific Island economies produce both types of coconut oil, but the majority is crude copra oil. The capacity to process crude copra into RBD oil in the region is low.⁷⁵⁸

The Virgin Coconut Oil Sector

Coconut palm trees, which have been found throughout the Pacific Islands for thousands of years, have economic and cultural significance for the Pacific Island economies.⁷⁵⁹ Coconut palm trees are considered a climate change-resilient, low maintenance plant that facilitates both intercropping and subsistence farming in the Pacific Island region (see box 6.1 for more information on intercropping).⁷⁶⁰ The Pacific Island coconut oil industry has traditionally focused on low-value copra and crude copra oil production.⁷⁶¹

VCO has more recently emerged as a way for Pacific Island economies to generate a higher-value coconut product.⁷⁶² Comprehensive data on VCO production in the region are not available, but indications are that it is increasingly widespread, encouraged by VCO's rising popularity.⁷⁶³ VCO production, most of which is small-scale, village-level production, has been identified in at least nine Pacific Island economies (table 6.9).⁷⁶⁴ Some coconut oil production data are available, of which VCO likely represents a small share.

⁷⁵⁶ McGregor and Sheehy, *An Overview*, 2017, 1, 2 5; Bawalan, *Processing Manual*, 2011, ix, 8, 12–13; Alpha Health Products, “How Does DME Virgin Organic Coconut Oil Help,” November 21, 2013.

⁷⁵⁷ McGregor and Sheehy, *An Overview*, 2017, 26; Bawalan, *Processing Manual*, 2011, 13; PARDI, *Coconut Value Chain*, November 2011, 3.

⁷⁵⁸ Industry representative, interview by USITC staff, Papua New Guinea, April 20, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023; subject matter expert, interview by USITC staff, Fiji, March 20, 2023; McGregor and Sheehy, *An Overview*, 2017, 1, 13–16, 27.

⁷⁵⁹ Bawalan, *Processing Manual*, 2011, 2; Brandes, “Research Guides,” accessed May 22, 2023; PARDI, *Coconut Value Chain*, November 2011, 1.

⁷⁶⁰ PARDI, *Coconut Value Chain*, November 2011, 6. McGregor and Sheehy, *An Overview*, 2017, 20–21.

⁷⁶¹ Bawalan, *Processing Manual*, 2011, 6–7; UNCTAD, *National Green Export Review*, July 2016, 5.

⁷⁶² Bawalan, *Processing Manual*, 2011, 8.

⁷⁶³ McGregor and Sheehy, *An Overview*, 2017, 28; UNDP, “New Opportunities for Women,” April 28, 2023; POETCom, “Kingdom Oil,” September 8, 2015; Bawalan, *Processing Manual*, 2011, 8.

⁷⁶⁴ Bawalan, *Processing Manual*, 2011, 8; AECOM, *Coconut Sector Review*, 2019, 29.

Table 6.9 Identified virgin coconut oil (VCO) production, average coconut oil production, 2017–20, and coconut production area in 2021, by economy

In metric tons and hectares. mt= metric tons; ha = hectares; Y indicates VCO production has been identified; N indicates not identified; n.a. = not available. F.S. Micronesia = the Federated States of Micronesia.

Economy	Identified VCO production	Coconut oil production (mt)	Coconut growing area (ha)
Papua New Guinea	Y	27,000	222,000
The Solomon Islands	Y	11,000	38,000
Vanuatu	Y	9,027	88,000
French Polynesia	Y	6,977	24,000
Tonga	Y	6,553	26,000
Fiji	Y	3,640	61,000
Kiribati	Y	3,332	25,000
F.S. Micronesia	N	2,900	18,000
Samoa	Y	2,520	20,000
The Marshall Islands	Y	n.a.	7,000

Sources: FAO Stat: Coconut Oil 2017–20, accessed May 17, 2023; McGregor and Sheehy, *An Overview*, 2017, 28; Air Tahiti Nui, “Huile De Coco En Polynésie [Coconut Oil In Polynesia],” September 11, 2018; Bora Bora, “Tahitian Virgin Coconut Oil,” accessed May 25, 2023; UNDP, “New Opportunities for Women,” April 28, 2023; POETCom, “Kingdom Oil,” September 8, 2015; ICC, “ICC Stat: Main Data,” Coconut Area, accessed June 12, 2023.

Note: FAO data for 2021 are not available. Table shows countries with coconut oil production above 150 metric tons or where VCO production has been identified.

VCO processing starts with harvesting and dehusking mature coconuts. In many Pacific Island economies, smallholder farmers collect coconuts when they fall to the ground. Papua New Guinea, Vanuatu, and Fiji, however, have some larger scale coconut plantations.⁷⁶⁵ VCO can be produced in multiple ways, and facilities range from micro to medium scale.⁷⁶⁶ The most common production method used in the Pacific Island economies appears to be a low-pressure expeller method—especially direct micro expelling (DME), which, by some assessments, is less-capital intensive but more labor-intensive than some other coconut oil processing methods.⁷⁶⁷ For DME, the coconut kernel is split, the meat is scraped from the shell and briefly dried before it is expelled (i.e., pressed) generating VCO and oilcake (also known as coconut meal).⁷⁶⁸ The ability to expel VCO has facilitated its production across several Pacific Island economies and been identified by many sources as a boost to other parts of the economy and the incomes of individual farmers.⁷⁶⁹

Trade data for VCO are not available because it is covered under HS 1513.19, which also includes other types of non-crude coconut oil and its fractions products (e.g., RBD oil).⁷⁷⁰ Research, however, indicates

⁷⁶⁵ AECOM, *Coconut Sector Review*, 2019, 29; Bawalan, *Processing Manual*, 2011, 3–5, 79; McGregor and Sheehy, *An Overview*, 2017, 5, 21; AECOM, *Coconut Markets for PNG*, March 2017, 5.

⁷⁶⁶ Other methods include wet centrifuge (which is a high-investment, medium-scale operation) and fresh-dry centrifuge. McGregor and Sheehy, *An Overview*, 2017, 28; Bawalan, *Processing Manual*, 2011, 17–47.

⁷⁶⁷ A research group invented DME—with the equipment now sold by Kokonut Pacific Virgin Coconut Oil Facility—to facilitate village-based production of VCO. There are also coconut oil processing methods that are less expensive than DME. Kokonut Pacific, “DME Story,” accessed May 17, 2023; Alpha Health Products, “How Does DME Virgin Organic Coconut Oil Help,” November 21, 2013; McGregor and Sheehy, *An Overview*, 2017, 28, 43–44; Bawalan, *Processing Manual*, 2011, 17–47.

⁷⁶⁸ McGregor and Sheehy, *An Overview*, 2017, 5, 43; Alpha Health Products, “How Does DME Virgin Organic Coconut Oil Help,” November 21, 2013.

⁷⁶⁹ See McGregor and Sheehy, *An Overview*, 2017, 28; Kokonut Pacific, “DME Story,” accessed May 17, 2023; USAID, *Coconut Processing Mill*, March 23, 2022, 4–7.

⁷⁷⁰ WCO, “HS Nomenclature 2022 Edition,” chapter 15, accessed May 25, 2023.

several Pacific Island economies are exporting VCO and VCO-containing personal care and cosmetic products. The Solomon Islands, Samoa, and Fiji were reportedly early entrants into the VCO export market.⁷⁷¹ Samoa and the Solomon Islands each has a single identified, consistently exporting producer of VCO and VCO-containing products; Fiji, French Polynesia, Papua New Guinea, and Vanuatu, all appear to have multiple companies exporting or able to export these products.⁷⁷²

Import Requirements and Tariff Treatment

Like many tropical products, coconut oil, including VCO, enters the United States NTR duty-free.⁷⁷³ Industry representatives did not highlight any U.S. import requirements specific to Pacific Island VCO that are affecting trade with the United States. VCO exported to the United States, however, is subject to FDA regulation; applicable regulations vary depending on whether VCO is exported to the United States as a food or a cosmetic product. Because the predominant use of VCO is in cosmetics, it may face fewer regulatory impediments than food products such as ginger and turmeric that are subject to more stringent safety requirements.⁷⁷⁴

Potential for Increased Exports of Virgin Coconut Oil to the United States

The potential for Pacific Island economies' VCO exports rests on the ability to produce and export differentiated VCO, primarily for use in high-end personal care and cosmetics, rather than on large-scale volume.⁷⁷⁵ Increasing U.S. demand for these products underpin the potential for expanding Pacific Island VCO exports to the United States.

Production and Supply

VCO supply in the Pacific Island region appears to be increasing despite some structural constraints. The total volume of VCO production in Pacific Island economies is limited by access to inputs (i.e., coconuts) since most Pacific Island economies are small-scale coconut growers (producing on less than 30,000 hectares).⁷⁷⁶ The widespread use of DME facilitates VCO production in small communities, although it also somewhat constrains supply since it has relatively lower processing output than other expelling

⁷⁷¹ McGregor and Sheehy, *An Overview*, 2017, 28.

⁷⁷² AECOM, *Coconut Sector Review*, 2019, 29; WIBDI, "Virgin Coconut Oil Programme," accessed May 23, 2023; McGregor and Sheehy, *An Overview*, 2017, 21; AECOM, *Coconut Markets for PNG*, March 2017, 3–4; Volcanic Earth Vanuatu, "About," accessed May 25, 2023.

⁷⁷³ Under HTS 1513.19.00 USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, chapter 15.

⁷⁷⁴ FDA, CFSAN, "Federal Food, Drug, and Cosmetic Act (FD&C Act)," November 3, 2018; FDA, CFSAN, "Food Safety Modernization Act (FSMA)," August 18, 2023; FDA, CFSAN, "Center for Food Safety and Applied Nutrition (CFSAN)," June 1, 2023; FDA, CDER, "Center for Drug Evaluation and Research (CDER)," August 14, 2023; FDA, CFSAN, "Importing Cosmetics," March 17, 2021.

⁷⁷⁵ Bawalan, *Processing Manual*, 2011, 50; UNCTAD, *National Green Export Review*, July 2016, 3–4, 8; PARDI, *Coconut Value Chain*, November 2011, 4; AECOM, *Coconut Markets for PNG*, March 2017, ii; McGregor and Sheehy, *An Overview*, 2017, 27.

⁷⁷⁶ See table 6.5. For context, the Philippines's coconut planted area was 3.6 million hectares and Sri Lanka's was 444,000 hectares in 2021. ICC, "ICC Stat: Main Data," Coconut Area, accessed June 12, 2023.

processes.⁷⁷⁷ Despite these constraints, more processing facilities are being built, likely diverting coconuts to VCO production (from e.g., copra) and increasing the Pacific Island region's supply of VCO.

VCO production largely rests on Pacific Island producers' ability to establish smaller-scale relatively inexpensive processing facilities (i.e., DME) and to receive a high price for VCO.⁷⁷⁸ VCO is not a bulk commodity and, therefore offers an opportunity for Pacific Island economies to move away from being price takers (as they are for copra and copra-derived oil).⁷⁷⁹ VCO normally commands a relatively high price and can generate higher incomes than copra production, although reportedly prices do not always cover production costs.⁷⁸⁰ In the long term, VCO pricing, especially at the village level, will have to be sufficient to foster Pacific Island production. Although export potential exists for many Pacific Island economies, experts note that VCO exports will favor economies with more centralized production and better market linkages.⁷⁸¹ This is expected to include Fiji and Papua New Guinea, although companies in smaller Pacific Island economies have established export market linkages.⁷⁸²

Product Differentiation

Because the Pacific Island region cannot compete on a volume basis with the Philippines and other larger suppliers, its export potential rests on its ability to create differentiated products. Sources have identified the need for Pacific Island economies to supply high-quality products that are differentiated both by origin (similar to olive oils) and certifications, including for organic and fair trade.⁷⁸³ Some Pacific Island VCO producers appear to have established reputations for quality, including in Samoa (for high-end organic supply), Fiji (VCO as well as for downstream specialty soaps and skin care products), and the Solomon Islands and Vanuatu.⁷⁸⁴ Quality control measures, including those put into place through HACCP certification, can help producers achieve quality standards.⁷⁸⁵

Major international buyers, many of which likely supply the U.S. market, reportedly prefer certified organic VCO when producing for the hypoallergenic cosmetic and skin care items.⁷⁸⁶ By some measures, VCO in the region can be seen as largely organic because the lack of active farming and the use of the expeller methods means this supply chain is generally chemical-free.⁷⁸⁷ Several Pacific Island VCO

⁷⁷⁷ Bawalan, *Processing Manual*, 2011, 8.

⁷⁷⁸ McGregor and Sheehy, *An Overview*, 2017, 28; Alpha Health Products, "How Does DME Virgin Organic Coconut Oil Help," November 21, 2013.

⁷⁷⁹ DT Global, *Pacific Export Context Analysis*, June 2022, 34.

⁷⁸⁰ McGregor and Pelomo, *The Solomon Islands Quality Copra Oil*, 2018, 1; USAID, *Coconut Processing Mill*, March 23, 2022, 17–18, 27; Bawalan, *Processing Manual*, 2011, 9.

⁷⁸¹ McGregor and Sheehy, *An Overview*, 2017, 16, 29.

⁷⁸² Foreign government official, interview by USITC staff, Samoa, March 28, 2023; subject matter expert and industry representative, interviews by USITC staff, Samoa and Vanuatu, March 29, 2023, and April 13, 2023; Alpha Health Products, "How Does DME Virgin Organic Coconut Oil Help," November 21, 2013.

⁷⁸³ McGregor and Sheehy, *An Overview*, 2017, 29; AECOM, *Coconut Sector Review*, 2019, 6–8; AECOM, *Coconut Markets for PNG*, March 2017, ii; Bawalan, *Processing Manual*, 2011, 7–8, 50.

⁷⁸⁴ Bawalan, *Processing Manual*, 2011, 8; McGregor and Sheehy, *An Overview*, 2017, 2–3, 28; foreign government official and industry representative, interviews by USITC staff, Vanuatu, April 13, 2023.

⁷⁸⁵ PHAMA Plus, *HACCP: Maintaining Pacific Trade*, 2021, 2–5.

⁷⁸⁶ Bawalan, *Processing Manual*, 2011, 50.

⁷⁸⁷ Bawalan, *Processing Manual*, 2011, 50; Alpha Health Products, "How Does DME Virgin Organic Coconut Oil Help," November 21, 2013. Labor supply challenges in Samoa have been identified as a threat to organic

producers have obtained an organic certification; however, as of May 2023, only four Pacific Island economies—Fiji, French Polynesia, Samoa, and the Solomon Islands—had an entity with USDA organic certification for handling VCO.⁷⁸⁸ Efforts to expand organic certification for Pacific Island VCO are underway. For example, increasing VCO organic certification is part of Vanuatu’s 2016–25 Coconut Framework strategy.⁷⁸⁹

U.S. Demand

Overall, research shows that demand for personal care and cosmetic products containing VCO, especially skin and hair care products, is increasing (and, as described in box 6.2, so is U.S. interest in other tropical oils).⁷⁹⁰ The global organic VCO market (a subset of the overall VCO market) grew from about \$0.8 billion to almost \$1.3 billion during 2017–22.⁷⁹¹ Market research estimates that the market will reach about \$3.7 billion by 2030.⁷⁹² This is largely attributed to VCO’s perceived health and cosmetic benefits as well as rising demand for “natural” products.⁷⁹³

The United States is one of the two primary markets for VCO products.⁷⁹⁴ Market researchers have noted the widespread availability of VCO and VCO-containing products at large U.S. retailers.⁷⁹⁵ This U.S. demand must be satisfied directly or indirectly by imports because it does not have commercial VCO production. A consulting firm’s study on the sector identified the United States (as well as China) as having greater potential to increase VCO imports driven by its larger demand and capacity to absorb imports than other developed markets (e.g., Australia, New Zealand, and Japan).⁷⁹⁶ Information from industry reinforces this finding. For example, a producer of personal care products containing organic and fair-trade Pacific Island VCO reported strong U.S. demand.⁷⁹⁷

production as it may cause farmers to increase chemical application. Subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

⁷⁸⁸ Additional entities in the region appear certified for coconut oil and coconut (the crop), including in Papua New Guinea and Vanuatu. Overall, however, it is unclear what share of Pacific Island VCO production is certified to U.S. organic standards or one approved as equivalent. McGregor and Sheehy, *An Overview*, 2017, 28; Organic Fiji, “Buy Organic Coconut Oil Products,” December 22, 2020; Bawalan, *Processing Manual*, 2011, 9; WIBDI, “Organics,” accessed May 23, 2023; Alpha Health Products, “How Does DME Virgin Organic Coconut Oil Help,” November 21, 2013; AECOM, *Coconut Sector Review*, 2019, 29; POETCom, “Kingdom Oil,” September 8, 2015; Blue Coconut, “Sustainability,” accessed May 23, 2023; USDA, AMS, “Organic Integrity Database,” accessed May 25, 2023; U.S. government official, email to USITC staff, May 25, 2023; USDA, AMS, “How Does USDA Assess Organic Equivalency,” accessed May 23, 2023.

⁷⁸⁹ GOV, DARD, *Vanuatu National Coconut Strategy 2016-2025*, 14, 19, accessed May 23, 2023.

⁷⁹⁰ AECOM, *Coconut Sector Review*, 2019, 6–7; AECOM, *Coconut Markets for PNG*, March 2017, ii; Bawalan, *Processing Manual*, 2011, 9, 11–13.

⁷⁹¹ Statista, “Organic Virgin Coconut Oil Market Value,” accessed May 25, 2023.

⁷⁹² Market Research Future, “Organic Virgin Coconut Oil Market,” accessed May 25, 2023.

⁷⁹³ This includes perceptions it is healthier than processed oil and shifting views on saturated fats compared to the 1970s–1990s. See, e.g., AECOM, *Coconut Markets for PNG*, March 2017, 42; USAID, *Coconut Processing Mill*, March 23, 2022, 7; Market Research Future, “Organic Virgin Coconut Oil Market,” accessed May 25, 2023.

⁷⁹⁴ AECOM, *Coconut Markets for PNG*, March 2017, 41.

⁷⁹⁵ AECOM, *Coconut Markets for PNG*, March 2017, 41.

⁷⁹⁶ Although the study focused on Papua New Guinea exports, its conclusions are applicable to other Pacific Island VCO exporters. AECOM, *Coconut Markets for PNG*, March 2017, 27.

⁷⁹⁷ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

Box 6.2 Beauty Products in the Pacific Islands: Niche Personal Care and Cosmetic Inputs Beyond Virgin Coconut Oil

The Pacific Island economies produce other tropical plant-based products that have niche applications in the personal care and cosmetics sector. Two such products that are being exported to the United States and elsewhere, identified by travel to the region, are tamanu oil and nangai oil. Tamanu oil is extracted from the seed of the *Calophyllum inophyllum* tree, which grows in Oceania, Southeast Asia, and East Africa.^a Tamanu trees grow widely across the Pacific Islands, but most are not actively cultivated; the nuts from these trees are instead harvested from the wild.^b Although the plant has many local names, its French Polynesian name “tamanu” is commonly used in the U.S. market.^c Nangai oil is extracted from the seeds of the *Canarium indicum* tree, which is native to Melanesia.^d

Production and export of tamanu oil has been identified in French Polynesia (sometimes as “Tahitian”), Fiji, Vanuatu, and more recently Samoa and, of nangai oil, in Vanuatu.^e Overall production and exports of both oils, especially nangai oil, appear smaller than that of virgin coconut oil (VCO). Both oils can be used alone or as an ingredient in personal care and cosmetic applications.^f Their perceived benefits include moisturizing (for skin and hair), antiaging, anti-inflammatory, and healing properties.^g Tamanu oil appears in more products than nangai oil, which reflects its larger supply.^h Nangai oil, like coconut oil, also acts as a carrier oil for perfume.ⁱ

These tropical oils likely have similar U.S. market potential (e.g., as a high-quality niche product facilitated by certifications) and challenges similar to VCO and other exports from the Pacific Island region. Export potential is likely increasing because of growing awareness of tamanu oil in the global market, including the United States.^j Supply challenges for Pacific Island tamanu oil include competing demand for tamanu timber and, in Samoa, a reluctance of smallholders to join the tamanu oil supply chain.^k Reported challenges for Vanuatuan exporters of these oils included high shipping and regulatory compliance costs as well as long transport times to reach U.S. customers.^l

^a CIFOR, “*Calophyllum Inophyllum*,” accessed June 2, 2023; Hapsari et al., “Impact of Solvent Type,” February 1, 2023; Raharivelomanana et al., “Tamanu Oil and Skin Active Properties,” September 1, 2018.

^b Friday and Ogoshi, *Farm and Forestry Production and Marketing Profile for Tamanu*, 2010, 5; industry representatives, interview by USITC staff, Vanuatu, April 13, 2023.

^c Tamanu oil, which is sometimes sold under its other names, including fetau oil (Samoan) or dilo oil (Fijian), is listed in cosmetic ingredients as “*Calophyllum inophyllum* seed oil” per the International Nomenclature of Cosmetic Ingredients (INCI). Raharivelomanana et al., “Tamanu Oil and Skin Active Properties,” September 1, 2018; Fresholi, “Tamanu Oil,” accessed June 2, 2023; WIBDI, “Fetau Brochure,” August 2012; INCI Decoder, “*Calophyllum Inophyllum* Seed Oil,” accessed June 2, 2023. Subject matter expert, interview by USITC staff, Fiji, March 20, 2023.

^d As a cosmetic ingredient, nangai oil is listed as “*Calophyllum inophyllum* seed oil” per the INCI. CAC, “Nangai Oil for Hair Care Formulations,” accessed June 2, 2023; INCI Decoder, “*Canarium Indicum* Seed Oil,” accessed June 2, 2023; Useful Tropical Plants, “*Canarium Indicum*,” accessed June 2, 2023.

^e Friday and Ogoshi, *Farm and Forestry Production and Marketing Profile for Tamanu*, 2010, 8. Industry representatives, interviews by USITC staff, Samoa and Vanuatu, March 29, 2023, and April 13, 2023; subject matter expert, interview by USITC staff, Fiji, March 20, 2023; CAC, “Technical Data Sheet: Nangai Oil,” November 28, 2022; CAC, “Technical Data Sheet: Tamanu Oil,” November 28, 2022. Tamanu oil is imported under 1515.90.8190. USITC, *Harmonized Tariff Schedule, Basic Edition*, January 2023, chapter 15; CBP, “M83578: The Tariff Classification of Tamanu Oil from French Polynesia,” June 5, 2006.

^f Tamanu oil also has a history of being used in as a traditionally remedy including for burns and skin conditions such as acne and eczema. See e.g., Hapsari et al., “Impact of Solvent Type,” February 1, 2023; Raharivelomanana et al., “Tamanu Oil and Skin Active Properties,” September 1, 2018; Healthline, “Tamanu Oil,” March 25, 2019; Fresholi, “Tamanu Oil,” accessed June 2, 2023; CAC, “Nangai Oil for Hair Care Formulations,” accessed June 2, 2023; INCI Decoder, “*Canarium Indicum* Seed Oil,” accessed June 2, 2023.

^g Subject matter expert, interview by USITC staff, Samoa, March 29, 2023; Healthline, “Tamanu Oil,” March 25, 2019; This Beauty Called Ours, “Nangai Oil - Anti Aging Skin Care,” accessed June 2, 2023.

^h INCI Decoder, “*Calophyllum Inophyllum* Seed Oil,” accessed June 2, 2023; INCI Decoder, “*Canarium Indicum* Seed Oil,” accessed June 2, 2023.

ⁱ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

^j Subject matter expert and industry representative, interview by USITC staff, Samoa and Vanuatu, March 29, 2023, and April 13, 2023.

^k Subject matter expert and industry representative, interview by USITC staff, Samoa and Vanuatu, March 29, 2023, and April 14, 2023; industry representatives, interviews by USITC staff, Vanuatu, April 13, 2023, and April 14, 2023.

^l Industry representatives, interviews by USITC staff, Vanuatu, April 13, 2023, and April 14, 2023.

Impediments

The Pacific Island coconut industry faces challenges with its coconut palm trees that have the potential to impact coconut supplies. The region has a large number of “senile” trees (i.e., 50 plus years old), which have lower yields, because historically low financial returns (e.g., for copra) was a long-term disincentive to replant (i.e., replace senile trees with new young trees).⁷⁹⁸ In addition, climate change has caused more severe weather events (e.g., cyclones) that can easily damage senile and young trees as well as—increasingly—mature trees.⁷⁹⁹ More generally, poor tree management is a driver of pest and disease issues in coconut palm trees.⁸⁰⁰ Currently, the coconut rhinoceros beetle threatens coconut supply in several economies, including the Solomon Islands, Samoa, Palau, Papua New Guinea, and Vanuatu.⁸⁰¹ The beetle outbreaks can reduce yields or cause up to 50 percent of coconut palm trees to die in infected regions.⁸⁰²

Impediments also impact each of the areas identified as important for Pacific Island VCO export competitiveness: quality, certifications, and market linkages. For example, small Pacific Island producers have been identified as having problems achieving consistent quality.⁸⁰³ The lack of national standards for VCO, as is the case in Papua New Guinea, can be an impediment to producing high-quality product and is reported to be especially challenging for small producers.⁸⁰⁴ Certifications, including HACCP and organic, can increase export opportunity, but obtaining them is difficult and costly—especially for smallholder farmers—and requires specialized knowledge and skills.⁸⁰⁵ Finally, market linkages, including local infrastructure, shipping routes, and costs, are challenges for VCO exporters.⁸⁰⁶ For example, a Pacific Island VCO supplier to the United States noted that achieving sufficient quality and shipping routes can remain challenging, even after establishing trade. The more direct shipping route to its West Coast partner (through a Pacific Island neighbor) was discontinued during the COVID-19 pandemic, forcing it to use a more circuitous route through New Zealand.⁸⁰⁷

⁷⁹⁸ McGregor and Sheehy, *An Overview*, 2017, 8, 19; PARDI, *Coconut Value Chain*, November 2011, 6.

⁷⁹⁹ Especially mature hybrids. McGregor and Sheehy, *An Overview*, 2017, 16, 20–21. An industry representative reported that cyclones create challenges for exporting VCO containing products from Vanuatu to the United States and other markets. Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁸⁰⁰ PARDI, *Coconut Value Chain*, November 2011, 6.

⁸⁰¹ Foreign government officials, interviews by USITC staff, Papua New Guinea and Samoa, March 28, 2023, and April 19, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁸⁰² This is the third coconut rhinoceros beetle outbreak since the early 1900s; it reached the Pacific Island economies in the mid-2010s. AECOM, *Coconut Rhinoceros Beetle*, 2017, 8. Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁸⁰³ Pacific Farmer Organizations, “Virgin Coconut Oil Production,” April 2021; Bawalan, *Processing Manual*, 2011, 8. Sri Lanka, a larger supplier, has also struggled with quality issues. McGregor and Sheehy, *An Overview*, 2017, 27–28.

⁸⁰⁴ Industry expert, interview by USITC staff, Papua New Guinea April 19, 2023.

⁸⁰⁵ Foreign government official, interview by USITC staff, Samoa, March 28, 2023; McGregor and Sheehy, *An Overview*, 2017, 29; UNDP, *Vanuatu Case Study*, 3, accessed May 26, 2023.

⁸⁰⁶ See Chapter 2 for more information on infrastructure. UNCTAD, *National Green Export Review*, July 2016, 7; subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

⁸⁰⁷ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

Initiatives

Initiatives are underway to address the problems with coconut palm trees. For example, Pacific Island economies often need funding and support from external parties to address the senile trees and beetles, as has occurred in the Solomon Islands.⁸⁰⁸ PHAMA Plus, an initiative of the Australia and New Zealand governments that aims to improve market access for agricultural products from the Pacific Islands, has identified offering increased incentives to replant senile coconut palm trees as a way to support the coconut industry, including VCO production.⁸⁰⁹ In addition, USAID reportedly recently started a project in Samoa to try to eradicate the coconut rhinoceros beetle.⁸¹⁰ The nearly \$1 million grant for this program was given to Women in Business Development Inc. (WIBDI), a nonprofit organization that produces VCO and VCO-containing products in Samoa.⁸¹¹

In many Pacific Island economies, initiatives support VCO producers and coconut farmers in becoming certified organic. Some are local. For example, in Samoa farmers can partner with WIBDI, which has organic certification, and use its “peer2peer” system to become certified.⁸¹² Other initiatives cover several regional economies. For example, the Pacific Organic & Ethical Trade Community (POETCom) is a nonprofit organization promoting organic and ethical trade in 15 Pacific Island economies.⁸¹³ POETCom partners with many foreign and multinational organizations, including the U.S. Agency for International Development (USAID) to advance its goals.⁸¹⁴ POETCom recently identified coconut products, including VCO, as among the “most promising value chains to promote gender equality and climate resilience.”⁸¹⁵ In addition, PHAMA Plus is working to help coconut oil producers obtain HACCP or organic certification in Papua New Guinea, Samoa, the Solomon Islands, and Tonga.⁸¹⁶

Initiatives supporting the VCO industry go beyond certifications. For example, PHAMA Plus support, which varies by Pacific Island economy, can include feasibility studies (e.g., for Papua New Guinea) and facilitation of industry associations and market linkages.⁸¹⁷ The UN Development Program’s Trade Capacity Development and Institutional Strengthening Project in Kiribati led to the opening of a VCO-processing facility in December 2022.⁸¹⁸ Pacific Trade Invest Australia reports that it worked with a VCO exporter in the Solomon Islands on “new product development and sales strategy.”⁸¹⁹ In addition, USAID funded a pre-feasibility study for a DME VCO processing facility in the Solomon Islands during

⁸⁰⁸ AECOM, *Coconut Rhinoceros Beetle*, 2017, 10–12.

⁸⁰⁹ AECOM, *Coconut Sector Review*, 2019, 6.

⁸¹⁰ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023; USAID, “USAID Awards \$1.5 Million,” March 9, 2023.

⁸¹¹ WIBDI, “Our Origins,” accessed May 25, 2023; WIBDI, “Virgin Coconut Oil Programme,” accessed May 23, 2023.

⁸¹² Foreign government official, interview by USITC staff, Samoa, March 28, 2023; subject matter expert, interview by USITC staff, Samoa, March 29, 2023; WIBDI, “Our Origins,” accessed May 25, 2023.

⁸¹³ POETCom, “About POETCom,” accessed May 23, 2023.

⁸¹⁴ POETCom, “Our Partners,” accessed May 23, 2023.

⁸¹⁵ POETCom, *2020 Annual Report*, 2021, 25–26.

⁸¹⁶ Industry expert, interview by USITC staff, Papua New Guinea April 19, 2023; AECOM, *Coconut Sector Review*, 2019, 8, 19, 29; PHAMA Plus, “Kokonut Pacific Solomon Islands,” accessed May 22, 2023; Blue Coconut Distribution Ltd, “About Us,” accessed May 23, 2023.

⁸¹⁷ AECOM, *Coconut Sector Review*, 2019, 29; PHAMA Plus, “Alluring Aroma,” accessed May 23, 2023.

⁸¹⁸ The facility is expected to produce VCO and VCO-containing products including soap and body oil. UNDP, “New Opportunities for Women,” April 28, 2023.

⁸¹⁹ PTI Australia, *Annual Report 2020*, 53–54, accessed May 23, 2023.

2020–22.⁸²⁰ Such feasibility studies and other assessments of the value chain can highlight the hoped for economic benefits of supplying VCO (e.g., opportunities to increase employment and incomes). They can also highlight many challenges to establishing production, including those not specific to the VCO industry (e.g., market linkages and lack of financing) that are presented in chapter 2 of this report.⁸²¹

Opportunities for U.S. Assistance and Investment

While there has been private U.S. investment in copra oil (see chapter 5), there has mostly been U.S. assistance in VCO funding initiatives to support the sector’s development, as noted above. Further opportunities for U.S. assistance to help the VCO industry overcome export impediments are likely. Private U.S. investment in the copra oil industry has facilitated knowledge transfer to the Pacific Island producers, improving the ability to export.⁸²² Similar investment opportunities may become attractive in the VCO sector. For now, the primary U.S. commercial activity appears to be as buyer rather than as investor. Research indicates that a consistent supplier-buyer partnership can help Pacific Island VCO (and RDB oil) producers establish and maintain exports, even when faced with market linkage challenges.⁸²³ For example, one VCO producer-exporter benefits from a long-standing buyer’s willingness to wait for the supplier to produce enough VCO to fill a shipping container (even if it takes longer than expected).⁸²⁴ Such flexibility is likely to be particularly important for smaller VCO producers’ ability to supply the U.S. market.

Cocoa

Cocoa beans are grown in tropical climates near the equator; the largest global suppliers of cocoa beans are in Western Africa and South America.⁸²⁵ To produce chocolate from cocoa, beans are first harvested from their pods, cleaned, fermented, dried, and roasted before being further processed to create cocoa liquor. Next, the cocoa liquor (also known as cocoa paste) may be pressed to extract cocoa butter, leaving behind cocoa presscake. Cocoa presscake is pulverized to create cocoa powder. These intermediate cocoa products are further refined and sometimes used as ingredients in confectionery products and a variety of other foods. They can also be combined with other ingredients like sugar and dairy to make chocolate, before being packaged for final sale.⁸²⁶ Cocoa is considered a commodity crop and is typically sold at prices influenced by trading in international commodity markets. Unique varieties and certified cocoa beans are differentiated products that can often receive a premium.⁸²⁷

⁸²⁰ USAID, *Coconut Processing Mill*, March 23, 2022.

⁸²¹ See, e.g., UNCTAD, *National Green Export Review*, July 2016, 7; PARDI, *Coconut Value Chain*, November 2011, 6; USAID, *Coconut Processing Mill*, March 23, 2022, 17–24; subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

⁸²² Industry representative, interview by USITC staff, Samoa, March 9, 2023; foreign government official, interview by USITC staff, Samoa, March 28, 2023.

⁸²³ Foreign government officials, interview by USITC staff, Samoa, March 28, 2023; subject matter expert, interview by USITC staff, Samoa, March 29, 2023; industry representative, interview by USITC staff, Samoa, March 9, 2023.

⁸²⁴ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

⁸²⁵ Pacific Trade Invest, “Industry Focus,” accessed May 30, 2023.

⁸²⁶ International Cocoa Organization (ICCO), “Growing Cocoa,” accessed May 3, 2023; ICCO, “Harvesting & Post-Harvest,” accessed May 3, 2023; ICCO, “Processing Cocoa,” accessed May 3, 2023.

⁸²⁷ Wellington Chocolate Factory, “PNG Bar,” accessed May 30, 2023.

The Cocoa Sector

Cocoa Beans

Cocoa has been grown in the Pacific Islands for more than 130 years, both for export and as a part of local food culture.⁸²⁸ Papua New Guinea is the largest Pacific Island producer, producing 42,000 metric tons and accounting for 1 percent of global production in the 2021/22 growing year.⁸²⁹ According to the FAO, the Solomon Islands, Vanuatu, Samoa, Fiji, the Federated States of Micronesia, and Tonga also produce cocoa beans. These markets combined account for less than 1 percent of total global production and are aggregated in the “all others” category in data compiled by the International Cocoa Organization (ICCO). Global production of cocoa beans is primarily in West Africa (3.6 million metric tons, 74.6 percent) and Central and South America (1 million metric tons, 19.9 percent), with these regions accounting for 9 of the top 10 global producers in the 2021/22 growing year.⁸³⁰

Despite the small share of global production, cocoa is an important sector for several Pacific Island economies. For example, in Vanuatu, about one-quarter of all rural households are involved in cocoa production, and cocoa is one of the largest agricultural exports by value of the Solomon Islands.⁸³¹ Women also comprise a large portion of the cocoa-growing workforce in Pacific Island economies, such as the Solomon Islands and Samoa.⁸³²

As with the major growing regions in the world, cocoa growing in the Pacific Islands is predominantly conducted by smallholder farmers. Cocoa is often grown using intercropping alongside other crops, such as turmeric and coconut (see box 6.1), with the cash income being used for expenses like school fees.⁸³³ In some Pacific Island economies, such as Vanuatu, farmers cooperate with lead farmers who have been trained in best practices in fermentation, sorting, and grading. These lead farmers coordinate the collection and preliminary processing of cocoa beans for farmers in their area in fermentation centers.⁸³⁴ In Vanuatu, as well as other economies such as Papua New Guinea and Samoa, a few dozen farmers will sell directly to a cocoa processor or chocolate producer, often in New Zealand or Australia, and these companies help coordinate the sale of cocoa beans on the global market.⁸³⁵ This cooperation, regardless of the organizer, is essential for dissemination of information on best practices and global

⁸²⁸ Cusak, “The Chocolate Next Door,” August 20, 2022.

⁸²⁹ The cocoa growing year runs from October to September. ICCO, “Statistics,” accessed July 13, 2023.

⁸³⁰ ICCO, “Statistics,” accessed July 13, 2023; FAO, “Crops and Livestock Products,” accessed May 3, 2023.

Indonesia is also one of the top 10 global producers.

⁸³¹ Pacific Trade Invest, “Industry Focus,” accessed May 30, 2023; Solomon Airlines, “Solomon Islands Cacao: Artisan Chocolate,” accessed May 30, 2023.

⁸³² Industry expert, interview by USITC staff, Vanuatu, April 13, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

⁸³³ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; Wellington Chocolate Factory, “PNG Bar,” accessed May 30, 2023; Pacific Cacao & Chocolate, “Farmers,” accessed May 26, 2023.

⁸³⁴ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; Raglan Chocolate, “Our Beans,” accessed May 30, 2023.

⁸³⁵ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; Raglan Chocolate, “Our Beans,” accessed May 30, 2023; Foundry Fine Craft Chocolate, “Pinalum, Malekula Island, Vanuatu 70%,” accessed May 30, 2023; Cacao Fiji, “Rakiraki Processing Center,” accessed May 30, 2023; Koko Samoa, “About Us,” accessed May 30, 2023.

prices to cocoa farmers. It also enables pooling of resources for new fermentation and drying technologies, which are important because the humid climate can make traditional drying processes, common in other growing regions, more difficult (see impediments below).

Cocoa is consumed domestically throughout the Pacific Islands, but most is exported (table 6.10). Papua New Guinea is the largest exporter of cocoa beans, accounting for 89.0 percent of all exports from Pacific Island economies in 2021. Most cocoa beans exported by Pacific Island economies (75.7 percent in 2021) are destined for Asia. The three largest global destinations for cocoa from Papua New Guinea in 2021 were Malaysia (35.8 percent), Indonesia (21.9 percent) and the United States (18.5 percent).⁸³⁶

Table 6.10 Pacific Island economies' exports of cocoa beans to the world, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	81,539	82,781	62,553	90,530	92,121
The Solomon Islands	11,061	15,228	9,348	8,425	8,506
Vanuatu	5,313	3,075	4,518	4,007	2,698
Samoa	230	233	201	162	130
New Caledonia	0	0	0	0	80
Fiji	58	37	35	52	15
All other economies	103	4	1	0	0
Total	98,304	101,358	76,656	103,175	103,550

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS heading 1801.

Note: Exports shown as global imports from individual economies. The economies are in descending order of 2021 data.

Papua New Guinea and Fiji are the only Pacific Island economies with reported exports of cocoa beans to the United States, with Papua New Guinea accounting for 99.9 percent of U.S. imports from Pacific Island economies (table 6.11).⁸³⁷

Table 6.11 Pacific Island economies' exports of cocoa beans to the United States, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	21,162	17,312	10,776	29,830	19,112
Fiji	31	28	7	25	12
Total	21,193	17,340	10,783	29,855	19,124

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS heading 1801.

Note: Exports shown as U.S. imports from individual economies. The economies are in descending order of 2021 data.

Processed Cocoa and Confectionary

Processing of cocoa beans in a commercial capacity is limited to a few Pacific Island economies (primarily Samoa, Fiji, Papua New Guinea, Guam, New Caledonia, and Vanuatu). For the Pacific Island economies, more than half of processed cocoa exports to the world were intermediate processed cocoa products (cocoa paste, powder, and butter). The remaining (40.6 percent of exports to the world in

⁸³⁶ S&P Global, GTAS, HS headings 1803, 1804, 1805, and 1806, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023.

⁸³⁷ The Solomon Islands reported exports of cocoa beans to the United States as recently as 2016 but have not reported such exports since 2016.

2021) processed cocoa exports are in the form of further-processed chocolate products like drinking chocolate, sweetened cocoa powder, and chocolate confectionary.⁸³⁸ Large multinational corporations such as the Barry Callebaut Group and Mars Incorporated source cocoa beans from Pacific Island economies, but these companies have limited investment in processing in the region. Instead, processing tends to be operated by domestic Pacific Island-based firms.⁸³⁹ Each Pacific Island economy typically houses only one or two commercial processing operations.⁸⁴⁰ These commercial processors produce boutique “bean to bar” single origin products. Despite small production volume, the chocolate confectionary produced in Pacific Island economies is considered high quality and producers have won several awards globally.⁸⁴¹

While there is domestic consumption of processed cocoa products, Pacific Island economies export relatively large volumes as a share of their production (table 6.12). The largest exporters of processed cocoa and chocolate confectionary in 2021 were Samoa and Fiji, accounting for 50.9 percent and 24.1 percent of Pacific Island economies’ global exports, respectively. The vast majority (82.7 percent) of exports of processed cocoa and chocolate confectionary products from Pacific Island economies travel relatively short distances, mainly to Oceania and East Asia. In addition to being a major exporter, Samoa was also a major destination source for exports from Pacific Island economies—the third-largest—and accounted for 21.9 percent of exports in 2021. This suggests Samoa imports intermediate processed products and further processes the cocoa. The two largest destination markets in 2021—New Zealand and Australia—accounted for 50.6 percent of exports from Pacific Island economies. The United States was the fourth-largest single country destination for processed cocoa and cocoa products in 2021 from Pacific Island economies, accounting for 13.9 percent of the region’s exports. East Asian destination markets⁸⁴² accounted for 10.2 percent of exports.⁸⁴³

⁸³⁸ S&P Global, GTAS, HS headings 1803, 1804, 1805, and 1806, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023.

⁸³⁹ Barry Callebaut, “Dark Chocolate Papua New Guinea,” accessed May 30, 2023; Business Advantage PNG, “Papua New Guinea’s Home-Made Chocolate Hits the Market,” March 26, 2013.

⁸⁴⁰ Niche producers often operate out of their homes and produce part time or for supplemental income during festivals and similar events. Foreign government official, email to USITC staff, April 24, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023.

⁸⁴¹ Pacific Cacao & Chocolate, “Farmers,” accessed May 26, 2023; Wellington Chocolate Factory, “Our Story,” accessed May 30, 2023; RNZ, “Foundry Chocolate,” May 24, 2021; Cacao Fiji, “Cacao Fiji,” accessed May 30, 2023.

⁸⁴² East Asian destination markets included Taiwan, Japan, China, Malaysia, South Korea, the Philippines, and Thailand.

⁸⁴³ S&P Global, GTAS, HS headings 1803, 1804, 1805, and 1806, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023.

Table 6.12 Pacific Island economies' exports of processed cocoa and chocolate confectionary to the world, by economy, 2017–21

In dollars.

Economy	2017	2018	2019	2020	2021
Samoa	15,260	23,023	15,902	113,047	286,292
Fiji	55,366	226,966	197,011	64,964	135,580
Papua New Guinea	3,048	72,623	2,864	8,844	59,447
Guam	51,528	63,707	42,893	289	35,027
New Caledonia	131,939	262,338	36,280	12,512	16,984
Vanuatu	2,471	44,405	8,112	14,509	10,804
The Solomon Islands	1,292	1,000	0	67,099	9,267
American Samoa	0	1,217	10,709	35	5,702
Tokelau	59,952	42,134	3,850	22,283	2,697
French Polynesia	1,853	4,557	75	0	396
All other economies	1,384	83,689	0	48,184	14
Total	324,091	825,659	317,695	351,766	562,208

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS headings 1803, 1084, 1805, and 1806. Note: Exports shown as global imports from individual economies. The top economies are in descending order of 2021 data.

In 2021, Papua New Guinea, Samoa, and Fiji were the only reported Pacific Island sources of U.S. imports of processed cocoa and chocolate confectionary (table 6.13). The Cook Islands has also exported processed cocoa to the United States in the past, but U.S. imports of processed cocoa from the Cook Islands have not been reported since 2018. The largest import of processed cocoa was cocoa paste, accounting for all the reported U.S. imports of processed cocoa from Papua New Guinea and Samoa in 2021. All the reported U.S. imports of processed cocoa from Fiji were unsweetened cocoa powder. The United States reported imports of chocolate from Samoa in 2020 and other cocoa preparations in 2017 and 2020.⁸⁴⁴ These imports were likely going to serve the Samoan diaspora community in the United States (box 6.3).⁸⁴⁵

Table 6.13 Pacific Island economies' exports of processed cocoa and chocolate confectionary to the United States, by economy, 2017–21

In dollars.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	0	0	0	0	45,838
Samoa	2,063	0	0	30,701	29,499
Fiji	0	0	7,309	2,670	2,900
The Cook Islands	0	65,610	0	0	0
Total	2,063	65,610	7,309	33,371	78,237

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS headings 1803, 1804, 1805, and 1806. Note: Exports shown as U.S. imports from individual economies. The economies are in descending order of 2021 data.

⁸⁴⁴ S&P Global, GTAS, HS headings 1803, 1804, 1805, and 1806, accessed February 8, 2023; USITC DataWeb/Census, accessed July 20, 2023.

⁸⁴⁵ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

Box 6.3 The Pacific Island Diaspora in the United States as an Export Opportunity

The Pacific Island diaspora in the United States is an important market for exports from Pacific Island economies despite comprising a small proportion of the total U.S. population. According to U.S. Census Bureau data from 2020, 1.2 million—0.4 percent of the total U.S. population—Americans are of Pacific Island origins.^a More people of Pacific Island origin live in the United States than in any individual Pacific Island economy, except Papua New Guinea.

Many products are exported and marketed for the diaspora community in the United States. Much of the cocoa and chocolate exports to the United States from Samoa are for *Koko Samoa*, a traditional chocolate drink that is popular among Samoans living in the United States.^b Likewise, the \$69 million worth of fresh and frozen taro exports to the United States between 2017 and 2021 from the Pacific Islands was primarily sold to the diaspora community in the United States.^c Breadfruit imported from the region is also consumed mostly by the diaspora community.^d

Members of the diaspora are often willing to pay a premium for products from the Pacific region. The diaspora in Vancouver, Canada, which is a similar distance to the Pacific Islands, offers a useful example. Members of the diaspora community in Vancouver reportedly will pay five times the local price for an eggplant grown in Fiji that has been airfreighted and sold in ethnic grocery stores.^e At this time, eggplants and other fresh produce grown in the Pacific Islands are not exported to the United States due to U.S. SPS measures for controlling the spread of fruit flies.^f

^a These include native Hawaiians. U.S. Census Bureau data, 2020, Table P1, accessed May 17, 2023.

^b Subject matter expert, interview by USITC staff, Samoa, March 29, 2023; foreign government official, interview by USITC staff, Samoa, March 29, 2023.

^c USITC DataWeb/Census, HS subheading 0714.40, accessed May 30, 2023; foreign government official, interview by USITC staff, Samoa, March 27, 2023; foreign government official, interview by USITC staff, Fiji, March 22, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023.

^d Foreign government official, interview by USITC staff, Fiji, March 22, 2023.

^e Foreign government official, interview by USITC staff, Fiji, March 22, 2023; foreign government official, email to USITC staff, July 28, 2023.

^f Foreign government officials, interview by USITC staff, Fiji, March 22, 2023; foreign government official, interview by USITC staff, July 28, 2023.

Import Requirements and Tariff Treatment

Cocoa beans and most primary processed cocoa enter the United States NTR duty free under HS subheadings 1801.00, 1802.00, 1803.10, and 1804.00, and, for GSP beneficiary developing countries (BDCs), duty free under the GSP program for HTS subheadings 1803.30 and 1805.00. Chocolate and other preparations containing cocoa (1806.10, 1806.20, 1806.31, 1806.32, and 1806.90) are subject to tariff-rate quotas on the basis of sugar or dairy solids content.⁸⁴⁶ Although many of these products from BDCs enter the United States duty free under the GSP program when in-quota, over-quota quantities are not GSP eligible. Pacific Island economies do not have country-specific allocations under any of these tariff-rate quotas and must compete on a first-come, first-served basis where unallocated in-quota quantities are available. Once the in-quota quantities are filled, imports from Pacific Island economies are assessed the full duty rate, regardless of a Pacific Island economy's GSP beneficiary status.

⁸⁴⁶ For additional detail on quantities and specific tariff lines subject to these tariff-rate quotas, see the U.S. Harmonized Tariff Schedule, U.S. Additional Notes 1, 2, and 3 to Chapter 18; U.S. Additional Notes 7, 8, and 9 to Chapter 17; and U.S. Additional Note 10 to Chapter 4.

As discussed in the turmeric and ginger profile, both the USDA and the FDA are responsible for regulating the food supply, including imports, in the United States.⁸⁴⁷ Cocoa beans are regulated by the USDA, but processed foods (e.g., chocolate confectionary) and food ingredients (e.g., cocoa powder) are regulated by the FDA. As with all agricultural imports, cocoa is subject to specific sanitary and phytosanitary measures. Cocoa imported into the United States must be tested for heavy metals, in particular cadmium and lead.⁸⁴⁸

Potential for Increased Cocoa Exports to the United States

Despite their small size, Pacific Island economies are uniquely situated with potential for increased exports to the United States throughout the cocoa and chocolate confectionary supply chain. Pacific Island economies can benefit from product differentiation because they are able to produce cocoa beans with unique flavor profiles and process the cocoa into chocolate confectionary goods, a potential not found in the major growing countries in West Africa.⁸⁴⁹ Additionally, U.S. demand for the sustainable cocoa products that Pacific Island economies can produce is increasing.⁸⁵⁰

Production of Unique and Hybrid Cocoa Varieties

At least a dozen varieties of cocoa are grown in the Pacific Islands.⁸⁵¹ Many of the varieties grown in the Pacific Islands are considered “heirloom” varieties, though modern hybrid varieties like Trinitario are the most common, with some Forastero (also known as Amelonado) and Criollo.⁸⁵² These beans, combined with local flora and rich volcanic soil, provide unique flavor profiles and often receive a price premium.⁸⁵³ For example, some Pacific Islands produce beans with a fruity, raisin flavor (the Solomon

⁸⁴⁷ For more information on USDA and FDA requirements, see USDA, APHIS, “Dried, Ground Cocoa Bean Pods and Seeds,” accessed August 21, 2023; FDA, CFSAN, “Food Safety Modernization Act (FSMA),” August 18, 2023.

⁸⁴⁸ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023; Loria, “How Lead and Cadmium Get into Dark Chocolate,” January 31, 2023.

⁸⁴⁹ For more information on cocoa production in West Africa, see USITC, *African Growth and Opportunity Act (AGOA): Program Usage, Trends, and Sectoral Highlights*, March 2023, 177–209.

⁸⁵⁰ IISD, *Global Market Report: Cocoa Prices and Sustainability*, 2019, 9–11.

⁸⁵¹ Foreign government official, email to USITC staff, April 24, 2023.

⁸⁵² Conversely, virtually all cocoa grown in West Africa, the world’s largest source of cocoa beans, are Forastero. Criollo and Trinitario varieties are used for ‘fine flavor’ production, and Forastero is used for bulk production. Foreign government official, email to USITC staff, April 24, 2023; Wellington Chocolate Factory, “PNG Bar,” accessed May 30, 2023; Wellington Chocolate Factory, “Pacific Milk Limited Release,” accessed May 30, 2023; Raglan Chocolate, “Our Beans,” accessed May 30, 2023; Business Advantage PNG, “Artisan Chocolate Maker Chooses Papua New Guinea Cacao,” February 3, 2016; Paga Hill Media, “Discovering Papua New Guinea’s Cacao Beans,” October 12, 2020; Pacific Cacao & Chocolate, “Farmers,” accessed May 26, 2023; The Koko Samoa, “Our Story,” accessed May 30, 2023; World Cocoa Foundation, “Whittaker’s Samoan Cocoa Export Improvement Program Focuses on Sustainability and Climate Change Mitigation,” March 20, 2018; SKIA, “Genotyping Report Release,” April 28, 2020; SKIA, *SROS Genotyping Report Summary*, April 15, 2020, 4.

⁸⁵³ Villa-Clarke, “Magic Beans,” accessed May 30, 2023; The Koko Samoa, “About Super C,” accessed May 30, 2023; Willis, “South Pacific Cocoa Farmers Grow Adelaide’s Love of Chocolate,” November 2, 2022.

Islands, Fiji) and some produce beans with caramel, toffee, and nutty notes (Vanuatu, Fiji).⁸⁵⁴ Cocoa beans in Papua New Guinea contain flavors of lychee, pawpaw, cream, red fruits, and sweet pipe tobacco.⁸⁵⁵ In addition to meeting niche cocoa bean demands, the development of clones and hybrid varieties can increase resistance to diseases and pests.⁸⁵⁶

Access to Inputs for Confectionary Production

Beyond cocoa bean cultivation, Pacific Island economies are uniquely situated to further develop and export chocolate confectionary, unlike major cocoa producers in West Africa. In addition to domestic demand for chocolate, many Pacific Island economies have access to the inputs necessary to create chocolate confectionary. Many Pacific Island economies that grow cocoa beans, such as the Solomon Islands, Fiji, and Papua New Guinea, also produce vanilla and sugar—common ingredients in chocolate confectionary products.⁸⁵⁷ Papua New Guinea also established a dairy farm in 2018, potentially enabling local access to dairy inputs for the production of milk chocolate.⁸⁵⁸ Even without dairy, several chocolate confectionary producers in the Pacific Islands have developed the technology to create dark chocolate for consumption with a smooth texture, maintaining the unique flavor profile associated with each country.⁸⁵⁹

U.S. Demand

Globally, interest in single-origin and boutique cocoa is growing, providing increased export opportunities for the unique flavor characteristics of Pacific Island cocoa.⁸⁶⁰ U.S. demand for this region's cocoa products is also increasing as they are seen as both high-end and sustainable.⁸⁶¹ Generally, consumer tastes have become more refined, providing an opportunity for Pacific Island economies to meet the increasing demand for niche and single-origin chocolates.⁸⁶² Furthermore, U.S. demand for sustainable and ethically sourced cocoa and chocolate confectionary is increasing.⁸⁶³ The cocoa grown in the Pacific Islands is often produced using organic practices, and several countries are actively working with international organizations like the ILO and UNICEF to combat child labor,

⁸⁵⁴ Raglan Chocolate, "Our Beans," accessed May 30, 2023; Foundry Fine Craft Chocolate, "Pinalum, Malekula Island, Vanuatu 70%," accessed May 30, 2023; Cacao Fiji, "Cacao Fiji," accessed May 30, 2023.

⁸⁵⁵ Smith, "Tropical Chocolate," June 11, 2022; Business Advantage PNG, "Artisan Chocolate Maker Chooses Papua New Guinea Cacao," February 3, 2016.

⁸⁵⁶ KokoManaFiji, "Varieties," accessed May 30, 2023.

⁸⁵⁷ For more information on vanilla production, see the "additional spices" section above. Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry expert, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; foreign government official, email to USITC staff, April 24, 2023; Max, "Fijian Cacao & Chocolate Culture," May 15, 2020; Business Advantage PNG, "Papua New Guinea's Home-Made Chocolate Hits the Market," March 26, 2013.

⁸⁵⁸ Industry representative, interviews by USITC staff, Papua New Guinea, April 19 and 20, 2023; Constantinoiu, "Israelis Build First Dairy Farm in Papua New Guinea," February 20, 2018.

⁸⁵⁹ Willis, "South Pacific Cocoa Farmers Grow Adelaide's Love of Chocolate," November 2, 2022.

⁸⁶⁰ KokoManaFiji, "Origins," accessed May 30, 2023.

⁸⁶¹ Paga Hill Media, "Discovering Papua New Guinea's Cacao Beans," October 12, 2020; IISD, *Global Market Report: Cocoa Prices and Sustainability*, 2019, 9.

⁸⁶² ACIAR, "Improved Processing to Boost Cocoa Quality in the Pacific," accessed May 30, 2023.

⁸⁶³ Styles, "Can You Really Buy 'ethical' Chocolate?," accessed May 30, 2023; IISD, *Global Market Report: Cocoa Prices and Sustainability*, 2019, 8, 11.

enhancing the region's reputation as a responsible source of cocoa.⁸⁶⁴ In many cases, cocoa grown in Pacific Island economies is eligible to carry Fairtrade and Rainforest Alliance certifications.⁸⁶⁵ Certified cocoa makes up a small fraction of global cocoa production, further providing a unique niche for Pacific Islands-grown cocoa.⁸⁶⁶

Impediments

Beyond the basic challenges of lack of scale and remoteness, the main impediments to increasing exports of cocoa and chocolate to the United States fall under two categories: import and regulatory requirements, including sanitary and phytosanitary measures and tariffs, and inconsistent supplies.

Meeting Import Requirements

Difficulties meeting the two main import requirements associated with cocoa and cocoa-based products act as an impediment to increased exports of cocoa and chocolate confectionary to the United States. Meeting sanitary and phytosanitary measures requires testing for various pests and chemical contents in cocoa beans, including cadmium. The lab capacity necessary to reliably test for contaminants requires large amounts of capital not readily available to Pacific Island economies.⁸⁶⁷ The other main trade impediment is the dairy and sugar tariff-rate quotas. As noted earlier, cocoa products containing dairy and sugar are subject to tariff-rate quotas, which provide a cap on the amount of chocolate confectionary that can be imported from any Pacific Island economy at the in-quota rate before the tariff becomes cost prohibitive. The available sugar and dairy tariff-rate quota allocations fill on a first-come, first-served basis.

Inconsistent Supply

Inconsistent supply of cocoa beans is a result of both environmental factors and farming practices. Although the climate creates an environment suitable for cocoa cultivation, natural disasters such as tropical cyclones destroy cocoa crops, requiring entire farms to be replanted.⁸⁶⁸ Furthermore, aging trees, pest pressures such as cocoa pod borers, and diseases such as black pod negatively impact cocoa

⁸⁶⁴ Beans are reportedly produced without pesticides and herbicides, but it is unclear how much is certified organic. The USDA Organic Integrity Database lists one certified organic producer each in Fiji, Papua New Guinea, Samoa, and Vanuatu. USDA, AMS, "Organic Integrity Database," accessed May 25, 2023; Raglan Chocolate, "Our Beans," accessed May 30, 2023; South Pacific Cacao, "South Pacific Cacao, South Pacific Chocolate, Our Ethical Supply Chain," October 16, 2022; Solomon Airlines, "Solomon Islands Cacao: Artisan Chocolate," accessed May 30, 2023; The Koko Samoa, "Our Story," accessed May 30, 2023; DLIR, *National Action Plan to Eliminate Child Labour*, April 14, 2015; Government of the Solomon Islands, "Solomon Islands Celebrates Launch of the Child and Family Welfare Act 2017," September 30, 2022; ILO, "Child Labour in Pacific Island Countries," accessed September 6, 2023; Sheehan, "Child Welfare in the South Pacific," December 2021; UN, "UN Recognizes Fiji's Progress on Fighting Child Labour," April 2, 2021.

⁸⁶⁵ Wellington Chocolate Factory, "Help Us Create a Better Tasting World," accessed May 30, 2023; Fairtrade Australia New Zealand, "Papua New Guinea Specialty Coffee and Chocolate," October 9, 2014.

⁸⁶⁶ Styles, "Can You Really Buy 'Ethical' Chocolate?," accessed May 30, 2023.

⁸⁶⁷ Foreign government official, email to USITC staff, April 24, 2023.

⁸⁶⁸ KokoManaFiji, "Our Story," accessed May 30, 2023; EU, EEAS, "Fiji's First Community Managed Cocoa Processing Unit Launched," September 2, 2017.

yields.⁸⁶⁹ Some cocoa tree varieties are resistant to certain pests, such as the cocoa borer beetle, but farmers have been hesitant to adopt new trees because they do not produce for as long.⁸⁷⁰ Additionally, aging trees are known to both produce smaller yields and contain higher levels of cadmium. Farmers are also less likely to replace older trees with new seedlings, given the initial growing time of several years.⁸⁷¹ Furthermore, because of volatile cocoa prices and increasing prices of competing crops, such as kava, many farmers are shifting production away from cocoa.⁸⁷²

Processing Limitations

Impediments to the initial processing of cocoa beans further reduce reliability of supply. Given the high humidity and frequent rain, drying cocoa beans is a particular challenge in the Pacific Islands.⁸⁷³ Quality cocoa requires the use of “solar dryers,” where the beans are dried by the sun.⁸⁷⁴ Given the climate challenges, farmers have turned to a traditional method of drying using fire. Especially prevalent in Papua New Guinea, this can lead to smoke taint, where the flavor of the beans is contaminated by smoke.⁸⁷⁵ Farmers also lack access to training and access to fermenting and drying infrastructure to maximize yields and support the production and export of quality cocoa beans.⁸⁷⁶ To counter this, many companies across the region set up centralized processing stations to purchase wet (not fermented and dried) cocoa beans.⁸⁷⁷ Transportation limitations and improper storage can lead to moldy or infested sacks of cocoa beans.⁸⁷⁸

Initiatives

Government Research and Support Programs

Several Pacific Island economies have identified cocoa as a priority agricultural export and provided support to increase production and exports. For example, in Fiji, the government began buying cocoa from farmers in the 1980s and is working with local companies to persuade farmers to continue to

⁸⁶⁹ Foreign government official, email to USITC staff, April 24, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry expert, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; SKIA, *SROS Genotyping Report Summary*, April 15, 2020.

⁸⁷⁰ Industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023.

⁸⁷¹ Foreign government official, email to USITC staff, April 24, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023; Loria, “How Lead and Cadmium Get into Dark Chocolate,” January 31, 2023.

⁸⁷² For more information on kava production, see the section on kava. Max, “Fijian Cacao & Chocolate Culture,” May 15, 2020.

⁸⁷³ ACIAR, “Improved Processing to Boost Cocoa Quality in the Pacific,” accessed May 30, 2023; KokoManaFiji, “Processing,” accessed May 30, 2023.

⁸⁷⁴ Pacific Periscope, “Cocoa Magic from the Solomon Islands,” March 8, 2017.

⁸⁷⁵ Foreign government official, email to USITC staff, April 24, 2023; Smith, “Tropical Chocolate,” June 11, 2022; Paga Hill Media, “Discovering Papua New Guinea’s Cacao Beans,” October 12, 2020; Pacific Cacao & Chocolate, “Farmers,” accessed May 26, 2023.

⁸⁷⁶ ACIAR, “Improved Processing to Boost Cocoa Quality in the Pacific,” accessed May 30, 2023.

⁸⁷⁷ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; foreign government official, email to USITC staff, April 24, 2023; Cacao Fiji, “Rakiraki Processing Center,” accessed May 30, 2023.

⁸⁷⁸ Smith, “Tropical Chocolate,” June 11, 2022.

produce cocoa instead of alternate crops.⁸⁷⁹ Currently, the Fijian government is working with Cacao Fiji to develop a cocoa acceleration program where seedlings are supplied to farmers to replace aging and diseased crops.⁸⁸⁰ In Papua New Guinea, the government is working to improve cocoa production and increase exports through several focus areas. First, the government has developed a nursery program, providing hybrid seeds and seedlings to farmers. The government also has developed extension services for educating farmers, processing facility training and investments, freight subsidy programs, and price support. Finally, the government in Papua New Guinea established a traceability system for quality control and market promotion before exporting cocoa beans. The program is, however, reportedly limited and may only impact a few farmers.⁸⁸¹ The government in Samoa has similar initiatives. The Samoa Cocoa Industry Development Initiative led to the creation of the Samoa Koko Industry Association, established a bud nursery grafter to develop and distribute clones and hybrids, provided farmer training, and developed and disseminated postharvest processing, including fermentation and drying facilities.⁸⁸²

Foreign Aid Programs

Foreign aid programs are integral to increasing exports of cocoa beans from the Pacific Islands. Notable programs can be found in Fiji, Samoa, the Solomon Islands, and Vanuatu. Most of the foreign aid programs in the region originated in Australia and New Zealand. The Pacific Horticultural and Agricultural Market Access (PHAMA) Plus Program, funded by the Australian and New Zealand governments, has helped provide training, education, technology investment, and access to export markets across the Pacific Islands.⁸⁸³ For example, the PHAMA Plus Program helped fund the Queen Emma chocolate company in Papua New Guinea to buy lab equipment to test cocoa samples locally up to five times a week, improving quality control.⁸⁸⁴

In New Zealand, the Cacao Ambassador organization helped farmers in the Solomon Islands with tree management, tree health, farm management, pruning, fermentation, and sun-drying.⁸⁸⁵ The New Zealand government also funded efforts in Samoa to improve farming systems, rehabilitate overgrown plantations and farms and increase new plantings. The program, a partnership between the Samoan

⁸⁷⁹ Max, "Fijian Cacao & Chocolate Culture," May 15, 2020; boswald68, "Pacific Islands Chocolate," August 31, 2018.

⁸⁸⁰ Island Business, "Reviving Cacao in Fiji," September 8, 2022.

⁸⁸¹ Foreign government official, email to USITC staff, April 24, 2023; Paga Hill Media, "Discovering Papua New Guinea's Cacao Beans," October 12, 2020.

⁸⁸² FCG, "Samoa Cocoa Industry Development Initiative Review," October 26, 2022; "Cocoa Opportunities – SAMOA KOKO," accessed May 30, 2023; "Information – SAMOA KOKO," accessed May 30, 2023; Koko Samoa, "About Us," accessed May 30, 2023.

⁸⁸³ PHAMA Plus, "Farmers Undergo Further Training to Improve Cocoa Quality," accessed May 31, 2023; PHAMA Plus, "A Comparative Study of Local and Overseas Fermentation," accessed May 31, 2023; PHAMA Plus, "Improved Quality of Export Cocoa," accessed May 31, 2023; PHAMA Plus, "Taking Abau Cocoa from PNG to the World," accessed May 31, 2023; PHAMA Plus, "Partnering for a Richer Cocoa Industry," accessed May 31, 2023; PHAMA Plus, "Innovative New Pilot Project to Assist Cocoa Farmers," accessed May 31, 2023; PHAMA Plus, "Impact Assessment," accessed May 31, 2023; PHAMA Plus, "On-Farm Trials for Proven Cocoa Fermentation," accessed May 31, 2023.

⁸⁸⁴ PHAMA Plus, "Queen Emma Chocolate Thrives with PHAMA Plus Partnership," accessed May 30, 2023.

⁸⁸⁵ Foundry Fine Craft Chocolate, "Guadalcanal, Solomon Islands - Drinking Chocolate," accessed May 30, 2023.

government, the Samoan Chamber of Commerce, and the New Zealand High Commission, established a seedling nursery capable of producing up to 30,000 cocoa seedlings a year.⁸⁸⁶

The Australian government has also provided direct cocoa production aid to the Pacific Islands. In the Solomon Islands in 2016, farmer training culminated in a “Chocolate Week,” connecting cocoa farmers in the Solomon Islands with global chocolate makers to promote the unique flavor profiles of Solomon cocoa beans.⁸⁸⁷ The Australian Centre for International Agricultural Research (ACIAR) has piloted new fermentation methods as an alternative to the receptacle fermentation methods (wooden boxes, baskets, bags, or banana leaf-lined pits) in an effort to maximize cocoa bean quality in Fiji, Samoa, the Solomon Islands, and Vanuatu.⁸⁸⁸ ACIAR has worked directly with cocoa farmers in Papua New Guinea’s Autonomous Region of Bougainville to establish Village Resource Centres and budwood gardens and provide best practices training for farmers. ACIAR also developed a mobile app for cocoa farmers to further support community development and education.⁸⁸⁹

The EU has also provided support in Fiji. Following tropical Cyclone Winston in 2016, the EU funded projects to support the recovery of the Fijian agricultural sector, including the cocoa industry. As part of the Increasing Agricultural Commodities Trade project, three processing units, each consisting of a fermenter and cocoa dryer, were installed throughout Fiji. The project also provided farmers with training on pruning practices and obtaining organic certifications.⁸⁹⁰

Opportunities for U.S. Assistance and Investment

Opportunities for U.S. investment are based both on the reported needs of the cocoa and chocolate confectionary industry as well as examples of investments made by other countries in Pacific Islands cocoa and chocolate production. One opportunity is to provide technical assistance and support to navigate U.S. sanitary and phytosanitary measures and tariff-rate quotas through funding for testing equipment and direct purchasing agreements.⁸⁹¹ Examples of direct purchasing agreements between Pacific Islands cocoa producers and purchasers across the globe include agreements between boutique chocolate producers in Australia and New Zealand and multiple Pacific Island economies, including Samoa and Vanuatu.⁸⁹² Chocolate producers provide the technical assistance to farmers with whom they work directly to ensure all cocoa meets U.S. import requirements. Evidence shows this is already

⁸⁸⁶ World Cocoa Foundation, “Whittaker’s Samoan Cocoa Export Improvement Program,” March 20, 2018.

⁸⁸⁷ Government of Australia, High Commission Honiara, “Chocolate Week,” June 8, 2016.

⁸⁸⁸ ACIAR, “Improved Processing to Boost Cocoa Quality in the Pacific,” October 28, 2021.

⁸⁸⁹ ACIAR, “Developing the Cocoa Value Chain in Bougainville,” accessed May 31, 2023.

⁸⁹⁰ EU, EEAS, “Fiji’s First Community Managed Cocoa Processing Unit Launched,” accessed May 30, 2023.

⁸⁹¹ PHAMA Plus, “Queen Emma Chocolate Thrives with PHAMA Plus Partnership,” accessed May 30, 2023; foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023; foreign government official, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023; foreign government official, interview by USITC staff, Fiji, March 20, 2023; subject matter expert, interview by USITC staff, Fiji, March 20, 2023; foreign government official, interview by USITC staff, Fiji, March 22, 2023; foreign government official, interview by USITC staff, Fiji, March 24, 2023; U.S. government official, interview by USITC staff, American Samoa, March 30, 2023.

⁸⁹² Willis, “South Pacific Cocoa Farmers Grow Adelaide’s Love of Chocolate,” November 2, 2022; RNZ, “Foundry Chocolate,” May 24, 2021; Wellington Chocolate Factory, “Our Story,” accessed May 30, 2023.

occurring in the United States. The Hawaii-based chocolate producer Madre sources cocoa beans from several Pacific Island economies.⁸⁹³

Similar to the EU's aid programs, opportunities for U.S. private sector investment, including bolstering primary processing operations like fermentation and drying stations, exist throughout the supply chain. Opportunities exist to bring in more input operations such as the dairy farm set up in Papua New Guinea by an Israeli investor.⁸⁹⁴ Furthermore, as with investments in other cocoa-producing regions such as Côte d'Ivoire and Ghana, opportunities also exist to set up processing operations to produce and export larger quantities of cocoa paste, butter, and powder. Finally, because chocolate confectionary depends on temperature-controlled transportation of the product, investment in technology and infrastructure around creating and maintaining the cold chain can increase export potential to the United States.

Kava

Kava is a shrub native to the Pacific Islands. In the region, the roots of the plant are traditionally used to make a beverage consumed in social and ceremonial settings. The kava root contains active compounds called kavalactones that are said to produce a calming sensation. In particular, the effects of kava consumption may include "mild euphoria, muscle relaxation, sedation, and analgesia."⁸⁹⁵ Because of these desirable effects, the popularity of kava products in the U.S. market began to increase in the 1990s.⁸⁹⁶ In the 2000s, concerns arose about potential liver damage from overconsumption of kava and its popularity temporarily declined, with U.S. import volumes reaching a low in 2005.⁸⁹⁷ Since then, further research has eased such concerns, at least with respect to consumption of the exported variety (noble kava, as described in the impediments section below) in typical doses and concentrations, but some other import markets (such as Australia) have remained largely closed to kava.⁸⁹⁸ U.S. import volumes and consumption, however, have recovered and continue to grow steadily.⁸⁹⁹

In the U.S. and other export markets, kava may be consumed as a beverage or in a supplement. Some consumption of the beverage occurs in kava bars, which have reportedly increased in popularity during the past several years and number approximately 180 in the United States.⁹⁰⁰ Some consumers also prepare the beverage at home, typically from a powdered mix. Kava is also sold in the dietary supplement market. Many supplement producers sell products containing kava extract, which they market as relieving stress and anxiety.

⁸⁹³ Mamu, "US Chocolate Maker Plans to Source Our Cocoa Beans," July 29, 2015; Madre Chocolate Hawaii, "Solomon Islands Limited Edition," accessed August 9, 2023.

⁸⁹⁴ Industry representative, interviews by USITC staff, Papua New Guinea, April 19 and 20, 2023; Constantinoiu, "Israelis Build First Dairy Farm in Papua New Guinea," February 20, 2018.

⁸⁹⁵ DEA, "Kava," September 2019.

⁸⁹⁶ Soares, Dinis-Oliveira, and Oliveira, "An Updated Review," July 12, 2022, 3.

⁸⁹⁷ Soares, Dinis-Oliveira, and Oliveira, "An Updated Review," July 12, 2022, 3; USITC DataWeb/Census, accessed May 30, 2023.

⁸⁹⁸ Australia began allowing commercial imports of kava under a pilot program in 2021. Alcohol and Drug Foundation, "New Kava Regulations in Australia," April 27, 2022.

⁸⁹⁹ USITC DataWeb/Census, accessed May 30, 2023.

⁹⁰⁰ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; Kalm with Kava, "Kava Bars," accessed May 22, 2023.

The Kava Sector

The Pacific Island economies with large-scale production and export of kava are Fiji and Vanuatu, both of which also have large domestic markets for the beverage. Some of the other islands, including the Solomon Islands, Tonga, and Samoa, have much smaller volumes of kava production. Annual production statistics are only available for Fiji, and these data show that production volumes rose steadily from about 9,000 metric tons (mt) in 2017 to just under 14,000 mt in 2021.⁹⁰¹ Exports from the Pacific Islands to the world of products classified in the HS 6-digit subheading that includes kava (HS 1211.90) dipped in 2021, largely as a result of reduced exports from Vanuatu in that year, but otherwise mostly increased during 2017–21 (table 6.14).⁹⁰² A producer in Vanuatu, however, indicated that kava was the only industry that was not negatively affected by disruptions from the COVID-19 pandemic, primarily because of producers' ability to divert sales to the domestic Vanuatu market.⁹⁰³

Table 6.14 Pacific Island economies' exports of plant parts including kava to the world, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Fiji	7,793	11,537	11,574	14,611	13,819
Vanuatu	11,639	18,611	17,036	21,167	13,134
The Solomon Islands	50	256	415	488	676
Papua New Guinea	1,472	2,484	1,437	718	471
Tonga	288	147	230	396	390
New Caledonia	24	92	135	214	235
Samoa	21	70	112	117	217
French Polynesia	20	83	111	0	1
Total	21,314	33,280	31,049	37,715	28,942

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS subheading 1211.90.

Note: Exports shown as global imports from individual economies. The economies are in descending order of 2021 data.

Vanuatu was a larger overall exporter of kava than Fiji in every year during 2017–21, except 2021, but Fiji is by far the larger exporter to the United States (table 6.15). The vast majority of Fiji's kava exports go to the United States, but less than a quarter of Vanuatu's kava exports are typically shipped directly to the United States. This is in part due to intraregional trade: the biggest market for Vanuatu's kava is Fiji, where it may be consumed locally or processed before being exported again.⁹⁰⁴ Kiribati is an additional regional market for Vanuatu's kava in some years. Beyond the Pacific Islands and the United States, Vanuatu exports kava mostly to China, New Zealand, and Spain, but these are all much smaller markets than the U.S. and regional markets.⁹⁰⁵

⁹⁰¹ Pacific Data Hub, Kava dataset, accessed May 22, 2023.

⁹⁰² The HS 6-digit subheading for kava (1211.90) also covers other plant products, including some herbs and herbal infusions. Exports under this subheading are believed to be entirely or mostly kava for Fiji and Vanuatu but may include other products for Papua New Guinea, which is not traditionally a kava-consuming country and produces other agricultural products that could fall under this subheading.

⁹⁰³ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹⁰⁴ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹⁰⁵ S&P Global, GTAS, accessed May 22, 2023.

Table 6.15 Pacific Island economies' exports of kava to the United States, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Fiji	7,407	10,771	10,814	13,808	12,670
Vanuatu	2,697	3,855	3,572	2,876	3,158
The Solomon Islands	50	254	413	488	676
Tonga	268	120	216	297	259
Samoa	12	67	107	116	195
Papua New Guinea	43	50	46	9	20
Total	10,481	15,117	15,248	17,594	16,978

Sources: USITC DataWeb/Census, accessed July 13, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HTS statistical reporting number 1211.90.9290.

Notes: Exports shown as U.S. imports from individual economies. The economies are in descending order of 2021 data. HTS statistical reporting number 1211.90.9290 was replaced by 1211.90.8990 in 2022.

Kava that is exported without being further processed is generally shipped as dried slices (chips) of the plant's root.⁹⁰⁶ Alternatively, some Pacific Island kava producers (chiefly in Fiji) have the capability to process the dried roots into a powder before shipping the product to the United States, allowing for easier preparation by the consumer, as described in the production section below.

Import Requirements and Tariff Treatment

Currently, Pacific Island kava exporters report that complying with U.S. regulations is a much bigger factor affecting trade than tariffs, as described in the section on impediments below. Most kava imports enter the United States NTR duty free under HTS statistical reporting number 1211.90.8990 (other plants or parts of plants, fresh or dried). If novel product forms continue to develop, however, they may be classified elsewhere in the HTS. Kava is subject to FDA regulations, which govern labeling and manufacturing practices and prohibit adulteration of kava products entering the U.S. market.⁹⁰⁷ Ensuring compliance with these regulations can be an impediment for producers, as described below.

Potential for Increased Kava Exports to the United States

The Pacific Islands have the potential to increase exports of kava to the United States, both by increasing the volume of existing exports and by expanding processing to create new products for export. This potential is enhanced by credible initiatives to improve kava production and marketing in the Pacific Islands, strong demand in the United States, and U.S. tariff and regulatory treatment that is favorable in comparison to other export markets. Improved understanding of U.S. market requirements and reliability of supply would further bolster this potential.

Production and Supply

Despite lack of available production data for countries other than Fiji (as noted above), production of kava in the Pacific Islands seems to be growing. Fiji's data show a steady increase, and producers in Vanuatu indicate that farmers tend to be very interested in increasing kava production, sometimes at

⁹⁰⁶ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹⁰⁷ FDA, "Dietary Supplements," accessed May 22, 2023.

the expense of other crops. One producer of other crops in Vanuatu referred to the recent increase in production there as a “kava revolution” and mentioned that with the government, farmers, and nongovernmental organizations all focused on that sector, the country risks overreliance on it.⁹⁰⁸ Despite this, industry representatives in Fiji and Vanuatu emphasized that production is likely to continue to increase, especially since kava’s success often enables opportunities for other sectors with smaller exports. For example, in Vanuatu, one producer mentioned that kava shipments often make it feasible to export other goods that would not be able to fill a container load otherwise.⁹⁰⁹ Another producer mentioned that most economic opportunities in the country are connected in some way to the money earned from kava and that it is an important engine for the country’s economic growth.⁹¹⁰

In addition to increases in kava production among farmers in Fiji and Vanuatu, interest in boosting kava processing in both countries is growing. Enhanced processing capabilities would increase the range of kava products available from the Pacific Islands. Industry sources report that, currently, most production of kava powder and extract is done in the United States or in Fiji.⁹¹¹ FijiKava is an example of a vertically integrated producer that grows kava and produces both powdered drink mix and supplements in Fiji.⁹¹² Another Fijian company, Lami Kava, produces powder and is interested in branching into other value-added products.⁹¹³ Vanuatu’s processing capabilities are more limited than Fiji’s. Vanuatu kava that is turned into powder for the beverage market is reportedly often sent to Hawaii for processing.⁹¹⁴ Kava extraction for use in supplements may be done in Fiji or by the supplement manufacturer in the United States.⁹¹⁵ Fiji and Vanuatu are both making efforts to improve their processing capabilities, as described in the sections that follow.

U.S. Demand

Recent increases in U.S. imports of kava from the Pacific Islands are likely due in part to U.S. consumer demand trends that favor its use. For instance, the growth in popularity of kava bars has coincided with increasing interest in alternatives to alcoholic beverages. A 2023 survey of U.S. consumers found that young adults (about age 27 and under) drank slightly less alcohol than older adults, that 34 percent of all adults were trying to drink less alcohol in 2023, and that 38 percent were interested in trying alternatives to alcohol such as cannabis-infused drinks.⁹¹⁶ One producer in Vanuatu pointed specifically to the popularity of U.S. kava bars as an alternative to bars serving alcohol as a key source of growth for that country’s exports.⁹¹⁷ Another producer cited the popularity of products containing the nonpsychoactive cannabis derivative cannabidiol (CBD) in the U.S. market and buyers’ familiarity with

⁹⁰⁸ Industry representative, interview by USITC staff, April 18, 2023.

⁹⁰⁹ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹¹⁰ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹¹¹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹¹² FijiKava, “About Us,” accessed May 22, 2023.

⁹¹³ PHAMA Plus, “Pacific Kava Export Industry Overview,” accessed June 19, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁹¹⁴ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹¹⁵ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹¹⁶ NCSolutions, “Sober Curious Nation,” January 2023.

⁹¹⁷ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

CBD as a supplement that may help with anxiety and insomnia. In his view, this trend could help kava producers market their product by using that sector as a model.⁹¹⁸ In their view, this trend could help kava producers market their product by using that sector as a model.⁹¹⁹

Pacific Island kava producers are trying to further tap into U.S. demand trends by developing novel kava products. For example, one producer in Fiji is working on branching into instant kava and capsules and exploring whether the company could export fresh kava concentrate. Concentrate is more potent than powder and is reportedly produced in Hawaii.⁹²⁰ A producer in Vanuatu is experimenting with blending kava with nut milks to create a mild-flavored, “shot”-type beverage that could be marketed as a stress reliever or sleep aid.⁹²¹ Some U.S. consumers and kava bars reportedly blend kava with other flavors to reduce bitterness, indicating possible demand for kava products that incorporate other ingredients.⁹²²

Initiatives

The PHAMA Plus program is an initiative that has been particularly important to the growth of kava exports from Fiji and Vanuatu to the United States.⁹²³ The program, as an initiative of the Australian and New Zealand governments, does not focus on the U.S. market. Because the United States is by far the largest market for kava from the region, however, PHAMA Plus’s sector-focused initiatives for kava have likely helped boost exports to the United States. For instance, in Fiji, PHAMA Plus has assisted with the development of a national kava standard and supported Lami Kava’s efforts to improve postharvest handling and move into production of processed powder.⁹²⁴ In Vanuatu, PHAMA Plus has worked on farmer education to improve crop quality and on developing quality standards and increasing quality testing capabilities.⁹²⁵

Impediments

Regulatory Compliance and Testing Capacity

Perhaps the most significant impediment to expanded exports of kava from the Pacific Islands to the United States is the lack of capacity for testing to ensure compliance with U.S. regulatory requirements and with buyer demands. All of the kava exporters interviewed were concerned about ensuring compliance with FDA requirements.

An important aspect of this is testing that can distinguish between the two major types of kava—noble and tudei. Noble kava is the type traditionally used to make the beverage, and is the only type grown in Fiji. Tudei kava is faster growing, produces stronger effects on the user, and is associated with a higher risk of liver damage.⁹²⁶ Vanuatu law prohibits the export of tudei kava, but some growers produce it.

⁹¹⁸ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹¹⁹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹²⁰ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁹²¹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹²² Kalm with Kava, “Kava Bars,” accessed May 22, 2023.

⁹²³ See chapter 8 for additional detail on PHAMA Plus.

⁹²⁴ PHAMA Plus, “Pacific Kava Export Industry Overview,” accessed June 19, 2023.

⁹²⁵ PHAMA Plus, “Pacific Kava Export Industry Overview,” accessed June 19, 2023.

⁹²⁶ Soares, Dinis-Oliveira, and Oliveira, “An Updated Review,” July 12, 2022, 4.

Tests that can reliably distinguish between the two after they are processed are under development and would help ensure producers comply with this law. PHAMA Plus is one of the entities working on developing such a test.⁹²⁷ Other testing that can be done on kava includes testing for microbial contamination or for potency. According to one producer in Vanuatu, only the simplest testing can be done in the country; more sophisticated testing is often required once the product reaches the United States.⁹²⁸

Producers report that FDA guidance prohibits them from mixing kava with foods and beverages.⁹²⁹ This would limit the range of products that could be sold in the U.S. market. One producer in Fiji reported that the company often gets requests for kava blended with coffee or cocoa but cannot fulfill these because of this.⁹³⁰

Inconsistent Supply

Growth of kava exports is hampered by inconsistency of supply. Kava reportedly needs to grow for three to four years before it can be harvested. Because it is a root crop, however, it can be left in the ground for up to 10 years before harvesting. As a result of this long potential harvest window, producers in Fiji and Vanuatu report that farmers tend to use kava as a source of cash and harvest only when they need to cover a major expense. For example, in both countries, harvesting increases dramatically around the time that school tuition is due.⁹³¹ According to the producer in Vanuatu, it is often difficult for U.S. buyers to understand why supply may be inconsistent in this way.⁹³²

Climate- and weather-related disruptions compound supply challenges. For example, cyclones like the two that hit Vanuatu in 2023, can kill the root of the kava plant if it is not harvested quickly after the storm. This means that a production glut may occur if a major weather event strikes and many farmers rush to harvest the disturbed kava roots before they go to waste, resulting in low prices and potential difficulty finding export buyers.⁹³³

Potential Competition from Other Suppliers

Kava has increased in popularity, and many Pacific Island producers are concerned that countries outside the region that are already efficient agricultural producers may begin growing it. For instance, because Australia has loosened its restrictions on kava, growing it there is reportedly gaining interest. An experienced Vanuatu kava exporter stated that production in Australia would be very damaging to the industry in the Pacific Islands because of Australia's potential scale and efficiency in production.⁹³⁴ Similarly, a producer in Fiji expressed concern that kava could be grown in Australia, Peru, or even the

⁹²⁷ PHAMA Plus, "Pacific Kava Export Industry Overview," accessed June 19, 2023.

⁹²⁸ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹²⁹ Industry representative, interview by USITC staff, Vanuatu, April 14, 2023; FDA, "Memorandum," August 11, 2020.

⁹³⁰ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁹³¹ Industry representative, interview by USITC staff, Fiji, March 23, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹³² Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹³³ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

⁹³⁴ Heaton, "Kava: The Pacific's Economic 'Diamond' Is Being Coveted by Competitors," August 29, 2021.

United States.⁹³⁵ To protect their native crop, Pacific Island producers are reportedly looking into ways to distinguish kava from the region, such as a geographic indication or other official designation of origin through the World Intellectual Property Organization.⁹³⁶ The Vanuatu Kava Act is also reportedly considered a model for the region, because it reserves participation in the sector for local people and companies and prohibits the export of plant cuttings.⁹³⁷

Opportunities for U.S. Assistance and Investment

Most kava exported from the Pacific Islands is destined for the United States, creating opportunities for U.S. government or investors to help kava producers understand U.S. market requirements. In particular, U.S. service providers that offer agricultural product testing or certification, packaging and labeling assistance, or guidance on FDA compliance would likely find customers among Pacific Island kava producers, according to knowledgeable industry participants.⁹³⁸

Coffee

Coffee beans grow on shrubs or small trees and are predominantly farmed in certain climates typically found within 25–30 degrees of the equator between the Tropic of Cancer and the Tropic of Capricorn, known as the “coffee belt.”⁹³⁹ The Pacific Islands are not major global producers or exporters of coffee. Coffee is, however, one of the region’s most important and lucrative crops and is almost exclusively grown in Papua New Guinea.⁹⁴⁰ This section discusses Papua New Guinea’s coffee industry and its potential for export sales to the United States, especially Papua New Guinea’s focus on specialty or niche coffee.

The Coffee Sector

Coffee plants appear to have been introduced into Papua New Guinea in the late 19th century, and production accelerated in the 1940s.⁹⁴¹ Growth continued for several decades in the Papua New Guinean coffee industry, but stagnated beginning in the mid-1980s.⁹⁴² Papua New Guinea exported an average of 1.077 million 60 kg bags of green coffee per year in the 1990s, but this dropped to 0.934 million 60 kg bags between 2010 and 2016.⁹⁴³ More recently, Papua New Guinea produced

⁹³⁵ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁹³⁶ Industry representative, interview by USITC staff, Fiji, March 23, 2023.

⁹³⁷ Heaton, “Kava: The Pacific’s Economic ‘Diamond’ Is Being Coveted by Competitors,” August 29, 2021; industry representative, interview by USITC staff, Fiji, March 23, 2023; Republic of Vanuatu, Kava Act No. 7 of 2002.

⁹³⁸ Foreign government officials, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023; industry representative, interview by USITC staff, Vanuatu, April 14, 2023.

⁹³⁹ Portfolio Coffee, “The Ultimate Guide to the Coffee Belt,” June 9, 2022.

⁹⁴⁰ Imbun, “Struggling or in Transition,” 2014, 24.

⁹⁴¹ Bourke, “Village Coffee in the Eastern Highlands of Papua New Guinea,” 1986, 102–3.

⁹⁴² Imbun, “Struggling or in Transition,” 2014, 29.

⁹⁴³ PHAMA Plus, “Papua New Guinea Coffee Market Study,” 2019, 4.

700,000 60 kg bags of coffee in 2021/2022.⁹⁴⁴ Despite the decline during the last two decades, coffee is currently Papua New Guinea's second-largest agricultural product after palm oil.⁹⁴⁵ Papua New Guinea primarily produces the Arabica variety of coffee, which is grown in the higher altitudes of the Papua New Guinean highlands.⁹⁴⁶

Exports of coffee from the Pacific Islands to the United States are small compared to those from other U.S. import suppliers. In 2021, the Pacific Islands exported \$43.2 million of coffee to the United States, which accounted for about one-half of 1 percent of all U.S. imports of coffee. In comparison, Brazil and Colombia—the two largest exporters of coffee to the United States—constituted 20.2 percent and 18.2 percent of the total, respectively, in 2021.⁹⁴⁷ Papua New Guinea was the 18th-largest source of U.S. coffee imports in 2021.⁹⁴⁸

Nearly all—99.8 percent in 2021—Pacific Island coffee exports to the world came from Papua New Guinea (table 6.16). The United States, in 2021, was the largest destination for Papua New Guinean coffee at 24.9 percent of the total; Germany was the second largest at 23.0 percent. Australia (16.2 percent), Italy (7.8 percent), and Belgium (6.2 percent) were also main destinations for Papua New Guinean coffee exports.⁹⁴⁹ The breakdown of Pacific Island coffee exports to the United States is similar for Pacific Island coffee exports to the world. Papua New Guinea constituted 99.8 percent of all Pacific Island global coffee exports to the United States in 2021 (table 6.17). The only other Pacific Island economies that had export totals to the United States in at least two of the five years between 2017 and 2021 were Fiji and Vanuatu; both were less than 0.01 percent of the total.⁹⁵⁰

Table 6.16 Pacific Island economies' exports of coffee to the world, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	185,172	161,020	151,532	128,260	173,629
All other economies	568	738	580	412	398
Total	185,740	161,759	152,111	128,672	174,027

Sources: S&P Global, GTAS, accessed July 20, 2023; USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS heading 0901.

Note: Exports shown as global imports from individual economies.

Table 6.17 Pacific Island economies' exports of coffee to the United States, by economy, 2017–21

In thousands of dollars.

Economy	2017	2018	2019	2020	2021
Papua New Guinea	43,945	50,576	42,922	38,095	43,218
All other	15	3	0	9	9
Total	43,960	50,580	42,922	38,104	43,226

⁹⁴⁴ According to public trade data, Papua New Guinea exported virtually all the coffee produced domestically during the 2021/2022 crop year. U.S. Foreign Agricultural Service, "Coffee: World Markets and Trade," December 2022, 6; S&P Global, GTAS, HTS 0901, accessed September 8, 2023.

⁹⁴⁵ Genuine Origin, "Papua New Guinea," 2022, 2.

⁹⁴⁶ The Golden Roast Coffee Roasters, "What Makes Papua New Guinea Coffee so Special?," April 4, 2023; PHAMA Plus, "Papua New Guinea Coffee Market Study," 2019, 9, 11, 15, 45.

⁹⁴⁷ S&P Global, GTAS, HTS 0901, accessed June 13, 2023.

⁹⁴⁸ S&P Global, GTAS, HTS 0901, accessed June 13, 2023.

⁹⁴⁹ S&P Global, GTAS, HTS 0901, accessed May 8, 2023.

⁹⁵⁰ S&P Global, GTAS, HTS 0901, accessed May 5, 2023.

Sources: USITC DataWeb/Census, accessed May 30, 2023; U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 30, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed June 28, 2023. Data are from HS heading 0901.

Note: Exports shown as U.S. imports from individual economies.

Import Requirements and Tariff Treatment

Coffee beans, whether roasted or decaffeinated, enter the United States NTR duty free. Additionally, coffee husks and skins (used for cascara, a coffee cherry tea)⁹⁵¹ also enter the United States NTR duty free. The only coffee product that is not NTR duty free is “other coffee substitutes containing coffee.” These enter the United States duty free under several preference programs, including under the GSP program for LDBDCs. For all other countries (including Papua New Guinea, which is not an LDBDC), coffee substitutes containing coffee enter the United States at a duty rate of \$0.015 per kilogram. Papua New Guinea has exported small volumes of “other coffee substitutes containing coffee” to the United States, most recently in 2018.⁹⁵² As with turmeric and ginger, coffee is subject to USDA and FDA regulations and import requirements.⁹⁵³ However, government officials in Papua New Guinea did not highlight these U.S. regulations or import requirements for coffee as troublesome or affecting trade with the United States, though they did mention that they try to build U.S. standards into their national standards to avoid divergent requirements.⁹⁵⁴

Potential for Increased Coffee Exports to the United States

The dominant Pacific Island producer and exporter, Papua New Guinea is likely the only Pacific Island economy that has potential to increase coffee export sales to the United States. Most notably, Papua New Guinean coffee has potential related to the high-quality and specialty coffee market.⁹⁵⁵ To meet this potential and achieve sustained export sales to the United States, domestic reforms and development assistance are needed.

Production and Supply

Most Papua New Guinean coffee is produced in the country’s highlands by decentralized smallholder farmers. These subsistence farmers generally grow their own food and produce a cash crop, such as coffee, on the side.⁹⁵⁶ Evolving market conditions impact what crops farmers choose to grow and sell. According to a government source, many farmers are cutting down coffee trees to make room for production of several types of vegetables, as they are easier to sell—either locally or into the supply chain that serves the market in Port Moresby—than coffee.⁹⁵⁷

⁹⁵¹ Ciummo, “What Is Cascara?,” May 20, 2014.

⁹⁵² HS subheadings 0901.11, 0901.12, 0901.21, 0901.22, 0901.90.10, 0901.90.20, accessed July 20, 2023.

⁹⁵³ For more information on USDA and FDA requirements, see USDA, APHIS, “Coffee (Seed) Green, Unroasted from All Countries,” August 9, 2023; USDA, APHIS, “Roasted Coffee Beans,” August 9, 2023; FDA, CFSAN, “Food Safety Modernization Act (FSMA),” August 18, 2023.

⁹⁵⁴ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁹⁵⁵ PHAMA Plus, “Papua New Guinea Coffee Market Study,” 2019, 56.

⁹⁵⁶ CSIRO, “Climate Hazard-Based, 2; PHAMA, “Papua New Guinea Coffee Market Study,” 2019, 4.

⁹⁵⁷ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

U.S. Demand

The greatest opportunity for increased coffee exports from Papua New Guinea to the United States is expanded U.S. demand for coffee, especially specialty coffee. General U.S. coffee consumption, according to the U.S. Foreign Agricultural Service, has been relatively flat in recent years, dropping slightly from 27,162 60 kg bags in 2018/19 to 26,723 in 2021/22.⁹⁵⁸ Mordor Intelligence, a market analysis consultancy, projects that the U.S. coffee market will grow at a compound annual growth rate (CAGR) of 3.69 percent during 2023–28.⁹⁵⁹ Although much smaller than the commodity-grade market, experts contend that the specialty coffee market is growing faster.⁹⁶⁰ The National Coffee Association, in a 2022 report, stated that U.S. consumption of specialty coffee had reached a five-year high and that 43 percent of survey respondents reported drinking a specialty coffee beverage in the previous day, a 20 percent increase from January 2021.⁹⁶¹ Growth in specialty coffee consumption generally could increase demand for Papua New Guinean specialty coffee.

Impediments

Papua New Guinea faces a number of impediments to returning to its higher production levels and growing its coffee exports to the United States. These impediments reportedly include deficient infrastructure and transport, crime, government red tape, limited farmer access to credit, inadequate producer cooperation, and the effects of climate change. In addition to curtailing potential, these impediments can incentivize smallholders to shift to other agricultural products, such as broccoli, cabbage, and sweet potato.⁹⁶²

Hindered by deficient roads and infrastructure, transporting coffee beans from smallholders to processing centers is difficult.⁹⁶³ The highlands, where most of Papua New Guinea's coffee is produced, is not easily accessible to Papua New Guinea's largest port, Lae.⁹⁶⁴ Government license processes are reportedly burdensome, adding time and costs to production and exports.⁹⁶⁵ Credit is expensive for established businesses and largely inaccessible for smallholders; growing the size of a coffee business without such credit is arduous.⁹⁶⁶ Crime, an acute problem in Papua New Guinea, negatively impacts the coffee industry. Agricultural theft is reportedly rampant and influences some growers to pick coffee

⁹⁵⁸ U.S. Foreign Agricultural Service, "Coffee: World Markets and Trade," December 2022, 9.

⁹⁵⁹ Mordor Intelligence, "United States Coffee Market," accessed June 13, 2023.

⁹⁶⁰ Specialty coffee refers to coffee graded 80 or above by a licensed grader or certified coffee taster. The Specialty Coffee Company, "What Is Specialty Coffee," accessed July 14, 2023; Perfect Daily Grind, "Is Specialty Coffee Growing Faster," December 19, 2022.

⁹⁶¹ Perfect Daily Grind, "Is Specialty Coffee Growing Faster," December 19, 2022.

⁹⁶² PHAMA, "Papua New Guinea Coffee Market Study," 2019, 17; foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁹⁶³ Genuine Origin, "Papua New Guinea," 2022, 2.

⁹⁶⁴ Perfect Daily Grind, "Staging a Coffee Comeback," November 6, 2019.

⁹⁶⁵ PHAMA Plus, "Papua New Guinea Coffee Market Study," 2019, 9.

⁹⁶⁶ Sengere, "The Rise, Fall, and Revival," November 2016, 152; PHAMA, "Papua New Guinea Coffee Market Study," 2019, 10.

early to avoid theft but can result in lower-quality coffee. In addition to the losses caused by theft, growers must incur security expenses.⁹⁶⁷

Insufficient trust is also an impediment to agribusiness development in Papua New Guinea. The coffee sector is characterized by a lack of contracts and relies on long-term relationships between farmers and buyers. The group dynamics in Papua New Guinea are not conducive to the formation of agricultural cooperatives because farmers do not trust other farmers to take control of and sell their products. Thus, it is difficult for a cooperative to build the necessary scale to operate as a successful business.⁹⁶⁸

Although not unique to any one country in the coffee belt, climate change negatively impacts Papua New Guinean coffee production.⁹⁶⁹ For instance, pests, such as the coffee berry borer, and diseases, such as the coffee leaf rust, which damage coffee plants, are ongoing problems that will likely increase as the world warms.⁹⁷⁰ According to a government official, the viable land range for coffee in Papua New Guinea is shrinking as a result of climate change; growers are being pushed uphill, making the terrain so steep it makes the work even more difficult.⁹⁷¹

Initiatives

Making coffee production and exports a higher priority in Papua New Guinea would support the potential for increased coffee exports globally and to the United States. Analysts have raised many suggestions for strengthening Papua New Guinean coffee production and exports, including increasing marketing and promotion of the industry, especially as a specialty coffee; implementing regulatory reforms to raise efficiencies and reduce costs; and ensuring credit is more widely available. The United States—as well as partner countries like Australia and New Zealand—could consider augmenting capacity building, technical assistance, and training to support addressing Papua New Guinea’s coffee production and export challenges.

Regarding marketing, the Papua New Guinean government has recently signaled that it is motivated to promote the coffee industry. In August 2022, the Papua New Guinean Prime Minister appointed a Minister of Coffee with the objective of reviving the coffee industry.⁹⁷² Fostering a “coffee culture” in Papua New Guinea (coffee is a non-native species and is not a top beverage choice) to support domestic production and trumpet quality could make Papua New Guinean coffee better known internationally.⁹⁷³ An industry source described an initiative to increase the domestic coffee culture in Papua New Guinea, including informing coffee buyers on the requirements for export licensing and encouraging the development of high-end coffee shops in Port Moresby. They also hosted barista training and competitions to foster interest in Papua New Guinean specialty coffee.⁹⁷⁴

⁹⁶⁷ Sengere, “The Rise, Fall, and Revival,” November 2016, 149; PHAMA, “Papua New Guinea Coffee Market Study,” 2019, 8.

⁹⁶⁸ Industry representative, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁹⁶⁹ CSIRO, “Climate-Hazard Based,” 2022, iii; Highet, Sipani, and Egi, “PNG: Climate Action,” October 26, 2022.

⁹⁷⁰ CSIRO, “Climate-Hazard Based,” 2022, 4; Sengere, “The Rise, Fall, and Revival,” November 2016, 148.

⁹⁷¹ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

⁹⁷² Kuku, “Papua New Guinea Brings in Minister for Coffee,” August 24, 2022.

⁹⁷³ PHAMA Plus, “Papua New Guinea Coffee Market Study,” 2019, 5.

⁹⁷⁴ Industry representative, interview by USITC staff, Papua New Guinea, April 19, 2023.

Stakeholders have noted that revising Papua New Guinea’s domestic coffee regulations could also bring benefits. Options for consideration include lowering export license fees and application requirements; reducing the time it takes for government agencies to complete the export regulatory process; and eliminating or lowering the minimum annual export quantity of coffee bags.⁹⁷⁵ Increasing the mechanisms and volume of available credit—as well as implementing programs for bolstering financial literacy for smallholders—might also bring benefits.⁹⁷⁶

Opportunities for U.S. Assistance and Investment

In the commercial sphere, the primary U.S. role in the Pacific Island coffee industry, in the near term, appears likely to continue as an importer rather than as an investor. Investment opportunities are somewhat limited because the region is a minor supplier of coffee to the U.S. market. One potential opportunity for assistance or investment, however, may be in the development and growth of climate change-resistant coffee varieties. In response to climate change, other coffee-growing countries have recently begun to develop high-quality Robusta varieties that are better able to resist pests and handle warmer and more humid conditions.⁹⁷⁷ Related assistance could involve engagement of the well-established U.S. specialty coffee industry to raise the profile of coffee from the Pacific Islands. U.S. specialty coffee buyers and industry experts knowledgeable in areas such as variety selection, postharvest handling, and other technical assistance could help the industry in Papua New Guinea to reach new markets. This is consistent with the Papua New Guinea government’s priorities of meeting U.S. coffee industry standards, improving quality, and making the sector more climate resilient.⁹⁷⁸

⁹⁷⁵ PHAMA Plus, “Papua New Guinea Coffee Market Study,” 2019, 21–22.

⁹⁷⁶ PHAMA Plus, “Papua New Guinea Coffee Market Study,” 2019, 23–24; Sengere, “The Rise, Fall, and Revival,” November 2016, 239.

⁹⁷⁷ Emont, “The Underdog Coffee Bean,” February 8, 2023.

⁹⁷⁸ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

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Chapter 7

Pacific Island Export and Investment Potential for Services

Introduction

Before the COVID-19 pandemic, services exports from the Pacific Island economies to the United States represented a substantial share of total trade for those economies. Therefore, it is important to look beyond goods exports when considering the types of exports and investment that have the potential to expand trade between Pacific Island economies and the United States. This chapter considers export potential for services sectors and U.S. investment in services in the Pacific Island economies. This chapter is composed of three main sector profiles and covers tourism exports, internet-enabled services exports, and investment in renewable energy. In addition to those profiles, the chapter also contains a shorter sector profile describing investment potential in the film and television production sector in Fiji.

Given the limited data available for services trade relative to goods trade, this chapter uses fewer criteria to identify potential export sectors, focusing on normalized revealed comparative advantage and qualitative analysis to identify relevant sectors. First, the revealed comparative advantage index is used to identify services products where Pacific Island economies currently have a comparative advantage (see appendix F for details on this approach). The revealed comparative advantage analysis showed several economies with a comparative advantage in travel services (Fiji, the Marshall Islands, Palau, Samoa, the Solomon Islands, Tuvalu, and Vanuatu), other business services (the Marshall Islands, the Federated States of Micronesia, Nauru, and Papua New Guinea), and transportation services.

Next, qualitative analysis based on staff research and interviews with industry representatives narrowed the list of sectors identified in the revealed comparative advantage analysis and found sectors with potential that may not have been otherwise identified. First, through industry outreach and a review of the relevant literature, tourism was identified as essential for many Pacific Island economies. Second, qualitative research and interviews identified a broad set of services within the other business services category, including customer service, data entry, legal services, and research, which all had potential for export growth in the region because of their capacity to be delivered remotely to U.S. consumers via the internet.⁹⁷⁹ Thus, the second sector profile encompasses all these internet-enabled tradable services. Finally, qualitative research identified renewable energy and film and television production as sectors with opportunities for U.S. investment in the Pacific Islands. The selection criteria for each sector profile are summarized in table 7.1.

⁹⁷⁹ Many of these services fall into the broader “other business services” trade flow in the data presented in chapter 3; others may instead appear in the “telecommunications, computer, and information services” or “financial services” trade categories.

Table 7.1 Selection criteria summary: Services and investment sector profiles

— = not applicable.

Sector	Revealed comparative advantage index	Qualitative analysis
Tourism	Comparative advantage identified in travel services	Tourism identified by industry representatives as both essential and potential source of growth for many Pacific Island economies
Internet-enabled services outsourcing	Comparative advantage identified in other business services	Business and knowledge process outsourcing identified by industry representatives as potential growth sector
Renewable energy	—	Identified by industry representatives as a potential investment sector
Film and television production	—	Identified by industry representatives as a potential growth sector

Source: Compiled by USITC.

Tourism

Travel services, also referred to as tourism,⁹⁸⁰ is one of the largest services trade sectors globally.⁹⁸¹ Trade in travel services comprises the goods and services purchased by a nonresident when visiting another country or economy. These exports of travel services can include services provided by hotels, restaurants, travel agencies, tour operators, and related service suppliers, as well as goods (such as souvenirs or gifts) purchased by foreign visitors.⁹⁸² A U.S. import of travel services occurs when a U.S. resident travels abroad and purchases goods and services in a foreign economy, whereas a U.S. export occurs when a foreign resident travels to the United States and purchases goods and services in the country.⁹⁸³

This section begins with a description of the tourism sector in the Pacific Islands, then examines the potential for increased exports to and investment from the United States. Next, this section addresses impediments to growth in the tourism sector. Finally, this section concludes with a discussion of initiatives that could foster the expansion of tourism in Pacific Island economies.

The Tourism Sector

Tourism is a major contributor to Pacific Island economies, though tourism arrivals and revenue in the Pacific Islands are smaller than other regions such as the Caribbean. Tourist arrivals grew by almost 25 percent from 2011 to 2019, before significant declines related to the COVID-19 pandemic. Recovery

⁹⁸⁰ The phrase “travel services” is typically used in official government trade statistics; “tourism” is often used by organizations, firms, and governments referring to the sector in general. In this profile, the terms are used interchangeably.

⁹⁸¹ WTTC, “Travel & Tourism Economic Impact 2022,” August 2022, 5, 29.

⁹⁸² Air passenger fares are treated separately from travel services in the trade data but are discussed later in the impediments section because of their relationship with travel services. WTO, “Services: Tourism and Travel-Related Services,” accessed May 23, 2023; IMF, *Balance of Payments and International Investment Position Manual*, 6th ed., 2009, 166.

⁹⁸³ USDOC, BEA, “U.S. International Economic Accounts: Concepts and Methods,” 2022, 100.

has been uneven, but leading markets such as Fiji and French Polynesia are nearing pre-pandemic levels of tourist arrivals.

The level of development in the tourism sectors varies widely, with Fiji, Palau, Samoa, Tonga, and Vanuatu described as having relatively more advanced tourism sectors. The Federated States of Micronesia, Kiribati, the Marshall Islands, Tuvalu, the Solomon Islands, and Papua New Guinea are described as having less advanced sectors.⁹⁸⁴ Although most tourism is focused on leisure travelers,⁹⁸⁵ the potential for increased business travel does exist. One source noted that, at least before the COVID-19 pandemic, Fiji and Papua New Guinea appeared to have growing markets for business travel. This may be due to their larger and more diversified economies. Other types of travel such as education- and health-related travel are limited, with most travelers in those categories coming from Asia or within the Pacific region.⁹⁸⁶

Tourism Arrivals

Several measures of travel services (such as arrivals, revenue, and employment) are available from various sources, including the United Nations World Tourism Organization (UNWTO), the Pacific Tourism Organization, and the national statistical services of Pacific Island economies.⁹⁸⁷ Across all Pacific Island economies for which data are available from the UNWTO, the number of arrivals by air grew steadily at an average annual rate of 5.2 percent from 2011 to 2016, before leveling off from 2017 to 2019.⁹⁸⁸ Overall, total arrivals to 16 Pacific Island economies roughly doubled between 2000 and 2019, with Fiji

⁹⁸⁴ Some measures of tourism revenue and employment do not necessarily separate international tourism from domestic tourism. For many Pacific Island economies, the level of domestic tourism appears to be quite low compared to international tourism, but some such as Fiji have larger volumes of domestic tourism which grew in importance during the COVID-19 pandemic. World Bank, “The Future of Pacific Tourism,” 2023, 35–36; Fiji Hotel and Tourism Association, “Domestic Tourism in Fiji,” September 2021, 5.

⁹⁸⁵ The prominence of the Pacific Island diaspora in other economies in the region, as well as the United States, make the category of visiting friends and relatives (a subset of leisure travel) important in many Pacific Island tourism economies. For more information see Takahashi, “Tourism Demand and Migration Nexus,” May 2019.

⁹⁸⁶ Dyble, “South Pacific Tourism,” accessed May 23, 2023; industry representatives, interviews by USITC staff, Fiji, March 22, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023; industry representatives, interviews by USITC staff, Fiji, March 21, 2023.

⁹⁸⁷ Data on bilateral trade in travel services between the United States and the Pacific Island economies examined in this report are not published by the U.S. Bureau of Economic Analysis. For a discussion of travel services trade trends for Pacific Island economies using available data, see chapter 3.

⁹⁸⁸ The Marshall Islands did not report arrivals data to the UNWTO after 2017. Other Pacific Island economies such as Nauru and Tokelau reported data only sporadically over the period. According to trends in previously reported data for these countries, they may have seen a slight increase in total arrivals during 2017–19. Fifteen Pacific Island economies reported data in 2021, and only five reported data in 2022. USITC calculations based on UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, the Federated States of Micronesia, the Northern Mariana Islands, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States, updates published October 24, 2017–September 6, 2022; UNWTO, “Yearbook of Tourism Statistics 2011–2015,” 2017; UNWTO, “Yearbook of Tourism Statistics 2014–2018,” 2020.

accounting for about half of this growth.⁹⁸⁹ Arrivals decreased significantly in 2020 when many Pacific Island economies closed their borders to foreign travelers in response to the COVID-19 pandemic and global demand for travel dropped substantially (see box 7.1 for more information). Total arrivals fell 81.4 percent from 2019 to 2020.⁹⁹⁰ Arrivals of U.S. tourists followed a similar pattern, growing steadily from at least 2011 through 2019 before declining dramatically in 2020.⁹⁹¹

Box 7.1 Impact of the COVID-19 Pandemic on Tourism in the Pacific

The overall number of tourist arrivals in Pacific Island economies dropped significantly beginning in early 2020 with the onset of the COVID-19 pandemic. The pandemic led many Pacific Island economies to close their borders to travelers and impose restrictions on international travel and other activities related to tourism beginning in early 2020. These restrictions persisted for longer than in other markets such as the Caribbean. Many Pacific Island economies did not fully reopen until late 2022 or early 2023.^a All Pacific Island economies that reported data (except Wallis and Futuna) saw declines in arrivals of greater than 66 percent from 2019 to 2020, with arrivals in most countries falling by more than 80 percent. For example, arrivals in Fiji fell 83.6 percent and arrivals in Vanuatu fell 81.8 percent,^b while Tokelau reported no arrivals in both 2020 and 2021.^c

The dearth of arrivals in 2020 and 2021 severely impacted the tourism sector in the Pacific. In one survey of 11 Pacific Island economies, tourism employment fell 51.5 percent and 16 percent of tourism businesses closed from March 2020 to March 2021.^d The prolonged downturn in the tourism industry also led to the loss of skilled workers and knowledge as workers moved into other sectors or migrated abroad. The downturn also led to a steep drop in government revenue and tourism's contribution to GDP in several Pacific Island economies.^e

Despite the precipitous drop in arrivals from 2020 to 2021, industry representatives and other data indicate that the sector rebounded quickly in several economies once they reopened.^f Although comprehensive data for 2022 and 2023 are not available, French Polynesia (one of the first to reopen to tourism) had reportedly recovered to 96 percent of its pre-pandemic levels by July 2022.^g One industry representative stated that in the first two months of 2023 tourism, arrivals in Fiji were already above their 2019 levels.^h Another hotel industry representative in Vanuatu noted that their hotel had reopened with high occupancies and was booked through September.ⁱ An industry representative in Samoa stated that the latest data showed about 40 percent fewer arrivals in March 2023 but that 95 percent of available seats on flights from August to December 2023 were booked.^j

^a World Bank, "The Future of Pacific Tourism," 2023, 25; Hale et al., "A Global Panel Database of Pandemic Policies," March 8, 2021.

^b USITC calculations based on United Nations World Tourism Organization (UNWTO), UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, New Caledonia, Niue, the Northern Mariana Islands, Palau, Papua New

⁹⁸⁹ This group includes American Samoa, the Cook Islands, Fiji, French Polynesia, Kiribati, the Marshall Islands, the Federated States of Micronesia, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. World Bank, "The Future of Pacific Tourism," 2023, 22.

⁹⁹⁰ Arrivals dropped a further 71.5 percent from 2020 to 2021, although far fewer countries reported data in 2021.

⁹⁹¹ Data for U.S. arrivals are not available for 2022. USITC calculations based on UNWTO Yearbook of Tourism Statistics (2020) datasets for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, New Caledonia, Niue, the Northern Mariana Islands, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States, updates published October 24, 2017–September 6, 2022.

Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States, updates published October 24, 2017–September 6, 2022; Pacific Data Hub, "Overseas Visitor Arrivals," accessed July 12, 2023.

^c Arrivals in Wallis and Futuna declined 37.4 percent from 2019 to 2020, from a very low base.

^d SPTO, "2020 Annual Visitor Arrivals Snapshot," 2020, 18.

^e Industry expert, interview by USITC staff, December 8, 2022; industry representatives, interviews by USITC staff, Fiji, March 21 and 22, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

^f For more additional tourism arrival and recovery data, see UNWTO, "Global and Regional Tourism Performance," accessed May 25, 2023; World Bank, "The Future of Pacific Tourism," 2023, 30–32.

^g In an attempt to promote higher-value tourism, French Polynesia proposed capping the number of annual visitors at 280,000 (about its pre-pandemic average) in November 2022. Trout, "High Tourist Season for French Polynesia," September 25, 2022; Marcus, "French Polynesia to Cap Tourist Numbers," November 9, 2022; Bywater, "'No More' Says Mo'orea," May 26, 2023; Trout, "High Tourist Season for French Polynesia," September 25, 2022.

^h Industry representatives, interviews by USITC staff, Fiji, March 21 and 22, 2023.

ⁱ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

^j Industry representatives and government officials, interview by USITC staff, Samoa, March 28, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

Using 2019 as a representative year for the pre-COVID-19 pandemic period, Guam had the largest number of total arrivals by air of any Pacific Island economy (1.67 million), followed by Fiji (894,389), the Northern Mariana Islands (487,008), and French Polynesia (236,642) (table 7.2). Guam's proximity to Asia (within a four-to-five-hour flight to South Korea, Japan, and the Philippines), well-developed tourism resorts centered about Tumon Bay, and tax-free shopping have made it an attractive destination for tourists in the region. Like Guam, the Northern Mariana Islands (and particularly the island of Saipan) is geographically close and well-connected to Asia. It attracts large numbers of tourists from South Korea in particular because of its tropical weather, resorts, and water activities.⁹⁹²

Tokelau appeared to have the smallest number of total arrivals for Pacific Island economies with available data, reporting only 11 arrivals in 2019. Fiji had the largest number of arrivals from the United States in 2019 (almost 97,000), followed by Guam (excluding U.S. residents of the territory) (95,000), and French Polynesia (89,000).⁹⁹³ Pacific Island economies were not a major destination for U.S. tourists overall, however, with only 0.1 percent of all outbound U.S. tourists visiting a Pacific Island economy in 2019.⁹⁹⁴

⁹⁹² Wilson, "Guam's Tourism Tide Is Rising Again," December 15, 2022; Visit Guam, "Guam Shopping," accessed June 13, 2023; Leezel and Tanglao, "Why You Shouldn't Overlook Guam," April 15, 2022; Cho, "Pandemic Recovery Is a Faraway Dream," August 26, 2021; Topol and Gordon, "The America That Americans Forget," July 7, 2023; Hae-Rin, "Saipanese People Pin Hopes on Tourism," February 1, 2023; Cohen, "Saipan's \$7 Billion Integrated Resort Promise," August 14, 2015.

⁹⁹³ While Fiji had the largest total number of U.S. arrivals, the Federated States of Micronesia had the largest share of U.S. arrivals as a percentage of total arrivals in 2019. Other economies with connections to the United States such as the Marshall Islands and American Samoa also had large shares of U.S. arrivals. All data on U.S. arrivals for U.S. territories and the FAS exclude residents of those economies.

⁹⁹⁴ Excluding residents of U.S. territories. USITC calculations based on UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, New Caledonia, Niue, the Northern Mariana Islands, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States, updates published October 24, 2017–September 6, 2022.

Table 7.2 Tourism arrivals and hotel capacity in the Pacific, 2019

In numbers. n.a. = not available. N. Mariana Islands = the Northern Mariana Islands. F.S. Micronesia = the Federated States of Micronesia.

Economy	Arrivals by air	U.S. arrivals by air	Cruise arrivals	Total hotel rooms	Other major sources of tourist arrivals
Guam	1,666,665	95,223	n.a.	9,244	Japan, South Korea
Fiji	894,389	96,968	74,537	12,888	Australia, New Zealand
N. Mariana Islands	487,008	23,752	n.a.	2,500	South Korea, China
French Polynesia	236,642	88,782	62,066	4,281	France, Italy
Papua New Guinea	210,980	9,738	51,417	6,195	Australia, China
Samoa	180,858	13,351	13,212	2,268	Australia, New Zealand
The Cook Islands	171,550	8,476	n.a.	3,300	Australia, New Zealand
New Caledonia	130,676	979	343,962	3,360	France, Wallis and Futuna
Vanuatu	120,628	3,120	135,357	1,722	Australia, New Zealand
Palau	94,030	7,817	n.a.	2,409	China, Japan
Tonga	67,284	10,329	53,152	1,300	Australia, New Zealand
The Solomon Islands	28,930	1,934	1,888	1,991	Australia, New Zealand
American Samoa	20,221	4,435	39,431	263	Samoa, New Zealand
F.S. Micronesia	18,019	6,861	n.a.	500	Philippines, Japan
The Marshall Islands	10,771	1,546	n.a.	281	F.S. Micronesia, Japan
Niue	10,210	239	n.a.	n.a.	New Zealand, Australia
Kiribati	7,917	1,631	3,923	351	Australia, New Zealand
Wallis and Futuna	4,637	n.a.	n.a.	n.a.	n.a.
Tuvalu	3,672	242	n.a.	n.a.	Australia, New Zealand
Tokelau	11	n.a.	n.a.	n.a.	n.a.

Sources: United Nations World Tourism Organization (UNWTO), UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, New Caledonia, Niue, the Northern Mariana Islands, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States updates published October 24, 2017–September 6, 2022; SPTO, “2020 Annual Visitor Arrivals Snapshot,” 2020, 5, 9, 14; Pacific Data Hub, “Overseas Visitor Arrivals,” accessed July 12, 2023; Denight, “Guam Needs More Hotel Rooms,” October 30, 2017; HANMI, “About HANMI,” accessed July 6, 2023; Pacific PSDI, “Federated States of Micronesia, Pacific Tourism Data Snapshot,” November 2021; Pacific PSDI, “Nauru, Pacific Tourism Sector Snapshot,” November 2021; Pacific PSDI, “Niue, Pacific Tourism Sector Snapshot,” November 2021; Commonwealth of the Northern Mariana Islands Department of Commerce, “Economic Indicator,” accessed August 3, 2023.

Notes: Arrivals refer to arrivals of nonresident visitors. U.S. arrivals to U.S. territories exclude residents of those territories. Arrivals data for Niue are from 2017 and data for American Samoa are from 2018 (both the latest data available). Tokelau, the Federated States of Micronesia, and Wallis and Futuna did not report arrivals by country. Data on U.S. arrivals in Vanuatu represent all countries in North America because Vanuatu does not break out the United States separately. Data on U.S. arrivals to the Federated States of Micronesia and the Marshall Islands include both the United States and Canada for the same reason. The years of the estimates of the number of hotel rooms in each Pacific Island economy range from 2015–2021, the particular year of each estimate varies by economy but is listed in the respective sources. Data on the number of hotel rooms in the Northern Mariana Islands come from the Hotel Association of the Northern Mariana Islands, which represents 12 members. According to one source, Nauru has three hotels and one guesthouse but no estimate of the number of rooms was provided. No data were available for the Pitcairn Islands for any indicator; one report from 2012 estimated that the Pitcairn Islands received 870 visitors in 2012, of which 80 percent were cruise ship visitors.

Other major sources of tourists traveling by air to the Pacific Islands vary. Japan and South Korea were the major sources of arrivals to Guam, in part because of Guam’s relative proximity to east Asia.⁹⁹⁵

Australia and New Zealand were the two largest sources of arrivals for many Pacific Island economies examined in this report, particularly those located farther south, such as Fiji, Samoa, and Tonga. Most

⁹⁹⁵ China is also a major source market for Palau and the Northern Mariana Islands. In the early 2000s, Palau had few arrivals from China, but such arrivals increased dramatically in the following years. However, in 2018, China banned tour groups from traveling to the economy reportedly because of Palau’s continued diplomatic recognition of Taiwan, resulting in a substantial drop in arrivals from China. UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, Guam, July 19, 2022; Cameron, “Palau Faces the Dragon,” November 22, 2021; Master, “Empty Hotels, Idle Boats,” August 19, 2018.

tourists traveling to the Pacific Islands come from economies outside the region but American Samoa, the Marshall Islands, and New Caledonia received a large share of their tourists from economies within the region.⁹⁹⁶ Before the COVID-19 pandemic, some Pacific Island economies had begun making efforts to diversify their source markets, including through targeted advertising in Asia and North America.⁹⁹⁷

Tourists also arrive by cruise ship. Cruise passengers typically make day trips to their destinations and do not stay overnight.⁹⁹⁸ This limits the economic effect of these tourists, compared to those who arrive by air and stay for longer periods of time, but also requires less infrastructure.⁹⁹⁹ In 2019, the number of cruise passenger arrivals exceeded arrivals by air in American Samoa, New Caledonia, and Vanuatu.¹⁰⁰⁰ One source noted that the number of cruise arrivals in 11 Pacific Island economies had tripled from 1999 to 2019, faster than growth in arrivals by air, with particularly strong growth in Fiji, Papua New Guinea, and Vanuatu.¹⁰⁰¹ For smaller economies such as the Pitcairn Islands, Tokelau, and Wallis and Futuna, cruise ship arrivals represent the primary form of tourism.¹⁰⁰²

The level of hotel and other tourism infrastructure varies greatly. Available data show that Fiji had the largest number of total rooms and beds by a large margin.¹⁰⁰³ Hotel capacity puts an upper limit on the number of overnight tourists who can visit, and port infrastructure limits the number of cruise arrivals. Tourism arrivals exhibit seasonality associated with their main source markets. The peak season for tourists from Australia and New Zealand runs from approximately May through July (winter in the Southern Hemisphere). U.S. tourists tend to arrive during winter in the Northern Hemisphere, when arrivals from Australia and New Zealand are much lower.¹⁰⁰⁴ The penetration of international hotel

⁹⁹⁶ USITC calculations based on UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of non-resident tourists at national borders, by nationality, for the following: American Samoa, the Marshall Islands, New Caledonia, updates published June 6, 2018–September 6, 2022.

⁹⁹⁷ World Bank, “The Future of Pacific Tourism,” 2023, 23–24.

⁹⁹⁸ O’Neill, “Why Cruise Ships Almost Never Stay in Port Overnight,” October 3, 2012.

⁹⁹⁹ Cruise tourism is sometimes described as “high volume, low value” although some smaller “expedition” style cruises have a greater economic impact. While large cruise ships require specialized docks, some smaller ships can offload passengers using more rudimentary infrastructure, and cruise passengers typically do not require additional hotel rooms as they spend nights on the boat. World Bank, “The Future of Pacific Tourism,” 2023, 39.

¹⁰⁰⁰ Cruises to the region typically leave from Australia or New Zealand, although some depart from regional transportation hubs such as French Polynesia or Fiji. SPTO, “2020 Annual Visitor Arrivals Snapshot,” 2020, 5, 9; World Bank, “The Future of Pacific Tourism,” 2023, 37.

¹⁰⁰¹ World Bank, “The Future of Pacific Tourism,” 2023, 22–23.

¹⁰⁰² Tokelau’s small population and land area combined with a lack of infrastructure likely contribute to its low level of arrivals. A cruise itinerary offered by National Geographic (entitled “Voyage Across the Remote Pacific”) previously stopped at Tokelau and appeared to have restarted operations with the same itinerary in 2023. Most visitors to the Pitcairn Islands appear to come via cruise ships. One report from 2012 estimated that the Pitcairn Islands received 870 visitors in 2012, of which 80 percent were cruise ship visitors. The current cruise ship schedule for the Pitcairn Islands indicated a total annual passenger capacity of around 7,700 for the period from September 2023 to August 2024. The official website of Wallis and Futuna indicated that visitors are mostly cruise passengers. University of Groningen, “Islandness of Bermuda and Pitcairn Island,” February 28, 2023; Visit Pitcairn, “Pitcairn Island Cruise Ship Schedule,” May 2, 2023; Wallis et Futuna, “Wallis et Futuna - Travel,” accessed May 23, 2023; National Geographic Expeditions, “Voyage Across the Remote Pacific,” accessed May 24, 2023.

¹⁰⁰³ Tourists’ average length of stay also influences the number of rooms needed per arrival. For example, Fiji’s average length of stay was 9.6 nights, compared with 4 nights in Guam. SPTO, “2020 Annual Visitor Arrivals Snapshot,” 2020, 14; Guam Visitors Bureau, “October 2022 Monthly Arrivals Summary,” October 2022; Government of Fiji, Ministry for Industry, Trade, and Tourism, “Fijian Tourism 2021,” 2022, 17.

¹⁰⁰⁴ Industry representative, interview by USTC staff, Samoa, March 28, 2023.

brands in Pacific Island economies also varies widely. Several large international brands operate in Fiji, the French territories of French Polynesia and New Caledonia,¹⁰⁰⁵ and Guam.¹⁰⁰⁶ Major U.S.-headquartered hotel brands such as Hilton and Marriott tend to be concentrated in Fiji and French Polynesia and have a very limited presence in other Pacific Island economies.¹⁰⁰⁷ Other countries, including China,¹⁰⁰⁸ Thailand,¹⁰⁰⁹ and the United Kingdom,¹⁰¹⁰ have also invested in the hotel sector in various Pacific Island economies.

Economic Contribution of Tourism in the Pacific Island Economies

The importance of tourism for many Pacific Island economies has been highlighted by academic research¹⁰¹¹ and industry representatives.¹⁰¹² As noted earlier, available data suggest that several economies are heavily reliant on tourism as a source of revenue and jobs. In 2019, before the COVID-19 pandemic and associated travel restrictions significantly affected the sector, top earners of tourism revenues included Fiji (\$1.3 billion), French Polynesia (\$782 million), and Vanuatu (\$295 million).¹⁰¹³ International tourism directly accounted for more than 30 percent of GDP in Vanuatu and more than 20 percent in both Fiji and Samoa.¹⁰¹⁴ The tourism sector directly accounted for substantial shares

¹⁰⁰⁵ According to one source, Fiji had 31 of the 42 internationally branded hotels in the region. IHG, “Explore InterContinental Hotels & Resorts,” accessed August 3, 2023; Accor, “Hotels in Australia and the Pacific,” accessed August 3, 2023; Beautiful Pacific, “South Pacific Large Hotels,” accessed May 30, 2023; Marriott, “Our Locations,” accessed June 15, 2023.

¹⁰⁰⁶ Another report finds two international hotel chains operated in Papua New Guinea, and Samoa and Vanuatu each had one. Liu and Voellm, “International Hotel Brand Penetration in APAC,” July 28, 2022, 5; Everett, Simpson, and Wayne, “Tourism as a Driver of Growth in the Pacific,” June 2018, 9.

¹⁰⁰⁷ Hilton, “Hotel Locations,” accessed June 15, 2023; Marriott, “Our Locations,” accessed June 15, 2023.

¹⁰⁰⁸ News reports indicate that Chinese firms have invested or attempted to invest in several hotels and casinos in the region. Some projects, such as one in Fiji, appear to have stalled after court challenges and fines over alleged environmental degradation. Other projects have been completed, though some still experienced issues. For example, a casino built by a Hong Kong firm in Saipan was fined for labor violations and under investigation for money laundering and other issues. As of July 2023, it was reportedly closed. Lyons, “Fiji Reef Battle,” April 9, 2021; Campbell, “A Chinese Casino Has Conquered a Piece of America,” February 15, 2018; McAvoy, “US Judge,” May 24, 2021; Topol and Gordon, “The America That Americans Forget,” July 7, 2023.

¹⁰⁰⁹ Six Senses, a luxury hotel brand acquired by InterContinental Hotels Group (IHG) in 2019 with properties in Fiji, is headquartered in Thailand. Six Senses, “Luxury Resorts, Spa Escapes - Six Senses About Us,” accessed July 11, 2023; *Financial Times*, “fDi Markets - Hotels & tourism,” accessed June 12, 2023.

¹⁰¹⁰ *Financial Times*, “fDi Markets - Hotels & tourism,” accessed June 12, 2023.

¹⁰¹¹ Narayan et al., “Tourism and Economic Growth,” March 2010; Bhattacharya and Dash, “Drivers of Blue Economy in Asia and Pacific Island Countries,” July 2020.

¹⁰¹² Industry representative, interview by USTC staff, Fiji, March 22, 2023; industry representative, interview by USTC staff, Samoa, March 28, 2023; industry expert, interview by USITC staff, December 8, 2022.

¹⁰¹³ Revenues include travel services and passenger transportation. Data for Vanuatu are for 2016. World Bank, World Development Indicators, “International Tourism, Receipts (current US\$),” accessed July 13, 2023.

¹⁰¹⁴ Some sources such as the World Travel and Tourism Council (WTTC) report the “total contribution” of tourism to GDP, which includes both direct and indirect contributions (including investment, government spending, and supply chain effects) and do not separate out domestic tourism. This results in larger numbers being reported for the sector’s contribution to GDP, but potentially double counts some inputs. USITC calculations based on World Bank, World Development Indicators, “International Tourism, Receipts (current US\$),” accessed July 13, 2023; World Bank, World Development Indicators, “GDP (current US\$),” accessed July 13, 2023; WTTC, “Travel and Tourism Economic Impact 2021,” June 2021.

(greater than 10 percent) of formal employment in Vanuatu and Fiji.¹⁰¹⁵ Tourism accounted for more than 50 percent of total goods and services exports in Palau and French Polynesia, and is a major source of foreign exchange in many Pacific Island economies.¹⁰¹⁶ It is also a major source of tax revenue, with one World Bank report estimating that tourism accounted for 28 percent of Fiji's tax revenue in 2019/2020.¹⁰¹⁷ The U.S. share of total arrivals multiplied by total revenue indicate that French Polynesia was the largest Pacific Island exporter of travel services to the United States, followed by Fiji.¹⁰¹⁸ Tourism is a key industry in many Pacific Island economies, although reliance on tourism varies across the region. Tourism revenues accounted for a much lower share of GDP in Kiribati, Nauru, Papua New Guinea, and the Solomon Islands, than in the most tourism-dependent Pacific Island economies.¹⁰¹⁹

Potential for Increased Exports to and Investment from the United States

Several Pacific Islands have the potential for increased tourism from the United States (which equates to U.S. imports of travel services), particularly if they can improve the marketing of their tourism offerings, enhance international transportation connectivity, and increase investment in the hotel and lodging sector.

Marketing and Product Differentiation

Because many tropical destinations have broadly similar tourism offerings such as beaches and resorts, Pacific Island economies have attempted to improve their marketing to differentiate themselves and attract visitors. A World Bank report stated that public investments in destination marketing and tourism promotion in the Pacific, including digital marketing, are critical, particularly for countries with

¹⁰¹⁵ Some sources use estimates of tourism's direct and indirect contribution to employment, which results in higher percentages. For example, the WTTC estimated that 35.7 percent of Fiji's workforce was employed in a sector directly or indirectly related to tourism. An industry representative similarly stated that Fiji's tourism sector had 30,000 direct employees but 120,000 people indirectly employed by firms that supplied the tourism sector. WTTC, "Travel and Tourism Direct Contribution to Employment," accessed May 26, 2023; industry representative, interview by USITC staff, Fiji, March 22, 2023.

¹⁰¹⁶ Data for Palau are from 2017 and data for French Polynesia are from 2016. Although an IMF report notes that tourism may support strong foreign exchange rates in Pacific Island economies, it can disadvantage other export products such as manufacturing or agriculture. World Bank, World Development Indicators, "International tourism, receipts (% of total exports)," accessed July 13, 2023; Chen et al., "Resilience and Growth in the Small States of the Pacific," August 10, 2016, 307.

¹⁰¹⁷ World Bank, "The Future of Pacific Tourism," 2023, 30.

¹⁰¹⁸ A Fijian government official stated that U.S. arrivals accounted for around 20 percent of Fiji's total tourism revenue. USITC calculations based on World Bank, World Development Indicators, "International Tourism, Receipts (current US\$)," accessed May 23, 2023; UNWTO Yearbook of Tourism Statistics (2020) datasets, for arrivals of nonresident tourists at national borders, by nationality, for the following: American Samoa, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, the Marshall Islands, the Northern Mariana Islands, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, Vanuatu, the United States, updates published October 24, 2017–September 6, 2022; USITC, hearing transcript, February 14, 2023, 20 (testimony of Satyendra Prasad, Embassy of Fiji).

¹⁰¹⁹ USITC calculations based on World Bank, World Development Indicators, "GDP (current US\$)," accessed May 23, 2023; World Bank, World Development Indicators, "International Tourism, Receipts (current US\$)," accessed May 23, 2023.

less developed tourism sectors.¹⁰²⁰ The same report also noted several benefits of targeting higher-value markets (i.e., higher spending tourists), such as generating higher revenue from tourism with a lower environmental impact.¹⁰²¹ Several opportunities exist for tourism in niche markets that are currently underdeveloped, such as whale watching in Tonga, which is one of the few Pacific Island economies on a whale migration route.¹⁰²² Industry representatives have also noted that Samoa's tourism marketing focuses on its unique culture while Vanuatu has marketed its niche in the higher-value marine and adventure tourism.¹⁰²³ Fiji has a more diversified tourism economy and appears to be the only Pacific Island economy with a niche in the budget and mid-range accommodation markets.¹⁰²⁴

Industry representatives reported that some recent marketing campaigns had been successful but that more support was needed. One industry representative in Fiji reported that they had used data analytics to understand the preferences of consumers interacting with digital advertising and used this information to craft a messaging strategy for the reopening of Fiji's tourism sector after the pandemic-related closures. In the representative's view, this strategy, along with a collaborative approach involving stakeholders from across the government and private sector, allowed them to avoid mistakes made by competitors and capture more market share.¹⁰²⁵ Fiji's production of reality television shows, like *Survivor*, has also helped promote Fiji as a tourist destination (see box 7.2 for more on television and film production in Fiji).¹⁰²⁶

The use of these types of sophisticated marketing strategies by leading players in the tourism sector presents an opportunity for others in the region. For example, industry representatives from Samoa stated that they would like to learn about marketing opportunities and how to conduct promotions aimed at the U.S. market, as well as collaborate with U.S. government agencies to promote tourism in Samoa.¹⁰²⁷ Additionally, an industry representative from Vanuatu noted that the Vanuatu Tourism Organization had successful marketing campaigns before the COVID-19 pandemic but that their current marketing approaches were a work in progress.¹⁰²⁸ Many current marketing campaigns are also directed at large existing markets in Australia and New Zealand, thus a better understanding of the U.S. market and improved promotional activities have the potential to increase U.S. tourism in Pacific Island economies.

¹⁰²⁰ World Bank, "The Future of Pacific Tourism," 2023, 76.

¹⁰²¹ For example, tourists participating in "experiential" offerings such as adventure or cultural activities were among the highest spending tourists. World Bank, "The Future of Pacific Tourism," 2023, 47–48.

¹⁰²² Industry representative, interview by USITC staff, Fiji, March 23, 2023.

¹⁰²³ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023; World Bank, "The Future of Pacific Tourism," 2023, 36.

¹⁰²⁴ According to a Fijian government report, around half of Fiji's hotels are classified as "budget" or "mid-range." Government of Fiji, Ministry for Industry, Trade, and Tourism "Fijian Tourism 2021," 2022, 27.

¹⁰²⁵ One representative also noted that Fiji Water was instrumental in developing the "Fiji" brand. Industry representatives, interviews by USITC staff, Fiji, March 21 and 22, 2023.

¹⁰²⁶ Industry representative, interview by USITC staff, Fiji, March 21, 2023.

¹⁰²⁷ Samoa's marketing seeks to promote its unique culture as its main attraction, but successes have also been reported in small-scale agrotourism in Samoa. Industry representatives and government officials, interview by USITC staff, Samoa, March 25, 28, 29, 2023.

¹⁰²⁸ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

Box 7.2 Film and Television Production in Fiji

Television and film production in Fiji is a small but important economic sector and presents potential for increased U.S. trade and investment. One industry representative estimated foreign film and television production spending in Fiji totaled \$151 million in 2019;^a another source found that the industry contributed more than \$702 million to Fiji's GDP from 2014 to 2018.^b Fiji's film sector is the most developed among Pacific Island economies, with a 2016 report noting that Fiji had the most advanced set of national policies promoting the film sector, although other markets in the region such as Papua New Guinea and Vanuatu also have smaller television and film production sectors.^c Fiji's media sector is almost exclusively geared toward foreign productions, with one industry representative reporting that, before the COVID-19 pandemic, 60 percent of total revenue in the sector came from U.S. productions, 20 percent came from European productions, and another 20 percent from productions by Australia and New Zealand. In the period since Fiji reopened after closures related to the COVID-19 pandemic, the industry representative estimated that U.S. productions made up 90 percent of revenue in the sector.^d

Fiji's niche in the sector focuses on reality television productions, in particular the *Survivor* series, which has been filming in Fiji since 2016.^e Because reality television shows are recurring productions (i.e., new seasons are filmed each year), they provide a steady stream of revenue and provide certainty to local firms that have been set up to cater to the industry.^f Reality television filming was described by one industry representative as "logistically complicated but technically simple," meaning that firms in Fiji did not need advanced film or production equipment but could leverage the existing infrastructure available through the tourism sector to coordinate filming on Fiji's remote but pristine islands.^g Reality television series filmed in Fiji have also helped promote Fiji as a tourist destination to foreign audiences.^h

This sector presents an opportunity for increased investment from the United States, particularly in areas like studios, sound stages, and more advanced technology for postproduction such as computer-generated imagery.ⁱ Investments like these would allow Fiji to provide more value-added services to productions, which would increase exports. Training and capacity-building initiatives would also help develop skills needed for more technical productions.^j

^a Industry representative, interview by USITC staff, Fiji, March 21, 2023.

^b Vavaitamana, "Fiji Film Industry Rakes in \$702.9m from 2014-2018," February 18, 2020.

^c These sectors are not as significant as Fiji's sector, and other Pacific Island economies do not appear to be heavily involved in film and television production. For example, scenes in the U.S. film *Hobbs and Shaw* (part of the Fast and the Furious franchise) were filmed in Hawaii despite being set in Samoa. Menzies, "Cinema Pasifika: Developing the Narrative Film and Television Sector in the Pacific Island Region," 2016, 48; Desta, *Hobbs and Shaw*, August 5, 2019; industry representative, interview by USITC staff, Samoa, March 28, 2023.

^d Previous seasons of *Survivor* were filmed in other Pacific Island economies such as the Cook Islands, French Polynesia, Palau, Samoa, and Vanuatu as well as other tropical locations around the world. Knorr-Evans, "Survivor 2022 Location: Where Was Season 43 Filmed?," accessed June 8, 2023; industry representative, interview by USITC staff, Fiji, March 21, 2023.

^e Feature films such as *Castaway* have also been filmed in Fiji. Films require more infrastructure than television, however, and do not have the benefits of recurring production cycles. Chenu, "The Island Where Cast Away Was Filmed," accessed June 8, 2023; industry representative, interview by USITC staff, Fiji, March 21, 2023.

^f These firms provide services including audiovisual services, transportation, catering, and logistics.

^g Industry representative, interview by USITC staff, Fiji, March 21, 2023.

^h Industry representative, interview by USITC staff, Fiji, March 23, 2023.

ⁱ Industry representative, interview by USITC staff, Fiji, March 21, 2023; industry representative, interview by USITC staff, Fiji, March 23, 2023.

^j Training for geographical information systems for location scouts was also mentioned. Industry representative, interview by USITC staff, Fiji, March 21, 2023.

Enhanced Transportation Connectivity

International air connectivity, as discussed in chapter 2, has been raised by several parties as a major issue. Some representatives from the American Samoan government and the private sector stated that a direct flight to the U.S. mainland would be beneficial to the economy for several reasons, including

increasing tourism. Representatives also noted that air connectivity to outer islands was poor, and that they were looking into subsidies through the U.S. Department of Transportation’s Essential Air Service program, as well as funding for other transportation infrastructure.¹⁰²⁹ Similarly, an industry representative from Samoa stated that they would welcome assistance in getting a direct route to the U.S. mainland. The recovery of Palau’s tourism sector was also reportedly hindered by the high cost and low frequency of flights.¹⁰³⁰ An industry representative from Fiji noted that it was not economical for each Pacific Island economy to have its own national air carrier because of issues with scale. Fiji Airways, however, could potentially use a leasing model to provide additional flights to other Pacific Island economies under their own national airline “brands” which may be more efficient than owning aircraft outright.¹⁰³¹

The U.S. market for Pacific Island tourism also remains relatively underdeveloped. One representative from Fiji stated that the U.S. market was “untapped,” given the low number of direct flights.¹⁰³² Using similar language, a representative from Vanuatu also reported that they see “untapped potential” in U.S. tourism.¹⁰³³ The seasonality of U.S. tourism demand, which runs opposite of other major source markets such as Australia and New Zealand also means that U.S. tourism could potentially be increased in many Pacific Island economies such as Samoa without exceeding current hotel capacity.¹⁰³⁴

Opportunities for U.S. Investment

Data from FDI markets on greenfield investment in Pacific Island economies contain only two U.S. projects in the hotel and tourism sector since 2017—one by Marriott and one by Hilton—both in Fiji.¹⁰³⁵ Since 2003, only five total greenfield projects are listed—four in Fiji and one in Samoa. Larger investments in the hotel sector often come from private equity or other outside groups as well as government funds, such as the Fiji National Provident Fund (FNPF) and multilateral institutions like the International Finance Corporation.¹⁰³⁶ International hotel chains, including U.S. firms that operate in the region, reportedly prefer management contracts or franchises to operate existing properties over

¹⁰²⁹ Industry representatives, interviews by USITC staff, American Samoa, March 31, 2023.

¹⁰³⁰ World Bank, “The Future of Pacific Tourism,” 2023, 25.

¹⁰³¹ The representative noted that most flights to North America are overnight but flights to other Pacific Island economies are during the day, meaning more flights could be flown with the current inventory of aircraft. Greater scale would also reduce costs for maintenance, spare parts, and training. Industry representative, interview by USITC staff, Fiji, March 25, 2023.

¹⁰³² Industry representative, interview by USITC staff, Fiji, March 25, 2023.

¹⁰³³ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁰³⁴ Industry representative, interview by USTC staff, Samoa, March 28, 2023.

¹⁰³⁵ fDi Markets estimates the value of each project at \$179 million. *Financial Times*, “fDi Markets,” accessed June 12, 2023.

¹⁰³⁶ CoStar, “Hotel Investors Eye Remote Destinations,” January 31, 2023; IFC, “IFC Invests US\$3.9 Million in Fiji’s Tourism Sector,” December 17, 1998; IFC, “IFC invests in hotel project in Vanuatu,” January 22, 1996; Rosenthal, “Fijian Investor Inches Closer to Finalizing Portfolio Buy,” February 21, 2018.

greenfield investment.¹⁰³⁷ Smaller investments may be funded through local capital markets or wealthy individuals in the diaspora.¹⁰³⁸

Industry representatives from Fiji stated that investment in the hotel sector in recent years had been limited and a “huge opportunity” for investment exists because the hotel capacity had not kept pace with the increase in flights to the country.¹⁰³⁹ One industry representative estimated that Fiji needed 4,000–5,000 new hotel rooms just to meet demand generated by increased flights. This same industry representative from Fiji stated that investment summits, including those sponsored by the U.S. government, were helpful in attracting private equity firms to invest in the tourism sector. The representative added that these summits were also helpful in supporting investment in infrastructure (such as renewable energy and wastewater recycling)¹⁰⁴⁰ that underpin hotel development. Another representative in Fiji noted that investments in commercial agriculture for hotel supply chains would lower the cost of imported food.¹⁰⁴¹ This representative further reported that the sector also needs investments to upgrade existing facilities and hotel properties, as well as technical support that would be beneficial for training and public infrastructure that facilitates tourism.¹⁰⁴²

Impediments

Lack of International Transportation Connectivity

As discussed in chapter 2, the relatively small number of direct flights from the U.S. mainland to Pacific Island economies poses an impediment to increased U.S. tourism by increasing both costs and travel time.¹⁰⁴³ Pacific Island economies also compete for the North American tourist market with other tropical regions such as the Caribbean, which is geographically closer and has well-developed tourism infrastructure.¹⁰⁴⁴ Industry representatives stated that Samoa previously had a direct flight from Los Angeles to its capital city, Apia, terminating in Auckland. When the route was removed a decade ago, the number of tourists from the United States declined in spite of the continued availability of a flight from Hawaii, because the layovers in Hawaii made the flights longer and more expensive.¹⁰⁴⁵ Some representatives from American Samoa also noted that U.S. cabotage laws in the airline sector limited competition for flights from Hawaii to American Samoa, with a single firm able to control the route and

¹⁰³⁷ Pinsent Masons, “Hotel Management Agreements,” May 26, 2023; industry representative, interview by USITC staff, Samoa, March 28, 2023.

¹⁰³⁸ A hotel in Vanuatu was originally purchased as an investment property by the producers of the television show *Survivor* when it was filming there. For more details on film and television in Pacific Island economies see box 7.2. Industry representative, interview by USITC staff, Vanuatu, April 13, 2023; industry representatives, interviews by USITC staff, Fiji, March 22, 2023.

¹⁰³⁹ Industry representatives, interviews by USITC staff, Fiji, March 22, 2023; industry representatives, interviews by USITC staff, Fiji, March 22, 2023.

¹⁰⁴⁰ Industry representatives, interviews by USITC staff, Fiji, March 21, 2023.

¹⁰⁴¹ Industry representatives, interviews by USITC staff, Fiji, March 22, 2023.

¹⁰⁴² Industry representatives, interviews by USITC staff, Fiji, March 22, 2023.

¹⁰⁴³ More Pacific Island economies have direct flights from Hawaii, but according to one industry representative having to transit through Hawaii to reach a Pacific Island economy puts those destinations in competition with Hawaii for mainland U.S. tourists. Industry representative, interview by USITC staff, American Samoa, March 31, 2023; industry representatives and foreign government officials, interview by USITC staff, Samoa, March 28, 2023.

¹⁰⁴⁴ Tateno and Bolesta, “Tourism as a Driver of Sustainable Development,” October 7, 2021, 12.

¹⁰⁴⁵ Industry representatives, interview by USITC staff, Samoa, March 27 and 28, 2023.

set higher prices.¹⁰⁴⁶ A hotel representative from Vanuatu also noted that international connectivity was an issue, especially for more distant islands in the archipelago with interesting tourism destinations.¹⁰⁴⁷

High Input Costs for Goods and Services

Because of their geographic position and small size, Pacific Island economies face increased costs for materials needed for the tourism sector. Pacific Island economies are often unable to produce many of the needed products domestically. Many inputs must be imported, and the higher cost of such imports contributes to higher prices for hotels and other tourist offerings. One industry representative from the hotel sector stated that building materials were very expensive to import, especially after recent increases in freight rates.¹⁰⁴⁸ An International Finance Corporation report found that 52 percent of fresh food products used by resorts and hotels in Fiji were imported (with meat and dairy products accounting for a large share of these imports).¹⁰⁴⁹ Similarly, a survey of hotels in Vanuatu's capital found that over half of their fresh vegetables (excluding root vegetables) were sourced from abroad.¹⁰⁵⁰ One representative from the tourism sector in Fiji stated that import dependence negatively impacted the tourism sector there, noting that they were unable to get the quality and quantity of seafood needed to meet demand from hotels.¹⁰⁵¹ The high cost of electricity, financial services, and internet, as well as limited access to infrastructure for fresh water and waste management services, have also been cited as creating impediments for the tourism sector.¹⁰⁵²

Land Use Rights

Customary land tenure systems can pose challenges to investment in tourism infrastructure in some Pacific Island economies. As discussed in chapter 2, most land in Pacific Island economies is held under some form of customary or communal ownership, which often requires that foreign investors seeking to use land negotiate a lease with communities rather than individuals.¹⁰⁵³ An industry representative in American Samoa reported that a potential hotel investor from China was hesitant to invest because of issues with securing a lease related to the land ownership system.¹⁰⁵⁴ A publication from the Asian Development Bank also noted that complex land ownership systems in the Federated States of

¹⁰⁴⁶ For more information on cabotage regulations and their effect on trade, see chapter 2. Industry representatives, interview by USITC staff, American Samoa, March 31, 2023.

¹⁰⁴⁷ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁰⁴⁸ Industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁰⁴⁹ Larger and higher-end hotels purchased more imported products. IFC, "From the Farm to the Tourists Table," July 2018, 14–17.

¹⁰⁵⁰ World Bank, "The Future of Pacific Tourism," 2023, 28.

¹⁰⁵¹ Industry representatives, interviews by USITC staff, Fiji, March 21 and 22, 2023.

¹⁰⁵² World Bank, "The Future of Pacific Tourism," 2023, 28, 55, 61; Pham, "Pacific Islands Region," January 9, 2023; UNEP, "Small Island Developing States Waste Management Outlook," 2019, 22; industry representatives, interviews by USITC staff, Fiji, March 21, 2023; industry representative, interview by USITC staff, Vanuatu, April 13, 2023.

¹⁰⁵³ Freehold land (which is owned by individuals and/or corporate bodies) makes up the smaller share of land tenure in the Pacific Island region, though it is often located in areas with the best infrastructure. AusAID, "Making Land Work," June 2008, 3–4.

¹⁰⁵⁴ Government officials and industry representatives, interview by USITC staff, American Samoa, March 31, 2023.

Micronesia, along with other government policies on foreign investment, resulted in hesitation by foreign investors.¹⁰⁵⁵

Initiatives

The Pacific Island tourism sector has been the focus for several initiatives in the areas of marketing, connectivity, skills development, and sustainability, among others. The Pacific Tourism Organisation, a regional organization focused on tourism, plays a key role in coordinating tourism initiatives. The Pacific Tourism Organisation has several marketing programs and initiatives designed to promote the region, such as the South Pacific Storytelling specialist program¹⁰⁵⁶ and the South Pacific Tourism Exchange program,¹⁰⁵⁷ as well as programs focused on improving digital marketing or content strategy.¹⁰⁵⁸ The Pacific Tourism Organisation also has several initiatives to promote sustainable tourism, including a “Pacific 2030” framework that aims to make tourism in the region more sustainable,¹⁰⁵⁹ and partners with investors and foreign governments to fund these initiatives.¹⁰⁶⁰ In addition, Pacific Tourism Organisation initiatives support efforts to improve air connectivity through the Pacific Island Civil Aviation Safety and Security Treaty.¹⁰⁶¹

Other regional bodies and multilateral organizations also have tourism-promotion initiatives. For example, Pacific Trade Invest (a regional trade and investment promotion agency) maintains a program to support the development of digital tourism marketing, as well as a promotional effort titled “Hidden Treasures of the South Pacific.”¹⁰⁶² A regional technical assistance program, the Pacific Private Sector Development Initiative, created guidance for economies reopening their borders to tourism after the COVID-19 pandemic and has conducted other research on the sector, including on the role of women in tourism.¹⁰⁶³ In addition, the Pacific Islands Forum Secretariat operates several regional tourism initiatives, including some focused on recovery in the tourism sector after the pandemic, sustainable tourism, digital strategy, air connectivity, and better tourism data collection.¹⁰⁶⁴ The Pacific Islands Forum Secretariat has also stated that financial support and investment would assist existing initiatives to support sustainable tourism infrastructure and “strengthen their resilience to natural disasters and climate change.”¹⁰⁶⁵ Similarly, a World Bank report on tourism in the Pacific recommended several initiatives and other policy priorities, including improving tourism governance, building human capital, and enhancing destination development.¹⁰⁶⁶ Finally, Pacific Island economies themselves have their own

¹⁰⁵⁵ ADB, “Understanding Land Issues and Their Impact on Tourism Development,” September 2015, 5.

¹⁰⁵⁶ SPTO, “Pacific Storytelling Specialist Programme,” December 7, 2022.

¹⁰⁵⁷ South Pacific Tourism Exchange, “About SPTE,” accessed June 15, 2023.

¹⁰⁵⁸ SPTO, “Marketing,” accessed May 30, 2023.

¹⁰⁵⁹ SPTO, “What We Do,” accessed June 15, 2023.

¹⁰⁶⁰ Industry expert, interview by USITC staff, December 8, 2022.

¹⁰⁶¹ SPTO, “What We Do,” accessed June 15, 2023; Tamanilo, “Improved Regional Air Access,” June 28, 2022; PIFS, “Pacific Islands Civil Aviation Safety and Security Treaty PICASST,” 2005.

¹⁰⁶² PTI, “Tourism,” accessed May 30, 2023.

¹⁰⁶³ PSDI, “Reopening Borders to Tourism in Pacific Island Countries,” July 2022; Tourism Fiji, “Tourism Fiji Welcomes Ground-Breaking PSDI Study,” accessed June 15, 2023.

¹⁰⁶⁴ PIFS, “2018 FEMM,” accessed May 30, 2023; PIFS, “Regional Tourism Initiatives Final,” July 2021.

¹⁰⁶⁵ Subject matter expert, interview by USITC staff, Fiji, March 20, 2023.

¹⁰⁶⁶ World Bank, “The Future of Pacific Tourism,” 2023, 63–85.

tourism initiatives, such as Fiji’s program to develop tourism on its second island Vanua Levu,¹⁰⁶⁷ Guam’s tourism education campaign “Tourism Works,”¹⁰⁶⁸ Vanuatu’s campaign to support sustainable tourism,¹⁰⁶⁹ and a strategic roadmap for inclusive and sustainable tourism development in Tahiti (part of French Polynesia).¹⁰⁷⁰

Internet-Enabled Services Outsourcing

This sector profile focuses on two broad categories of services outsourcing—business process outsourcing (BPO) and knowledge process outsourcing (KPO)—in Fiji and American Samoa.¹⁰⁷¹ Outsourcing occurs, for example, when companies separate business functions and reduce costs by moving labor-intensive services to countries where labor costs are lower.¹⁰⁷² Significant improvements in information and communications technology (ICT) have enabled increased outsourcing of services activities and have facilitated the provision and consumption of services in different locations.¹⁰⁷³ These advances have reduced computing and data storage costs and made long-distance communications significantly cheaper.¹⁰⁷⁴ These technological developments can foster the growth of a wide variety of internet-enabled services industries (see box 7.4 below for more information on other internet enabled service industries in the Pacific Island region).

Fiji is an established outsourcing services producer with the potential to increase U.S. exports. American Samoa currently has a very small BPO/KPO market with growth potential. BPO occurs when a company transfers information-intensive office functions (e.g., customer service or data entry) to a third party, and KPO occurs when a company transfers more knowledge-intensive functions (e.g., legal services or research).¹⁰⁷⁵ The profile begins with a description of the services outsourcing sector in the Pacific Islands before examining the potential for increasing exports of BPO/KPO services from Fiji and American Samoa to the United States.¹⁰⁷⁶ Next, the profile addresses impediments to growth in the

¹⁰⁶⁷ For more information on Fiji’s tourism initiatives, see Government of Fiji, Ministry for Industry, Trade, and Tourism, “Fijian Tourism 2021,” 2022; Lal, “Fiji Tourism Development Program,” accessed June 15, 2023.

¹⁰⁶⁸ Guam Visitors Bureau, “Tourism Works,” accessed July 11, 2023.

¹⁰⁶⁹ SDG Hub, “Policy Brief,” accessed June 15, 2023.

¹⁰⁷⁰ Site Corporate de Tahiti Tourisme (Tahiti Tourism Corporate Site), “The Islands of Tahiti,” accessed June 15, 2023.

¹⁰⁷¹ This report focuses on Fiji and American Samoa because of information obtained from industry representatives during USITC staff fieldwork.

¹⁰⁷² Outsourcing can also occur domestically. For purposes of this profile, outsourcing refers to international outsourcing. Baldwin, *The Great Convergence*, 2016, 144; Deloitte, “Global Outsourcing Survey,” 2022, 8.

¹⁰⁷³ Doh, Bunyaratavej, and Hahn, “Separable but Not Equal,” August 2009, 929.

¹⁰⁷⁴ Baldwin, *The Great Convergence*, 2016, 81–84.

¹⁰⁷⁵ For more information on the definitions of outsourcing see Beschorner, Kuek, and Narimatsu, “ICT for Jobs in the Pacific Island Countries,” May 2015, 10–11.

¹⁰⁷⁶ Increasing BPO/KPO exports to the United States can include outsourcing services activities that are currently being performed in the United States, new outsourcing services because of company expansion or growth, and the transfer of existing outsourcing channels from third countries. For purposes of this profile, BPO/KPO can refer to business process “onshoring” and knowledge process “onshoring” for American Samoa because it is an overseas territory of the United States and does not technically export services to the United States. See chapter 4 for more information on the legal status of American Samoa and its citizens. Along the same lines, this profile describes BPO/KPO exports from American Samoa for consistency.

BPO/KPO sector in Fiji and American Samoa. Finally, the profile concludes with analysis of initiatives that could foster the expansion of outsourcing from the two economies.

The Services Outsourcing Sector

Interest in providing services outsourcing—particularly BPO and KPO—has increased in the Pacific Islands, including in American Samoa, Fiji, Papua New Guinea, Samoa, Tonga, and Vanuatu.¹⁰⁷⁷

Compared with major outsourcing locations like India and the Philippines, the BPO/KPO sector in the Pacific Islands is smaller and less developed. Advantages, including labor costs and various workforce characteristics, among others, mean that the BPO/KPO sector has potential for future growth in Fiji and American Samoa.

In 2022, global BPO services accounted for more than \$325 billion in revenue, and sales are expected to increase at a compound annual growth rate of 4.9 percent from 2016 to 2028.¹⁰⁷⁸ Within the Australia and Oceania region, Papua New Guinea and Fiji had approximately \$48 million and \$9 million in BPO services revenue, respectively.¹⁰⁷⁹ Globally, KPO services are expected to grow quickly and represent high-value and skilled services, including auditing and accounting services, that could be executed in Fiji.¹⁰⁸⁰ Data for trade in BPO/KPO services are limited but likely appear as part of the services export categories of other business services, financial services, and telecommunications, computer, and information services (see chapter 3).

Fiji could emerge as a regional hub for BPO/KPO services in part because of its relative size, growth, and connectedness.¹⁰⁸¹ Fiji gained prominence as a destination for outsourcing after winning the European Outsourcing Association’s Offshoring Destination of the Year Award in 2014 and being profiled by the World Bank Group in 2015.¹⁰⁸² Within Fijian outsourcing services, BPO accounts for 50 percent of revenue and KPO represents 35 percent.¹⁰⁸³ According to Investment Fiji, a state organization that reports to the Ministry of Trade and promotes investments, the BPO sector contributes nearly \$100 million to Fiji’s GDP and several global companies already have outsourcing operations in Fiji, including DHL, Ernst & Young, and PricewaterhouseCoopers.¹⁰⁸⁴ Fiji currently employs about 8,000 workers in the outsourcing sector, of which 67 percent are women. Investment Fiji anticipates that

¹⁰⁷⁷ Beschorner, Kuek, and Narimatsu, “ICT for Jobs in the Pacific Island Countries,” May 2015; industry representative, interview by USITC staff, American Samoa, March 30, 2023; World Bank, *Pacific Possible*, 2017, 101; industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁰⁷⁸ Nguyen, “Business Process Outsourcing,” July 2023, 9.

¹⁰⁷⁹ The region accounted for \$10.3 billion in revenue. Statista, “Business Process Outsourcing - Australia & Oceania,” June 1, 2023.

¹⁰⁸⁰ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 38–39; USITC, hearing transcript, February 14, 2023, 37 (testimony of Satyendra Prasad, Embassy of Fiji).

¹⁰⁸¹ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 2; industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁰⁸² Investment Fiji, “The Outsourcing Industry,” 2022, 7; Beschorner, Kuek, and Narimatsu, “ICT for Jobs in the Pacific Island Countries,” May 2015, 3.

¹⁰⁸³ Information technology outsourcing accounts for the remaining 15%. Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 36.

¹⁰⁸⁴ AUD \$150 million. Investment Fiji, “Sectors Opportunities - Business Process Outsourcing,” August 2023; Investment Fiji, “The Outsourcing Industry,” 2022, 10.

employment in BPO/KPO services will increase to approximately 25,000 workers by 2025.¹⁰⁸⁵ The Fijian ambassador to the United States Satyendra Prasad stated that the BPO/KPO industries have been “growing speedily” in the country.¹⁰⁸⁶

The government of Fiji stated that Fiji has become a preferred nearshoring destination for companies in Australia and New Zealand.¹⁰⁸⁷ Representatives in Fiji indicated that 80 percent of the companies they work with are Australian and only 5 percent were based in the United States.¹⁰⁸⁸ In Fiji, BPO/KPO is still concentrated in low-value creation jobs, mostly by clients linked to Fiji’s tourism and resources/energy sectors.¹⁰⁸⁹ Industry representatives explained, however, that after starting with call centers and customer services, Fiji has diversified and offers more KPO services, including in industries such as finance, human resources, accounting, engineering, and drafting.¹⁰⁹⁰ Furthermore, demand in the region for Fijian accounting and finance graduates is growing, particularly because the Fijian academic structures are closely aligned to the education systems in Australia and New Zealand.¹⁰⁹¹

Although the BPO/KPO industry in American Samoa is less developed than in Fiji, some companies perform BPO/KPO services for firms on the U.S. mainland. The first contact center in American Samoa was opened in 2018 after the American Samoa Department of Commerce invested in the Hawaiki submarine cable, the first high-speed internet cable connecting the territory.¹⁰⁹² In partnership with the American Samoa Telecommunications Authority, the department launched the American Samoa Department of Commerce BPO Incubator with the goal of forming and expanding the BPO industry in American Samoa.¹⁰⁹³ Industry representatives indicate that they now have a 1,500 square foot call center with a 125 megabits per second connection. The American Samoa Department of Commerce is also working to develop a technology campus and build commercial turnkey facilities.¹⁰⁹⁴

Pandemic Effects

Industry representatives indicated that, for several reasons, Fiji gained some momentum as a location for outsourcing during the pandemic. The Fijian government designated BPO as an essential service that allowed the sector to continue to operate as other outsourcing locations such as the Philippines were shut down.¹⁰⁹⁵ Fijian vaccination rates (high compared to major regional competitors India and the Philippines), low levels of COVID-19 transmission, and safety protocols helped the sector to double

¹⁰⁸⁵ Investment Fiji, “The Outsourcing Industry,” 2022, 7–8.

¹⁰⁸⁶ USITC, hearing transcript, February 14, 2023, 20 (testimony of Satyendra Prasad, Embassy of Fiji).

¹⁰⁸⁷ Government of Fiji, written submission to the USITC, March 3, 2023, 3.

¹⁰⁸⁸ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁰⁸⁹ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 36.

¹⁰⁹⁰ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁰⁹¹ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 36. The United States offers higher education opportunities targeted to students from Pacific Island countries in fields relevant to regional development and governance. Some priority fields for study include finance and business, communication, and information systems. East-West Center, “US South Pacific Scholarship Program,” accessed September 14, 2023; East-West Center, “Project Governance Graduate Fellowship,” August 1, 2023.

¹⁰⁹² Klauf Solutions, “About,” May 31, 2020; Talane, “DOC Launches BPO Incubator,” March 3, 2020. For more information on the Hawaiki cable see Chapter 2.

¹⁰⁹³ Talane, “DOC Launches BPO Incubator,” March 3, 2020.

¹⁰⁹⁴ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹⁰⁹⁵ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

employment from pre-pandemic levels.¹⁰⁹⁶ BPO industry representatives noted that, although the sector is growing in American Samoa, the pandemic negatively affected them and that government regulations on hours worked during the COVID-19 pandemic were very disruptive. They indicated that the restrictions prevented them from operating during U.S. East Coast business hours and they lost clients.¹⁰⁹⁷ Government restrictions related to the COVID-19 pandemic ended on December 1, 2022.¹⁰⁹⁸

Potential for Increased Exports to the United States

Several labor and nonlabor factors provide opportunities for Fiji and American Samoa to increase BPO/KPO exports to the United States. These factors are discussed in more detail below.

Labor Factors

The labor forces in Fiji and American Samoa exhibit characteristics, including cost savings compared to the United States as well as a high level of English proficiency, that make them well suited to expand exports of BPO/KPO services to the United States.

Fiji offers labor cost savings and other benefits that contribute to their export potential of BPO/KPO services to the United States. Investment Fiji cites reduced labor costs compared to the United States ranging from a savings of 67 percent for call center workers to 87 percent for network engineers, IT support technicians, and IT managers.¹⁰⁹⁹ An Australian outsourcing representative has noted high retention rates, stating that attrition rates typically have been 3 percent in Fijian call centers since 2014.¹¹⁰⁰ High attrition rates can increase costs associated with hiring and training.¹¹⁰¹ This attrition rate compares favorably to a historically high turnover rate of 38 percent in the call center industry in the United States in 2022.¹¹⁰²

The Fijian ambassador to the United States stated that Fiji's workforce is young, tech savvy, and speaks English with a neutral accent.¹¹⁰³ The ambassador also cited the warm *bula* spirit (described as the desire to be kind and generous to everyone they meet) that is a part of the Fijian national identity.¹¹⁰⁴ This friendly service culture is a potential asset that Fiji has to offer for companies looking to outsource BPO/KPO services (particularly customer service functions) to Fiji. Fiji is composed of 99 percent fluent English speakers; 90 percent of the workforce is under age 35 and 50 percent of the population is under

¹⁰⁹⁶ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹⁰⁹⁷ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹⁰⁹⁸ *Samoa News*, "After More than 2 Years COVID-19 Emergency Declaration Is Lifted," December 3, 2022.

¹⁰⁹⁹ Investment Fiji, "The Outsourcing Industry," 2022, 16; Our Pacific Office, "Why Outsourcing to Fiji Is Australian Businesses Best Kept Secret," May 6, 2021; USDOL, BLS, "Occupational Outlook Handbook," May 2022; USDOL, BLS, "Occupational Outlook Handbook," May 2022.

¹¹⁰⁰ Investment Fiji, "Sectors Opportunities - Business Process Outsourcing," August 2023.

¹¹⁰¹ Reyes, "The Hidden Price of Employee Attrition," March 29, 2023.

¹¹⁰² Yahoo Finance, "Call Center Attrition Rate," April 13, 2023.

¹¹⁰³ USITC, hearing transcript, February 14, 2023, 20–21 (testimony of Satyendra Prasad, Embassy of Fiji).

¹¹⁰⁴ Tamanilo, "Fijian 'bula Spirit' Aimed at Locals," October 1, 2020; USITC, hearing transcript, February 14, 2023, 23 (testimony of Satyendra Prasad, Embassy of Fiji).

age 27.¹¹⁰⁵ Also, the majority of the BPO labor force in Fiji are women so expanding the BPO/KPO sector may provide Fiji with an inclusive growth strategy.¹¹⁰⁶

Industry representatives indicated that American Samoa has potential for growth as an outsourcing exporter because of its low wages, low training costs, and as noted potentially higher retention rates.¹¹⁰⁷ Further advantages related to the workforce costs in American Samoa include a low minimum wage (about \$5.50–\$6.00 an hour) and a good work ethic.¹¹⁰⁸ Additionally, because many benefits are covered by the American Samoan government, including retirement and healthcare, labor costs typically assumed by companies are relatively lower.¹¹⁰⁹ Industry representatives noted the potential advantages for American Samoa to increase BPO/KPO exports to the United States, including a labor force with a U.S. accent and a population that is schooled in the U.S. educational system.¹¹¹⁰ American Samoans are U.S. nationals and, although no federal law restricts the flow of data originating in the United States, U.S. firms may prefer to onshore jobs to American Samoa as a way of keeping jobs and data in the United States (see box 7.3).¹¹¹¹ Additionally, industry representatives said that people in American Samoa prefer indoor office jobs (as opposed to manual labor) and, if residents were aware of these opportunities, some of the talent that has left the territory could be retained.¹¹¹²

¹¹⁰⁵ Investment Fiji, “Sectors Opportunities - Business Process Outsourcing,” August 2023, 7; Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 35.

¹¹⁰⁶ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹⁰⁷ Industry representative, interview by USITC staff, February 22, 2023; industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹⁰⁸ Industry representative, interview by USITC staff, American Samoa, March 30, 2023. Industry representatives said that workers generally leave their jobs only when a project is completed—this work ethic may reduce recruitment and retraining costs. As described in chapter 4, minimum wage rates in American Samoa vary by industry and are lower than those in the rest of the United States, but Congress has scheduled for these rates to gradually converge with the rest of the United States. See box 4.5.

¹¹⁰⁹ The compensation package is often only the wage and equipment for remote workers. Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹¹⁰ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹¹¹ Federal privacy protections apply only to health information or personal identifying information held by financial institutions, and these protections broadly require that institutions safeguard data and provide disclosures regarding how data are used or shared. See 15 U.S.C. §§ 6801–6802 (requirements on nonpublic personal information held by financial institutions); 42 U.S.C. § 1320d-2 (requirement that Secretary of Health and Human Services develop standards for safeguarding and use of health information); 45 C.F.R. § 164.502 (regulations on use and disclosure of health information). Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹¹² Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

Box 7.3 The Impact of the Lack of Federal Courts on the Potential for Outsourcing in American Samoa

Industry representatives in American Samoa have indicated that its status as a U.S. territory could serve as an advantage for outsourcing, particularly in areas with federal privacy protections, such as healthcare.^a Enforcement of federal laws in American Samoa, however, can be a patchwork because of its unincorporated status and the lack of any federal court.^b Unlike in Guam or the Northern Mariana Islands, Congress has not created a federal court in American Samoa because of concerns that such a court could infringe on local customs such as communal land ownership.^c Local courts were created under American Samoa's constitution, but they have only very limited jurisdiction over federal issues. Disputes involving federal law must be heard in a federal district court in either Hawaii or Washington, DC.^d Law enforcement agencies have acknowledged that logistical difficulties in this situation limit their ability to investigate and prosecute cases. White collar and business crimes have been particularly problematic in the territory as a result.^e Proposals to either create a federal court in the territory or to expand the federal jurisdiction of local courts have so far not been enacted.^f Problems of enforcement complicate the degree to which American Samoa's status as a U.S. territory serves as an advantage for American Samoa in outsourcing.

^a Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

^b For example, American Samoa is the only portion of the United States that does not recognize same-sex marriages; it has unincorporated status and no federal circuit court otherwise has jurisdiction to apply the Supreme Court ruling in *Obergefell*. See *Obergefell v. Hodges*, 576 U.S. 644 (2015); Leslie, "The America Without Marriage Equality: Fa'afafine, the Insular Cases, and Marriage Equality in American Samoa," October 2022.

^c Rev. Amer. Samoa Const. art. III; GAO, "American Samoa Federal Court Options," 2008.

^d The High Court of American Samoa has limited jurisdiction to hear cases involving federal laws on food safety, shipping, and animal welfare. Otherwise, violations of federal law must be brought before a federal district court. GAO, "American Samoa Federal Court Options," 2008.

^e GAO, "American Samoa Federal Court Options," 2008, 15–17.

^f Leslie, "The America Without Marriage Equality: Fa'afafine, the Insular Cases, and Marriage Equality in American Samoa," October 2022.

Other Factors

Nonlabor factors also may contribute to the potential for Fiji and American Samoa to increase BPO/KPO exports to the United States. Firms consider various factors beyond labor abundance and quality, including ICT infrastructure, cultural affinity (including business practices and language), and political risk, when making a decision to outsource services.¹¹¹³ Fiji is directly connected by the Southern Cross internet cable to the United States (and Australia and New Zealand), which provides the country with a dependable 5.4 terabytes per second internet connection that can support high-volume data transfers.¹¹¹⁴ Also, BPO/KPO have the potential to provide Fiji with a growth opportunity that is resilient to climate disruptions because the services can often be executed remotely.¹¹¹⁵ Industry representatives presented the time difference between the United States and American Samoa as an advantage because it allows U.S. companies the potential to provide continuous coverage to their customers outside of U.S. business hours.¹¹¹⁶ Industry representatives added that American Samoa has ample telecom infrastructure to support growth in the BPO/KPO sector.¹¹¹⁷

¹¹¹³ Doh, Bunyaratavej, and Hahn, "Separable but Not Equal," August 2009, 929–30.

¹¹¹⁴ Investment Fiji, "Sectors Opportunities - Business Process Outsourcing," August 2023, 4, 12. For more detail on Fiji's internet connectedness see chapter 2.

¹¹¹⁵ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 35.

¹¹¹⁶ USITC, hearing transcript, February 14, 2023, 45 (testimony of Satyendra Prasad, Embassy of Fiji); industry representative, interview by USITC staff, American Samoa, March 31, 2023.

¹¹¹⁷ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

Because their small populations limit their ability to supply larger companies, Fiji and American Samoa may be best suited to accommodate the BPO/KPO needs of small and emerging U.S. firms with less than \$100 million in annual revenue.¹¹¹⁸ Industry representatives said that the number of jobs associated with BPO/KPO may be negligible to the United States, but they have the potential to significantly impact Fiji and American Samoa.¹¹¹⁹ For example, an industry representative in Fiji said that 90 jobs could triple their business and industry representatives in American Samoa said that 250 jobs would be a major development.¹¹²⁰

Impediments

Most impediments to the expansion of BPO/KPO exports from Fiji and American Samoa are on the supply side. The Pacific Island economies face unique challenges in digital development. Such impediments vary among economies and include the vast geographical dispersion (and the associated issues with internet connectivity and sparse internet penetration), small populations, relatively low literacy rates, energy costs, and digital skills gaps.¹¹²¹ This section describes the specific factors that could impede the expansion of BPO/KPO services in Fiji and American Samoa.

Energy Costs

The dependability and cost of energy in Fiji may constrain the growth of its BPO/KPO services sector. Although its rates of access to energy are comparatively higher than most Pacific Islands, Fiji still experiences issues with electricity reliability and efficiency. Many BPO operations in Fiji must retain a generator and a backup generator to ensure continuous power.¹¹²² The tasks performed in the BPO/KPO sectors require networks and systems hosted by data centers that need a stable supply of electricity.¹¹²³ Outages can be disruptive and often businesses do not control their own energy supply, introducing inefficiencies and extra energy costs.¹¹²⁴ American Samoa also has energy cost impediments to increased BPO/KPO exports to the United States. According to industry representatives, despite utility cost decreases, energy prices remain high in American Samoa and fluctuate with the price of fuel.¹¹²⁵

Workforce Characteristics

Some characteristics of the workforces in Fiji and American Samoa may be limiting factors in expanding BPO/KPO exports to the United States. In particular, the small populations in these economies mean that they may struggle to supply large multinational corporations with outsourcing services (especially when compared to competitors like India and the Philippines). Therefore, Fiji and American Samoa may

¹¹¹⁸ Beschorner, Kuek, and Narimatsu, “ICT for Jobs in the Pacific Island Countries,” May 2015, 5.

¹¹¹⁹ Industry representative, interview by USITC staff, Fiji, March 24, 2023; industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹²⁰ Industry representative, interview by USITC staff, Fiji, March 24, 2023; industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹²¹ UNCTAD, *Digital Economy Report, Pacific Edition 2022*, 2023, 4.

¹¹²² Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹²³ T&D World, “Data Centers and the Power Grid Requirements,” November 3, 2022.

¹¹²⁴ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 19.

¹¹²⁵ Industry representative, interview by USITC staff, American Samoa, March 30, 2023. For more information on the Hawaiki cable see chapter 2.

be best suited to work with small and medium-sized enterprises—especially those that already have operations in the region.¹¹²⁶ For example, industry representatives in Fiji said some firms have operations in both Fiji and the Philippines.¹¹²⁷

Other issues within each economy may impede expanded exports. For example, Fijian universities do not offer courses focused on outsourcing services, such as building skills in customer service training or data entry, and this knowledge gap may dissuade firms from outsourcing services to Pacific Island companies.¹¹²⁸ Also, Fiji suffers from “brain drain” in retaining skilled labor.¹¹²⁹ Furthermore, although Fijian labor costs are lower than in the United States, they are higher than for competitors in India.¹¹³⁰ Separately, industry representatives in American Samoa indicated that because American Samoans do not have all the requisite education and experience, they must learn on the job and that firms spend three to four months training staff. Employees must begin at entry level and eventually can ascend to more complicated jobs to build capacity.¹¹³¹

Remoteness and Awareness

Fiji faces the remoteness challenges characteristic of small island developing states.¹¹³² The Fijian outsourcing market primarily consists of companies that already have a commercial presence in the region, which may be difficult for U.S. firms to break into.¹¹³³ Furthermore, it may be that U.S. companies are not aware of Fiji as an outsourcing destination.¹¹³⁴ The government of Fiji has cited potential strategies for promoting the advantages of outsourcing to Fiji. These strategies include trade missions, investment forums, and other marketing activities.¹¹³⁵

Industry representatives also noted a lack of awareness of American Samoa as a potential outsourcing destination for U.S. firms. This lack of awareness has a tangible impact on the BPO/KPO sector in the territory. For example, industry representatives indicated that American Samoan residents and firms cannot register for some U.S. government programs or bid on government projects because American Samoa is not offered as an option in various drop-down menus on government websites. Including American Samoa on such lists could be especially impactful because many firms in American Samoa have beneficial designations such as veteran-, woman-, and minority-owned that would potentially allow the firms to participate in such programs/projects. Similarly, representatives in American Samoa advocated for funding assistance and small business grants to assist in marketing or their attendance at trade shows.¹¹³⁶

¹¹²⁶ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 39.

¹¹²⁷ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹²⁸ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 37.

¹¹²⁹ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹³⁰ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 35.

¹¹³¹ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

¹¹³² For more information on small island developing states characteristics see chapter 2.

¹¹³³ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 39.

¹¹³⁴ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹³⁵ Government of Fiji, written submission to the USITC, March 3, 2023, 4.

¹¹³⁶ Industry representative, interview by USITC staff, American Samoa, March 30, 2023.

Other Impediments

A few other impediments may hamper increased BPO/KPO exports from Fiji, including insufficient infrastructure and policy gaps. Companies that seek to begin outsourcing services from Fiji may face issues in obtaining adequate real estate, accessing resilient ICT infrastructure, overcoming red tape related to market access and regulatory compliance, and addressing data protection and privacy policy gaps.¹¹³⁷ For example, Fiji does not have a data protection law and industry representatives indicated that the United States could play a role in helping to advise on or draft such a law.¹¹³⁸ Also, no comprehensive strategy encompasses market positioning and targeted investment policies.¹¹³⁹ In addition, industry representatives said that Fiji does not have enough data centers and that their ultimate goal is an ICT park.¹¹⁴⁰ Furthermore, Fiji only has one subsea cable and one landing station, which puts it at a disadvantage when compared to other countries known for North American outsourcing services imports (India, the Philippines, and South Africa).¹¹⁴¹

Initiatives

Fiji has several provisions in place designed to incentivize foreign investment in the ICT and BPO sectors. The Government of Fiji's 2023–24 budget amends the ICT incentives to focus on BPO and KPO among other sectors. Various tax exemptions are related to income generated from research and development, local employment, and building infrastructure.¹¹⁴² The Fijian government continues to implement reforms aimed at making Fiji more business friendly, including establishing committees on investment facilitation and building permit evaluation—and a doing-business taskforce. Their current projects include the construction of the *bizFiji Portal*, which is planned to be a centralized platform for investors to get information on starting a business or construction permits, and a digitalization of these processes.¹¹⁴³

U.S. investment opportunities in the outsourcing sector in Fiji and American Samoa center around education/training, digital infrastructure, and policies designed to incentivize investment. The government of Fiji has stated that U.S. stakeholders could help promote the Fijian BPO/KPO sector by training the local workforce in the areas of customer service, technical support, data entry, and accounting. These initiatives could be supplied through partnerships with U.S. companies and educational institutions.¹¹⁴⁴ Additionally, U.S. firms and organizations could have a role in helping tailor

¹¹³⁷ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, xi, 37.

¹¹³⁸ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹³⁹ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, xv.

¹¹⁴⁰ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹⁴¹ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 63.

¹¹⁴² Investment Fiji defines eligible sectors and activities as: software development, call centers, customer contact centers, engineering and design, research and development, animation and content creation, distance learning, market research, travel services, finance and accounting services, human resource services, legal services, compliance and risk services or other administrative services (e.g., purchasing, etc.), but does not include an internet cafe or any retail or wholesale of information technology products or the repair, sale or service of any such products. Investment Fiji, "Investment Opportunities | Investment Incentives | ICT," August 2023.

¹¹⁴³ Government of Fiji, Ministry of Trade, Co-operatives, Small and Medium Enterprises, "Business Reforms," accessed April 12, 2023.

¹¹⁴⁴ Government of Fiji, written submission to the USITC, March 3, 2023, 4.

and deliver these upskilling programs to Fijians.¹¹⁴⁵ Industry representatives indicated that this could be done through open-source learning platforms and traditional certificate programs in partnership with Fiji National University.¹¹⁴⁶

World Bank researchers suggest that increased investment in digital infrastructure could facilitate the growth of the Fijian BPO/KPO sector. For example, private sector investment could support the construction of IT infrastructure such as new subsea fiber optic cables, network connections, colocation data centers, and special economic zones/business parks.¹¹⁴⁷

The BPO/KPO industry in American Samoa can also be supported with initiatives to increase investment from the United States. Industry representatives indicated that technical assistance and financial resources are needed to offset the cost of the internet, as discussed above. The government of American Samoa took out loans to build its internet infrastructure, and the cost of the debt servicing has been passed on to consumers. Industry representatives also recommended subsidies for constructing office space and tax credits to make it easier to establish a business in American Samoa.¹¹⁴⁸

Box 7.4 Other Internet-Enabled Services

Some of the smaller Pacific Island economies, namely New Caledonia, Tokelau, and Tuvalu have developed niche internet-enabled services that provide examples of how Pacific Island economies can increase digital services exports to the United States and attract more U.S. investment. The Domain Name System has two categories of domains: generic Top-Level Domains (e.g., “.com”, “.info”, or “.org”) and country-code Top-Level Domains (ccTLDs) that are reserved for countries and dependent territories.^a In 1995, the International Organization for Standardization assigned Tuvalu’s ccTLD as “.tv.” The popular streaming website twitch.tv (part of Amazon) developed on Tuvalu’s ccTLD and Tuvalu signed a new contract with U.S. firm GoDaddy in 2021.^b The new agreement is expected to improve Tuvalu’s revenue from the .tv domain name to about \$10 million (from \$5 million), and these revenues could be reinvested in Tuvalu (e.g., Tuvalu used its first \$1 million in revenue to cover its fees to join the United Nations).^c

Concerns regarding ccTLDs abound. Tokelau (“.tk”) has the second most registered ccTLDs in the world, with more than 27 million registered domains.^d Tokelau began offering free domain registration in 2000 in partnership with the Netherlands-based company Freenom.^e Freenom, however, operates five ccTLDs and has been faced with allegations of harboring phishing scams.^f Furthermore, Freenom has reportedly stopped registering domains amid a recent lawsuit from Meta (the parent company that owns Facebook, Instagram, and WhatsApp) for cybersquatting violations and trademark infringement.^g Prior to the lawsuit, Freenom allowed users to register their domain name for free for the first 12 months before imposing a subscription fee. If a user declines to pay the fee, advertising is placed on the website and the revenue generated from the web traffic produces income for the inhabitants of Tokelau and for Freenom.^h

Video games may also offer an opportunity for Pacific Island economies to increase their exports to the United States or to attract more U.S. investment. Awaceb is an independent game studio that was

¹¹⁴⁵ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 39.

¹¹⁴⁶ Industry representative, interview by USITC staff, Fiji, March 24, 2023.

¹¹⁴⁷ Kumar, Miller, and Chand, *Creating Markets in Fiji*, May 2022, 39.

¹¹⁴⁸ Industry representative, interview by USITC staff, American Samoa, March 30, 2023. For more information on the Hawaiki cable see chapter 2.

founded in 2016 by two New Caledonians. Although the studio is in France, the founders regularly travel back to New Caledonia, in part to employ New Caledonians in voice acting and musical performances.ⁱ Their most recent game, *Tchia*, was released on March 21, 2023, and can be accessed through PlayStation 4, PlayStation 5, and PC.^j This video game example illustrates how official trade data (e.g., charges for intellectual property not indicated elsewhere (n.i.e.)) may not tell the whole story of Pacific Island services trade with the United States.^k

^a Perset, *Evolution in the Management of Country Code Top-Level Domain Names*, November 17, 2006, 4.

^b Ligaiula, “Tuvalu Chooses GoDaddy for Lucrative Dot Tv Domain Name,” December 16, 2021.

^c Westerman, “Tuvalu Cashes in on Its Coveted Internet Domain Name,” January 24, 2022.

^d China has the most ccTLDs with nearly 30 million. Bianchi, “Leading Country Code Top Level Domains,” July 20, 2023.

^e Murphy, “A Tiny Island Nation Has More Web Addresses,” January 16, 2015.

^f Other than Tokelau, the five country-code abbreviations are the Central African Republic (“.cf”), Gabon (“.ga”), Equatorial Guinea (“.gq”), and Mali (“.ml”); Spamhaus Technology, “Troubles in Tokelau,” April 24, 2023.

^g Cybersquatting refers to the registration of domain names that are identical or similar to trademarks, service marks, company names, or personal names; Krebs, “Sued by Meta, Freenom Halts Domain Registrations,” March 7, 2023.

^h IONOS Digital Guide, “Tiny Island, Massive Domain,” February 17, 2021.

ⁱ Awaceb, “FAQ,” accessed May 23, 2023.

^j Hilliard, “*Tchia* Review - Simply Transformative Fun,” March 20, 2023.

^k BEA categorizes “licenses to reproduce and/or distribute audiovisual products” as a service under “charges for intellectual property n.i.e.” USDOC, BEA, “U.S. International Economic Accounts: Concepts and Methods,” June 2022, 112.

Renewable Energy Investment

Renewable energy was identified as a potential sector for investment based on the ambitious renewable energy targets of many Pacific Island economies, the current lack of investment in renewable energy projects, and the stated desires of some government officials to increase private investment in renewable energy. Renewable energy is generally defined as energy resources that are naturally replenishing and virtually inexhaustible but limited in the amount of energy available at any given point in time.¹¹⁴⁹ In this section, analysis focuses on the three largest Pacific Island economies—Fiji, Papua New Guinea, and the Solomon Islands—with limited discussion of other Pacific Island region markets.

In the Pacific Island region, the key renewable resources with the most potential include solar photovoltaic (PV), hydroelectric power (hydro), biomass, and wind. Solar PV converts sunlight directly into electricity.¹¹⁵⁰ Solar installations can take the form of large, utility-scale solar farms or smaller rooftop installations for residential or commercial use.¹¹⁵¹ Potential for solar PV generation throughout the region is strong.¹¹⁵² Hydro harnesses the energy created by flowing water, either through creating a reservoir and controlling water flow through a dam or by using run-of-river systems that harness the flow of existing rivers.¹¹⁵³ Pacific Island economies with opportunity for hydro installations include Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, the Solomon Islands, and Vanuatu.¹¹⁵⁴

¹¹⁴⁹ USDOE, EIA, “Glossary,” accessed June 12, 2023.

¹¹⁵⁰ ECOFLOW, “Solar Photovoltaic vs. Solar Thermal,” April 14, 2023.

¹¹⁵¹ EnergySage, “Types of Solar Installations,” March 24, 2023.

¹¹⁵² ADB, “The Pacific Islands,” May 1, 2019. Solar mapping studies have been conducted for many of the Pacific Island economies, which measures average solar energy potential per square meter per day. Some of the economies with the largest potential (over 5 kWh/m²/day) include Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Samoa, Tonga, and Tuvalu. Fiji’s potential was slightly lower because of greater average cloud cover, and formal studies have not been conducted for Papua New Guinea or the Solomon Islands. IFC, *Powering the Pacific*, 2021, 20–21.

¹¹⁵³ USDOE, “Hydropower Basics,” accessed June 15, 2023.

¹¹⁵⁴ ADB, “The Pacific Islands,” May 1, 2019.

Biomass is renewable organic material from plants and animals; examples of biomass include firewood, crops and waste materials, municipal solid waste (garbage), and manure or sewage.¹¹⁵⁵ Pacific Island economies with good potential for biomass generation include Fiji, Papua New Guinea, and Vanuatu.¹¹⁵⁶ Wind farms can be constructed onshore and offshore, with offshore turbines having greater generation capacity but at a far greater cost to build and maintain.¹¹⁵⁷ Generation potential from wind in the region is not as strong, but offshore wind farms show some potential and Vanuatu has a successful wind farm operating on Efate (its third-largest island).¹¹⁵⁸

Renewable resources can supply energy on both large and small scales, making them particularly helpful to a region characterized by remoteness and unreliable electricity grids. The “grid” is the network through which electricity is generated, transmitted, and then distributed to end users.¹¹⁵⁹ In many of the Pacific Island economies, the grid is controlled by state-owned utilities. For example, in Fiji, about 90 percent of the population is served by grids controlled by state-owned Energy Fiji Limited (EFL).¹¹⁶⁰ The grid in Papua New Guinea is operated by state-owned PNG Power Ltd (PPL), but only about 13 percent of households have access to grid electricity.¹¹⁶¹ Both state-owned utilities and independent power producers (IPPs) supply electricity to the grid in Fiji and Papua New Guinea. Outside of the main grids, captive generation and mini-grids are common. Captive generation (sometimes referred to as “own-use”) is the production of energy primarily for self-use, such as through a rooftop solar installation. A mini-grid is a system involving small-scale electricity generation and distribution to a limited number of customers that can operate apart from the main grid.¹¹⁶² Mini-grids are designed to reach smaller pockets of electricity customers.¹¹⁶³ The fragmented nature of the population for many of the Pacific Island economies makes mini-grids and own-use generation key. Additionally, systems like rooftop solar are generally more resilient to severe weather, often sustaining little damage and staying online through emergencies, when electric grids are unable to do so.¹¹⁶⁴

The Renewable Energy Sector

Despite having one of the world’s smallest carbon footprints (a 0.03 percent share of global greenhouse gas emissions), most Pacific Island economies have ambitious renewable energy targets.¹¹⁶⁵ The threat of climate change, coupled with a heavy reliance on costly diesel imports for power generation, has prompted these countries to increase the amount of electricity generation provided by hydro, solar PV, and, to a lesser extent, wind turbine power. The amount of renewable electricity generation needed to

¹¹⁵⁵ USDOE, EIA, “Biomass Explained,” June 2, 2022.

¹¹⁵⁶ IFC, *Powering the Pacific*, 2021, 20–21.

¹¹⁵⁷ National Grid Group, “Onshore Vs Offshore Wind Energy,” accessed June 15, 2023.

¹¹⁵⁸ IFC, *Powering the Pacific*, 2021, 21.

¹¹⁵⁹ USDOE, EIA, “Delivery to Consumers,” accessed June 15, 2023.

¹¹⁶⁰ IFC, *Powering the Pacific*, 2021, 66.

¹¹⁶¹ IFC, *Powering the Pacific*, 2021, 8.

¹¹⁶² USAID, “Mini-Grids Support Toolkit: Glossary,” December 9, 2022.

¹¹⁶³ USAID, “Mini-Grids Support Toolkit,” December 9, 2022.

¹¹⁶⁴ Minos, “Renewable Energy and Energy Storage,” June 2, 2022.

¹¹⁶⁵ Parsons, “The Pacific Islands,” May 23, 2022.

meet future targets provides significant opportunity for U.S. investment in the region, in partnership with utility providers or as IPPs.¹¹⁶⁶

Current State of Generation

Generally, the electricity sector in the Pacific Islands is characterized by generation from high-priced imported diesel and unreliable electricity grids reaching small shares of the overall population.¹¹⁶⁷

Table 7.3 summarizes the electricity sectors for a sample of the most populous Pacific Island economies.

Table 7.3 Overview of the electricity sectors and renewable energy (RE) targets

In dollars per kilowatt-hour (\$/kWh), percentages, megawatts (MW), and gigawatt-hours (GWh). F.S. Micronesia = the Federated States of Micronesia.

Country	Average domestic electricity rate, 2021 (\$/kWh)	Access to electricity (%)	Peak demand (MW)	Installed capacity (MW)	Annual generation (GWh)	Current RE generation (%)	RE target
F.S. Micronesia	0.48	65	6.2	12	72.0	5	70 percent RE capacity by 2030; 85 percent clean energy capacity by 2040
Fiji	0.14	100	172	329	976.4	65	90 percent RE by 2025; 100 percent RE by 2030
Kiribati	0.29	75	5	8.8	2.2	14	Tarawa: 23 percent RE by 2025 Kiritimati: 40 percent RE by 2025
Papua New Guinea	0.30	13	232	416	1,434.1	47	100 percent RE by 2050
Samoa	0.29	100	25	69	169.0	50	70 percent RE by 2030
The Solomon Islands	0.69	16	16	31	99.1	5	100 percent RE by 2030
Tonga	0.35	99	10	17	66.0	9	70 percent RE by 2025; 100 percent RE by 2035
Vanuatu	0.59	33	15	32	80.5	29	65 percent RE in 2020 and 100 percent RE 2030

Sources: Average domestic electricity rate: Papua New Guinea: Industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023. All other economies: Cable.co.uk, "Worldwide Electricity Pricing," 2021. Access to electricity, Peak demand, Installed capacity, Annual generation, and Current RE generation: IFC, *Powering the Pacific*, 2021, 17. RE targets: Federated States of Micronesia: Pacific Island Times, "FSM Eyes 70% Renewable Energy by 2030," November 9, 2022, Papua New Guinea: IFC, "Papua New Guinea Set to Expand Renewable Energy," June 26, 2018. Samoa: Foreign government official, interview by USITC staff, Samoa, March 28, 2023. Tonga: GGGI, "Tonga Adopts Policies to Achieve NDC Targets," October 17, 2022. Vanuatu: Council of Ministers - Department of Energy, *Updated Vanuatu National Energy Road Map*, June 2016, 5. All other economies: IFC, *Powering the Pacific*, 2021, 24.

Note: The access to electricity number for Papua New Guinea and the Solomon Islands represents access to grid-based electricity only and does not include off-grid electricity access.

¹¹⁶⁶ IFC, *Powering the Pacific*, 2021, 4.

¹¹⁶⁷ See chapter 2 for additional discussion of high energy costs in the region.

Pacific Island economies have achieved varying levels of integration with renewable generation, as is outlined in table 7.3.¹¹⁶⁸ Among the largest Pacific Island economies, Fiji's electricity market is the most developed and provides a strong example of the potential for improving access to electricity (electrification) and reducing costs to consumers through renewable generation. As of 2020, about 65 percent of Fiji's electricity came from renewable sources, both from utility-owned generation and IPPs, with 57.2 percent of its total generation coming from hydro.¹¹⁶⁹ Fiji has the lowest retail electricity rates in the region, and 100 percent of households have access to electricity.¹¹⁷⁰

For Papua New Guinea and the Solomon Islands, ambitious electrification targets and the desire to move away from expensive diesel generation provide strong potential for growth in renewable energy generation. Only 13 percent of residents of Papua New Guinea have access to grid electricity.¹¹⁷¹ Electricity is provided mainly using diesel-based generation.¹¹⁷² Papua New Guinea is targeting 70 percent electrification (both grid and off-grid) by 2030.¹¹⁷³ The Solomon Islands faces the highest retail electricity rates in the world, reflecting its reliance on diesel as a fuel source for about 94 percent of electricity generation.¹¹⁷⁴ Additionally, only 16 percent of households have access to grid electricity.¹¹⁷⁵ The Solomon Islands has set a goal of 100 percent electrification (both grid and off-grid) by 2050.¹¹⁷⁶ Even in areas with access to electricity, industry representatives noted several times the unreliability of existing grids is a significant issue for businesses.¹¹⁷⁷

Tokelau, one of the smallest Pacific Island economies, achieved 100 percent renewable generation in 2013 through the use of solar PV generation and battery storage.¹¹⁷⁸ Tokelau was the first nation in the world to achieve 100 percent solar generation, doing so through the Tokelau Renewable Energy Project, launched in 2010 by the government of Tokelau and the New Zealand Ministry of Foreign Affairs and Trade.¹¹⁷⁹ The system features a mini-grid for each of Tokelau's three small atolls, installed by New Zealand company Vector Powersmart and consulting firm IT Power Australia.¹¹⁸⁰ Before 2012, Tokelau's energy generation was entirely from diesel generation.¹¹⁸¹ After the installation of the solar mini-grids, primary energy generation shifted to 100 percent solar, with backup energy generation provided by

¹¹⁶⁸ Not included in Table 7.3, Tokelau has achieved 100 percent renewable generation using solar PV generation. Garrun, "Tokelau," February 12, 2013.

¹¹⁶⁹ IFC, *Powering the Pacific*, 2021, 66. Fiji's 2021 average retail electricity rates are comparable to the average U.S. rates in 2021 (\$0.11/kWh) and are lower than U.S. rates in 2022 (\$0.15/kWh). Cable.co.uk, "Worldwide Electricity Pricing," 2021; USDOE, EIA, "U.S. Residential Electricity Bills Increased," May 31, 2023.

¹¹⁷⁰ IFC, *Powering the Pacific*, 2021, 28, 66.

¹¹⁷¹ IFC, *Powering the Pacific*, 2021, 8.

¹¹⁷² IFC, *Powering the Pacific*, 2021, 31, 34.

¹¹⁷³ IFC, *Powering the Pacific*, 2021, 8.

¹¹⁷⁴ Cable.co.uk, "Worldwide Electricity Pricing," 2021; IFC, *Powering the Pacific*, 2021, 10, 109.

¹¹⁷⁵ IFC, *Powering the Pacific*, 2021, 17.

¹¹⁷⁶ IFC, *Powering the Pacific*, 2021, 10.

¹¹⁷⁷ Industry representative, interview by USITC staff, Fiji, March 24, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023; industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023.

¹¹⁷⁸ Garrun, "Tokelau," February 12, 2013.

¹¹⁷⁹ Garrun, "Tokelau," February 12, 2013; Government of Tokelau, *Tokelau Renewable Energy Project*, March 2013.

¹¹⁸⁰ Garrun, "Tokelau," February 12, 2013.

¹¹⁸¹ Vector Powersmart, "Tokelau," accessed July 12, 2023.

diesel generators using local coconut oil.¹¹⁸² Because of wear from the marine environment, the system was upgraded in 2020 through additional funding from the governments of Tokelau and New Zealand.¹¹⁸³

Renewable Energy Projects

As of 2020, about 40 renewable energy projects in the Pacific Islands were operating, under construction, or planned for commissioning before 2030. It is estimated that these projects will add a combined 420 megawatts (MW) of renewable energy generation to the region.¹¹⁸⁴ Fiji is one of the leaders in current renewable energy generation among Pacific Island economies. Renewable energy IPPs already operating in Fiji include four biomass facilities with a combined total capacity of 46 MW, though only one 12 MW facility is producing power solely to sell to the grid.¹¹⁸⁵ Smaller private installations include (as of 2020) about 150 rooftop solar PV installations.¹¹⁸⁶ Multiple larger installations are operated by private sector energy service companies. These installations range from 88 kilowatts (kW) to 1.5 MW.¹¹⁸⁷ A 5 MW solar PV plant at Qeleloa on Viti Levu is planned to be implemented under an IPP agreement. Fiji's main utility, EFL, has also announced a 15 MW solar IPP on Vanua Levu in partnership with the International Finance Corporation.¹¹⁸⁸

Papua New Guinea also sources a large share of its electricity from renewable resources. Papua New Guinea's renewable generation is primarily sourced from hydro, with three reservoir hydro facilities and five run-of-river hydro projects operated by PPL. It has a total installed capacity of 195.4 MW and, as of 2019, supplies nearly 677 megawatt-hours (MWh) of electricity.¹¹⁸⁹ In April 2023, a privately funded 50 MW hydro project, the Edevu Hydropower Project outside of Port Moresby, launched after 15 years in development. The project was funded by Chinese developer PNG Hydro Development Ltd.¹¹⁹⁰

As of 2019, the Solomon Islands supplied only 5 percent of electricity from renewable sources, mainly through solar PV.¹¹⁹¹ A large addition to the Solomon Islands' 30 MW capacity is the Tina River hydro project, projected to have a capacity of 15 MW upon completion. The project is led by the World Bank and funded by six development agencies.¹¹⁹²

¹¹⁸² RMI, "An Island (Tokelau) Powered 100% By Solar Energy," October 6, 2013.

¹¹⁸³ RNZ, "New Solar System for Tokelau," March 4, 2020.

¹¹⁸⁴ IFC, *Powering the Pacific*, 2021, 4.

¹¹⁸⁵ IFC, *Powering the Pacific*, 2021, 22. The other three facilities are operated by businesses which sell only surplus electricity to the grid.

¹¹⁸⁶ IFC, *Powering the Pacific*, 2021, 9.

¹¹⁸⁷ IFC, *Powering the Pacific*, 2021, 9.

¹¹⁸⁸ IFC, *Powering the Pacific*, 2021, 9.

¹¹⁸⁹ IFC, *Powering the Pacific*, 2021, 39.

¹¹⁹⁰ Power Technology, "Power Plant Profile," April 22, 2023; "K650 Million Hydropower Project in PNG Opens," April 24, 2023.

¹¹⁹¹ IFC, *Powering the Pacific*, 2021, 17, 112. A micro-hydro plant is a plant that generates up to 100 kW of electricity. USDOE, "Microhydropower Systems," accessed June 15, 2023.

¹¹⁹² IFC, *Powering the Pacific*, 2021, 116. The six development agencies are: the International Development Association, the Green Climate Fund, Korea's Economic Development Corporation Fund, the Abu Dhabi Fund for Development, Asian Development Bank, and the Government of Australia.

Potential for Increased Investment from the United States

The need for reliable electricity and low-cost generation coupled with ambitious renewable energy targets provides significant opportunity for investment in the Pacific Islands.¹¹⁹³ The United States already has significant investment in Vanuatu: Vanuatu Utilities and Infrastructure—owned by U.S.-based Pernix Group—operates a 1.5 MW system on the island of Espiritu Santo and several smaller systems on other islands.¹¹⁹⁴ Many investment opportunities are forthcoming across the region. Several Pacific Island economies—Kiribati, Fiji, Papua New Guinea, Samoa, the Solomon Islands, and Tonga—have already or will soon be commissioning renewable energy IPPs.¹¹⁹⁵ Fiji and Papua New Guinea have upcoming opportunities in hydro generation. In Papua New Guinea, both the government and PPL have indicated a strong preference for the private sector to meet growing demand for electricity.¹¹⁹⁶ Numerous investment opportunities in solar projects (both IPPs and rooftop installations) will be likely in almost every Pacific Island economy.¹¹⁹⁷

Several incentives encourage investment in Pacific Island economies' renewable energy generation. Fiji has several fiscal incentives in place to encourage investment in renewables, including a 10-year tax holiday for renewable energy developers, no import duties on renewable energy equipment, financial grants and direct investment from Fiji Development Bank for renewable energy projects, and subsidized borrowing and grant funding.¹¹⁹⁸ Papua New Guinea offers exemption from import duties on renewable energy equipment and a 10-year tax holiday in free trade zones.¹¹⁹⁹ Fiscal incentives for renewables in the Solomon Islands include the opportunity to apply for exemption from a 10 percent import tax on renewable energy generation equipment.¹²⁰⁰

Impediments

Despite the potential for profitable investment in renewable energy in Pacific Island economies, entering the market faces several impediments. First, projects are generally limited in size and, therefore, have limited potential for achieving profitability through scale.¹²⁰¹ For the Solomon Islands, projects outside the capital, Honiara, generally have poor commercial viability as a result of low population density in rural areas.¹²⁰² This is an issue that applies throughout the Pacific Island region and is likely the reason that the region's overall electrification rate is so low.¹²⁰³ Another issue is access to

¹¹⁹³ Some have suggested that U.S. investment or financing of renewable energy projects would counterweight Chinese fossil fuel projects or encourage Chinese developers to shift investment to clean energy projects. Liu and Urpelainen, "Why the United States Should Compete with China," January 7, 2021.

¹¹⁹⁴ IFC, *Powering the Pacific*, 2021, 139.

¹¹⁹⁵ IFC, *Powering the Pacific*, 2021, 15.

¹¹⁹⁶ IFC, *Powering the Pacific*, 2021, 31.

¹¹⁹⁷ IFC, *Powering the Pacific*, 2021, 15.

¹¹⁹⁸ IFC, *Powering the Pacific*, 2021, 29.

¹¹⁹⁹ IFC, *Powering the Pacific*, 2021, 29.

¹²⁰⁰ IFC, *Powering the Pacific*, 2021, 29.

¹²⁰¹ Industry expert, interview by USITC staff, March 2, 2023.

¹²⁰² IFC, *Powering the Pacific*, 2021, 105.

¹²⁰³ Dornan, "Access to Electricity in Small Island Developing States of the Pacific," March 2014.

land: as discussed in chapter 2, unclear land use rights are a barrier to foreign investment, especially for projects that require large areas of land that potentially cross several claim boundaries.¹²⁰⁴

Additionally, energy regulations in the region can be a significant barrier to entry for installing renewable energy. According to some experts, Papua New Guinea's energy law (the National Energy Policy 2017–2027) increases the cost of doing business in Papua New Guinea.¹²⁰⁵ Others note that the law makes it almost impossible for companies to install own-use solar PV generation because it grants PPL exclusive rights to sell electricity to customers with a load of 10 MW or less that are within 10 kilometers of the existing grid.¹²⁰⁶ As a result, companies frequently install solar power equipment before securing proper approval for projects.¹²⁰⁷ In the Solomon Islands, the law (the Electricity Act, last amended in 2017) is incomplete and unclear in some important areas. For example, a 1992 amendment allows rooftop solar PV installations and mini-grids to be mounted without a license. The law, however, is unclear whether a supplier can charge for electricity supplied by these projects and if consumers can remain connected to the main grid.¹²⁰⁸

Initiatives

Many Pacific Island economies have recently undertaken initiatives to encourage foreign investment in renewable electricity. For Papua New Guinea, a foreign government official noted that power supply is a major issue in which investment would help.¹²⁰⁹ The U.S. Agency for International Development (USAID) PNG Electrification Partnership (PEP) is also working to make investment easier by setting up projects, supporting financial institutions, and assisting in publicizing investment opportunities.¹²¹⁰ In July 2022, it published a step-by-step investment guide for the energy sector in Papua New Guinea following the enactment of the National Energy Authority Act in 2021.¹²¹¹ USAID is also working with PPL to facilitate auctions of renewable energy capacity and is working to support electrification of Papua New Guinea through 20 mini-grids being built outside of the main grid.¹²¹² PPL also began piloting a program allowing customers to purchase licenses to install rooftop solar and sell excess generation back to the grid.¹²¹³

Fiji passed a new Electricity Act in 2017 (that came into force in October 2019) that is intended to encourage private sector investment in renewable electricity. This includes investment through the government's partial divestiture from the state-owned utility EFL and by allowing IPPs to supply electricity through a single-buyer model.¹²¹⁴ As of 2019, EFL was also finalizing a rooftop solar policy for self-consumption or export to the grid by residences and commercial properties, likely including

¹²⁰⁴ USAID-PEP, *Off-Grid Market Assessment*, January 2022, 32.

¹²⁰⁵ Industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023.

¹²⁰⁶ Industry representative, interview by USITC staff, Papua New Guinea, April 21, 2023; industry representative, interview by USITC staff, Australia, April 17, 2023; IFC, *Powering the Pacific*, 2021, 41.

¹²⁰⁷ Industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023.

¹²⁰⁸ IFC, *Powering the Pacific*, 2021, 113.

¹²⁰⁹ Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹²¹⁰ USAID, *PEP Activity Annual Report*, October 2022, 10.

¹²¹¹ USAID, "Papua New Guinea Energy Sector Investor Guide," July 2022.

¹²¹² Industry expert, interview by USITC staff, Papua New Guinea, April 21, 2023.

¹²¹³ IFC, *Powering the Pacific*, 2021, 58.

¹²¹⁴ IFC, *Powering the Pacific*, 2021, 67. A single-buyer model is one in which the utility company purchases electricity on behalf of end-use customers, either from its own generation or from IPPs. Enerdynamics, "Single Buyer with Competitive Generation Electric Market Model," accessed June 12, 2023.

net-metering arrangements.¹²¹⁵ Fiji’s Department of Energy also opened the door to private sector investment in mini-grids in the rural parts of Fiji not served by EFL because of difficulties local governments faced operating mini-grids without proper personnel or expertise.¹²¹⁶ In May 2023, Arizona State University’s Laboratory for Energy and Power Solutions (backed by a U.S. Trade and Development Agency grant) began a feasibility study to identify 75 rural sites for solar-powered mini-grids in Fiji with the aim to invest \$40 million to facilitate the installation of these grids.¹²¹⁷ Investment Fiji, a state organization that reports to the Ministry of Trade and promotes investments, has energy projects registered with the organization that had tenders available as of March 2023.¹²¹⁸ Several IPP projects, including large hydropower projects, have been assessed to the pre-feasibility level or higher.¹²¹⁹

Similar to Papua New Guinea’s, the Solomon Islands’ energy sector is largely undeveloped, with only 16 percent of households having access to electricity.¹²²⁰ Solomon Power has a government mandate to achieve 100 percent electrification by 2050.¹²²¹ To reach this goal, it plans to install one mini-grid per year from a set of 30 mini-grids identified for prioritization. Current plans suggest Solomon Power will operate these mini-grids, but there is potential for private sector involvement.¹²²² Generally, opportunities exist for large-scale investments in new IPPs as well; however, the 15 MW Tina River project has decreased the need for IPP investment in Honiara.¹²²³

¹²¹⁵ IFC, *Powering the Pacific*, 2021, 9.

¹²¹⁶ IFC, *Powering the Pacific*, 2021, 67.

¹²¹⁷ USTDA, “USTDA Advances Rural Electrification in Fiji,” May 18, 2023; Cuthrell, “US-Lead [Sic] Consortium Begins Work on Mini-Grid,” May 29, 2023.

¹²¹⁸ Industry expert, interview by USITC staff, Fiji, March 21, 2023.

¹²¹⁹ IFC, *Powering the Pacific*, 2021, 9.

¹²²⁰ IFC, *Powering the Pacific*, 2021, 17.

¹²²¹ IFC, *Powering the Pacific*, 2021, 10.

¹²²² IFC, *Powering the Pacific*, 2021, 10.

¹²²³ IFC, *Powering the Pacific*, 2021, 10.

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Chapter 8

Cross-Sector Initiatives in the Pacific Islands

This chapter provides an overview of cross-sector initiatives in the Pacific Islands, with a focus on initiatives that support trade and investment. The first section provides an overview of aid to the Pacific Island region, including the major sources and targets for official development assistance as well as limitations of and gaps in current aid flows. Next, this chapter highlights infrastructure initiatives in the region related to seaports and airports, internet connectivity, and e-commerce, which are aimed at addressing the transportation and connectivity challenges discussed in chapter 2. The third section summarizes past U.S. initiatives in the region. The final section covers major trade-related initiatives in the Pacific Island economies and potential areas for greater U.S. engagement.

Australia is generally the primary partner for initiatives in the Melanesian subregion of the Pacific, and New Zealand and the United States are the primary partners for initiatives in Polynesia and Micronesia, respectively. Historically, U.S. initiatives in the Pacific Islands have mostly consisted of payments to the Freely Associated States (FAS), federal grants and other programs supporting the U.S. territories, and humanitarian aid and disaster relief provided by USAID. China, Japan, and various multilateral institutions also provide significant official development assistance (ODA) to the Pacific Island economies. Across all donors, seaport-related initiatives in the Pacific Islands have focused on building and repairing wharves, increasing storage, improving climate resilience, and digitizing customs procedures. Donor-funded airport-related initiatives vary widely across the region, ranging from construction of an airfield in Tokelau to expansion and modernization of Fiji's Nadi International airport, a regional hub for air transport. Internet initiatives in the region include subsea cable infrastructure, satellite projects, and last mile infrastructure. Foreign donors have also funded e-commerce initiatives focused on improving access to e-commerce platforms and introducing digital payments systems in the region.

Contacts in the Pacific Islands and representatives from other major donor countries provided recommendations for potential U.S. initiatives to support trade and investment. One general recommendation was that the United States support existing regional initiatives. Some contacts also made specific recommendations on programs to join, policies to support, and targets for capacity building.

Global Aid to the Pacific Islands

The Pacific Island region is one of the most aid dependent in the world.¹²²⁴ This aid dependency, as mentioned in aid dollars per capita, is directly related to the economic impediments these islands face

¹²²⁴ When measured as a share of GDP or per capita. USITC, hearing transcript, February 14, 2023, 72 (testimony of Alan Tidwell, Georgetown University); Dornan and Pryke, "Foreign Aid to the Pacific," 2017, 386; Dayant, "Follow the Money," April 17, 2019.

and likely also reflects the relatively high costs of administering aid to small developing economies.¹²²⁵ As discussed in chapter 2, the Pacific Island economies face impediments, including lack of scale, limited economic diversification, climate change and natural disasters, weak institutional capacity, land rights insecurity, high energy costs, and the infrastructure and connectivity challenges associated with remoteness. These impediments collectively make it harder for Pacific Island businesses to compete at the international level. Some aid is channeled to directly addressing specific impediments. Some examples of this include budgetary support and training initiatives directly supporting institutional capacity (particularly for territories under the sovereignty of another state) and the climate change—and natural disaster—related aid discussed below. A few initiatives have also focused on helping foreign investors navigate the land rights systems to help economies like Papua New Guinea and the Solomon Islands attract more investment.¹²²⁶ However, many initiatives discussed in this chapter are programs designed to more broadly support Pacific Island trade and investment rather than targeting specific impediments.

Official development assistance (ODA) is a measurement of aid defined by the OECD to facilitate transparent and comparable data across different donors. To be categorized as ODA, the aid must be provided by official agencies (including at the state and local levels) and promote the economic development and welfare of developing countries as its main objective. Loans must be offered at below-market rates to qualify as ODA.¹²²⁷ Many forms of aid, including scholarships and spending in support of capacity-building programs, Peace Corps volunteers, research initiatives, and infrastructure projects, are included in ODA flows.¹²²⁸

According to the Lowy Institute, an Australian think tank, ODA to 14 of the 22 Pacific Island economies (excluding the eight territories) totaled \$2.5 billion in 2019 and a record \$3.3 billion in 2020.¹²²⁹ Over a third of these ODA flows went to Papua New Guinea, which has a much larger population than all the other Pacific Island economies combined.¹²³⁰ Of the 66 donors in the database, Australia, China, New Zealand, Japan, and the United States have historically been the largest sources of ODA, followed by multilateral donors such as the Asian Development Bank (ADB), EU institutions,¹²³¹ and the World Bank. Australia has been by far the largest source of aid to these Pacific Island economies, providing

¹²²⁵ There are several other theories for why small Pacific Island countries receive more aid per capita, such as donor preference to be involved in as many countries as possible. Dornan and Pryke, “Foreign Aid to the Pacific,” 2017, 392.

¹²²⁶ Subject matter expert, interview by USITC staff, Papua New Guinea, April 21, 2023; U.S. government officials, interviews by USITC staff, February 3 and March 31, 2023.

¹²²⁷ ODA does not include military aid or transactions with primarily commercial objectives (such as export credits). OECD, “What Is ODA?,” April 2021.

¹²²⁸ Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²²⁹ ODA data are based on actual spending rather than commitments. ODA data in this report does not extend past 2020. Complete data for 2021 and 2022 are not yet available. Thus, this description of ODA does not capture any projects that were announced before the end of 2020 but had not yet started to receive funding, or any projects announced after 2020. The eight Pacific Island territories not included in the dataset are American Samoa, French Polynesia, Guam, New Caledonia, the Northern Mariana Islands, the Pitcairn Islands, Tokelau, and Wallis and Futuna. Reuters, “Aid Spending Soared to Record Level,” October 30, 2022; Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²³⁰ See chapter 2 for population data. Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²³¹ EU institutions represent total flows from the European Commission, European Development Fund, and European Investment Bank. Lowy Institute, Pacific Aid Map, June 13, 2023.

\$9.6 billion in ODA from 2011 to 2020—compared to \$1.8–2.2 billion each in ODA during that period from China, New Zealand, Japan, and the United States.¹²³² This aid primarily consisted of grants, although it also included significant loans from China, the ADB, the World Bank, and—to a lesser extent—Japan.

In general, the main development partners are Australia for its neighboring Melanesian islands, New Zealand for Polynesian islands, and the United States for Micronesian islands.¹²³³ ODA flows from 2011 to 2020 follow this pattern. More than two-thirds of Australian aid went to Papua New Guinea, the Solomon Islands, and Vanuatu.¹²³⁴ U.S. ODA was even more heavily concentrated in the FAS, which consists of the Republic of the Marshall Islands, the Federated States of Micronesia, and Palau. New Zealand aid was more evenly distributed but included relatively high shares of ODA to regional initiatives and to islands that are in free association with New Zealand (the Cook Islands and Niue). Chinese ODA flows were highest to Papua New Guinea, followed by Fiji, Samoa, Vanuatu, and Tonga. Japan had relatively high ODA flows to the Micronesia subregion (particularly Palau) and to Tonga, consistent with its historic ties, geographic proximity, and the close diplomatic relationship between the Japanese imperial family and the Tongan royal family.¹²³⁵ In addition to these ODA flows to Pacific Island nations, the United States, France, New Zealand, and the United Kingdom also provided significant development aid and budgetary support to their respective territories in the region.¹²³⁶

ODA from Australia and China both declined in 2019 and 2020, ODA from New Zealand was relatively flat, and ODA from Japan and the United States increased by more than \$100 million each from 2019 to 2020. Chinese ODA peaked at \$334 million in 2016 but then steadily declined, falling to \$168 million in 2020. China committed more on infrastructure projects in the region than what it actually spent on the ground from 2016 to 2020.¹²³⁷ Some Pacific Island countries, however, started receiving substantially more ODA from China, which provided more than \$20 million each in ODA to Kiribati and the Solomon

¹²³² These data are reported for a ten-year timeframe (2011 to 2020) to reduce the impact of individual projects and reflect longer-term trends. Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²³³ Lowy Institute, Pacific Aid Map, June 13, 2023; subject matter expert, interview by USITC staff, December 9, 2022; subject matter expert, interview by USITC staff, Australia, April 17, 2023.

¹²³⁴ Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²³⁵ Between World Wars I and II, Japan administered many of the Micronesian islands through a civilian government headquartered in Palau. Palau and Japan have since maintained a close relationship; about one in four Palauans are estimated to have Japanese heritage. Pajon, “Japan and the PICs,” March 2023, 7–8; JICA, “Tonga,” accessed May 25, 2023; Tsuyoshi, “Palau and Japan Are Like Brothers,” March 14, 2018; CIA, “Palau,” *World Factbook*, November 14, 2022; Kobayashi, “The South Sea Islands and Japanese Mandatory Rule over Them,” October 6, 2021.

¹²³⁶ As discussed below, many Pacific Island territories are not considered eligible for ODA. Available data show ODA to Wallis and Futuna came from France and the EU, and ODA to Tokelau came from New Zealand. Since 2004, the Pitcairn Islands has relied on financial assistance from the UK government to meet most of its budgetary requirements. The UK government has also funded development-oriented projects in the Pitcairn Islands such as rebuilding the school, upgrading telecommunications, and establishing a regular shipping service in 2009. U.S. aid to the insular possessions is described later in this chapter. Government of the UK, Foreign & Commonwealth Office, *The Overseas Territories*, June 2012, 108; OECD, Interactive Summary Charts by Aid (ODA) Recipients, April 2023; Government of the UK, Foreign Commonwealth Development Office, *Business Case - September 2020*, September 2020, 5, 7.

¹²³⁷ Fildes, “More Smoke Than Fire,” November 20, 2022.

Islands in 2019 and 2020 after they broke diplomatic ties with Taiwan.¹²³⁸ Increased U.S. ODA in 2020 was driven by higher spending in the Marshall Islands and the Federated States of Micronesia linked to their Compacts of Free Association.¹²³⁹ Increased Japanese ODA was driven by several large loans including for an airport in Papua New Guinea and for natural disaster recovery in Fiji.¹²⁴⁰

Government and civil society sectors attracted more than twice the ODA of any other sector from 2011 to 2020. These initiatives included upgrades to universities, hospitals, and administrative buildings; police force and legal system capacity building; and payments to islands in free association with the United States and New Zealand.¹²⁴¹ The transport, health, and education sectors also received considerable aid during the decade, ranging from \$2.5 billion to \$3.5 billion. Most ODA from Australia, New Zealand, and the United States went to the government and civil society, health, and education sectors. The United States was also the second-largest provider of humanitarian aid to the region (after Australia). Chinese ODA prioritized the transport and communications sectors. Japan was the leading source of ODA for the agriculture, forestry, and fishing; energy; and water and sanitation sectors. Japan also provided relatively high ODA to the transport sector.¹²⁴²

Much of the aid in the Pacific Island region focuses on climate change adaptation and disaster response.¹²⁴³ The United Nations Framework Convention on Climate Change has established several funds that support climate change adaptation projects in the Pacific: the Adaptation Fund, Green Climate Fund, Least Developed Countries Fund, and Special Climate Change Fund. As of April 2022, these funds had approved \$403.2 million supporting 43 projects in Pacific small island developing states (SIDS).¹²⁴⁴ An International Monetary Fund (IMF) paper found that finance from these major climate funds has been one of the most effective sources of climate finance in terms of size and speed but does not cover all Pacific Island economies or smaller projects.¹²⁴⁵ In 2021, the Pacific Islands Forum (PIF) announced the creation of the Pacific Resilience Facility, a fund designed to support small community projects for climate change and disaster preparedness in the Pacific.¹²⁴⁶ Country donors, including

¹²³⁸ From 2011 to 2018, there were no reported flows of Chinese ODA to Kiribati and less than \$40,000 of Chinese ODA to the Solomon Islands. Lowy Institute, Pacific Aid Map, June 13, 2023. Chinese ODA to Kiribati and the Solomon Islands reportedly was offered directly in exchange for breaking ties with Taiwan. ABC News, “Solomon Islands Breaks Ties with Taiwan,” September 16, 2019; Lee, “Taiwan Says China Lures Kiribati with Airplanes,” September 20, 2019. Analysis of past Chinese ODA to African countries has found that whether a country formally recognizes Taiwan is the most important determinant of Chinese aid. Hoeffler and Sterck, “Is Chinese Aid Different?,” August 1, 2022.

¹²³⁹ From 2019 to 2020, ODA from the United States to the Federated States of Micronesia increased from \$57.78 million to \$122.47 million and ODA from the United States to the Marshall Islands increased from \$42.08 million to \$104.50 million. Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²⁴⁰ Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²⁴¹ Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²⁴² Lowy Institute, Pacific Aid Map, June 13, 2023.

¹²⁴³ Between 2014 and 2019, roughly \$3.3 billion was committed to climate-related adaptation and mitigation projects in the Pacific Islands region. Fouad et al., “Unlocking Access to Climate Finance,” September 24, 2021, 8.

¹²⁴⁴ Funding and project total excludes Timor Leste. GEF, *GEF Programming Strategy on Adaptation to Climate Change for 2022-2026*, April 12, 2022, 81–83; UNFCCC, “Funds and Financial Entities,” June 12, 2023.

¹²⁴⁵ Fouad et al., “Unlocking Access to Climate Finance,” September 24, 2021, 28.

¹²⁴⁶ As of February 2023, the Pacific Resilience Facility was undergoing a redesign and review to ensure effectiveness in the aftermath of the COVID-19 pandemic. PIFS, written submission to the USITC, February 15, 2023, 6; PIF, “The Pacific Resilience Facility FAQs,” February 2021; Pratap, “PIF Endorses Pacific Resilience Facility,” November 8, 2021.

Australia, New Zealand, France, the United Kingdom, China, Japan, and the United States, have also provided bilateral humanitarian assistance directly in response to major natural disasters, such as the volcanic eruption and related tsunami in Tonga in January 2022 and the back-to-back cyclones in Vanuatu in March 2023.¹²⁴⁷ Despite the many sources of aid designated for climate-related initiatives, Pacific Island economies continue to face a significant gap for climate finance—estimated at nearly \$1 billion annually for the region.¹²⁴⁸

Factors Affecting Access to and Eligibility for Aid

Eligibility for international and regional development programs varies across the 22 Pacific Island economies. One common eligibility restriction for international development programs is an economy's per capita income level.¹²⁴⁹ The World Bank categorizes countries as low, lower-middle, upper-middle, and high income, with updates every year on July 1 using the previous year's data. As of July 1, 2022, high-income countries are those with gross net income per capita greater than \$13,846.¹²⁵⁰ The OECD's Development Assistance Committee publishes a list of countries and territories eligible to receive ODA. Economies that the World Bank classifies as high income for three consecutive years are removed from the list.¹²⁵¹ Most of the Pacific Island territories—American Samoa, Guam, the Northern Mariana Islands, New Caledonia, and French Polynesia—are classified as high-income economies and do not appear on the list. The other Pacific Island territories and Niue are not categorized by the World Bank, but Niue, Tokelau, and Wallis and Futuna are included on the OECD's list as ODA-eligible according to their estimated income categories.¹²⁵² Nauru and Palau are also on the list but have exceeded the high-income threshold in recent years.¹²⁵³ Countries and specific development programs often target their aid to lower income countries, affecting the aid available to upper-middle-income economies like Fiji, the Marshall Islands, Tonga, and Tuvalu.¹²⁵⁴ Some U.S. development programs restrict eligibility for upper-middle-income economies to certain sectors, like health care and infrastructure.¹²⁵⁵

Groupings by per capita GDP or income, however, do not adjust for the unique economies of scale in SIDS. Smaller economies face high fixed costs and therefore need to devote a significant portion of their revenue to public services. Consequently, per capita income can be a poor welfare indicator for these economies.¹²⁵⁶ The World Bank makes some allowance for this in its International Development

¹²⁴⁷ Wallis et al., "When Disaster Strikes," March 8, 2023.

¹²⁴⁸ Fouad et al., "Unlocking Access to Climate Finance," September 24, 2021.

¹²⁴⁹ OECD, "DAC List of ODA Recipients," accessed July 15, 2023.

¹²⁵⁰ World Bank, "World Bank Country and Lending Groups," accessed April 17, 2023.

¹²⁵¹ OECD, "DAC List of ODA Recipients," accessed July 15, 2023.

¹²⁵² The World Bank only classifies economies with populations of more than 30,000. World Bank, "World Bank Country and Lending Groups," accessed April 17, 2023; OECD, "DAC List of ODA Recipients," accessed July 15, 2023.

¹²⁵³ Palau was on track to graduate from the ODA recipient list in 2022, until World Bank data for 2021 were released showing that it fell back below the high-income threshold. Nauru is on track to be proposed for graduation from the list as part of the 2023 review. OECD, "DAC List of ODA Recipients," accessed July 15, 2023; OECD, "DAC List of ODA Recipients," accessed July 15, 2023.

¹²⁵⁴ Hoeffler and Sterck, "Is Chinese Aid Different?," August 1, 2022. U.S. government official, interview by USITC staff, January 25, 2023; U.S. government official, interview by USITC staff, February 3, 2023.

¹²⁵⁵ World Bank, "World Bank Country and Lending Groups," accessed April 17, 2023; U.S. government official, interview by USITC staff, January 25, 2023; U.S. government official, interview by USITC staff, February 3, 2023.

¹²⁵⁶ Becker, "Small Island States in the Pacific: The Tyranny of Distance?," September 2012, 9.

Association program, which is designed to provide loans and grants to the world's poorest countries. The program supports several small economies (the Marshall Islands, Tonga, and Tuvalu) despite their categorization as upper-middle-income economies.¹²⁵⁷

Many organizations providing international aid to developing countries do not work in any of the Pacific Island territories.¹²⁵⁸ Some development programs have specific policies to not work with territories, or categorize territories on the basis of income status of the sovereign country (effectively classifying all Pacific Island territories as high-income economies that are not eligible for assistance).¹²⁵⁹

Nonindependent status can also affect Pacific Island territories' eligibility for important measures affecting their economies. For example, American Samoa has highlighted that vessels supplying its tuna cannery are treated as part of the U.S. fleet. As a result, those vessels are not eligible for exemptions to annual fisheries closure requirements that the Western and Central Pacific Fisheries Commission provides to SIDS.¹²⁶⁰

Several institutions further limit their assistance to 12 of the 14 Pacific Island countries, excluding the Cook Islands and Niue. For example, the Cook Islands and Niue have not been granted membership in the UN or the IMF; the islands are self-governing but are in free association with New Zealand and hold New Zealand citizenship. In September 2022, President Joseph R. Biden, Jr. announced that the United States would expand its aid to the Pacific Island economies by recognizing the Cook Islands and Niue as sovereign states, following appropriate consultations.¹²⁶¹

In addition to eligibility constraints, Pacific Island economies face challenges accessing aid because of the relatively small scale of their infrastructure projects and their limited institutional capacity. Some agencies require governments to undertake preliminary steps like signing a bilateral agreement before being considered eligible for aid. When Pacific Island governments have to navigate different sets of requirements across multiple donors, they may not have the capacity to complete these steps in a timely manner.¹²⁶² One exception to this challenge is Chinese aid, which is considered relatively quick and simple to access.¹²⁶³ Chinese aid, however, is viewed as having other drawbacks; reduced recipient country demand for Chinese ODA—particularly loans—is believed to be one factor behind the decline in

¹²⁵⁷ World Bank, "IDA Borrowing Countries," January 30, 2023.

¹²⁵⁸ See, e.g., ADB, "ADB's Work in the Pacific," February 3, 2023; World Bank, "Our Work in Papua New Guinea," September 14, 2022.

¹²⁵⁹ U.S. government official, interview by USITC staff, January 25, 2023; U.S. government officials, interview by USITC staff, January 26, 2023.

¹²⁶⁰ Industry representative, interview by USITC staff, American Samoa, March 31, 2023; Talanei, "Licensing Bill Would Aid US Purse Seiners & Territory," February 3, 2023.

¹²⁶¹ As of April 2023, the U.S. Department of State continued to categorize the Cook Islands and Niue as being under the sovereignty of New Zealand. McKenzie, "U.S. Recognition of Tiny Pacific Country," December 7, 2022; White House, "Roadmap for a 21st-Century U.S.-Pacific Island Partnership," September 29, 2022; USDOS, "Dependencies and Areas of Special Sovereignty," accessed June 9, 2023.

¹²⁶² Navigating the large number of donors and identifying funding opportunities can also be a challenge for companies looking to develop infrastructure projects in the Pacific Islands. Industry experts, interview by USITC staff, Australia, April 17, 2023; U.S. government official, interview by USITC staff, January 25, 2023; U.S. government officials, interview by USITC staff, March 31, 2023.

¹²⁶³ Connelly, "China Lends Billions to Poor Countries," December 6, 2022; industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

Chinese ODA to the Pacific Island countries since 2016.¹²⁶⁴ Furthermore, the types of aid available and the needs of Pacific Island economies are not always aligned. Aid is generally available for very large investments but often disfavors or fully excludes work with state-owned enterprises. State-owned enterprises are particularly prevalent in the Pacific Island economies because of the small scale of many of them.¹²⁶⁵ This results in fewer options for large initiatives in the Pacific Island economies.¹²⁶⁶

Trade-Related Infrastructure Initiatives

As described in chapter 2, improvements in infrastructure can boost trade and increase the number of exporting firms and products. Initiatives in the Pacific Island economies related to improving trade through better infrastructure broadly fall into three categories: improvements in seaport, airport, and other transportation infrastructure; improvements to internet connectivity; and general initiatives related to e-commerce. Examples of each of these three types of initiatives in the Pacific Islands are detailed below.

Seaport and Airport Infrastructure

Infrastructure needs in Pacific Island economies typically include basic improvements like additional warehouses, roads, and wharves or maintenance of existing structures. Building infrastructure that is resilient to climate change is also a priority for Pacific Island economies.¹²⁶⁷ This section highlights several types of initiatives related to improving transportation infrastructure and border procedures, with a focus on physical infrastructure and initiatives related to reducing processing times at ports via customs modernization. Even with these improvements to the region's infrastructure, privately run shipping and air routes continue to lag and result in limited connectivity within the region.

Recent projects to improve seaport infrastructure in the Pacific Islands have ranged in cost from the ADB's \$45 million investment in Tonga to China's \$170 million investment in the Solomon Islands.¹²⁶⁸ The ADB has coordinated many of the recent seaport improvement projects in the region. For example, in October 2019, the government of Nauru, with support from the ADB, the government of Australia, and the UN's Green Climate Fund, began a project to build the first international and climate-resilient

¹²⁶⁴ Chinese-backed infrastructure projects generally save on costs but reportedly have lower levels of quality and quality control than projects funded by other donors. Reduced Chinese lending globally likely also contributed to the decline in Chinese ODA to the Pacific Island region. Dayant, Keen, Rajah, "Chinese Aid to the Pacific," January 25, 2023; Smyth, "China Aid Wins Influence in Pacific Despite Rising Concerns," November 14, 2019; industry experts, interview by USITC staff, Australia, April 17, 2023.

¹²⁶⁵ U.S. government official, interview by USITC staff, February 8, 2023; subject matter expert, interview by USITC staff, Fiji, March 20, 2023.

¹²⁶⁶ Some development partners do work with state-owned enterprises; notably, USAID and development agencies from Australia, Japan, and New Zealand are working with state-owned utility PNG Power as part of the PNG Electricity Partnership discussed in the U.S. initiatives section that follows in this report. Stakeholders, however, have highlighted that challenges working with PNG Power are an issue for the project. Industry expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹²⁶⁷ PIF, "Boe Declaration on Regional Security," 2018. For more on infrastructure challenges, see chapter 2.

¹²⁶⁸ ADB, "With \$45 Million Grant, ADB Assists Tonga's Upgrade of International Port," December 16, 2020; Needham, "China Firm Wins Solomon Islands Port Project," March 22, 2023.

seaport on the island.¹²⁶⁹ Project goals include building a wharf, berth pocket, and breakwater and rebuilding seaport buildings, container storage areas, and security facilities.¹²⁷⁰ In 2020, the ADB awarded a grant to upgrade the Queen Salote Wharf in Tonga by extending the wharf to accommodate larger vessels and improving existing wharf infrastructure.¹²⁷¹ The United States has also recently invested in seaport improvement projects in the region. For example, in 2015, a project in Guam, funded by the U.S. Department of Transportation, increased storage for containers and improved electricity access and entry into the seaport.¹²⁷² Most recently, in March 2023, the China Civil Engineering Construction Company received a contract from the Solomon Islands to perform ADB-funded upgrades to roads and wharves at the Honiara international seaport and to construct domestic and provincial seaports.¹²⁷³

A wide range of projects are aimed at improving airport infrastructure, reflecting the variation in existing infrastructure among Pacific Island economies. In 2019, New Zealand approved funding to build the first airfield in Tokelau. The project is expected to cost about 21 million NZ dollars (about \$12.8 million) and would accommodate 20-seat planes, which developers estimate would be sufficient to meet demand for travel to the island.¹²⁷⁴ In that same year, regional transportation hub Fiji announced a \$3 billion expansion of Nadi International Airport, Fiji's main airport, to extend the length of its runway by expanding into the ocean and doubling the number of international and domestic gates.¹²⁷⁵ In response to the COVID-19 pandemic, the airport also received funding from both Japan and Australia to improve COVID-19 testing procedures and upgrade aircraft parking slots and air traffic control systems.¹²⁷⁶

In addition to improving physical infrastructure, streamlining customs procedures at seaports and airports can improve the efficiency and reduce delays in shipping goods across the Pacific Island economies. The United Nations Conference on Trade and Development (UNCTAD) Automated Systems for Customs Data (ASYCUDA) is one initiative aimed at improving the efficiency of customs procedures by shifting processes online. By early 2023, 10 of the 22 Pacific Island economies had integrated ASYCUDA into some of their customs procedures. Vanuatu has also implemented the ASYCUDA Single Window system, which enables traders to submit all border regulatory information electronically to one interface.¹²⁷⁷

¹²⁶⁹ ADB, "Construction Begins for Nauru's First International Port," October 21, 2019.

¹²⁷⁰ ADB, "ADB, Green Climate Fund, Australia Help Upgrade, Climate-Proof Port in Nauru," January 29, 2018.

¹²⁷¹ ADB, "With \$45 Million Grant, ADB Assists Tonga's Upgrade of International Port," December 16, 2020.

¹²⁷² USDOT, "Guam Commercial Port Improvement Project," December 10, 2015.

¹²⁷³ Needham, "China Firm Wins Solomon Islands Port Project," March 22, 2023.

¹²⁷⁴ Tokelau, "Project to Get Tokelau Its First Airfield Under Way After Pandemic Delays," July 17, 2022.

¹²⁷⁵ Chambers, "Nadi International Airport To Undergo \$3 Billion Expansion," December 15, 2019.

¹²⁷⁶ Rani, "Japan Offers Grant for Improvement Works at Fiji's Nadi Airport," May 23, 2022; Devarasetti, "Fiji Airports Secures Backing," August 2, 2021.

¹²⁷⁷ Other ASYCUDA users in the Pacific Islands include the Cook Islands, Fiji, Kiribati, Nauru, New Caledonia, Niue, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Tuvalu. Sirimanne and Adhikari, "Vanuatu Shows How to Reduce Emissions," May 24, 2022; UNCTAD, ASYCUDA, "User Countries—ASYCUDA Pacific," accessed August 8, 2023.

According to UNCTAD, implementation of ASYCUDA has improved customs procedures in several Pacific Island economies. For example:

- In August 2021, Tonga introduced electronic manifest submission, improving processing times because data are now available 12 hours before shipments arrive.¹²⁷⁸
- The Solomon Islands adopted ASYCUDA systems in 2016 and saw a jump in customs-related government revenue in 2017.¹²⁷⁹
- In Papua New Guinea, adoption of ASYCUDA in Port Moresby in September 2021 expedited the processing of under-bond cargo (cargo that has entered the port but has not yet paid associated duties), which led to a decrease in application processing time from seven days to 1–2 hours and resulted in smaller port charges for cargo storage.¹²⁸⁰
- In 2020, Vanuatu implemented an ASYCUDA Sanitary and Phytosanitary (SPS) module to automate application, approval, and payment for SPS certification. This module decreased average SPS application process time from several days to 10 minutes.¹²⁸¹
- Fiji added document scanning capabilities to online customs procedures to process customs documents in 2017, eliminating the need for traders to visit Fiji Revenue and Customs Service offices in person. These online procedures also helped avoid processing delays during the COVID-19 pandemic.¹²⁸²

Internet Infrastructure

Despite persistent connectivity challenges, internet infrastructure is improving in the Pacific Islands. During the past two decades, the information and communications technology (ICT) sector has experienced large changes, including structural reform, partnerships with country donors and multilateral organizations, and private sector investments.¹²⁸³ This section provides examples of internet initiatives in the region, including subsea cable and satellite projects.

The Pacific Islands are cooperating with multilateral institutions to improve ICT access. In 2010, the PIF called for improved internet connectivity. Responding to this, in 2011, the World Bank and the ADB initiated the Pacific Regional Connectivity Program (PRCP), which aims to reduce costs and increase ICT connectivity for member countries by focusing on three areas: subsea cable networks, financial and policy assistance, and project management and administrative assistance.¹²⁸⁴ Since the program's inception, the PRCP's achievements include extending the Tonga submarine cable system, developing internet infrastructure in Kiribati, and providing technical assistance for ICT regulations.¹²⁸⁵ The United

¹²⁷⁸ UNCTAD, ASYCUDA, *Tonga: Pre-Arrival Customs Processing*, 2022.

¹²⁷⁹ UNCTAD, ASYCUDA, *Solomon Islands: Increase of Revenue*, 2019.

¹²⁸⁰ UNCTAD, ASYCUDA, *Papua New Guinea: Under-Bond Cargo Management Automation*, 2022.

¹²⁸¹ UNCTAD, ASYCUDA, *Vanuatu: Biosecurity Management*, 2020.

¹²⁸² UNCTAD, ASYCUDA, "Paperless Declaration Processing," April 18, 2023.

¹²⁸³ UNESCAP, *Broadband Connectivity in Pacific Island Countries*, 2018, 7, 11, 63. Some scholars have debated the efficacy of Telecom Fiji's privatization. See, e.g., Sharma, "Power, Politics, and Privatization," 2015.

¹²⁸⁴ World Bank, "Pacific Regional Connectivity Program Phase 4," May 31, 2023, 4; World Bank, "Pacific Regional Connectivity Program," September 26, 2018; ADB, *Tonga-Fiji Submarine Cable Project*, December 2020, 2.

¹²⁸⁵ Cybil Portal, "Pacific Regional Connectivity Program," accessed June 15, 2023; ADB, *Tonga-Fiji Submarine Cable Project*, December 2020, 5; World Bank, *Pacific Islands Regional Connectivity Project*, March 15, 2010; World Bank, "Pacific Regional Connectivity Program Phase 4," May 31, 2023.

Nations International Telecommunication Union (ITU) also established the Pacific Regional ICT Strategic Action Plan (PRISAP) at the Pacific Islands' 2015 ICT Ministerial Meeting.¹²⁸⁶ PRISAP's main objectives are to provide guidance and facilitate coordination for ICT initiatives.¹²⁸⁷ The ITU's achievements include launching a pilot program to increase digital skills and connectivity in Vanuatu, fostering internet infrastructure, and providing technical assistance.¹²⁸⁸

Amalgamated Telecom Holdings (ATH), a telecommunications company based in Fiji, has extended operations across Pacific Island economies and become a prominent regional player.¹²⁸⁹ The company provides fixed-line, mobile, internet, and data services to residential and commercial customers. ATH has rapidly acquired smaller, regional telecom providers and has numerous telecom projects across the Pacific Islands. Examples include undersea cable projects, mobile network expansion projects, rural broadband projects, and ICT training and education.¹²⁹⁰ Development financing from governmental and nongovernmental organizations also provides funding for many telecom projects in the region, particularly for expensive projects like subsea cable network expansion. Country donors, including Australia, New Zealand, China, and the United States, also actively promote digital connectivity in the region.¹²⁹¹

Funding for U.S. Territories

Recent U.S. infrastructure laws have created opportunities for U.S. territories to receive more telecommunications infrastructure funding. The Infrastructure Investment and Jobs Act of 2021 (IIJA) includes several programs that seek to increase access to broadband internet in U.S. states and territories.¹²⁹² The White House has indicated that American Samoa, Guam, and the Northern Mariana Islands will be allocated at least \$100 million each under these programs to expand broadband access.¹²⁹³ U.S. territories, however, have funding allocations distinct from states for these programs.¹²⁹⁴ For example, the U.S. Broadband, Equity, Access, and Deployment program funds planning and infrastructure for broadband internet in the United States, including Guam, American Samoa, and the Northern Mariana Islands.¹²⁹⁵ The U.S. Department of Commerce has indicated that the baseline for

¹²⁸⁶ Finau, Pacific Regional ICT Strategic Action Plan (PRISAP), November 2018.

¹²⁸⁷ Finau, Pacific Regional ICT Strategic Action Plan (PRISAP), November 2018.

¹²⁸⁸ Matsumoto and Tolang, "Transforming a Small Island into a Smart Island," February 20, 2023; ITU, "ITU Projects Portfolio," accessed June 13, 2023; ITU, "Asia-Pacific Regional Initiatives on Telecommunications," 2011.

¹²⁸⁹ Although ATH is publicly traded, the Fijian government owns 17.29 percent of issued shares and the Fijian National Provident Fund owns 72.25 percent of shares. "Welcome to ATH Limited," accessed May 26, 2023.

¹²⁹⁰ ATH, *Annual Report*, 2022, 16, 30, 37, 55; Magick, "ATH Launches New PNG Broadband Telecommunications Network," April 22, 2022; ADB, "ADB Approves \$25 Million Cornerstone Investment," September 3, 2020.

¹²⁹¹ Corben and Moyle, "Connecting the Dots," February 6, 2021; SPTO, "NZ Supports Sustainable Cook Islands Infrastructure," June 14, 2017; Kekea, "Solomon Islands Secures \$100m China Loan," August 18, 2022; USDOS, "U.S. Engagement in the Pacific Islands," September 13, 2022.

¹²⁹² Infrastructure Investment and Jobs Act of 2021, Pub. L. No. 117-58, 135 Stat. 429, (2021).

¹²⁹³ White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in American Samoa," February 2023; White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in Guam," February 2023; White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in Northern Mariana Islands," March 2023.

¹²⁹⁴ Infrastructure Investment and Jobs Act of 2021, Pub. L. No. 117-58, 135 Stat. 429, (2021).

¹²⁹⁵ Pub. L. No. 117-58, § 60102, 135 Stat. 429, 1182–1205 (2021) (codified at 47 U.S.C. § 1702).

funding territories would be lower than for funding states.¹²⁹⁶ The IJIA also provided funds to the U.S. Department of Agriculture (USDA) ReConnect Program, which provides loans and grants for the construction of broadband internet infrastructure in rural areas.¹²⁹⁷ Under this program, the USDA has issued funding for internet infrastructure to Guam as well as the FAS.¹²⁹⁸

Another program within the IJIA is the Digital Equity Act of 2021, which establishes grant programs that provide training and technology for populations to access the digital economy, although the eligibility of territories for these funds varies between grant programs.¹²⁹⁹ Additionally, the IJIA funds the Affordable Connectivity Program, which provides discounts for internet service to increase households' internet access.¹³⁰⁰ Residents of the U.S. territories qualify for the baseline subsidy of \$30 per month under the Affordable Connectivity Program. The higher subsidy of \$75 per month is only for residents of "Tribal land" or "high cost areas." The Pacific Island U.S. territories have not qualified under either of these criteria.¹³⁰¹ The U.S. Department of Commerce's Economic Development Administration has also awarded a grant to American Samoa to develop the American Samoa Territorial Broadband Strategy for 2021–26.¹³⁰²

¹²⁹⁶ In defining eligible "states" for the purpose of the Broadband, Equity, Access, and Deployment (BEAD) program, the IJIA relies on a definition that includes American Samoa, Guam, and the Northern Mariana Islands. 47 U.S.C. §§ 942(e)(8) & 1702(a)(2)(M). In the Notice of Funding Opportunity requesting applications under the BEAD Program, however, the U.S. Department of Commerce's National Telecommunications and Information Administration indicated that the territories may be treated differently from states, including receiving a lower minimum allocation than states.

¹²⁹⁷ Pub. L. No. 117-58, Div. J, Title I, 135 Stat. 429, 1351–1353 (2021).

¹²⁹⁸ USDA, "ReConnect Loan and Grant Program," accessed August 21, 2023; USDA, "Biden-Harris Administration Announces Nearly \$700 Million," August 21, 2023.

¹²⁹⁹ Pub. L. No. 117-58, §§ 60301–60307, 135 Stat. 429, 1209–1231 (2021) (codified at 47 U.S.C. §§ 1721–1726). The Digital Equity Act establishes two grant programs. The State Digital Equity Capacity Grant Program is primarily for states and directs the Department of Commerce to set aside "not less than 1 percent" of appropriated funds each year for use in the territories. 47 U.S.C. §§ 1721(21) (definition for "states" that does not include territories) & 1723(i)(3) (set aside for territories). The Digital Equity Competitive Grant Program has broader eligibility requirements that includes the territories for activities, and it also specifies that 1 percent of appropriated funds each year is reserved for activities in the territories. 47 U.S.C. §§ 1724(b) (eligible organizations for grants) & 1724(j)(3) (set aside for territories).

¹³⁰⁰ Pub. L. No. 117-58, § 60502, 135 Stat. 429, 1238–1244 (2021) (codified at 47 U.S.C. § 1752); U.S. government official, interview by USITC staff, April 13, 2023.

¹³⁰¹ 47 U.S.C. § 1752(a)(7)(A). The Federal Communications Commission (FCC) defines "Tribal land" as that which includes "areas held in trust for Native Hawaiians" but does not include any of the Pacific territories. 47 C.F.R. § 54.400(e) (FCC definition of "Tribal land"). The FCC has not yet implemented the process to extend higher subsidies to "high-cost areas" but has requested comments on the necessary information to be submitted by internet providers. 87 Fed. Reg. 8385, 8388 (February 14, 2022). Representatives of the governments of Guam, American Samoa, and the Northern Mariana Islands have all submitted comments to seek designation as high-cost areas, but the NTIA has indicated it would prioritize designations in the states before considering the territories. Industry representative, email to USITC staff, May 18, 2023; Fischer, "Internet Access Programs Bar Pacific Territories from Full Subsidies."

¹³⁰² ASTBS, *The 2021–2026 Territorial Broadband Strategy*, September 30, 2021.

Subsea Cable Projects

Because of recent subsea cable construction efforts, only 3 of the 22 Pacific Island economies remain unconnected from global cable networks.¹³⁰³ Private sector subsea cable projects generate revenue through selling indefeasible rights of use, agreements under which users pay a monthly fee to lease a share of subsea cable capacity.¹³⁰⁴ Generally, investors for these projects are large telecommunications providers or a consortium of companies.¹³⁰⁵ The remoteness and low population density of the Pacific Islands, however, mean that many private sector ventures in the region are not profitable. In these situations, multilateral institutions and country consortiums often provide financing.¹³⁰⁶ Geostrategic considerations also play an increasingly important role in subsea cable projects in the Asia-Pacific region.¹³⁰⁷ For example, in 2018, Australia blocked Huawei's involvement in the construction of the Coral Seas Cable System, which connects Sydney, Australia, to Papua New Guinea and the Solomon Islands.¹³⁰⁸ Later, in 2020, the United States warned Pacific Island nations about security risks involved with a bid from Huawei to lay the Micronesia Cable System, which connects the Federated States of Micronesia,

¹³⁰³ Tuvalu, the Pitcairn Islands, and Nauru do not currently have subsea cable connections. A funding agreement, however, has been signed to connect Nauru to the East Micronesia Cable System. Compiled by staff. This includes proposed cable connections and cables currently under construction. UNCTAD, "The Submarine Cable Network Connecting Pacific SIDS; Based on TeleGeography, Submarine Cable Map," in *Digital Economy Report: Pacific Edition 2022; Towards Value Creation and Inclusiveness*, 2023.

¹³⁰⁴ Van Zinnicq Bergmann, "Perspectives on the Financing of Submarine Cable Projects," March 2022; Alcala, Rosenfield, and Calderon, "Financing Subsea Cables in Latin America," June 2020, 42–43.

¹³⁰⁵ Technology companies have begun to play a larger role in subsea cable financing. Google, Meta, Amazon Web Services, and other large technology companies' share in internet traffic has grown more than sixfold between 2012 and 2020, driving a need for cable ownership to save on indefeasible rights of use. Analysts believe that these companies will become primary owners and financiers of subsea cable connecting the Atlantic and Pacific Oceans. These companies have also become prominent investors in subsea cable connections in the Asia-Pacific region; for example, Google and Meta have joined a five-company consortium to finance a cable connecting Japan, Taiwan, Guam, the Philippines, Indonesia, and Singapore. Van Zinnicq Bergmann, "Perspectives on the Financing of Submarine Cable Projects," March 2022; Alcala, Rosenfield, and Calderon, "Financing Subsea Cables in Latin America," June 2020, 40, 42–43; Submarine Cable Networks, "Apricot," accessed April 11, 2023; Roehrich, "Apricot Subsea Cable," August 16, 2021.

¹³⁰⁶ For example, the United States, Australia, Japan, the Federated States of Micronesia, Kiribati, and Nauru have formed a partnership to build a new subsea cable to connect Micronesia and Kiribati. USDOS, "Joint Statement," December 11, 2021.

¹³⁰⁷ Barrett and Tian, "Exclusive Pacific Undersea Cable Project," June 18, 2021; Kawakami, "Huawei to Sell Undersea Cable Unit," accessed April 11, 2023; DOJ, "Team Telecom Recommends," June 17, 2020.

¹³⁰⁸ Huawei is a Chinese telecommunications firm supplying network equipment and smartphones whose alleged links to the Chinese government and military have been a source of controversy. Perper, "Australia Snubbed Huawei," August 28, 2019; Qiu, "Coral Sea Cable System Overview," December 31, 2019; Packham, "Ousting Huawei," August 17, 2019; Weber, "What Is China's Huawei Technologies?," December 6, 2018.

Kiribati, and Nauru.¹³⁰⁹ The East Micronesia Cable System project is advancing without Huawei and funded by a \$95 million agreement among the United States, Japan, and Australia.¹³¹⁰

As a U.S. territory with significant strategic military importance, Guam has a robust subsea cable network.¹³¹¹ Since 1987, Guam has amassed more than 16 cable connections and earned the nickname “the big switch in the Pacific.”¹³¹² As a major junction for transpacific cable routes, Guam receives significant private sector investment in internet infrastructure. For example, Google and Meta plan to route two cables—Echo and Bifrost—through Guam and many U.S. technology companies have invested in data centers in Guam.¹³¹³

Satellite Projects

To strengthen internet service to remote areas and in preparation for emergencies, the ADB and private operators have invested in several satellite projects. Although satellite technology has higher latency and lower capacity than fiber optic cable connections, cable connections may not be feasible for the most remote areas in the Pacific Islands. The ITU has stated that satellite broadband is sometimes the only way to connect rural Pacific Island populations living in archipelagos or across rugged mountain ranges.¹³¹⁴

Examples of satellite projects include an agreement between the ADB, the ITU, and telecommunications provider Kacific to launch a geostationary satellite serving the region.¹³¹⁵ Low-earth-orbit (LEO) satellite providers are also collaborating with Pacific Island economies to connect remote islands. For example, Australian telecommunications service provider Telstra has partnered with OneWeb to explore low-earth-orbit satellite connectivity solutions in the Asia-Pacific region.¹³¹⁶ Starlink, a satellite internet network operated by U.S. company, SpaceX, has extended its network to the Pitcairn Islands and provided emergency internet services after a volcanic eruption in Tonga.¹³¹⁷ Furthermore, in 2021, Papua New Guinea adopted the Asia-Pacific Telecommunity band plan to allocate its broadband spectrum in the 700 megahertz (MHz) range, which may improve wireless connectivity in rural

¹³⁰⁹ USDOS, “Joint Statement on Improving East Micronesia Telecommunications Connectivity,” December 11, 2021; Barrett, “U.S. Warns Pacific islands,” December 17, 2020.

¹³¹⁰ As of April 2023, the Federated States of Micronesia’s Congress has adopted resolutions accepting approximately \$20 million in grants from the United States and \$10 million in grants from Australia. USDOS, “Joint Statement,” December 11, 2021; Islands Business, “Micronesian Nations Sign Communique to Advance Cable Project,” February 1, 2023; Congress of the Federated States of Micronesia, “Congress Approves Grants for East Micronesia Cable Project,” April 12, 2023; Yamaguchi, “Japan, Australia, US to Fund Undersea Cable Connection,” June 6, 2023.

¹³¹¹ Goodman and Wayland, “Securing Asia’s Subsea Network,” April 5, 2022.

¹³¹² Irving, “Why the U.S. Dominates the Pacific’s Subsea Cable Infrastructure,” February 5, 2023.

¹³¹³ Daily Post Staff, “‘Big Switch of the Pacific,’” February 7, 2023; Irving, “Why the U.S. Dominates the Pacific’s Subsea Cable Infrastructure,” February 5, 2023.

¹³¹⁴ ITU, “How Kacific Works to Boost Connectivity in Pacific Island States,” May 8, 2020.

¹³¹⁵ ADB, “ADB’s First Satellite Financing to Expand Internet Access,” December 2, 2019; ITU, “How Kacific Works to Boost Connectivity in Pacific Island States,” May 8, 2020.

¹³¹⁶ Clark, “Telstra, OneWeb Cue LEOsat Partnership for Australia and Pacific,” March 7, 2022.

¹³¹⁷ Lui, “What SpaceX Starlink Project Means For Fiji,” May 17, 2022; Vance, “Starlink High-Speed Internet Comes to Pitcairn,” November 23, 2022.

communities.¹³¹⁸ The Global System for Mobile Association, an industry association representing mobile network providers, contended the allocation of this 700 MHz frequency would bring affordable 4G mobile broadband services from urban centers to rural villages.¹³¹⁹

E-Commerce Initiatives

Initiatives strengthening e-commerce also have the potential to address impediments to Pacific Island trade by facilitating connections between potential exporters and the rest of the world.¹³²⁰ E-commerce is a relatively underdeveloped segment of Pacific Island economies. Major e-commerce platforms do not have a large presence in these markets because of their size and remoteness, and many e-commerce transactions occur via social media (particularly Facebook) using cash-on-delivery.¹³²¹

The PIF Pacific E-Commerce Initiative—a partnership launched in 2017 with UNCTAD—brings together e-commerce related initiatives from PIF members, international organizations, and donors.¹³²² As part of the initiative, Tonga, Vanuatu, and Samoa developed e-commerce strategies in October 2022; the Solomon Islands, Tuvalu, and Kiribati are in the process of developing their own e-commerce strategies.¹³²³ The initial goal was to better understand the e-commerce landscape and challenges for Pacific Island economies. Beginning in 2022, the focus of the initiative has shifted toward implementing the recommended policy changes.¹³²⁴

Given the current limited use of e-commerce platforms in the Pacific Islands, some initiatives in the region are centered around developing island-specific platforms. For example, in November 2022, telecommunications provider Digicel Tonga and the UN Capital Development Fund launched BeeHive, an e-commerce platform developed specifically for Tonga.¹³²⁵ Similarly, to boost use of e-commerce platforms in Fiji, Vodafone Fiji Pte Ltd. and the Reserve Bank of Fiji allocated \$1.15 million in 2021 to subsidize subscription fees to e-commerce platform VitiKart for micro, small, and medium-sized Fijian enterprises for up to two years.¹³²⁶ Other initiatives are aimed at building e-commerce presences for underrepresented groups. For example, Rise Beyond the Reef operates a logistics system and e-commerce site to connect indigenous women making traditional Fijian crafts to international buyers.¹³²⁷

¹³¹⁸ The 700 MHz frequency band of the broadband spectrum lies between 698 and 806 MHz on the radio spectrum. It is used almost extensively for 4G rural networks because it exists as a “sweet spot” between lower frequency bands, which can travel farther, and higher frequency bands, which can transmit more information. African Union, *Guidelines on the Harmonized Use of the Digital Dividend in Africa*, December 26, 2016, 12; FCC, “700 MHz Public Safety Spectrum,” June 19, 2020; GSMA, “What Is the Digital Dividend?,” 2014; PNG National Information & Communications Technology Authority, “Band Plans,” accessed March 31, 2023; Brewer, Jeong, and Husar, *Last Mile Connectivity*, December 2022, 43.

¹³¹⁹ GSMA, *The Mobile Economy Pacific Islands*, 2019, 20.

¹³²⁰ E-commerce refers to services provided over the internet, such as those highlighted in chapter 7, and goods that are purchased over the internet through a centralized e-commerce platform or a business website. WTO, “Electronic Commerce,” 2017.

¹³²¹ UNCTAD, *Digital Economy Report, Pacific Edition 2022, 2023*, 52.

¹³²² PIFS, “About - Pacific Ecommerce Initiative,” August 14, 2018.

¹³²³ UNCTAD, *Digital Economy Report, Pacific Edition 2022, 2023*, 78.

¹³²⁴ UNCTAD, “E-Commerce Acceleration Program for the Pacific,” March 24, 2023.

¹³²⁵ Digicel, “BeeHive Launch,” November 2022.

¹³²⁶ Reserve Bank of Fiji, *MSME VitiKart Subsidy Scheme Guidelines August 2021*, August 13, 2021.

¹³²⁷ Rise Beyond the Reef, “Traditional Contemporary Arts,” accessed April 11, 2023.

In 2022, Pacific Trade Invest New Zealand and Ka Hao Indigenous e-commerce launched a program to train indigenous businesses to launch, maintain, and reach new markets via e-commerce sites.¹³²⁸

Improving access to digital payment systems could boost trade in e-commerce goods and services by facilitating online rather than cash-based payments.¹³²⁹ Some examples of digital payment initiatives include:

- In 2018, the Solomon Islands Postal Corporation launched EziPei, which allows for electronic payments over mobile networks using short message services (SMS) and does not require a bank account.¹³³⁰
- In 2019, the World Bank and International Finance Corporation launched an automatic transfer system in Samoa, the Solomon Islands, and Vanuatu, facilitating electronic payments from individuals, companies, and governments and allowing for nonbank providers to offer electronic wallets and other cashless solutions.¹³³¹
- In 2020, the UK government provided aid to several Pacific Island central banks—including in Papua New Guinea, Samoa, the Solomon Islands, Tonga, Fiji, and Vanuatu—to develop the Pacific Regional Regulatory Sandbox guidelines.¹³³² Regulatory sandboxes are legal frameworks that allow firms to test new financial products and innovations in an environment that provides consumer safeguards but that initially has lower regulatory barriers to entry than for the overall financial sector.¹³³³ Since the guidelines were published, both Fiji and Papua New Guinea have approved sandboxes for financial technology solutions.¹³³⁴

U.S. Initiatives in the Pacific Islands

Historically, U.S. development assistance to the Pacific Islands has focused on the FAS and the U.S. insular possessions. Some additional context on this aid is provided below. The United States also offers preferential tariff treatment to these islands and many of the other Pacific Island economies covered in this report, discussed in further detail in chapter 4.

Compacts of Free Association

Congress passed respective Compacts of Free Association (Compacts) for the Marshall Islands, the Federated States of Micronesia, and Palau in 1986. Among other provisions, these Compacts granted the

¹³²⁸ PIFS, “Ka Hao – PTI NZ Partnership,” November 3, 2022.

¹³²⁹ UNCTAD, *Digital Economy Report, Pacific Edition 2022, 2023*, 76.

¹³³⁰ Telecommunications Commission Solomon Islands, “Innovative Mobile Wallet EziPei Launched in Honiara,” February 5, 2020.

¹³³¹ World Bank, “Samoa, Solomon Islands and Vanuatu to Introduce Digital Payment Systems,” March 4, 2019.

¹³³² Alliance for Financial Inclusion, “PIRI Publishes Pacific Regional Regulatory Sandbox Guidelines,” accessed April 10, 2023.

¹³³³ UK FCA, *Regulatory Sandbox*, 2015, 2.

¹³³⁴ UNCTAD, *Digital Economy Report, Pacific Edition 2022, 2023*, 76.

United States authority to operate its military in the FAS and determine policy related to external security in return for a U.S. security guarantee, provision of some services, and economic support.¹³³⁵

As discussed in chapter 4, Compacts in the Marshall Islands, the Federated States of Micronesia, and Palau grant exporters duty-free access to the U.S. market with several exceptions. The Compacts also grant citizens of the FAS the right to work and reside in the United States lawfully, of which more than 94,000 of their citizens do.¹³³⁶ The 1986 Compacts for the Marshall Islands and the Federated States of Micronesia included provisions for economic assistance through 2003, and Congress in 2003 further extended this assistance through 2023.¹³³⁷ The initial Compact for Palau provided economic assistance through 2009, and a new agreement signed in 2010 further extended assistance to Palau through 2024.¹³³⁸ The Biden administration plans to request \$7.1 billion for the next set of 20-year deals with the FAS, including \$6.5 billion in direct economic relief and \$634 million for extending U.S. Postal Service in the island countries.¹³³⁹ In May 2023, the United States signed new Compacts with the Federated States of Micronesia and Palau to extend economic assistance under a strategic security pact; negotiations continue with the Marshall Islands for a similar extension.¹³⁴⁰

The Office of Insular Affairs (OIA) in the U.S. Department of the Interior administers economic assistance to the FAS. Compact grants provided to the Federated States of Micronesia and the Marshall Islands under the current agreement are designated by sector to promote economic growth and sustainability. Sectors include education, health, private sector development, public capacity building, environment, and infrastructure.¹³⁴¹ The Compact Trust Funds, financial instruments established through the Compact Agreements, are designed to provide the FAS with a sustainable revenue source beyond fiscal year 2023 and rely on market performance rather than fixed annual distributions.¹³⁴² Between 2004 and 2023, the compact agreements committed \$722 million in grant assistance and \$276 million in trust fund contributions to the Marshall Islands and a respective \$1.6 billion and \$517 million to the Federated States of Micronesia. A 2010 agreement with Palau committed \$229 million in economic assistance through 2024.¹³⁴³

¹³³⁵ Pub. L. No. 99-239, 99 Stat. 1770 (1986) (COFAs for the Marshall Islands and the Federated States of Micronesia); Pub. L. No. 99-658, 100 Stat. 3672 (1986) (COFA for Palau). Palau's compact did not go into effect until its approval in a UN-observed plebiscite in 1994. Proclamation No. 6726, 59 Fed. Reg. 49,777 (September 29, 1994).

¹³³⁶ The combined population in the FAS is approximately 200,000, meaning roughly 47 percent of FAS citizens reside in the United States; Pub. L. No. 99-239, § 141, 99 Stat. 1770, 1804 (1986); Pub. L. No. 99-658, § 141, 100 Stat. 3672, 3682 (1986); CRS, *The Compacts of Free Association*, August 15, 2022. In 2003, Congress amended the Compacts for the Marshall Islands and the Federated States of Micronesia. Amendments to the immigration provisions provided additional grant assistance to those areas of the United States most impacted by migrants from these islands, including Hawaii, American Samoa, the Northern Mariana Islands, and Guam. Pub. L. No. 108-188, § 141, 117 Stat. 2720, 2760 (2003).

¹³³⁷ Pub. L. No. 99-239, § 211, 99 Stat. 1770, 1804, 1813-14 (1986); Pub. L. No. 108-188, § 211, 117 Stat. 2720, 2771 (2003).

¹³³⁸ Pub. L. No. 99-658, § 211, 100 Stat. 3672, 3687 (1986); Pub. L. No. 115-141, § 114, 132 Stat. 348, 660 (2018) (appropriating funds for 2010 extension of economic assistance to Palau).

¹³³⁹ Reuters, "U.S. Aims for over \$7 Billion in Aid," March 23, 2023.

¹³⁴⁰ Reuters, "U.S. Signs Agreement to Continue Micronesia Assistance," May 23, 2023.

¹³⁴¹ USDOl, "Compact Grant Assistance," October 15, 2015.

¹³⁴² USDOl, "Compact Trust Funds," October 15, 2015.

¹³⁴³ CRS, *The Compacts of Free Association*, August 15, 2022.

The economic assistance and federal services provisions aid the FAS in addressing common challenges small island states face, including initiatives that can help foster private sector growth, increased trade, and investment through reliable infrastructure and disaster response. Between 1986 and 2001, the FAS used \$105 million in assistance to improve both the stability and affordability of domestic energy infrastructure to attract investment in local businesses.¹³⁴⁴ A Compact partnership with the Marshall Islands, the ADB, and Australia modernized the freshwater and sewage system for households in Ebeye, the second-largest city on its most populous island, leading to a threefold increase in freshwater production capacity.¹³⁴⁵ The FAS also receive assistance through USAID, the government agency responsible for providing disaster response. Since 2008, USAID has invested almost \$100 million in disaster relief and recovery for five major disasters.¹³⁴⁶ A USAID partnership with Catholic Relief Services focuses on long-term preparedness and management of disasters by building capacity for local leadership in disaster response. In the Federated States of Micronesia, this includes developing agricultural techniques for disaster resilience and local saving and lending groups for dispersed communities on outer islands to provide financial stability during a crisis.¹³⁴⁷

U.S. Insular Possessions

The OIA provides discretionary grants to American Samoa, Guam, and the Northern Mariana Islands, which can be used to fund social and physical infrastructure such as health care, education, government operations, and roads.¹³⁴⁸ Total OIA funding in fiscal year 2022 was \$40.8 million to American Samoa, \$17.9 million to Northern Mariana Islands, and \$17.4 million to Guam. This funding included \$27 million provided to support government operations in American Samoa (the public schools, hospital, community college, and judicial system).¹³⁴⁹ An additional \$15 million was appropriated for climate change technical assistance for U.S. territories under the Inflation Reduction Act, but it has not yet been awarded to specific islands.¹³⁵⁰

The insular possessions are also eligible for funds under numerous other federal programs not administered by the OIA.¹³⁵¹ As described in the internet infrastructure section above, the U.S. territories are eligible to receive funding for internet infrastructure and subsidies for broadband internet. The Biden Administration has identified 23 projects across the three territories receiving funding under the IJA, including about \$57 million for transportation and \$97 million for clean drinking

¹³⁴⁴ Borgen Magazine, “The Compact of Free Association (COFA) and Its Benefits,” September 6, 2020.

¹³⁴⁵ ADB, “Clean Water Is Flowing in Marshall Islands’ Ebeye,” January 27, 2020.

¹³⁴⁶ Hart, “Renewed U.S. Engagement in the Pacific,” March 23, 2023.

¹³⁴⁷ Hart, “Renewed U.S. Engagement in the Pacific,” March 23, 2023.

¹³⁴⁸ In addition to the funding for social and physical infrastructure, OIA also transfers significant fiscal payments from the U.S. Treasury to Guam refunding federal income taxes collected from military personnel stationed there. RTI International, *Economic Impacts Attributable to FY 2018 Federal Grants and Payments to Seven Insular Areas*, June 2019, 10, 11, 18, 31; USDOT, OIA, “Discretionary Financial Assistance to the U.S. Territories and FAS,” October 15, 2015.

¹³⁴⁹ USDOT, “Interior Provides \$26.6 Million to American Samoa,” May 17, 2022; USDOT, *FY 2024 Budget Justification*, accessed June 16, 2023.

¹³⁵⁰ USDOT, “Assistant Secretary Cantor Visits Guam,” September 21, 2022; USDOT, *FY 2024 Budget Justification*, accessed June 16, 2023.

¹³⁵¹ As noted in the discussion on internet infrastructure, however, the insular possessions are often eligible for less funding than U.S. states.

water infrastructure.¹³⁵² The territories are eligible to receive funding from some USDA programs, recently resulting in projects supporting local food supply chains in the Northern Mariana Islands and specialty crop production in Guam.¹³⁵³

Other U.S. Activity in the Pacific

Historically, assistance from the U.S. Department of the Interior related to the Compacts with the Marshall Islands, the Federated States of Micronesia, and Palau has represented the vast majority of U.S. direct foreign assistance to the Pacific Islands.¹³⁵⁴ Outside of the FAS, U.S. foreign assistance to Pacific Island economies has been more limited, focused primarily on disaster assistance and select projects. From 2017 to 2020, Fiji, Papua New Guinea, the Solomon Islands, Tonga, and Vanuatu each received more than \$1 million in international disaster and famine assistance from USAID.¹³⁵⁵ USAID has also provided some support to the Pacific Islands directed toward economic growth and trade, most notably through the Strengthening Competitiveness, Agriculture, Livelihoods, and Environment Program in the Solomon Islands, announced in 2020. The program is a package of five programs in the Solomon Islands, totaling \$25 million, focused on forestry management and developing the agribusiness sector.¹³⁵⁶ In 2021, USAID announced the start of a five-year, \$57 million project to facilitate mini-grid¹³⁵⁷ investments in Papua New Guinea. The project is part of a broader Papua New Guinea Electricity Partnership with Australia, Japan, and New Zealand, formed at the 2018 Asia-Pacific Economic Cooperation Leaders' Summit.¹³⁵⁸

The United States has also supported several Pacific Island economies through the Millennium Challenge Corporation (MCC), an independent U.S. foreign assistance agency created by Congress in 2004. In 2006, the MCC signed a five-year, \$66 million compact with the government of Vanuatu. The compact

¹³⁵² White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in American Samoa," February 2023; White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in Guam," February 2023; White House, "President Biden's Bipartisan Infrastructure Law Is Delivering in Northern Mariana Islands," March 2023.

¹³⁵³ The funding for the Northern Mariana Islands was issued under the Local Food Purchase Assistance Cooperative Agreement Program, a program created by the USDA's Commodity Credit Corporation that allows for the procurement of agricultural commodities in the United States. 7 U.S.C. § 1736(b); 15 U.S.C. § 714c(c). For the purposes of this program, the "United States" includes the territories and possessions of the United States. The funding for Guam was issued by the USDA under the Specialty Crops Competitiveness Act, but Guam and the other Pacific territories were initially not eligible for this program when it was created in 2004. Pub. L. No. 108-465, § 3, 118 Stat. 3883 (2004) (defining "State" to include Puerto Rico but no other insular possessions). In 2008, Congress amended the act to make Guam and the other Pacific territories eligible. Pub. L. No. 110-234, § 10109, 122 Stat. 1338 (2008) (amending definition of "State" to include Guam, American Samoa, the U.S. Virgin Islands, and the Northern Mariana Islands) (codified at 7 U.S.C. § 1621 note). USDA, "USDA Announces Its LFPA with CNMI," September 13, 2022; USDA, "USDA Announces SCBGP Funding Awarded to Guam," August 25, 2022; USDA, "LFPA Frequently Asked Questions," accessed July 6, 2023.

¹³⁵⁴ USAID, *U.S. Overseas Loans and Grants (Greenbook) 2020*, August 9, 2022, 156–66.

¹³⁵⁵ USAID, *U.S. Overseas Loans and Grants (Greenbook) 2020*, August 9, 2022, 156–66.

¹³⁵⁶ USAID, "Pacific Islands: Our Work," April 17, 2023; USAID, *Solomon Islands SCALE-NRM, FY 2021 Annual Progress Report*, March 30, 2022.

¹³⁵⁷ Mini-grids are networks of small electricity generators supplying a small, localized group of customers. They are typically not connected to the national grid. See chapter 7 for more information. Burrell, "What's so Important About Mini-Grids?," March 30, 2021.

¹³⁵⁸ U.S. government official, interview by USITC staff, Papua New Guinea, April 21, 2023; U.S. Mission Papua New Guinea, "U.S. Government Delivers on PNG Electrification Partnership Promise," January 20, 2021.

upgraded and sealed two large roads in Vanuatu. The project significantly reduced average travel times on the islands of Efate and Espiritu Santo.¹³⁵⁹ More recently, the MCC has started smaller threshold programs focused on facilitating land access for tourism investments and supporting more sustainable forest resource management in the Solomon Islands (selected in 2018) and on enhancing employment opportunities for the people of Kiribati (selected in 2020).¹³⁶⁰

Major Trade-Related Initiatives and Potential Areas for Greater U.S. Engagement

During this investigation, a range of stakeholders—including Pacific Island governments and businesses, regional business groups, development partners, and academics—provided submissions to the Commission with requests and recommendations for greater U.S. commercial engagement in the region. Many of these ideas are included below, with context on historical and recent activity on these trade and investment-related initiatives.

Approaches to Engaging with the Pacific

Stakeholders emphasized that many Pacific Island governments have few officials working on trade and investment issues, limiting their absorptive capacity for foreign assistance. For this reason, several stakeholders recommended that donors prioritize supporting existing initiatives.¹³⁶¹ The large number of donors active in the region can also make it harder for them to find partners in the private sector and increases the risk of duplicating efforts.¹³⁶² To secure local buy-in and respect differences among the Pacific Island economies, stakeholders noted the importance of aligning initiatives with Pacific Island government priorities, national development plans, and strategies developed by the PIF.¹³⁶³ The PIF has laid out regional priorities in the 2050 Strategy for the Blue Pacific Continent, the Pacific Roadmap for Economic Development, and the Pacific Aid for Trade Strategy 2020–2025.¹³⁶⁴ Stakeholders also noted that Australia and New Zealand have heavily supported trade capacity building in the region and recommended coordinating with these economies, which several contacts representing Australian and New Zealand programs also supported.¹³⁶⁵

¹³⁵⁹ MCC, *Vanuatu Closed Compact*, October 16, 2020.

¹³⁶⁰ MCC, “Kiribati Threshold Program Congressional Notification,” May 12, 2023; MCC, “Solomon Islands Threshold Program Congressional Notification,” January 7, 2021.

¹³⁶¹ PIFS, written submission to the USITC, February 7, 2023, 2; Government of New Zealand, Ministry of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 2; Government of Australia, Department of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 1.

¹³⁶² Subject matter expert, interview by USITC staff, Fiji, March 20, 2023.

¹³⁶³ USITC, hearing transcript, February 14, 2023, 7 (testimony of Satyendra Prasad, Embassy of Fiji); subject matter expert, interview by USITC staff, Australia, April 17, 2023.

¹³⁶⁴ PIFS, written submission to the USITC, February 7, 2023, 1.

¹³⁶⁵ USITC, hearing transcript, February 14, 2023, 82 (testimony of Edward Gresser, Progressive Policy Institute); subject matter expert, interview by USITC staff, Australia, April 17, 2023; subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

General Commercial Engagement

In general, stakeholders expressed interest in having more opportunities to engage with the United States and clarify U.S. market access requirements. One government contact in Samoa mentioned that they had lines of communication to regulatory agencies in other markets but lacked relevant contacts in the U.S. government, such as in the U.S. Food and Drug Administration and the USDA.¹³⁶⁶ A stakeholder in Papua New Guinea noted that it was difficult to work with the USDA on specific issues, because the region has only one USDA contact who is based in Australia.¹³⁶⁷ Stakeholders in American Samoa similarly expressed interest in U.S. regulators taking a more active role, such as helping with USDA and FDA certifications for Samoa and other Pacific Island economies looking to export food to American Samoa.¹³⁶⁸

Ongoing efforts to expand the U.S. embassy presence are important for facilitating more engagement on these regulatory issues affecting Pacific Island exporters. In particular, U.S. Department of Commerce Commercial Service officers based at U.S. embassies can serve as critical sources of information for Pacific Island exporters on how to get their products to the U.S. market.¹³⁶⁹ Before 2023, the United States had embassies in only 6 of the 14 Pacific Island countries: Fiji, Papua New Guinea, Samoa, and the three FAS. The United States has since started to expand its embassy presence, opening an embassy in the Solomon Islands in February 2023 and announcing plans to open embassies in Kiribati, Tonga, and Vanuatu.¹³⁷⁰ Staffing at the existing U.S. embassies is still in the process of ramping up to align with U.S. government decisions to increase engagement in the region. Several of the U.S. embassies are staffed by only two or three people and have been overwhelmed by the increased activity.¹³⁷¹ For U.S. embassies operating with a small staff, their limited current resources can be entirely taken up by visa processing—preventing work on other areas such as commercial services. More officers from the U.S. Commercial Service and Foreign Agricultural Service working in the embassies throughout the region would also support better commercial engagement.¹³⁷²

Trade Agreements and Frameworks

The United States does not have a trade agreement with any of the Pacific Islands but has several arrangements supporting trade and investment relations. As discussed in chapter 4, 13 Pacific Island economies are eligible for the GSP program. The United States also has preferential trade access for imports from the insular possessions and the FAS. Aside from these market access arrangements, the

¹³⁶⁶ Foreign government official, interview by USITC staff, Samoa, March 27, 2023.

¹³⁶⁷ Subject matter expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹³⁶⁸ U.S. government official, interview by USITC staff, American Samoa, March 30, 2023.

¹³⁶⁹ Tidwell, written submission to the USITC, February 7, 2022; U.S. government official, interview by USITC staff, Samoa, March 27, 2023.

¹³⁷⁰ Reuters, “U.S. to Open Vanuatu Embassy,” March 31, 2023; U.S. Mission Papua New Guinea, “Opening of the U.S. Embassy in Honiara, Solomon Islands,” February 2, 2023.

¹³⁷¹ Tidwell, written submission to the USITC, February 7, 2022; U.S. government official, interview by USITC staff, Samoa, March 27, 2023.

¹³⁷² U.S. government official, interview by USITC staff, Samoa, March 27, 2023; USITC, hearing transcript, February 14, 2023, 75 (testimony of Alan Tidwell, Georgetown University).

United States and Papua New Guinea cooperate multilaterally on trade issues as longstanding members of the Asia-Pacific Economic Cooperation Forum.

Recent U.S. activity has advanced trade and investment relations with Fiji. On October 15, 2020, the United States signed a trade and investment framework agreement (TIFA) with Fiji.¹³⁷³ It is the first U.S. TIFA with a Pacific Island economy and includes a provision allowing small Pacific Island economies to be invited as observers in TIFA discussions, in select circumstances. Among other measures, the TIFA also established a bilateral Council on Trade and Investment that aims to meet at least once per year.¹³⁷⁴ The United States is further engaging with Fiji as a partner in its multilateral negotiations of the Indo-Pacific Economic Framework for Prosperity, initiated in May 2022. The framework's trade pillar is focusing on provisions and initiatives relating to labor, environment, digital economy, agriculture, competition policy, transparency and good regulatory practices, trade facilitation, inclusivity, and technical assistance and economic cooperation.¹³⁷⁵

The Pacific Island economies have negotiated several trade agreements with each other and with Australia and New Zealand. In 1981, members of the PIF signed the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA) with Australia and New Zealand.¹³⁷⁶ SPARTECA was focused on offering preferential access to the Australian and New Zealand markets. The agreement provides duty-free and unrestricted access to all products from 13 Pacific Island countries, conditional on meeting 50 percent rules of origin and excepting safeguard provisions.¹³⁷⁷ In 2001, Australia and New Zealand negotiated the Pacific Agreement on Closer Economic Relations (PACER) with the Pacific Island countries, a framework agreement for replacing SPARTECA. This was followed by PACER Plus, a reciprocal trade agreement covering goods, services, investment, and movement of people. The Plus in the name represents the addition of trade-related development assistance for signatories.¹³⁷⁸ PACER Plus entered into force in December 2020, about a decade after negotiations started. Eight Pacific Island economies—the Cook Islands, Kiribati, Niue, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu—in addition to Australia and New Zealand have ratified the agreement. Fiji and Papua New Guinea opted not to join PACER Plus, citing pre-existing duty-free access under SPARTECA and concerns that the PACER Plus agreement's benefits were skewed toward Australia and New Zealand.¹³⁷⁹

Trade agreements among the Pacific Island economies are in place but have faced delays in implementation. Pacific Island economies successfully negotiated reciprocal agreements through the subregional Melanesian Spearhead Group, which includes Fiji, Papua New Guinea, the Solomon Islands, and Vanuatu, and with New Caledonia's Kanak Socialist National Liberation Front as an observer. Another example is the Pacific Island Countries Trade Agreement (PICTA) negotiated through the PIF

¹³⁷³ USTR, "Pacific Islands," accessed May 25, 2023.

¹³⁷⁴ *Trade and Investment Framework Agreement*, October 15, 2020.

¹³⁷⁵ IPEF, "Ministerial Text for Trade Pillar," September 2022.

¹³⁷⁶ Before 2001, the PIF was known as the South Pacific Forum. UNCTAD, "SPARTECA (South Pacific Regional Trade and Economic Cooperation Agreement)," accessed July 15, 2023; South Pacific Regional Trade and Economic Cooperation Agreement, July 14, 1980.

¹³⁷⁷ The 13 economies are the Cook Islands, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Niue, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. APTIAD, "Trade Agreements and Arrangements in the Pacific Subregion," June 2012, 2–3.

¹³⁷⁸ Subject matter expert, interviews by USITC staff, March 8 and 29, 2023.

¹³⁷⁹ Joint Standing Committee on Treaties, *Report 179: Reprocessing Nuclear Fuel-France*; PACER Plus Agreement, May 2018, 22.

among the 14 Pacific Island countries. Although PICTA entered into force in 2003, use of the agreement has been limited. Most of the members with larger trade flows have preferential market access to each other through the Melanesian Spearhead Group. Several of the smaller island members of PICTA already offered low or zero tariff rates for almost all imported products, and three of the countries have not completed the domestic steps necessary to start trading under PICTA.¹³⁸⁰ Efforts by the Melanesian Spearhead Group to ratify an expanded and updated free trade agreement among their members appear to have stalled.¹³⁸¹

Although reciprocal multilateral free trade agreements face significant hurdles, contacts that Commission staff spoke to said there are opportunities for other types of agreements and supporting Pacific Island engagement with the WTO. The government of Fiji has expressed interest in a bilateral or multilateral trade agreement with the United States, particularly to negotiate goods market access. Fiji and the PIF have also stressed the importance of updating preferential trade arrangements, either by reauthorizing GSP with more flexible rules of origin or by creating a separate arrangement for the Pacific region similar to the Africa Growth and Opportunity Act (AGOA) or Caribbean Basin Initiative programs.¹³⁸² The PIF encouraged the United States to establish a trade and Investment framework agreement with its members. This would provide a forum for discussing the creation of an “AGOA-equivalent” agreement as well as other topics.¹³⁸³ The government of Australia also pointed to opportunities to collaborate more on trade by opening participation in the Indo-Pacific Economic Framework for Prosperity to other Pacific partners once the agreement is finalized. The Australian government also suggested working with the PIF to ensure their members’ priorities were raised in Asia-Pacific Economic Cooperation meetings.¹³⁸⁴

Fiji, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu are the only Pacific Island countries that have joined the WTO. Intergovernmental organizations such as the PIF and the African, Caribbean and Pacific Group of States, however, have ad hoc observer status on many of the WTO committees.¹³⁸⁵ In a written submission, the government of Australia encouraged the United States to support Pacific Island economies with implementing WTO rules and generally accessing and engaging the institution. In particular, the PIF and the governments of Australia and New Zealand all highlighted the importance of the WTO Agreement on Fisheries Subsidies to the region. Australia and New Zealand specifically recommended U.S. technical assistance to support Pacific WTO members with implementing the agreement and U.S. support for the Fisheries Fund Mechanism.¹³⁸⁶

¹³⁸⁰ PIFS, written submission to the USITC, March 9, 2023, 2–4.

¹³⁸¹ Fiji and the Solomon Islands signed the Melanesian Free Trade Agreement in 2016, but Papua New Guinea and Vanuatu have not signed. Vula, “Trade on Top Of MSG Senior Officials Agenda,” February 11, 2020; MSG, “Remarks by the MSG Director General,” June 6, 2022; MSG, *2019 Annual Report*, 27, 2020.

¹³⁸² Government of Fiji, Ministry of Trade, Co-operation, Small and Medium Enterprises, written submission to the USITC, April 17, 2023, 1; PIFS, written submission to the USITC, February 7, 2023, 4.

¹³⁸³ PIFS, written submission to the USITC, February 7, 2023, 4.

¹³⁸⁴ Government of Australia, Department of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023.

¹³⁸⁵ WTO, “WTO Members and Observers,” accessed May 25, 2023; WTO, “International Intergovernmental Organizations Granted Observer Status to WTO Bodies,” accessed May 25, 2023.

¹³⁸⁶ Government of Australia, Department of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 2–3; Government of New Zealand, Ministry of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 7.

Trade Capacity Building

Also referred to as aid-for-trade, trade capacity-building assistance addresses challenges developing economies face in building the physical, human, and institutional capacity to benefit from trade and investment opportunities. This can include a broad range of programs and work with both governments and the private sector.¹³⁸⁷ The United States is the largest single-country provider of trade capacity-building assistance globally, but assistance to Pacific Island economies through 2020 was relatively small (less than \$5 million) and mostly came from USAID initiatives and community-level Peace Corps operations.¹³⁸⁸ Australia and New Zealand have been very active in providing trade capacity-building assistance to the region.¹³⁸⁹ This support has sometimes assisted Pacific Island exporters in getting certifications for the U.S. market, but development partners suggested additional funding is needed. They also suggested that such a program could more directly assist Pacific Island exporters with U.S. market access—particularly because it could tap into U.S. expertise about its market requirements.¹³⁹⁰

Australia and New Zealand have recently expanded their trade capacity-building assistance to Pacific Island economies through the PACER Plus Implementation Unit (PPIU). The PPIU is focused on supporting Pacific Island signatories with implementation of the trade agreement, but they also have been helping Pacific businesses with the funding, equipment and facilities, and technical assistance to meet Australian, New Zealand, and WTO standards.¹³⁹¹ The PPIU was set up in Apia, Samoa, in 2021, with funding through 2025, although the unit’s funding is expected to be extended beyond then. The first two years of the PPIU have been focused on addressing areas of duplication (e.g., with the PHAMA Plus and Pacific Quality Initiatives discussed below), establishing regular communications with other programs in the space, and working with island governments to develop a rapid needs assessment of each country’s priorities.¹³⁹²

A more mature trade capacity building program in the region is Australia and New Zealand’s Pacific Horticultural and Agricultural Market Access Plus Program, PHAMA Plus. Started as PHAMA in 2011, the program provided support to Fiji, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu. PHAMA was updated to PHAMA Plus in 2018, adopting a market development approach that looked at supporting exporters by, for example, connecting them with potential customers, setting up food processing to meet international standards, and following market trends. PHAMA Plus also focused more narrowly on specific agricultural sectors. One reason for this shift was to have clearer impacts from the investment.¹³⁹³ Unlike the PPIU, PHAMA Plus is not specific to market access requirements in Australia and New Zealand. PHAMA Plus partners with certifying organizations, helping exporters meet requirements and obtain certifications to differentiate their product.¹³⁹⁴

The first phase of PHAMA Plus ran through 2022. PHAMA Plus installed program managers in each country and selected sectors in each country, according to consultations with stakeholders as well as

¹³⁸⁷ USAID, *From Aid to Trade: Delivering Results*, November 24, 2010, xi.

¹³⁸⁸ USAID, “Trade Capacity Building/Aid for Trade,” December 15, 2022; USAID, TCB, accessed May 24, 2023.

¹³⁸⁹ USITC, hearing transcript, February 14, 2023, 82 (testimony of Edward Gresser, Progressive Policy Institute).

¹³⁹⁰ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

¹³⁹¹ Subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

¹³⁹² Subject matter expert, interview by USITC staff, March 8, 2023.

¹³⁹³ Subject matter expert, interview by USITC staff, Vanuatu, April 13, 2023.

¹³⁹⁴ Subject matter expert, interview by USITC staff, Vanuatu, April 13, 2023.

export and growth potential. PHAMA Plus is now in its final phase, with contracts and funding scheduled to end in 2026. The program has increasingly focused on trying to ensure progress achieved in the targeted sectors is sustainable beyond the program. PHAMA Plus is also continuing to focus on certifications, including getting more producers certified on minimum food safety standards like HACCP.¹³⁹⁵

The PIF is also leading two efforts supporting regional trade capacity: the Pacific E-Commerce Initiative and the Pacific Quality Infrastructure Initiative. These initiatives focus on improving metrology, standardization, accreditation, and conformity assessment in the region. According to the PIF, both programs would benefit from additional resources.¹³⁹⁶

Trade and Investment Promotion

One of the most frequently raised ideas for expanding U.S. engagement was to open an office in the United States under the Pacific Trade and Investment (PTI) network.¹³⁹⁷ The PTI network is the leading trade and investment promotion agency in the region. The PIF runs the PTI network with funding support from other countries. The PTI network currently has offices in Australia, China, and New Zealand, each funded by the host country. Australia also funds a PTI commissioner based in Geneva. The Pacific Islands Centre in Japan is also affiliated with the PTI network; the PIF and the government of Japan created the office in 1996, which is funded by Japan and offers similar services to the rest of the PTI network.¹³⁹⁸ The PIF regularly coordinates with each of the PTI offices and their corresponding donors on the program's work, including by jointly reviewing and approving annual implementation plans.¹³⁹⁹

Each PTI office's activities focus on connecting the PIF's 16 member Pacific Island economies to external markets through trade, investment, and tourism deals. This includes introducing Pacific Island exporters to global buyers and distributors, showcasing Pacific Island products, offering grants to subsidize freight costs for small and medium-sized enterprises, and providing free resources to advance Pacific Island business development.¹⁴⁰⁰ For example, in 2022, PTI Australia reported assisting 917 businesses across all 16 members, including facilitating 190 export deals and 17 investment deals and delivering 27 digital workshops.¹⁴⁰¹ A stakeholder in Papua New Guinea highlighted that the PTI network is often the first stop for sharing investor opportunities and collaborating on trade missions.¹⁴⁰²

¹³⁹⁵ Subject matter expert, interview by USITC staff, Papua New Guinea, April 19, 2023.

¹³⁹⁶ PIFS, written submission to the USITC, February 7, 2023, 2.

¹³⁹⁷ PIFS, written submission to the USITC, February 7, 2023, 3; Government of Australia, Department of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 2; Government of New Zealand, Ministry of Foreign Affairs and Trade, written submission to the USITC, April 17, 2023, 4; subject matter expert, interview by USITC staff, Samoa, March 29, 2023.

¹³⁹⁸ PTI, *Pacific Trade Invest Strategic Plan 2023-2026*, no date, 5, 7.

¹³⁹⁹ Subject matter expert, email message to USITC staff, May 17, 2023.

¹⁴⁰⁰ Pacific Trade Invest, "Trade," accessed April 18, 2023.

¹⁴⁰¹ PTI Australia, *Annual Report 2022*, April 2023, 10.

¹⁴⁰² Foreign government official, interview by USITC staff, Papua New Guinea, April 19, 2023.

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Appendix A

Request Letter



THE UNITED STATES TRADE REPRESENTATIVE
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON

September 29, 2022

The Honorable David S. Johanson
Chairman
U.S. International Trade Commission
500 E Street, S.W.
Washington, DC 20436

Docket Number 3646
Office of the Secretary
U.S. Int. Trade Comm.

Received: Sept. 29, 2022
Office of the Secretary
U.S. Int. Trade Comm.

Dear Chairman Johanson:

The United States recognizes the importance of enhancing trade ties with the Pacific Islands countries, which can help support the development of the region. The Office of the United States Trade Representative (USTR) is interested in understanding ways to enhance our trade relationship with the Pacific Islands. In order to inform future U.S. policy approaches, we seek to better understand potential impediments to and opportunities for increased trade flows between the United States and the Pacific Islands, with an emphasis on barriers Pacific Islands may face exporting to the United States. USTR would also like to identify impediments to and opportunities for increased U.S. investment in the Pacific Islands.

Therefore, I am writing today to request that the Commission conduct an investigation and prepare a report under section 332(g) of the Tariff Act of 1930 to analyze Pacific Island trade with the United States and identify impediments to increased goods and services exports to the United States and U.S. investment in the Pacific Islands. For the purposes of this request, the Commission should consider the term “Pacific Islands” to mean those islands listed in attachment A to this letter.

In its report, to the extent practicable, the Commission should:

1. provide an overview of the Pacific Island economies, including major sectors in production, consumption, trade, and employment;
2. describe goods and services exports from the Pacific Islands during the period 2017–21, and identify major factors that impact those exports to the United States;
3. describe the use of the U.S. General System of Preferences (GSP) program by the Pacific Islands countries and identify the goods from the Pacific Islands that enter the United States under GSP, sectors in which these programs might be underutilized, and factors affecting utilization of GSP;
4. describe foreign investment in the Pacific Islands during the period 2017–21; and identify major factors affecting investment from the United States;
5. using qualitative analysis and, to the extent that data are available, quantitative analysis, identify major products (including goods covered by the GSP program) and services, as

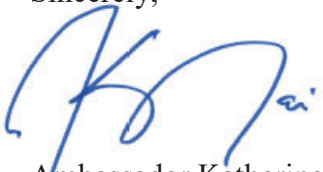
well as economic sectors, in the Pacific Islands with greatest potential for export sales to the United States, sectors with U.S. investment potential, and the factors that impede trade and investment with the United States for these products and sectors; and

6. describe initiatives and/or technical assistance that could address such trade and investment impediments, if found in the course of the Commission's research efforts.

I request that the Commission deliver its report no later than 12 months from the date of this letter. As this office intends to make the report available to the public in its entirety, the report should not include any confidential business information or classified information.

I appreciate the Commission's assistance and cooperation in this matter.

Sincerely,

A handwritten signature in blue ink, appearing to be 'K. Tai', is written over a faint, light blue circular stamp.

Ambassador Katherine Tai

Attachment A: List of Pacific Islands

Independent Countries:

- Fiji (GSP)
- Kiribati (GSP-LDBDC)
- Nauru
- Papua New Guinea (GSP)
- Samoa (GSP-LDBDC)
- Solomon Islands (GSP-LDBDC)
- Tonga (GSP)
- Tuvalu (GSP-LDBDC)
- Vanuatu (GSP-LDBDC)

Freely Associated States:

- Federated States of Micronesia
- Palau
- Marshall Islands

U.S. Territories:

- Guam
- Commonwealth of the Northern Mariana Islands
- American Samoa

Non-independent Countries and Territories:

- Cook Islands (GSP)
- French Polynesia
- New Caledonia
- Niue (GSP)
- Pitcairn (GSP)
- Tokelau (GSP)
- Wallis and Futuna (GSP)

Appendix B

***Federal Register* Notice**

While you can request in your comment that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. Moreover, all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Next Steps

If we decide to issue permits to any of the applicants listed in this notice, we will publish a notice in the **Federal Register**.

Authority

We publish this notice under section 10(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Lori Nordstrom,

Assistant Regional Director, Ecological Services, Bloomington, Minnesota.

[FR Doc. 2022–23969 Filed 11–2–22; 8:45 am]

BILLING CODE 4333–15–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731–TA–1586 (Final)]

Sodium Nitrite From Russia

Determination

On the basis of the record¹ developed in the subject investigation, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that an industry in the United States is materially injured by reason of imports of sodium nitrite from Russia, provided for in subheading 2834.10.10 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce (“Commerce”) to be sold in the United States at less than fair value (“LTFV”).²

Background

The Commission instituted this investigation effective January 13, 2022, following receipt of antidumping and countervailing duty petitions filed with the Commission and Commerce by Chemtrade Chemicals US LLC, Parsippany, New Jersey. The Commission established a general schedule for the conduct of the final

phase of its investigations of sodium nitrite from India and Russia following publication of a preliminary determination by Commerce that imports of sodium nitrite were subsidized by the government of Russia. Notice of the scheduling of the final phase of the Commission’s investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** of April 20, 2022 (87 FR 23567). In light of the restrictions on access to the Commission building due to the COVID–19 pandemic, the Commission conducted its hearing through written testimony and video conference on June 21, 2022. All persons who requested the opportunity were permitted to participate.

The investigation schedules became staggered when Commerce did not align its countervailing duty investigation on Russia with either of the corresponding antidumping duty investigations; did not postpone the final determination of its antidumping duty investigation on Russia; and aligned its countervailing duty investigation on sodium nitrite from India with its postponed antidumping duty investigation regarding India. On August 15, 2022, the Commission issued a final affirmative determination in its countervailing duty investigation of sodium nitrite from Russia (87 FR 51141, August 19, 2022). Following publication of a final determination by Commerce that imports of sodium nitrite from Russia were being sold at LTFV within the meaning of section 735(a) of the Act (19 U.S.C. 1673d(a)), notice of the supplemental scheduling of the final phase of the Commission’s antidumping duty investigation on Russia was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** of September 23, 2022 (87 FR 58136).

The Commission made this determination pursuant to § 735(b) of the Act (19 U.S.C. 1673d(b)). It completed and filed its determination in this investigation on October 27, 2022. The views of the Commission are contained in USITC Publication 5379 (October 2022), entitled *Sodium Nitrite from Russia: Investigation No. 731–TA–1586 (Final)*.

By order of the Commission.

Issued: October 28, 2022.

Katherine Hiner,

Acting Secretary to the Commission.

[FR Doc. 2022–23855 Filed 11–2–22; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 332–593]

U.S.-Pacific Islands Trade and Investment: Impediments and Opportunities

ACTION: Notice of investigation and scheduling of a public hearing.

SUMMARY: Following receipt on September 29, 2022, of a request from the United States Trade Representative (USTR), under section 332(g) of the Tariff Act of 1930, the U.S. International Trade Commission (Commission) instituted Investigation No. 332–593, *U.S.- Pacific Islands Trade and Investment: Impediments and Opportunities*. The USTR requested that the Commission conduct an investigation and provide a report that analyzes Pacific Island trade with the United States and identifies impediments to and opportunities for increased trade flows between the United States and the Pacific Islands, and for increased U.S. investment in the Pacific Islands.

DATES:

January 31, 2023: Deadline for filing requests to appear at the public hearing.

February 2, 2023: Deadline for filing prehearing briefs and statements.

February 7, 2023: Deadline for filing electronic copies of oral hearing statements.

February 14, 2023: Public hearing.

February 21, 2023: Deadline for filing post-hearing briefs and statements.

April 17, 2023: Deadline for filing all other written submissions.

September 29, 2023: Transmittal of Commission report to the USTR.

ADDRESSES: All Commission offices, including the Commission’s hearing rooms, are located in the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC. All written submissions should be addressed to the Secretary, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436. The public record for this investigation may be viewed on the Commission’s electronic docket (EDIS) at <https://edis.usitc.gov>.

FOR FURTHER INFORMATION CONTACT:

Project Leader Steven LeGrand
(steven.legrand@usitc.gov or 202–205–

¹ The record is defined in § 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR 207.2(f)).

² 87 FR 55781 (September 12, 2022).

3094) or Deputy Project Leader Robert Ireland (robert.ireland@usitc.gov or 202-708-4101) for information specific to this investigation. For information on the legal aspects of this investigation, contact Brian Allen (brian.allen@usitc.gov or 202-205-3034) or William Gearhart of the Commission's Office of the General Counsel (william.gearhart@usitc.gov or 202-205-3091). The media should contact Jennifer Andberg, Office of External Relations (jennifer.andberg@usitc.gov or 202-205-1819). Hearing-impaired individuals may obtain information on this matter by contacting the Commission's TDD terminal at 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000. General information concerning the Commission may also be obtained by accessing its website (<https://www.usitc.gov>).

Background: As requested by the USTR under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), the Commission will be the following in its report:

- An overview of the Pacific Island economies, including major sectors in production, consumption, trade, and employment.
- A description of goods and services exports from the Pacific Islands during the period 2017–21, and identification of major factors that impact those exports to the United States.
- A description of the use of the U.S. General System of Preferences (GSP) program by the Pacific Island countries and identification of the goods from the Pacific Islands that enter the United States under GSP, sectors in which these programs might be underutilized, and factors affecting utilization of GSP.
- A description of foreign investment in the Pacific Islands during the period 2017–21; and identification of major factors affecting investment from the United States.
- Identification of major products (including goods covered by the GSP program) and services in the Pacific Islands with greatest potential for export sales to the United States, sectors with U.S. investment potential, and the factors that impede trade and investment with the United States for these products and sectors using qualitative analysis and, to the extent data are available, quantitative analysis.
- A description of initiatives and/or technical assistance that could address such trade and investment impediments, if found during the Commission's research.

The 22 Pacific Island economies covered in this investigation are Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu (independent countries); Federated States of Micronesia, Palau, and Marshall Islands (Freely Associated States); Guam, Commonwealth of the Northern Mariana Islands, and American Samoa (U.S. territories); and Cook Islands, French Polynesia, New Caledonia, Niue, Pitcairn Islands, Tokelau, and Wallis and Futuna (non-independent countries and territories).

The USTR requested that the Commission transmit its report no later than 12 months following receipt of this request. In its request letter, the USTR stated that it intends to make the Commission's report available to the public in its entirety and asked that the report not include any confidential business information or classified information.

Public Hearing: A public hearing in connection with this investigation will be held in-person beginning at 9:30 a.m. on Tuesday, February 14, 2023, in the Main Hearing Room of the U.S. International Trade Commission, 500 E Street SW, Washington DC 20436. The hearing can also be accessed remotely using the WebEx videoconference platform. A link to the hearing will be posted on the Commission's website at <https://www.usitc.gov/calendarpad/calendar.html>.

Requests to appear at the public hearing should be filed with the Secretary no later than 5:15 p.m., Tuesday, January 31, 2023, in accordance with the requirements in the "Written Submissions" section below. Any requests to appear as a witness via videoconference must be included with your request to appear. Requests to appear as a witness via videoconference must include a statement explaining why the witness cannot appear in person; the Chairman, or other person designated to conduct the investigation, may at their discretion for good cause shown, grant such requests. Requests to appear as a witness via videoconference due to illness or a positive COVID-19 test result may be submitted by 3pm the business day prior to the hearing.

All prehearing briefs and statements should be filed no later than 5:15 p.m., Thursday, February 2, 2023. To facilitate the hearing, including the preparation of an accurate written transcript of the hearing, oral testimony to be presented at the hearing must be submitted to the Commission electronically no later than noon, February 7, 2023. All post-hearing briefs and statements should be filed no later

than 5:15 p.m., Tuesday, February 21, 2023. Post-hearing briefs and statements should address matters raised at the hearing. For a description of the different types of written briefs and statements, see the "Definitions" section below.

In the event that, as of the close of business on January 31, 2023, no witnesses are scheduled to appear at the hearing, the hearing will be canceled. Any person interested in attending the hearing as an observer or nonparticipant should check the Commission website as indicated two paragraphs above for information concerning whether the hearing will be held.

Written Submissions: In lieu of or in addition to participating in the hearing, interested parties are invited to file written submissions concerning this investigation. All written submissions should be addressed to the Secretary and should be received not later than the date specified in this notice. All written submissions must conform to the provisions of section 201.8 of the Commission's Rules of Practice and Procedure (19 CFR 201.8), as temporarily amended by 85 FR 15798 (March 19, 2020). Under that rule waiver, the Office of the Secretary will accept only electronic filings at this time. Filings must be made through the Commission's Electronic Document Information System (EDIS, <https://edis.usitc.gov>). No in-person paper-based filings or paper copies of any electronic filings will be accepted until further notice. Persons with questions regarding electronic filing should contact the Office of the Secretary, Docket Services Division (202-205-1802), or consult the Commission's Handbook on Filing Procedures.

Definitions of Types of Documents That May Be Filed; Requirements: In addition to requests to appear at the hearing, this notice provides for the possible filing of four types of documents: prehearing briefs, oral hearing statements, post-hearing briefs, and other written submissions.

(1) *Prehearing briefs* refers to written materials relevant to the investigation and submitted in advance of the hearing, and includes written views on matters that are the subject of the investigation, supporting materials, and any other written materials that you consider will help the Commission in understanding your views. You should file a prehearing brief particularly if you plan to testify at the hearing on behalf of an industry group, company, or other organization, and wish to provide detailed views or information that will support or supplement your testimony.

(2) *Oral hearing statements (testimony)* refers to the actual oral statement that you intend to present at the public hearing. *Do not* include any confidential business information in that statement. If you plan to testify, you must file a copy of your oral statement by the date specified in this notice. This statement will allow Commissioners to understand your position in advance of the hearing and will also assist the court reporter in preparing an accurate transcript of the hearing (*e.g.*, names spelled correctly).

(3) *Post-hearing briefs* refers to submissions filed after the hearing by persons who appeared at the hearing. Such briefs: (a) should be limited to matters that arose during the hearing, (b) should respond to any Commissioner and staff questions addressed to you at the hearing, (c) should clarify, amplify, or correct any statements you made at the hearing, and (d) may, at your option, address or rebut statements made by other participants in the hearing.

(4) *Other written submissions* refers to any other written submissions that interested persons wish to make, regardless of whether they appeared at the hearing, and may include new information or updates of information previously provided.

There is no standard format that a brief or other written submission must follow. However, each such document must identify on its cover (1) the type of document filed (*i.e.*, prehearing brief, oral statement of (name), post-hearing brief, or written submission), (2) the name of the person or organization filing it, and (3) whether it contains confidential business information (CBI). If it contains CBI, it must comply with the marking and other requirements set out below in this notice relating to CBI. Submitters of written documents (other than oral hearing statements) are encouraged to include a short summary of their position or interest at the beginning of the document, and a table of contents when the document addresses multiple issues.

Confidential Business Information: Any submissions that contain confidential business information must also conform to the requirements of section 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). Section 201.6 of the rules requires that the cover of the document and the individual pages be clearly marked as to whether they are the "confidential" or "non-confidential" version, and that the confidential business information is clearly identified by means of brackets. All written submissions, except for confidential business information, will

be made available for inspection by interested parties.

As requested by the USTR, the Commission will not include any confidential business information in its report. However, all information, including confidential business information, submitted in this investigation may be disclosed to and used: (i) by the Commission, its employees and Offices, and contract personnel (a) for developing or maintaining the records of this or a related proceeding, or (b) in internal investigations, audits, reviews, and evaluations relating to the programs, personnel, and operations of the Commission including under 5 U.S.C. Appendix 3; or (ii) by U.S. government employees and contract personnel for cybersecurity purposes. The Commission will not otherwise disclose any confidential business information in a way that would reveal the operations of the firm supplying the information.

Summaries of Written Submissions: Persons wishing to have a summary of their position included in the report that the Commission sends to the USTR should include a summary with their written submission and should mark the summary as having been provided for that purpose. The summary should be clearly marked as "summary for inclusion in the report" at the top of the page. The summary may not exceed 500 words, should be in MS Word format or a format that can be easily converted to MS Word, and should not include any confidential business information. The summary will be published as provided if it meets these requirements and is germane to the subject matter of the investigation. The Commission will list the name of the organization furnishing the summary and will include a link to the Commission's Electronic Document Information System (EDIS) where the full written submission can be found.

By order of the Commission.

Issued: October 28, 2022.

Katherine Hiner,

Acting Secretary to the Commission.

[FR Doc. 2022-23856 Filed 11-2-22; 8:45 am]

BILLING CODE 7020-02-P

DEPARTMENT OF JUSTICE

Foreign Claims Settlement Commission

[F.C.S.C. Meeting and Hearing Notice No. 04-22]

Sunshine Act Meeting

The Foreign Claims Settlement Commission, pursuant to its regulations

(45 CFR part 503.25) and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice in regard to the scheduling of open meetings as follows:

TIME AND DATE: Wednesday, November 16, 2022, at 10:00 a.m. EST.

PLACE: This meeting will be held by teleconference. There will be no physical meeting place.

STATUS: Open. Members of the public who wish to observe the meeting via teleconference should contact Patricia M. Hall, Foreign Claims Settlement Commission, Tele: (202) 616-6975, two business days in advance of the meeting. Individuals will be given call-in information upon notice of attendance to the Commission.

MATTERS TO BE CONSIDERED: 10:00 a.m.—Issuance of Proposed Decisions in claims against Albania.

CONTACT PERSON FOR MORE INFORMATION: Requests for information, advance notices of intention to observe an open meeting, and requests for teleconference dial-in information may be directed to: Patricia M. Hall, Foreign Claims Settlement Commission, 441 G St NW, Room 6234, Washington, DC 20579. Telephone: (202) 616-6975.

Jeremy R. LaFrancois,

Chief Administrative Counsel.

[FR Doc. 2022-23986 Filed 11-1-22; 11:15 am]

BILLING CODE 4410-BA-P

DEPARTMENT OF JUSTICE

[OMB Number 1125-0013]

Agency Information Collection Activities; Proposed eCollection; eComments Requested; Revision of a Currently Approved Collection; Request by Organization for Accreditation or Renewal of Accreditation of Non-Attorney Representative (Form EOIR-31A)

AGENCY: Executive Office for Immigration Review, Department of Justice.

ACTION: 30-Day notice.

SUMMARY: The Executive Office for Immigration Review (EOIR), Department of Justice (DOJ), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. This proposed information collection was previously published in the **Federal Register** on August 15, 2022, allowing for a 60-day comment period.

Appendix C

Calendar of Hearing

CALENDAR OF PUBLIC HEARING

Those listed below appeared in the United States International Trade Commission's Hearing:

Subjects: U.S.-Pacific Islands Trade and Investment: Impediments and Opportunities

Inv. No.: 332-593

Date and Time: February 14, 2023 - 9:30 a.m.

EMBASSY WITNESSES:

His Excellency Satyendra Prasad, Ambassador and Permanent Representative of Fiji to the United Nations

Alika Cooper, Fijian Trade Commissioner to North America

Leo Horgan, Pacific Islands Forum Chair Adviser at United Nations

Taniela Gavid, Second Secretary

ORGANIZATION AND WITNESSES:

Georgetown University School of Foreign Service
Center for Australian, New Zealand and Pacific Studies
Washington, DC

Alan Tidwell, Director

Progressive Policy Institute
Washington, DC

Edward Gresser, Vice President and Director for Trade and Global Markets

-END-

Appendix D

Summary of Views of Interested Parties

Interested parties had the opportunity to file written submissions to the Commission in the course of this investigation and to provide summaries of the positions expressed in the submissions for inclusion in this report. This appendix contains these written summaries, provided that they meet certain requirements set out in the notice of investigation (see appendix B). The Commission has not edited these summaries. This appendix also contains the names of other interested parties who filed written submissions during this investigation but did not provide written summaries. A copy of each written submission is available in the Commission's Electronic Docket Information System (EDIS), <https://www.edis.usitc.gov>, by searching for submissions related to Investigation No. 332-593. In addition, the Commission held a public virtual hearing in connection with this investigation on February 14, 2023. The full text of the transcript of the Commission's hearing is also available on EDIS.

Written Submissions

Biosecurity Security Authority of Fiji

As a small island nation in the South Pacific, Fiji faces challenges in meeting the Sanitary and Phytosanitary (SPS) requirements for exporting agricultural products to the USA.

These challenges may include compliance with strict US regulations, such as food safety, labelling, Phytosanitary requirements and other standards, as well as addressing transportation and logistics issues due to its geographical location.

Fiji has ongoing market access negotiations for Agricultural produce. However, access needs to be finalized due to challenges such as providing additional science-based assessment for the available Phytosanitary treatment and in-country USDA Phytosanitary preclearance. These are costly processes and may not be feasible for a small export market.

Alternative Phytosanitary treatment, such as irradiation, is always an option, but such a facility is unavailable in Fiji. Establishing an irradiation facility is a must to access the US market. Fiji would require both technical and financial assistance in establishing the facility.

Establishing the facility will boost the export from Fiji not only for the USA but for all other markets and, secondly, will increase the range of export commodities. USA to consider assisting Fiji in conducting a feasibility study for the x-ray beam radiation technology and how the USA may further assist in adopting this technology.

Fiji recognizes the FDA requirements; however, there needs to be more awareness among Fiji exporters. Thus, the FDA must conduct awareness sessions in Fiji for new and existing exporters. These will better facilitate the exports from Fiji and ensure border compliance.

Efforts to address SPS challenges between Fiji and the USA may include close cooperation and dialogue to understand and meet each other's SPS requirements, technical assistance and capacity-building support for Fiji, and mutual recognition of equivalent SPS measures where possible.

The Biosecurity Authority of Fiji look forward to working with United States Government and United States Government Agencies in finding solutions to the above challenges.

Fiji Ministry of Agriculture

1. BRIEF OVERVIEW OF FIJI'S AGRICULTURE SECTOR

Fiji's agriculture sector continues to be the fortitude of Fiji's economy and its impact stretches throughout all sectors and individuals in our respected developing nation.

In 2021, the Gross Value Added (GVA) in Agriculture (inclusive of growing of sugarcane) accounted for 9.1% (FJD763.9 million) of the GDP, noting a 1.0% growth during the year. The non-sugarcane agriculture contributed 8.2% (FJD689.3 million) to total GDP, recording a 3.7% growth as compared to 2020.

Fiji's agricultural export earnings accounted for 61.3% (FJD699.5 million) an increase by 1.9%. Fiji recorded a continuous export growth of fresh/chilled commodities over the past 8 year's period, despite the situation of COVID-19 pandemic and Tropical Cyclones.

The top fresh/chilled crop and livestock produce were kava, taro, turmeric, ginger and other vegetables, with a combined share of 86.5% in the total value of fresh/chilled crop and livestock exports. Major export destinations for fresh/chilled produce included United States, New Zealand, Australia, neighbouring Pacific Island countries, Canada, Hawaii, Germany and United Kingdom.

2. TRADE IMPEDIMENTS

Fiji's agriculture sector should take into consideration production of high quality even organically certified fruits and vegetables for niche export markets, cold storage services and value-adding has been a hindrance.

Despite the recorded growth in the sector, Fiji accessing to other market still poses a challenge for the nation. These includes:

- Expiry of the Generalised System of Preferences (GSP);
- Businesses lack proper knowledge on exporting;
- Access to Finance;
- Tariff barriers;
- Infrastructure development for value-added products;
- Limited communications between players.

Fiji Ministry of Trade, Co-operatives, Small and Medium Enterprises

The key areas of interest the Ministry would like to highlight in this summary submission include:

1- Fiji is delighted at the opportunity to be a founding member of the Indo-Pacific Economic Framework, and is fully committed to actively participate in the negotiations to ensure that IPEF is a major success.

2- Fiji welcomes the opportunity for a formal trade agreement with the United States. Either as a Bilateral Agreement between Fiji and United States, or between the United States and the Pacific including Fiji.

- 3- The urgent renewal of the U.S. GSP that allows preferential market access for Fiji made goods.
- 4- A Pacific centric preferential market access arrangement: a. If the Pacific might have preferential market access arrangement similar to the African Growth and Opportunity Act (AGOA) and/or the Caribbean Basin Initiative (CBI). The AGOA or CBI type of a preferential arrangement with the Pacific region will offer a more comprehensive and longer-term trade preference program since it will be specifically designed to promote trade and support economic development in the Pacific region.
- 5- Or if the Pacific could be classified as a region in the U.S GSP with respect to origin. If products like textiles, footwear and clothing, timber products, fisheries products, agriculture value products like noni juice, kava, coconut oil, could be added into the GSP under a Pacific Origin Category, this would greatly benefit and allow Fiji and the Pacific to be competitive in the U.S. Market.
- 6- Trade facilitation and support with improving the trade facilitation environment, including strengthening relationships with US Government Agencies like USDA and US FDA.
- 7- Market access for Fiji grown products, like Papaya, and an increased Sugar Tariff Rate Quota (TRQ) from 9,000 Metric tons to 50,000 Metric tons.
- 8- The opportunity to develop a labor mobility agreement between Fiji and the United States for selected sectors, and in particular “caregiving”. This would enable Fijian Caregivers the opportunity to gain lawful employment in the United States, and provide the much needed caregiving services for the elderly. Income derived would greatly benefit Fijian Caregivers and their families in Fiji.
- 9- Support with promoting key Fijian industries in the U.S market such as BPO, Tourism, Film Fiji, Manufacturing, Textiles, Clothing and Footwear, Agriculture, Timber and Fisheries.
- 10- Capacity building, technical support, and funding opportunities for Fiji’s MSME’s.
- 11- Support with Climate Resilience and Infrastructure Development to enhance the capacity for Export Trade. This would involve developing infrastructure and systems that can withstand the impacts of climate change and natural disasters.

If Fiji and the Pacific had preferential access for all potential export products to the United States, the volumes exported would be small by U.S. standards and would not adversely affect U.S. manufacturers and producers. **However this would have a large positive impact for Fiji and the Pacific in economic development and job creation.**

Fiji looks forward to the opportunity to work with the United States Government and Agencies.

Textile Clothing and Footwear Council of Fiji

Textile Clothing and Footwear Council of Fiji (TCF) was invited to take part in the interview from USITC research team on the 22nd March, 2023.

On behalf of the council, we all gave real life example to this research team. Currently, the industry employs more than 7000 people and major exporter to the Pacific Island Nation including Australia and New Zealand.

Most of the garment factories in Fiji exported to the US market before the year 2000 under the WTO preferential quota system. Since this preferential quota system expired, there were no opportunities to export to the US market and eventually this came to an end. Many garment factories closed their businesses in Fiji at that time. For remaining factories, we had only option available to export to Pacific Island countries including Australia and New Zealand because of the free trade agreement between both countries, distance and the cost of the air and sea freight.

Major barriers Fiji garment industry is facing to export to the US market is due to the competition against those of Southeast countries like China, Vietnam, and Bangladesh, since their cost of labor is better than Fiji.

Various and complex duties imposed on HSC codes makes even more harder to export. Apart from this, finding the right customers in vast area of the US market and allocating resources to this also another impediment to become competitive in the US markets.

Fiji garment factories are proficient at manufacturing the following garments and seeking assistance in terms of duty-free status to overcome of the barriers to export to US market.

1. Workwear (shorts, trousers, jackets and shirts)
2. Industrial safety wear
3. Sportswear (shorts and tops)-including sublimation Casuals (jeans, t shirts, polos etc)
4. Uniforms Ladies apparel
5. Corporate wear (suits, jackets and formal wear)
6. Life jackets intimates
7. Aprons, Scrubs, Patient gowns, etc.

Gym and yoga wear manufactured in the Southeast Asian countries using imported fabric from European countries (Italy, UK etc) and are exported to the US with duty. The end customer price will be less than this if these garments were manufactured in Fiji with the same fabric and same labor cost with duty free.

Fiji should be considered as most preferred nation to pursue new market opportunities in US.

Since there is potential for our industry in the US, need support and resources to locate these target market. Finding a pathway to meet the correct buyer is important as well. Individual companies made their own efforts to reach out to the US market but couldn't succeed due to duty rate, lack of support and resources.

Finally, Garment industry in Fiji urgently requests Fiji Made Garments to be included under General System of Preferences (GSP) to support Fiji garments to reach US market and for this to be implemented sooner than later.

TEXTILE CLOTHING &. FOOTWEAR COUNCIL OF FIJI

GPO Box 772, Suva, Republic of Fiji | P: (679) 3387 4661 E: accounts@ultrapfd.com

Written Submissions without Summaries

ACT/The APP Association

No written summary. Please see EDIS for full submission.

Australia Ministry of Foreign Affairs and Trade

No written summary. Please see EDIS for full submission.

Embassy of the Republic of Fiji to the United States

No written summary. Please see EDIS for full submission.

Edward Gresser, Progressive Policy Institute

No written summary. Please see EDIS for full submission.

New Zealand Ministry of Foreign Affairs and Trade

No written summary. Please see EDIS for full submission.

Pacific Islands Forum

No written summary. Please see EDIS for full submission.

Alan Tidwell, Center for Australian, New Zealand and Pacific Studies, Georgetown University School of Foreign Service

No written summary. Please see EDIS for full submission.

Appendix E

Modeling Appendix for Chapter 4

GSP Utilization Analysis

To inform part of the discussion in chapter 4 on Generalized System of Preferences (GSP) program utilization, the Commission performed econometric analysis. The analysis in this section is largely based on a 2012 World Trade Organization (WTO) staff working paper—referred to in this section as “the WTO Working Paper”—in which the authors use regression analysis to determine how the size of the preference margin and the value of imports impact whether or not an exporter chooses to use the GSP preference program when exporting to the United States.¹⁴⁰³ The Commission extended this analysis by (1) updating the results using more recent data and (2) testing for any differences between general factors affecting GSP utilization by all trading partners compared to utilization by Pacific Island trading partners.

The following analysis demonstrates that GSP utilization increases slightly with the size of the potential tariff reduction and with the value of covered imports. This finding is robust across specifications. The analysis also demonstrates that Pacific Island economies generally have lower GSP utilization than the other countries in the sample after controlling for other factors that might be driving the higher utilization rate discussed in chapter 4 (which was based on simple averages). Analysis finds that at the mean normal trade relations (NTR) duty (about 4.5 percent), a 1 percentage point increase in the potential tariff reduction results in an approximately 0.03 percentage point increase in GSP utilization. At the mean value of covered exports (\$2.18 million for a product classified under a Harmonized Tariff Schedule (HTS) 8-digit subheading), a 1 percent increase in the amount of covered exports results in approximately a 0.04 percentage point increase in GSP utilization.

Methodology

The basic model specification for trade with the United States from country k of product x (where a product is defined at the HTS 8-digit level) in year t :

$$(1) \quad u_{k,x,t} = \beta_0 + \beta_1 m_{k,x,t} + \beta_2 \ln(\text{covered}_{k,x,t}) + \beta_3 \text{primary}_k + \beta_4 \text{agri}_k + \gamma_k + \rho_x + \xi_t + \varepsilon_{k,x,t}$$

The GSP utilization rate is $u_{k,x,t} = \frac{\text{pref}_{k,x,t}}{\text{covered}_{k,x,t}}$, where $\text{pref}_{k,x,t}$ is the total trade that enters the United States under the GSP preference program and $\text{covered}_{k,x,t}$ is the total trade that was covered (i.e., GSP-eligible) by the United States’ GSP program (whether or not the importer used the program).¹⁴⁰⁴ The preference margin, $m_{k,x,t}$, is the difference between the NTR tariff rate and the GSP preferential tariff rate, defined to be between zero and 1.

The primary_k and agri_k variables are categorical (or “dummy”) variables, equal to 1 if a product code fits into the categories of primary or agricultural products.

¹⁴⁰³ Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012.

¹⁴⁰⁴ The data used in this analysis are the same as the data used in chapter 4 and explained in appendix G.

The regressions use three fixed effects: product, alternative regime, and time.¹⁴⁰⁵ First, the product fixed effect, γ_k , is defined at the level of HTS section, meaning the total product categories number 22.¹⁴⁰⁶ The alternative regime effect, ρ_x , is a fixed effect that indicates the best preference program to which a given country is a member, not taking rules of origin into account. Some examples of possible alternative regimes include GSP, GSP for least developed countries, or any free trade agreements with the United States. The regressions also include a time fixed effect, ξ_t , for each year of the sample.

Data Sources

The dataset is composed of annual data on exports to the United States, NTR rates of duty, and GSP preferential rates of duty for 2,563 products traded between the United States and 232 trading partner countries between 2017 and 2021. A “product” in the dataset is defined as the HTS 6-digit subheading level.

Data on preference utilization, preference margin, and the value of covered trade come from the U.S. International Trade Commission Interactive Tariff and Trade DataWeb (USITC DataWeb)/U.S. Census Bureau (Census).¹⁴⁰⁷ The preference margin itself is defined using the assumption that (1) the GSP preferential tariff rate is zero and (2) the alternative to the GSP rate is the NTR duty rate. Therefore, the preference margin, $m_{k,x,t}$, is equal to the NTR duty rate, with specific and compound rates converted to ad valorem equivalents, defined to be the percentage value divided by 100.¹⁴⁰⁸ The inclusion of the alternative regime fixed effect corrects for instances where this assumption does not hold as a result of the presence of another preference program being used to achieve the country’s lowest possible tariff rate.

The variable indicating primary products, $primary_k$, was constructed following the definition used in the WTO Working Paper. Following the methodology of Hakobyan, primary products are defined using Standard International Trade Classification (SITC) codes covering primary agricultural and primary fuel products.¹⁴⁰⁹ Primary agricultural products are those included in SITC 0, 1, 2, and 4. Primary fuel products are SITC 3, 27, 28, and 68. SITC codes were then translated to relevant products at the HTS 6-digit level, using the UN SITC Revision 4 to HS 2017 concordance.¹⁴¹⁰ Agricultural products, $agri_k$, also follow the definition from the WTO Working Paper: agricultural products are defined as HS chapters 01–

¹⁴⁰⁵ “Best regime” is the nomenclature used in the WTO Working Paper and is used here for consistency. It is described further below.

¹⁴⁰⁶ HTS 4-digit product and HTS 2-digit product fixed effects were also used. These options, however, created issues with the estimation because of the high dimensionality of fixed effects, so staff used the WTO paper’s method of using HTS section fixed effects.

¹⁴⁰⁷ USITC DataWeb/Census, Imports for consumption, accessed May 30, 2023.

¹⁴⁰⁸ An ad valorem tariff is a tariff that is applied as a percentage of the price of a good. An ad valorem equivalent tariff takes a tariff that is not a percentage, such as dollars per ton, and estimates it as a percentage of the price.

¹⁴⁰⁹ Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012, 188; Hakobyan, “Accounting for Underutilization of Trade Preference Programs,” 2015.

¹⁴¹⁰ UNSD, “Classifications on Economic Statistics,” accessed May 9, 2023.

24.¹⁴¹¹ Next, the regression also uses an alternative regime effect, ρ_x , following the definition of the “best regime” effect in the WTO Working Paper.¹⁴¹²

Results

The analysis is performed using a fractional logit regression, again following the methodology of the WTO Working Paper. The fractional logit approach is used because the utilization rate, $u_{k,x,t}$, falls between zero and 1 by definition and the dependent variable is continuous.¹⁴¹³ Generally, ordinary least squares estimation can be used when the dependent variable is bounded, but it can lead to problems such as predictions outside the logical bounds of the dependent variable. Logit regression can be used for analysis when the dependent variable falls between zero and 1, but it is better suited for binary variables (variables that only take on the value of zero or 1). Fractional logit regression allows for a continuous dependent variable between zero and 1. It is fit using quasi-maximum likelihood estimation methods, producing estimates that can be interpreted easily given the bounded nature of the dependent variable. Another advantage of this method of estimation is that the only condition necessary for estimates to be consistent is the correct specification of the conditional mean. Because of these reasons, fractional logit was chosen for the estimations below.

Table E.1 contains the results for equation (1) and three other variations. Column (1) gives the model results for equation (1). The results show that, as was the case in the WTO Working Paper, a strong and positive relationship exists between GSP utilization and the size of the potential tariff cut (NTR duty) and the value of covered imports ($\ln(\text{Covered})$).¹⁴¹⁴ Also consistent with the WTO Working Paper, no significant relationship exists between GSP utilization and the control for primary products.

Column (2) is an estimate of the model with the addition of a Pacific Island dummy variable, equal to 1 for 19 of the 22 Pacific Island economies in the data (American Samoa, Guam, and the Northern Mariana Islands are not in the dataset). Column (3) is the same specification but cuts off the sample at the year 2020 to look only at observations before the GSP lapse. The Pacific Island dummy variable is used to create interaction terms with the key independent variables of interest, the NTR duty and the log of exports to the United States covered by GSP, to test if Pacific Island economies’ use of the GSP program differs from the rest of the world. Despite the point estimates on the coefficient for the Pacific Island dummy and the Pacific Island- $\ln(\text{Covered})$ interactions being relatively consistent across the

¹⁴¹¹ Because the definition of primary agricultural products is defined by SITC codes, about 1 percent of products listed as primary agricultural are not included in the agricultural products group (which is defined according to HS classification codes). This is due to imperfect correspondence between the two product classifications between SITC and HS. The Commission used the UN correspondence tables to do the conversion from SITC to HS.

¹⁴¹² Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012, 27. A couple of issues arose in replicating the WTO Working Paper’s “best regime” variable. First, it is unclear what “GSP (PAL)” or “GSP (Micronesia)” refer to, so those are excluded. Second, it is unclear why the free trade agreement (FTA) with South Korea was excluded in the WTO Working Paper’s list of best regimes, so it was added. Additionally, Jordan was dropped from the sample because it is the only country with an FTA and GSP eligibility, making the best option outside of GSP the FTA rates and not the NTR rates. The Jordan FTA rates, however, are not in the dataset, so Jordan was dropped.

¹⁴¹³ Papke and Wooldridge, “Econometric Methods for Fractional Response Variables with an Application to 401(k) Plan Participation Rates,” 1996.

¹⁴¹⁴ Keck and Lendle, *New Evidence on Preference Utilization*, September 3, 2012, 33.

specification in columns (2) and (3), the results are not statistically significant. This is likely a product of the small amount of data on trade between the United States and the Pacific Islands.¹⁴¹⁵

Table E.1 Model results

NTR = normal trade relations; GSP = Generalized System of Preferences; FE = fixed effect; HS = Harmonized System; — = not applicable.

Variable	(1) GSP utilization	(2) GSP utilization	(3) GSP utilization
NTR duty (coefficient)	1.556***	1.575***	1.441***
NTR duty (standard error)	0.2569	0.2576	0.2857
ln(Covered) (coefficient)	0.194***	0.194***	0.190***
ln(Covered) (standard error)	0.0028	0.0028	0.0031
Primary (coefficient)	-0.191***	-0.191***	-0.215***
Primary (standard error)	0.0483	0.0483	0.0520
Agriculture (coefficient)	-1.576***	0.227	0.303*
Agriculture (standard error)	0.1200	0.1196	0.1370
Pacific Island (coefficient)	—	-0.321	-0.385
Pacific Island (standard error)	—	0.4651	0.5364
Pacific Island × NTR duty (coefficient)	—	-1.576	-2.914
Pacific Island × NTR duty (standard error)	—	2.6593	2.8309
Pacific Island × ln(Covered) (coefficient)	—	0.029	0.039
Pacific Island × ln(Covered) (standard error)	—	0.0429	0.0493
Year FE	Yes	Yes	Yes
Alternative Regime FE	Yes	Yes	Yes
HS section FE	Yes	Yes	Yes
Observations	72,866	72,866	59,887

Source: USITC calculations.

Notes: All regressions are fractional logit and use robust standard errors; *** p < 0.01, ** p < 0.05, * p < 0.1.

Because fractional logit is a generalized linear model, the findings apply at the mean of the data and the coefficients are not directly interpretable. Post-estimation tools indicate that at the mean NTR duty, which in the sample is 4.5 percent, a 1 percentage point increase in the potential tariff reduction (equivalent to a 1 percentage point increase in the NTR duty) results in approximately a 0.3 percentage point increase in GSP utilization. At the mean value of covered exports, which in the sample is \$2.18 million, a 1 percent increase in the amount of covered exports results in approximately a 0.04 percentage point increase in GSP utilization.

Limitations

Assessing the impact of trade and NTR duties on Pacific Island economies specifically is difficult because of a lack of trade data due to the limited scope of trade with Pacific Island economies. This is likely why the standard errors on the interaction terms and the Pacific Islands dummy are greater, leading to insignificant or weakly significant results, even though the coefficients' point estimates for the Pacific Islands dummy and for the Pacific Islands-ln(Covered) interaction are consistent across model specifications.

¹⁴¹⁵ The lack of trade data between the United States and the Pacific Islands also prevented reliable estimates when running the model using Pacific Island trade only. These results are not included in table E.1.

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Appendix F

Quantitative Methods Appendix for Chapters 6 and 7

Four different quantitative approaches—export trend analysis, normalized revealed comparative advantage (NRCA), gravity modeling, and export potential assessment methodology—were used to help identify goods sectors that offer potential for growth in Pacific Island exports to the United States. As described below, each approach has advantages and limitations and no single method is definitive in terms of identifying potential sectors. By using a range of approaches, however, key sectors with the most export potential emerge. Qualitative assessment was then used to provide a “reality check” for those sectors identified from the quantitative analysis as having potential. The four approaches are summarized in table F.1 and then discussed in detail in the subsequent sections of this appendix.

Table F.1 Quantitative approaches used to identify export potential from Pacific Island economies to the United States

USITC = U.S. International Trade Commission; EPI= export potential indicator; PDI = product diversification indicator.

Approach	Brief description	Determination of potential
Export trend analysis	Using data on bilateral product-level exports between Pacific Island economies and the world, calculated growth rates in export volume and quantity for different timeframes. The Commission examined sectors with consistent growth to determine potential based on U.S. market conditions.	Potential based on historical export growth and U.S. demand
Normalized revealed comparative advantage	Using data on product-level exports from Pacific Island economies to the rest of the world and product-level world trade, the Commission calculated share of trade for a Pacific Island economy compared to the rest of the world. Pacific Island economies identified as having an “advantage” in trade for products in which they have a larger share of trade than the overall world share.	Potential based on a Pacific Island economy’s share of trade in a product
Gravity modeling	Using data on bilateral product-level trade, characteristics of importers and exporters, and characteristics of bilateral relationships, the USITC used gravity modeling to estimate predicted trade between U.S. and Pacific Island economies. The difference between predicted and actual trade was used to determine potential.	Potential based on estimated shortfall in observed trade compared to model-predicted trade
Export potential assessment	Using International Trade Centre’s online EPI and PDI, the USITC identified existing products to expand trade based on (1) the shortfall in exports relative to model predictions (EPI) and (2) new products to establish trade based on the set of exported products from a Pacific Island economy compared to similar economies (PDI).	Potential based on (1) estimated shortfall in observed trade compared to model-predicted trade and (2) the set of products traded

Source: Compiled by the USITC.

Export Trend Analysis

Analysis of Pacific Island exports during 2015–21 was used as a guide to potential exports going forward. This approach assumed that Pacific Island sectors with strong growth in exports to the United States and the rest of the world in recent time periods were likely to be the ones with the most potential to increase further in the future. This analysis involved several steps.

First, a dataset was created consisting of bilateral exports between individual Pacific Island economies and individual countries in the world (including the United States), at the Harmonized System (HS)

4-digit level,¹⁴¹⁶ annually for the period 2015–21, including both export values and quantities. Because export data are not reported by Pacific Island economies, import data reported by Pacific Island trading partners, commonly referred to as “mirror data,” were used.

Second, using these data, eight separate export growth rates were calculated, including for the periods 2015–19, 2017–21, 2019–21, and 2015–21. The four timeframes were chosen to capture growth during the medium term (2015–21 and 2017–21), as well as pre- and post-COVID-19 pandemic (2015–19 and 2020–21). The reason for separating out periods on either side of 2019 was to ensure the capture of trade and supply chain disruptions due to the pandemic without blurring the long-term trends. For each timeframe, growth rates were calculated for both export value and quantity to capture the price effect—increases in export value will reflect price rises even without corresponding increases export volumes.

Third, to home in on the HS 4-digit products with export potential, two screening criteria were applied. Products were dropped if they accounted for less than 0.1 percent of the country’s total annual export value based on an average for the period 2015–21. This was to ensure that included products had a *de minimis* level of exports and to exclude products with extremely high growth resulting from very small base levels of exports. Products were dropped if they had five or fewer positive growth rates out of the eight calculated. Products with six or more positive growth rates were considered to have a consistent track record of historical growth and a higher likelihood of continued growth in the future.¹⁴¹⁷

Finally, the analysis included an assessment of demand in the U.S. market. The potential for increased exports from the Pacific Islands to the United States relies not only on the ability of the Pacific Islands to produce goods to export but also on demand in the United States where Pacific Islands products can compete with third-country competitors already supplying the market. For products with export potential, trends in U.S. imports and current import suppliers were evaluated to assess the likelihood that the Pacific Islands would be competitive. For example, Papua New Guinea is a major exporter of petroleum gas (HS 2711) and the United States is a major importer, though almost none is sourced from Papua New Guinea. In 2021, the United States imported about 78 percent of this product by value from Canada. Given the presence of large and consistent suppliers, Papua New Guinea potentially may struggle to be a competitive exporter of petroleum gas to the United States, even though its export growth to other markets has been strong. Table F.2 provides a sample of some of the products identified using export trend analysis.

¹⁴¹⁶ HS 4-digit headings number about 1,200. The HS 4-digit heading level of disaggregation was chosen because products annotated at this level tend to be distinctive and identifiable, but not specific in terms of product types, characteristics, and specification. For example, vanilla is classified under an HS 4-digit heading, 0905, “Vanilla,” which is a clearly identifiable product. At the broader and less detailed HS 2-digit heading level of classification, chapter 9 is annotated as “Coffee, Tea, Maté and Spices,” which includes vanilla but also a large number of heterogeneous products. At the more detailed HS 6-digit subheading level, vanilla is classified under 0905.10 “Vanilla, Neither Crushed Nor Ground,” and 0905.20 “Vanilla, Crushed Or Ground,” which give more detail than is required for the purposes of identifying broad sectors and products.

¹⁴¹⁷ For example, during 2015–21, Papua New Guinea exported products represented by 776 different HS 4-digit headings. After applying the *de minimis* criterion, only 19 products remained. After applying the six or more positive growth criteria, only 10 HS 4-digit products remained as potential exports.

Table F.2 Export potential based on trend analysis, by Pacific Island economy and HS 4-digit product

HS = Harmonized System; F.S. Micronesia = the Federated States of Micronesia.

Economy	HS heading	HS heading description
Fiji	0301	Fish, live
Fiji	0910	Ginger, saffron, turmeric (curcuma), thyme, bay leaves, curry and other spices
Fiji	1211	Plants and parts of plants (including seeds and fruits), used in perfumery, pharmacy, or for insecticidal or similar purposes, fresh or dried
French Polynesia	0301	Fish, live
French Polynesia	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
French Polynesia	8481	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like; parts thereof
The Marshall Islands	8901	Vessels for the transport of persons or goods, including cruise ships, excursion boats, ferry boats, cargo ships and barges
The Marshall Islands	8903	Yachts and other vessels for pleasure or sports; row boats and canoes
F.S. Micronesia	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
F.S. Micronesia	6204	Women's or girls' suits, ensembles, suit-type jackets, dresses, skirts, divided skirts, trousers, etc. (no swimwear), not knitted or crocheted
Nauru	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Nauru	2510	Natural calcium phosphates, natural aluminum calcium phosphates and phosphatic chalk
Nauru	8536	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits, voltage not over 1,000 volts
New Caledonia	0306	Crustaceans
New Caledonia	2604	Nickel ores and concentrates
New Caledonia	3301	Essential oils, concretes, and absolutes; resinoid; extracted oleoresins; concentration of essential oils and terpenic byproducts; aqueous solutions etc. of essential oil
Papua New Guinea	0306	Crustaceans
Papua New Guinea	0905	Vanilla
Papua New Guinea	1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs
Tuvalu	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Vanuatu	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Vanuatu	0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled, or frozen
Vanuatu	8903	Yachts and other vessels for pleasure or sports; row boats and canoes

Source: USITC calculations.

Normalized Revealed Comparative Advantage

One well-established approach used to identify a country's most competitive sectors is using international trade data to compute the revealed comparative advantage (RCA) index.¹⁴¹⁸ The RCA for Pacific Island economies is computed by comparing the share of the country's exports of a product to total exports of the country, relative to the share of the world's exports of the same product to total world exports.¹⁴¹⁹ If the share of the Pacific Island economy's exports of a product is larger than the share of the world's exports of the same product, then this relationship implies that the country has an RCA for exporting the product.

RCA is defined as follows:

$$(1) \quad RCA_{ij} = (X_{ij}/X_{wj}) / (X_{it}/X_{wt})$$

Where:

X_{ij} exports of product j by country i

X_{wj} exports of product j by world (or total world's exports of product j)

X_{it} total exports of all products by country i

X_{wt} total exports of all products by the world (or total world's exports of all products)

An RCA greater than one suggests a Pacific Island economy has an advantage in exporting the product; an RCA less than one implies a disadvantage.

A characteristic of the RCA index is that it is asymmetric and has no upper bound for those sectors with a comparative advantage but has a zero lower bound for those sectors having a comparative disadvantage.¹⁴²⁰ The Commission normalized the RCA values so that they are on a scale of -1 to +1 around the base of zero, the normalized revealed comparative advantage (NRCA), as shown:

$$(2) \quad NRCA_k = (RCA_k - 1) / (RCA_k + 1)$$

where k is the HS 4-digit heading.

If the NRCA index is above zero, it implies a Pacific Island economy has an advantage in exporting the product; below zero implies a disadvantage. Using this approach, the Commission computed the NRCAs for each of the goods with an HS 4-digit heading that Pacific Island economies exported between 2017 and 2021.¹⁴²¹ Table F.3 includes the top three ranking products by average value of the NRCA between 2017 and 2021 excluding HS chapters 98 and 99.

¹⁴¹⁸ WTO, *A Practical Guide to Trade Policy Analysis*, January 1, 2013, 26. For additional Commission reports using normalized revealed comparative advantage, see USITC, *U.S.-Haiti Trade: Impact*, December 2022.

¹⁴¹⁹ Detailed export data are not reported by Pacific Island economies, so the NRCA is calculated using mirror trade data (i.e., import data reported by Pacific Island trading partners).

¹⁴²⁰ WTO, *A Practical Guide to Trade Policy Analysis*, January 1, 2013, 26.

¹⁴²¹ The average annual export values between 2017 and 2021 are used to smooth out yearly fluctuations that are common in trade data.

Table F.3 Top three ranking sectors for the normalized revealed comparative advantage (NRCA) by economy and HS 4-digit product

HS = Harmonized System; n.e.s.o.i. = not elsewhere specified or included; F.S. Micronesia = the Federated States of Micronesia; N. Mariana Islands = the Northern Mariana Islands.

Economy	Product rank	HS heading	HS heading description
American Samoa	1	1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs
American Samoa	2	2301	Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans etc., unfit for human consumption; greaves (cracklings)
American Samoa	3	9301	Military weapons, other than revolvers, pistols, and the arms of heading 9307
The Cook Islands	1	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
The Cook Islands	2	8903	Yachts and other vessels for pleasure or sports; row boats and canoes
The Cook Islands	3	0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen
F.S. Micronesia	1	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
F.S. Micronesia	2	0508	Coral and similar materials, mollusks, crustaceans, echinoderms and cuttlebone shells, unworked or simply prepared, not cut to shape, powder and waste
F.S. Micronesia	3	0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled, or frozen
Fiji	1	2201	Waters, including natural or artificial mineral waters and aerated waters, not containing added sweetening nor flavored; ice and snow
Fiji	2	1703	Molasses resulting from the extraction or refining of sugar
Fiji	3	2006	Vegetables, fruit, nuts, fruit peel and other parts of plants preserved by sugar (drained, glaze or crystallized)
French Polynesia	1	7101	Pearls, natural or cultured, not strung, mounted or set; pearls, natural or cultured, temporarily strung for convenience of transport
French Polynesia	2	0508	Coral and similar materials, mollusks, crustaceans, echinoderms and cuttlebone shells, unworked or simply prepared, not cut to shape, powder and waste
French Polynesia	3	0905	Vanilla
Guam	1	0908	Nutmeg, mace, and cardamom
Guam	2	7404	Copper waste and scrap
Guam	3	7204	Ferrous waste and scrap; remelting scrap ingots of iron or steel
Kiribati	1	1203	Copra
Kiribati	2	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Kiribati	3	8902	Fishing vessels; factory ships and other vessels for processing or preserving fishery products
The Marshall Islands	1	8908	Vessels and floating structures for breaking up (scrapping)
The Marshall Islands	2	8901	Vessels for the transport of persons or goods, including cruise ships, excursion boats, ferry boats, cargo ships and barges

Economy	Product rank	HS heading	HS heading description
The Marshall Islands	3	8903	Yachts and other vessels for pleasure or sports; row boats and canoes
Nauru	1	2510	Natural calcium phosphates, natural aluminum calcium phosphates and phosphatic chalk
Nauru	2	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Nauru	3	0506	Bones and horn-cores, unworked, defatted, simply prepared (not cut to shape), treated with acid etc.; powder and waste of these products
New Caledonia	1	2604	Nickel ores and concentrates
New Caledonia	2	7501	Nickle mattes, nickel oxide sinters and other intermediate products of nickel metallurgy
New Caledonia	3	2605	Cobalt ores and concentrates
Niue	1	8901	Vessels for the transport of persons or goods, including cruise ships, excursion boats, ferry boats, cargo ships and barges
Niue	2	7118	Coin
Niue	3	9705	Collections, 'collectors' pieces archaeological, ethnographic, historical, zoological, botanical, mineralogic, anatomical, paleontological, numismatic interest
N. Mariana Islands	1	7204	Ferrous waste and scrap; remelting scrap ingots of iron or steel
N. Mariana Islands	2	7404	Copper waste and scrap
N. Mariana Islands	3	4004	Waste, parings, and scraps of rubber (other than hard rubber), and powders and granules obtained therefrom
Palau	1	8908	Vessels and floating structures for breaking up (scrapping)
Palau	2	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
Palau	3	0508	Coral and similar materials, mollusks, crustaceans, echinoderms and cuttlebone shells, unworked or simply prepared, not cut to shape, powder and waste
Papua New Guinea	1	2705	Coal gas, water gas, producer gas and similar gases, except petroleum gases and other gaseous hydrocarbons
Papua New Guinea	2	1203	Copra
Papua New Guinea	3	7501	Nickle mattes, nickel oxide sinters and other intermediate products of nickel metallurgy
The Pitcairn Islands	1	9704	Postage or revenue stamps, stamp-postmarks, first-day covers, postal stationary (stamped) etc., used or unused, other than those of heading 4907
The Pitcairn Islands	2	5310	Woven fabrics of jute or of other textile bast fibers n.e.s.o.i. (excluding flax, true hemp and ramie)
The Pitcairn Islands	3	0908	Nutmeg, mace, and cardamom
Samoa	1	0714	Cassava (manioc), arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar roots etc. (high starch etc. content), fresh or dried; sago pith
Samoa	2	8710	Tanks and other armored fighting vehicles, motorized, whether or not fitted with weapons, and parts of such vehicles
Samoa	3	1513	Coconut (copra), palm kernel or babassu oil and their fractions, whether or not refined, but not chemically modified

Economy	Product rank	HS heading	HS heading description
The Solomon Islands	1	1203	Copra
The Solomon Islands	2	4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared
The Solomon Islands	3	2606	Aluminum ores and concentrates
			Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate
Tokelau	1	2836	
Tokelau	2	7020	Articles of glass, n.e.s.o.i.
			Silver (including silver plated with gold or platinum), unwrought or in semimanufactured forms, or in powder form
Tokelau	3	7106	
			Coral and similar materials, mollusks, crustaceans, echinoderms, and cuttlebone shells, unworked or simply prepared, not cut to shape, powder and waste
Tonga	1	0508	
Tonga	2	0308	Aquatic invertebrates other than crustaceans and mollusks
			Cassava (manioc), arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar roots etc. (high starch etc. content), fresh or dried; sago pith
Tonga	3	0714	
Tuvalu	1	8904	Tugs and pusher craft vessels
			Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Tuvalu	2	0303	
Tuvalu	3	7118	Coin
Vanuatu	1	1203	Copra
Vanuatu	2	8908	Vessels and floating structures for breaking up (scrapping)
			Plants and parts of plants (including seeds and fruits), used in perfumery, pharmacy, or for insecticidal or similar purposes, fresh or dried
Vanuatu	3	1211	
			Collections, 'collectors' pieces archaeological, ethnographic, historical, zoological, botanical, mineralogic, anatomical, paleontological, numismatic interest
Wallis and Futuna	1	9705	
			Salt (incl. table & denatured salt) & pure sodium chloride, whether or not in aqueous solution or contain added anticaking/free flowing agents; sea water
Wallis and Futuna	2	2501	
			Men's or 'boys' overcoats, carcoats, capes, cloaks, anoraks (including ski-jackets), and similar articles, knitted or crocheted, n.e.s.o.i.
Wallis and Futuna	3	6101	

Source: USITC calculations.

An NRCA analysis has the advantages of being simple to calculate and providing a measure of current competitiveness. It also has disadvantages. First, because the measure is based on 2017–21 trade data, the NRCA cannot identify new potential sectors where trade is nonexistent. Furthermore, the measure is based on export shares, rather than absolute levels of trade. As a result, a country may report a very high NRCA for a product, even though its exports are very small simply because its share is significantly higher than that for the world. For example, the HS 4-digit subheading 2705 (coal gas, water gas, producer gas and similar gases) has the largest NRCA, but Papua New Guinea only exports, by value, about \$6 million of this product grouping per year. The high NRCA occurs because Papua New Guinea's share of its trade in this product (0.1 percent of Papua New Guinea's total exports) is much higher than the global share of trade in this product (0.0004 percent). Additionally, the NRCA is based on one-way trade instead of two-way trade. Therefore, the results tend to include products that the Pacific Island

economies do not produce, but import and then export in large volumes, as is the case for items like ships and boats. For these reasons, the NRCA should be viewed with other data or modeling to determine export potential.

The same approach was used to identify services sectors for discussion in chapter 7 (table F.4). For the services analysis, the Commission used WTO services data covering the years 2015–19 (the five years before the COVID-19 pandemic) and 2020–21 (during the COVID-19 pandemic) aggregated to the two-digit Extended Balance of Payments Classification 2010 for a total of 12 services sectors. The reason for separating out periods on either side of 2019 was to account for potential NRCA differences caused by large disruptions to travel services due to the COVID-19 pandemic and related travel restrictions.

Table F.4 Top two ranking services sectors by Normalized Revealed Comparative Advantage for pre- and post-COVID-19 pandemic timeframes

n.i.e. = not included elsewhere; F.S. Micronesia = the Federated States of Micronesia.

Economy	Timeframe	Rank	Sector Description
F.S. Micronesia	Pre-COVID-19	1	Government goods and services n.i.e.
F.S. Micronesia	Pre-COVID-19	2	Other business services
F.S. Micronesia	Post-COVID-19	1	Government goods and services n.i.e.
F.S. Micronesia	Post-COVID-19	2	Other business services
Fiji	Pre-COVID-19	1	Government goods and services n.i.e.
Fiji	Pre-COVID-19	2	Travel
Fiji	Post-COVID-19	1	Government goods and services n.i.e.
Fiji	Post-COVID-19	2	Travel
Kiribati	Pre-COVID-19	1	Government goods and services n.i.e.
Kiribati	Pre-COVID-19	2	Personal, cultural, and recreational services
Kiribati	Post-COVID-19	1	Government goods and services n.i.e.
Kiribati	Post-COVID-19	2	Construction
The Marshall Islands	Post-COVID-19	1	Manufacturing services on physical inputs owned by others
The Marshall Islands	Post-COVID-19	2	Travel
Nauru	Pre-COVID-19	1	Other business services
Nauru	Post-COVID-19	1	Other business services
Palau	Pre-COVID-19	1	Travel
Palau	Pre-COVID-19	2	Government goods and services n.i.e.
Palau	Post-COVID-19	1	Travel
Palau	Post-COVID-19	2	Government goods and services n.i.e.
Papua New Guinea	Pre-COVID-19	1	Construction
Papua New Guinea	Pre-COVID-19	2	Government goods and services n.i.e.
Papua New Guinea	Post-COVID-19	1	Government goods and services n.i.e.
Papua New Guinea	Post-COVID-19	2	Insurance and pension services
The Solomon Islands	Pre-COVID-19	1	Government goods and services n.i.e.
The Solomon Islands	Pre-COVID-19	2	Construction
The Solomon Islands	Post-COVID-19	1	Government goods and services n.i.e.
The Solomon Islands	Post-COVID-19	2	Travel
Tonga	Pre-COVID-19	1	Travel
Tonga	Pre-COVID-19	2	Government goods and services n.i.e.
Tonga	Post-COVID-19	1	Government goods and services n.i.e.
Tonga	Post-COVID-19	2	Travel
Tuvalu	Pre-COVID-19	1	Transport
Tuvalu	Pre-COVID-19	2	Government goods and services n.i.e.
Tuvalu	Post-COVID-19	1	Travel

Economy	Timeframe	Rank	Sector Description
Tuvalu	Post-COVID-19	2	Government goods and services n.i.e.
Vanuatu	Pre-COVID-19	1	Government goods and services n.i.e.
Vanuatu	Pre-COVID-19	2	Travel
Vanuatu	Post-COVID-19	1	Travel
Samoa	Pre-COVID-19	1	Construction
Samoa	Pre-COVID-19	2	Personal, cultural, and recreational services
Samoa	Post-COVID-19	1	Travel
Samoa	Post-COVID-19	2	Construction

Source: USITC calculations.

Note: Pre-outbreak of the COVID-19 pandemic is 2015–19 and post-outbreak of the COVID-19 pandemic is 2020–21.

Gravity Modeling

Gravity modeling is another analytical tool for predicting trade flows between countries. In this case, the predictions involved trade flows between the United States and Pacific Island economies. Predictions are based on actual trade and certain characteristics of the bilateral relationship between these Pacific Island economies and the United States, such as the distance between countries, a common language, shared borders, and colonial and other ties. The predicted trade flows generated by the model were compared to actual trade flows and used to estimate the potential Pacific Island exports to the United States.

The gravity model generates expected trade flows between the United States and Pacific Island economies using three factors: actual trade flow data, selected characteristics of exporters and importers used in the model, and certain characteristics of the bilateral relationship between these exporters and importers. For some sectors in some Pacific Island economies, the actual value of trade is less than the expected value generated by the model, given worldwide trade patterns.

The gravity model uses annual trade flows from 2015 to 2019 for 240 countries and 153 product groups. Therefore, the estimation sample reflects not only trade flows between the United States and Pacific Island economies, but also trade flows between Pacific Island economies and their third-party trading partners.

Methodology

In the gravity model, trade is a function of three things: characteristics of the exporter, characteristics of the importer, and characteristics of the bilateral relationship between the exporter and the importer. Characteristics of the exporter are those that affect the competitiveness of the exporter in international markets. These country-specific characteristics affect exports to all destinations, which allows them to be controlled for using exporter-time fixed effects. The competitiveness can be estimated by the gravity model using trade data, so it is not necessary to collect data on specific determinants of competitiveness.

Characteristics of the importer are those that affect the demand for the product by the importer; these affect imports from all destinations, which allows them to be controlled for using importer-time fixed effects. The level of demand can also be estimated by the gravity model using trade data, so again, it is not necessary to collect data on specific determinants of the demand for imports.

Characteristics of the bilateral relationship between the exporter and importer determine the size of trade impediments between the trading partners. Observable trade impediments include distance between trading partners, differences in language, lack of a shared border, lack of trade agreements.

Here is an example of how the model works. Suppose a particular Pacific Island economy imports significant volumes in a sector from some European countries and China, while importing little from the United States, even after accounting for bilateral characteristics like distance, language, etc. At the same time, the United States exports high volumes in this sector to other countries, including some other Pacific Island economies. Such a situation would be flagged by the model.

The Commission's Gravity Modeling Environment (USITC GME) was used in this investigation; it combines database, econometric, and simulation tools that implement the latest gravity modeling techniques.¹⁴²²

The standard gravity model can be expressed as:

$$(3) \quad X_{ijt} = \exp(M_{it} + S_{jt} + \phi_{ijt}) * \epsilon_{ijt}$$

where X_{ijt} are trade flows from an exporting country i to an importing country j in year t , M_{it} and S_{jt} are fixed effects capturing exporter and importer characteristics, and ϕ_{ijt} is a linear function of bilateral determinants of trade such as distance, common border, language, and free trade agreements (FTAs).¹⁴²³ The gravity model allows for third-country effects on trade between i and j through the incorporation of multilateral resistance terms in the empirical framework. Under this specification, these multilateral resistance terms are included using the two types of fixed effects.

The bilateral determinant of trade, ϕ_{ijt} , is given by

$$(4) \quad \phi_{ijt} = \beta_1 \text{Log}(DIST_{ijt}) + \beta_2 BORDER_{ijt} + \beta_3 LANGUAGE_{ijt} + \beta_4 COLONY_{ij} + \beta_5 FTA_{ijt} \\ + \beta_6 GSP_{ijt} + \beta_7 GSPLeastDev_{ijt} + \beta_8 SMCTRY_{ij} + \beta_9 \text{Log}(DIST_{ijt}) * SMCTRY_{ij}$$

where $DIST$ is distance in kilometers, $BORDER$ is an indicator of a shared border, $LANGUAGE$ measures whether the two countries share a common language, $COLONY$ is an indicator of historical colonial association, FTA is an indicator of membership in a common FTA in year t , GSP is an indicator of Generalized System of Preferences (GSP) eligibility, $GSPLeastDev$ is an indicator of eligibility for the GSP preferences extended only to least-developed countries, $SMCTRY$ is an indicator that a given observation represents within-country trade.¹⁴²⁴

J. M. C. Santos Silva and Silvana Tenreyro show that the ordinary least squares (OLS) estimation of (3) leads to inconsistent estimates, if heteroskedasticity is present in the trade data.¹⁴²⁵ They propose a Poisson Pseudo Maximum Likelihood (PPML) estimator, which, being a special case of the Generalized Linear Model framework, assumes that the variance is proportional to the mean. The only condition required for the PPML to be consistent is the correct specification of the conditional mean. The PPML

¹⁴²² USITC, "Gravity Portal: Gravity Modeling Environment," accessed June 16, 2023.

¹⁴²³ Anderson and van Wincoop, "Gravity with Gravitas," March 2003; Head and Mayer, "Gravity Equations," in *Handbook of International Economics*, January 1, 2014; Piermartini and Yotov, July 27, 2016.

¹⁴²⁴ GSP is specific to the U.S. GSP program.

¹⁴²⁵ Silva and Tenreyro, "The Log of Gravity," November 1, 2006. Heteroskedasticity occurs when the variance of the error terms differs across observations.

also gives the same weight to each observation in the estimation and, therefore, is desirable when little information is available on the nature of heteroskedasticity in the trade data. Santos Silva and Tenreyro provide simulation evidence that the PPML is well behaved in a wide range of situations and can deal with certain types of measurement error in the dependent variable. The PPML is also able to handle zero trade flows in the estimation, which is a common feature of trade data. Given these attractive properties, equation (3) is estimated using the PPML estimator.

The estimated gravity coefficients are then used to predict the value of exports from country i to an importing country j in year t . This predicted trade value, \hat{X}_{ijt} , is then compared to the observed trade, X_{ijt} , to determine the presence of “potential” for trade increases in a sector.

Data Sources

To perform the gravity analysis, the Commission used bilateral trade data and domestic production data at the industry level from the International Trade and Production Database (ITPD).¹⁴²⁶ The ITPD was created specifically to facilitate gravity analysis with the inclusion of within-country trade. The ITPD covers agriculture, mining, energy, and manufacturing goods trade divided into 153 different goods trade sectors. The dataset spans 1988–2019 and 265 countries. The model is calculated for the five most recent years available in the ITPD, 2015–19, reducing the set of countries in the dataset to 240. The predicted trade values are then averaged across these years to create the trade potential results.¹⁴²⁷ In addition, the Commission used the USITC Dynamic Gravity dataset, which contains information on distance, language, trade agreements, colonial ties, and other gravity variables.¹⁴²⁸

Results

The results of gravity modeling analysis indicate whether two countries trade more than expected, less than expected, or in line with expectations, given the model specification. The value of the estimated gaps between predicted and actual trade are sensitive to model specification; therefore, they are not reported, and rankings of the gaps are robust to model specification.¹⁴²⁹ Overall, 96.6 percent of trade observations are below the values predicted using gravity modeling. Table F.5 presents a sample of the three ITPD sectors with the greatest difference between the value of expected and actual Pacific Island exports to the United States.

¹⁴²⁶ Borchert et al., “International Trade and Production Database,” July 2022; Borchert et al., “The International Trade and Production Database for Estimation (ITPD-E),” August 1, 2021, 140–66.

¹⁴²⁷ Note that the gravity model (1) looks at one “year” to check for gaps between model-predicted and actual trade. The model is not designed to look at trends (i.e., dynamics).

¹⁴²⁸ Gurevich and Herman, “The Dynamic Gravity Dataset: 1948–2016,” February 2018.

¹⁴²⁹ To estimate a potential increase in trade due to some policy change, one would need to simulate a model in which trade and prices are determined by the model. Such counterfactual analysis was not performed in this study. See Egger, “An Econometric View on the Estimation of Gravity Models and the Calculation of Trade Potentials,” 2002; Söderling, “Is the Middle East and North Africa Region Achieving Its Trade Potential?,” May 1, 2005.

Table F.5 Top three ranking sectors for the difference between predicted and actual trade using gravity estimates.

ITPD = International Trade and Production Database; n.e.c. = not elsewhere classified; F.S. Micronesia = the Federated States of Micronesia.

Country	Sector rank	ITPD sector ID	ITPD sector description
The Cook Islands	1	142	Building/repairing of pleasure/sport boats
The Cook Islands	2	149	Jewelry and related articles
The Cook Islands	3	37	Processing/preserving of fish
F.S. Micronesia	1	37	Processing/preserving of fish
F.S. Micronesia	2	132	TV/radio transmitters; line comm. apparatus
F.S. Micronesia	3	64	Footwear
Fiji	1	80	Refined petroleum products
Fiji	2	103	Basic precious and nonferrous metals
Fiji	3	148	Furniture
French Polynesia	1	144	Aircraft and spacecraft
French Polynesia	2	39	Vegetable and animal oils and fats
French Polynesia	3	60	Wearing apparel except fur apparel
Kiribati	1	144	Aircraft and spacecraft
Kiribati	2	37	Processing/preserving of fish
Kiribati	3	80	Refined petroleum products
The Marshall Islands	1	132	TV/radio transmitters; line comm. apparatus
The Marshall Islands	2	108	Other fabricated metal products n.e.c.
The Marshall Islands	3	102	Basic iron and steel
Nauru	1	60	Wearing apparel except fur apparel
Nauru	2	102	Basic iron and steel
Nauru	3	107	Cutlery hand tools and general hardware
New Caledonia	1	33	Other mining and quarrying
New Caledonia	2	82	Basic chemicals except fertilizers
New Caledonia	3	103	Basic precious and nonferrous metals
Niue	1	58	Other textiles n.e.c.
Niue	2	135	Measuring/testing/navigating appliances etc.
Niue	3	141	Building and repairing of ships
Palau	1	102	Basic iron and steel
Palau	2	124	Office accounting and computing machinery
Palau	3	116	Machine tools
Papua New Guinea	1	37	Processing/preserving of fish
Papua New Guinea	2	31	Extraction crude petroleum and natural gas
Papua New Guinea	3	103	Basic precious and nonferrous metals
The Pitcairn Islands	1	60	Wearing apparel except fur apparel
The Pitcairn Islands	2	55	Made-up textile articles except apparel
The Pitcairn Islands	3	91	Rubber tires and tubes
Samoa	1	132	TV/radio transmitters; line comm. apparatus
Samoa	2	133	TV and radio receivers and associated goods
Samoa	3	130	Other electrical equipment n.e.c.
The Solomon Islands	1	66	Veneer sheets plywood particle board, etc.
The Solomon Islands	2	21	Cocoa and cocoa products
The Solomon Islands	3	27	Forestry
Tokelau	1	55	Made-up textile articles except apparel
Tokelau	2	60	Wearing apparel except fur apparel
Tokelau	3	38	Processing/preserving of fruit and vegetables
Tonga	1	13	Fresh vegetables
Tonga	2	28	Fishing
Tonga	3	15	Prepared vegetables

Country	Sector rank	ITPD sector ID	ITPD sector description
Tuvalu	1	60	Wearing apparel except fur apparel
Tuvalu	2	149	Jewelry and related articles
Tuvalu	3	37	Processing/preserving of fish
Vanuatu	1	37	Processing/preserving of fish
Vanuatu	2	21	Cocoa and cocoa products
Vanuatu	3	25	Spices
Wallis and Futuna	1	131	Electronic valves tubes, etc.
Wallis and Futuna	2	149	Jewelry and related articles
Wallis and Futuna	3	144	Aircraft and spacecraft

Source: USITC calculations.

Export Potential Assessment

An export potential assessment methodology was developed by the Geneva-based International Trade Centre which is designed to assist developing countries create medium-term export strategies or development programs by identifying products and sectors with promise for export growth. The approach offers two measures of export potential—the export potential indicator (EPI) and the product diversification indicator (PDI). The International Trade Centre has developed a user-friendly, publicly available portal for accessing this tool, which can identify export potential for individual exporters, markets, and products.¹⁴³⁰ Technical details and documentation of the methodology can be found in a paper by Decreux and Spies.¹⁴³¹

The EPI is based on a gravity-modeling framework that identifies products with export potential according to supply conditions in the exporting country, demand conditions in the importing country, and characteristics of the bilateral trade linkages between them. Sectors are identified as having potential if they display a gap between expected export levels generated by the model and actual export levels. Because the approach uses recent trade data, the EPI identifies sectors where exports already exist, but have strong prospects to be globally competitive in the future.

The PDI is based on the product space methodology developed by Hausmann and Hidalgo.¹⁴³² In this approach, sectors are identified that are not currently exported by a country. Products identified by the PDI are those viewed as having potential based on the country's current export basket and the export baskets of similar countries. This is interpreted within the model as indicating similarity of production resource requirements. Table F.6 provides a sample of some of the products identified using the PDI and EPI.

¹⁴³⁰ International Trade Centre, *Export Potential Map*, accessed May 1, 2023.

¹⁴³¹ Decreux and Spies, "Export Potential Assessments," December 2016, 2.

¹⁴³² Hausmann and Klinger, "Structural Transformation and Patterns of Comparative Advantage," September 1, 2006; Hausmann et al., *The Atlas of Economic Complexity*, 2013; Hidalgo et al., "The Product Space Conditions the Development of Nations," July 27, 2007.

Table F.6 Export potential based on the International Trade Centre's Export Potential Map, by economy and product

HS = Harmonized System, PDI = product diversification index, EPI = export potential index; F.S. Micronesia = the Federated States of Micronesia.

Economy	Method	HS heading	HS heading description
F.S. Micronesia	PDI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
F.S. Micronesia	PDI	0306	Crustaceans
Fiji	PDI	0306	Crustaceans
Fiji	PDI	0905	Vanilla
Fiji	EPI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
Fiji	EPI	0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen
French Polynesia	PDI	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
French Polynesia	PDI	0306	Crustaceans
French Polynesia	EPI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
French Polynesia	EPI	0905	Vanilla
Kiribati	PDI	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Kiribati	PDI	0801	Coconuts, Brazil nuts and cashew nuts, fresh or dried
The Marshall Islands	PDI	0306	Crustaceans
The Marshall Islands	PDI	0307	Mollusks
The Marshall Islands	EPI	8903	Yachts and other vessels for pleasure or sports; row boats and canoes
The Marshall Islands	EPI	85xx	Electrical products
Nauru	PDI	4001	Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms or in plates, sheets or strip
Nauru	PDI	6104	Women's or girls' suits, ensembles, suit-type jackets, blazers, dresses, skirts, divided skirts, trousers, etc. (no swimwear), knitted or crocheted
Nauru	EPI	2510	Natural calcium phosphates, natural aluminum calcium phosphates and phosphatic chalk
New Caledonia	PDI	0905	Vanilla
New Caledonia	PDI	1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs
New Caledonia	EPI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
New Caledonia	EPI	2836	Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate
Papua New Guinea	PDI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
Papua New Guinea	PDI	0801	Coconuts, Brazil nuts and cashew nuts, fresh or dried
Papua New Guinea	EPI	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Papua New Guinea	EPI	0905	Vanilla
The Solomon Islands	PDI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled

Economy	Method	HS heading	HS heading description
The Solomon Islands	PDI	0714	Cassava (manioc), arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar roots etc. (high starch, etc. content), fresh or dried; sago pith
Vanuatu	PDI	0302	Fish, fresh or chilled, excluding fish fillets and other fish meat without bones; fish livers and roes, fresh or chilled
Vanuatu	PDI	0306	Crustaceans
Vanuatu	EPI	0303	Fish, frozen, excluding fish fillets and other fish meat without bones; fish livers and roes, frozen
Vanuatu	EPI	0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled, or frozen

Source: International Trade Centre, *Export Potential Map*, accessed May 1, 2023.

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Appendix G

Modifications to U.S. Imports of Generalized System of Preferences-Eligible Products from Pacific Island Beneficiary Developing Countries

Misclassified Import Data

In compiling data for this report, the Commission contacted the U.S. Census Bureau about a sample of suspected misclassified entries of U.S. imports of Generalized System of Preferences (GSP)-eligible products across several Pacific Island beneficiary developing countries (BDCs).¹⁴³³ Of the sample, the U.S. Census Bureau confirmed that 73 of the 77 product lines were misclassified and publicly announced their reclassification of these lines, totaling \$4.2 million in imports.¹⁴³⁴ These misclassifications have been removed from the U.S. trade data used in this report. Table G.1 shows the U.S. imports of GSP-eligible products from Pacific Island BDCs inclusive of all revisions.

Table G.1 U.S. imports of Pacific Island beneficiary developing countries (BDCs) GSP, 2017–21

In dollars.

Pacific Island BDC	2017	2018	2019	2020	2021
The Cook Islands	19,203	71,403	74,581	98,732	28,028
Fiji	20,434,884	11,590,930	10,779,282	16,621,535	14,420,224
Kiribati	4,834	0	0	846	0
Niue	11,244	7,341	15,551	322	2,784
Papua New Guinea	600,742	1,192,196	1,366,706	1,571,928	806,783
The Pitcairn Islands	5,415	6,095	0	3,217	0
Samoa	2,502,018	1,829,501	3,479,009	1,416,224	3,518,038
The Solomon Islands	2,360,539	3,171,371	3,680,945	2,232,340	7,782
Tokelau	155,734	514,956	346,016	387,405	0
Tonga	283,296	330,610	240,191	664,682	578,988
Tuvalu	0	3,976	10,760	0	4,507
Vanuatu	0	57,040	74,173	30,931	16,117
Wallis and Futuna	0	0	2,240	281	0
All Pacific Island BDCs	26,377,909	18,775,419	20,069,454	23,028,443	19,383,251

Sources: USITC DataWeb/Census, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

Additional Focus for GSP Analysis

The data on GSP-eligible products in chapter 4 exclude an additional \$1.9 million in U.S. imports, which accounted for 1.8 percent of all U.S. imports (by value) of covered products from Pacific Island BDCs during 2017–21 (table G.2).

¹⁴³³ USITC email message to U.S. Census Bureau, June 8, 2023.

¹⁴³⁴ U.S. Census Bureau, email message to USITC staff, June 23, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

Table G.2 U.S. imports of non-analyzed products from Pacific Island beneficiary developing countries (BDCs) under GSP, 2017–21.

In dollars.

Pacific Island BDC	2017	2018	2019	2020	2021
The Cook Islands	19,203	71,403	74,581	98,732	28,028
Kiribati	4,834	0	0	846	0
Niue	11,244	7,341	15,551	322	2,784
The Pitcairn Islands	5,415	6,095	0	3,217	0
The Solomon Islands (see note)	27,191	38,387	8,433	23,036	5,294
Tokelau	155,734	514,956	346,016	387,405	0
Tonga (see note)	0	9,299	11,495	9,086	6,746
Tuvalu	0	3,976	10,760	0	4,507
Vanuatu (see note)	0	0	253	30,931	321
Wallis and Futuna	0	0	2,240	281	0
All Pacific Island BDCs	223,621	651,457	469,329	553,856	47,680

Sources: USITC DataWeb/Census, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

Note: Data for the Solomon Islands, Tonga, and Vanuatu in this table represent the portion of U.S. imports from those economies that was excluded from the analysis presented in chapter 4.

As part of this adjustment, all U.S. imports of GSP-eligible products from 7 of the 13 Pacific Island BDCs were excluded from the GSP analysis in chapter 4. These data from the Cook Islands, Kiribati, Niue, the Pitcairn Islands, Tokelau, Tuvalu, and Wallis and Futuna were excluded because of the pervasiveness of the misclassifications in the sample of data reviewed by the U.S. Census Bureau and the evidence that these Pacific Island economies likely do not have the capacity to produce these products. It is possible some of the removed data were GSP-eligible imports from these Pacific Island BDCs but, given the time constraints, it was not possible to systematically identify these.¹⁴³⁵

For three Pacific Island economies—the Solomon Islands, Tonga, and Vanuatu—certain data were removed from the GSP analysis because of the high likelihood they were misclassified entries (table G.3). The U.S. Census Bureau confirmed similar entries were misclassified in the sample U.S. import data for these economies. Considering what is known about the production capacity in these Pacific Island BDCs, it is likely that additional U.S. imports were likely not produced in these countries, especially from the machinery and manufactured products sector. Therefore, for the Solomon Islands and Vanuatu, as applicable, only U.S. imports of GSP-eligible agriculture fisheries, coral, and wooden statue products have been included in the GSP analysis. All other U.S. imports of GSP-eligible products were excluded from the analysis in chapter 4. For Tonga, all U.S. imports of GSP-eligible products were included in the analysis in chapter 4, except those from Harmonized System chapters 73, 83, and 85.

¹⁴³⁵ U.S. Census Bureau did not reclassify a small share (less than 10 percent) of U.S. imports of GSP-covered products from Tokelau that USITC flagged. U.S. Census Bureau, email message to USITC, June 23, 2023; U.S. Census Bureau, “International Trade Statistical Corrections,” Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

Table G.3 Modifications to U.S. imports of GSP-eligible products from certain Pacific Island beneficiary developing countries (BDCs), 2017–21

In dollars.

Pacific Island BDC	Trade	2017	2018	2019	2020	2021
The Solomon Islands	Analyzed	2,333,348	3,132,984	3,672,512	2,209,304	2,488
The Solomon Islands	Not analyzed	27,191	38,387	8,433	23,036	5,294
The Solomon Islands	Total	2,360,539	3,171,371	3,680,945	2,232,340	7,782
Tonga	Analyzed	283,296	321,311	228,696	655,596	572,242
Tonga	Not analyzed	0	9,299	11,495	9,086	6,746
Tonga	Total	283,296	330,610	240,191	664,682	578,988
Vanuatu	Analyzed	0	57,040	73,920	0	15,796
Vanuatu	Not analyzed	0	0	253	30,931	321
Vanuatu	Total	0	57,040	74,173	30,931	16,117

Sources: USITC DataWeb/Census, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023.

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Appendix H

Tables Corresponding to Figures

Table H.1 Share of top Pacific Island services exports to the United States, by sector and economy, 2019

In percentages. ** = rounds to zero (e.g., the number is less than 0.5). F.S. Micronesia = the Federated States of Micronesia. This table corresponds to [figure 3.1](#).

Economy	Travel	Transport	Other business services	Construction	Insurance and pension services	Financial services	Telecom, computer, and info services	All other services
Fiji	63.8	32.0	1.1	0.5	0.0	**	1.5	0.7
French Polynesia	61.8	29.6	6.8	0.0	**	0.6	0.8	**
New Caledonia	44.0	34.9	14.2	0.0	1.5	0.0	4.3	1.3
Vanuatu	83.4	11.8	0.8	**	**	1.0	2.0	0.7
Papua New Guinea	1.2	6.1	43.0	11.8	20.0	16.6	0.8	**
Samoa	72.1	6.9	5.1	6.0	**	4.5	3.7	1.4
The Solomon Islands	56.9	25.1	11.6	2.1	**	0.9	2.2	1.0
Palau	76.9	4.2	0.0	0.0	0.0	0.0	0.0	18.9
Tonga	60.7	19.1	7.0	6.9	0.0	0.0	6.2	**
F.S. Micronesia	29.8	8.6	60.3	0.0	0.0	0.0	1.2	0.0
Nauru	8.6	7.5	83.9	0.0	0.0	0.0	0.0	0.0
Kiribati	32.5	23.3	0.0	16.9	**	21.6	0.0	5.4
Tuvalu	78.7	11.2	8.2	0.0	0.0	0.7	1.2	0.0

Sources: WTO, "Commercial Services Exports by Sector and Partner, Annual," accessed October 17, 2022; WTO, OECD-WTO Balanced Trade in Services (BaTiS) database, January 2021.

Notes: Pacific Island economies are ordered by total services export size, from largest to smallest in 2019. All other services include manufacturing services on physical inputs owned by others; maintenance and repair services; charges for the use of intellectual property; and personal, cultural, and recreational services. Because of differences in product coverage, other services for Palau also include construction, insurance and pension services, telecommunications, computer and information services, financial services, and other business services.

Table H.2 U.S. imports of GSP-eligible products as a share of total imports from Pacific Island BDCs, 2017–21

In percentages. BDC = beneficiary developing country. This table corresponds to [figure 4.1](#).

Pacific Island BDC	2017	2018	2019	2020	2021
Fiji	9.2	5.3	4.4	7.4	6.1
Papua New Guinea	0.5	1.3	1.9	1.7	1.0
Samoa	50.5	26.4	49.1	28.6	37.7
The Solomon Islands	69.8	76.9	63.0	66.4	**
Tonga	8.1	11.5	4.8	23.0	18.8
Vanuatu	0.0	0.8	1.2	0.0	**
Pacific Island BDC average	7.4	5.4	5.8	6.8	5.7

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, May 5, 2023, and July 6, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Table H.3 Value of GSP-eligible imports from Pacific Island BDCs and number of products, by utilization rate group, 2017–21In millions of dollars and number. BDC = beneficiary developing country. This table corresponds to [figure 4.2](#).

Utilization rate group	Total import value (thousand \$)	Number of products
No utilization (0%)	9,148	132
>0% & <30% utilization	2,031	10
≥30% & <60% utilization	2,452	13
≥60% & <90% utilization	9,489	17
≥90%	82,569	80

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Table H.4 GSP utilization rates for certain Pacific Island BDCs, and overall Pacific Island BDC utilization, 2017–21In percentages; BDC = beneficiary developing country. This table corresponds to [figure 4.3](#).

Pacific Island BDC	2017	2018	2019	2020	2021
Fiji	95.8	94.4	95.4	95.4	73.6
Papua New Guinea	65.8	34.5	40.9	51.1	22.4
Samoa	55.6	50.3	83.2	30.3	17.9
Tonga	100.0	98.1	99.8	99.2	95.7
Pacific Island BDC average	91.0	86.2	90.9	90.0	73.6

Sources: USITC DataWeb/Census, Imports for Consumption, accessed March 7, 2023, April 27, 2023, May 4, 2023, and May 5, 2023; U.S. Census Bureau, "International Trade Statistical Corrections," Corrections to 2021 Data, Corrections to 2020 and Older Data, accessed July 7, 2023; appendix G.

Notes: Certain small volumes of trade (as discussed in and around table 4.2) were separated out and not analyzed in this chapter. Full details of the data not analyzed in this chapter are presented in Appendix G. GSP utilization rates are calculated by dividing the value of U.S. imports of GSP-eligible products for consumption that claimed GSP by the value of U.S. imports for consumption of all GSP-eligible products, excluding imports claimed under another preference program. The theoretical maximum utilization is 100 percent. A number of factors, however, can lead to lower utilization rates including imports not meeting all GSP-product eligibility criteria.

Table H.5 U.S. imports of preference-eligible products as a share of total imports from Pacific Island insular possessions, by economy, 2017–21In percentages. N. Mariana Islands = Northern Mariana Islands. This table corresponds to [figure 4.4](#).

Economy	2017	2018	2019	2020	2021
American Samoa	99.6	98.9	99.7	99.3	99.3
Guam	0.8	2.1	2.8	1.6	4.7
N. Mariana Islands	56.4	1.3	10.2	11.2	19.8
Insular possessions average	55.3	75.5	75.8	79.5	88.9

Source: U.S. Census Bureau, U.S. Trade with Puerto Rico and U.S. Possessions (FT895), accessed May 5, 2023.