

Sparring over Seafood: China's Ban on "Contaminated" Fish from Japan

[Renee Berry](#) and [Jeff Clark](#), Office of Industry and Competitiveness Analysis

In August 2023, Japan began discharging water from its damaged Fukushima nuclear plant. In response, China immediately announced a ban on all imports of seafood from Japan. This EBOT discusses the repercussions of this ban on the Japanese fisheries industry and seafood trade.

Meltdowns and buildups

On March 11, 2011, a magnitude 9.0 earthquake created a tsunami that damaged a nuclear power plant in Fukushima, Japan, approximately 150 miles north of Tokyo. Three of the site's six nuclear reactors were operating at the time and experienced various degrees of meltdowns. To minimize the disaster, Tokyo Electric Power Company (TEPCO) has been pumping additional water into the reactor cores. The contaminated "wastewater" has been accumulating onsite over the last 12 years and would currently fill approximately 500 Olympic pools. On August 24, 2023, after getting approval from the UN's International Atomic Energy Agency (IAEA), TEPCO began its initial discharge of this wastewater into the Pacific Ocean via a pipeline that extends 1 km away from the Japanese coast.¹ TEPCO filters the wastewater to remove almost all radioactive contaminants except tritium, and the IAEA has stated that the radiation levels in the discharged wastewater "would have a negligible radiological impact on people and the environment."² The discharge of the water into the Pacific is estimated to require 30 to 40 years to complete.

Reactions to the discharge

Official reactions to the discharge have been mixed. China (along with Hong Kong and Macau) immediately announced that it was banning imports of all Japanese seafood.³ On October 16, Russia joined China in banning seafood imports from Japan. To counter any perceptions of safety concerns, Japanese, U.S., and South Korean government leaders have been holding public events where they eat seafood.⁴ Despite maintaining the country's ban on seafood imports from eight Japanese prefectures since 2013, the South Korean president pledged 80 billion won (\$60.6 million) this year to promote seafood consumption and to tackle "fake news" about the discharge.

Trade overview

Japan's seafood exports are mainly the products of its sardine, mackerel, Alaska pollock, and tuna fishing fleets, as well as its scallop industry, which harvests mostly scallops produced by aquaculture in northern Japan. In 2022, Japan exported nearly 1.3 billion pounds of seafood to the world, worth approximately \$1.7 billion. By value, scallops were the largest export, accounting for almost 32 percent of the total.⁵ China was the largest market for Japanese seafood in 2022, comprising 25 percent of exports by value, followed by the United States and Hong Kong, which comprised about 15 percent each (figure 1). Other

¹ TEPCO has discharged wastewater into the Pacific Ocean three times to date. Each discharge has been the equivalent of about 3 Olympic pools and lasted 17 days. The second discharge began on October 5, 2023, and the third began on November 2, 2023.

² The Advanced Liquid Processing System (ALPS) removes almost all radioactive contaminants except tritium, an isotope of hydrogen. Tritium emits β radiation, which cannot pass through skin and must be ingested to have any impact on the human body. The level of tritium remaining in the diluted wastewater is reportedly lower than that found in wastewater regularly discharged from nuclear plants around the world, including in China.

³ Hong Kong and Macau have more limited import bans, aquatic products from 10 of Japan's 47 prefectures.

⁴ Japanese Prime Minister Fumio Kishida ate fish from Fukushima on August 30, 2023; U.S. Ambassador to Japan Rahm Emmanuel visited Fukushima and ate seafood on August 31, 2023.

⁵ Sardines and mackerel were the largest category of exports by volume.

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destination markets were mostly in Asia; Russia accounted for less than 1 percent of exports. Exports to China by value in 2022 and 2023 (prior to the ban) were heavily concentrated in scallops, which accounted for 54 percent of the total. Sea cucumbers, which are prized in Chinese cuisine, made up another 10 percent. On a volume basis, Alaska pollock was also a significant export from Japan to China. Both scallops and Alaska pollock are often sent to China for processing and exported to third country markets. In September 2023, the first full month after the ban, Japan's seafood exports to China fell to nearly zero. The absence of Japanese products in the Chinese market is likely to be noticeable for certain products, but overall seafood supply in China will be largely unaffected since Japan accounted for less than 4 percent of China's seafood imports in 2022.

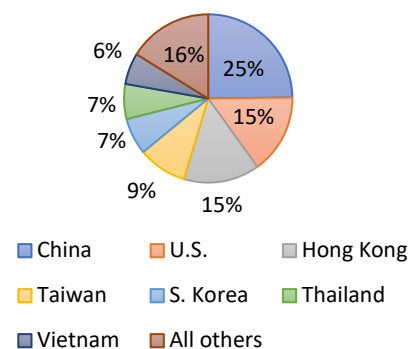
Impact from and reactions to the bans

The effects of China's ban will stem from Japan's need to find both new consumer markets for its seafood and additional options for where its seafood can be processed. In the initial post-ban period, countries aligned with Japan have stepped in to purchase more of its seafood. For example, in October the U.S. military began buying Japanese seafood, starting with just under one metric ton of scallops, to provide to U.S. military members stationed in Japan. Although it is anticipated to be a long-term, expanding contract, these purchases cannot replace the more than 100,000 tons of scallops that Japan exported to mainland China in 2022.

Finding processors for Japanese seafood may be more difficult than finding consumers, since China is a processing hub for the world's seafood and its capacity is hard to replicate. As a short term measure, Japan briefly considered using prisoners to process scallops for export to the United States and the EU, but decided instead to process them in third countries to avoid importers' restrictions on products made with prison labor. Japan's exports to processors in Southeast Asia are expected to increase as a result.

The impact on Japan's overall economy may be limited (less than 0.05 percent decline in GDP by one estimate), but more than 700 Japanese companies exported seafood to China in 2022. The government of Japan has allocated 100.7 billion yen (approximately \$675 million) to assist the Japanese fisheries industry in developing new markets and keeping seafood frozen until demand recovers. Japan has threatened to file a complaint with the WTO over China's ban, claiming that the ban is not scientifically based. In late October, the G7 released a joint statement calling for an immediate repeal of import curbs on Japanese food products.

Figure 1. Destinations for Japan's Seafood Exports, Shares by Value



Source: S&P Global, [GTAS](#), accessed November 3, 2023.

Sources: Murakami, "[Fukushima: Japan Gets UN Nuclear Watchdog Approval](#)," 7/4/23; Murakami, "[Fukushima Wastewater Released into the Ocean, China Bans All](#)," 8/24/23; Yamaguchi, "[Fukushima Nuclear Plant Starts 2nd Release](#)," 10/5/23; S&P Global, [GTAS](#), accessed 11/3/23; Gallagher, Murakami, "[U.S. Ambassador to Japan Visits Fukushima](#)," 8/31/23; The Japan Times, "[Kishida Eats 'Safe and Delicious' Fukushima Fish](#)," 8/30/23; Kim, "[South Korea Is Facing](#)," 11/10/23; Yim, "[South Koreans Worry About Fukushima Water](#)," 9/1/23; Geddie and Toyoda, "[Exclusive: US Military Bulk Buys Japanese Seafood](#)," 9/30/23; Loew, "[Japan Briefly Considers Prison Labor](#)," 12/1/23; Golubkova and Patton, "[China's Ban on Japanese Seafood Has More Political](#)," 8/24/23; "[Row with China Over Fukushima Release](#)," 8/31/23. "[Japan to Allocate \\$140 Million More to Help Fisheries](#)," 9/4/23; "[Japan Hints at Complaint to WTO](#)," 8/29/23; Komiya, "[G7 Calls for Immediate Repeal](#)," 10/29/23.

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