

# **The Impact of EU-Mercosur Agreement on Member Countries and the United States**

Erika Bethmann  
Fernando Gracia

ECONOMICS WORKING PAPER SERIES  
Working Paper 2022–07–B

U.S. INTERNATIONAL TRADE COMMISSION  
500 E Street SW  
Washington, DC 20436

July 2022

Special thanks to Marinos Tsigas for comments and assistance with this working paper.

Office of Economics working papers are the result of ongoing professional research of USITC Staff and are solely meant to represent the opinions and professional research of individual authors. These papers are not meant to represent in any way the views of the U.S. International Trade Commission or any of its individual Commissioners.

# The Impact of EU-Mercosur Agreement on Member Countries and the United States

Erika Bethmann and Fernando Gracia

Economics Working Paper 2022–07–B

July 2022

## Abstract

In June 2019, the European Union (EU) and Mercosur – the South American trading bloc comprised of Argentina, Brazil, Paraguay, and Uruguay – reached a political agreement regarding the trade part of the EU-Mercosur Association Agreement. Although the EU-Mercosur Association Agreement has been under negotiation since 1999, there have been few computable general equilibrium (CGE) analyses undertaken that have provided an analysis of its potential effects on the U.S. economy. In addition to providing an update to the existing CGE literature on this agreement, and its potential effects on the U.S. economy, this paper will also analyze concurrent trade policy issues. For example, this agreement has garnered press recently as European civil society groups and some government representatives have threatened the ratification of the agreement for failing to protect the Amazon rainforest with enforceable environmental provisions. This paper aims to update the existing, yet somewhat outdated literature on this particular agreement, with additional qualitative analysis of the impact of environmental provisions in existing EU and Mercosur member country trade agreements—provisions that are currently serving as a barrier to ratification in the EU. For example, the “trade and sustainable development” chapter of the EU-Mercosur agreement states that the parties will honor concessions already made as part of the Paris Agreement. However, publications and statements by the Brazilian government promote deforestation and development of the Amazon rainforest that contradict such agreements made in the Paris Agreement. The Global Trade Analysis (GTAP) framework is used to simulate the implementation of the non-tariff provisions of the June 2019 EU-Mercosur Agreement in Principle.

Erika Bethmann  
Country and Regional Analysis Division, Office of Economics  
U.S. International Trade Commission  
[Erika.bethmann@usitc.gov](mailto:Erika.bethmann@usitc.gov)

Fernando Gracia  
Advanced Technology and Machinery Division, Office of Industries  
U.S. International Trade Commission  
[Fernando.gracia@usitc.gov](mailto:Fernando.gracia@usitc.gov)

## Introduction

Negotiations between the European Union (EU) and Mercosur—the South American trading bloc comprised of Argentina, Brazil, Paraguay, and Uruguay—were launched on June 28, 1999, although talks were suspended intermittently over the years (2004-2010; 2013-2016). In June 2019, the EU and Mercosur reached a political agreement regarding the trade part of the EU-Mercosur Association Agreement (Agreement).<sup>1</sup> This agreement would create a market of about 780 million people for goods and services, and which makes up almost a quarter of the world's GDP. According to the agreement in principle, duties on about 95 percent of tariff lines for EU exports to Mercosur economies are expected to be eliminated, accounting for about \$4.5 billion in duties on imports from the EU to Mercosur per year.<sup>2</sup> Duties on about 91 percent of tariff lines for Mercosur's exports to the EU would also be eliminated, while the remaining 7 percent of tariff lines would be granted preferential treatment.<sup>3</sup> The agreement would also reduce non-tariff barriers between the two blocs, such as standards and regulations.<sup>4</sup> The June 2019 agreement still needs to be ratified by the national parliaments of all member countries of both blocs, as well as by the European Parliament and the EU Council, resulting in a current atmosphere of intensified interest into its potential effects on the participating trade blocs and their major trading partners.

This paper examines the impact of the EU-Mercosur Agreement on the parties involved, as well as on the United States. The analytical approach employed here is a combination of statistical summaries of international trade data and a computable general equilibrium model of selected non-tariff measure provisions enumerated in the agreement in principle. It is comprised of four sections: (1) 2017-2019 Trade overview, (2) Literature review, (3) Data and Methodology, and (4) Results.

## Trade Overview

### EU-Mercosur Trade

#### *EU imports from Mercosur*<sup>5</sup>

The EU market is important for multiple sectors within Mercosur countries, including agriculture, mining, and natural resources. EU imports from Mercosur countries, combined, totaled \$40.2 billion in 2019, 20.1 percent lower than the year before after a 6.0 percent increase in 2017-18. The main EU imports from Mercosur countries in 2019, combined, were vegetable oils and fats (14.6 percent), miscellaneous minerals (other extraction; 12.9 percent), paper products for publishing (7.7 percent), and miscellaneous food products (7.6 percent).<sup>6</sup> Between 2017 and 2019, EU imports from Mercosur, on aggregate, declined 6.5 percent (\$2.8 billion), led by declines in miscellaneous minerals (other extraction; \$777 million), ferrous metals (\$563 million), and oilseeds (\$536 million).

---

<sup>1</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle](#)," June 2019.

<sup>2</sup> LSE, "[Sustainability Impact Assessment in Support of the Association Agreement Negotiations between the European Union and Mercosur](#)," October 2019.

<sup>3</sup> Preferential refers to non-zero tariff rates that are more favorable than MFN rates. EC, "[EU-Mercosur Trade Agreement: Agreement in Principle](#)," June 2019.

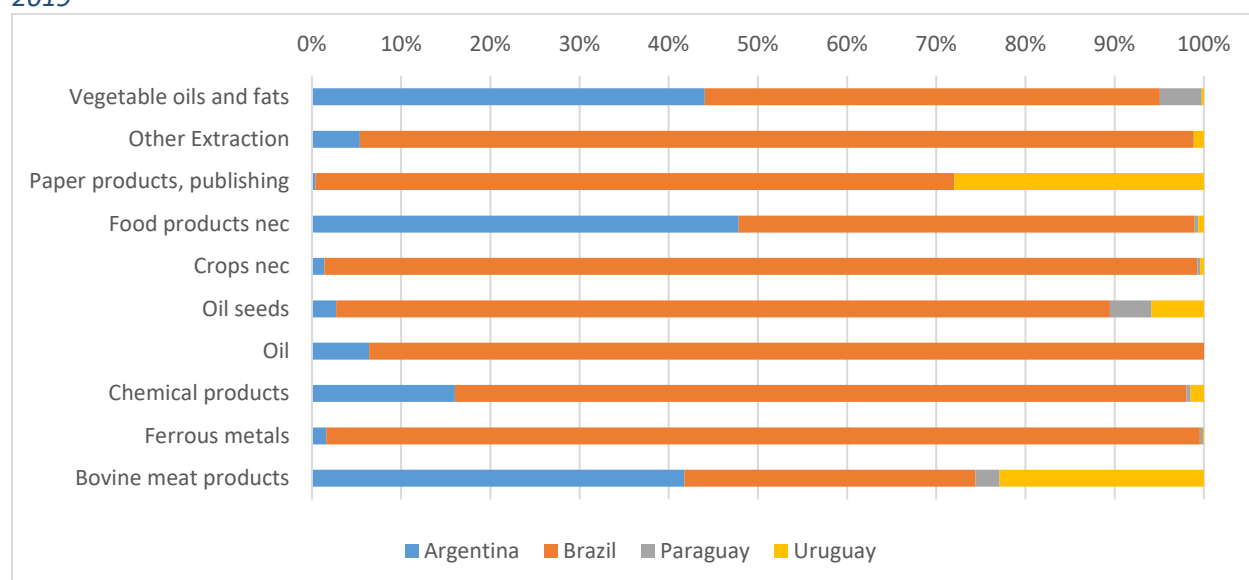
<sup>4</sup> Ibid.

<sup>5</sup> All trade values are represented in U.S. dollars (USD). EU-Mercosur trade data collected from Eurostat has been converted into USD using the following annual average exchange rates determined by the Federal Reserve Bank of St. Louis Federal Reserve Economic Data (FRED): \$1.1301 per Euro for 2017; \$1.1817 per Euro for 2018; and \$1.1194 per Euro for 2019. Federal Reserve, "[Foreign Exchange Rates—G.5A Annual](#)," accessed April 14, 2021.

<sup>6</sup> Products classified under confidential tariff lines are excluded.

By country of origin, EU imports from Mercosur vary. Brazil, the largest Mercosur exporter to the EU, accounted for about 74.4 percent of total EU imports from the bloc in 2019. Imports from Brazil are diverse and drive the total EU imports from Mercosur (figure 1). These are led by imports of miscellaneous minerals (other extraction), vegetable oils and fats, miscellaneous crops, and paper products for publishing, which, combined, accounted for 41.0 percent of the total imports from the country. Argentinean exports are more concentrated, in contrast, and accounted for 19.7 percent of the total EU imports from Mercosur in 2019. EU imports from Argentina totaled \$7.9 billion in 2019, 20.6 percent (\$2.0 billion) lower than in 2018. Argentina's exports to the EU are mainly agricultural goods and the top two exports from the country —vegetable oils and fats and miscellaneous food products— accounted for about 50.9 percent of the total exports in that year.

*Figure 1. Top ten EU import sectors from Mercosur and shares from each Mercosur country, annual, 2019*



Source: European Commission, [Eurostat, Comext, International Trade](#), accessed April 11, 2021; GTAP, ["Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3,"](#) updated 2020.

The value of exports from Uruguay and Paraguay, which, accounted for about 4.5 percent and 1.4 percent, respectively, of the total EU imports from the southern bloc, is substantially lower than that of Brazil and Argentina. In 2019, EU imports from Uruguay were \$1.8 billion while imports from Paraguay were \$562 million. EU imports from Uruguay were 10.8 percent (\$215 million) lower in 2019 over 2018, while they were 36.0 percent (\$315 million) compared to 2018 for Paraguay. Exports from Uruguay are concentrated in natural resources and agricultural goods, led by paper products for publishing, bovine meat products, wood products, and oilseeds, which, combined, accounted for about 73.2 percent of the total exports from that country. Similarly, exports from Paraguay are mainly agricultural goods, with vegetable oils and fats, oilseeds, and bovine meat products accounting for 71.8 percent of the total exports in 2019.

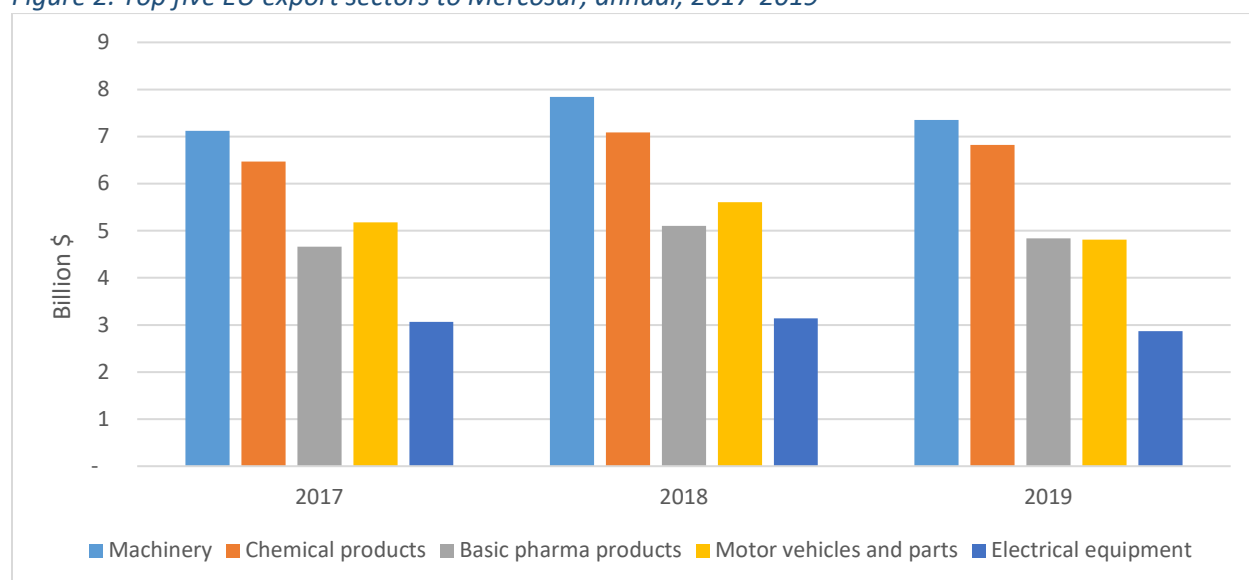
### *EU exports to Mercosur*

In 2019, EU exports to Mercosur totaled \$43.8 billion, a decrease of 2.4 percent over 2017 levels (\$44.8 billion) and a 7.9 percent decrease over 2018 export levels (\$47.5 billion). The decrease in EU exports was mostly due to decreases in the value of EU exports of petroleum and coal products, motor vehicles and parts, and electrical equipment. Seven of the top 10 exporting merchandise groups experienced

aggregate decreases in EU exports to Mercosur from 2017-2019. These seven groups constituted approximately 40 percent of total EU exports to Mercosur in 2019. The remaining three merchandise groups, which recorded aggregate increases from 2017-2019, were the top three exporting merchandise groups and constituted approximately 43 percent of total EU exports to Mercosur in 2019.

During 2017-19, the machinery and equipment merchandise group made up the largest share of EU exports to Mercosur totaling \$7.35 billion in 2019, an increase of 3.3 percent from \$7.12 billion in 2017. The second largest exporting merchandise group was chemical products, which totaled \$6.82 billion in EU exports in 2019, an increase of 5.5 percent from 2017 when exports to Mercosur totaled \$6.47 billion. The third largest merchandise group in EU exports to Mercosur in 2019 was basic pharmaceutical products, which totaled \$4.84 billion, and saw an increase of 3.7 percent from \$4.66 billion in 2017. Motor vehicles and parts and electrical equipment constitute the fourth and fifth largest merchandise groups in terms of share of EU total exports to Mercosur in 2019 at \$4.81 billion and \$2.86 billion, respectively. These top five merchandise groups constituted approximately 60 percent of total EU exports to Mercosur between 2017 and 2019 (figure 2).

*Figure 2. Top five EU export sectors to Mercosur, annual, 2017-2019*

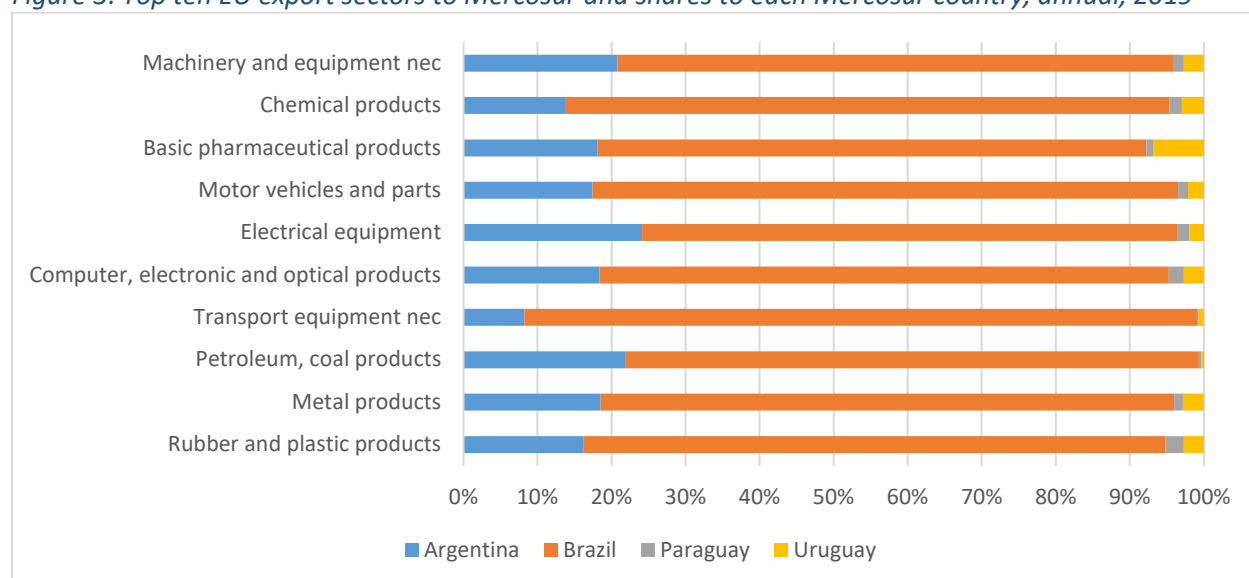


Source: European Commission, [Eurostat, Comext, International Trade](#), accessed April 11, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” updated 2020.

EU exports to Mercosur countries in 2019 were predominantly to Brazil (78.1 percent) and, to a lesser extent Argentina (17.2 percent), with Uruguay (3.1 percent) and Paraguay (1.5 percent) accounting for only a small fraction (figure 3). EU exports to Brazil are varied, with a mix of machinery equipment (miscellaneous machinery equipment, motor vehicles and parts, miscellaneous transport equipment), chemicals (chemical products and basic pharmaceutical products), electronics (electrical equipment and computer, electronic and optical products), and natural resources (petroleum, coal products, and metal products) among the main product groups. EU exports to Argentina mirror its exports to Brazil, with a mix of machinery, chemical products, electronics, and natural resources. The main EU exports to Uruguay are chemical and basic pharmaceutical products, which, combined, accounted for around 40 percent of EU exports to Uruguay in 2019, with machinery and motor vehicles and parts combining to constitute approximately 22 percent of exports to Mercosur. In 2019, EU exports to Paraguay were

mainly chemical products (17.2 percent), machinery and miscellaneous equipment (16.5 percent), motor vehicle and parts (9.8 percent), and computer, electronic and optical products (8.2 percent).

*Figure 3. Top ten EU export sectors to Mercosur and shares to each Mercosur country, annual, 2019*



Source: European Commission, [Eurostat, Comext, International Trade](#), accessed April 11, 2021; GTAP, [“Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3,”](#) updated 2020.

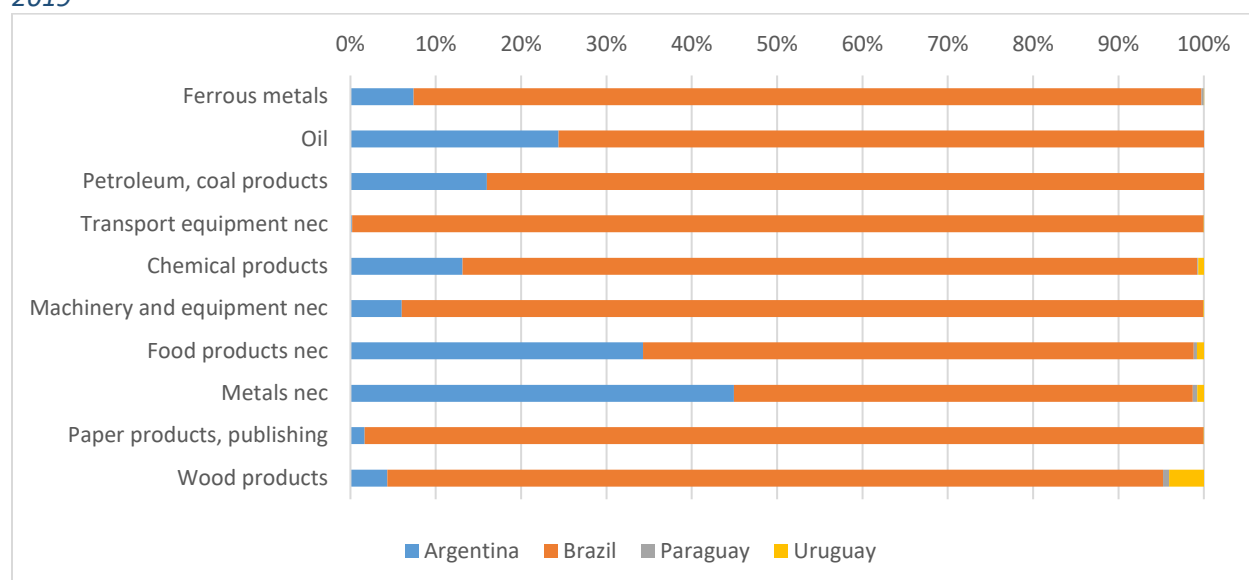
## U.S.-Mercosur Trade

### *U.S. imports from Mercosur*

As in the case of the EU, U.S. imports from Mercosur countries in 2019 were predominantly from Brazil (84.4 percent) and, to a lesser extent Argentina (13.7 percent), with Uruguay (1.4 percent) and Paraguay (0.5 percent) accounting for only a small fraction (figure 4).<sup>7</sup> U.S. imports from Mercosur countries totaled \$37.4 billion in 2019 and have been steady in recent years, declining roughly 1.5 percent in 2018-19 after increasing 5.5 percent in 2017-18. On a country basis, U.S. imports from Brazil were \$31.6 billion in 2019, about 2.2 percent (\$696 million) lower than in 2018 after expanding by \$2.1 billion in 2017-18. U.S. imports from Brazil are varied, with a mix of natural resources (ferrous metals, petroleum and coal products) and machinery equipment (transport equipment, miscellaneous machinery equipment) among the main product groups.

<sup>7</sup> Products classified under confidential tariff lines are excluded.

*Figure 4. Top ten U.S. import sectors from Mercosur and shares from each Mercosur country, annual, 2019*



Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” updated 2020.

In contrast, U.S. imports from the other three Mercosur countries —Argentina, Uruguay, and Paraguay, — albeit lower, grew in 2018-19. U.S. imports from Argentina reached \$1.5 billion in that year, a 1.4 percent increase over 2018. U.S. imports from Argentina are slightly more concentrated and include natural resources (oil, miscellaneous metals, petroleum and coal products) and agricultural goods (miscellaneous food products, beverages and tobacco products). U.S. imports from Uruguay totaled \$542 million in 2019 —a 3.3 percent (\$17.1 million) increase over 2018 while U.S. imports from Paraguay totaled \$178 million in that year, increasing 30.6 percent over 2018. The main U.S. imports from Uruguay are bovine meat products and wood products, which, combined, accounted by over half of the total U.S. imports from that country in 2019. From Paraguay, U.S. imports in 2019 were mainly agricultural goods including sugar (18.4 percent), miscellaneous animal products (15.5 percent), oilseeds (14.2 percent), and miscellaneous cereal grains (10.4 percent).

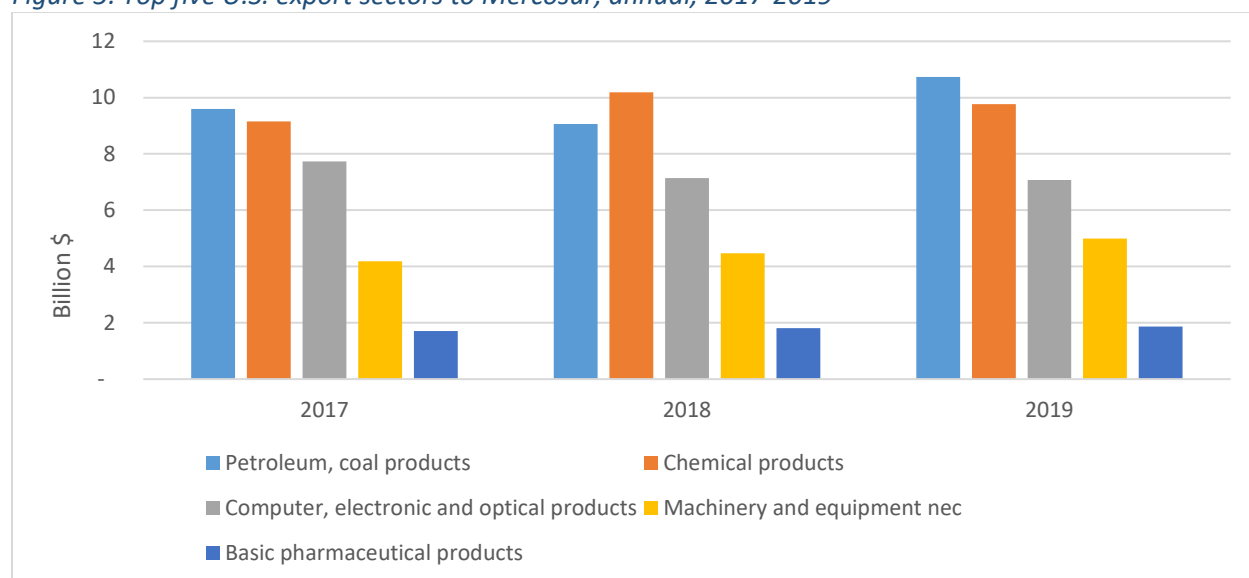
#### *U.S. exports to Mercosur*

In 2019, U.S. exports to Mercosur totaled \$46.2 billion, an increase of 4.9 percent over 2017 levels (\$44.0 billion) and a 2.5 percent increase over 2018 export levels (\$45.1 billion). The increase in U.S. exports was mostly due to increases in the value of U.S. exports of petroleum and coal products, chemical products, machinery and equipment, and oil. Six of the top 10 exporting merchandise groups experienced aggregate increases in U.S. exports to Mercosur from 2017-2019. These six groups constituted approximately 65.4 percent of total U.S. exports to Mercosur in 2019. The remaining four merchandise groups, which recorded aggregate decreases from 2017-2019, constituted approximately 24 percent of total U.S. exports to Mercosur in 2019.

During 2017-19, petroleum and coal products was the product group with the largest share of U.S. exports to Mercosur, with exports totaling \$10.7 billion in 2019, an increase of 11.9 percent from \$9.6 billion in 2017. The second largest group was chemical products, which totaled \$9.8 billion in U.S. exports in 2019, an increase of 6.7 percent from 2017 when exports to Mercosur totaled \$9.2 billion. The third largest product group in U.S. exports to Mercosur in 2019 was computer, electronic and

optical products, which totaled \$7.1 billion, and saw a decrease of 8.5 percent from \$7.7 billion in 2017. Miscellaneous machinery and equipment and basic pharmaceutical products constitute the fourth and fifth largest product groups in terms of share of U.S. total exports to Mercosur in 2019 at \$4.99 billion and \$1.87 billion, respectively. These top five groups constituted approximately 73 percent of total U.S. exports to Mercosur between 2017 and 2019 (figure 5).

*Figure 5. Top five U.S. export sectors to Mercosur, annual, 2017-2019*

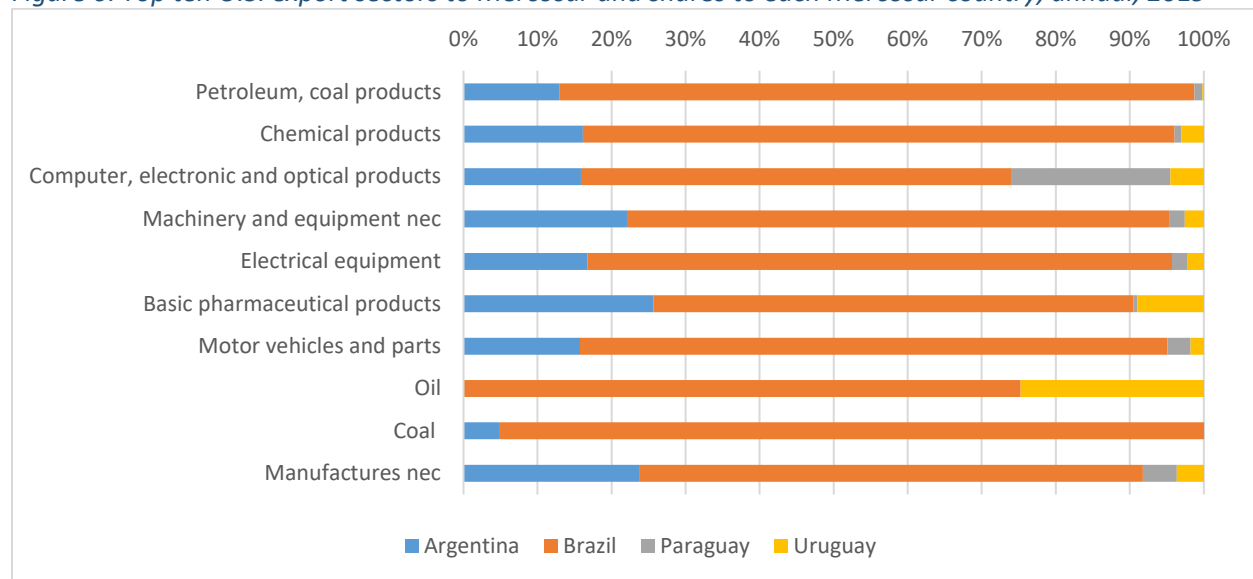


Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, [“Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3,”](#) updated 2020.

US exports to Mercosur countries in 2019 were predominantly to Brazil (75.6 percent) and, to a lesser extent Argentina (16.6 percent), with Paraguay (4.5 percent) and Uruguay (3.3 percent) accounting for only a small fraction (figure 6). U.S. exports to Brazil are varied, with a mix of natural resources (petroleum, coal products, and oil), machinery equipment (miscellaneous manufactures and machinery equipment and motor vehicles and parts), chemicals (chemical products and basic pharmaceutical products), and electronics (electrical equipment and computer, electronic and optical products) among the main product groups. U.S. exports to Argentina mirror its exports to Brazil, with a mix of natural resources, machinery, chemical products, and electronics. The main U.S. exports to Paraguay are computer, electronic and optical products, which accounted for around 73 percent of U.S. exports to Paraguay in 2019, with machinery, chemical products and petroleum and coal products combining to constitute approximately 88 percent of U.S. exports to Paraguay. In 2019, U.S. exports to Uruguay were mainly oil (22.9 percent), computer, electronic and optical products (20.7 percent), chemical products (19.2 percent), basic pharmaceutical products (10.8 percent), and machinery and miscellaneous equipment (8.4 percent).



Figure 6. Top ten U.S. export sectors to Mercosur and shares to each Mercosur country, annual, 2019



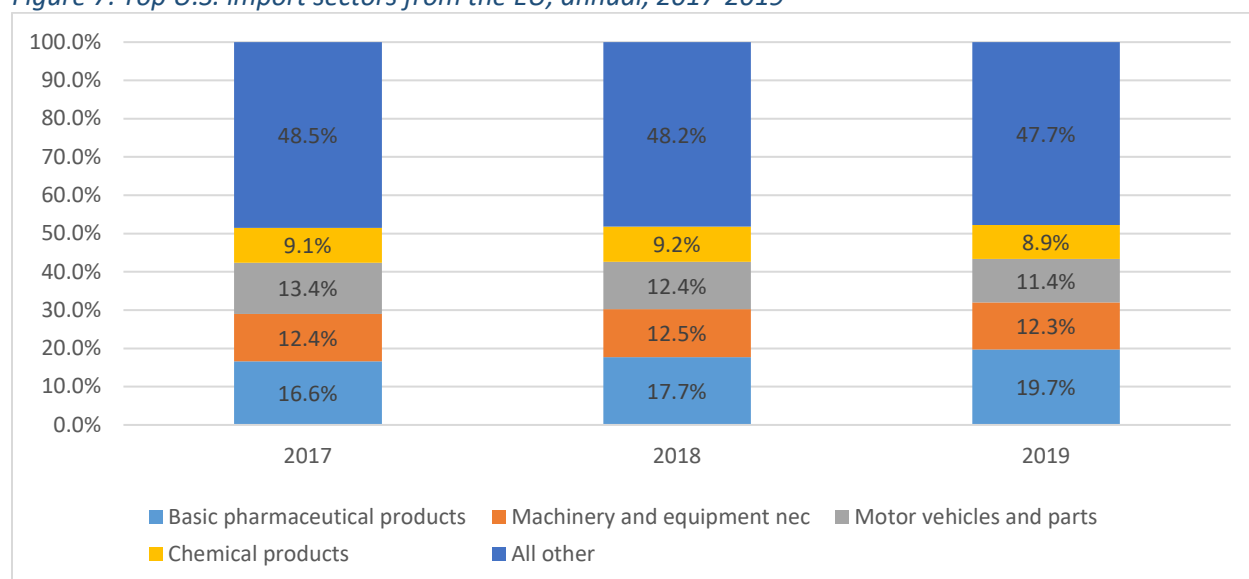
Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, "[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#)," updated 2020.

## U.S.-EU Trade

### *U.S. imports from the EU*

The EU was the top source for U.S. imports in 2019, after rising from second place in 2017 and 2018. In 2019, U.S imports from the EU reached \$428 billion, a 4.9 percent increase over 2018 after a 11.8 percent increase in 2018-17. U.S. imports from the EU in 2019 were led by basic pharmaceutical products (19.7 percent), miscellaneous machinery and equipment (12.3 percent), motor vehicles and parts (11.4 percent), and chemical products (8.9 percent) (figure 7). The growth in U.S. imports from the EU in 2019 was led by increases in imports of basic pharmaceutical products (16.9 percent) and miscellaneous transport equipment (18.2 percent). Further, certain products have seen a larger increase than the overall increase of 4.9 percent from 2018 to 2019, with U.S. imports of coal and oil being 8 and 2.5 times higher in value in that period, followed by bovine meat products from the EU, which expanded by 77.4 percent.

Figure 7. Top U.S. import sectors from the EU, annual, 2017-2019

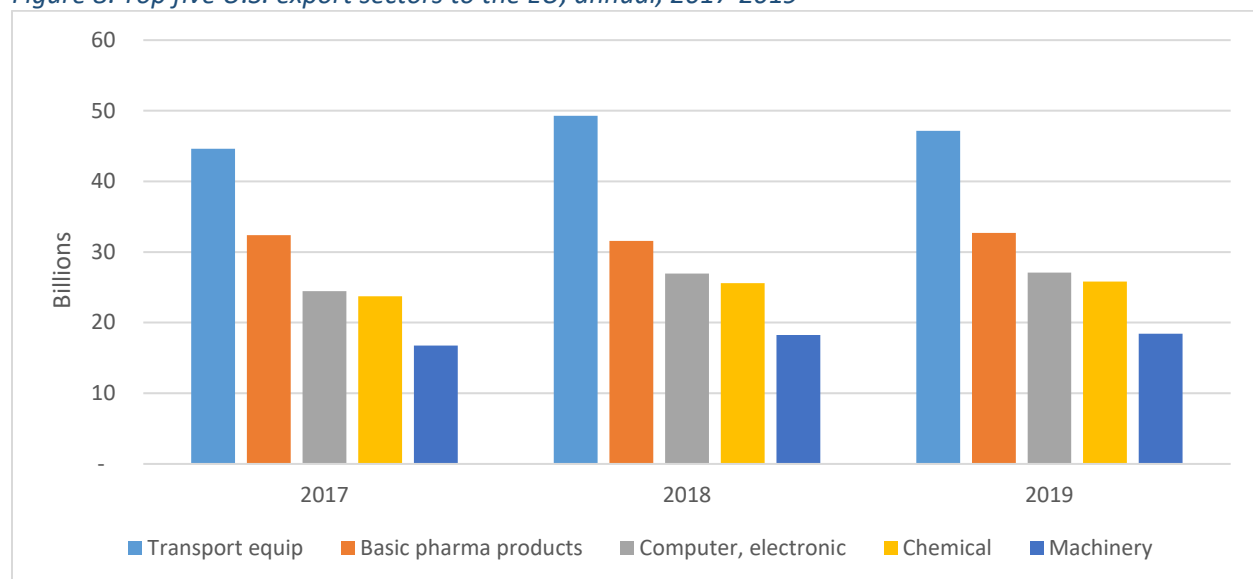


Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” updated 2020.

### U.S. exports to the EU

In 2019, U.S. total exports to the EU totaled \$255.9 billion, an increase of 13.3 percent over 2017 export levels (\$225.9 billion) and a 2.3 percent increase over 2018 export levels (\$250.2 billion). The top five merchandise sectors experienced aggregate increases in U.S. total exports to the EU from 2017-2019. During 2017-19, the product group with the largest share of U.S. exports to the EU was transportation equipment products, which saw an increase in U.S. total exports of 5.7 percent from \$44.6 billion in 2017 to \$47.2 billion in 2019. Basic pharmaceutical products experienced the second largest value in total U.S. exports in 2019 at \$32.7 billion, an increase of 1.0 percent over 2017 U.S. exports (\$32.4 billion). The third largest product group in U.S. exports to the EU in 2019 was computer, electronic and optical products, which totaled \$27.1 billion, and saw an increase of 10.7 percent over 2017 levels (\$24.5 billion in 2017). Chemical products and machinery and equipment products complete the top five product groups with the largest shares of U.S. total exports to the EU in 2019 at \$25.8 billion and \$18.4 billion, respectively. These top five product groups constituted approximately 60 percent of total U.S. exports to the EU between 2017 and 2019 (figure 8).

Figure 8. Top five U.S. export sectors to the EU, annual, 2017-2019



Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” updated 2020.

#### U.S. and Mercosur export competition to the EU

An overview of total U.S. and Mercosur exports to the EU from 2017 to 2019 shows that several major product groups overlap and demonstrate head-to-head competition between U.S. exports and Mercosur exports to the EU. Table 1 shows U.S. exports in relation to Mercosur’s top ten export product groups. While the majority of these product groups do not represent a significant share of total U.S. exports to the EU, the agreement could have an impact in U.S. exports to the EU in these categories. This is particularly true of sectors which include Mercosur products that currently face high import tariffs in the EU market which would be eliminated or otherwise reduced under the agreement: agricultural products including orange juice, instant coffee, and fruits and increased and/or improved access via tariff-rate quotas for sensitive agricultural products like beef, poultry, pig meat, sugar, and ethanol.<sup>8</sup>

Table 1. Top ten Mercosur export sectors to the EU and relative U.S. exports to the EU

Nec = not elsewhere classified.

Product (GTAP sector)	Mercosur Exports to the EU		U.S. Exports to the EU	
	Average Export Value 2017-19 (million \$)	Market Share	Average Export Value 2017-19 (million \$)	Market Share
Vegetable oils and fats	6,043	32.6%	588	3.2%
Misc. Minerals (Other Extraction)	5,644	15.5%	1,839	5.1%
Paper products, publishing	3,341	21.4%	3,079	19.7%

<sup>8</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle](#),” June 2019.

Food products nec	3,172	7.4%	2,645	6.2%
Crops nec	2,360	14.6%	322	2.0%
Oil seeds	2,284	25.2%	2,632	29.0%
Oil	2,135	1.0%	8,387	3.7%
Chemical products	1,800	1.5%	25,058	20.7%
Ferrous metals	2,118	5.3%	1,384	3.4%
Bovine meat products	1,437	40.3%	201	5.6%

Source: USITC DataWeb/Census, accessed May 27, 2021; European Commission, [Eurostat, Comext, International Trade](#), accessed April 11, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” updated 2020.

### *U.S. and EU export competition to Mercosur*

An overview of total U.S. and EU exports to Mercosur from 2017 to 2019 shows that several major product groups overlap and demonstrate head-to-head competition between U.S. exports and EU exports to Mercosur. Table 2 shows U.S. exports in relation to the EU’s top ten export product groups. While the majority of these product groups do not represent a significant share of total U.S. exports to Mercosur, the agreement could have an impact on U.S. exports to Mercosur in these categories. This is particularly true of sectors which include EU products that currently face high import tariffs in the Mercosur market (between 20-35 percent) which would be eliminated or otherwise reduced under the agreement: agricultural products including dairy products, chocolates and confectionaries, spirits, and wine; and industrial products including motor vehicles and parts, machinery, chemicals, and basic pharmaceuticals.<sup>9</sup>

*Table 2. Top ten EU export sectors to Mercosur and relative U.S. exports to Mercosur*

Nec = not elsewhere classified.

Product (GTAP sector)	EU Exports to Mercosur		U.S. Exports to Mercosur	
	Average Export Value 2017-19 (million \$)	Market Share	Average Export Value 2017-19 (million \$)	Market Share
Machinery and equipment nec	7,439	33.1%	4,549	20.2%
Chemical products	6,794	15.8%	9,699	22.5%
Motor vehicles and parts	5,197	20.1%	1,765	6.8%
Basic pharma. products	4,868	43.1%	1,797	15.9%
Electrical equipment	3,024	22.9%	1,570	11.9%

<sup>9</sup> EC, “[EU-Mercosur Trade Agreement: Key Facts](#),” June 2019.

Computer, electronic and optical products	2,750	9.8%	7,318	26.1%
Transport equipment nec	2,674	27.2%	862	8.8%
Petroleum, coal products	2,627	14.2%	9,800	53.1%
Metal products	1,380	20.1%	594	8.7%
Rubber and plastic products	1,244	15.9%	780	10.0%

Source: USITC DataWeb/Census, accessed May 27, 2021; European Commission, [Eurostat, Comext, International Trade](#), accessed April 11, 2021; GTAP, [“Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3,”](#) updated 2020.

## Trade in sensitive agricultural products

### *EU-Mercosur Trade*

#### EU TRQs on sensitive agricultural products

Sensitive agricultural products account for about a third of Mercosur agricultural exports to the EU, which were estimated at \$3 billion, on average, between 2016 and 2018.<sup>10</sup> Analyses of the impact of the EU-Mercosur trade agreement, as well as public remarks from trade associations and government officials, have highlighted the potential, but limited, implications this agreement could have in certain sectors deemed sensitive. Among the products considered sensitive by the EU are beef, poultry, sugar, ethanol, honey, and rice (table 3).<sup>11</sup> For these products, the EU has agreed to implement a partial trade liberalization schedule by establishing tariff rate quotas (TRQs) for Mercosur once the agreement enters into force.<sup>12</sup> The agreement also allows the EU to adopt safeguards, which cover about 23 percent of the EU agricultural tariff lines, that would be triggered when a sudden increase of imports results in “serious market disturbances for EU producers.”<sup>13</sup>

<sup>10</sup> Baltensperger and Dadush, [“The European Union-Mercosur Free Trade Agreement: Prospects and Risks,”](#) September 2019, 9.

<sup>11</sup> Baltensperger and Dadush, [“The European Union-Mercosur Free Trade Agreement: Prospects and Risks,”](#) September 2019, 8–9.

<sup>12</sup> Gallina, [Civil Society Dialogue, Meeting on the EU-Mercosur Trade Agreement](#), July 15, 2019; EC, [“EU-Mercosur Trade Agreement: Factsheet on Agriculture,”](#) July 2019.

<sup>13</sup> EC, [“EU-Mercosur Trade Agreement: Factsheet on Agriculture,”](#) July 2019; Baltensperger and Dadush, [“The European Union-Mercosur Free Trade Agreement: Prospects and Risks,”](#) September 2019, 9.

Table 3. EU TRQs for certain sensitive agricultural products from Mercosur

Product	Current situation (as of 2020)	FTA concessions <sup>a</sup>	Phase-in period
Fresh Beef <sup>b</sup>	<ul style="list-style-type: none"> <li>High quality fresh beef quotas (over 40,000 tonnes) for all Mercosur countries with 20 percent in-quota tariff</li> <li>59 percent MFN duty for out-of-quota products</li> </ul>	<ul style="list-style-type: none"> <li>55,000 tons quota for fresh beef from Mercosur with a 7.5 percent duty</li> </ul>	5 years
Frozen Beef <sup>c</sup>	<ul style="list-style-type: none"> <li>High quality frozen beef <i>erga omnes</i> quota of over 60,000 tons with 20 percent in-quota tariff</li> <li>700 tonnes frozen thin skirt from Argentina with 4 percent in-quota duty</li> <li>74 percent MFN duty for out-of-quota products</li> </ul>	<ul style="list-style-type: none"> <li>44,000 tons quota for frozen beef with a 7.5 percent duty</li> </ul>	5 years
Poultry <sup>d</sup>	<ul style="list-style-type: none"> <li>Over 350,000 tons quotas for various poultry products from Brazil with duties ranging from 8.5 percent for preparations of poultry meat to 15.4 percent for salted poultry meat</li> <li>Over 16,000 tonnes <i>erga omnes</i> quota for poultry meat with varying specific duties</li> <li>53 percent MFN duty for out-of-quota products</li> </ul>	<ul style="list-style-type: none"> <li>Duty-free import quota of 180,000 tons for Mercosur products</li> </ul>	5 years
Sugar <sup>e</sup>	<ul style="list-style-type: none"> <li>Over 330,000 tonnes of sugar from Brazil</li> <li>83 percent MFN duty for out-of-quota products</li> </ul>	<ul style="list-style-type: none"> <li>Duty-free access for 180,000 tons of sugar for refining for Brazil</li> <li>Duty-free quota of 10,000 tons for Paraguay</li> </ul>	Immediate
Ethanol	<ul style="list-style-type: none"> <li>21 percent MFN duty</li> </ul>	<ul style="list-style-type: none"> <li>Duty-free quota of 450,000 tons of ethanol for use by the chemical industry</li> <li>Two-thirds reduction of MFN rate for 200,000 tons of ethanol for all other uses (including fuel)</li> </ul>	6 years
Honey	<ul style="list-style-type: none"> <li>17 percent MFN duty</li> </ul>	<ul style="list-style-type: none"> <li>Duty-free access for 45,000 tons of honey</li> </ul>	6 years
Rice	<ul style="list-style-type: none"> <li>8 percent MFN duty</li> </ul>	<ul style="list-style-type: none"> <li>Duty-free quota for 60,000 tons of rice</li> </ul>	6 years

Sources: Grieger, “[The Trade Pillar of the EU-Mercosur Association Agreement](#),” August 2019, 10; EC, “[EU-Mercosur Trade Agreement: Factsheet on Agriculture](#),” July 2019; Mendez-Parra et al., “[Sustainability Impact Assessment](#),” December 2020, 175–326; Huan-Niemi and

Jyrki, “[Mercosur’s Meat Exports to the EU: Assessment of Policies Affecting Trade Flows](#),” June 2009; Ghiotto and Echaide, “[Analysis of the agreement between the European Union and the Mercosur](#),” December 2019, 24.

<sup>a</sup> EC, “[EU-Mercosur Trade Agreement: Factsheet on Agriculture](#),” July 2019.

<sup>b</sup> EC, Commission Implementing Regulation (EU) No 593/2013.

<sup>c</sup> EC, Commission Regulation (EC) No 412/2008; Commission Regulation (EC) No 748/2008.

<sup>d</sup> EC, Commission Regulation (EC) No 1385/2007; Commission Regulation (EC) No 616/2007; EC, Commission Regulation (EC) No 533/2007.

<sup>e</sup> EC, Commission Regulation (EC) No 891/2009.

Note: Current quotas only apply to Brazilian products.

While the EU-Mercosur agreement would eliminate tariffs on about half of the EU imports from the Southern bloc that are not currently eligible for duty-free access, the adoption of the partial liberalization schedule for sensitive agricultural products would limit the overall gains from the agreement.<sup>14</sup> An analysis by the London School of Economics (LSE) looked at the potential impact of the agreement on some of these specific agricultural sectors. The analysis noted the limitations from a computable general equilibrium framework on evaluating the impact on these products resulting, partly, from the complex EU tariff schedule. Specifically, trade barriers in the EU are often non-ad valorem (TRQs, compound or specific tariffs), which affect the trade differently than ad valorem duties based on quota values and country-specific allotments.<sup>15</sup> However, for certain products including beef and sugar, the impact of the increased access for products from Mercosur is expected to be limited due to constraints such as potential output increases in Mercosur countries and the reduced share of the concessions compared to the EU market for these products.

Another study by Bruegel, a Brussels-based think tank, noted that for most products, the new quotas represent a small fraction of the total EU consumption, thus the effect on prices and EU production would be limited. For instance, the TRQ for beef products represents an estimated 1.2 percent of the total EU consumption. Further, EU imports from Mercosur countries already surpass the beef quota, despite a relatively high MFN tariff of 59 percent for fresh beef and 74 percent for frozen beef, thus the expected gains from the agreement would be in the form of savings for Mercosur exporters.<sup>16</sup> In contrast, in the case of ethanol, the TRQ under the EU-Mercosur agreement is likely to result in larger increases of EU imports of the product. The new TRQ included in the EU-Mercosur agreement for ethanol represents about one half of Mercosur exports to the world, thus likely resulting in a substantial increase in exports from the Southern bloc to the EU, as the EU bioplastics and biochemical industries — for which ethanol is a feedstock — expand. This increase could also result in products from third-country suppliers to the EU — including the United States — being replaced with ethanol from Mercosur.<sup>17</sup>

The effects on EU farmers, which the EU’s partial liberalization schedule aims to protect, are expected to be minimal given the limitations of the above-mentioned quotas relative to EU consumption, as well as differentiation between imported products and domestic EU product, among others. For instance, the rice varieties grown in the EU and imported from Mercosur countries are different, thus the expected

---

<sup>14</sup> The analysis also looked at specific sectors in manufacturing and services. Baltensperger and Dadush, “[The European Union-Mercosur Free Trade Agreement: Prospects and Risks](#),” September 2019, 9.

<sup>15</sup> Mendez-Parra et al., “[Final Sustainability Impact Assessment](#),” December 2020, 180.

<sup>16</sup> Similarly, while the TRQ for poultry meat represents an increase in the current export levels from Mercosur, combined with the new TRQ these only represent slightly over 1 percent of EU consumption of poultry meat, thus having a likely limited impact on EU production and prices. In the case of sugar, Mercosur exports already surpass the current quota level, with the new quotas covering about 90 percent of the current level of exports. The additional quota for Paraguay, thus, is not likely to have an impact on the EU market or consumers. Baltensperger and Dadush, “[The European Union-Mercosur Free Trade Agreement: Prospects and Risks](#),” September 2019, 9—11.

<sup>17</sup> Baltensperger and Dadush, “[The European Union-Mercosur Free Trade Agreement: Prospects and Risks](#),” September 2019, 11.

impact on EU rice farmers is low.<sup>18</sup> EU farmers would also be protected through governmental assistance as the EU allocated a 1 billion euros support package in case of market disruptions caused by the agreement. The EU would also maintain its domestic support policy for farmers (known as the Common Agricultural Policy or CAP), although export subsidies would be eliminated.<sup>19</sup>

#### Mercosur TRQs for sensitive agricultural products from the EU

In turn, while MFN tariffs on most EU imports into Mercosur would be eliminated, duties on certain products that currently face high tariffs including wine, chocolate, whiskey and other spirits, biscuits, canned peaches, and soft beverages, would be progressively eliminated. Additionally, zero-duty quotas would be established for certain EU dairy products, including cheese, milk powder, and infant formula (table 4).<sup>20</sup> The agreement also protects geographical indicators (GI) on over 300 EU products, including various wines and cheeses, and on over 200 Mercosur products. Some of these GIs would be protected after grace periods established in the agreement.<sup>21</sup>

*Table 4. Mercosur TRQs for certain sensitive agricultural products from the EU*

Product	Current situation	FTA concessions	Phase-in period
Cheese	28 percent duty	30,000 tons duty-free quota	10 annual stages
Milk powder	28 percent duty	10,000 tons duty-free quota	10 annual stages
Infant formula	18 percent duty	5,000 tons duty-free quota	10 annual stages

Source: EC, “EU-Mercosur Trade Agreement: Factsheet on Agriculture,” July 2019; Ghiotto and Echaide, “Analysis of the agreement between the European Union and the Mercosur,” December 2019.

#### Box 1. EU’s concerns over increased trade in certain agricultural products

While the EU and Mercosur announced a free trade agreement in 2019, it has not yet been ratified by any of the blocs as of May 2021. In addition to all four Mercosur countries, for the FTA to be implemented it has to be ratified by the parliaments of all 27 EU Member States in addition to the European Parliament, after it’s finalized.<sup>a</sup> Adding to the uncertainty of the long ratification process, some EU countries have shown concerns over the implications the agreement could have for EU farming as well as on the environment and human rights, particularly in Brazil. Farmers in countries such as France, Ireland, and Belgium have voiced opposition, mentioning that the tariff reductions and increased quota access for Mercosur products threaten their operations. These farmers—particularly beef and poultry producers—point to lower environmental, labor, and quality and food safety standards in Mercosur countries as a disadvantage for EU producers. The EU Commission, in response, has expressed that EU food safety standards, would apply to all imported product and that the potential impact of the new quotas on certain agricultural products would be limited.<sup>b</sup>

Further, governments and civil society groups in some EU countries have expressed concerns on the potential negative effects that increased EU imports—particularly beef and soy from Brazil—could have on the environment. Specifically, EU governments including France, the Netherlands, and Austria have

<sup>18</sup> EC, “EU-Mercosur Trade Agreement: Factsheet on Agriculture,” July 2019.

<sup>19</sup> Ghiotto and Echaide, “Analysis of the agreement between the European Union and the Mercosur,” December 2019, 28.

<sup>20</sup> EC, “EU-Mercosur Trade Agreement: Factsheet on Agriculture,” July 2019; Grieger, “The Trade Pillar of the EU-Mercosur Association Agreement,” August 2019, 9.

<sup>21</sup> Geographical indicators (GI) are used on products with a specific geographic origin with qualities, reputation, and characteristics mainly derived from this origin. GIs allows producers to use the indicator on their products while protecting them by preventing third parties from using it if their product does not conform to the standards. Ghiotto and Echaide, “Analysis of the agreement between the European Union and the Mercosur,” December 2019, 102



voiced opposition to the deal and a recent survey found broad opposition among the European public.<sup>c</sup> Among their concerns, EU leaders have pointed to the increase in deforestation in the Amazon rainforest (about 35 percent between August 2019 and July 2020) and the record number of wild fires attributed to deforestation efforts registered in 2019 and 2020, as indicators of the potential impact of the agreement, if not addressed.<sup>d</sup> Soybean farming and cattle ranching, as well as sugarcane farming, have been among the main drivers of deforestation in the Amazon Rainforest in Brazil.<sup>e</sup> Since the early 2000s multiple Brazilian administrations have implemented regulations to reduce deforestation. The President of the current administration, Jair Bolsonaro, was elected in July 2018 and has eliminated certain restrictions and enforcement of regulations, which has been linked to the recent increases in deforestation.<sup>f</sup>

Policy changes in Brazil are also reported to have curtailed its potential to meet global commitments on environmental goals, particularly the reduction of greenhouse gas emissions. While Brazil is a party to the Paris Agreement, in which country governments set specific goals to reduce greenhouse gas emissions,<sup>g</sup> experts estimate the country will not be able to meet these due to the recent relaxation in policies and lack of enforcement by the Brazilian government.<sup>h</sup> Brazil's commitments under the Paris Agreement aim to reduce 37 percent of carbon emissions by 2025 (43 percent by 2030) by eliminating illegal deforestation in the Amazon rainforest and restoring and reforesting 12 million hectares of forests by 2030, among other measures. In 2017, Brazil was the seventh largest emitter in the world and data show that almost half of these emissions were from deforestation (46 percent), while agricultural activities accounted for almost a quarter (24 percent) and energy and transportation activities for about 21 percent.<sup>i</sup> In 2019, Brazil's GHG emissions rose 9.6 percent from a year earlier, according to the emissions-monitoring system (SEEG) developed by local environmental NGO Observatorio do Clima. SEEG estimates that deforestation accounted for 44 percent of total GHG emissions in 2019. Emissions from deforestation increased by 23 percent from 2018.

To address this, some EU governments and nongovernmental organizations have called for a delay in the ratification of the EU-Mercosur agreement in order for Mercosur governments, particularly the Brazilian government, to make strong commitments on deforestation to protect the Amazon rainforest.<sup>j</sup> The government of France, specifically, has voiced opposition to the agreement as it was drafted as it does not include provisions "to impose discipline on the practices of the Mercosur countries in the fight against deforestation."<sup>k</sup> As a result the EU Commission has initiated talks with the Brazilian government before submitting the agreement for ratification.<sup>l</sup> However, the sustainability impact assessment conducted by the London School of Economics and commissioned by the EU Commission estimated that the expected output increase resulting from increased access into the EU would not be substantial, thus the environmental impact directly from the FTA would be small.<sup>c</sup> Further, the EU-Mercosur agreement includes a Trade and Sustainable Development (TDS) chapter, which has been included in EU agreements since 2009.<sup>m</sup> The TDS in the EU-Mercosur agreement includes a provision in which parties agree to uphold their Paris Agreement commitments. However, while some analyses point to this chapter as a means to reduce the environmental impact from the agreement, others highlight the lack of mechanisms for doing so, such as penalties or trade actions, and suggest the inclusion of provisions that would allow parties to enforce the commitments included in the agreement.<sup>n</sup>

<sup>a</sup> Grieger, "[The Trade Pillar of the EU-Mercosur Association Agreement](#)," August 2019, 11.

<sup>b</sup> Baltensperger and Dadush, "[The European Union-Mercosur Free Trade Agreement: Prospects and Risks](#)," September 2019, 13.

<sup>c</sup> Gonzales, "[European Public Roundly Rejects Brazil Trade Deal Unless Amazon Protected](#)," February 16, 2021.

<sup>d</sup> DW, "[Merkel: Amazon deforestation threatens EU-Mercosur deal](#)," Accessed September 27, 2021; Boadle, "[Brazil pledge on Amazon Needed to Save EU-Mercosur Trade Deal -EU diplomat](#)," December 7, 2020.

<sup>e</sup> Jusys, "[A Confirmation of the Indirect Impact of Sugarcane on Deforestation in the Amazon](#)," March 1, 2017.

<sup>f</sup> Casado and Londoño, "[Under Brazil's Far-Right Leader, Amazon Protections Slashed and Forests Fall](#)," July 28, 2019.

<sup>g</sup> The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. UNCC, [“The Paris Agreement,”](#) accessed September 29, 2021.

<sup>h</sup> Brazilian president Jair Bolsonaro had criticized the Paris Agreement and had promised to withdraw from it during his campaign for the presidency (although later backed off). However, his government has been criticized for taking a lax stance on deforestation. There have also been reports of increased illegal activity in Brazil that result in deforestation, including the presence of mining activity in indigenous lands and areas protected by law. Mendonça, [“Bolsonaro’s Brazil Unlikely to Achieve Paris Agreement Goals: Experts,”](#) September 22, 2019; Branford, [“Yanomami Amazon reserve invaded by 20,000 miners; Bolsonaro fails to act,”](#) July 12, 2019; HRW, [“EU/Brazil: Delay Trade Deal Pending Amazon Crisis Response,”](#) July 6, 2020.

<sup>i</sup> Mendonça, [“Bolsonaro’s Brazil Unlikely to Achieve Paris Agreement Goals: Experts,”](#) September 22, 2019; Branford, [“Yanomami Amazon reserve invaded by 20,000 miners; Bolsonaro fails to act,”](#) July 12, 2019.

<sup>j</sup> Additionally, in October 2020 the European Parliament symbolically rejected the agreement over these concerns. HRW, [“EU/Brazil: Delay Trade Deal Pending Amazon Crisis Response,”](#) July 6, 2020; Boffey, [“EU Seeks Amazon Protections Pledge from Bolsonaro In Push to Ratify Trade Deal,”](#) October 20, 2020; European Parliament, [“Amazon Deforestation and EU-Mercosur Deal,”](#) October 29, 2020.

<sup>k</sup> Boffey, [“EU Seeks Amazon Protections Pledge from Bolsonaro In Push to Ratify Trade Deal,”](#) October 20, 2020;

<sup>l</sup> Boadle, [“Brazil pledge on Amazon Needed to Save EU-Mercosur Trade Deal -EU diplomat,”](#) December 7, 2020.

<sup>m</sup> Lowe, [“The EU Should Reconsider Its Approach to Trade and Sustainable Development,”](#) October 31, 2019.

<sup>n</sup> Mendez-Parra et al., [“Final Sustainability Impact Assessment,”](#) December 2020; Ghiotto and Echaide, [“Analysis of the agreement between the European Union and the Mercosur,”](#) December 2019; Lowe, [“The EU Should Reconsider Its Approach to Trade and Sustainable Development,”](#) October 31, 2019.

### *Overlap with U.S. agricultural trade*

The EU is an important market for U.S. agricultural exports, which averaged \$15.4 billion per year between 2015 and 2019, according to a U.S. Department of Agriculture (USDA) analysis. The USDA analysis estimated that about \$4 billion, or over 25 percent, of these exports face direct competition with products from Mercosur, which means these agricultural products would be at a disadvantage if the agreement enters into force.<sup>22</sup>

U.S. exports of agricultural products, including sensitive agricultural products with increased access for Mercosur countries under the agreement, often face high tariffs and limited quota access in the EU, as well as non-tariff measures when exporting to the bloc. For instance, U.S. exports of beef and beef products had been limited as the EU prohibits the use of synthetic hormones in cattle. In 2020, however, U.S. producers began to benefit from a country-specific quota negotiated between the United States and the EU, which allowed 35,000 tons of hormone-free U.S. beef to enter duty-free.<sup>23</sup> Under the EU-Mercosur agreement, Mercosur exporters would be able to ship an additional 55,000 tons of beef free of duty, which is likely to expand the already large share of EU imports of the commodity that the bloc captures. In 2017-19, Mercosur countries captured, on average, 72 percent of the EU beef imports, compared to an average of 11 percent for U.S. beef (figure 9). Sanitary and phytosanitary measures also affect U.S. exports to the EU, including poultry (particularly chicken) products. U.S. poultry producers use a chemical wash to rinse carcasses and eliminate pathogens from entering the supply chain. However, EU regulations prohibit the use of these washes, thus preventing imports of U.S. product from entering EU commerce.<sup>24</sup> In contrast, Mercosur exports accounted for about 41 percent, on average, of the total EU imports of poultry in 2017-19.<sup>25</sup>

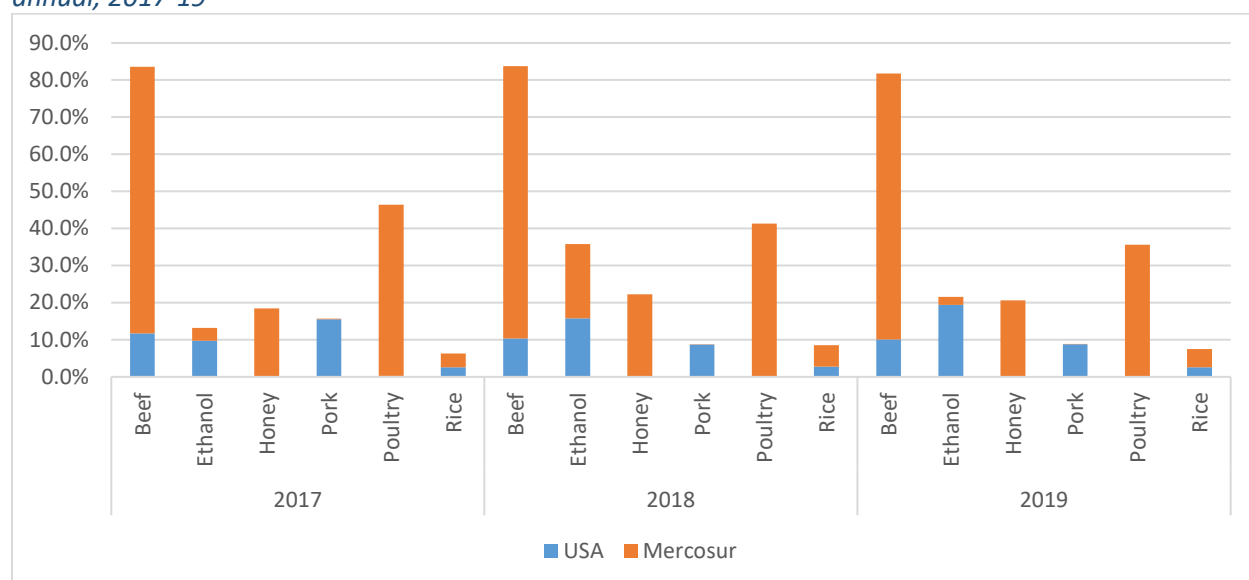
<sup>22</sup> USDA, FAS, [European Union \(EU\)-MERCOSUR Trade Agreement: A Preliminary Analysis](#), January 7, 2021.

<sup>23</sup> The EU banned the use of certain synthetic growth hormones and ractopamine, which were approved for use in the United States. This ban was subjected to a dispute at the WTO and resulted in the implementation of a hormone-free quota for 45,000 tons of beef imported into the EU. However, the quota was often exhausted quickly, preventing high-quality U.S. beef from entering free of duty into the European market. EC, [“The European Union and the United States reach an agreement on imports of hormone-free beef,”](#) June 14, 2019; USMEF, [“Revised Duty-Free Quota Opens New Doors for U.S. Beef In Europe,”](#) March 5, 2020. For more information on the dispute, see CRS, [The U.S.-EU Beef Hormone Dispute](#), January 14, 2015.

<sup>24</sup> Beattie, [“U.S. Wants the EU to Accept Chemical-Washed Chicken as Part of Trade Deal,”](#) January 27, 2020.

<sup>25</sup> USITC DataWeb/Census, accessed May 27, 2021; GTAP, [“Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3,”](#) 2016.

Figure 9. EU imports of certain sensitive agricultural products from the United States and Mercosur, annual, 2017-19



Source: USITC DataWeb/Census, accessed May 27, 2021; GTAP, “[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#),” 2016. Note: Trade in sensitive agricultural products is approximated to include the following products by HS 4-digit headings and 8-digit subheadings as follows: beef includes HS headings 0201 and 0202; poultry includes HS heading 0207; pork includes HS heading 0203; ethanol includes HS heading 2207; rice includes HS heading 1006; sweet corn includes HS subheading 0709.99.45; sugar includes HS subheadings 1701.13.20 and 1701.14.20; and honey includes HS subheading 0409.00.00.

While for most of the agricultural products subject to TRQs in the EU-Mercosur agreement Mercosur countries account for a higher market share compared to U.S. products, for a few, including ethanol, the United States is a larger supplier to the EU. By volume, U.S. ethanol represented over 667,000 tons in 2017-19, on average, with ethanol for fuel accounting for 51.9 percent and industrial ethanol accounting for 48.1 percent. U.S. exports of fuel ethanol to the EU grew 61.7 from 2017-19, while U.S. exports of industrial ethanol grew 35.5 percent in the period.<sup>26</sup> The FTA, however, grants increased access equal to 650,000 tons of the product for Mercosur countries, 30.7 percent of ethanol for fuel use and 69.2 percent of industrial ethanol for the chemical industry. Although the EU market for industrial ethanol product is expected to continue to grow, it is likely that such an expansion with a reduced duty for Mercosur countries —compared to an average tariff of 21 percent for U.S. ethanol,— results in a reduction in EU imports of U.S. ethanol. The fuel ethanol segment also faces competition from EU ethanol, as most of the bloc’s production is for fuel use.<sup>27</sup>

In contrast, EU and U.S. exports do not overlap as much in the Mercosur market. According to the USDA, about 60 percent of U.S. exports to the bloc were soybeans and ethanol, and the EU is not a large exporter of these products. However, the agreement, which, among other things, protects over 300 EU GIs in Mercosur, could limit growth in U.S. exports of intermediate and processed consumer goods, including wine and dairy products. Table 5 highlights the U.S. products that a USDA analysis identified as being at higher risk of being affected by the EU-Mercosur agreement.<sup>28</sup>

<sup>26</sup> USITC DataWeb/Census, accessed May 27, 2021.

<sup>27</sup> EC, “[EU-Mercosur Trade Agreement: Factsheet on Agriculture](#),” July 2019.; Ghiotto and Echaide, “[Analysis of the agreement between the European Union and the Mercosur](#),” December 2019.

<sup>28</sup> USDA, FAS, [European Union \(EU\)-MERCOSUR Trade Agreement: A Preliminary Analysis](#), January 7, 2021.

Table 5. U.S. products estimated to be threatened by the EU-Mercosur agreement

Product	U.S. share of Mercosur imports (%)	EU share of Mercosur imports (%)	Average Weighted Tariff or Equivalent (%)
Other Intermediate Products (including enzymes, peptones, wheat gluten and hops)	13	23	14
Food Preps & Misc.	14	32	14.6
Dairy Products	7	15	16.2
Feeds & Fodders	12	30	8
Processed Vegetables	4	28	13

Source: USDA, FAS, [European Union \(EU\)-MERCOSUR Trade Agreement: A Preliminary Analysis](#), January 7, 2021.

## Non-Tariff Measures

### Introduction

The EU-Mercosur trade agreement, aside from reducing and removing tariffs, also focuses on non-tariff measures (NTMs). NTMs can impact trade directly or indirectly by restricting trade (for example, import quotas), but they can also facilitate trade by aligning the regulations of particular industries across countries with that of internationally recognized best practices. Relevant NTMs in the EU and Mercosur trade agreement can be categorized into three broad groups: (1) technical, (2) non-technical (both of which are import-specific), and (3) export-related measures. Technical measures refer to product-specific qualities, such as sanitary or environmental protection measures, while non-technical measures refer to trade requirements, such as customs procedures.<sup>29</sup> All three categories are relevant to the EU and Mercosur and were central in the negotiations between the trading blocs.

This paper builds on recent studies and work done to derive *ad valorem* equivalents (AVE) for NTMs outlined by the agreement. This paper uses databases from the World Bank, United Nations Conference on Trade and Development (UNCTAD) Trade Analysis Information System (TRAINS), as well as government and sector data, to model, quantify, and estimate the average impact of core NTMs on relevant GTAP sectors via the variable ‘ams’ in GTAP database. A discussion of NTMs relevant to the agreement and potential impact on U.S. industries follows below.

### NTMs Relevant to the EU

The EU applies a variety of requirements and procedures to goods imported into its customs union, ranging from the presentation of import certificates for agricultural products to the affixing of the CE marking indicating that the product complies with conformity requirements.<sup>30</sup> The measures are vast and are aimed at protecting public health, consumers’ demands, the environment, etc. The range of measures impact all product groups that Mercosur countries and the United States export to the EU. Below is an overview of the regulatory framework and import regimes that are classifiable as NTMs, and which are relevant to the top export product groups originating in Mercosur and the United States with the EU as their destination.

<sup>29</sup> ITC, [“NTM Survey Classification,”](#) accessed April 11, 2021.

<sup>30</sup> EC, [“Access2Markets–My Trade Assistant,”](#) accessed May 19, 2021.

### *EU NTMs Applied to Major Product Groups from Mercosur*

In terms of value, the primary product groups of EU imports from Mercosur in 2019 were vegetable oils and fats (14.6 percent), miscellaneous minerals (other extraction; 12.9 percent), paper products for publishing (7.7 percent), and miscellaneous food products (7.6 percent). Imports of products in these groups are subject to the EU's overall regulatory framework for companies doing business in the EU, as well as specific legislation that is directly applicable to certain products in these GTAP categories. The specific product groups discussed below is a selection of product groups with high trade volumes between the trade blocs and product groups facing relatively higher NTM AVEs.

#### *EU NTMs on imports of vegetable oils and fats*

The EU applies technical and nontechnical NTMs to vegetable oils and fats produced and sold in the EU market. Overall, around 3,090 NTMs exist that apply to this product group with the vast majority of measures related to sanitary and phytosanitary (SPS) regulations. In terms of AVEs, these overall measures translate to approximately 22.4 percent for exports from Brazil, 0.4 percent for exports from Argentina, 0.2 percent for exports from Uruguay, and .01 percent for exports from Paraguay. Of these 3,090 NTMs, approximately 385 labeling requirements exist for vegetable oils and fats sold in the EU market. Labeling requirements include measures regulating the size, color, and kind of printing on packages as well as labels defining information for the consumer about the product, such as instructions on use, safety, and security advice. The vegetable oils and fats product group includes products like flours and meals of oilseeds, and which are required to comply with the EU's labeling rules. There are two types of labeling that apply to these products, such as the general rules on food labeling and certain provisions for specific groups of products, including labeling of genetically modified food, labeling of food additives and flavorings, and labeling of food products for particular nutritional purposes.<sup>31</sup> Similarly, around 320 SPS measures specific to food labeling exist for this product group. These measures define the information that is to be provided to the consumer and which is directly related to food safety, and includes provisions mandating that labels indicate specific storage conditions and any allergens that could be potentially dangerous to consumers.<sup>32</sup> Other significant SPS measures governing the production and sale of vegetable oils and fats in the EU include authorization requirements for importers for SPS reasons, tolerance limits for residues of or contamination by certain non-microbiological substances, restricted use of certain substances in foods and feeds and their contact materials, hygienic requirements, and others.

SPS measures impact many of the vegetable oils and fats products the EU imports from Mercosur, and the agreement's goals to harmonize these measures and the relevant SPS certificates could have an impact on trade between the two blocs. Generally, both parties agreed to several trade facilitation measures, including adopting and maintaining procedures allowing for expedited SPS import checks and simplifying the import and approval procedures.<sup>33</sup>

---

<sup>31</sup> General rules on food labeling include the name of the food, list of ingredients, net quantity, minimum durability rate, storage conditions or conditions of use, country of origin, instructions of use, and nutrition declaration. EC, "[Access2Markets—My Trade Assistant](#)," accessed May 19, 2021.

<sup>32</sup> Labeling requirements that fall under sanitary and phytosanitary measures include the legal name of the food product, a list of ingredients that includes all ingredients (including additives or enzymes) in descending order of weight, nutrition declaration (energy value, amounts of fat, saturates, carbohydrate, sugars, protein and salt), and others. EC, "[Access2Markets—My Trade Assistant](#)," accessed May 19, 2021.

<sup>33</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures](#)," June 2019.

### EU NTMs on imports of miscellaneous minerals

According to World Integrated Trade Solutions (WITS)—a collaborative trade and tariff software produced and maintained by the World Bank, UNCTAD and other international organizations—there are 859 technical and non-technical NTMs that apply to miscellaneous minerals marketed and sold in the EU. In terms of AVEs, these overall measures translate to approximately 0.2 percent for exports from Uruguay, 0.8 percent for exports from Paraguay, and less than .01 percent for exports from Argentina and Brazil. Of these 859 different NTMs, 229 different NTMs related to product quality, safety, and performance requirements apply to the miscellaneous minerals category before they can be produced and marketed in the EU.<sup>34</sup> These quality, safety, and performance requirements apply to Mercosur exports of miscellaneous minerals to the EU as many of these products are intended for construction purposes. Many of the miscellaneous mineral imports from Mercosur to the EU include products intended for construction, such as tarred macadam and sintered magnesia. Besides having to comply with the general requirements associated with the EU's import regime, the EU also has product quality, safety, and performance requirements for construction products. The EU outlines specific conditions for the marketing of construction products in its Construction Products Regulation (CPR). The CPR applies to any construction product or kit produced and marketed for permanent construction works like buildings and civil engineering projects. Also applicable to EU imports from Mercosur of miscellaneous minerals are 240 instances of certification requirements.<sup>35</sup> Certification requirements offer conformity with a given regulation. Certification of conformity is required by the EU of miscellaneous minerals imported into the EU with origin in Mercosur.

The EU-Mercosur agreement's technical barriers to trade chapter outlines as an objective the identification, prevention, and elimination of technical barriers like the ones applicable to miscellaneous minerals. In particular, the EU and Mercosur agreed to the use of relevant international standards as a basis for their technical regulations including any relevant conformity assessment elements. Both parties agreed to general reciprocity in a supplier's declaration of conformity whether the conformity assessment bodies are located in the territories of Mercosur or the EU. In general, the agreement intends to harmonize and establish conformity assessment procedures that are in accordance and accredited by the EU and Mercosur.<sup>36</sup>

### EU NTMs on imports of paper products for publishing

According to WITS, there are 916 technical and non-technical NTMs that apply to paper products for publishing marketed and sold in the EU. In terms of AVEs, these overall measures translate to approximately 1.8 percent for exports from Brazil, 0.9 percent for exports from Argentina, 0.4 percent for exports from Paraguay, and less than .01 percent for exports from Uruguay. The vast majority of these measures include the prohibition or control of certain imports for non-economic reasons, such as security and the protection of health and the environment.<sup>37</sup> Traceability requirements also make up a significant portion of the total NTMs to which imports of paper products for publishing are subjected in

---

<sup>34</sup> B7 – Product quality, safety or performance requirements.

<sup>35</sup> Other technical and non-technical NTMs that apply to EU imports from Mercosur include labeling requirements (85 instances), restricted use of certain substances in foods and feeds and their contact materials (63 instances), and non-automatic import-licensing procedures other than authorizations covered under the chapters on sanitary and phytosanitary measures and technical barriers to trade (43 instances). WITS, "[Non-Tariff Measure Data: EU 2018](#)," Accessed April 27, 2021; GTAP, "[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#)," updated 2020; UNCTAD, [International Classification of Non-Tariff Measures: 2019 Version](#), 2019.

<sup>36</sup> [https://trade.ec.europa.eu/doclib/docs/2019/july/tradoc\\_158153.%20Technical%20Barriers%20to%20Trade.pdf](https://trade.ec.europa.eu/doclib/docs/2019/july/tradoc_158153.%20Technical%20Barriers%20to%20Trade.pdf)

<sup>37</sup> WITS, "[Non-Tariff Measure Data: EU 2018](#)," Accessed April 27, 2021; GTAP, "[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#)," updated 2020; UNCTAD, [International Classification of Non-Tariff Measures: 2019 Version](#), 2019.



the EU. Specifically, requirements relating to the disclosure of information on the origin of materials used in the final product apply to most of this product group. For example, mechanical wood pulp (HS code 4701.00) is subject to import requirements related to the control of illegal timber and timber products.<sup>38</sup> The agreement does not relax these measures. Instead, the trade and sustainable chapter of the agreement specifically calls out the importance of sustainable forest management. This is addressed in the chapter through the implementation of measures to combat illegal logging and related trade, specifically reference commitments made by EU and Mercosur countries as part of the Paris Agreement.<sup>39</sup>

#### EU NTMs on imports of miscellaneous food products

Miscellaneous food products face a significant amount of technical NTMs, specifically EU imports from Argentina and Brazil. According to WITS, there are nearly 25,000 technical and non-technical NTMs that apply to this product group. In terms of AVEs, these overall measures translate to approximately 7.8 percent for exports from Brazil, 40.9 percent for exports from Argentina, 2.5 percent for exports from Uruguay, and 7.0 percent for exports from Paraguay. The two primary NTM measures that impact EU imports from Mercosur are labeling requirements directly related to food safety and labeling requirement measures regulating the size, kind, color and other technical information on packages and labels. In each of these NTM categories, there are approximately 3,000 measures that impact miscellaneous food products imported from Mercosur. Also significant to this product group are NTMs regulating traceability requirements, including measures regarding the origin of materials, processing history, and the distribution and location of products after delivery. Overall, there are approximately 2,900 NTMs governing traceability requirements for miscellaneous food products entering the EU market. For example, one of the products in this category is chocolate and other food preparations containing cocoa in blocks, slabs, or bars (HS code 1806.32), which is subject to specific import requirements ranging from health control of genetically modified food and foodstuffs of non-animal origin to labeling and traceability.<sup>40</sup>

#### EU NTMs on imports of bovine meat products

Bovine meat products imports from Mercosur face significant NTMs due to the calculated AVEs and the volume and distribution of trade affecting the majority of Mercosur countries. According to WITS, there are approximately 1,350 NTMs that apply to this product group. In terms of AVEs, these overall measures translate to approximately 7.0 percent for exports from Brazil, 8.7 percent for exports from Argentina, 12.1 percent for exports from Uruguay, and less than .01 percent for exports from Paraguay. The two primary NTM measures that impact EU imports of bovine meat products from Mercosur are labeling requirements directly related to food safety and labeling requirement measures regulating the size, kind, color and other technical information on packages and labels. Combined, these NTM categories account for approximately 330 measures that impact bovine meat products imported from Mercosur. Beyond the labeling requirements, there are also other substantial SPS measures applied to this product group. For example, there are prohibitions or restrictions of imports for SPS reasons from specific geographical locations, and tolerance limits for residues of or contamination by certain non-microbiological substances like fertilizers, pesticides, and certain chemicals and metals in food and feed

---

<sup>38</sup> EC, "[Access2Markets—My Trade Assistant](#)," accessed May 19, 2021.

<sup>39</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Trade and Sustainable Development](#)," June 2019.

<sup>40</sup> EC, "[Access2Markets—My Trade Assistant](#)," accessed May 19, 2021.

used during their production process.<sup>41</sup> Also significant to this product group are NTMs regulating traceability requirements, including measures regarding the origin of materials, processing history, and the distribution and location of products after delivery. Overall, there are approximately 120 NTMs governing traceability requirements for bovine meat products entering the EU market. For example, one of the products in this category is high quality beef and veal carcasses and half-carcasses, fresh or chilled (HS code 0201.10). This product is subject to a range of import controls, including control of contaminants in foodstuffs, pesticide residues, and residues of veterinary medicines in animals and animal products.<sup>42</sup>

### NTMs Relevant to Mercosur

Mercosur also has an import requirement regime and procedures for goods imported into its customs union and its specific member countries. Prior to the finalization of the EU-Mercosur agreement, however, disparate approaches to technical and non-technical measures in its member countries have contributed to limited harmonization across Mercosur. The divergent policy measures and import controls in each country has contributed to barriers to trade resulting in limited intraregional trade, which has had limited growth since the establishment of Mercosur in 1991.<sup>43</sup> The measures are vast and are aimed at protecting public health, consumers' demands, the environment, but are not fully integrated and harmonized across Mercosur. For example, NTMs diverge most significantly between the more regulated markets, Brazil and Argentina, and the other Mercosur countries. Beyond this divergence, Uruguay is closer to NTM harmonization with Argentina and Brazil, but it converges more with Argentina than Brazil.<sup>44</sup> The result is a range of NTMs and AVEs specific to each Mercosur country. Below is an overview of the regulatory framework and import regimes that are classifiable as NTMs, and which are relevant to the top export product groups originating in the EU and the United States with Mercosur as their destination.

### *Mercosur NTMs Applied to Major Product Groups from the EU*

In terms of value, the primary product groups of EU exports to Mercosur in 2019 were machinery and equipment (16.8 percent), chemical products (15.6 percent), basic pharmaceutical products (11.0 percent), Motor vehicles and parts (11.0 percent), and electrical equipment (6.5 percent). Imports of merchandise in these groups are subject to Mercosur's overall regulatory framework for companies doing business in the Mercosur, as well as specific legislation that may vary between Mercosur countries and are directly applicable to certain products in these GTAP categories. The specific product groups discussed below is a selection of product groups with high trade volumes between the trade blocs and product groups facing relatively higher NTM AVEs.

### Mercosur NTMs on imports of machinery and equipment

Machinery and equipment exports from the EU face various technical and non-technical NTMs, specifically EU exports to Argentina and Brazil, countries which have a domestic industry in this sector.<sup>45</sup>

---

<sup>41</sup> There are approximately 400 combined SPS NTMs related to geographical restrictions on eligibility for SPS reasons and tolerance limits for residues of certain substances. WITS, "[Non-Tariff Measure Data: EU 2018](#)," Accessed April 27, 2021; GTAP, "[Concordance – six-digit HS sectors to GTAP sectors: UN HS GSEC3](#)," updated 2020; UNCTAD, *International Classification of Non-Tariff Measures: 2019 Version*, 2019.

<sup>42</sup> Other import requirements include health control of genetically modified food, health control of products of animal origin for human consumption, traceability, labeling of foodstuff, and wildlife regulatory measures of certain endangered species of animals. EC, "[Access2Markets–My Trade Assistant](#)," accessed May 19, 2021.

<sup>43</sup> UNCTAD, *Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond*, 2017, ix-x.

<sup>44</sup> UNCTAD, *Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond*, 2017, x-xi.

<sup>45</sup> UNCTAD, *Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond*, 2017, 12.



Included in this list of NTMs are import quantity controls, foreign exchange controls, and licensing schemes.<sup>46</sup> In terms of AVEs, technical NTMs in Mercosur countries translate to approximately 1.7 percent for EU exports to Argentina, 4.9 percent for products entering Brazil, 0.08 percent in Uruguay, and negligible in Paraguay. Non-technical NTMs applied in these countries translate to approximately 6.1 percent in Argentina, 3.6 percent in Brazil, 0.04 percent in Uruguay, and negligible in Paraguay.

## Technical NTMs in the Agreement

### *Sanitary and Phytosanitary Measures (SPS)*<sup>47</sup>

The SPS chapter of the agreement reaffirms WTO obligations as defined in the WTO SPS Agreement, but also goes beyond the SPS Agreement and requires the EU and Mercosur to apply definitions adopted by the Codex Alimentarius Commission (Codex), the World Organization for Animal Health (OIE), and the International Plant Protection Convention (IPPC).<sup>48</sup> In general, the agreement would set the importing party's SPS requirements at the same level for the entire territory of the exporting party. This would harmonize the SPS measures across member countries and ensure a proportionate application of the requirements without risking arbitrary or unjustifiable discrimination between members of the EU and Mercosur. The parties also agreed that any fees imposed for the procedures on imported products are equitable in relation to any fees charged on like domestic products or products originating in any other WTO Member.<sup>49</sup> The chapter also references the precautionary principle, allowing the EU and Mercosur governments to regulate food safety and take measures to protect the health of their citizens even when the scientific evidence is not conclusive on whether the imported food is safe. The SPS chapter also includes an agreement on the regionalization principle. This principle states that trade can continue despite animal disease outbreaks if the exporting regions can demonstrate that they are not impacted by the disease. This could have an adverse impact on several U.S. industries exporting to Mercosur countries. For example, Brazil has not adopted the regionalization principle for U.S. pork imports and neither has Argentina for U.S. poultry imports. Mercosur's agreement to adopt the regionalization principle could potentially impact U.S. agricultural products to Mercosur trade partners.

Beyond the precautionary principle, the agreement would also establish specific measures meant to facilitate trade between the EU and Mercosur, but does not address other trading partners and therefore may not be applicable to SPS measures applied to third countries. For example, Mercosur and the EU may require the approval of the establishments for the import of animals, animal products, products of animal origin and animal by-products. The agreement states a variety of ways that would facilitate the approval process, including granting approval without prior inspections of individual establishments, requiring the importing party to approve the imports from the proposed establishments within 40 working days following the receipt of the approval request, and making the list of approved establishments publicly available.<sup>50</sup> Also specific to Mercosur and the EU, the agreement states that each party has the right to carry out verifications of the official SPS control system, including the right to conduct verification visits. The agreement would also establish an SPS subcommittee comprised of representatives from the EU and Mercosur and would address issues raised by the

---

<sup>46</sup> UNCTAD, *Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond*, 2017, 32.

<sup>47</sup> EC, "EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures," June 2019.

<sup>48</sup> According to the text of the agreement, nothing in the SPS chapter precludes Mercosur or the EU from the rights and obligations each party has under the WTO SPS Agreement. The definitions applicable to the agreement's SPS chapter are those adopted by the WTO's SPS Agreement, Codex, OIE, and IPPC. Definitions set out in the WTO SPS Agreement would prevail in the event of any inconsistencies between the WTO SPS Agreement and those agreed by both the EU and Mercosur or CODEX, OIE, and IPPC. EC, "EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures," June 2019, 2–3.

<sup>49</sup> EC, "EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures," June 2019, 3–4.

<sup>50</sup> EC, "EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures," June 2019, 4–5.

implementation of the SPS chapter, monitor the implementation process, and provide a venue to discuss problems from the application of the SPS measures.<sup>51</sup>

### *Conformity Assessment*

The agreement would establish general principles on conformity assessment. First, it promotes the use of first-party conformity assessment and transparency of such procedures by publishing approved procedures and the approved conformity assessment bodies. The EU and Mercosur, however, take different conformity assessment approaches when it comes to certain areas, such as energy efficiency, electrical safety, hazardous substances, and electromagnetic compatibility. In these cases, the EU will continue to use suppliers' declarations of conformity, and Mercosur committed to accept test results by EU conformity assessment bodies. This commitment on behalf of Mercosur could facilitate EU exports in the electric and electronic sectors, potentially impacting U.S. exports of products ranging from equipment for use for radiology or medical purposes to machinery and specialized maritime, railway, aviation and vehicle equipment.<sup>52</sup>

### *Non-Technical NTMs*

#### *Import/Export Monopolies*

The agreement states that both Uruguay and Brazil reserve the right to maintain and designate import and export monopolies. Specifically, Uruguay's state oil company, ANCAP (Administración Nacional de Combustibles Alcohol y Portland), will maintain an import and export monopoly in the hydrocarbons and derivatives sector. In the case of Brazil, it will reserve the right to maintain and designate import and export monopolies in the petroleum, gas, and other hydrocarbons sector and the nuclear minerals sector.<sup>53</sup>

#### *Intellectual Property*

Aside from the elimination of tariffs on agri-food products like sparkling wine and still wines, the agri-food sectors in the EU and Mercosur will also see protection for over 350 European products with protected designation of origin (PDO) and protected geographical indication (PGI), and over 200 Mercosur products with geographical indications (GI).<sup>54</sup> The agreement allows for the registration of GIs that establish property rights for EU products such as Prosciutto di Parma, Irish Whiskey, Prosecco, French cheese from Hervé, Austrian Tyrolean speck, and Mercosur products such as Mendoza wine from Argentina, Norte Pioneiro do Paraná coffee from Brazil, Chorizo Sanjuanino from Paraguay, and Las Brujas wine from Uruguay.<sup>55</sup> The agreement would make it illegal to sell imitations as the use of GI term for non-genuine GI products will be banned and using expressions such as *type*, *kind*, *imitation*, *style*, or something to the effect will be disallowed. Also prohibited would be the use of misleading flags, images, or symbols that would suggest a false geographical origin.

---

<sup>51</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Sanitary and Phytosanitary Measures](#)," June 2019, 14.

<sup>52</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Technical Barriers to Trade](#)," June 2019.

<sup>53</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Annex 3: Import/Export Monopolies](#)," June 2019.

<sup>54</sup> Geographical indications establish intellectual property rights for specific products, whose qualities are specifically linked to the area of production. PDO (food and wine), PGI (food and wine), and GI (spirit drinks and aromatized wines) all fall under the geographical indications system. The differences between PDO and PGI revolve around how much of the product's raw materials must come from a geographic area or how much of the production process must take place within a specific region. EC, "[Quality Schemes Explained: Geographical Indications](#)," accessed April 28, 2021.

<sup>55</sup> EC, "[EU-Mercosur Trade Agreement: Agreement in Principle—Annex 1: Legislation of the Parties](#)," June 2019.

### *Rules of Origin*

The Chapter on rules of origin defines requirements for originating products including whole obtained products, the absorption rule, and the principle of territoriality. Claims for preferential tariff treatment must be based on a statement of origin by the exporter (with a transitional period of maximum five years for Mercosur). The agreement will also require EU exporters to register in the Registered Exporter system (REX).<sup>56</sup> Product specific rules of origin are also an important part of the agreement, in particular key EU and Mercosur export sectors. These include rules of origin for cars and car parts as well as most machinery; rules for chemicals based on primary chemical processes; and rules on double transformation for textiles and clothing, which take into consideration inputs to the final good from EU and Mercosur industries.<sup>57</sup>

### *Trade Remedies*

The trade remedies chapter consists of affirming that the WTO trade defense instruments (anti-dumping, anti-subsidy, and global safeguards) will remain at the disposal of EU and Mercosur countries, while also providing additional bilateral safeguard measures. The text provides for imposing a lower duty than the dumping/subsidy margin if this lower duty is sufficient to deal with the injury caused by the subsidized or dumped imports (the so-called “lesser duty rule”).<sup>58</sup> The agreement also includes a bilateral safeguard clause that could provide a remedy to economic injury by significant or unexpected increases in preferential imports resulting from the trade agreement. This specific clause has a time limitation of up to 18 years from the entry into force of the agreement, and would only allow for the suspension of preferential treatment for imports during a period of up to two years, with a possible extension of two more years.<sup>59</sup>

### *Precautionary Principle*

The agreement states that governments in the EU and Mercosur have the right to regulate imports on the basis of the precautionary principle. The inclusion of the precautionary principle, specifically detailed in the chapter related to trade and sustainable development, means that governments have a legal right to act accordingly to protect human, plant or animal health, or labor conditions and the environment, when faced by risks associated with the agreement even when scientific evidence is inconclusive.

### *Public Procurement*

The agreement between the trading blocs addresses government procurement restrictions, especially measures controlling the purchase of goods and services by government agencies in Mercosur and EU countries. The agreement would cause the EU and Mercosur, and their respective procuring entities, to accord immediate and unconditional equal treatment to the goods and services of their counterparts and their suppliers offering such goods and services. In essence, the EU and Mercosur agreed to not treat a locally established supplier less favorably than another locally established supplier on the basis of degree of foreign affiliation to the other trading bloc, and to not discriminate against a locally established supplier on the basis that the goods and services offered by the supplier for a particular procurement are goods or services of the other trading bloc.<sup>60</sup> The agreement will make it easier for Mercosur and EU firms to bid for and win government contracts. This could be especially beneficial to EU firms as the Mercosur public procurement market has yet to open to any other non-Mercosur

---

<sup>56</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Protocol on Rules of Origin](#),” June 2019.

<sup>57</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Product Specific Rules of Origin](#),” June 2019.

<sup>58</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Trade Defense and Global Safeguards](#),” June 2019.

<sup>59</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Bilateral Safeguard Measures](#),” June 2019.

<sup>60</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Government Procurement](#),” June 2019.

trading partner and only recently began to liberalize internally.<sup>61</sup> The EU and Mercosur offered reciprocal access to their suppliers at the central level, which includes procurement by the EU, central government contracting authorities in EU Member States, and central government ministries and other governmental and federal agencies in Mercosur. Further, both blocs committed to working on opening their procurement market at sub-central levels (entities at state, province or municipal) with a goal to conclude this sub-central process at the latest two years after the agreement enters into force.<sup>62</sup> The agreement also establishes a subcommittee on government procurement comprised of EU and Mercosur representatives with the goal of reviewing the implementation of the government procurement chapter, exchange information like procurement statistical data, and facilitate access to the government procurement markets for both parties.<sup>63</sup>

## Export-Related NTMs

### *Export Duties*

The agreement would eliminate, reduce, or bind export duties, taxes, or other charges imposed by Mercosur, specifically Argentina and Uruguay, on the export of goods to the EU. The vast majority of goods impacted by these provisions are agricultural exports originating in Argentina and, to a lesser extent, Uruguay. From Argentina, exports of soybeans, biodiesel, and hides and skins, among others are affected. In the case of Uruguay, only exports of hides and skins would be impacted by an elimination or reduction in export duties.<sup>64</sup> By lowering or removing export taxes, export restrictions and export monopolies, the EU economy and investors could be granted better access to raw materials essential to the EU economy. The United States would not receive this preferential treatment and would continue to be susceptible to changes and uncertainty around export taxes as Mercosur governments attempt to standardize export tax rates for many products.

## Literature Review

Over the nearly two decades since negotiations on the EU-Mercosur Agreement began, scholars across subject areas—economics, political economy, and even climate and environment—have taken up analyses to determine the impact of a potential trade deal covering more than 30 countries, 700 million consumers, and almost \$16 trillion in combined GDP.<sup>65</sup> Economic studies of the agreement have largely relied on computable general equilibrium (CGE) models to calculate the impact, as they entail trade and financial linkages between economic agents, sectors and regions to determine economy-wide effects. This section reviews the existing literature as it relates to the Agreement, first in the area of CGE modeling and then in the area of NTM analysis.

According to earlier CGE analyses of drafts of the agreement, EU agrifood producers could suffer significant losses while gains in EU manufacturing could outweigh the losses to the EU agrifood sector, leading to an overall increase in EU GDP and positive but negligible welfare gain.<sup>66</sup> Similarly, GDP in Mercosur also increases, but by a larger amount in relative terms, due to the fact that Mercosur is the smaller economy in this agreement. These gains are largely driven by welfare gains in agricultural sectors.

---

<sup>61</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle](#),” June 2019, 10.

<sup>62</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Government Procurement](#),” June 2019.

<sup>63</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Government Procurement](#),” June 2019.

<sup>64</sup> EC, “[EU-Mercosur Trade Agreement: Agreement in Principle—Annex 2: Export Duties](#),” June 2019.

<sup>65</sup> EC, “[The European single market](#),” accessed July 5, 2021.

<sup>66</sup> Burrell et al. [Potential EU-Mercosur Free Trade Agreement: Impact Assessment](#), 2011.

## Model Specification

Some of the earliest models of this agreement use the GTAP framework and database that were current at the time of writing. Diao et al. use GTAP database version 5 with a base year of 1997 and an aggregation of 29 regions and 38 sectors.<sup>67</sup> This model uniquely employs cash-in-advance technology to anchor nominal variables, combining constraints for both consumption sales and a production, equally weighted.<sup>68</sup> It also accounts for productivity effects of trade liberalization via an endogenously determined TFP variable for each sector's value-added function.<sup>69</sup> The liberalization scenario employed by Diao et al. assumes complete elimination of all tariffs, whose initial levels are measured as trade-weighted AVEs.

However, there were also departures from the GTAP framework, such as the work by Flores and Watanuski, which employed the AMIDA model.<sup>70</sup> This model is a comparative static with scale economies and imperfect competition at the firm level. The aggregation consists of 25 sectors and 10 regions, with a baseline year of 2001. The liberalization scenario implemented by Flores and Watanuski reduces tariffs to zero and further reduces 'additional trade costs' (including transport, bureaucracy, etc. estimated at less than 10% of the bilateral flows) by four percent to reflect trade facilitation.

Burrell et al. employ the static GLOBE CGE model, which is fundamentally different from the GTAP model in that it contains nominal exchange rates and region-specific numéraire prices. The model includes 14 regions<sup>71</sup> and 23 product categories that focus largely on agricultural goods. Its five scenarios reflect the tariff and TRQ negotiating offers from the EU as of 2004<sup>72</sup> and Mercosur request as of 2006, and various levels of agreement on the Doha Round multilateral negotiations as of 2008.<sup>73</sup>

More contemporary studies benefit from the increase in finalized public information about the Agreement, as compared to earlier studies that did not have finalized drafts of the agreement text of tariff reduction schedules. With increased information, these studies are able to tailor the model shocks to more appropriately reflect true commitments of the member countries. Carrico et al. employs the macroeconomic perfect competition model MAGNET—a computable general equilibrium model based on neo-classical microeconomic theory as well as the GTAP dataset. The MAGNET model also uniquely includes a land supply function which specifies the relation between total agricultural land supply and the real land price given constraints related to biophysical availability (potential area of suitable land) and institutional factors (agricultural and urban policy, conservation of nature). In another departure from GTAP, factor markets are divided (segmented) into agricultural and non-agricultural labor and

---

<sup>67</sup> Diao et al., "[Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur](#)," 2003, 8.

<sup>68</sup> This is partially due to the dollarized exchange rate regimes of some countries included in the model at the time. Diao et al., "[Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur](#)," 2003, 9.

<sup>69</sup> Diao et al., "[Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur](#)," 2003, 9.

<sup>70</sup> Flores and Watanuski, "[Integration Options for MERCOSUR: A Quantitative Analysis by the AMIDA Model](#)," January 2008.

<sup>71</sup> The regions include EU12, EU15, Mercosur4, and 11 other regions.

<sup>72</sup> This offer reflects a reduction of EU tariffs to zero on all industrial products, with immediate effect for industrial goods with tariffs less than 2%, by year 5 for goods with tariffs between 2 and 8%, and by year 7 for goods with tariffs in excess of 8%. For agricultural goods not subject to TRQs there is a reduction of tariffs to zero on all products, with immediate effect for goods with tariffs less than 5%, by year 5 for goods with tariffs between 5 and 10%, by year 7 for goods with tariffs between 10 and 15%, and by year 10 for goods with tariffs in excess of 15%. For agricultural goods subject to TRQs there is an expansion of existing TRQs (except for sugar and sheep meat) on a product-by-product basis. New TRQs were created for rice, wheat, other cereals, pork, skim and whole milk powder, butter, cheese and ethanol. In-quota tariff was equal to zero. Authors assumed that the expansion would be fully phased in by 2020.

<sup>73</sup> The three Doha scenarios were Doha only, a reduced EU offer with no Doha, and the Mercosur request post-Doha. Given that the Doha negotiations were never concluded, the effects discussed in this paper refer to the reduced EU offer, no-Doha version ('Scenario 1' in the original paper) because it is the closest to the present situation.

capital to reflect empirical evidence on imperfect mobility of labor. In the policy scenario, Carrico et al. assumes a 15-year implementation period beginning in pre-COVID 2020. The regional aggregation includes the EU (with the UK), the Netherlands, the four Mercosur member countries and the rest of Latin America.

The policy scenarios in Carrico et al. consist of 1) TRQs in existence in the base scenario (prior to EU-Mercosur Agreement), 2) the introduction of new TRQs (as part of the EU-Mercosur Agreement), 3) changes to in-quota tariff rates (as part of the EU-Mercosur Agreement), and 4) changes to the total quota level (as part of the EU-Mercosur Agreement), as well as NTM reductions modeled as harmonizing toward the EU NTM levels with a 10 percent actionability assumption. NTM data is sourced from the World Bank, while services data is sourced from the Organisation for Economic Co-operation and Development (OECD). Although the goods NTM reductions are implemented on a bilateral EU-Mercosur basis, the services NTMs are reduced for all Mercosur trade partners, thus capturing a ‘free-rider’ effect.

### GDP and Welfare

Most early studies find increases in real GDP to be positive, but small (less than one percent).<sup>74</sup> Diao et al. find that Argentina and Brazil gained the most in terms of real GDP (4.4 and 2.8 percent, respectively) and even some negative effects for North America and Asian countries. Burrell et al. estimate increases in EU GDP of about 0.02 percent (€3.9 billion) and Mercosur GDP of 0.12 percent (€1.2 billion). They estimate positive but negligible welfare gains of 0.01 percent for the EU as a whole and positive gains of 0.07 percent for Mercosur.<sup>75</sup> This welfare gain is consistent at about 0.01 to 0.02 percent of GDP across similar studies.<sup>76</sup> However, within these trade blocs gains vary across stakeholders. For example, EU agricultural income declines by 0.41 percent (€983 million) and Mercosur consumer surplus declines by 0.1 percent (€751 million). Carrico et al. find GDP increases between zero and one percent, with EU27 and particularly the Netherlands experiencing the smallest gains and Uruguay experiencing the biggest. In terms of real GDP growth in value, Brazil experiences the largest increase (€12 billion), followed by the EU (€2.9 billion) and Argentina (€2 billion).

### Trade

Diao et al. estimate large increases in total Mercosur exports and imports, ranging from 1.7-8.1 percent—the largest increases were for Argentina and Brazil. Conversely, the increases in total EU exports and imports were much more limited; 0.5 and 0.6 percent respectively. The impact of the agreement on trade with third countries was muted (below one percent).<sup>77</sup> Results from Flores and Watanuki show higher estimates of Mercosur exports to and imports from the EU increasing by about 19 and 18 percent, respectively. Mercosur exports to the EU grew most significantly in traditional sectors in textiles and apparel, leather, wood products, non-ferrous metals, machinery, and paper.<sup>78</sup> By contrast Mercosur imports from the EU in this model increase in nearly all sectors except chemicals and electric equipment, with the largest increases in agrifood sectors.

---

<sup>74</sup> Flôres and Watanuki, “[Integration Options for MERCOSUR: A Quantitative Analysis by the AMIDA Model](#),” January 2008, 36.

<sup>75</sup> Burrell et al. [Potential EU-Mercosur Free Trade Agreement: Impact Assessment](#), 2011, 111.

<sup>76</sup> Diao et al., “[Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur](#),” 2003; Flôres and Watanuki, “[Integration Options for MERCOSUR: A Quantitative Analysis by the AMIDA Model](#),” January 2008, 36; Boyer and Schuschny, “[Quantitative assessment of a free trade agreement between MERCOSUR and the European Union](#),” April 2010.

<sup>77</sup> Diao et al., “[Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur](#),” 2003.

<sup>78</sup> Flôres and Watanuki, “[Integration Options for MERCOSUR: A Quantitative Analysis by the AMIDA Model](#),” January 2008, 25–27.



Burrell et al. estimate total increase of 10 percent (€6.3 billion) in EU exports to Mercosur. At the sector level this is driven mostly by exports of manufactures and machinery, which increase by 14 percent (nearly €6 billion). Conversely, increases in individual agrifood sectors are low,<sup>79</sup> except for vegetable oils and fats, and food, and beverages and tobacco, which experience increases of 11 percent and 23 percent (over €21 million and €200 million), respectively.<sup>80</sup> This result is driven by processed food products rather than primary commodities, and the fact that the former group generally received larger tariff reductions than the latter.<sup>81</sup>

Burrell et al. estimate a lower total increase in EU imports from Mercosur of almost 4 percent (€2.3 billion), compared to EU exports. At the sector level this is driven mostly by imports of agriculture goods, which increase by 6.4 percent (nearly €1.3 million). Increases in primary commodities account for the majority of this increase, driven by vegetable oils and fats, and meat beef, sheep, goat, horse, which experience increases of 12 percent and 8 percent (over €616 million and €180 million) respectively.<sup>82</sup> Services imports decline slightly by less than 1 percent (€3.4 million).

### NTM analysis

As detailed above, the incorporation of NTM analysis in CGE models of FTAs—particularly the EU-Mercosur FTA—is becoming increasingly common in contemporary studies. It is therefore necessary to evaluate the existing approaches to quantifying these inherently qualitative policies, and perhaps more importantly and less explored, their application in a CGE context. Econometric models and gravity frameworks are the most well-known and widely accepted methods for quantifying NTMs, often resulting in ad valorem equivalent estimates with bilateral variations.<sup>83</sup> Such models rely on classification tools like UNCTAD MAST group's International Classification of Non-tariff Measures, which categorizes NTMs into technical and non-technical measures at the HS six-digit level imports and exports as shown in figure 10.

---

<sup>79</sup> Less than €20 million in any given sector. The aggregate agrifood sector experiences a 20 percent increase in EU exports to Mercosur.

<sup>80</sup> Burrell et al. [Potential EU-Mercosur Free Trade Agreement: Impact Assessment](#), 2011, 44.

<sup>81</sup> Burrell et al. [Potential EU-Mercosur Free Trade Agreement: Impact Assessment](#), 2011, 44.

<sup>82</sup> Burrell et al. [Potential EU-Mercosur Free Trade Agreement: Impact Assessment](#), 2011, 44.

<sup>83</sup> Anderson and Neary, [Measuring the Restrictiveness of International Trade Policy](#), 2005; Kee, Nicita and Olerreaga, ["Estimating Trade Restrictiveness Indices,"](#) January 2009; Kee and Nicita, ["Trade Frauds, Trade Elasticities and Non-Tariff Measures,"](#) June 2016.

Figure 10. UNCTAD Classification of Non-tariff Measures by Chapter

Imports	Technical measures	A	Sanitary and phytosanitary measures
		B	Technical barriers to trade
		C	Pre-shipment inspection and other formalities
	Non-technical measures	D	Contingent trade-protective measures
		E	Non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade
		F	Price-control measures, including additional taxes and charges
		G	Finance measures
		H	Measures affecting competition
		I	Trade-related investment measures
		J	Distribution restrictions
		K	Restrictions on post-sales services
		L	Subsidies and other forms of support
		M	Government procurement restrictions
		N	Intellectual property
		O	Rules of origin
	Exports	P	Export-related measures

Source: UNCTAD, *International Classification of Non-Tariff Measures: 2019 Version*, 2019.

Once NTMs are translated into AVE estimates of restrictiveness they can be incorporated into a CGE model via three main methods; 1) supply curve shifts via export cost<sup>84</sup> and iceberg productivity shocks,<sup>85</sup> 2) demand curve shifts via consumer willingness to pay (WTP)<sup>86</sup> and changes in elasticity of substitution, or 3) transaction costs like import and export taxes.<sup>87</sup> Each of these approaches has varying implications for the interpretation of the NTM policy function and in return for the projected results of the model. For example, supply curve shifts could be best suited for modeling the reduction of NTMs seen as decreasing foreign production costs or increasing the productivity of exporters due to harmonization of standards, however, this approach would require the separate treatment of production for domestic versus international markets.<sup>88</sup> Supply curve shifts are also implemented through the ever-popular iceberg method, which assumes that “value melts away” during transit reducing the quantity arriving in the importing market, in contrast to that which left the dock in the exporting country.<sup>89</sup> In practice, this method is carried out via a shock to the technological productivity variable ‘ams’ which reduces the importer’s price, causing substitution towards that good and an increase in quantity demanded (dominant effect due to elasticity multiplying the price effect); and reduces the amount that needs to be imported to satisfy a given level of demand (productivity shock).<sup>90</sup> This method is criticized because it

<sup>84</sup> Webb, Strutt, and Walmsley, “Regulatory Harmonization in the ASEAN Region: The Effects of Applying Different Types of Non-tariff Measures,” June 6, 2019.

<sup>85</sup> Hertel, Walmsley and Itakura, “Dynamic Effects of the ‘New Age’ Free Trade Agreement Between Japan and Singapore,” 2001. See also Samuelson, “The Transfer Problem and Transport Costs, II: Analysis of Effects of Trade Impediments,” June 1, 1954.

<sup>86</sup> Walmsley and Minor, “Willingness to Pay in CGE Models,” December 2015.

<sup>87</sup> Fugazza and Maur, “Non-Tariff Barriers in Computable General Equilibrium Modelling,” 2008.

<sup>88</sup> Walmsley and Minor, “Willingness to Pay in CGE Models,” December 2015, 5.

<sup>89</sup> Samuelson, “The Transfer Problem and Transport Costs, II: Analysis of Effects of Trade Impediments,” June 1, 1954.

<sup>90</sup> Hertel, Walmsley and Itakura, “Dynamic Effects of the ‘New Age’ Free Trade Agreement Between Japan and Singapore,” 2001.



breaks the equivalence of quantities exported versus imported and indiscriminately applies productivity gains to all economic agents of importing economy, raising real GDP.

Demand curve shifts like the WTP method, explicitly models the reduction in customs delays as a demand shock that increases a consumer's willingness to pay for faster delivery. Comparison to the iceberg method finds that WTP method produces smaller changes in real GDP, but more expansionary effects of trade volumes, improvements to terms of trade, and higher welfare gains—especially to households.<sup>91</sup> Finally, transaction cost methods that model NTM AVEs as import or export taxes are implemented just as tariff liberalization typically is in a CGE model, including the effects of accruing economic rents to the importer or exporter. What's clear from this survey of existing approaches for incorporating NTM measures into a CGE model is that the method necessarily implies assumptions made about the nature of the NTM being modeled, which economic agents pay its cost and which benefit from its removal. Therefore, a fourth method exists which essentially apportions a given sector's NTM AVE into components that operate according to the various methods.<sup>92</sup>

Beyond settling on an approach for incorporating NTMs into a CGE context, a modeler must also determine the realistic NTM AVE reduction to apply based on an analysis of the provisions offered by the FTA parties. Implicit in some of the above econometric methods are estimates of changes in sector trade as a result of removing a given NTM. This estimate is then used to calibrate the change in trade in the CGE model, which then determines the necessary technological change variable. In the absence of econometric estimates produced by a tailored model on the relevant trade partners, alternative literature is used as the basis for NTM AVE reductions associated with specific NTM provisions of an FTA. General principles for determining the actionability and magnitude of NTM liberalization include: “removing some regulations; applying existing rules to fewer products; or applying regulations in a less onerous way, for example inspecting a smaller proportion of total shipments or harmonizing requirements to make it easier for traders to comply.”<sup>93</sup> In addition to employing these general principles as a type of stringency gradient for the magnitude of the NTM reduction, other studies estimating the impact of regulatory overlap for the key trade partners (EU and Mercosur) can serve as a starting point for determining the NTM AVE reductions. For example, it is recognized that technical NTMs—particularly those that protect human, animal and plant health (SPS measures)—are necessary and cannot be eliminated. Thus, regulatory convergence or harmonization is the more likely path toward NTM ‘reduction’ in this case.<sup>94</sup> Consistent with the literature, we ensure that the reduction of a given technical or non-technical NTM AVE resulting from any particular provision within the EU-Mercosur FTA does not exceed 20 percent.<sup>95</sup>

## Data and Methodology

The Global Trade Analysis Project (GTAP) framework is used to simulate the implementation of the June 2019 EU-Mercosur tariff regimes by either reducing or eliminating tariffs in the affected sectors. This model includes 65 sectors and 42 regions. The 42 regions consist of 37 single-country regions and 5

---

<sup>91</sup> Walmsley and Minor, “[Willingness to Pay in CGE Models](#),” December 2015, 5.

<sup>92</sup> Andriamananjara et al., “[The Effects of Non-tariff Measure on Prices, Trade and Welfare: CGE Implementation of Policy Based Price Comparisons](#),” April 2004; ECORYS, “[Non-Tariff Measures in EU-USA Trade and Investment—An Economic Analysis](#),” December 11, 2009; CEPR, “[Reducing Transatlantic Barriers to Trade and Investment](#)” March 2013; Fontagné, Mitaritonna, Signoret, “[Estimated Tariff Equivalents of Services NTMs](#)”, August 2016.

<sup>93</sup> Webb et al. “[Modelling the Impact of Non-tariff Measures on Supply Chains in ASEAN](#),” April 12, 2020.

<sup>94</sup> UNCTAD, [Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond](#), 2017.

<sup>95</sup> Walmsley and Strutt, “[Improving the Modelling of Non-Tariff Measures in a CGE Framework](#),” May 27, 2019. Fontagné, Gourdon, and Jean, “[Transatlantic Trade: Whither Partnership, Which Economic Consequences?](#)” September 2013.

aggregated regions including China/Hong Kong, Oceania, South America, South Asia, and the Rest of World.<sup>96</sup> This regional aggregation differs significantly from those in the existing literature in that the results are distinguishable at the individual member country-sector level, as well as at the EU and Mercosur trade bloc levels, with the use of a regional mapping. This model uses the standard GTAP model version 7, and version 11 of the GTAP database, which has a 2017 base year.<sup>97</sup> The baseline of the current version of the model has not been updated, because, although macroeconomic data for the modeled regions has changed significantly between 2017 and 2019, trade values and shares remained largely consistent.<sup>98</sup>

The tariff liberalization schedules published by the EU and Mercosur countries in 2019 are converted into AVEs and aggregated to the GTAP sector. This is accomplished by first taking the arithmetic mean of the scheduled HS eight-digit level AVEs,<sup>99</sup> to avoid excluding non-zero AVEs that would otherwise not be accounted for due to zero trade flows. Then, HS six-digit level bilateral trade flows (f.o.b. exports and c.i.f. imports) are used as weights to calculate the new GTAP sector AVEs that ultimately estimate the tariff reduction impact of the Agreement.<sup>100</sup> Data on bilateral GTAP-sector level NTMs are sourced from the World Bank and estimated according to the methodology described above. They are structured as technical and non-technical NTM AVE estimates and incorporated in the model as cumulative exogenous elements of the ‘ams’ variable (trade efficiency). They are then reduced to simulate various provisions in the Agreement highlighted in the previous section, which are suggested to harmonize standards and streamline customs procedures—ultimately reducing these barriers. This reduction exercise is carried out using a range of values to reflect practical levels of implementation based on existing research highlighted in the literature review above, as well as industry expertise. See appendix A for exact NTM reduction decomposition.

## Results of NTM simulations

The aforementioned simulations produce effects on production, prices, imports and exports in the EU and Mercosur sectors most heavily affected, as well as indirect, trade diversion effects on their trade with third countries. The simulations on non-tariff measure reductions and harmonization also produce estimates for the resulting change in the welfare and GDP of these two trading blocs and their major trade partners. Consistent with other studies, both Mercosur and the EU see small gains in real GDP and welfare, with Mercosur gaining relatively more than the EU (table 6). These gains are reasonably smaller than estimates of other studies surveyed which simulate reductions in both tariff and non-tariff barriers, as opposed to non-tariff reductions alone. Significant third country trade partners like the U.S. and China (including Hong Kong) decline across all key economy-wide variables.

*Table 6. Impact of NTM reduction simulation on GDP and welfare, selected trade blocs and countries*

Key variables	Real GDP		Nominal GDP		Welfare	
	(%)	Million \$	(%)	Million \$	(%)	Million \$
Mercosur	0.0002	545.4	0.0012	3,488.6	0.0004	807.1

<sup>96</sup> The 37 single-country regions include the 27 EU countries excluding the UK, four Mercosur countries, the United States, Canada, Mexico, UK, Japan, and Korea.

<sup>97</sup> Aguiar et al., *GTAP 11 Pre-release 1*, 2020; Corong et al., “*The Standard GTAP Model, Version 7*,” 2017; Hertel, *Global Trade Analysis: Modeling and Applications*, 1997.

<sup>98</sup> With regard to future work, authors intend on updating the 2017 baseline to 2019, both in terms of trade and macroeconomic variables.

<sup>99</sup> This excluding specific and compound tariffs, as well as TRQs, which are not explicitly available in the respective schedules.

<sup>100</sup> The calculation of tariff and TRQ AVEs is ongoing. Results in this version of the paper do not yet reflect tariff or TRQ reductions.

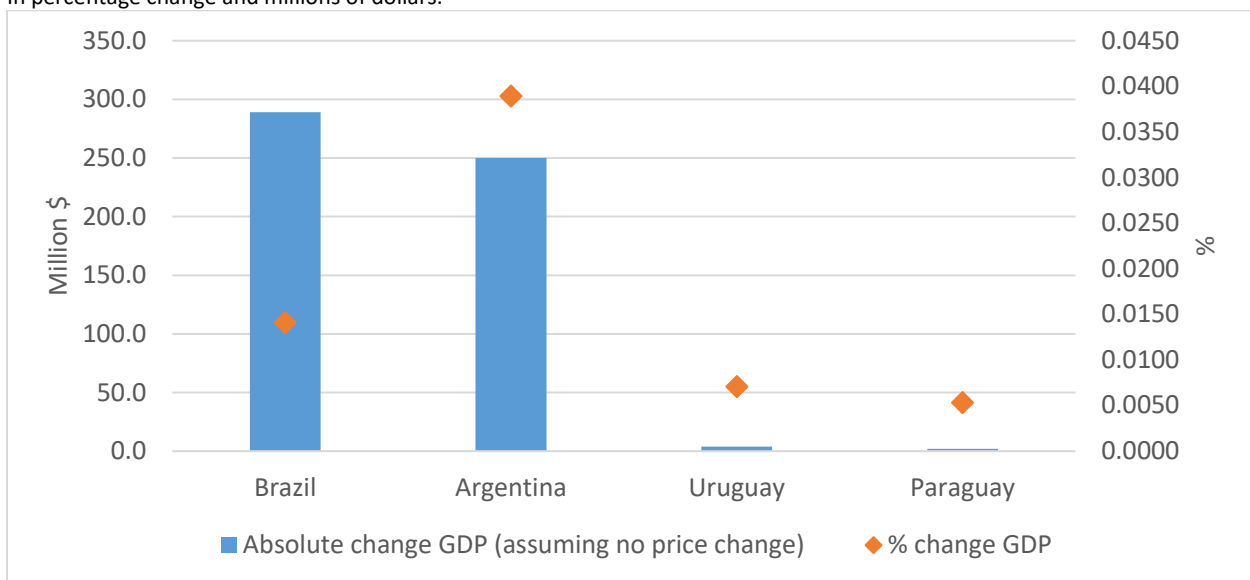
EU	0.00001	171.0	0.00007	993.0	0.00003	357.9
United States	-0.00004	-8.6	-0.00005	-1,060.0	-0.0004	-75.4
China	-0.0010	-120.7	-0.00013	-1,586.6	-0.003	-324.9

Source: GTAP model simulation results.

A decomposition of the change in GDP within the EU and Mercosur reveals the member countries that gain the most from this agreement. Generally, the expansions in GDP largely track with the overall size of the economy. Although there are some tailored NTM reductions based on the specific provisions of the Agreement, it treats the trade blocs as single entities, so on the whole, shocks are applied mostly uniformly. Larger economies with significant trade flows with FTA partner countries stand to gain the most, as demonstrated by Brazil, Germany, and Spain (figures 11 and 12).

*Figure 11. Change in GDP of Mercosur, by member country*

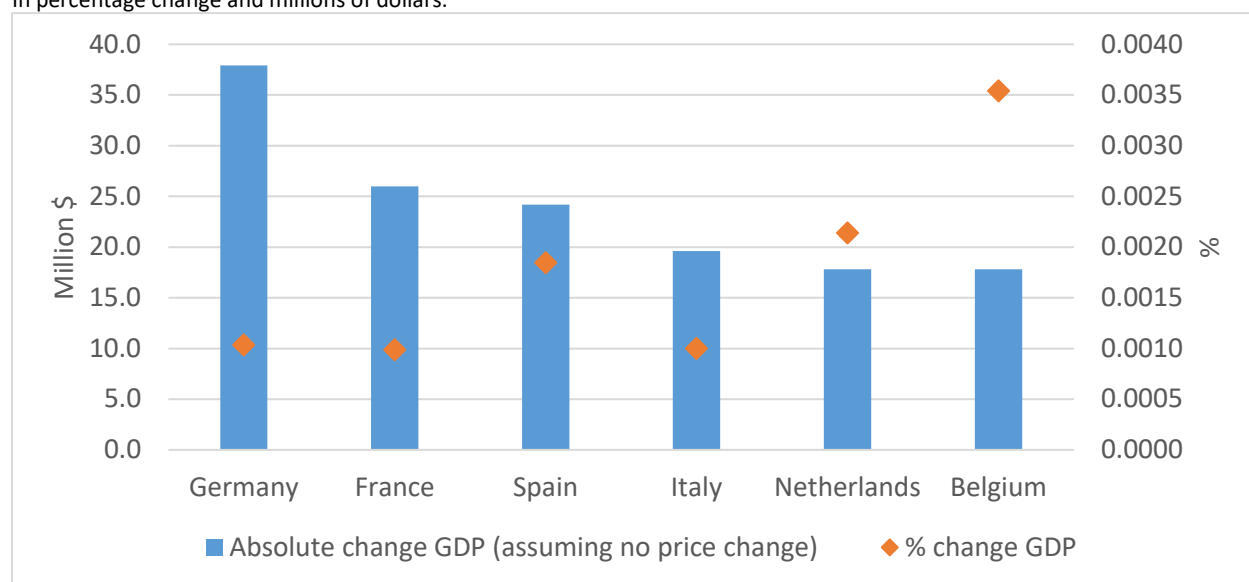
In percentage change and millions of dollars.



Source: GTAP model simulation results.

*Figure 12. Change in GDP of the top 6 most impacted EU member countries*

In percentage change and millions of dollars.



Source: GTAP model simulation results.

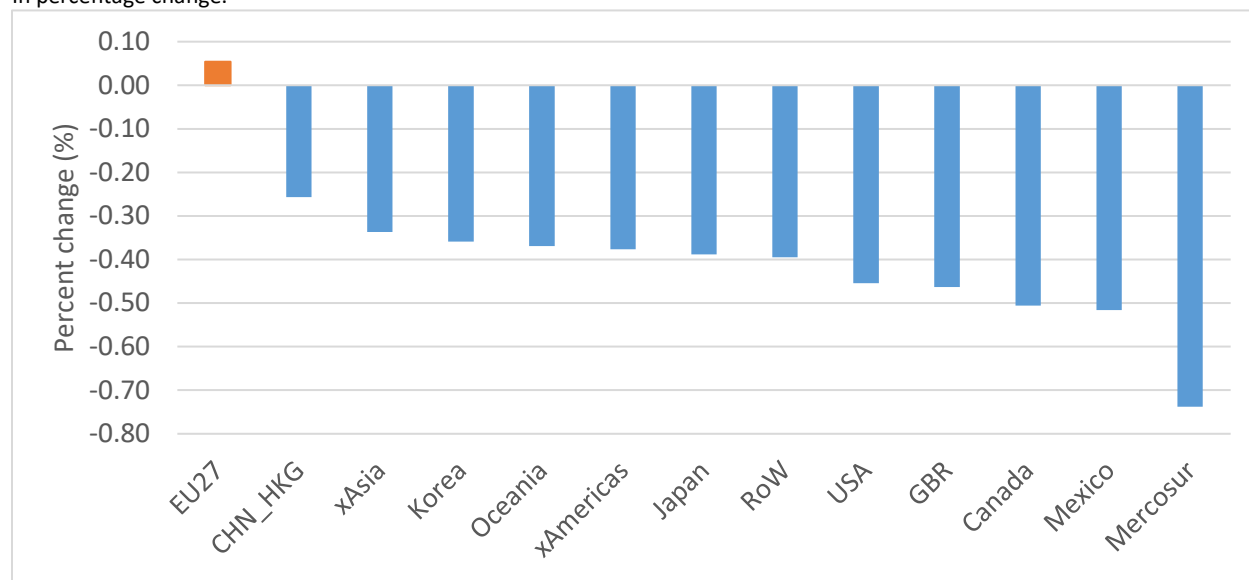
Many of the sectors that experience the largest increases in exports to the EU were among those with the highest technical NTMs among both trade blocs and either high or low initial trade values in the pre-shock CGE baseline (figure 13). For example, processed rice (“pcr”) was one of Mercosur’s lowest traded sectors with the EU, as domestic production largely serves domestic demand. Given the low base and significant liberalization (see appendix A for details), combined with the fact that the EU is a net importer of rice, the large percent increase in exports of this sectors is reasonable (figure 14). With the added detail of the regional mapping we can see that Argentina and Uruguay are driving the increase in exports of rice to the EU. Other foods (“ofd”), cattle meat (“cmt”), vegetable oils (“vol”), and motor vehicles (“mvh”) were among the sectors with the largest increases in Mercosur exports to the EU.

The underlying logic for the other top sectors is similar, though compounded by some additional reductions based on the recognition of Mercosur GIs in the sectors of other meats (“omt”) and beverages and tobacco (“b\_t”). Interestingly, although these sectors are not necessarily the top exported to China and the United States, slight trade diversion effects can still be observed given the extremely high existing non-tariff barriers in these sectors.

Sectors with the largest decrease in intra-Mercosur trade were the manufacture of pharmaceuticals, medicinal chemical and botanical products (“bph”), other crops (“ocr”), manufacture of chemicals and chemical products (“chm”), manufacture of computer, electronic and optical products (“ele”), manufacture of machinery and equipment not elsewhere classified (“ome”), manufacture of rubber and plastics products (“rpp”), and other manufacturing (“omf”).

*Figure 13. Change in total Mercosur exports, by destination economy*

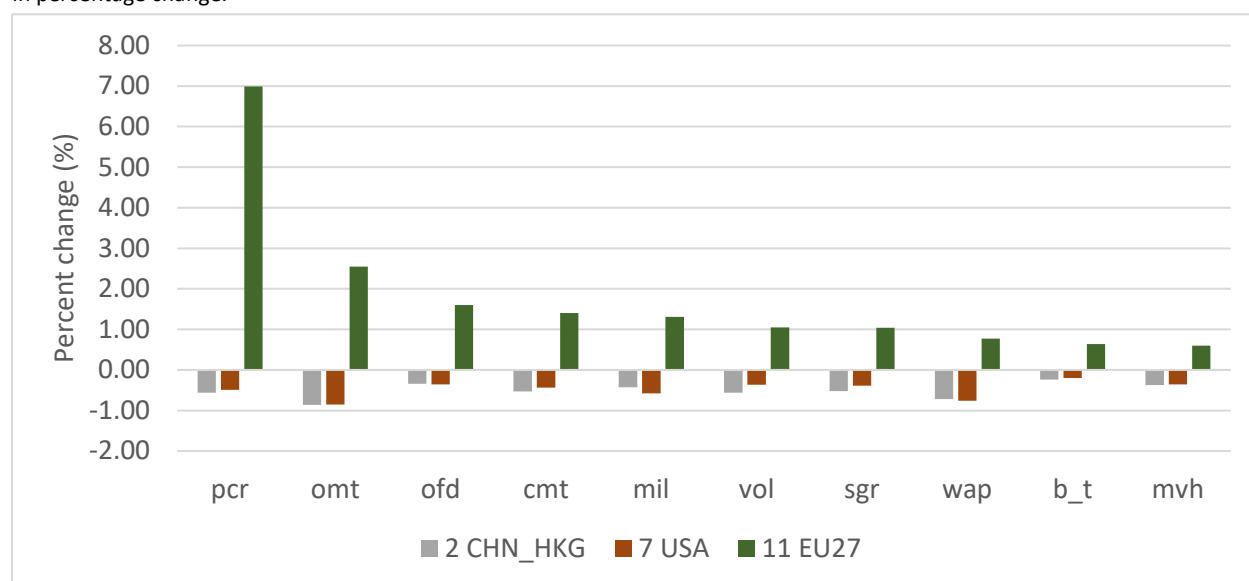
In percentage change.



Source: GTAP model simulation results.

*Figure 14. Change in top ten Mercosur export sectors, by selected destination economies*

In percentage change.



Source: GTAP model simulation results.

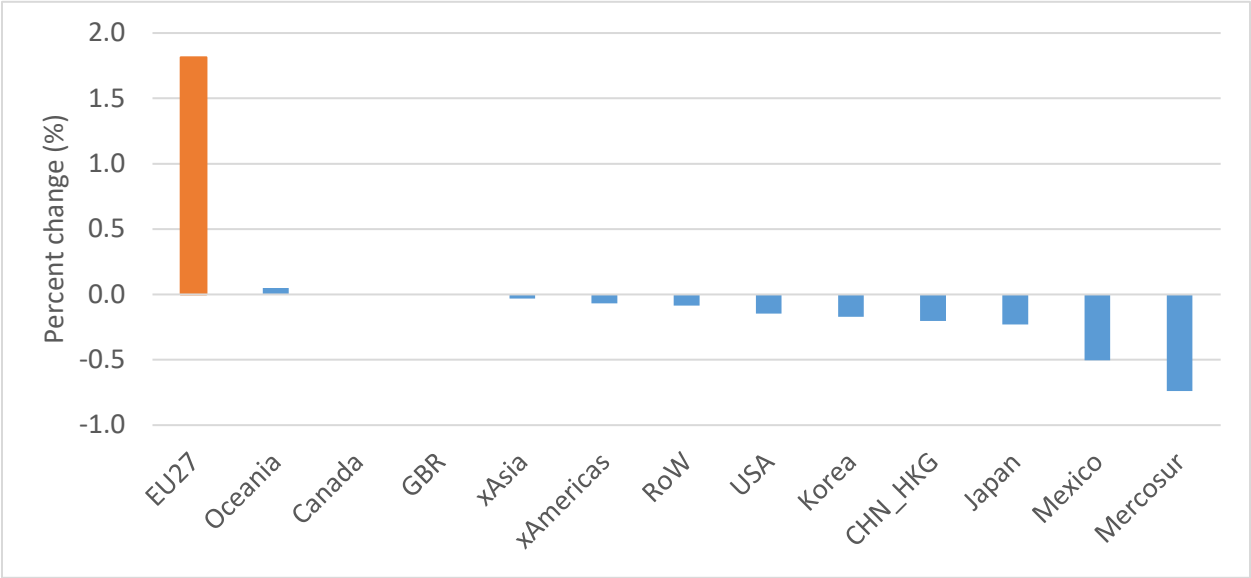
Note: "Mil" represents the milk and dairy products sector, "sgr" represents the sugar and molasses sector, and "wap" represents the manufacture of wearing apparel sector.

Regarding Mercosur imports, simulation results show trade diversion that is more a function of decreases in intra-Mercosur trade (figure 15). The relatively larger increase in imports from the EU is driven by the fact that the reduction in Mercosur NTMs facing EU exporters was slightly higher than the reduction for Mercosur exporters. In these agricultural sectors the EU already operates in a way that complies with conformity assessment standards and thus can more readily export to Mercosur without

significant changes to its production and trade administration processes, whereas the converse is not necessarily true.

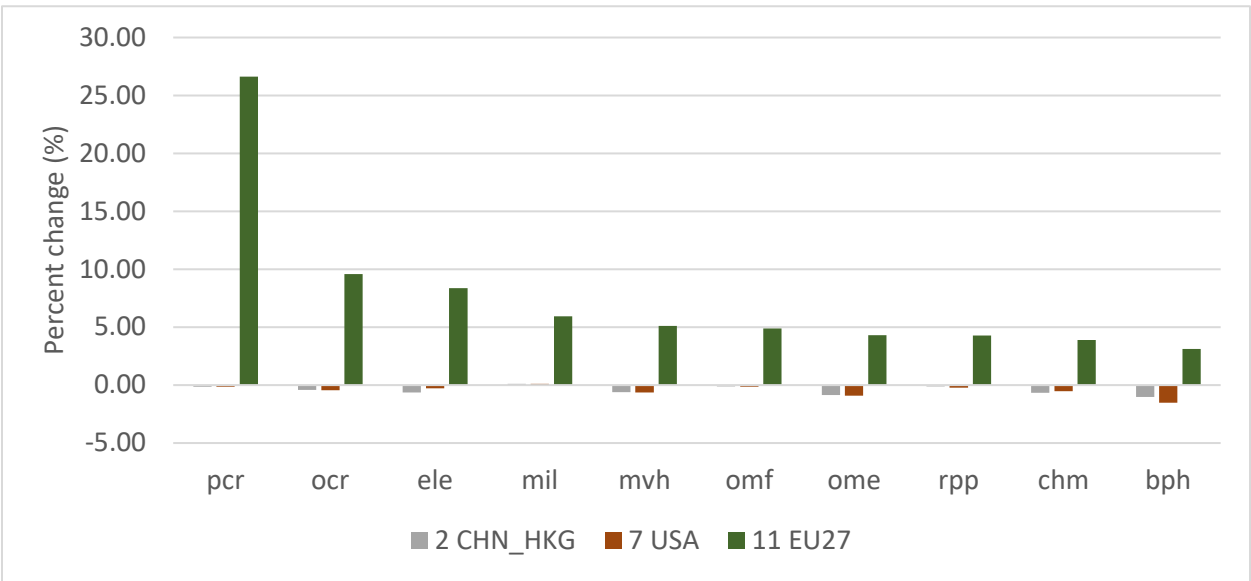
Regional mapping allows us to dive deeper into the trade effects at the member country level. Imports of pcr increase from the EU, but this model shows that such increases are driven by the exports of Italy and Portugal to satisfy increases in demand by Brazil and Argentina (figure 16). The significant increase in Brazilian imports however is less a realistic possibility than it is a function of the incredibly high initial Brazilian NTM in this sector of 286 percent.

Figure 15. Change in total Mercosur imports, by source economy  
In percentage change.



Source: GTAP model simulation results.

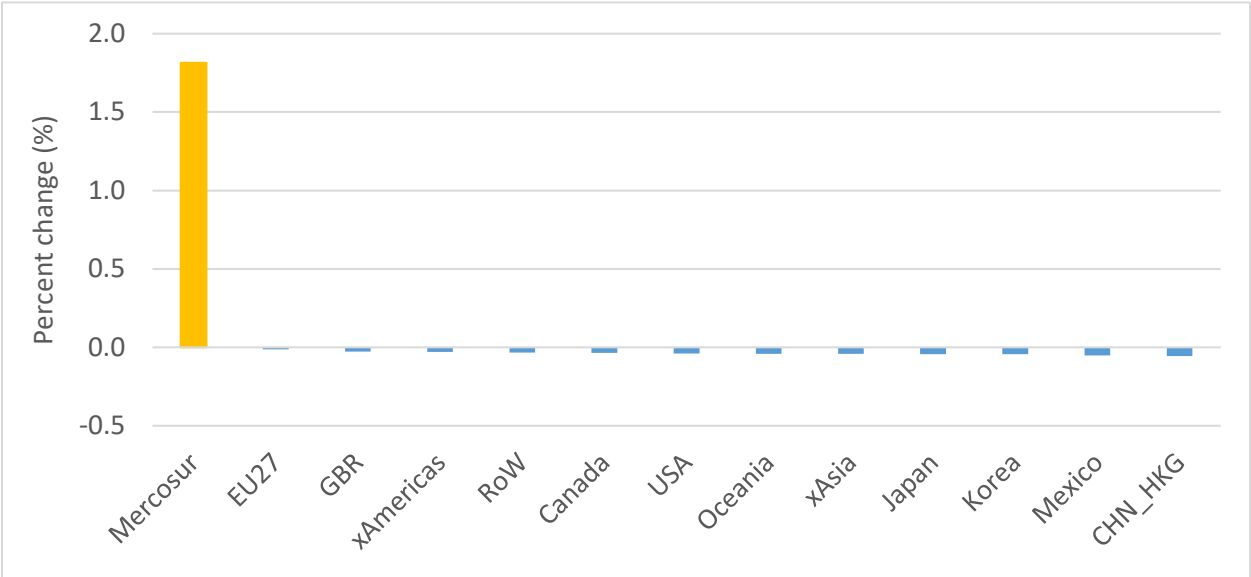
Figure 16. Change in top ten Mercosur import sectors, by selected source economies  
In percentage change.



Source: GTAP model simulation results.

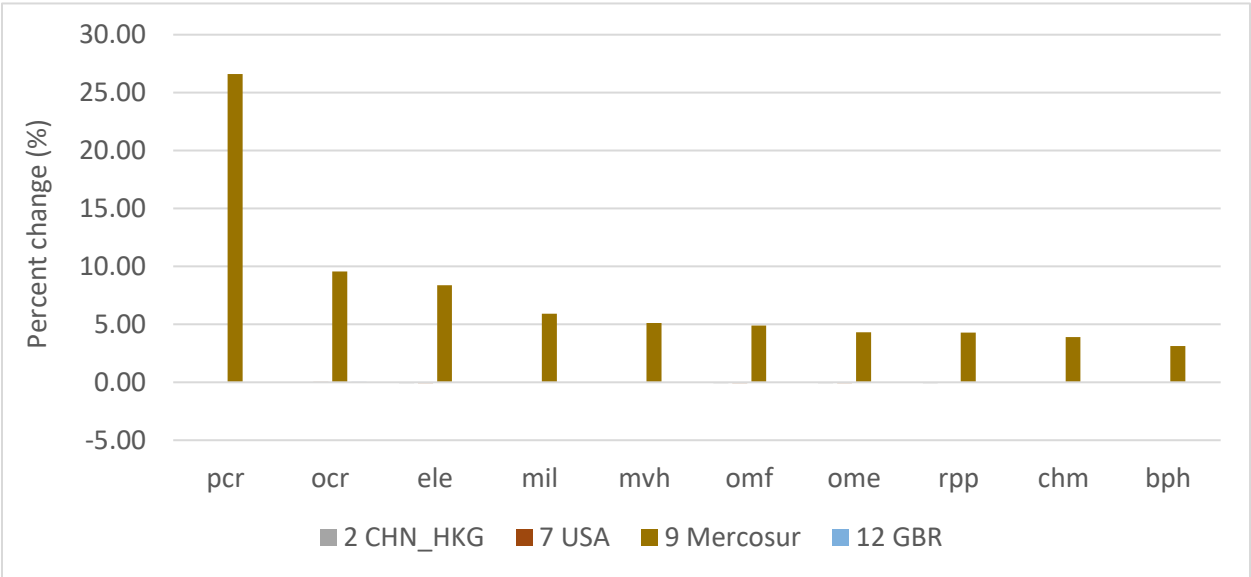
Given that Mercosur makes up a much smaller share of EU trade, the increases in EU exports to and imports from Mercosur are not accompanied by the same trade diversion effects that are present in the context of Mercosur trade with its other major partners (figures 17—20).

Figure 17. Change in total EU exports, by destination economy  
In percentage change.



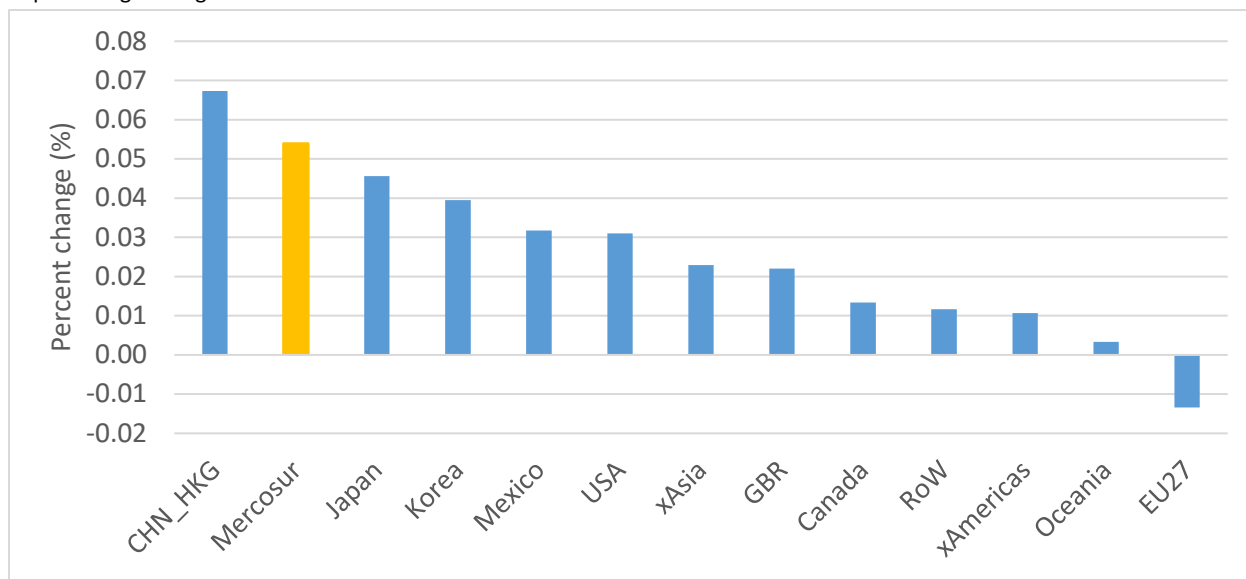
Source: GTAP model simulation results.

Figure 18. Change in top ten EU export sectors, by selected destination economies  
In percentage change.



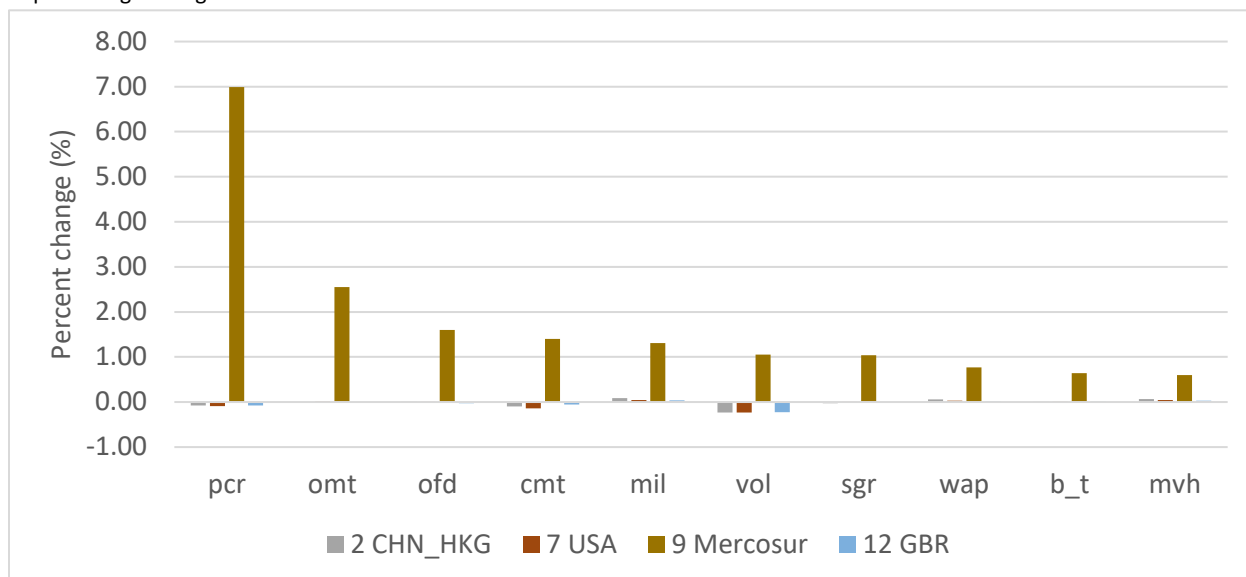
Source: GTAP model simulation results.

*Figure 19. Change in total EU imports, by source economy*  
In percentage change.



Source: GTAP model simulation results.

*Figure 20. Change in top ten EU import sectors, by selected source economies*  
In percentage change.



Source: GTAP model simulation results.



## Bibliography

Aguiar, A., Chepeliev, M., Corong, E., McDougall, R., & van der Mensbrugghe, D. *GTAP 11 Pre-release 1* (Center for Global Trade Analysis). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP), 2020.

[https://www.gtap.agecon.purdue.edu/events/board\\_meetings/2020/documents/presentations/02\\_GTAP10-11DB\\_AA.pdf](https://www.gtap.agecon.purdue.edu/events/board_meetings/2020/documents/presentations/02_GTAP10-11DB_AA.pdf).

Aguiar, Angel. "Concordance – six-digit HS sectors to GTAP sectors: UN\_HS\_GSEC3," Global Trade Analysis Project (GTAP) Resource #5111, April 18, 2016 (updated June 10, 2020).

<https://www.gtap.agecon.purdue.edu/resources/download/10063.xlsx>.

Anderson, James E. and J. Peter Neary. *Measuring the Restrictiveness of International Trade Policy*. Boston, MA: MIT University Press, 2005. <https://mitpress.mit.edu/books/measuring-restrictiveness-international-trade-policy>.

Andriamananjara, Soamiely, Judith M. Dean, Robert Feinberg, Michael J. Ferrantino, Rodney Ludema, and Marinos Tsigas. "The Effects of Non-tariff Measure on Prices, Trade and Welfare: CGE Implementation of Policy Based Price Comparisons." USITC, Econ Working Paper No. 2004-04, April 2004. <https://www.usitc.gov/publications/332/ec200404a.pdf>.

Baltensperger, Michael, and Uri Dadush. "The European Union-Mercosur Free Trade Agreement: Prospects and Risks." Bruegel. September 2019. <https://www.bruegel.org/2019/09/the-european-union-mercotur-free-trade-agreement-prospects-and-risks/>.

Beattie, Alan. "U.S. Wants the EU to Accept Chemical-Washed Chicken as Part of Trade Deal." Los Angeles Times. January 27, 2020. <https://www.latimes.com/business/story/2020-01-27/chicken-chemicals-eu-trade>.

Boadle, Anthony. "Brazil pledge on Amazon Needed to Save EU-Mercosur Trade Deal -EU diplomat." Reuters. December 7, 2020. <https://www.reuters.com/article/eu-mercotur-brazil/brazil-pledge-on-amazon-needed-to-save-eu-mercotur-trade-deal-eu-diplomat-idUSKBN28H1SP>.

Boffey, Daniel. "EU Seeks Amazon Protections Pledge from Bolsonaro In Push to Ratify Trade Deal." The Guardian. October 20, 2020. <https://www.theguardian.com/world/2020/oct/20/eu-seeks-amazon-rainforest-protections-pledge-from-bolsonaro-in-push-to-ratify-trade-deal>.

Boyer and Schuschny. "Quantitative assessment of a free trade agreement between MERCOSUR and the European Union," CEPAL, April 2010.

<https://repositorio.cepal.org/bitstream/handle/11362/4774/S0900815.pdf?sequence=1>.

Branford, Sue. "Yanomami Amazon reserve invaded by 20,000 miners; Bolsonaro fails to act," Mongabay. July 12, 2019. <https://news.mongabay.com/2019/07/yanomami-amazon-reserve-invaded-by-20000-miners-bolsonaro-fails-to-act/>.

Burrell Allison, E Ferrari, A. G. Mellado, M. Himics, J. Michalek, S. Shrestha, and B. Van Doorslaer. *Potential EU-Mercosur Free Trade Agreement: Impact Assessment*. European Commission Joint Research Center Reference Report 2511, 2011. <https://ideas.repec.org/p/ipt/iptwpa/jrc67394.html>.

Casado, Leticia and Ernesto Londoño. “Under Brazil’s Far-Right Leader, Amazon Protections Slashed and Forests Fall.” *The New York Times*. July 28, 2019. <https://www.nytimes.com/2019/07/28/world/americas/brazil-deforestation-amazon-bolsonaro.html>.

Centre for Economic Policy Research (CEPR). “Reducing Transatlantic Barriers to Trade and Investment.” EC Framework Contract TRADE10/A2/A16, March 2013. <https://www.italaw.com/sites/default/files/archive/Reducing%20Trans-Atlantic%20Barriers%20to%20Trade%20and%20Investment.pdf>.

Congressional Research Service (CRS). *The U.S.-EU Beef Hormone Dispute* by Renée Johnson. January 14, 2015. <https://sgp.fas.org/crs/row/R40449.pdf>.

Corong, E., T. W. Hertel, R. McDougall, M. E. Tsigas, and Dominique van der Mensbrugghe. “The Standard GTAP Model, Version 7.” *Journal of Global Economic Analysis* 2, no. 1 (2017): 1–119. <http://dx.doi.org/10.21642/JGEA.020101AF>.

Deutsche Welle (DW). “Merkel: Amazon deforestation threatens EU-Mercosur deal.” Accessed September 27, 2021. <https://www.dw.com/en/merkel-amazon-deforestation-threatens-eu-mercotur-deal/a-54651194>.

Diao, Xinshen, Eugenio Díaz-Bonilla and Sherman Robinson. “Scenarios for Trade Integration in the Americas-FTAA and EU-Mercosur,” *Economie Internationale* v.94/95, 2003, 33–52. <https://www.cairn.info/revue-economie-internationale-2003-2-page-33.htm>.

ECORYS. “Non-Tariff Measures in EU-USA Trade and Investment—An Economic Analysis.” Reference OJ: 2007/s 180-219493, Directorate-General for Trade, European Commission, December 11, 2009. <https://www.gtap.agecon.purdue.edu/resources/download/5177.pdf>.

European Commission (EC). “Access2Markets—My Trade Assistant.” Accessed May 19, 2021. <https://trade.ec.europa.eu/access-to-markets/en/results?product=2918220010&origin=BR&destination=DE>.

European Commission (EC). Commission Implementing Regulation (EU) No 593/2013 of 21 June 2013 opening and providing for the administration of tariff quotas for high-quality fresh, chilled and frozen beef and for frozen buffalo meat. [https://op.europa.eu/en/publication-detail/-/publication/51194f40-dc9f-11e2-bfa7-01aa75ed71a1#:~:text=0-Commission%20Implementing%20Regulation%20\(EU\)%20No%20593%2F2013%20of%2021,and%20for%20frozen%20buffalo%20meat](https://op.europa.eu/en/publication-detail/-/publication/51194f40-dc9f-11e2-bfa7-01aa75ed71a1#:~:text=0-Commission%20Implementing%20Regulation%20(EU)%20No%20593%2F2013%20of%2021,and%20for%20frozen%20buffalo%20meat).

European Commission (EC). Commission Regulation (EC) No 1385/2007 of 26 November 2007 laying down detailed rules for the application of Council Regulation (EC) No 774/94 as regards opening and providing for the administration of certain Community tariff quotas for poultrymeat. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007R1385>.

European Commission (EC). Commission Regulation (EC) No 412/2008 of 8 May 2008 opening and providing for the administration of an import tariff quota for frozen beef intended for processing. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R0412>.

European Commission (EC). Commission Regulation (EC) No 533/2007 of 14 May 2007 opening and providing for the administration of tariff quotas in the poultrymeat sector. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007R0533>.

European Commission (EC). Commission Regulation (EC) No 616/2007 of 4 June 2007 opening and providing for the administration of Community tariff quotas in the sector of poultrymeat originating in Brazil, Thailand and other third countries. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32007R0616>.

European Commission (EC). Commission Regulation (EC) No 748/2008 of 30 July 2008 on the opening and administration of an import tariff quota for frozen thin skirt of bovine animals falling within CN code 02062991. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R0748>.

European Commission (EC). Commission Regulation (EC) No 891/2009 of 25 September 2009 opening and providing for the administration of certain Community tariff quotas in the sugar sector. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009R0891>.

European Commission (EC). "EU-Mercosur Trade Agreement: Agreement in Principle," June 2019. <https://trade.ec.europa.eu/doclib/html/157964.htm>.

European Commission (EC). "EU-Mercosur Trade Agreement: Factsheet on Agriculture," July 2019. <https://circabc.europa.eu/ui/group/09242a36-a438-40fd-a7af-fe32e36cbd0e/library/f9843e32-f618-4239-9b3e-6f34bac4f72b/details>.

European Commission (EC). "EU-Mercosur Trade Agreement: Key Facts," June 2019. <https://trade.ec.europa.eu/doclib/html/157954.htm>.

European Commission (EC), *Eurostat, Comext, International Trade*, accessed April 11, 2021. <http://epp.eurostat.ec.europa.eu/newxtweb/>.

European Commission (EC). "The European Union and the United States reach an agreement on imports of hormone-free beef." Press Release. June 14, 2019. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_19\\_3012](https://ec.europa.eu/commission/presscorner/detail/en/ip_19_3012).

European Commission (EC). "The European Single Market." Accessed July 5, 2021. [https://ec.europa.eu/info/policies/single-market\\_en](https://ec.europa.eu/info/policies/single-market_en).

European Commission (EC). "Quality Schemes Explained: Geographical Indications." Accessed April 28, 2021. [https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained\\_en#:~:text=PDO%20E2%80%93%20Protected%20Designation%20of%20Origin,spirit%20drinks%20and%20aromatised%20wines](https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en#:~:text=PDO%20E2%80%93%20Protected%20Designation%20of%20Origin,spirit%20drinks%20and%20aromatised%20wines).

European Parliament. "Amazon Deforestation and EU-Mercosur Deal." October 29, 2020. [https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS\\_ATA\(2020\)659311](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_ATA(2020)659311).

Federal Reserve. "Foreign Exchange Rates—G.5A Annual," accessed April 14, 2021. <https://www.federalreserve.gov/releases/g5a/current/>.

Flôres Jr., Renato G. and Masakazy Watanuki. "Integration Options for MERCOSUR: A Quantitative Analysis by the AMIDA Model." *Inter-American Development Bank Working Paper* 36, January 2008. <https://publications.iadb.org/publications/english/document/Integration-Options-for-MERCOSUR-A-Quantitative-Analysis-by-the-AMIDA-Model.pdf>.

Fontagné, Lionel, Julien Gourdon, and Sébastien Jean. "Transatlantic Trade: Whither Partnership, Which Economic Consequences?" CEPII Policy Brief no. 1, September 2013. [http://www.cepii.fr/pdf\\_pub/pb/2013/pb2013-01.pdf](http://www.cepii.fr/pdf_pub/pb/2013/pb2013-01.pdf).

Fontagné, Lionel., Cristina Mitaritonna and José Signoret. "Estimated Tariff Equivalents of Services NTMs," CEPII Working Paper, no. 2016-20, August 2016. [http://www.cepii.fr/PDF\\_PUB/wp/2016/wp2016-20.pdf](http://www.cepii.fr/PDF_PUB/wp/2016/wp2016-20.pdf).

Fugazza, Marco and Jean-Christophe Maur. "Non-Tariff Barriers in Computable General Equilibrium Modelling," *United Nations Conference on Trade and Development (UNCTAD)*, Policy Issues in International Trade and Commodities Study Series no. 38, UNCTAD/ITCD/TAB/39, 2008. [https://unctad.org/system/files/official-document/itcdtab39\\_en.pdf](https://unctad.org/system/files/official-document/itcdtab39_en.pdf).

Gallina, Sandra. *Civil Society Dialogue, Meeting on the EU-Mercosur Trade Agreement*. Brussels: European Commission, July 15, 2019. [https://trade.ec.europa.eu/doclib/docs/2019/august/tradoc\\_158315.pdf](https://trade.ec.europa.eu/doclib/docs/2019/august/tradoc_158315.pdf).

Ghiotto, Luciana and Javier Echaide. "Analysis of the agreement between the European Union and the Mercosur." Berlin, Buenos Aires, Brussels, December 2019. <https://www.annacavazzini.eu/wp-content/uploads/2020/01/Study-on-the-EU-Mercosur-agreement-09.01.2020-1.pdf>.

González, Anabel. "The EU-Mercosur Trade Accord Sends a Signal to the World's Protectionists." *Peterson Institute for International Economics Trade and Investment Policy Watch*. July 2, 2019. <https://www.piie.com/blogs/trade-and-investment-policy-watch/eu-mercador-trade-accord-sends-signal-worlds-protectionists>.

Gonzales, Jenny. "European Public Roundly Rejects Brazil Trade Deal Unless Amazon Protected." Mongabay. February 16, 2021. <https://news.mongabay.com/2021/02/european-public-roundly-rejects-brazil-trade-deal-unless-amazon-protected/>.

Grieger, Gisela. "The Trade Pillar of the EU-Mercosur Association Agreement." European Parliamentary Research Service. August 2019. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/640138/EPRS\\_BRI\(2019\)640138\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/640138/EPRS_BRI(2019)640138_EN.pdf).

Hertel, Thomas W., ed. *Global Trade Analysis: Modeling and Applications*. Cambridge: Cambridge University Press, 1997. <https://www.gtap.agecon.purdue.edu/resources/download/7684.pdf>.

Hertel, Thomas W. Terrie Walmsley and Ken Itakura. "Dynamic Effects of the "New Age" Free Trade Agreement Between Japan and Singapore." *Journal of Economic Integration* 16, no. 4, December 2001, 446—484. <https://www.jstor.org/stable/23000768>.

Hollard, Ruth. "European Parliament Rejects EU-Mercosur Agreement Due to Environmental Concerns." Datamar News. October 7, 2020. <https://www.datamarnews.com/noticias/european-parliament-rejects-eu-mercosur-agreement-due-to-environmental-concerns/>.

Huan-Niemi, Ellen and Jyrki Niemi. "Mercosur's meat exports to the EU: Assessment of policies affecting trade flows." Presented at the IAMA's 19th Annual World Forum and Symposium, Global Challenges, Local Solutions in Budapest Hungary, June 2009. [https://www.researchgate.net/publication/228431257\\_Mercosur's\\_meat\\_exports\\_to\\_the\\_EU\\_Assessment\\_of\\_policies\\_affecting\\_trade\\_flows](https://www.researchgate.net/publication/228431257_Mercosur's_meat_exports_to_the_EU_Assessment_of_policies_affecting_trade_flows).

Human Rights Watch (HRW). "EU/Brazil: Delay Trade Deal Pending Amazon Crisis Response." July 6, 2020. <https://www.hrw.org/news/2020/07/06/eu/brazil-delay-trade-deal-pending-amazon-crisis-response#>.

International Trade Centre (ITC). "NTM Survey Classification." Accessed April 11, 2021. <https://ntmsurvey.intracen.org/support-materials/ntm-classification/>.

Jusys, Tomas. "A Confirmation of the Indirect Impact of Sugarcane on Deforestation in the Amazon." *Journal of Land Use Science* 12, no. 2-3, March 1, 2017, 125—137. <https://doi.org/10.1080/1747423X.2017.1291766>.

Kee, Hiau Looi and Alessandro Nicita. "Trade Frauds, Trade Elasticities and Non-Tariff Measures," UNCTAD and The World Bank, June 2016. <https://thedocs.worldbank.org/en/doc/315201480958601753-0050022016/original/3KEEpaper.pdf>.

Kee, Hiau Looi, Alessandro Nicita and Marcelo Olarreaga. "Estimating trade restrictiveness indices," *Economic Journal* 119, no. 534, January 2009, 172—199. <https://doi.org/10.1111/j.1468-0297.2008.02209.x>.

London School of Economics (LSE). "Sustainability Impact Assessment in Support of the Association Agreement Negotiations between the European Union and Mercosur," October 2019. [https://trade.ec.europa.eu/doclib/docs/2020/july/tradoc\\_158889.pdf](https://trade.ec.europa.eu/doclib/docs/2020/july/tradoc_158889.pdf).

Lowe, Sam. "The EU Should Reconsider Its Approach to Trade and Sustainable Development." Centre for European Reform. October 31, 2019. <https://www.cer.eu/insights/eu-should-reconsider-its-approach-trade-and-sustainable-development>.

Mendez-Parra, M., E. Garnizova, D. Baeza Breinbauer, S. Lovo, J. Velut, B. Narayanan, M. Bauer, P. Lamprecht, K. Shadlen, V. Arza, M. Obaya, L. Calabrese, K. Banga, and N. Balchin. "Sustainability Impact Assessment in Support of the Association Agreement Negotiations between the European Union and Mercosur." LSE Consulting, Ltd., Luxembourg, December 2020. <https://www.lse.ac.uk/business/consulting/assets/documents/SIA-in-Support-of-the-Association-Agreement-Negotiations-between-the-EU-and-Mercosur-Final-Report.pdf>.

Mendonça, Elisângela. “Bolsonaro’s Brazil Unlikely to Achieve Paris Agreement Goals: Experts.” Mongabay. September 22, 2019. <https://news.mongabay.com/2019/09/bolsonaros-brazil-unlikely-to-achieve-paris-agreement-goals-experts/>.

O’Sullivan, Kevin. “Leaked treaty on EU-Mercosur trade deal ‘has no climate protection’,” Irish Times, October 2020. <https://www.irishtimes.com/news/environment/leaked-treaty-on-eu-mercotur-trade-deal-has-no-climate-protection-1.4375900>.

President of the Republic of Brazil. “About the Barão do Rio Branco Program,” Press Release. September 24, 2019. <https://www.gov.br/secretariageral/pt-br/noticias/2019/setembro/about-the-barao-do-rio-branco-program>.

Samuelson, Paul A. “The Transfer Problem and Transport Costs, II: Analysis of Effects of Trade Impediments,” *The Economic Journal* 64, no. 254, June 1, 1954, 264—289. <https://doi.org/10.2307/2226834>.

Sistema de Estimativas de Emissões e Remoções de Gases de Efeito Estufa (SEEG). “Total Emissions.” Accessed September 29, 2021. [https://plataforma.seeg.eco.br/total\\_emission#](https://plataforma.seeg.eco.br/total_emission#).

Taheripour et al., “Land Use in Computable General Equilibrium Models,” *Journal of Global Economic Analysis* 5, 2020, 63—109. <http://dx.doi.org/10.21642/JGEA.050202AF>.

U.S. Department of Agriculture (USDA), Foreign Agricultural Service (FAS). *EU-MERCOSUR Trade Agreement: A Preliminary Analysis*. International Agricultural Trade Report, January 7, 2021. <https://www.fas.usda.gov/data/eu-mercotur-trade-agreement-preliminary-analysis>.

U.S. International Trade Commission Interactive Tariff and Trade DataWeb (USITC DataWeb)/U.S. Census Bureau (Census). Accessed May 27, 2021. <http://dataweb.usitc.gov>.

U.S. Meat Export Federation (USMEF). “Revised Duty-Free Quota Opens New Doors for U.S. Beef In Europe.” March 5, 2020. <https://www.beefmagazine.com/exports/revised-duty-free-quota-opens-new-doors-us-beef-europe>.

United Nations Climate Change (UNCC). “The Paris Agreement.” Accessed September 29, 2021. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

United Nations Conference on Trade and Development (UNCTAD). *International Classification of Non-Tariff Measures: 2019 Version*. UNCTAD/DITC/TAB/2019/5, 2019. [https://unctad.org/system/files/official-document/ditctab2019d5\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2019d5_en.pdf).

United Nations Conference on Trade and Development (UNCTAD). *Non-Tariff Measures in Mercosur: Deepening Regional Integration and Looking Beyond*. UNCTAD/DITC/TAB/2016/1, 2017. [https://unctad.org/system/files/official-document/ditctab2016d1\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2016d1_en.pdf).

Walmsley, Terrie and Peter Minor. “Willingness to Pay in CGE Models.” ImpactECON Working Paper 004, December 2015. <https://impactecon.com/resources/cge-models/>.

Walmsley and Strutt. "Improving the Modelling of Non-Tariff Measures in a CGE Framework." 2019 GTAP Conference paper, May 27, 2019.

[https://www.gtap.agecon.purdue.edu/resources/res\\_display.asp?RecordID=5726](https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5726).

Webb, Mike, Anna Strutt, John Gibson and Terrie Walmsley. "Modelling the Impact of Non-tariff Measures on Supply Chains in ASEAN," *The World Economy* 43, no. 8, April 12, 2020, 2172–2198.

<https://doi.org/10.1111/twec.12955>.

Webb, Mike, Anna Strutt, and Terrie Walmsley, "Regulatory Harmonization in the ASEAN Region: The Effects of Applying Different Types of Non-tariff Measures," 2019 GTAP Conference Paper, June 6, 2019.

<https://www.gtap.agecon.purdue.edu/resources/download/9433.pdf>.

World Integrated Trade Solution (WITS). "Non-Tariff Measure Data." Accessed April 27, 2021.

<http://wits.worldbank.org/WITS/WITS/QuickQuery/NTMs/NTMsQuickQuery.aspx?Page=NTMs>.



			SHOCK: ams1 decomposed	SHOCK: ams2 decomposed
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
2	WHT	Wheat	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

3	GRO	Cereal grains nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
4	V_F	Vegetables, fruit, nuts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

5	OSD	Oil seeds	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
6	C_B	Sugar cane, sugar beet	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

7	PFB	Plant-based fibers	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
8	OCR	Crops nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

9	CTL	Bovine cattle, sheep and goats, horses	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
10	OAP	Animal products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

11	RMK	Raw milk	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
12	WOL	Wool, silk-worm cocoons	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

13	FRS	Forestry	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
14	FSH	Fishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)



15	COA	Coal	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
16	OIL	Oil	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
17	GAS	Gas	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2( did not retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

18	OXT	Minerals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
19	CMT	Bovine meat products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19- 26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

20	OMT	Meat products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
21	VOL	Vegetable oils and fats	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

22	MIL	Dairy products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
23	PCR	Processed rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

24	SGR	Sugar	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
25	OFD	Food products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

26	B_T	Beverages and tobacco products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
27	TEX	Textiles	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)
28	WAP	Wearing apparel	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)

29	LEA	Leather products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
30	LUM	Wood products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
31	PPP	Paper products, publishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

32	P_C	Petroleum , coal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(did not retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
33	CHM	chemicals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(did not retain right to import/export monopolies in this sector)+5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
34	BPH	basic pharma	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)



35	RPP	rubber and plastics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
36	NMM	Mineral products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
37	I_S	Ferrous metals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

38	NFM	Metals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
39	FMP	Metal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
40	ELE	Electronic equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

41	EEQ	Computer and electronics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
42	OME	Machinery and equipment not nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
43	MVH	Motor vehicles and parts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

44	OTN	Transport equipment nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
45	OMF	Manufactures nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
46	ELY	Electricity	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

47	GDT	Gas manufact ure, distributio n	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% les than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
----	-----	---	---	--

			ams1	ams2
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	0	0
2	WHT	Wheat	0	0
3	GRO	Cereal grains nec	0	0
4	V_F	Vegetables, fruit, nuts	5.625999	0.00000951
5	OSD	Oil seeds	0.000146	0
6	C_B	Sugar cane, sugar beet	0	0
7	PFB	Plant-based fibers	0	0
8	OCR	Crops nec	167.306	0
9	CTL	Bovine cattle, sheep and goats, horses	0	0
10	OAP	Animal products nec	0.0685	0.0024339
11	RMK	Raw milk	0	0
12	WOL	Wool, silk-worm cocoons	0	0
13	FRS	Forestry	0	0.0095831
14	FSH	Fishing	1.754384	0
15	COA	Coal	0	0
16	OIL	Oil	0	0
17	GAS	Gas	0	0
18	OXT	Minerals nec	0.001077	0
19	CMT	Bovine meat products	8.713357	0
20	OMT	Meat products nec	72.07194	0
21	VOL	Vegetable oils and fats	0.369061	0
22	MIL	Dairy products	3.212288	0.8318847

			SHOCK: ams1	SHOCK: am
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	4	2
2	WHT	Wheat	4	2
3	GRO	Cereal grains nec	4	2
4	V_F	Vegetables, fruit, nuts	4	2
5	OSD	Oil seeds	4	2
6	C_B	Sugar cane, sugar beet	4	2
7	PFB	Plant-based fibers	4	2
8	OCR	Crops nec	4	12
9	CTL	Bovine cattle, sheep and goats, horses	4	2
10	OAP	Animal products nec	4	2
11	RMK	Raw milk	4	2
12	WOL	Wool, silk-worm cocoons	4	2
13	FRS	Forestry	4	2
14	FSH	Fishing	4	2
15	COA	Coal	2	2
16	OIL	Oil	2	2
17	GAS	Gas	2	4
18	OXT	Minerals nec	2	2
19	CMT	Bovine meat products	4	2
20	OMT	Meat products nec	4	12
21	VOL	Vegetable oils and fats	4	2
22	MIL	Dairy products	4	2

23	PCR	Processed rice	93.80994	32.007
24	SGR	Sugar	3.44	14.99875
25	OFD	Food products nec	40.8695	0.00000108
26	B_T	Beverages and tobacco products	29.6244	0
27	TEX	Textiles	3.705658	0
28	WAP	Wearing apparel	6.507931	0.0036243
29	LEA	Leather products	5.491663	0.0338147
30	LUM	Wood products	3.450532	0.8808975
31	PPP	Paper products, publishing	0.912864	0.0253173
32	P_C	Petroleum , coal products	0.500301	0
33	CHM	chemicals	2.439758	0.0013899
34	BPH	basic pharma	2.439758	0.0013899
35	RPP	rubber and plastics	2.439758	0.0013899
36	NMM	Mineral products nec	1.650988	0
37	I_S	Ferrous metals	1.11908	0
38	NFM	Metals nec	0.09882	0
39	FMP	Metal products	8.484571	0.0000385
40	ELE	Electronic equipmen t	1.324149	0
41	EEQ	Computer and electronic s	1.324149	0
42	OME	Machinery and equipmen t nec	1.987925	0.0004664

23	PCR	Processed rice	4	2
24	SGR	Sugar	4	2
25	OFD	Food products nec	4	2
26	B_T	Beverages and tobacco products	4	12
27	TEX	Textiles	2	5
28	WAP	Wearing apparel	2	5
29	LEA	Leather products	2	2
30	LUM	Wood products	2	2
31	PPP	Paper products, publishing	2	2
32	P_C	Petroleum , coal products	2	4
33	CHM	chemicals	2	17
34	BPH	basic pharma	2	12
35	RPP	rubber and plastics	2	12
36	NMM	Mineral products nec	2	12
37	I_S	Ferrous metals	2	12
38	NFM	Metals nec	2	2
39	FMP	Metal products	2	2
40	ELE	Electronic equipmen t	2	12
41	EEQ	Computer and electronic s	2	2
42	OME	Machinery and equipmen t nec	2	12

43	MVH	Motor vehicles and parts	14.92395	0
44	OTN	Transport equipment nec	0.13471	0
45	OMF	Manufactures nec	0.845912	0
46	ELY	Electricity	0	0
47	GDT	Gas manufacture, distribution	0	0

43	MVH	Motor vehicles and parts	2	15
44	OTN	Transport equipment nec	2	2
45	OMF	Manufactures nec	2	15
46	ELY	Electricity	2	2
47	GDT	Gas manufacture, distribution	2	2



			SHOCK: ams1 decomposed	SHOCK: ams2 decomposed
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% les than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
2	WHT	Wheat	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% les than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

3	GRO	Cereal grains nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
4	V_F	Vegetables, fruit, nuts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

5	OSD	Oil seeds	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
6	C_B	Sugar cane, sugar beet	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

7	PFB	Plant-based fibers	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
8	OCR	Crops nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

9	CTL	Bovine cattle, sheep and goats, horses	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
10	OAP	Animal products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

11	RMK	Raw milk	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
12	WOL	Wool, silk-worm cocoons	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

13	FRS	Forestry	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
14	FSH	Fishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

15	COA	Coal	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
16	OIL	Oil	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
17	GAS	Gas	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=0(BRA did retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)



18	OXT	Minerals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
19	CMT	Bovine meat products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

20	OMT	Meat products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
21	VOL	Vegetable oils and fats	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

22	MIL	Dairy products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
23	PCR	Processed rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

24	SGR	Sugar	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
25	OFD	Food products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

26	B_T	Beverages and tobacco products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
27	TEX	Textiles	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)

28	WAP	Wearing apparel	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)
29	LEA	Leather products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
30	LUM	Wood products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

31	PPP	Paper products, publishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
32	P_C	Petroleum, coal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=0(BRA did retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
33	CHM	chemicals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=0(BRA did retain right to import/export monopolies in this sector)+5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

34	BPH	basic pharma	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
35	RPP	rubber and plastics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
36	NMM	Mineral products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)



37	I_S	Ferrous metals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
38	NFM	Metals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
39	FMP	Metal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

40	ELE	Electronic equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
41	EEQ	Computer and electronics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
42	OME	Machinery and equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

43	MVH	Motor vehicles and parts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
44	OTN	Transport equipment nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
45	OMF	Manufactures nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

46	ELY	Electricity	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
47	GDT	Gas manufacture, distribution	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

			ams1	ams2
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	0	0
2	WHT	Wheat	0	0
3	GRO	Cereal grains nec	0	0
4	V_F	Vegetables, fruit, nuts	0.317866	0.008171
5	OSD	Oil seeds	0	0
6	C_B	Sugar cane, sugar beet	0	0
7	PFB	Plant-based fibers	0	0
8	OCR	Crops nec	2.147135	0
9	CTL	Bovine cattle, sheep and goats, horses	0	0
10	OAP	Animal products nec	0.49879	0
11	RMK	Raw milk	0	0
12	WOL	Wool, silk-worm cocoons	0	0
13	FRS	Forestry	0	0
14	FSH	Fishing	1.298823	0
15	COA	Coal	0	0
16	OIL	Oil	0	0
17	GAS	Gas	0.110921	0
18	OXT	Minerals nec	0.00235	0
19	CMT	Bovine meat products	6.995924	0
20	OMT	Meat products nec	12.18005	0
21	VOL	Vegetable oils and fats	22.35033	0

			SHOCK: ams1	SHOCK: am
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	4	2
2	WHT	Wheat	4	2
3	GRO	Cereal grains nec	4	2
4	V_F	Vegetables, fruit, nuts	4	2
5	OSD	Oil seeds	4	2
6	C_B	Sugar cane, sugar beet	4	2
7	PFB	Plant-based fibers	4	2
8	OCR	Crops nec	4	12
9	CTL	Bovine cattle, sheep and goats, horses	4	2
10	OAP	Animal products nec	4	2
11	RMK	Raw milk	4	2
12	WOL	Wool, silk-worm cocoons	4	2
13	FRS	Forestry	4	2
14	FSH	Fishing	4	2
15	COA	Coal	2	2
16	OIL	Oil	2	2
17	GAS	Gas	2	2
18	OXT	Minerals nec	2	2
19	CMT	Bovine meat products	4	2
20	OMT	Meat products nec	4	12
21	VOL	Vegetable oils and fats	4	2

22	MIL	Dairy products	14.93706	0.371247
23	PCR	Processed rice	79.63548	24.78423
24	SGR	Sugar	6.637828	12.5804
25	OFD	Food products nec	7.796538	0.002176
26	B_T	Beverages and tobacco products	10.86393	1.481774
27	TEX	Textiles	7.264619	0
28	WAP	Wearing apparel	18.44136	0.003823
29	LEA	Leather products	4.612906	0.004083
30	LUM	Wood products	3.009765	3.772574
31	PPP	Paper products, publishing	1.849629	0.030747
32	P_C	Petroleum , coal products	1.082216	0
33	CHM	chemicals	2.756584	0.006343
34	BPH	basic pharma	2.756584	0.006343
35	RPP	rubber and plastics	2.756584	0.006343
36	NMM	Mineral products nec	1.268431	0
37	I_S	Ferrous metals	0.42499	0
38	NFM	Metals nec	0.408787	0
39	FMP	Metal products	7.229509	0
40	ELE	Electronic equipment	0.73986	0
41	EEQ	Computer and electronics	0.73986	0

22	MIL	Dairy products	4	2
23	PCR	Processed rice	4	2
24	SGR	Sugar	4	2
25	OFD	Food products nec	4	2
26	B_T	Beverages and tobacco products	4	12
27	TEX	Textiles	2	5
28	WAP	Wearing apparel	2	5
29	LEA	Leather products	2	2
30	LUM	Wood products	2	2
31	PPP	Paper products, publishing	2	2
32	P_C	Petroleum , coal products	2	2
33	CHM	chemicals	2	15
34	BPH	basic pharma	2	12
35	RPP	rubber and plastics	2	12
36	NMM	Mineral products nec	2	12
37	I_S	Ferrous metals	2	12
38	NFM	Metals nec	2	2
39	FMP	Metal products	2	2
40	ELE	Electronic equipment	2	12
41	EEQ	Computer and electronics	2	2

42	OME	Machinery and equipment nec	1.003859	0.000142
43	MVH	Motor vehicles and parts	9.319284	0
44	OTN	Transport equipment nec	0.252766	0
45	OMF	Manufactures nec	2.180014	0
46	ELY	Electricity	0	0
47	GDT	Gas manufacture, distribution	0	0

42	OME	Machinery and equipment nec	2	12
43	MVH	Motor vehicles and parts	2	15
44	OTN	Transport equipment nec	2	2
45	OMF	Manufactures nec	2	15
46	ELY	Electricity	2	2
47	GDT	Gas manufacture, distribution	2	2

## SHOCK: ams1 decomposed

## SHOCK: ams2 decomposed

GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
2	WHT	Wheat	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
3	GRO	Cereal grains nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)



4	V_F	Vegetables, fruit, nuts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
5	OSD	Oil seeds	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
6	C_B	Sugar cane, sugar beet	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

7	PFB	Plant-based fibers	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
8	OCR	Crops nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
9	CTL	Bovine cattle, sheep and goats, horses	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

10	OAP	Animal products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
11	RMK	Raw milk	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
12	WOL	Wool, silk-worm cocoons	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

13	FRS	Forestry	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
14	FSH	Fishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
15	COA	Coal	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

16	OIL	Oil	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
17	GAS	Gas	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2( did not retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
18	OXT	Minerals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
19	CMT	Bovine meat products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

20	OMT	Meat products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
21	VOL	Vegetable oils and fats	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
22	MIL	Dairy products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

23	PCR	Processed rice	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
24	SGR	Sugar	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
25	OFD	Food products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

26	B_T	Beverages and tobacco products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
27	TEX	Textiles	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)
28	WAP	Wearing apparel	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)
29	LEA	Leather products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)



30	LUM	Wood products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
31	PPP	Paper products, publishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
32	P_C	Petroleum, coal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(did not retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
33	CHM	chemicals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(did not retain right to import/export monopolies in this sector)+5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

34	BPH	basic pharma	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
35	RPP	rubber and plastics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
36	NMM	Mineral products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
37	I_S	Ferrous metals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

38	NFM	Metals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
39	FMP	Metal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
40	ELE	Electronic equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
41	EEQ	Computer and electronics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

42	OME	Machinery and equipment nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
43	MVH	Motor vehicles and parts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
44	OTN	Transport equipment nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
45	OMF	Manufactures nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

46	ELY	Electricity	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
47	GDT	Gas manufacture, distribution	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

			ams1	ams2
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	0	0
2	WHT	Wheat	0	0
3	GRO	Cereal grains nec	0	0
4	V_F	Vegetables, fruit, nuts	2.089931	0
5	OSD	Oil seeds	0	0
6	C_B	Sugar cane, sugar beet	0	0
7	PFB	Plant-based fibers	0	0
8	OCR	Crops nec	0	0
9	CTL	Bovine cattle, sheep and goats, horses	0	0
10	OAP	Animal products nec	1.365186	0
11	RMK	Raw milk	0	0
12	WOL	Wool, silk-worm cocoons	0	0
13	FRS	Forestry	0	0.311326
14	FSH	Fishing	0	0
15	COA	Coal	0	0
16	OIL	Oil	0	0
17	GAS	Gas	0	0
18	OXT	Minerals nec	0.777267	0
19	CMT	Bovine meat products	0	0
20	OMT	Meat products nec	4.578138	0
21	VOL	Vegetable oils and fats	0.014097	0

SHOCK: ams1 SHOCK: am				
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	4	2
2	WHT	Wheat	4	2
3	GRO	Cereal grains nec	4	2
4	V_F	Vegetables, fruit, nuts	4	2
5	OSD	Oil seeds	4	2
6	C_B	Sugar cane, sugar beet	4	2
7	PFB	Plant-based fibers	4	2
8	OCR	Crops nec	4	12
9	CTL	Bovine cattle, sheep and goats, horses	4	2
10	OAP	Animal products nec	4	2
11	RMK	Raw milk	4	2
12	WOL	Wool, silk-worm cocoons	4	2
13	FRS	Forestry	4	2
14	FSH	Fishing	4	2
15	COA	Coal	2	2
16	OIL	Oil	2	2
17	GAS	Gas	2	4
18	OXT	Minerals nec	2	2
19	CMT	Bovine meat products	4	2
20	OMT	Meat products nec	4	12
21	VOL	Vegetable oils and fats	4	2

22	MIL	Dairy products	0	0
23	PCR	Processed rice	87.3496	0
24	SGR	Sugar	3.199695	7.048149
25	OFD	Food products nec	6.987213	0
26	B_T	Beverages and tobacco products	2.575703	0
27	TEX	Textiles	1.437395	0
28	WAP	Wearing apparel	4.135744	0
29	LEA	Leather products	2.514483	0.299152
30	LUM	Wood products	1.448304	0
31	PPP	Paper products, publishing	0.374269	0
32	P_C	Petroleum , coal products	0	30.96293
33	CHM	chemicals	0.234148	0.000233
34	BPH	basic pharma	0.234148	0.000233
35	RPP	rubber and plastics	0.234148	0.000233
36	NMM	Mineral products nec	0.176704	0
37	I_S	Ferrous metals	0	0
38	NFM	Metals nec	0	0
39	FMP	Metal products	252.1896	0
40	ELE	Electronic equipment	0.705172	0
41	EEQ	Computer and electronics	0.705172	0

22	MIL	Dairy products	4	2
23	PCR	Processed rice	4	2
24	SGR	Sugar	4	2
25	OFD	Food products nec	4	2
26	B_T	Beverages and tobacco products	4	12
27	TEX	Textiles	2	5
28	WAP	Wearing apparel	2	5
29	LEA	Leather products	2	2
30	LUM	Wood products	2	2
31	PPP	Paper products, publishing	2	2
32	P_C	Petroleum , coal products	2	4
33	CHM	chemicals	2	17
34	BPH	basic pharma	2	12
35	RPP	rubber and plastics	2	12
36	NMM	Mineral products nec	2	12
37	I_S	Ferrous metals	2	12
38	NFM	Metals nec	2	2
39	FMP	Metal products	2	2
40	ELE	Electronic equipment	2	12
41	EEQ	Computer and electronics	2	2

42	OME	Machinery and equipment nec	0.081571	0
43	MVH	Motor vehicles and parts	0	0
44	OTN	Transport equipment nec	0.046382	0
45	OMF	Manufactures nec	17.38362	0
46	ELY	Electricity	0	0
47	GDT	Gas manufacture, distribution	0	0

42	OME	Machinery and equipment nec	2	12
43	MVH	Motor vehicles and parts	2	15
44	OTN	Transport equipment nec	2	2
45	OMF	Manufactures nec	2	15
46	ELY	Electricity	2	2
47	GDT	Gas manufacture, distribution	2	2



			SHOCK: ams1 decomposed	SHOCK: ams2 decomposed
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>
2	WHT	Wheat	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>

3	GRO	Cereal grains nec	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
4	V_F	Vegetables, fruit, nuts	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

5	OSD	Oil seeds	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
6	C_B	Sugar cane, sugar beet	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

7	PFB	Plant-based fibers	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>
8	OCR	Crops nec	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>

9	CTL	Bovine cattle, sheep and goats, horses	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
10	OAP	Animal products nec	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

11	RMK	Raw milk	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
12	WOL	Wool, silk-worm cocoons	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

13	FRS	Forestry	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
14	FSH	Fishing	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

15	COA	Coal	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
16	OIL	Oil	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
17	GAS	Gas	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=0(URY did retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)



18	OXT	Minerals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
19	CMT	Bovine meat products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

20	OMT	Meat products nec	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>
21	VOL	Vegetable oils and fats	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	<p>=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)</p>

22	MIL	Dairy products	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
23	PCR	Processed rice	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

24	SGR	Sugar	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
25	OFD	Food products nec	<p>=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)</p> <p>+2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)</p>	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

26	B_T	Beverages and tobacco products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters) +2(SPS; regularization principle reduces potential trade friction due to disease in ag sectors 1-14; 19-26)	=10(EU must recognize Merco Gis, of which there are about 100 less (220 vs. 350 EU Gis) making it harder for EU to produce/market domestic substitutes and encouraging Merco exports of these products)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
27	TEX	Textiles	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)

28	WAP	Wearing apparel	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)
29	LEA	Leather products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
30	LUM	Wood products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

31	PPP	Paper products, publishing	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
32	P_C	Petroleum, coal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(URY did not retain right to import/export monopolies in this sector)+2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
33	CHM	chemicals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=0(URY did retain right to import/export monopolies in this sector)+5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

34	BPH	basic pharma	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
35	RPP	rubber and plastics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
36	NMM	Mineral products nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)



37	I_S	Ferrous metals	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
38	NFM	Metals nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
39	FMP	Metal products	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

40	ELE	Electronic equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
41	EEQ	Computer and electronics	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
42	OME	Machinery and equipment	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

43	MVH	Motor vehicles and parts	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)
44	OTN	Transport equipment nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
45	OMF	Manufactures nec	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=5(Merco exporters granted leniency for up to 5 years in complying with product-specific ROOs in this sector)+10(EU grants national treatment for public procurement; this is major sector involved in pp)

46	ELY	Electricity	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)
47	GDT	Gas manufacture, distribution	=2(EU continuance of widespread general principles of conformity assessment for all sectors; EU retains current policy meeting most standards already so it's relatively easier for EU exporters to export while Mercosur exporters must step up further to meet principles/export so barrier for Merco exporters falls by 3% less than EU exporters)	=2(Merco exporters granted leniency for up to 5 years in complying with ROOs which affect all products/sectors)

			ams1	ams2
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	0	0
2	WHT	Wheat	0	0
3	GRO	Cereal grains nec	0	0
4	V_F	Vegetables, fruit, nuts	5.035686	0
5	OSD	Oil seeds	0	0
6	C_B	Sugar cane, sugar beet	0	0
7	PFB	Plant-based fibers	0	0
8	OCR	Crops nec	0.013165	0
9	CTL	Bovine cattle, sheep and goats, horses	13.05238	0
10	OAP	Animal products nec	0.109468	0
11	RMK	Raw milk	0	0
12	WOL	Wool, silk-worm cocoons	0	0
13	FRS	Forestry	0	0
14	FSH	Fishing	0	0
15	COA	Coal	0	0
16	OIL	Oil	0	0
17	GAS	Gas	0	0
18	OXT	Minerals nec	0.210329	0
19	CMT	Bovine meat products	12.07474	0
20	OMT	Meat products nec	4.70525	0
21	VOL	Vegetable oils and fats	0.228276	0
22	MIL	Dairy products	0	0

			SHOCK: ams1	SHOCK: ams2
GTAP_num	GTAP_code	GTAP_desc	EUN	EUN
1	PDR	Paddy rice	4	2
2	WHT	Wheat	4	2
3	GRO	Cereal grains nec	4	2
4	V_F	Vegetables, fruit, nuts	4	2
5	OSD	Oil seeds	4	2
6	C_B	Sugar cane, sugar beet	4	2
7	PFB	Plant-based fibers	4	2
8	OCR	Crops nec	4	12
9	CTL	Bovine cattle, sheep and goats, horses	4	2
10	OAP	Animal products nec	4	2
11	RMK	Raw milk	4	2
12	WOL	Wool, silk-worm cocoons	4	2
13	FRS	Forestry	4	2
14	FSH	Fishing	4	2
15	COA	Coal	2	2
16	OIL	Oil	2	2
17	GAS	Gas	2	2
18	OXT	Minerals nec	2	2
19	CMT	Bovine meat products	4	2
20	OMT	Meat products nec	4	12
21	VOL	Vegetable oils and fats	4	2
22	MIL	Dairy products	4	2

23	PCR	Processed rice	60.77716	0
24	SGR	Sugar	0	0
25	OFD	Food products nec	2.532349	0
26	B_T	Beverages and tobacco products	19.08883	0
27	TEX	Textiles	1.532601	0
28	WAP	Wearing apparel	5.199931	0.080083
29	LEA	Leather products	2.256544	0
30	LUM	Wood products	4.526106	0.202741
31	PPP	Paper products, publishing	0.000963	0.00577
32	P_C	Petroleum , coal products	0.684748	13.18394
33	CHM	chemicals	14.28887	1.79E-05
34	BPH	basic pharma	14.28887	1.79E-05
35	RPP	rubber and plastics	14.28887	1.79E-05
36	NMM	Mineral products nec	1.245849	0
37	I_S	Ferrous metals	4.301187	0
38	NFM	Metals nec	0.177298	0
39	FMP	Metal products	11.46876	0
40	ELE	Electronic equipmen t	0.491087	0
41	EEQ	Computer and electronic s	0.491087	0
42	OME	Machinery and equipmen t nec	4.848944	3.06E-05

23	PCR	Processed rice	4	2
24	SGR	Sugar	4	2
25	OFD	Food products nec	4	2
26	B_T	Beverages and tobacco products	4	12
27	TEX	Textiles	2	5
28	WAP	Wearing apparel	2	5
29	LEA	Leather products	2	2
30	LUM	Wood products	2	2
31	PPP	Paper products, publishing	2	2
32	P_C	Petroleum , coal products	2	4
33	CHM	chemicals	2	15
34	BPH	basic pharma	2	12
35	RPP	rubber and plastics	2	12
36	NMM	Mineral products nec	2	12
37	I_S	Ferrous metals	2	12
38	NFM	Metals nec	2	2
39	FMP	Metal products	2	2
40	ELE	Electronic equipmen t	2	12
41	EEQ	Computer and electronic s	2	2
42	OME	Machinery and equipmen t nec	2	12

43	MVH	Motor vehicles and parts	4.957647	0
44	OTN	Transport equipment nec	0.125214	0
45	OMF	Manufactures nec	0.211494	0
46	ELY	Electricity	0	0
47	GDT	Gas manufacture, distribution	0	0

43	MVH	Motor vehicles and parts	2	15
44	OTN	Transport equipment nec	2	2
45	OMF	Manufactures nec	2	15
46	ELY	Electricity	2	2
47	GDT	Gas manufacture, distribution	2	2

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

44	OTN	Transport equipment nec	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=0	=0	=0	=0
45	OMF	Manufactures nec	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=15(Merco grants national treatment for public procurement; this is major sector involved in pp)	=15(Merco grants national treatment for public procurement; this is major sector involved in pp)	=15(Merco grants national treatment for public procurement; this is major sector involved in pp)	=15(Merco grants national treatment for public procurement; this is major sector involved in pp)
46	ELY	Electricity	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=0	=0	=0	=0
47	GDT	Gas manufacture, distribution	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=4(Mercosur establishment of widespread general principles of conformity assessment for all sectors; EU retains current policy and Mercosur must step up further to meet principles)	=0	=0	=0	=0

GTAP_num	GTAP_code	GTAP_desc	ams1 shock (reduction)				ams2 shock (reduction)			
			ARG	BRA	PRY	URY	ARG	BRA	PRY	URY
1	PDR	Paddy rice	8	8	8	8	0	0	0	0
2	WHT	Wheat	8	8	8	8	0	0	0	0
3	GRO	Cereal grains nec	8	8	8	8	0	0	0	0
4	V_F	Vegetables, fruit, nuts	8	8	8	8	0	0	0	0
5	OSD	Oil seeds	8	8	8	8	0	0	0	0
6	C_B	Sugar cane, sugar beet	8	8	8	8	0	0	0	0
7	PFB	Plant-based fibers	8	8	8	8	0	0	0	0
8	OCR	Crops nec	8	8	8	8	0	0	0	0
9	CTL	Bovine cattle, sheep and goats, horses	8	8	8	8	0	0	0	0
10	OAP	Animal products nec	8	8	8	8	0	0	0	0
11	RMK	Raw milk	8	8	8	8	0	0	0	0
12	WOL	Wool, silk-worm cocoons	8	8	8	8	0	0	0	0
13	FRS	Forestry	8	8	8	8	0	0	0	0
14	FSH	Fishing	8	8	8	8	0	0	0	0
15	COA	Coal	4	4	4	4	0	0	0	0
16	OIL	Oil	4	4	4	4	0	0	0	0
17	GAS	Gas	4	4	4	4	2	0	2	0
18	OXT	Minerals nec	4	4	4	4	0	0	0	0
19	CMT	Bovine meat products	8	8	8	8	0	0	0	0
20	OMT	Meat products nec	8	8	8	8	0	0	0	0
21	VOL	Vegetable oils and fats	8	8	8	8	0	0	0	0

22	MIL	Dairy products	8	8	8	8	15	15	15	15
23	PCR	Processed rice	8	8	8	8	0	0	0	0
24	SGR	Sugar	8	8	8	8	0	0	0	0
25	OFD	Food products nec	8	8	8	8	15	15	15	15
26	B_T	Beverages and tobacco products	8	8	8	8	15	15	15	15
27	TEX	Textiles	4	4	4	4	0	0	0	0
28	WAP	Wearing apparel	4	4	4	4	0	0	0	0
29	LEA	Leather products	4	4	4	4	0	0	0	0
30	LUM	Wood products	4	4	4	4	0	0	0	0
31	PPP	Paper products, publishing	4	4	4	4	0	0	0	0
32	P_C	Petroleum , coal products	4	4	4	4	2	0	2	2
33	CHM	chemicals	4	4	4	4	17	15	17	15
34	BPH	basic pharma	4	4	4	4	15	15	15	15
35	RPP	rubber and plastics	4	4	4	4	15	15	15	15
36	NMM	Mineral products nec	4	4	4	4	15	15	15	15
37	I_S	Ferrous metals	4	4	4	4	15	15	15	15
38	NFM	Metals nec	4	4	4	4	0	0	0	0
39	FMP	Metal products	4	4	4	4	0	0	0	0
40	ELE	Electronic equipment	6	6	6	6	15	15	15	15
41	EEQ	Computer and electronics	4	4	4	4	0	0	0	0

42	OME	Machinery and equipment nec	4	4	4	4	15	15	15	15
43	MVH	Motor vehicles and parts	4	4	4	4	15	15	15	15
44	OTN	Transport equipment nec	4	4	4	4	0	0	0	0
45	OMF	Manufactures nec	4	4	4	4	15	15	15	15
46	ELY	Electricity	4	4	4	4	0	0	0	0
47	GDT	Gas manufacture, distribution	4	4	4	4	0	0	0	0

GTAP_num	GTAP_code	GTAP_desc	ams1: technical				ams2: non-technical			
			ARG	BRA	PRY	URY	ARG	BRA	PRY	URY
1	PDR	Paddy rice						0		0.86605
2	WHT	Wheat								
3	GRO	Cereal grains nec								
4	V_F	Vegetables, fruit, nuts	4.501165	3.615214	3.097445	3.02226	3.326247	0	0	2.09514
5	OSD	Oil seeds					0.056672		0	0.034222
6	C_B	Sugar cane, sugar beet								
7	PFB	Plant-based fibers								
8	OCR	Crops nec	29.29573	30.06334	64.52138	16.30554	4.149104	0	0	0.09178
9	CTL	Bovine cattle, sheep and goats, horses		3.934344				0		
10	OAP	Animal products nec	0.136909	0.931066		0.237571	0.35931	0	0	0.072365
11	RMK	Raw milk								
12	WOL	Wool, silk-worm cocoons	0.838941							
13	FRS	Forestry			1.476946	1.924849		0	0	0
14	FSH	Fishing		1.07752				0		
15	COA	Coal	0	0	0	0	0.70927	0	0	0
16	OIL	Oil		0						
17	GAS	Gas	0	1.354457						
18	OXT	Minerals nec	0.027192	0.391856	0	0.013924	0.694974	0	0	0
19	CMT	Bovine meat products	3.633504	2.957843		0.738344	3.003843	0		0
20	OMT	Meat products nec	6.041112	2.850048	9.414385	4.589753	5.742198	0	0	0
21	VOL	Vegetable oils and fats	2.66283	9.400854		2.057204	4.353913	0	0	0

22	MIL	Dairy products	9.77993	12.63825	9.695398	12.51821	2.313093	0.041281	0	0
23	PCR	Processed rice	108.5378	286.8931		106.6405	41.95733	0		41.19191
24	SGR	Sugar	3.340219	1.420999		3.340209		0		
25	OFD	Food products nec	8.797877	10.35697	5.966968	4.959095	8.773171	0.049826	0	0.135627
26	B_T	Beverages and tobacco products	8.224877	7.660064	8.430749	8.937526	8.508674	0	8.35164	0
27	TEX	Textiles	2.574337	2.551674	0.079647	1.256293	4.665479	0	0	0
28	WAP	Wearing apparel	24.02581	9.57446	5.549749	8.122	9.268714	0	0.313628	0
29	LEA	Leather products	2.867226	1.998049	1.435354	1.087209	16.47529	0	0.467774	0
30	LUM	Wood products	2.502072	9.834022	0.037927	1.541131	2.913909	0	0	0.000648
31	PPP	Paper products, publishing	3.330158	0.039766	0	0.110158	20.23068	0.000819	0	0
32	P_C	Petroleum , coal products	0.144745	0.142491	0.144699	0	0.405207	0.391397	0.415286	0
33	CHM	chemicals	11.55313	0.741095	0.219938	0.579284	25.58844	0.016843	0.040557	0.009649
34	BPH	basic pharma	11.55313	0.741095	0.219938	0.579284	25.58844	0.016843	0.040557	0.009649
35	RPP	rubber and plastics	11.55313	0.741095	0.219938	0.579284	25.58844	0.016843	0.040557	0.009649
36	NMM	Mineral products nec	3.760617	0.187782	0	0.006839	14.13933	0.111631	0	0
37	I_S	Ferrous metals	13.89377	1.114926	0.133925	0.256503	10.34217	0	0	0.273909
38	NFM	Metals nec	2.231886	0.248622	0	0.035318	3.247017	0.233647	0	0
39	FMP	Metal products	2.224463	1.509204	0	0.155906	14.41197	0.089896	0	0
40	ELE	Electronic equipment	3.177054	0.757001	0	0.007621	25.07378	2.502573	0	0
41	EEQ	Computer and electronics	3.177054	0.757001	0	0.007621	25.07378	2.502573	0	0

42	OME	Machinery and equipment nec	1.666091	4.910582	0.002287	0.08485	6.119649	3.574182	5.81E-05	0.037718
43	MVH	Motor vehicles and parts	1.491123	4.61935	2.981915	0.284082	6.906252	9.054376	0	3.586257
44	OTN	Transport equipment nec	0.185259	0.226714	0	0	2.742282	0.415309	0	1.690886
45	OMF	Manufactures nec	8.13625	0.928281	0	0.164698	12.26752	2.584563	3.524013	0
46	ELY	Electricity								
47	GDT	Gas manufacture, distribution		0				0		