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# Cornhusker Economics

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## The Coronavirus Pandemic and International Trade

The Coronavirus pandemic has disrupted economic activities around the world. Many businesses had to cease operations and furlough or lay off their workers. The World Bank (2021) has reported that global economic output fell by 3.4% in 2020. The good news is that the massive infusion of financial support from many governments in high-income countries meant that the worst economic effects of the pandemic were mitigated, and a rapid recovery has begun to make up for the pandemic-related losses. The International Monetary Fund (IMF) predicts that the global economy will grow by 5.9% in 2021 recovering the 2020 losses and leaving the economy about 2.5% larger than it was in 2019 (IMF 2021). The rapid economic recovery has not been without a few setbacks. Savings accumulated during the year of inactivity are fueling increased demand for goods while supply-chain problems related to maritime and terrestrial transportation and distribution systems have led to price increases and shortages of some goods. The IMF (2021) predicts that these price increases will subside in 2022 but notes that threats stemming from the continued spread of Covid-19, particularly in low- and middle-income countries, remain.

The negative impact of the pandemic on international trade in 2020 was significant. Statistics on the total world, US, Chinese, and European Union (EU) merchandise exports are shown in Table 1. Note that, with

the exception of world trade, the figures in Table 1 would be quite different if imports were taken to represent trade flows rather than exports. For world trade, exports have to be approximately equal to imports, but the values of exports and imports generally differ in countries and regions. US imports of goods and services, for example, were \$727 billion greater than exports in 2020. World merchandise exports fell by 7.4% in 2020 while the United States and EU experienced declines of 12.8% and 7.4% respectively. Chinese merchandise exports actually grew by 3.6% in 2020, although that rate was somewhat lower than the average annual rate of growth of merchandise exports of 5.1% between 2010 and 2019. The World Trade Organization (WTO) predicts that world merchandise trade will increase by 10.8% in 2021, slowing to 4.7% in 2022 (WTO 2021a).

Trade in services (Table 2) experienced a greater decline than was the case for merchandise trade, falling 20.1% in 2020. Service industries such as travel, tourism, and hospitality were particularly hard hit by the pandemic and the World Bank (2021a) expects that growth in global trade in services will continue to be slow. Service exports make up a significant percentage of total exports of goods and services in the United States (34.2% in 2019) and the EU (49.5% in 2019). Both of these regions saw substantial declines in service exports in 2020, down 19.9% in the United States and 16.1% in the EU. Chinese service exports account for a smaller percentage of that

country's total exports and there was little change in their volume between 2019 and 2020. Chinese exports are made up almost entirely of manufactured goods as shown in Table 1.

International trade played a key role in the global response to the pandemic. In the first part of 2020, world trade fell by 14% compared to trade in the first half of 2019. Trade in medical goods (face protection, masks, and other critical medical products) rose 16% between early 2019 and early 2020 to more than \$1 trillion (WTO 2020). The development of effective Covid-19 vaccines has raised hopes that the pandemic can be tamed but their manufacture and distribution pose certain problems. As noted by the Organization of Economic Cooperation and Development (OECD), the production of vaccines is concentrated in a relatively small number of countries while there is a critical need for these products in all parts of the globe (OECD 2021). The WTO (2021b) reported that there are significant barriers to trade applied to vaccine inputs and finished vaccines and there are further impediments to establishing vaccine manufacturing facilities outside the countries already producing vaccines. Yasir and Kumar (2021) report that an Indian vaccine has recently been given emergency authorization by the World Health Organization but note that some 75% of global Covid inoculations have occurred in more affluent countries with less than 1% of the total administered in low-income countries.

US agricultural exports have followed a trajectory that is quite different from that of global merchandise exports during this period (Tables 3 and 4). The trade war with China launched in early 2018 led to retaliatory Chinese tariffs on US agricultural exports that caused a severe decline in Chinese imports of many of these products in 2018 and 2019. Exports of bulk commodities were the most severely affected (Table 3). In 2020, the United States and China adopted the "Phase-One Agreement" which included provisions for a substantial expansion of Chinese imports of US agricultural goods (FAS 2021). As a result of this agreement, total agricultural exports to China increased 58.2% in 2020. Increased exports of consumer-oriented products were fueled by greater Chinese demand for pork. Exports to China of soybeans and other

bulk commodities (e.g., corn, other coarse grains, cotton) grew substantially in 2020. That trend has continued into 2021 with total agricultural exports to China up 47.5% in the first 9 months of 2021 over the same period in 2020. Bulk commodity exports are 72.4% greater thus far in 2021 compared to the first nine months of 2020 (GATS 2021).

International trade has played a significant role both in helping to fuel the economic recovery from the pandemic and in assuring the wide distribution of medical supplies and vaccines. The pandemic is far from over and as long as large numbers of people in low- and middle-income countries remain unvaccinated, the danger that new, more lethal variants will develop cannot be ruled out. Full return to normal activities will require that vaccines be distributed and administered throughout the entire planet. Open global markets are a key to achieving that outcome.

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Table 1: Structure of World, US, Chinese, and European Union Merchandise Exports, 1985 to 2020.

| Year                   | Merchandise Exports \$billion | Agric. Exports, % of Merchandise | Fuel/Mine Exports % of Merchandise | Manufact. Exports % of Merchandise |
|------------------------|-------------------------------|----------------------------------|------------------------------------|------------------------------------|
| <b>World</b>           |                               |                                  |                                    |                                    |
| 1985                   | 1,953                         | 13.6                             | 21.9                               | 60.1                               |
| 1990                   | 3,490                         | 11.9                             | 14.0                               | 68.5                               |
| 1995                   | 5,168                         | 11.4                             | 10.5                               | 72.0                               |
| 2000                   | 6,456                         | 8.5                              | 13.3                               | 72.6                               |
| 2005                   | 10,510                        | 8.1                              | 17.2                               | 69.5                               |
| 2010                   | 15,311                        | 8.8                              | 20.1                               | 65.3                               |
| 2015                   | 16,525                        | 9.5                              | 14.8                               | 69.1                               |
| 2019                   | 19,019                        | 9.4                              | 15.7                               | 69.8                               |
| 2020**                 | 17,619                        | 8.8                              | 11.4                               | 79.8                               |
| <b>United States</b>   |                               |                                  |                                    |                                    |
| 1985                   | 219                           | 16.9                             | 7.3                                | 68.0                               |
| 1990                   | 394                           | 15.0                             | 6.1                                | 73.6                               |
| 1995                   | 585                           | 13.8                             | 4.3                                | 76.9                               |
| 2000                   | 782                           | 9.1                              | 3.6                                | 83.0                               |
| 2005                   | 901                           | 9.2                              | 5.7                                | 81.0                               |
| 2010                   | 1,278                         | 11.2                             | 10.1                               | 73.9                               |
| 2015                   | 1,503                         | 10.8                             | 9.5                                | 75.0                               |
| 2019                   | 1,643                         | 10.0                             | 14.8                               | 70.5                               |
| 2020**                 | 1,432                         | 11.4                             | 16.0                               | 72.6                               |
| <b>China</b>           |                               |                                  |                                    |                                    |
| 1985                   | 27                            | 22.2                             | 29.6                               | 37.0                               |
| 1990                   | 62                            | 16.1                             | 11.3                               | 71.0                               |
| 1995                   | 149                           | 10.1                             | 5.4                                | 83.9                               |
| 2000                   | 249                           | 6.4                              | 4.8                                | 88.4                               |
| 2005                   | 762                           | 3.8                              | 4.1                                | 91.9                               |
| 2010                   | 1,578                         | 3.3                              | 3.0                                | 93.6                               |
| 2015                   | 2,273                         | 3.2                              | 2.4                                | 94.5                               |
| 2019                   | 2,499                         | 3.3                              | 3.2                                | 92.9                               |
| 2020**                 | 2,590                         | 2.8                              | 2.4                                | 94.8                               |
| <b>European Union*</b> |                               |                                  |                                    |                                    |
| 2000                   | 858                           | 8.3                              | 4.6                                | 87.1                               |
| 2005                   | 1,421                         | 7.9                              | 5.8                                | 86.3                               |
| 2010                   | 1,901                         | 8.7                              | 8.1                                | 83.2                               |
| 2015                   | 2,080                         | 9.5                              | 6.8                                | 83.7                               |
| 2019                   | 2,386                         | 9.6                              | 7.2                                | 83.2                               |
| 2020**                 | 2,209                         | 4.2                              | 2.7                                | 93.1                               |

\*Extra EU trade

\*\*Percentages estimated from incomplete data

Source: WTO (2021)

Table 2. World, US, Chinese, and European Union Service and Total Exports, 1985 to 2020.

| Year                   | Exports of Services \$billion | Total Exports \$billion | Service as % of Total | Total exports as % of GDP |
|------------------------|-------------------------------|-------------------------|-----------------------|---------------------------|
| <b>World</b>           |                               |                         |                       |                           |
| 1985                   | 383                           | 2,336                   | 16.4                  | 18.9                      |
| 1990                   | 789                           | 4,279                   | 18.4                  | 19.3                      |
| 1995                   | 1,179                         | 6,347                   | 18.6                  | 21.9                      |
| 2000                   | 1,491                         | 7,947                   | 18.8                  | 26.0                      |
| 2005                   | 2,603                         | 13,113                  | 19.9                  | 28.6                      |
| 2010                   | 3,850                         | 19,161                  | 20.1                  | 28.8                      |
| 2015                   | 4,863                         | 21,388                  | 22.7                  | 29.3                      |
| 2019                   | 6,150                         | 25,169                  | 24.4                  | 30.6                      |
| 2020                   | 4,914                         | 22,533                  | 21.8                  | 26.7                      |
| <b>United States</b>   |                               |                         |                       |                           |
| 1985                   | 64                            | 283                     | 22.6                  | 7.0                       |
| 1990                   | 137                           | 531                     | 25.8                  | 9.2                       |
| 1995                   | 204                           | 789                     | 25.9                  | 10.6                      |
| 2000                   | 282                           | 1,064                   | 26.5                  | 10.7                      |
| 2005                   | 359                           | 1,260                   | 28.5                  | 10.0                      |
| 2010                   | 544                           | 1,822                   | 29.9                  | 12.4                      |
| 2015                   | 431                           | 2,234                   | 32.7                  | 12.5                      |
| 2019                   | 854                           | 2,497                   | 34.2                  | 11.7                      |
| 2020                   | 684                           | 2,116                   | 32.3                  | 10.1                      |
| <b>China</b>           |                               |                         |                       |                           |
| 1985                   | 3                             | 30                      | 10.0                  | 8.3                       |
| 1990                   | 6                             | 68                      | 8.8                   | 13.6                      |
| 1995                   | 18                            | 167                     | 10.8                  | 18.0                      |
| 2000                   | 30                            | 279                     | 10.8                  | 20.9                      |
| 2005                   | 78                            | 840                     | 9.3                   | 33.8                      |
| 2010                   | 177                           | 1,755                   | 10.1                  | 26.3                      |
| 2015                   | 218                           | 2,491                   | 8.8                   | 21.3                      |
| 2019                   | 282                           | 2,781                   | 10.1                  | 18.4                      |
| 2020                   | 278                           | 2,868                   | 9.7                   | 18.5                      |
| <b>European Union*</b> |                               |                         |                       |                           |
| 2010                   | 1,439                         | 3,280                   | 43.9                  | 40.8                      |
| 2015                   | 1,745                         | 3,776                   | 46.2                  | 46.4                      |
| 2019                   | 2,289                         | 4,621                   | 49.5                  | 47.8                      |
| 2020                   | 1,920                         | 4,129                   | 46.5                  | 44.5                      |

\*Extra EU trade

Source: WTO (2021) and World Bank (2021)

Table 3: Total US Agricultural Exports by Product Type, \* Billion Dollars, 2010-2020.

| Year | Consumer-Oriented Goods | Bulk Commodities | Intermediate Goods | Agriculture-Related Goods | Total Agric. Exports |
|------|-------------------------|------------------|--------------------|---------------------------|----------------------|
| 2010 | 47.6                    | 46.8             | 24.3               | 11.3                      | 130.0                |
| 2015 | 64.6                    | 43.8             | 28.9               | 14.6                      | 151.9                |
| 2016 | 63.6                    | 48.1             | 27.2               | 14.6                      | 153.5                |
| 2017 | 66.7                    | 48.1             | 28.0               | 15.8                      | 158.6                |
| 2018 | 68.4                    | 46.5             | 29.8               | 15.7                      | 160.4                |
| 2019 | 69.7                    | 43.5             | 27.9               | 13.8                      | 154.9                |
| 2020 | 68.5                    | 52.8             | 28.5               | 12.3                      | 162.1                |

\* Consumer-oriented: livestock products, tree nuts, fresh fruits and vegetables, processed foods.

Bulk Commodities: cereal grains, oilseeds, cotton.

Intermediate Goods: oilseed meals, vegetable oils, distillers grains, sugar and sweeteners.

Agriculture-Related: forest products, seafood products, biodiesel.

Source: GATS, Foreign Agriculture Service, USDA

Table 4: US Agricultural Exports to China by Product Type, \* Billion Dollars, 2010-2020.

| Year | Consumer-Oriented Goods | Bulk Commodities | Soybeans | Intermediate Goods | Agriculture-Related Goods | Total Agricultural Exports |
|------|-------------------------|------------------|----------|--------------------|---------------------------|----------------------------|
| 2010 | 3.8                     | 13.6             | 10.96    | 2.9                | 2.1                       | 22.4                       |
| 2015 | 5.3                     | 14.1             | 10.5     | 4.6                | 3.4                       | 27.4                       |
| 2016 | 5.9                     | 16.4             | 14.2     | 3.2                | 3.9                       | 29.4                       |
| 2017 | 6.5                     | 14.8             | 12.2     | 2.4                | 4.7                       | 28.4                       |
| 2018 | 6.3                     | 5.0              | 3.1      | 2.0                | 4.2                       | 17.5                       |
| 2019 | 6.1                     | 9.1              | 8.0      | 1.7                | 2.7                       | 19.6                       |
| 2020 | 7.3                     | 19.2             | 14.1     | 2.0                | 2.5                       | 31.0                       |

\* Consumer-oriented: livestock products, tree nuts, fresh fruits and vegetables, processed foods.

Bulk Commodities: cereal grains, oilseeds, cotton.

Intermediate Goods: oilseed meals, vegetable oils, distillers grains, sugar and sweeteners.

Agriculture-Related: forest products, seafood products, biodiesel.

Source: GATS, Foreign Agriculture Service, USDA