

# Economic Factors Affecting Agricultural Trade

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With 95% of the world's population residing outside of the United States, coupled with around 20% of U.S. farm production (or 1/3 of ag cash receipts) being purchased by foreign consumers, agricultural trade is a critical component of the U.S. farm economy. While ag trade may have a greater benefit to exporting businesses beyond the farmgate, there is a relatively high degree of correlation between ag exports and farm prices/income. Since the early 2000s, U.S. agricultural exports have more than doubled with greater than one-half of U.S. soybeans, tobacco, and wheat entering international markets and a growing importance of trade for U.S. meats and other food and forestry products.

The United States ships agricultural commodities and value-added products to over 200 countries worldwide. Our county also imports a lot of food items from more than 70 nations that can't be grown in the United States (e.g., coffee, cocoa, bananas), possess unique preferences of U.S. consumers (e.g. wines and cheeses from Europe), seasonal items purchased during winter/non-growing months in the U.S. (e.g., fruits and vegetables from Mexico and Latin/Central America) or can be grown cheaper in foreign markets (e.g. seafood, limes, labor-intensive fruits and vegetables). In addition, USDA reports that a growing share of U.S. ag imports can be attributed to intra-industry trade, whereby U.S. based agribusinesses perform certain processing steps in foreign countries such as Canada and Mexico and then import processed food products from their subsidiaries back into the United States (e.g., meats and other processed foods). Overall, around 15 to 20% of the U.S. food supply is imported.

Unlike many non-farm industries, the U.S. agricultural sector has historically recorded a trade surplus indicating that the value of U.S. ag exports has exceeded the value of U.S. ag imports. While U.S. ag exports have increased to record levels in recent years, imports have been growing at a faster pace, thus reducing the U.S. ag trade balance. This fact sheet reviews the major economic and political factors affecting agricultural trade flows. An accompanying fact sheet will provide periodic updates on how these factors are effecting current trade flows.

## Prices/Exchange Rates

The price of item in international markets consists of four components – the price of the good leaving a nation's border in either processed or non-processed form, the cost of transporting the good to an importing market, any trade tariffs and taxes applied by the importing country, and the exchange rate. Exchange rates are simply the value of one currency relative to another. Thus, the U.S. dollar's exchange rate reflects how much the U.S. dollar is worth in a foreign currency. For example, if the British pound is traded at 0.75 relative to the U.S. dollar, a British food company purchasing U.S. ag products will have to pay 0.75 British pounds for each \$1.00 of food items they import from the United States. Alternatively, a U.S. traveler will have to exchange (or pay) \$1.33 for each item purchased in the United Kingdom priced at 1.00 British pounds. ( $1.00/0.75$ ). A higher valued dollar increases the American's purchasing power abroad, but reduces the competitiveness of U.S. exporters. Japanese buyers of U.S. beef will need to exchange their currency, the yen, to U.S. dollars to compensate U.S. beef export sellers. A decline in the value (or depreciation) of the U.S. dollar relative to other currencies effectively makes U.S. goods less expensive to foreign customers, and thus has a positive impact on export volume, holding all other factors constant. Alternatively an increase in the value (or appreciation) of the U.S. dollar will increase the cost of U.S. goods in international markets, and thus have a tendency to reduce exports. On the import side, a lower valued U.S. dollar will increase the cost of foreign items shipped to the United States, while a higher valued U.S. dollar will boost the demand for imported items by lowering prices for U.S. consumers, holding all other factors constant. USDA follows changes in the competitiveness of the U.S. dollar via an agricultural trade weighted exchange rate, which is based on a market basket of foreign currencies for the U.S. major trading partners weighted by their relative export shares.

Theoretically, the value of the U.S. dollar is determined by the supply and demand for the U.S. dollar. A major factor affecting the demand for U.S. dollars is the financial return (i.e., the interest rate) an investor expects from investing in U.S. dollar denominated assets (e.g., U.S. government securities). If interest rates are relatively low in the United States, investors will purchase alternative assets (e.g., foreign securities), thus decreasing the demand and value of the U.S. dollar. A nation's economic and political stability and their rate of inflation will also affect a country's exchange rate relative to other currencies.

## Global Economies (Income)

Income growth in industrialized nations like the United States and Western Europe will have a tendency to cause consumers to switch to higher valued food items (e.g. hamburger to steak) but will not have a significant impact on overall food demand. Conversely, income growth in lower-income countries will likely have a much larger impact on both the composition of food items as well as total food demand. As per capita incomes grow in developing nations, consumers will tend to substitute higher priced meat products for lower valued food items such as rice and wheat products, thus increasing the demand for both U.S. meat and grain exports to feed the livestock in the importing market. Anticipated income growth in developing Asian and African markets (along with population gains) present considerable future opportunities for American agriculture, as well as our competitors.<sup>i</sup>

## Population

The United Nations expects world population to increase from 7.5 billion in 2018 to 9.8 billion (or 30%) by 2050. India is expected to replace China around 2024 as the world's most populous nation, with Nigeria exceeding the U.S. population in 2050, followed by Pakistan, Indonesia and Ethiopia. Higher incomes and marketing efficiencies/technologies, especially in lower income nations are expected to increase per capita caloric intake and overall protein demand, increasing the long-term demand for meats and livestock feeds. Consequently, the Food and Agricultural Organization (FAO) of the United Nations and other sources estimate that overall food production will need to increase by 70% or more by 2050 to accommodate a 30% increase in global population and income growth. Nations with abundant agricultural resources, marketing infrastructure, and favorable trade policies will be in a position to take advantage of the growing global demand for food.

## Government Intervention

- **Trade Policy** – For decades, the U.S. and other major trading nations worked toward securing global trade agreements to reduce trade barriers and improve market access as part of the World Trade Organization (WTO --a body that establishes ground rules for global trade among member nations). Amidst challenges in global trade negotiations, the U.S. and other nations focused more efforts on multinational/regional trade agreements during the latter 1990s and early 2000s. Recently, the United States has redirected trade policy actions to dealing with nations bilaterally to address domestic job losses, trade deficits, and other perceived “unfair” trade barriers.

Supporters of anti-globalization and nationalism favor trade barriers to support domestic producers, and thus restrict agricultural trade. Trade restrictions can take on many different forms. A tariff or duty is a tax imposed by one country on the goods and services from another country. The “tax” can be fully or partially passed onto the consumer in the importing nation or can be borne by the seller. Nations can also impose quotas, which limit the volume of goods that can enter a country or put in place a tariff rate quota, which allows goods at a certain level to come into a country with a lower or no tariff, while assessing a higher tariff on goods above a certain level. Countries can also put in place sanitary and phytosanitary measures in the form of rules, food-safety standards, and laws to protect humans, animals, and plants from diseases, pests, or other contaminants. Examples within agriculture include meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods, bans on growth-promoting hormones for livestock production, and regulation of agricultural biotechnology such as GMOs. Scientific debate often exists in among trading nations as to the validity of certain sanitary and phytosanitary trade restrictions.

Historically, some nations have also resorted to various forms of export subsidies (e.g., direct payments, export loans, tax benefits) to lower the cost of their products to buyers in international markets. However, the WTO has generally ruled that export subsidies are illegal as they distort the marketplace.

- **Domestic Farm Policy** – Governments support ag trade by providing funding for various programs, including income support, risk management, educational and trade marketing assistance. In addition, governments can also impact trade flows by implementing trade promotion programs that utilize taxpayer resources to assist exports in merchandizing their products overseas. Examples include providing financial assistance for ag businesses to attend trade missions/trade shows, market analysis, and funding for promotion of U.S. agricultural commodities/food products..
- **Government Regulations** – Consumers want food diversity at a relatively low cost, but food safety is critical. Consequently, governments regulate the food, commodities, and people entering the country to protect against various risks. Food companies evaluate the regulatory costs and trade restrictions as one factor to determine location of processing/packaging/storage facilities and supply sources.

- **Other Government Support** – Transportation infrastructure such as funding for roads, railways, and waterways is critical for efficient agricultural trade, along with providing access to and lower cost credit, credit guarantees, and education and trade promotion services to support food businesses and ag producers selling in international markets.

## Available Supplies

Weather events such as floods, freezes, and droughts impact domestic and foreign ag commodity supplies, and thus can disrupt normal trade flows. Since these weather events are generally localized, trade provides opportunities to move products from surplus regions to those being impacted by the weather events. These events tend to provide a boost to producer prices in exporting nations, while minimizing the price increase for consumers in the nation(s) experiencing adverse weather events. Transportation issues such as flooding, infrastructure decay, labor strikes, and the availability of various transportation modes impact transportation costs, and thus the prices of ag goods in international markets.

## Consumer Preferences

Import demand for foods into the United States has been increasing given the diversity of a changing demographic consumer base. Hispanic and Asian residents represent the fastest growing consumer bases in the United States who bring much different food preferences to the traditional American food basket. As Americans have become more diverse, wealthier, and travel abroad, the composition of the American diet reflects a larger share of ethnic foods, tropical products, spices, and imported gourmet food items and beverages. Foreigners traveling in the United States also discover many unique foods/beverages (e.g., country ham, bourbon) which create export opportunities for U.S. food and ag-related companies.

## Labor

The production of many agricultural food items, such as fruits, vegetables, and dairy, along with food processing are very labor intensive, with foreign labor being today's main ag labor supply source. Immigration policy debate creates much uncertainty regarding the availability and the cost of this critical supply of labor, which will undoubtedly impact future agricultural production in the United States and overall trade flows. Increasing cost of labor, along with depleted labor supplies may lead to greater future mechanization within the ag and food industries to replace the uncertain supply of hired labor.

## Environmental Issues

Consumers with environment concerns have often voiced their preference for local foods, which reflects lower environmental costs associated with transportation distance and alternative (environmentally sound) production practices. In addition, some environmentalists are advocating more plant based diets to offset greenhouse emissions from livestock production. Collectively these events could affect future trade volumes and flows of certain agricultural products into certain foreign markets

## Other External Factors

In recent years, ag trade volume and trade patterns have been influenced and disrupted by the spread of various infectious diseases such as Avian influenza, African swine fever, and the Coronavirus. This has caused nations to reevaluate border protection and control measures and buyers to reassess purchasing from different suppliers, often with long-term ramifications on trade.<sup>ii</sup>

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<sup>i</sup> A Brookings Institute study, *The Unprecedented Expansion of the Global Middle Class: An Update*, estimates that Asia Pacific region will have more than 760 million people to enter the middle class from 2020 to 2025 – more than two times the population of the entire United States.

<sup>ii</sup> For example, China reopened its market to U.S. poultry in 2019, following a five-year ban following an outbreak of avian influenza in 2014.

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