The Changing Composition of United States Agricultural Trade

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International trade has been of great importance for United States agriculture since the founding of the nation. Today, about 20 percent of agricultural production in the United States is exported, and the revenue from these exports is an important source of farm income. According to the Economic Research Service (http://www.ers.usda.gov) over half of U.S. wheat production is exported, as is almost 80 percent of U.S. cotton production. While agricultural exports are always greater than agricultural imports, U.S. consumers depend on imports for many commodities, notably such tropical goods as coffee, cocoa, bananas and other tropical fruits. The real values of U.S. agricultural exports and imports from 1967 to 2011 are shown in Figure 1 (on page 3). These values have been adjusted for inflation using the World Bank’s manufacture unit value index (base year = 2005), which is the same index the Food and Agriculture Organization (FAO) uses to deflate its commodity price series. The real values of both imports and exports have more than tripled since 1967.

The United States Department of Agriculture’s (USDA) Foreign Agriculture Service (FAS) maintains a database on United States agricultural trade, the Global Agricultural Trade System (http://www.fas.usda.gov/gats/default.aspx). These data are organized to show the volume of imports and exports in three categories of food and agricultural goods: bulk commodities, consumer-oriented goods and intermediate goods. Bulk commodities are unprocessed agricultural crops such as wheat, corn, soybeans and cotton. Intermediate goods include commodities that have
undergone initial processing, including wheat flour, sugar, soybean oil and meal, and live animals. Consumer-oriented goods include fresh/chilled/frozen red meat, poultry, dairy products, fresh fruits and vegetables, wine and beer and other highly processed foods. Figures 2 and 3 (on following pages) display the percentages of total exports or imports accounted for by each of these three categories from 1967 to 2011.

In the 1960s and 1970s bulk commodities accounted for the largest share of U.S. agricultural exports. During the commodity boom of the 1970s bulk commodities made up over 70 percent of U.S. agricultural exports, reaching 76 percent in 1975. During these periods, consumer-oriented goods generally made up less than 15 percent of total exports. The composition of U.S. agricultural exports began to change in the 1980s, as trade in consumer-oriented goods (sometimes referred to as “high-value” or “value-added” goods) began to take off. Currently, the proportions of total exports accounted for by consumer-oriented goods and bulk commodities are fairly close, around 40 percent for each category of good. Throughout this history, intermediate goods have accounted for about 20 percent of total exports. The fact that the share of bulk commodities in total U.S. exports has fallen does not mean that bulk commodity exports have declined. In nominal terms, bulk commodity exports increased from $4.3 billion in 1967 to $56.9 billion in 2011 (in 2005 dollars, from $19 billion to $36 billion).

The composition of U.S. agricultural imports is shown in Figure 3. In the earlier years, bulk commodities and consumer-oriented goods each made up between about 35 and 50 percent of total imports, with intermediate goods accounting for the remaining 15 to 20 percent. Over the past several decades the share of bulk commodities in U.S. agricultural imports has fallen as the proportion made up of consumer-oriented goods has increased. Currently, consumer-oriented imports account for around 60 percent of the total, while the share for bulk commodities has fallen to less than 20 percent.

Clearly, much of the growth in U.S. agricultural trade has been stimulated by increased trade of consumer-oriented goods. On the export side, there have been dramatic changes in red meat exports which have increased 15-fold in real terms between 1967 and 2011, and are currently the largest individual category among consumer-oriented exports. From 1967-70, red meat imports by the United States made up about 42 percent of the total amount of consumer-oriented imports. In 2010-11, red meat imports made up only nine percent of consumer-oriented imports. Imports of wine and beer have increased from seven percent of total consumer-oriented imports in 1967-70 to 15 percent in 2010-11, and are now the largest individual items in the consumer-oriented imports.

Other important consumer-oriented exports from the United States are tree nuts, dairy products, processed and fresh fruits, vegetables and fruit/vegetable juices, snack foods and breakfast cereals. Interestingly, the same set of goods makes up the leading consumer-oriented imports, with snack foods, processed and fresh fruits, vegetables and juices, and red meats at the top of the list. Overall, the leading individual U.S. agricultural exports are the bulk commodities of soybeans and coarse grains, followed by the consumer-oriented red meats.

The trends observed in the United States appear to be replicated around the world. While the real value of exported cereals and preparations more than tripled between the early 1960s and 2005-09, real exports of meat and meat products increased by eight times (http://faostat.fao.org). An obvious question is why trade in consumer-oriented goods seems to be growing in the United States and around the world at such a rapid pace. Most of the products included in this category contain a lot of water and are perishable. This suggests that they would be costly to ship and may explain why there was greater trade in the less perishable bulk commodities in the past than in meat, dairy, fruits and vegetables. In recent decades, transportation costs have fallen, making it feasible to trade these types of goods. Another factor in this expanding trade may be changing trade policies and regional trade agreements such as the North American Free Trade Agreement (NAFTA) or the European Union (EU). Both NAFTA and the EU have resulted in dramatic increases in trade among the members of these economic unions and much of the expanded agricultural trade has taken the form of consumer-oriented goods.

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Figure 1. Real U.S. Agricultural Exports and Imports, Millions of 2005 Dollars, 1967 - 2011

Figure 2. Percentage of U.S. Agricultural Exports Made Up of Bulk, Consumer-Oriented and Intermediate Goods, 1967 - 2011
Figure 3. Percentage of U.S. Agricultural Imports Made Up of Bulk, Consumer-Oriented and Intermediate Goods, 1967 - 2011

Source: http://www.fas.usda.gov/gats/ExpressQuery1.aspx