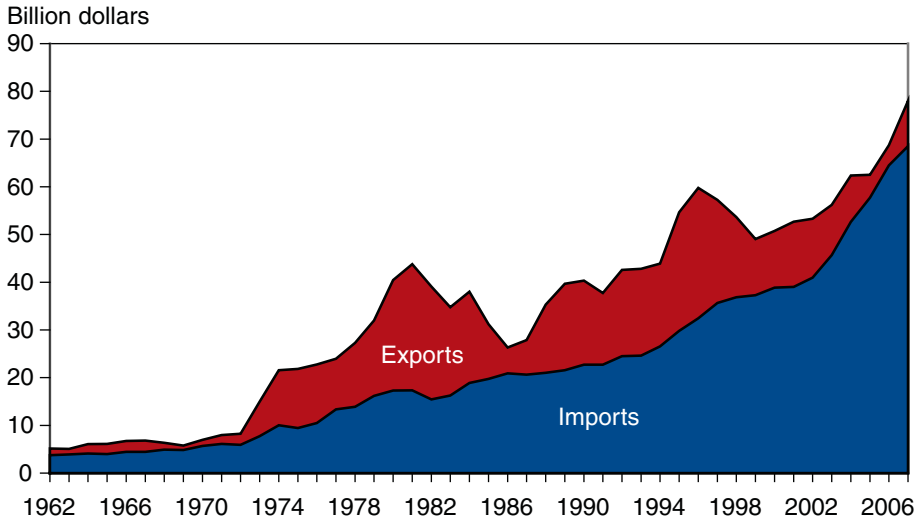
Introduction

In the past several decades, U.S. agriculture has often faced volatile swings in demand for its exports, while U.S. import growth has been comparatively steady, even becoming increasingly strong in recent years. Following a record $27 billion agricultural trade surplus in 1996, for example, U.S. export values temporarily declined, while import growth continued unabated. In 2006, the agricultural trade surplus dipped below $5 billion (see appendix A), but rising U.S. exports and signs of moderating import demand now stand in marked contrast to previous trends. U.S. agricultural exports in fiscal year (FY) 2008 are expected to reach a fifth consecutive year of record shipments, and U.S. import growth, while still strong, is at its slowest pace since 2003 (fig. 1). Many different factors—ranging from shifting consumer preferences to trade policy changes—affect U.S. agricultural trade. This study highlights two specific factors instrumental in determining U.S. export and import trends in recent years:

- *Structural shifts in global growth* and foreign economic activity, which primarily affect U.S. agricultural exports; and
- *Macroeconomic conditions* that guide broader changes in the U.S. trade and current account position, which have strongly influenced U.S. agricultural imports.

The term "structural shifts" refers to differences in economic development stages and food import demand between high-income and emerging markets, and their influence on the overall level and pattern of U.S. agricultural exports. The analysis of macroeconomic conditions focuses specifically on the causes of U.S. current account deficits, potential changes that may place downward pressure on the U.S. dollar, and the impact of these conditions on agricultural trade.[1] These factors are important, not just for understanding

Figure 1
U.S. agricultural imports rise steadily, while exports are more volatile



Source: Prepared by USDA, ERS using data from U.S. Department of Commerce, Bureau of the Census.

[1]Specifically, we examine how U.S. trade is influenced by U.S. and foreign savings, investment, and consumption behavior and the mechanisms (e.g., exchange rates and interest rates) that transmit these to prices and demand.

past trade patterns, but also for providing insights to future implications for U.S. trade.

Income, population, and the rate of economic growth in importing countries have long been recognized as key determinants of foreign demand for U.S. agricultural products. Many analysts (USDA, 1996) anticipated sustained rapid growth in exports throughout the 1990s, for example, based largely on increased demand from fast-growing emerging markets.[2] However, analysts did not foresee a decline in demand from high-income markets. In Japan and the European Union (EU), relatively slow growth in income and population helped induce a drop in demand for U.S. food products. In 1996, these two markets accounted for $21 billion (35 percent) of U.S. agricultural exports, but by 2006, the total was less than $15.3 billion (22 percent). A low propensity for consumers to spend additional income on food, aging populations (with reduced dietary needs), and, until 2002, an appreciating dollar also contributed to dampening export demand.

Today U.S. agricultural exports are once again entering a period of rapid growth, marked by 5 consecutive years of record shipments (FY 2004-08).[3] In contrast to the past, new demand from emerging markets is more than compensating for weakened demand elsewhere. Rising incomes, in conjunction with a high propensity for consumers to spend that income on food, have helped spur a 50-percent increase in global food trade in just 5 years (2001-05). During the entire preceding decade, global agricultural trade expanded less than 25 percent. Representing a major departure from past trends, export demand now appears to be firmly supported by markets that are experiencing strong growth in Gross Domestic Product (GDP) and spending relatively large shares of income on food. U.S. exports in FY 2007 are at a record $78 billion, up more than $24 billion from 5 years earlier. USDA has raised its 10-year projection of U.S. agricultural exports from $84 billion (in 2015) to $93 billion (USDA, 2006; USDA, February 2007).

In contrast to factors influencing demand for U.S. exports, domestic population growth and economic growth do not appear to have been the primary drivers of U.S. import demand during the past decade. U.S. agricultural imports have doubled since 1996, reaching a record $64 billion in FY 2006. Average import growth has surpassed 10 percent annually since 2001, but projected growth for FY 2007 is at the slowest pace since 2003. While a number of factors underlie the growth of U.S. agricultural imports, the recent surge appears to be connected to the same macroeconomic conditions contributing to the overall growth in merchandise imports and trade deficits. Recent economic literature attributes the growth in U.S. imports to such factors as increased wealth, low domestic savings rates, strong consumption growth, and foreign capital inflows that have kept U.S. interest rates low and the dollar exchange rate relatively strong (Bernanke, 2005). Some observers (e.g., Edwards, 2006) now question whether these factors can persist, raising the possibility that further exchange rate depreciation and other adjustments could eventually reinforce export demand and dampen import growth.

[2]At the time, USDA (USDA, 1996) projected that the value of U.S. agricultural exports would reach $78.8 billion in 2005, up from $54.2 billion in 1995, citing developing countries as a major source of export demand growth. Actual exports were valued at $62.5 billion in 2005.

[3]In nominal terms. The value for 2008 is projected.

To better understand and distinguish between the impacts of global growth factors and other macroeconomic influences on agricultural trade, this study employs two separate economic models:

- Global economic growth and population impacts on world and U.S. trade are evaluated with growth simulations from a global modeling framework (GTAP). This model illustrates growth-related effects on past and future U.S. and world trade and demonstrates how these factors contributed to the previous slowdown and current expansion of U.S. agricultural exports. This framework does not address macroeconomic factors affecting exchange rates, interest rates, or other variables affecting consumption and trade.
- Alternative macroeconomic conditions related to exchange rates and changes in foreign demand for U.S. financial assets are evaluated with a separate dynamic model of the U.S. economy (USAGE). The main scenario in USAGE centers on the implications of changing demand for U.S. financial assets by foreign investors and traces the effects of resulting exchange rate and other macroeconomic changes on domestic consumption and agricultural trade.

Neither model explicitly addresses historical changes in trade policy or consumer preferences, but inferences about the influence of these factors can be made based on the model results.