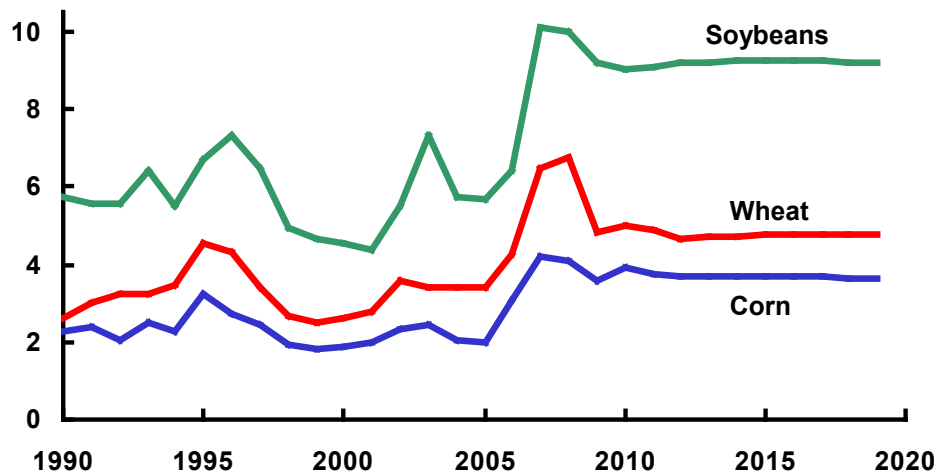# USDA Agricultural Projections to 2019

Interagency Agricultural Projections Committee

World Agricultural Outlook Board, Chair
Economic Research Service
Farm Service Agency
Foreign Agricultural Service
Agricultural Marketing Service
Office of the Chief Economist
Office of Budget and Program Analysis
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Corn, wheat, and soybean prices projected to remain historically high

Dollars per bushel

USDA Long-term Projections

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USDA Agricultural Projections to 2019. Office of the Chief Economist, World Agricultural Outlook Board, U.S. Department of Agriculture. Prepared by the Interagency Agricultural Projections Committee. Long-term Projections Report OCE-2010-1, 100 pp.

Abstract

This report provides projections for the agricultural sector through 2019. Projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector, such as farm income and food prices. The projections are based on specific assumptions about macroeconomic conditions, policy, weather, and international developments, with no domestic or external shocks to global agricultural markets. Provisions of current law are assumed to remain in effect through the projection period. The projections are one representative scenario for the agricultural sector for the next decade. As such, the report provides a point of departure for discussion of alternative farm sector outcomes that could result under different assumptions. The projections in this report were prepared during October through December 2009, reflecting a composite of model results and judgment-based analyses.

Prospects for the agricultural sector in the near term reflect continuing U.S. and global adjustments to the recession of 2008-09 and the subsequent economic recovery. A resumption of steady global economic growth will support increases in consumption, trade, and prices in the longer run. Additionally, longrun developments for global agriculture reflect continued demand for biofuels, particularly in the United States and the European Union. The value of U.S. agricultural trade and cash receipts to farmers grow through the projection period. Increases in production expenses offset some of the gains in cash receipts, resulting in net farm income in the United States rising moderately from 2011 to 2019. U.S. retail food prices increase more than general inflation through 2012, but then return to a longer term relationship of rising less than the general inflation rate over the last half of the projection period.

Keywords: Projections, crops, livestock, biofuel, ethanol, trade, farm income, food prices, U.S. Department of Agriculture, USDA.

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A Note to Users of USDA Long-term Projections

USDA's long-term agricultural projections presented in this report are a Departmental consensus on a longrun scenario for the agricultural sector. These projections provide a starting point for discussion of alternative outcomes for the sector.

The scenario presented in this report is not a USDA forecast about the future. Instead, it is a conditional, longrun scenario about what would be expected to happen under a continuation of current farm legislation and specific assumptions about external conditions. Critical long-term assumptions are made for U.S. and international macroeconomic conditions, U.S. and foreign agricultural and trade policies, and growth rates of agricultural productivity in the United States and abroad. The report assumes that there are no domestic or external shocks that would affect global agricultural supply and demand. Normal weather is assumed. Changes in any of these assumptions can significantly affect the projections, and actual conditions that emerge will alter the outcomes.

The report uses as a starting point the short-term projections from the November 2009 *World Agricultural Supply and Demand Estimates* report. The macroeconomic assumptions were completed in October 2009.

The projections analysis was conducted by interagency committees in USDA and reflects a composite of model results and judgment-based analyses. The Economic Research Service had the lead role in preparing the departmental report. The projections and the report were reviewed and cleared by the Interagency Agricultural Projections Committee, chaired by the World Agricultural Outlook Board. USDA participants in the projections analysis and review include the World Agricultural Outlook Board; the Economic Research Service; the Farm Service Agency; the Foreign Agricultural Service; the Agricultural Marketing Service; the Office of the Chief Economist; the Office of Budget and Program Analysis; the Risk Management Agency; the Natural Resources Conservation Service; and the National Institute of Food and Agriculture.

USDA Agricultural Projections to 2019

Interagency Agricultural Projections Committee

Introduction and Projections Overview

This report provides longrun projections for the agricultural sector through 2019. Major forces and uncertainties affecting future agricultural markets are discussed, such as prospects for long-term global economic growth and population trends. Projections cover production and consumption for agricultural commodities, global agricultural trade and U.S. exports, commodity prices, and aggregate indicators of the sector, such as farm income and food prices.

The projections are a conditional scenario based on specific assumptions about the macroeconomy, agricultural and trade policies, the weather, and international developments. The report assumes that there are no domestic or external shocks that would affect global agricultural markets. Normal weather is assumed. Provisions of current law are assumed to remain in effect through the projection period, including the Food, Conservation, and Energy Act of 2008 (the 2008 Farm Act), the Energy Independence and Security Act of 2007, and the Energy Improvement and Extension Act of 2008. Thus, the projections are not intended to be a forecast of what the future will be, but instead are a description of what would be expected to happen under these very specific external circumstances and assumptions. As such, the projections provide a neutral, reference scenario that can serve as a point of departure for discussion of alternative farm sector outcomes that could result under different domestic or international assumptions.

The projections in this report were prepared during October through December 2009 and reflect a composite of model results and judgment-based analyses. Short-term projections used as a starting point in this report are from the November 2009 *World Agricultural Supply and Demand Estimates* report. The macroeconomic assumptions were completed in October 2009.

Prospects for the agricultural sector in the near term reflect continuing U.S. and global adjustments to the recession of 2008-09 and the subsequent economic recovery. Additionally, over the next several years, the livestock sector continues to adjust to higher feed prices seen in 2007 and 2008. Longrun developments for global agriculture reflect continued demand for biofuels, particularly in the United States and the European Union (EU). Although increases in corn-based ethanol production in the United States are projected to slow, ethanol demand remains high and affects production, use, and prices of farm commodities throughout the sector. Expansion of biodiesel use in the EU raises demand for vegetable oils in global markets. Further, a resumption of steady global economic growth will support increases in consumption, trade, and prices. Thus, after declining in 2009, the value of U.S. agricultural trade and cash receipts to farmers grow through the projection period. With increases in production expenses offsetting some of the gains in cash receipts, net farm income rises moderately from 2011 to 2019. U.S. retail food prices increase more than general inflation through 2012, but then food prices return to the longer term relationship of rising less than the general inflation rate over the last half of the projection period.

Key Assumptions and Implications

Major assumptions underlying the projections and selected implications include:

Economic Growth

- U.S. and world economic growth reflect a recovery from the global financial crisis and economic recession, with a transition back to steady economic gains.

- Global economic growth is assumed to rebound to a 3.3-percent average growth rate for 2010-19. A resumption of high growth rates in emerging market countries, such as China and India, and a return to strong growth in other developing countries and countries of the former Soviet Union underpin this macroeconomic result.

- The U.S. economy resumes growth at 2.5 percent in 2010 and 3.2 percent in 2011, followed by an average rate of 2.7 percent over the remainder of the projection period. With slower growth in the United States than in the world economy, the U.S. share of global gross domestic product (GDP) falls from about 27 percent currently to 25 percent at the end of the projection period.

- The return to broad-based, steady global economic growth supports longer term gains in world food demand, global agricultural trade, and U.S. agricultural exports. Economic growth in developing countries is especially important because food consumption and feed use are particularly responsive to income growth in those countries, with movement away from staple foods and increased diversification of diets.

- Growth in export demand contributes to gains in farm cash receipts and rising farm incomes after 2009.

Population

- Stronger global economic growth contributes to the continued slowing of population gains around the world as birth rates decline. Growth in global population is assumed to average of about 1.1 percent per year over the projection period compared with average annual rates of 1.7 percent in the 1980s and 1.4 percent in the 1990s.

- Population growth rates in most developing countries remain above those in the rest of the world. As a consequence, the share of world population accounted for by developing countries increases to 84 percent by 2019, up from 78 percent in the 1980s and 80 percent in the 1990s.

- Population gains in developing countries along with increased urbanization and expansion of the middle class are particularly important for the projected growth in global food demand. Developing countries' populations, in contrast to those of more developed countries, are dominated by younger population cohorts who consume larger quantities of food of increasingly more diverse types.

The Value of the U.S. Dollar

- The U.S. dollar is assumed to depreciate over the next decade. The dollar depreciation is part of a global adjustment of trade and financial markets in the aftermath of the global financial crisis and recession. This includes a reduction of the current account deficit in the United States and smaller surpluses in Europe, Japan, and China. The longer term depreciation of the dollar relative to the euro and yen is likely to result in some rebalancing of international currency portfolios, thereby reducing the relative importance of the dollar as a reserve currency.

- The weaker dollar will remain a facilitating factor in projected gains in U.S. agricultural exports. Although trade competition will continue to be strong, the United States will remain competitive in global agricultural markets, with export gains contributing to increases in cash receipts for U.S. farmers.

Oil Prices

- The weakening of the U.S. and global economies toward the end of 2008 and into 2009 resulted in a decline in demand for petroleum and other energy supplies. By early 2009, crude oil prices were down more than 70 percent from their peak, before rebounding somewhat by the end of the year.

- Crude oil prices are assumed to increase over the next decade as global economic activity picks up. From 2010 through 2019, crude oil prices are expected to rise faster than the general inflation rate, with the refiner acquisition cost for crude oil imports projected to be around $100 per barrel by the end of the projection period.

- These increases in crude oil prices raise costs of production in the agricultural sector.

U.S. Agricultural Policy

- Provisions of current law, particularly the 2008 Farm Act, are assumed to remain in effect through the projection period.

- Under the 2008 Farm Act, the maximum acreage enrolled in the Conservation Reserve Program (CRP) was reduced from 39.2 million acres to 32 million acres, beginning on October 1, 2009. With CRP enrollment at 34.6 million acres for 2008, this policy change provides some additional cropland for potential use in production rather than tightening cropland availability over the projection period.

- Increased cropland availability (resulting from the reduction in the CRP) and sustained high commodity prices keep U.S. cropland use high in the projections, although overall plantings are somewhat reduced from 2008 and 2009 levels.

- The Average Crop Revenue Election (ACRE) program was authorized by the 2008 Farm Act. ACRE is a revenue guarantee program that farmers can select as an alternative to counter-cyclical payments. Initial enrollment data as of October 2009 indicate that about 8 percent of eligible farms covering less than 13 percent of eligible base acres elected to participate in ACRE. Enrollment in this program is assumed in the projections to remain low.

U.S. Biofuels

- The projections assume that the 45-cents-per-gallon tax credit available to blenders of ethanol, a $1.00-per-gallon tax credit for biodiesel, and the 54-cents-per-gallon tariff on imported ethanol used as fuel are in effect through the projection period.

- Expansion in the U.S. ethanol industry is projected to continue, although the pace is assumed to slow from the rapid gains of the past several years.

- Corn is expected to remain the primary feedstock for U.S. ethanol production during the projection period. Slower annual growth for corn-based ethanol is projected, however, reflecting only moderate growth in overall gasoline consumption in the United States, limited potential for further market penetration of ethanol into the E10 (10-percent ethanol blend) market, and the small size of the E85 (85-percent ethanol blend) market. Nonetheless, ethanol production accounts for 34-35 percent of corn use and corn-based ethanol production exceeds 9 percent of annual gasoline consumption over the latter half of the projection period.

- Biodiesel production in the United States is assumed to increase to 1 billion gallons by 2012. Less than half this volume is assumed to be from domestic first-use vegetable oils, partly due to the equalization of the biodiesel tax credit across all feedstocks.

Livestock and Meat Trade

- The projections assume a gradual rebuilding of U.S. beef exports to Japan and South Korea, export markets that were initially closed to the United States following the first U.S. case of bovine spongiform encephalopathy (BSE) in December 2003.

- The projections do not include any short-term effects of Russia's recently announced quotas and sanitary requirements for imports of meat, which occurred after the projections were complete. However, the projections assume a continued tightening of import quotas in Russia, as that country builds toward self sufficiency in its meat sector.

International Policy

- Trade projections assume that countries comply with existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The report incorporates effects of trade agreements and domestic policies in place in November 2009.

- Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current paths, based on the consensus judgment of USDA's regional and commodity analysts. In particular, long-term economic and trade reforms in many developing countries are assumed to continue.

International Biofuels

- The production of biofuels has experienced rapid growth in a number of countries. The projections assume that the most significant increases in foreign biofuel production over the next decade will be in the EU, Brazil, Argentina, and Canada.

- The projections assume that the EU mandate that renewable fuels provide 10 percent of the energy used in the transportation sector by 2020 is only partially met. It is assumed that 60 percent of the mandate (6 percent of transportation fuel use) is achieved from annual agricultural crop feedstocks by 2019. The projections assume that biodiesel accounts for 65 percent of this amount and that ethanol accounts for 35 percent, compared with 72 percent for biodiesel and 28 percent for ethanol estimated for 2009. Growth in biodiesel demand in the EU is a key factor underlying gains in global demand for vegetable oils and oilseeds, while increases in demand for ethanol add to demand for grains.

Prices

- Long-term growth in global demand for agricultural products, in combination with the continued presence of U.S. ethanol demand for corn and EU biodiesel demand for vegetable oils, holds prices for corn, oilseeds, and many other crops at historically high levels.

- High grain and oilseed prices have raised feed costs in the U.S. livestock sector, while the global recession reduced meat demand. The livestock sector is adjusting to these short-term and long-term factors, leading to reduced U.S. production of total meat and poultry through 2011 and higher meat prices. Although improving net returns provide economic incentives for moderate expansion in the sector later in the projection period, livestock prices rise over the next decade.

- Sustained biofuel demand and strengthening global food demand after the global economic recession provide a major impetus for long-term projections of strengthening cash receipts and moderate gains in net farm income.

- As the economy recovers, retail food prices in the United States are projected to rise faster than overall inflation in 2010 through 2012 (particularly meats in 2011 and 2012). For the last half of the projection period, U.S. consumer food prices return to the longer term relationship of rising less than the general inflation rate.

Macroeconomic Assumptions

Macroeconomic assumptions underlying USDA's long-term projections reflect a near-term global economic recession, followed by a slow transition back toward steady growth at longrun sustainable rates in 2011 and beyond. Implicit in these assumptions is that the U.S. Federal Reserve Board and other major central banks around the world continue to take aggressive action to counter the financial crisis, and that governments will provide sufficient stimulus to overcome the economic downturn. Even with these actions, the global recession has been the most severe since the 1930s, with implications for longrun world economic performance and for risks in the global macroeconomy. (See boxes, *The World Economic Crisis: Implications for the Macroeconomic Outlook and the U.S. Agricultural Sector*, page 8, and *Macroeconomic Risks in the Projections*, page 9.) The macroeconomic assumptions were completed in October 2009.

After growing an average of 2.9 percent between 2001 and 2008, overall world economic growth likely fell by 2 percent or more in 2009. Global growth is projected to average 3.3 percent in 2010 through 2019, mostly due to resumed high growth rates in emerging market countries such as China and India and a return to strong growth in other developing countries and countries of the former Soviet Union. While developed countries still account for more than 60 percent of the world's gross domestic product (GDP) at the end of the projection period, that is share down from 80 percent in 1970 and almost 70 percent in 2007.

The financial crisis had a significant impact on economic growth in the United States. The U.S. economy grew only 0.4 percent in 2008, contracted by about 2.5 percent in 2009, and is expected to grow 2.5 percent in 2010. After 2010, U.S. growth moves back toward a sustainable rate near 3 percent. Because U.S. GDP is growing more slowly than the world economy throughout the projection period, the U.S. share of GDP falls from about 27 percent currently to 25 percent in 2019.

U.S. and world gross domestic product (GDP) growth

The return of global economic growth after 2009 and continued population gains are expected to boost food demand. The longer term increases in global purchasing power and population, competing against demand for biofuels and other domestic uses, are important factors shaping the projections for world trade, U.S. agricultural exports, and commodity prices. Also supporting the outlook for U.S. agricultural exports is the cumulative effect of the depreciated U.S. dollar since 2002 and the continuation of depreciation into the projection period. This depreciation of the dollar makes U.S. agricultural exports increasingly competitive in international markets.

The global economic slowdown has dampened inflation. Even with the U.S. and world economies projected to move back toward sustainable growth, global inflation is projected to remain relatively low, averaging around 2.8 percent per year globally through 2019. The U.S. Federal Reserve Board and other major central banks are assumed to continue policies to constrain inflation, while promoting economic growth.

The World Economic Crisis
Implications for the Macroeconomic Outlook and the U.S. Agricultural Sector

The global financial crisis of 2008-09 had far-reaching effects through the global economic and financial system. In the short term, with declining world economic activity in 2009, overall global trade declined for the first time since 1982 and agricultural trade fell as well. However, implications are more long-lasting, shaping macroeconomic prospects in the world for the next decade and beyond.

Global macroeconomic imbalances in trade and financial markets were significant factors contributing to the crisis. Among these imbalances were the large U.S. current account deficit and surpluses in China and Japan. Adjustments to address those imbalances, along with others, will be critical to a sustainable recovery, which affects not only economic growth prospects worldwide but also results in a realignment of exchange rates.

Within these adjustments, a continuing weak U.S. dollar is needed for the U.S. trade deficit to further decline. In these projections, the value of the U.S. dollar is assumed to slowly depreciate over the next decade (see page 13 for further discussion). A weaker dollar tends to boost exports by lowering the price of U.S. goods in global markets relative to competing goods priced in appreciating currencies. Similarly, a weak dollar tends to dampen imports by raising the price of foreign goods priced in appreciating currencies relative to U.S. domestic goods.

These relative currency valuation changes have important implications for U.S. agriculture. As a heavily trade-dependent sector, a weaker dollar facilitates a strengthening of U.S. agricultural exports and a diminishing of imports, thereby widening the agricultural trade surplus. Combined with a return to global economic growth, with gains in developing countries particularly important for agricultural demand, prospects for U.S. agricultural exports are improved.

For further discussion of how the world crisis affects U.S. agriculture and trade see:

- Shane, Mathew, William Liefert, Mitch Morehart, May Peters, John Dillard, David Torgerson, and William Edmondson. *The 2008/2009 World Economic Crisis: What It Means for U.S. Agriculture*. WRS-09-02, March 2009, available at http://www.ers.usda.gov/Publications/WRS0902/.

- Peters, May, Mathew Shane, and David Torgerson. *What the 2008/2009 World Economic Crisis Means for Global Agricultural Trade*. WRS-09-05, August 2009, available at http://www.ers.usda.gov/Publications/WRS0905/.

Macroeconomic Risks in the Projections

The macroeconomic assumptions in this report show a modest recovery in the U.S. economy, with a return to trend growth and new jobs being added starting in mid 2010. Economic gains in the rest of the developed world pick up in late 2011. Developing economies are expected to be in an expansion phase in late 2009 and early 2010, led by China and India (whose economies showed no signs of an overall recession). Thus, the overall world economy is expected to return to longer term growth rates by mid 2011 although, unlike many recovery periods, no short-term bounce back with accelerated growth is assumed. Nonetheless, even with this return to economic growth, there is a dramatic change in the underlying macroeconomic policy environment and an increased risk of downside scenarios.

Labor Market Risks. There is some potential for slower world and U.S. economic growth than assumed here for 2011-19. Along with the reduction in U.S. GDP in 2009, there has been an even more dramatic drop in employment—double the employment reduction in any prior post World War II recession—and a high unemployment rate. Further, the consensus of the *Blue Chip Economic Indicators* (a monthly survey of private-sector forecasters) has U.S. unemployment rates remaining above 6 percent until 2015.

The change in domestic labor markets has important implications for trend productivity and output growth due to both supply-side and demand-side risks. On the supply side, high unemployment could substantially curtail growth in the capacity of the U.S. economy. Large unemployment would imply substantial risks to labor incomes, potentially dampening consumption and causing aggregate demand growth to stagnate.

Financial Market Risks. While world financial markets have adjusted to the shock emanating from U.S. real estate markets (recognizing balance sheet losses of $1.3 trillion worldwide), there remain notable risks to U.S. and world economic growth through potential financial market channels. For example, Chinese bank loans accelerated significantly as part of the Chinese stimulus package to boost their domestic growth and offset reduced exports. If these loans were to default, world financial markets would undergo another significant shock.

Additionally, due to increased economic and financial market uncertainty, consumers in developed economies could decide to add to savings, thereby slowing consumer spending growth. Such a reduction in consumer spending could weaken corporate profits and cause a decline in stock markets, further increasing uncertainty. In this climate, the rise in savings and reduction in consumer spending could lower trend growth in developed economies and dampen growth in developing economies.

U.S. Dollar Risks. Finally, if the U.S. economy were to undergo a longer and deeper recession due to some combination of the factors above, one possible outcome could be the U.S. dollar no longer being the primary reserve currency in the world. Such an outcome would imply a substantial depreciation in the dollar with a potential for a decline in U.S. living standards. For agriculture, implications would depend on how weaker economic growth and demand gains in the developing economies would trade off against a sharply lower dollar in influencing agricultural trade.

GDP growth for developed countries, European Union, and Japan

Percent
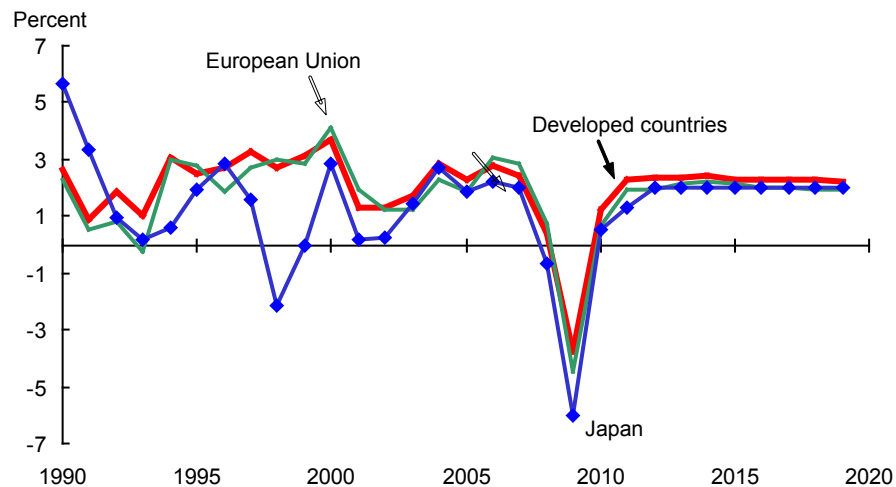
Both the European Union (EU) and Japan experienced more severe and longer recessions than the United States. The EU was much less aggressive in combating the impact of the global financial crisis than either the United States or China. Since declining trade has been a hallmark of this recession, Japan, a heavily trade-dependent country, saw its trade-dependent sectors decline significantly.

Developed economies are projected to grow 2.2 percent in 2010-19, more than half a percentage point less than the 1970-2008 historical average. Economic growth rates for the EU remain below 1.9 percent per year in the projection period, also more than 0.5 percentage point below their historical average. Japan is projected to have modest growth approaching 2 percent per year on average. As a consequence, both the EU and Japan continue to account for smaller shares of global GDP.

- The EU does not grow as rapidly as the U.S. economy because of lingering structural rigidities, particularly inflexible labor laws and a very expensive social security system. Political difficulties also constrain the benefits of economic integration, particularly with continued restrictions on labor mobility between EU countries and a very cumbersome EU Commission decisionmaking process. Unemployment rates decline from double-digit rates in the projection period, indicating some progress in increasing employment flexibility.

- Japan continues to face constraints to economic growth, largely the result of long-term structural rigidities (such as legal constraints to new business entry), a difficult political process for economic reform, and a declining labor force due to a decreasing and aging population. Japan's labor market liberalization partly offsets these constraints, aiding productivity growth. Japan's increasing integration with the other economies of Asia, especially China, further mitigates the growth constraints in the Japanese economy. The projections assume sustained economic growth in Japan returning to near 2 percent per year, a significant improvement from the last decade.

GDP growth for developing economies and the former Soviet Union
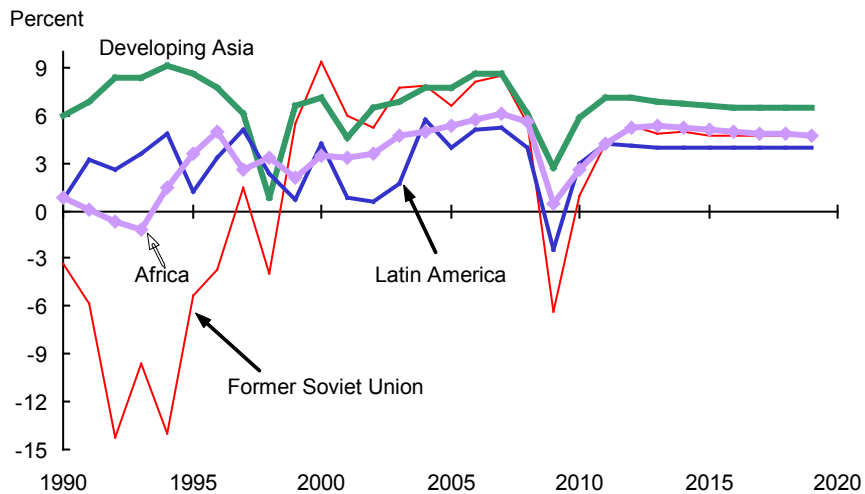
Economic growth in developing countries is projected to average more than 5.6 percent annually during 2010-19. This compares with average growth in developed countries of 2.2 percent. While developing countries are affected by the global recession to different degrees, they all return to strong economic growth in the projection period.

- Developing countries will play an increasingly important role in the global economy and growth in food demand, and will become a more important destination for U.S. agricultural exports. High income growth, along with high responsiveness of consumption and imports of food and feed, drives this result. As incomes rise in developing countries, consumers tend to diversify their diets, increasing their relative consumption of meat, dairy products, fruits, vegetables, and processed foods (including vegetable oils). These consumption shifts increase import demand for feedstuffs and high-value food products.

- Continued strong growth in China, India, and the rest of Asia make this region an increasingly important part of the global economy, with developing Asia's share of world GDP rising to 22 percent by the end of the projection period. China alone becomes more than 10 percent of the world economy. Relatively high oil prices, by historical standards, modestly constrain Asia from even higher economic growth since the manufacturing sector in Asian countries is far more dependent on energy for GDP growth than more developed economies. China's economic growth has been consistently the strongest in Asia. While some slowing is expected, China's growth is expected to average around 8 percent over the next decade. India's projected average economic growth of 7.5 percent per year puts it in the top tier of high-growth countries. Nonetheless, India remains a low-income country, with real (inflation-adjusted) 2005-based per capita income of $880 in 2009, compared with $2,500 in China. Continued strong income growth is expected to bring India's real per capita income to $1,600 by 2019 and is expected to move a significant number of people out of poverty. Projected growth for Southeast Asia exceeds 4.8 percent for the next decade while growth in developing countries of East Asia is projected to be 7 percent. Although large, these projected growth rates are below the very strong average economic growth in these regions in 1971-2008.

- The slowest-growing developing region, Latin America, sustains growth near 4 percent a year in the projections. An overall improvement in macroeconomic policies has attracted foreign capital inflows (particularly foreign direct investment, notably to Chile, Colombia, and Brazil) and sustained growth in the region.

- Economic growth in the countries of the former Soviet Union (FSU) is projected to average 4.4 percent annually for the next decade as these countries benefit from their shift to more market-oriented economies. Russia and other energy-rich FSU countries also benefit from relatively high oil prices.

Population growth continues to slow
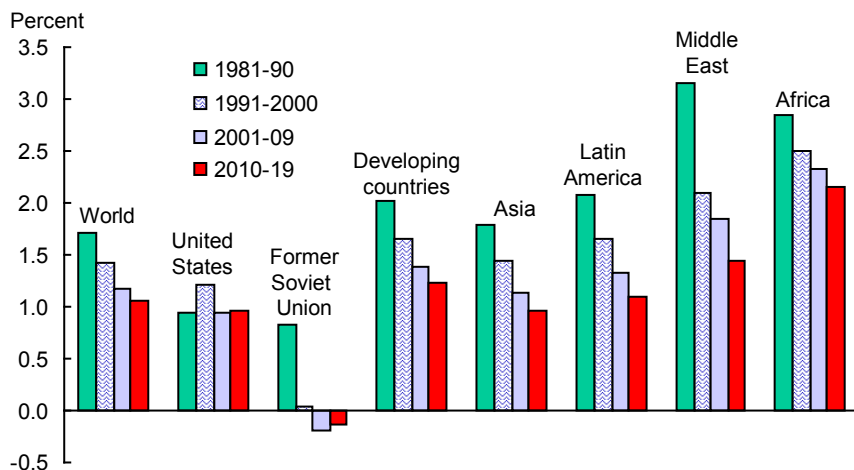
Percent

Source: U.S. Department of Commerce, U.S. Census Bureau and U.S. Department of Agriculture, Economic Research Service.

While stronger global economic growth strengthens food and agricultural demand over the next decade, it also contributes to the continued slowing of population gains around the world, which limits increases in demand. World population growth declines from an annual rate of 1.7 percent in the 1980s to an average of under 1.1 percent per year for the projection period.

- Developed countries have very low projected rates of population growth, at 0.3 to 0.4 percent over 2010-19. The projected annual average population growth rate for the United States is the highest among developed countries, at 0.8 to 0.9 percent, in part reflecting large immigration.

- Overall, population in the FSU is projected to decline moderately. Population growth rates in developing economies are projected to be sharply lower than rates in the 1980s and 1990s, but remain above those in developed countries and the FSU. As a result, the share of world population accounted for by developing countries increases to 84 percent by 2019, compared to 78 percent in the 1980s and 80 percent in the 1990s.

- China and India together account for 37 percent of the world's population. China's population growth rate slows from 1.5 percent per year in 1981-90 to 0.6 percent in 2010-19. The population growth rate in India, the world's second most populous nation, is projected to decline from 2.0 percent to 1.3 percent per year over the same period.

- Brazil's population growth rate falls from 2.2 percent per year in 1981-90 to 1.1 percent annually in 2010-19. Sub-Saharan Africa's population growth rate declines from 2.9 percent to 2.3 percent per year between the same periods, leaving this impoverished region with the highest population growth rate in the world.

- There are a number of countries with declining populations, including Germany, Italy, Spain, Russia, Ukraine, some countries in Western and Central Europe, and Japan. South Africa is projected to have a declining population resulting from the AIDS epidemic.

U.S. agricultural trade-weighted dollar continues depreciation 1/

Index values, 2005=100
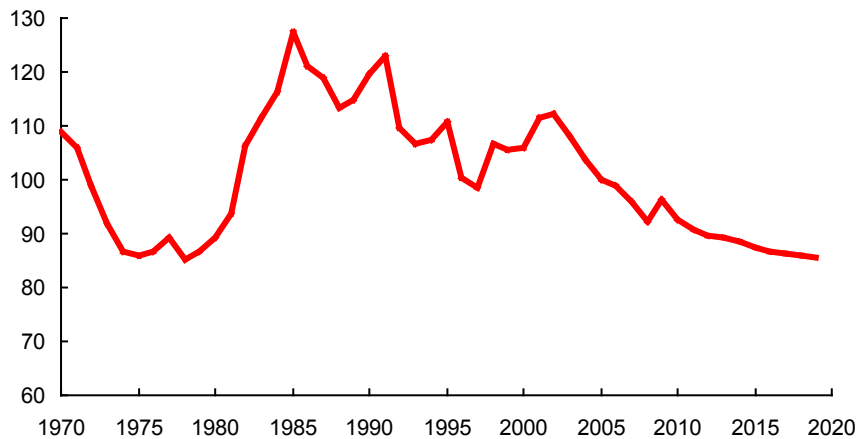
1/ Real U.S. agricultural trade-weighted dollar exchange rate, using U.S. agricultural export weights, based on 192 countries.

The U.S. dollar depreciated 25 percent between February 2002 and July 2008, facilitating growth in U.S. agricultural exports. The dollar appreciated in real terms in the second half of 2008, but depreciated through most of 2009. On an annual basis, the U.S. dollar is projected to depreciate through the projection period and thus will continue to positively impact U.S. exports. The dollar depreciation is part of a global rebalancing of trade and financial markets in the aftermath of the global financial crisis and recession. (See box, *The World Economic Crisis: Implications for the Macroeconomic Outlook and the U.S. Agricultural Sector*, page 8.)

- Strong GDP growth in the United States relative to the EU and Japan will tend to mitigate the continued appreciation of the euro and yen to the U.S. dollar. The longer term depreciation of the dollar relative to the euro and yen is likely to result in some rebalancing of international currency portfolios, thereby reducing the relative importance of the dollar as a reserve currency.

- China initiated a process for appreciating its currency (yuan) in 2005 after a long period of maintaining a fixed nominal exchange rate relative to the dollar and thus a persistently undervalued yuan. The projections assume that China allows its nominal exchange rate to continue to appreciate. The associated real appreciation of the Chinese yuan after 2010 also leads to some real appreciation of other Asian currencies. These exchange rate developments will strengthen U.S. agricultural exports to Asian countries.

- Among agricultural products, U.S. exports of bulk commodities and horticultural products tend to be the most sensitive to swings in the U.S. dollar's value, because they face more global trade competition.

U.S. crude oil prices

Dollars per barrel
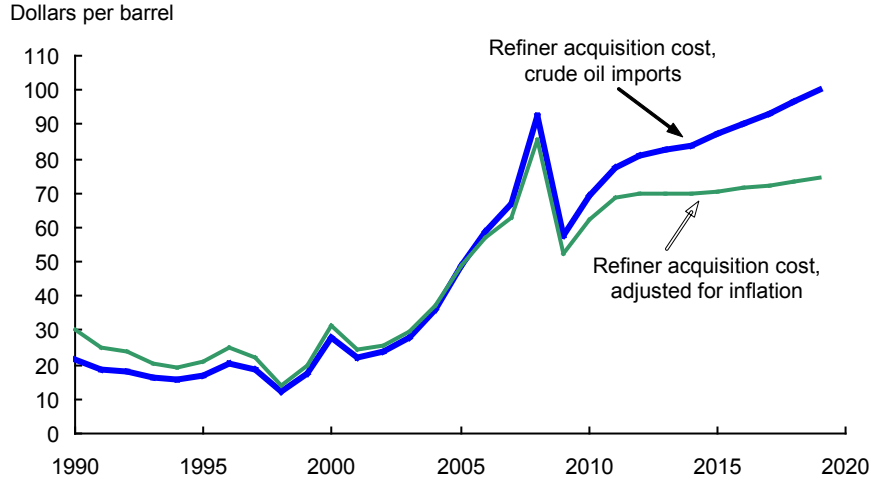
Crude oil prices rose sharply from late 2002 into 2008, much of which reflected increased crude oil demand due to robust world economic growth and rapid manufacturing growth in China, India, and other countries in Asia. At its peak in July 2008, the refiner acquisition cost of crude oil imports reached $147 a barrel. The weakening of the U.S. and global economies toward the end of 2008 and into 2009 resulted in a decline in demand for petroleum and other energy supplies. By early 2009, crude oil prices were down more than 70 percent from their peak, before generally rising over the rest of the year.

- Crude oil prices averaged close to $60 per barrel in 2009. Prices are assumed to increase over the remainder of the projection period as global economic activity picks up. From 2010 through 2019, crude oil prices are expected to rise somewhat faster than the general inflation rate. By the end of the projection period, the refiner acquisition cost for crude oil imports is projected to be around $100 per barrel.

Table 1. U.S. macroeconomic assumptions

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
GDP, billion dollars												
Nominal	14,441	14,292	14,810	15,529	16,315	17,124	17,973	18,864	19,800	20,782	21,812	22,894
Real 2005 chained dollars	13,312	12,979	13,304	13,730	14,114	14,495	14,886	15,288	15,701	16,125	16,561	17,008
percent change	0.4	-2.5	2.5	3.2	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Disposable personal income												
Nominal (billion dollars)	10,806	11,098	11,464	11,992	12,603	13,234	13,895	14,590	15,319	16,085	16,890	17,734
percent change	3.9	2.7	3.3	4.6	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Nominal per capita, dollars	35,485	36,118	36,981	38,344	39,952	41,591	43,301	45,086	46,948	48,891	50,918	53,034
percent change	2.9	1.8	2.4	3.7	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.2
Real (billion 2005 chained dollars)	9,911	10,030	10,251	10,558	10,864	11,169	11,481	11,803	12,133	12,473	12,822	13,181
percent change	0.5	1.2	2.2	3.0	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Real per capita, 2005 chained dollars	32,546	32,642	33,066	33,760	34,440	35,101	35,779	36,473	37,184	37,911	38,656	39,418
percent change	-0.4	0.3	1.3	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0
Consumer spending												
Real (billion 2005 chained dollars)	9,291	9,244	9,402	9,684	9,945	10,204	10,469	10,741	11,020	11,307	11,601	11,903
percent change	-0.2	-0.5	1.7	3.0	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Inflation measures												
GDP price index, chained, 2005=100	108.5	110.1	111.3	113.1	115.6	118.1	120.7	123.4	126.1	128.9	131.7	134.6
percent change	2.2	1.5	1.1	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
CPI-U, 1982-84=100	215.3	214.0	217.2	222.2	227.8	233.5	239.3	245.3	251.4	257.7	264.1	270.8
percent change	4.3	-0.6	1.5	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PPI, finished goods 1982=100	177.3	170.9	172.6	177.6	181.1	184.6	188.1	191.7	195.3	199.0	202.8	206.6
percent change	6.4	-3.6	1.0	2.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
PPI, crude goods 1982=100	251.8	180.3	196.9	218.8	240.6	259.9	269.0	278.4	288.1	298.2	308.7	319.5
percent change	23.0	-28.4	9.2	11.1	10.0	8.0	3.5	3.5	3.5	3.5	3.5	3.5
Crude oil price, $/barrel												
EIA refiner acq. cost, imports	92.8	57.6	69.4	77.6	81.0	82.5	84.1	87.1	90.2	93.3	96.6	100.0
percent change	38.4	-37.9	20.5	11.8	4.4	1.9	1.9	3.6	3.5	3.5	3.5	3.5
Real 2005 chained dollars	85.5	52.3	62.4	68.6	70.1	69.8	69.7	70.6	71.5	72.4	73.3	74.3
percent change	35.5	-38.8	19.2	10.0	2.1	-0.3	-0.3	1.3	1.3	1.3	1.3	1.3
Labor compensation per hour												
nonfarm business, 1992=100	181.0	183.0	187.0	192.4	198.2	203.7	209.4	215.3	221.3	227.5	233.9	240.4
percent change	2.8	1.1	2.2	2.9	3.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Interest rates, percent												
3-month Treasury bills	1.5	0.2	0.6	1.5	4.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8
3-month commercial paper	2.1	0.3	0.7	2.0	4.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Bank prime rate	5.1	3.3	3.6	4.8	7.0	8.0	8.2	8.2	8.2	8.2	8.2	8.2
10-year Treasury bonds	3.7	3.3	3.7	3.8	5.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Moody's Aaa bond yield index	5.6	5.3	4.8	5.0	5.7	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Labor and population												
Civilian unemployment rate, percent	5.8	9.3	9.1	8.6	8.1	7.6	7.0	6.5	6.0	6.0	6.0	6.0
Nonfarm payroll emp., millions	137.0	132.0	131.4	132.8	134.0	135.0	136.1	137.2	138.3	139.4	140.5	141.6
percent change	0.1	-3.7	-0.4	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Total population, millions	304.5	307.3	310.0	312.7	315.5	318.2	320.9	323.6	326.3	329.0	331.7	334.4
percent change	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8

Domestic macroeconomic assumptions were completed in October 2009. CPI-U is the consumer price index for all urban consumers. PPI is the producer price index. EIA is the Energy Information Administration, U.S. Department of Energy.

Table 2. Global real GDP growth assumptions

Region/country	GDP, 2008	Share of world GDP 2005-2007	Per capita income, 2008	2008	2009	2010	2011	2012	2013	Average 1991-2000	Average 2001-2009	Average 2010-2019
	Bil. 2005 dollars	*Percent*	*2005 dollars*						*Percent change*			
World	49,297	100.0	7,367	1.8	-2.6	2.1	3.4	3.5	3.5	2.7	2.3	3.3
Less United States	36,175	72.6	5,664	2.4	-2.7	2.0	3.4	3.8	3.8	2.5	2.6	3.5
North America	14,401	30.0	42,697	0.4	-2.5	2.4	3.3	3.0	2.8	3.3	1.6	2.8
Canada	1,279	2.7	38,519	0.4	-2.5	1.6	4.0	4.5	3.8	2.9	1.8	3.1
United States	13,122	27.4	43,154	0.4	-2.5	2.5	3.2	2.8	2.7	3.3	1.6	2.7
Latin America	3,147	6.2	5,440	3.9	-2.4	2.9	4.2	4.1	3.9	3.1	2.7	3.9
Mexico	842	1.7	7,657	1.4	-6.3	2.5	3.5	3.5	3.7	3.5	1.4	3.5
Caribbean & Central America	320	0.6	3,949	2.4	-1.4	1.3	3.0	4.2	3.9	3.1	2.7	3.6
South America	1,985	3.8	5,123	5.3	-1.0	3.4	4.7	4.3	4.0	3.0	3.4	4.1
Argentina	220	0.4	5,423	7.1	-2.1	2.5	5.0	3.9	3.9	4.4	3.8	3.9
Brazil	1,016	2.2	5,736	5.1	-1.0	4.0	5.0	4.5	4.0	2.6	3.0	4.2
Other	640	1.2	4,244	5.1	-0.5	2.6	4.0	4.1	4.1	3.3	4.0	3.9
Europe	15,365	31.8	29,047	0.8	-4.4	0.2	1.6	2.0	2.2	2.1	1.2	1.8
European Union-27	14,549	30.1	29,614	0.7	-4.5	0.7	1.9	2.0	2.2	2.1	1.2	1.9
Other Europe	816	1.7	22,023	2.0	-2.3	0.3	2.0	2.0	2.1	1.9	1.7	1.9
Former Soviet Union	1,268	2.4	4,584	5.5	-6.3	1.0	4.3	5.3	4.9	-4.0	5.5	4.4
Russia	973	1.8	6,919	5.6	-6.5	1.0	4.3	5.5	5.0	-3.6	5.0	4.6
Ukraine	100	0.2	2,174	2.7	-13.8	-0.5	6.6	7.7	6.6	-7.7	4.7	4.8
Other	194	0.4	2,162	6.7	-1.2	1.6	3.2	3.4	3.7	-3.8	8.4	3.4
Asia and Oceania	12,358	24.3	3,315	3.3	-0.6	3.7	5.0	5.3	5.1	3.7	3.8	4.9
East Asia	9,113	18.0	5,835	2.8	-1.0	3.7	4.7	5.1	5.0	3.4	3.5	4.8
China	3,114	5.5	2,342	8.9	7.2	8.5	8.8	8.5	8.3	10.5	9.7	8.0
Hong Kong	202	0.4	28,787	2.4	-2.9	3.1	5.5	4.6	4.4	4.5	3.8	4.1
Japan	4,437	9.4	34,855	-0.7	-6.0	0.5	1.3	2.0	2.0	1.2	0.4	1.8
Korea	954	1.9	19,716	2.2	-2.8	2.0	4.4	4.8	4.2	6.2	3.6	4.1
Taiwan	390	0.8	17,015	0.2	-5.0	1.5	4.3	4.2	4.1	6.5	2.8	3.9
Southeast Asia	1,119	2.2	1,910	4.3	-3.1	3.2	4.9	5.2	5.2	5.2	4.1	4.8
Indonesia	355	0.7	1,496	6.1	-2.0	3.5	5.5	5.3	5.0	4.4	4.4	4.9
Malaysia	159	0.3	6,283	4.6	-4.0	2.5	5.0	5.3	5.5	7.2	3.9	4.9
Philippines	123	0.2	1,281	4.6	-1.2	4.0	4.5	5.0	5.3	3.1	4.1	4.6
Thailand	212	0.4	3,236	2.6	-5.6	2.5	4.3	5.0	5.3	4.6	3.6	4.6
Vietnam	65	0.1	745	6.2	4.6	5.7	5.3	6.8	7.1	7.4	7.2	6.7
South Asia	1,221	2.3	791	6.8	4.5	5.9	7.4	7.6	7.3	5.2	6.7	7.0
Bangladesh	64	0.1	419	6.1	3.8	4.7	5.1	5.6	5.3	4.8	5.5	4.9
India	970	1.8	850	7.0	5.0	6.5	8.0	8.0	7.8	5.5	7.1	7.5
Pakistan	136	0.3	793	5.9	1.5	2.5	4.8	6.0	5.4	4.0	5.0	5.1
Oceania	905	1.8	25,172	1.9	-0.6	1.1	3.7	3.9	3.4	3.5	2.7	3.0
Australia	769	1.6	36,615	2.2	-0.6	1.0	3.8	4.0	3.5	3.6	2.8	3.0
New Zealand	104	0.2	25,018	-1.0	-1.4	1.8	3.6	3.1	3.1	2.9	2.4	3.0
Middle East	1,558	3.0	5,661	4.6	-2.7	3.2	4.7	4.9	4.8	3.6	3.8	4.6
Iran	228	0.4	3,456	5.3	-5.7	2.0	3.4	4.7	4.4	2.6	4.9	4.0
Iraq	80	0.1	2,836	14.0	5.4	7.9	7.8	6.3	6.1	9.5	12.4	6.2
Saudi Arabia	348	0.7	12,369	4.2	0.2	4.5	6.0	5.2	5.2	2.6	3.6	5.2
Turkey	385	0.8	5,080	1.1	-7.5	2.5	4.5	5.0	5.2	3.6	3.1	4.6
Other	517	1.0	6,700	5.8	-1.0	2.6	4.1	4.5	4.1	4.8	4.2	4.0
Africa	1,200	2.3	1,241	5.6	0.5	2.6	4.2	5.2	5.4	2.0	4.4	4.7
North Africa	369	0.7	2,326	6.0	3.1	4.0	4.6	4.9	4.8	3.5	4.5	4.6
Algeria	109	0.2	3,223	3.6	2.3	3.1	3.5	5.0	4.8	1.7	3.9	4.3
Egypt	120	0.2	1,551	7.2	4.0	5.0	5.5	4.3	4.3	4.5	4.9	4.5
Morocco	62	0.1	1,479	8.1	3.0	4.0	4.5	5.2	5.1	2.4	4.6	4.7
Tunisia	33	0.1	5,931	4.6	3.3	4.0	4.6	5.9	5.9	4.8	4.6	5.4
Sub-Saharan Africa	831	1.6	1,028	5.4	-0.7	2.0	4.0	5.3	5.7	1.3	4.4	4.8
South Africa	253	0.5	5,183	3.1	-2.5	2.0	4.2	5.0	5.0	1.8	3.1	4.6
Other Sub-Saharan Africa	579	1.1	761	6.4	0.1	2.0	3.9	5.4	5.9	1.1	5.0	4.8

International macroeconomic assumptions were completed in October 2009.

Table 3. Population grow th assumptions

Region/country	Population in 2008	2008	2009	2010	2011	2012	2013	Average 1991-2000	Average 2001-2009	Average 2010-2019
	Millions					Percent change				
World[1]	6,691	1.2	1.1	1.1	1.1	1.1	1.1	1.4	1.2	1.1
Less United States	6,387	1.2	1.2	1.1	1.1	1.1	1.1	1.4	1.2	1.1
North America	337	0.9	0.9	0.9	0.9	0.9	0.9	1.2	0.9	0.8
Canada	33	0.8	0.8	0.8	0.8	0.8	0.8	1.1	0.8	0.8
United States	304	0.9	0.9	0.9	0.9	0.9	0.9	1.2	0.9	0.8
Latin America	578	1.3	1.3	1.2	1.2	1.2	1.2	1.6	1.3	1.1
Mexico	110	1.2	1.1	1.1	1.1	1.1	1.1	1.6	1.2	1.1
Caribbean & Central America	81	1.4	1.4	1.4	1.4	1.4	1.3	1.7	1.5	1.3
South America	388	1.3	1.3	1.2	1.2	1.2	1.1	1.6	1.3	1.1
Argentina	40	1.1	1.1	1.1	1.0	1.0	1.0	1.2	1.0	1.0
Brazil	196	1.3	1.2	1.2	1.2	1.1	1.1	1.6	1.3	1.1
Other	151	1.4	1.3	1.3	1.3	1.3	1.2	1.8	1.4	1.2
Europe	529	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.0
European Union-27	491	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.0
Other Europe	37	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.3	0.2
Former Soviet Union	277	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.2	-0.1
Russia	141	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.1	-0.5	-0.5
Ukraine	46	-0.7	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.8	-0.6
Other	90	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7
Asia and Oceania	3,727	1.1	1.0	1.0	1.0	1.0	1.0	1.5	1.1	1.0
East Asia	1,562	0.5	0.6	0.6	0.6	0.6	0.6	0.9	0.5	0.5
China	1,330	0.6	0.6	0.7	0.7	0.7	0.7	1.0	0.6	0.6
Hong Kong	7	0.5	0.5	0.5	0.5	0.4	0.4	1.6	0.6	0.4
Japan	127	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	0.3	0.0	-0.4
Korea	48	0.3	0.3	0.3	0.2	0.2	0.2	0.9	0.4	0.2
Taiw an	23	0.3	0.2	0.2	0.2	0.2	0.2	0.9	0.4	0.1
Southeast Asia	586	1.3	1.3	1.2	1.2	1.2	1.2	1.7	1.4	1.1
Indonesia	238	1.2	1.2	1.1	1.1	1.1	1.0	1.6	1.3	1.0
Malaysia	25	1.8	1.7	1.7	1.7	1.7	1.7	2.2	1.9	1.7
Philippines	96	2.0	2.0	2.0	1.9	1.9	1.9	2.2	2.1	1.8
Thailand	66	0.7	0.6	0.6	0.6	0.6	0.5	1.2	0.7	0.5
Vietnam	88	1.2	1.2	1.1	1.1	1.1	1.0	1.6	1.3	1.0
South Asia	1,544	1.5	1.4	1.4	1.4	1.4	1.3	2.0	1.6	1.3
Bangladesh	154	1.3	1.3	1.3	1.3	1.3	1.3	2.1	1.5	1.3
India	1,141	1.5	1.4	1.4	1.4	1.3	1.3	1.8	1.6	1.3
Pakistan	172	1.6	1.6	1.5	1.5	1.5	1.5	2.5	1.9	1.4
Oceania	36	1.5	1.4	1.3	1.3	1.3	1.3	1.5	1.5	1.2
Australia	21	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.2	1.1
New Zealand	4	1.0	1.0	0.9	0.9	0.9	0.9	1.1	1.1	0.8
Middle East	275	1.9	1.7	1.7	1.6	1.4	1.4	2.1	1.9	1.5
Iran	66	0.7	0.8	0.9	1.0	1.0	1.0	1.1	0.5	1.0
Iraq	28	2.6	2.6	2.5	2.5	2.4	2.3	2.3	2.7	2.3
Saudi Arabia	28	2.0	1.9	1.8	1.7	1.6	1.5	3.7	2.4	1.5
Turkey	76	1.4	1.3	1.3	1.3	1.2	1.2	1.8	1.5	1.1
Other	77	3.0	2.4	2.4	2.1	1.6	1.4	3.1	3.0	1.9
Africa	967	2.3	2.3	2.3	2.3	2.2	2.2	2.5	2.3	2.2
North Africa	159	1.7	1.6	1.6	1.6	1.6	1.5	1.7	1.7	1.5
Algeria	34	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.3	1.1
Egypt	77	2.1	2.1	2.0	2.0	2.0	1.9	1.7	2.1	1.8
Morocco	31	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.2	1.0
Tunisia	10	1.0	1.0	1.0	1.0	1.0	0.9	1.5	1.0	0.9
Sub-Saharan Africa	809	2.4	2.4	2.4	2.4	2.4	2.3	2.6	2.5	2.3
South Africa	49	0.9	0.6	0.1	-0.2	-0.4	-0.4	1.6	0.9	-0.1
Other Sub-Saharan Africa	760	2.6	2.5	2.5	2.6	2.5	2.5	2.7	2.6	2.4

1/ Totals for the w orld and w orld less United States include countries not otherw ise listed in the table.
Source: U.S. Department of Commerce, U.S. Census Bureau and U.S. Department of Agriculture, Economic Research Service.
The population assumptions w ere completed in July 2009 based on the June 2009 update from the U.S. Census Bureau.

Agricultural Trade

Renewed economic growth following the global recession is assumed to begin early in the 2010-19 projection period, with income growth slightly above the historical average long-term rate during the last half of the period. This renewed growth provides a foundation for gains in world demand and trade for agricultural products. Consequently, although crop prices have dropped from their mid-2008 peaks, they are projected to remain historically high, above pre-2006 levels.

Historical Background for Trade Projections

Since the beginning of 2002, fluctuations in production, trade, and stocks of agricultural commodities have been unusually large. Over this period, an index of monthly-average world prices of wheat, rice, corn, and soybeans rose 237 percent, then declined 40 percent, and in late 2009 stood at about 115 percent above the January 2002 level.

From January 2002 to mid-2007, the price index of these four commodities rose 79 percent. A number of factors contributed to this increase. Strong global economic growth and rising per capita incomes stimulated demand. Slower trend growth for crop yields were followed by weather-reduced harvests in a number of major-producing regions in 2006 and 2007, constraining production. Rising energy prices increased costs of production, processing, and transportation for agricultural products, and also stimulated production of biofuels and demand for biofuel feedstocks such as sugar, grains, and vegetable oils. The value of the U.S. dollar declined, which put upward pressure on commodity prices denominated in dollars. By mid-2007, world stocks of grains and oilseeds had declined precipitously and the stocks-to-use ratio for aggregate grains and oilseeds had fallen to a 30-year low.

During the next 10 months, the 4-commodity price index rose an additional 88 percent. In the Fall of 2007, some exporting countries imposed export restrictions in the hope of controlling their own domestic inflation. These actions further reduced exportable supplies in the global market place. Some importing countries became anxious about their ability to obtain supplies and adjusted their policies to facilitate more imports. The result was an additional short-term boost in global demand and further upward pressure on world commodity market prices. From January 2002 to their individual peaks in 2008, prices rose more than 250 percent for corn, nearly 300 percent for soybeans, 330 percent for wheat, and over 400 percent for rice.

In 2008 and 2009, world agricultural production responded to high prices and good weather with large harvests.   This was accompanied by slowing world economic growth, and then a global recession. During the last half of 2008, total world use of bulk commodities, including feedstocks for biofuel production, continued to rise, but global stocks of grains and oilseeds still rebounded 27 percent. As a result, crop prices fell from their peaks.

Trade Projections Overview

Developing countries are the main source of growth in world demand and trade. Food consumption and feed use are particularly responsive to income growth in those countries, with movement away from staple and/or traditional foods and toward an increased diversification of

diets. Demand from developing countries is further reinforced by population growth rates that are nearly twice those of developed countries.

Developing countries account for a large portion of the projected increase in world agricultural imports. In the projections, countries in Africa and the Middle East account for 60 percent of the growth in poultry meat imports and more than 10 percent of the increase in beef imports. However, strong policy support for domestically-produced meat is expected to motivate growth in feed grain imports in regions where land constraints or agroclimatic conditions limit expanding domestic crop production. Increasing population and income also increase the demand for grains and for oilseed products. During the coming decade, Africa and the Middle East are projected to account for 50 percent of the increase in world wheat imports, 40 percent of the growth in rice and coarse grain imports, and 13 percent of the rise in soybean oil imports.

Agricultural prices are projected to remain above pre-2006 levels during the coming decade as a result of increasing world demand for grains, oilseeds, and livestock products; a devaluation of the U.S. dollar; continuing high energy prices; and some further growth in biofuels production.

In the projections, the prices of vegetable oils rise relative to the prices of protein meals. Oilseed prices rise slightly more than grain prices, and meat prices rise relative to the costs of feedstuffs, both for protein meals and grains.

World agricultural production rises in response to high prices and technology enhancements. However, limited ability to expand planted area in many countries and slowing global productivity gains constrain production growth.

Traditional exporters of a wide range of agricultural commodities, such as Argentina, Australia, Canada, the European Union (EU), and the United States, remain important in global trade in the coming decade. But countries that are making significant investments in their agricultural sectors and increasingly pursuing policies to encourage agricultural production, including Brazil, Russia, Ukraine, and Kazakhstan, are expected to have an increasing presence in export markets for basic agricultural commodities.

General International Assumptions

Trade projections to 2019 are founded on assumptions concerning trends in foreign area, yields, and use and on the assumption that countries comply with existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The projections incorporate the effects of trade agreements and domestic policies in place or authorized by November 2009. International macroeconomic assumptions were completed in October 2009.

Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current paths, based on the consensus judgment of USDA's analysts. In particular, long-term economic and trade reforms in many developing countries are assumed to continue. Similarly, the development and use of technology and changes in consumer preferences are assumed to continue evolving based on past performance and analysts' judgments regarding future developments.

Global trade: Wheat, coarse grains, and soybeans and soybean products

Million metric tons
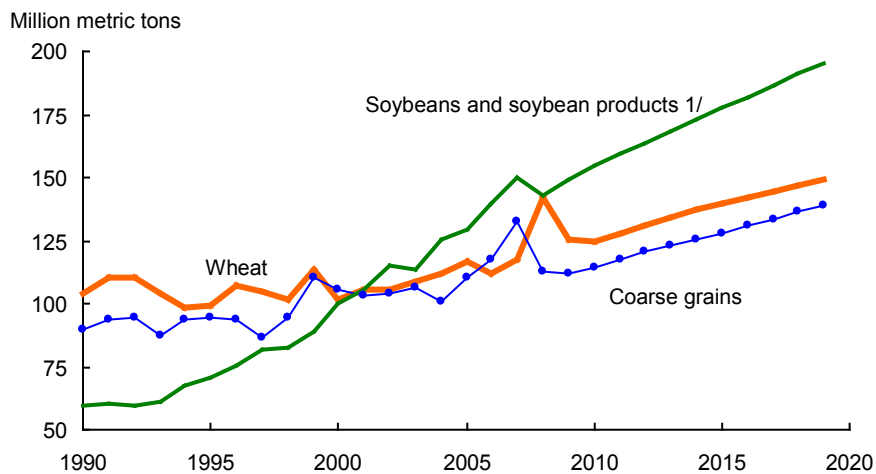
1/ Soybeans and soybean meal in soybean-equivalent units.

Global trade in soybeans and soybean products has risen rapidly since the early 1990s, and has surpassed not only wheat—the traditional leader in agricultural commodity trade—but also total coarse grains (corn, barley, sorghum, rye, oats, millet, and mixed grains). Continued strong growth in global demand for vegetable oil and protein meal, particularly in China and other Asian countries, is expected to maintain soybean and soybean-product trade well above wheat and coarse grains trade throughout the next decade.

- Production of wheat, coarse grains, and oilseeds compete with each other and with other crops for limited cropland. Higher prices for vegetable oils, as a result of increased demand for food use as well as for biodiesel production and other industrial uses, are bringing previously uncropped land in Brazil, Indonesia, and Malaysia into soybean and palm oil production.

- In most countries, the projected growth in total area planted to all crops rises less than a half-percent per year. Area expands more rapidly in countries with a reserve of available land and policies that enable farmers to respond to higher prices. Such countries include Brazil, Russia, Ukraine, and some other countries in South America and Eastern Europe. About two-thirds of the projected growth in global production is derived from rising yields. However, growth in crop yields has slowed during the last several decades and is projected to continue to doing so.

- The market impact of slower crop yield growth is partially offset by slower growth in world population. Nonetheless, increasing population is a significant factor driving overall growth in demand for agricultural products. Additionally, rising per capita income in many countries supplements population gains in the demand for vegetable oils, meats, horticultural products, and coarse grains. During the projection period, world per capita use of vegetable oils is projected to rise 12 percent, compared with 5 percent for total coarse grains and 3 percent for meat. Per capita use is projected to decline nearly 3 percent for wheat and 2 percent for rice.

- In the coming decade, overall gains in global grain trade come from a broad range of countries, but particularly from countries in Africa and the Middle East.

Global Demand for Biofuel Feedstocks

Investment in biofuel production capacity is occurring in many countries. The main feedstocks used are corn and sugarcane for ethanol and rapeseed and soybean oil for biodiesel. Other feedstocks being used include barley, wheat, rye, wine, and cassava for ethanol production and a variety of other first-use vegetable oils and recycled oils and fats from the food industry for biodiesel.

Biofuel Assumptions Used for the USDA Projections

The demand for biofuels feedstocks is projected to continue growing in a number of countries, although at a slower pace than in recent years. The projections are based on a combination of historical biofuel production data, USDA interpretation of statements by foreign governments about their plans for biofuel development, and other information about potential investments in biofuel production capacity.

Country Assumptions

EU. The EU has established a mandate that renewable sources account for 10 percent of the transportation sector's energy use by 2020. The USDA projections assume that the EU increases its domestic oilseed production and its imports of oilseeds and vegetable oil from countries in the former Soviet Union (FSU) and non-EU Europe to boost biodiesel production. The EU also is projected to import biofuels, especially biodiesel from Argentina and ethanol from Brazil. Nevertheless, only 60 percent of the mandate is assumed to be achieved from annual-crop feedstocks by 2019, with ethanol's share of biofuel use growing from 28 percent currently to 35 percent by 2019.

Brazil. Sugarcane is the feedstock for nearly all of Brazil's ethanol production. In southern Brazil, some land has shifted from grain and oilseeds production to sugarcane. The projections assume that this trend continues, but at a slower pace. Biodiesel production also is projected to expand, using soybean oil as the feedstock.

Canada. Canadian biodiesel production, mostly from rapeseed oil produced in the Prairie Provinces, is projected to more than double during the next half decade. Ethanol production is also projected to expand, but not as rapidly.

Argentina. Argentina's production of biodiesel is assumed to more than double during the projection period. Currently, nearly all biodiesel production is exported, most of it to Europe. However, Argentina initiated a 5-percent-biodiesel mandate for their domestic market in January 2010 and the domestic use of biodiesel is assumed to grow rapidly from a small base. However, by 2019 about two-thirds of its production is still exported.

Non-EU Europe and the former Soviet Union. This region is assumed to respond to the EU's increasing demand for biodiesel by expanding rapeseed production. In the FSU, rapeseed production more than doubles during the projections. Some of the production gains are destined for export to the EU, either as rapeseed oil or as rapeseed for crushing in the EU.

China. In 2008, about 3 million tons of corn were used to produce fuel ethanol in China. China has implemented policies to limit the expansion of food-grain-based ethanol production for transportation fuel use, and is now focusing on the use of nongrain feedstocks such as cassava.

Global coarse grain trade

Million metric tons

1/ Rye, oats, millet, and mixed grains.
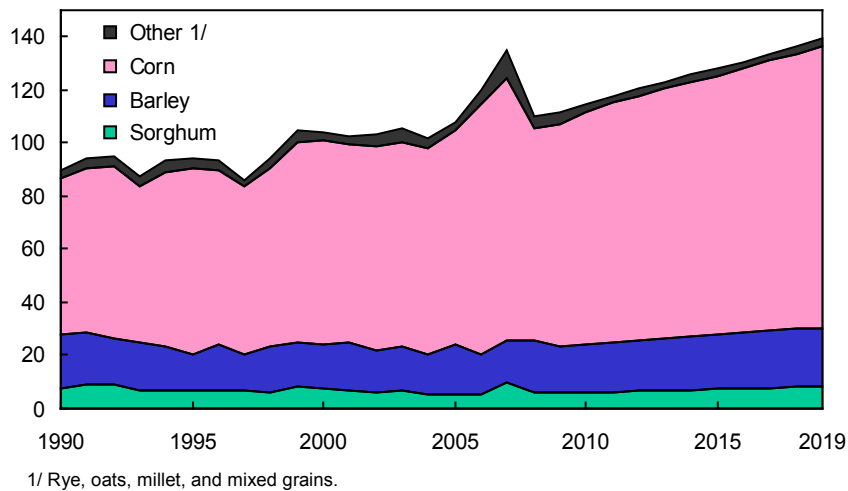
World coarse grain trade expands nearly 25 million metric tons (22 percent) from 2010 to 2019. The share of global coarse grain production used as animal feed trended downward from 66 percent a decade ago to about 60 percent in late 2009, and is projected to remain just below 60 percent during the coming decade. Industrial uses, such as starch, ethanol, and malt production, are much smaller than feed use but are growing twice as fast. The share of coarse grains used for food climbed slightly during the last decade to one-third and is projected to remain near that share.

World grain prices rose sharply between 2006 and 2008 as global grain stocks declined significantly. In turn, these higher prices stimulated grain production in 2008 and 2009. As a result, stocks rebounded and prices dropped sharply from their 2008 peaks. However, grain prices are still above pre-2006 levels and are not projected to decline to levels prevailing during the last three decades.

- Corn is the dominant feed grain traded in international markets. Corn accounts for an average of 76 percent of all coarse grain trade through the projection period, followed by barley (16 percent) and sorghum (6 percent). The trade share of other coarse grains continues declining slowly to about 2 percent by 2019.

- Commercialization of livestock feeding has been a driving force behind the growing dominance of corn in international feed grain markets. Hogs and ruminants, such as cattle and sheep, are capable of digesting a broad range of feedstuffs, making demand relatively price-sensitive across alternate feed sources. However, as global pork and poultry production becomes increasingly commercialized, higher-quality feeds are used, boosting the demand for corn and soybean meal.

Global coarse grain imports

Million metric tons
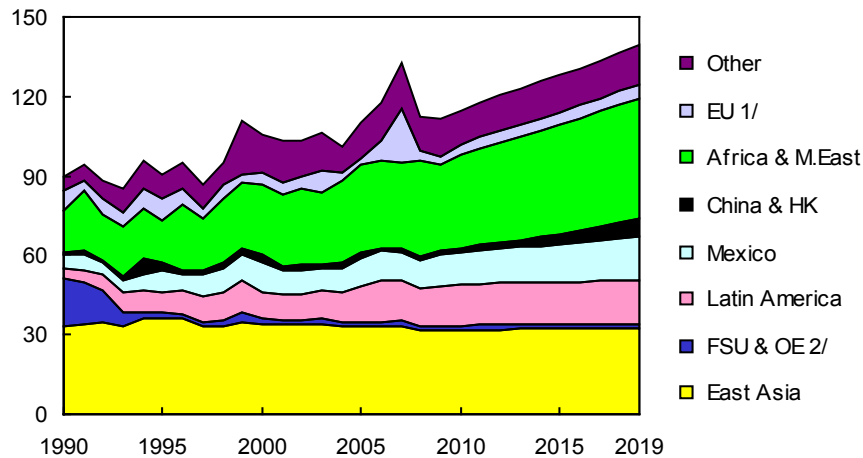
[Chart: Stacked area chart showing Global coarse grain imports from 1990 to 2019, y-axis from 0 to 150 million metric tons. Legend categories: Other, EU 1/, Africa & M.East, China & HK, Mexico, Latin America, FSU & OE 2/, East Asia]

Legend:
- Other
- EU 1/
- Africa & M.East
- China & HK
- Mexico
- Latin America
- FSU & OE 2/
- East Asia

X-axis: 1990, 1995, 2000, 2005, 2010, 2015, 2019

1/ Excludes intra-EU trade.
2/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

Growth in coarse grain imports is strongly linked to expansion of livestock production in regions unable to meet their own feed needs. Key growth markets include North Africa and the Middle East, China, Mexico, and Southeast Asia. Japan and South Korea are large but mature import markets for coarse grains.

- Steady longrun growth in the livestock sectors of developing countries in Latin America, Asia, North Africa, and the Middle East is projected to account for much of the growth in world coarse grain imports during the next decade.

- Coarse grain imports by Africa and the Middle East did not decline during the recent global economic slowdown. The region accounts for more than 40 percent of growth in world trade through 2019 as rising populations and increasing incomes sustain strong demand growth for domestically-produced animal products. In Egypt, Government policy has shifted toward allowing more poultry meat imports. Still, poultry production is projected to increase, boosting corn imports more than 20 percent to 6 million tons.

- Mexico's corn imports are projected to rise from 9 million tons in 2010/11 to more than 12 million in 2019/20. Mexico's sorghum imports also grow, almost doubling during the projection period, but they do not surpass the 2000 record. Growth in Mexican corn and sorghum imports will largely be influenced by rising feed demand from Mexico's poultry sector.

- In East Asia (Japan, South Korea, Taiwan, and Hong Kong), environmental constraints on expanding livestock production, and increasing imports of selected meat cuts, contribute to very little growth in coarse grain imports.

- Southeast Asian corn imports rise 2 million tons (39 percent) by 2019 as increased demand for livestock products exceeds the capacity to grow more feed grains.

Global corn exports

Million metric tons

Legend:
- Other
- EU 1/
- FSU 2/
- China
- Brazil
- Argentina
- United States

1/ Excludes intra-EU trade.
2/ Former Soviet Union.

U.S. corn exports are projected to grow over the next decade and approach record levels by 2019. However, large world supplies of feed-quality wheat compete with U.S. corn exports at the beginning of the projection period. Nonetheless, the U.S. share of world corn trade rises above 60 percent in the early years, but then trends downward to 58 percent in 2019 as exports rise from Argentina, the EU, and the FSU.

- Brazil's corn exports are at near-record high levels at the beginning of the projections. In the last several years, Brazil has targeted the EU's demand for grain not genetically modified (GM). This marketing situation is assumed to diminish as Brazil continues to expand the planting of GM corn varieties. Also, strong growth in domestic demand from its livestock and poultry sectors and the profitability of growing soybeans limits corn production and exports.

- Argentina, with a small domestic market, remains the world's second-largest corn exporter. Due to higher export taxes on grains, Argentina shifts some cropland from corn to soybean production and corn exports increase slowly. Argentina and other South American countries increase corn exports to Chile to support its expanding pork production and exports.

- The EU becomes a more competitive corn exporter. Increases in area and yields enable it to more than double shipments during the projections. Exports from other European countries are also projected to climb steadily.

- Corn exports from some countries of the FSU, primarily Ukraine, rise to 8.4 million tons by 2019. Favorable resource endowments, increasing economic openness, wider use of hybrid seed, and greater investment in agriculture, stimulate corn production in these countries. However, efforts to reduce meat imports and increase meat production keep corn exports from growing more rapidly.

- China becomes a net importer of about 4 million tons of corn by the end of the projections as imports grow slowly while exports remain small. China's strengthening domestic demand for corn is driven by its expanding livestock and industrial sectors.
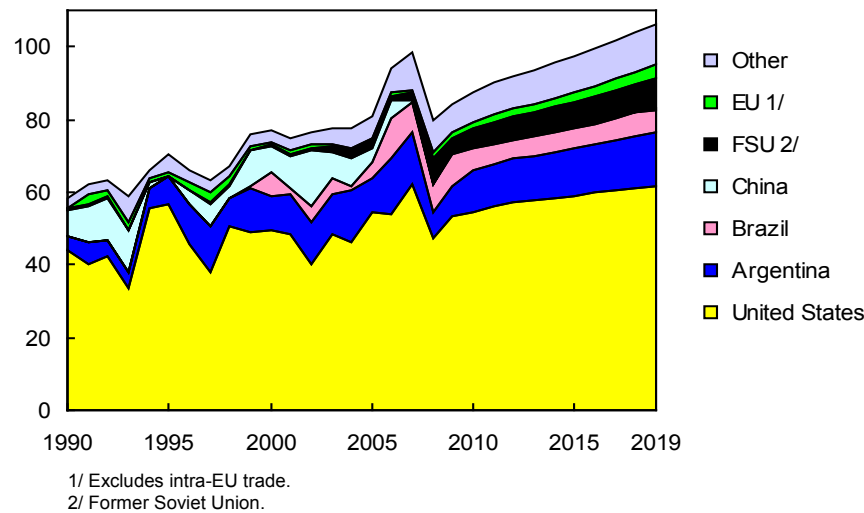
Global barley imports

Million metric tons
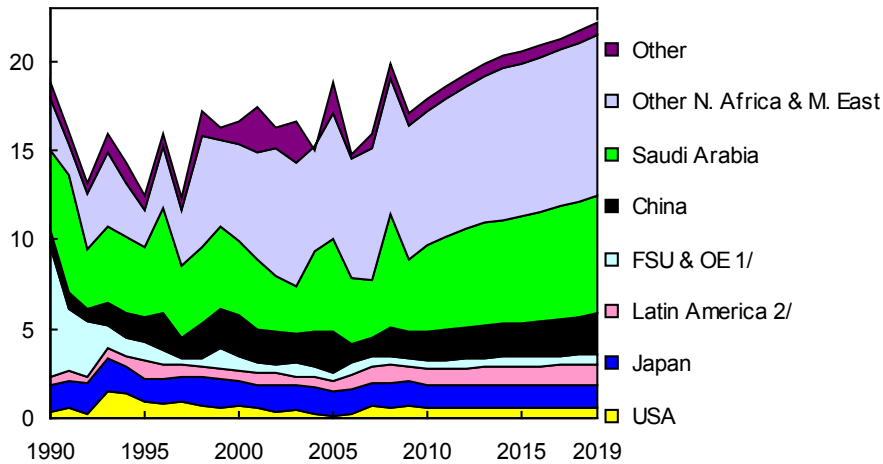
1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Includes Mexico.

Global barley trade expands 4.2 million tons (24 percent) during the projection period. Rising demand for both malting and feed barley underpin the increased trade.

- Feed barley imports by North African and Middle Eastern countries grow steadily over the next decade. In the mid-1990s, corn overtook barley as the principal coarse grain imported by these countries, due mainly to rising poultry production. This pattern is expected to continue through the projection period. However, the North Africa and Middle East region is expected to remain the world's largest barley importing area. The region is projected to account for 75 percent of the growth in trade during the coming decade, and for 70 percent of total world imports in 2019.

- Saudi Arabia—the world's foremost barley-importing country—accounts for over 40 percent of world barley trade through the coming decade. Saudi Arabia's barley imports are used primarily as feed for sheep, goats, and camels.

- Iran is another Middle East country whose barley imports are projected to increase during the coming decade. Imports by Algeria, Morocco, and Tunisia are projected to grow rapidly, although from a low base.

- The international market for malting barley is boosted by strong growth in beer demand in some developing countries, most notably in China—the world's largest malting-barley importer. China's beer demand is rising steadily due to income and population growth. Expansion in China's brewing capacity is being aided by foreign investment. China's domestic malting barley production is increasing, but imports also rise during the projection period. Australia and Canada are China's main sources of malting barley imports.

Global barley exports

Million metric tons

1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Excludes intra-EU trade.

Historically, global barley exports have originated primarily from Australia, the EU, and Canada. However, Ukraine and, to a lesser extent, Russia have emerged as important competitors in international feed-barley markets and remain so throughout the projection period.

- The FSU continues to be a major barley exporter throughout the coming decade with annual exports around 8 million tons. Ukraine became the world's largest barley exporter in 2009 and is projected to remain so throughout the projection period. Russia's barley exports also have increased in the last two years. Together, their share of world barley trade has approached 50 percent in some recent years.

- EU barley exports are projected to climb slowly during the projection period, but remain well below the levels of the late 1990s and 2000-03.

- Australia's barley exports are projected to rise slowly, and the country maintains its role as the world's second-largest exporter.

- Malting barley commands a substantial price premium over feed barley. This quality premium is expected to influence planting decisions in Canada and Australia. In both countries, malting barley's share of total barley area is expected to rise during the projection period.

Global sorghum imports

Million metric tons

1/ Includes Republic of South Africa.
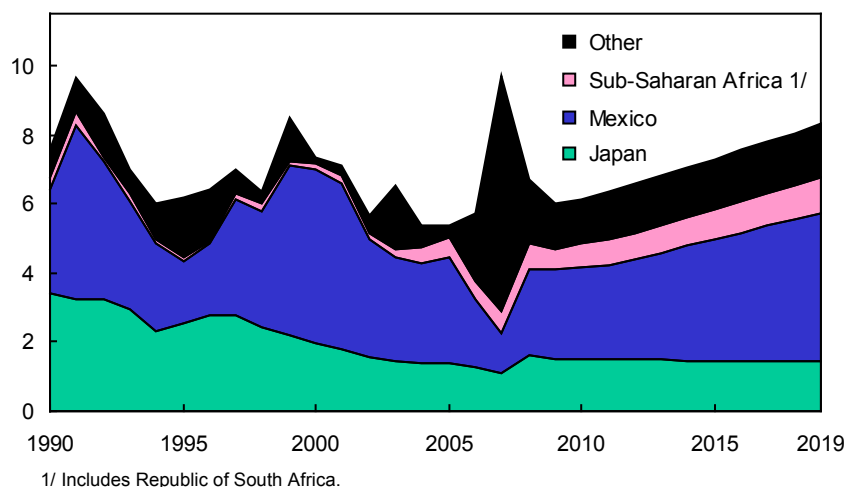
World sorghum trade, which averaged nearly 6.8 million tons during the last decade, declines to 6 million tons in the early years of the projection period before rising to more than 8 million tons by period's end. Sorghum trade is driven mostly by U.S. exports to Mexico and Japan.

- Mexico has accounted for about half of world sorghum imports until the recently. Mexico's sorghum imports are projected to increase to over 4 million tons by 2019. At this level, Mexico once again accounts for more than 50 percent of world sorghum imports.

- Japan's sorghum imports have trended slowly downward during the past decade but are projected to level off at around 1.5 million tons in the coming years in order to maintain diversity and stability in the country's feed grain supplies.

- The EU normally imports only small quantities of sorghum as part of the Spain-Portugal Accession Agreement. However, the EU became the world's largest sorghum importer in 2007/08 because of domestic and global corn production shortfalls and limited availability of non-GM corn to import. EU corn production has since recovered and future imports of sorghum are projected to be modest.

- The United States is the largest exporter of sorghum, accounting for nearly 80 percent of world trade since 2000. In the last 2 years, U.S. exports and the U.S. share of world trade have declined. U.S. sorghum exports are projected to gradually recover, but remain slightly below historical record highs because of tight supplies. The U.S. share of world trade also recovers but remains well below levels of the last decade.

- Sorghum exports by Argentina, the world's second-largest exporter, and Australia have risen sharply over the last several years. Both countries are expected to continue being prominent exporters during the coming decade. Although exports from both countries remain relatively flat, Argentina and Australia retain a larger share of world trade than during the previous decade. In Argentina, producer net returns are expected to favor the planting of other crops, particularly soybeans, so sorghum exports remain relatively flat during the projection period. The primary sorghum markets for Argentina are Japan, Chile, and Europe.

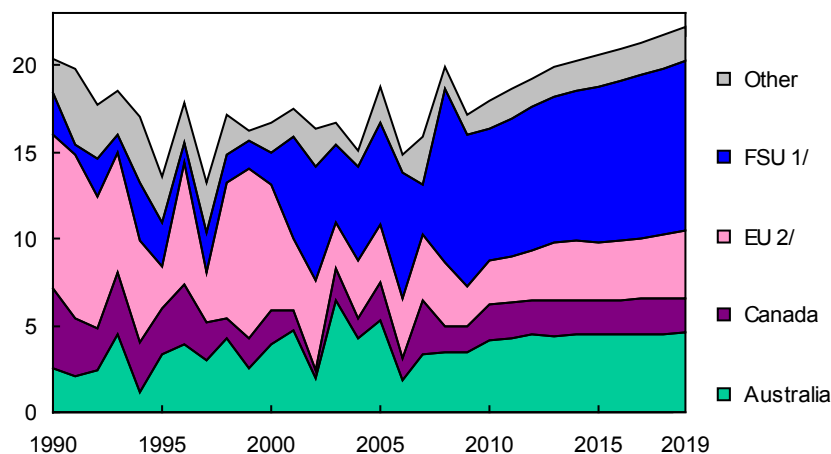**Global wheat imports**

Million metric tons
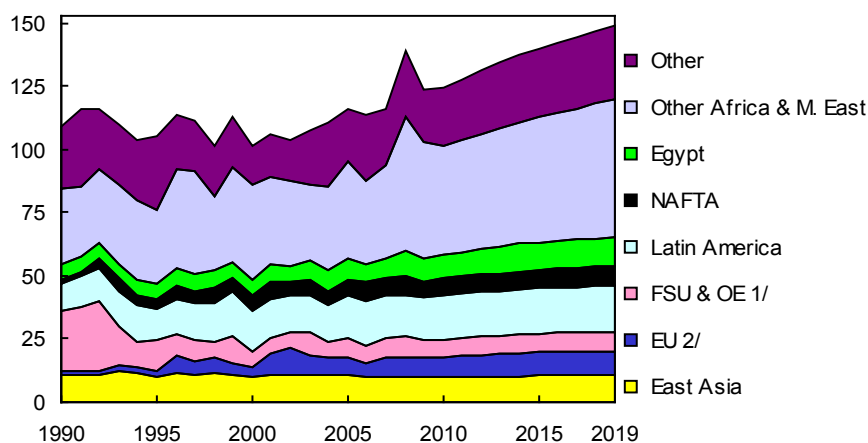
1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Excludes intra-EU trade.

Growth in wheat imports is concentrated in those developing countries where income and population gains drive increases in demand. The largest growth markets include Sub-Saharan Africa, Egypt, Algeria, other countries in the Africa and Middle East region, Pakistan, and Indonesia. World wheat trade (including flour) expands by 25 million tons (20 percent) between 2010 and 2019 to more than 149 million tons.

- Egypt maintains its position as the world's largest wheat importing country, as its imports climb slowly to more than 11 million tons. Imports by the EU, Algeria, Brazil, and Indonesia are each projected to exceed 6 million tons by 2019.

- Imports by developing countries in Africa and the Middle East rise 13.2 million tons and account for more than 50 percent of the total increase in world wheat trade. Saudi Arabia has adopted a policy to phase out wheat production by 2016 because of water scarcity concerns, and imports are projected to rise to more than 3 million tons by 2019. China's per capita consumption of wheat is expected to continue to decline.

- In most developing countries, almost no change in per capita wheat consumption is expected, but imports are projected to expand modestly because of population growth and limited potential to expand production. Rising per capita consumption of wheat in Indonesia, Vietnam, and some other Asian countries, reflects a dietary shift from rice as incomes rise. Nonetheless, overall global per capita wheat consumption is projected to decline slightly during the coming decade.

- Lower wheat-to-corn price ratios during most of the projection period enable wheat to compete effectively with corn for feed use in a number of countries. Europe is expected to continue to account for about half of global wheat feeding.

Global wheat exports

Million metric tons
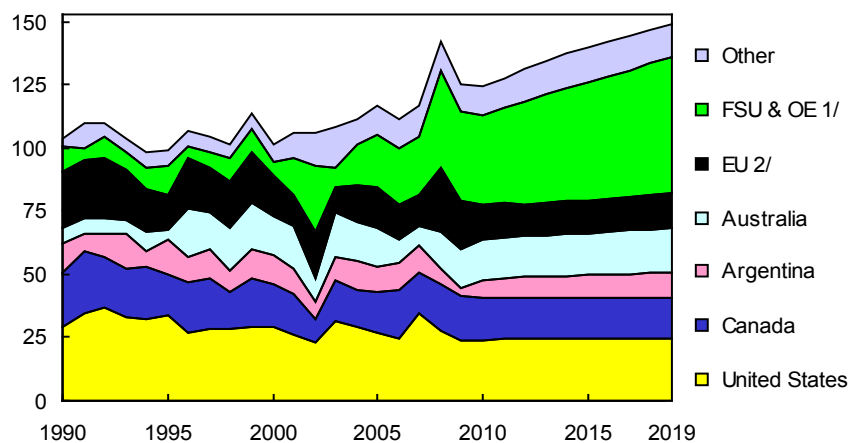
1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Excludes intra-EU trade.

The traditional five largest wheat-exporting nations (the United States, Australia, the EU, Argentina, and Canada) are expected to account for 55 percent of world trade in 2019, compared with roughly 70 percent during the last 5 years. This decrease in share is mostly due to increased exports from the Black Sea area. U.S. wheat exports are projected to account for less than 17 percent of global wheat trade at the end of the projection period, down from about 25 percent in the past 5 years. Although world wheat stocks are projected to continue increasing from their 2007's lows during the next several years, prices are projected to remain above their pre-2006 average levels.

- The shares of the world wheat market decline for Canada, the United States, the EU, and Australia, while shares increase for Russia, Ukraine, Kazakhstan, Argentina, and China.

- Russia, Ukraine, and Kazakhstan have become significant wheat exporters in recent years. Low costs of production, new investments in agriculture, and generally favorable weather since 2001 have enabled their combined share of global wheat trade to climb to about 22 percent during the last 3 years. Although Russia is expected to continue increasing wheat production for domestic feed use, exports from the FSU are projected to continue gaining market share, and to account for about 35 percent of world exports by 2019. However, because of the region's highly variable weather and yields, year-to-year volatility in production and trade can be expected.

- EU wheat exports decline through 2012 as more wheat is used for ethanol. EU exports then rise slowly during the later years of the projection period, reaching 14 million tons in 2019.

- In Canada, increased demand for vegetable oils (especially rapeseed oil) and for barley is expected to reduce wheat area and limit any growth in wheat exports.

- Wheat exports by Turkey and other smaller exporters change little or trend slowly downward during the projection period.

Global rice imports

Million metric tons
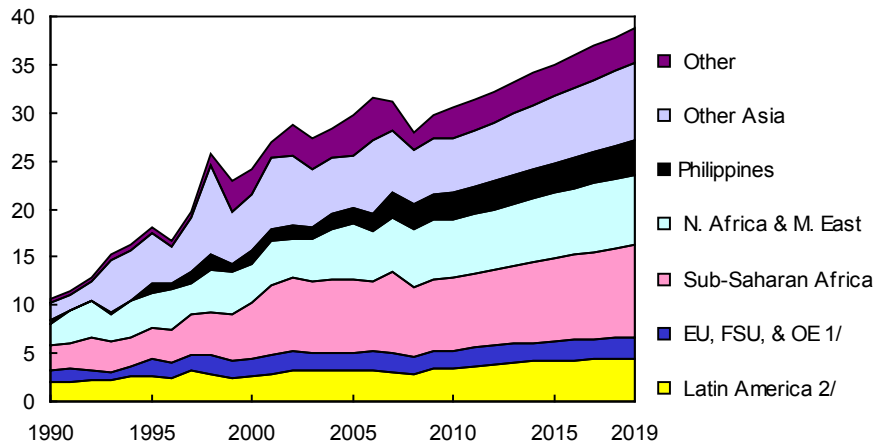
1/ European Union, former Soviet Union, and other Europe. 2/ Includes Mexico.

Global rice trade is projected to grow 2.7 percent per year from 2010 to 2019. By 2019, global rice trade exceeds 38 million tons, 23 percent above the 2006 record. The main factors driving this expansion in global trade are a steady growth in demand—largely due to population growth in developing countries—and the inability of key importers to significantly boost production. World trade as a share of world consumption, typically about 7 percent, is smaller than for other grains.

- Long-grain varieties account for around three-fourths of global rice trade and are expected to account for the bulk of trade growth over the next decade. Medium- and short-grain varieties account for 10-12 percent of global trade, with Northeast Asia the largest market. Aromatic rice, primarily basmati and jasmine, makes up most of the rest of global rice trade.

- The Philippines, Iran, the EU, Saudi Arabia, Bangladesh, and Iraq become the largest rice-importing countries by the end of the projection period. By 2019, each country is projected to import 1.3 million tons of rice or more. These countries have limited ability to expand production and are expected to account for nearly 30 percent of the increase in global rice imports over the next decade.

- In Sub-Saharan Africa and the Middle East, strong demand growth is driven by rapidly expanding populations, while production growth is limited by climate. Expanding production in Sub-Saharan Africa is also limited by infrastructure deficiencies and resource constraints. Sub-Saharan Africa accounts for 24 percent of the increase in world rice trade between 2010 and 2019. Iran, Iraq, and Saudi Arabia account for most of the increase in imports by the Middle East.

- Rice imports by the Central America and Caribbean region are projected to increase by 0.5 million tons over the next decade and to surpass 2.1 million by 2019. Population growth and rising per capita incomes boost rice consumption and raise imports in this region.

- The EU will remain a major market for rice, although import growth will be modest. Consumption growth will be driven by a larger immigrant population. Rising per capita consumption will continue to expand North American imports.

- Imports by the FSU are projected to decline as a result of strong production growth, a declining population, and stagnant per capita consumption.

Global rice exports

Million metric tons
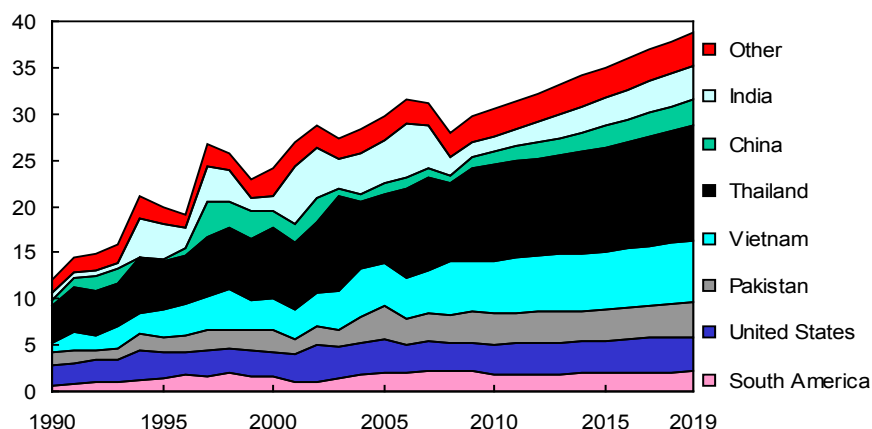
Asia remains the largest rice-exporting region throughout the projection period.

- Rice exports from Thailand and Vietnam, the world's largest rice-exporting countries, account for more than half of world trade and for nearly 40 percent of the growth in world exports in the coming decade. Thailand's exports increase 2.6 million tons to more than 12 million by 2019. Both area and yield are projected to increase in Thailand. Vietnam's export expansion is smaller, rising from 5.5 to 6.8 million tons. Per capita consumption declines for both exporters as incomes rise.

- India has typically been the third- or fourth-largest rice exporter since the mid-1990s, but its export levels have been volatile, primarily due to fluctuating stock levels and Government policies. India's exports have declined during the last several years as most exports of non-basmati rice have been banned since the 2008 spike in world prices. India's rice exports are projected to rise to about 3.8 million tons by 2019, assuming that the export ban is lifted early in the projection period.

- Pakistan and the United States have each been exporting around 3 million tons in recent years, and both are projected to raise their exports to nearly 3.8 million over the next decade. Pakistan has sharply boosted its rice area and production in the past few years. In 2008, Pakistan gained markets due to India's self-imposed ban on its exports of non-basmati rice. Pakistan's agricultural sector is confronting a growing water shortage and a decaying infrastructure, limiting production and export gains.

- U.S. expansion in rice exports is attributable to a slight area expansion, continued yield growth, and slow growth in domestic use.

- China, the sixth-largest rice-exporting country, is projected to double exports to 2.8 million tons by 2019. Little change in production or total disappearance is expected. Higher yields are projected to offset declining area as China allows the use of genetically modified rice. Reductions in per capita consumption, a result of continued diet diversification resulting from higher incomes, are expected to offset population growth. China also builds rice stocks during the projection period.

- Australia virtually exits the rice export market due to competing demands for water and uncertainty regarding the availability of irrigation water.

Global exports: Soybeans, soybean meal, and soybean oil

Soybeans and soybean meal,
million metric tons

Soybean oil,
million metric tons
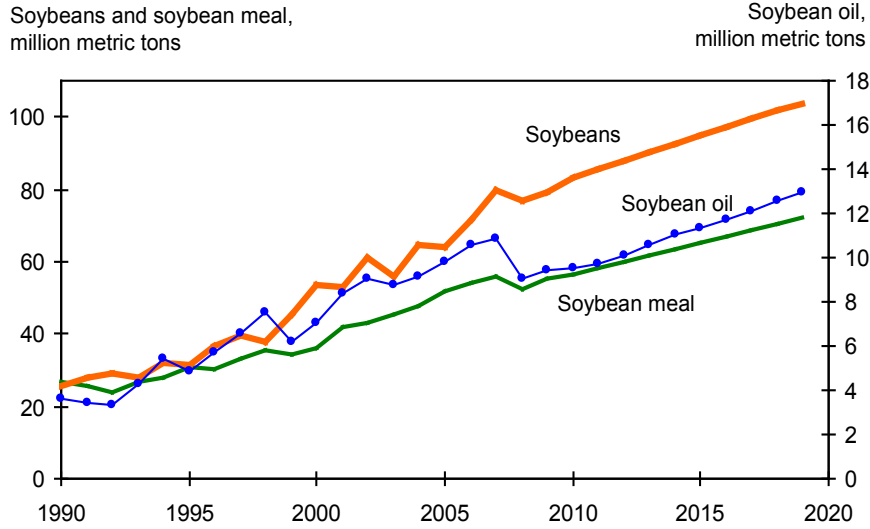
World trade in oilseeds and their products declined in 2008/09 as a result of the recent global economic recession. Renewed economic growth and population increases in developing countries are projected to boost demand for vegetable oils for food consumption and for protein meals used in livestock production. Vegetable oil to be used in biodiesel production is also projected to increase. As demand for vegetable oils increases faster than for protein meals, vegetable oil prices rise more rapidly than for oilseeds and protein meals.

- Many countries with limited opportunity to expand oilseed production, such as China and some countries in North Africa, the Middle East, and South Asia, have invested heavily in crushing capacity in recent years. As a result, import demand for oilseeds has grown rapidly. Continued growth is projected.

- China's expansion of crushing capacity changes the composition of world trade by raising global import demand for soybeans and other oilseeds rather than for oilseed products.

- Argentina, Brazil, and the United States continue to account for 89 percent of world exports of soybeans and soybean meal during the coming decade. In Argentina, uncertainties about grain policies cause farmers to shift some land to soybean production. Also, some pasture land is converted to crops, especially to soybean production. This enables Argentina to increase its soybean production and its share of world soybean and soybean meal exports to 34 percent. Brazil's soybean area continues to increase rapidly, but an increasing share of its soybean production is crushed for domestic feed use and its share of exports holds steady at 30 percent. The U.S. share of world soybean and soybean meal trade declines from 29 to 26 percent by 2019.

- The EU uses only small amounts of soybean oil for biodiesel production. EU rapeseed area increases early in the projections in response to the demand for rapeseed oil for biodiesel production.

Global soybean imports

Million metric tons

1/ Includes Mexico. 2/ Excludes intra-EU trade.
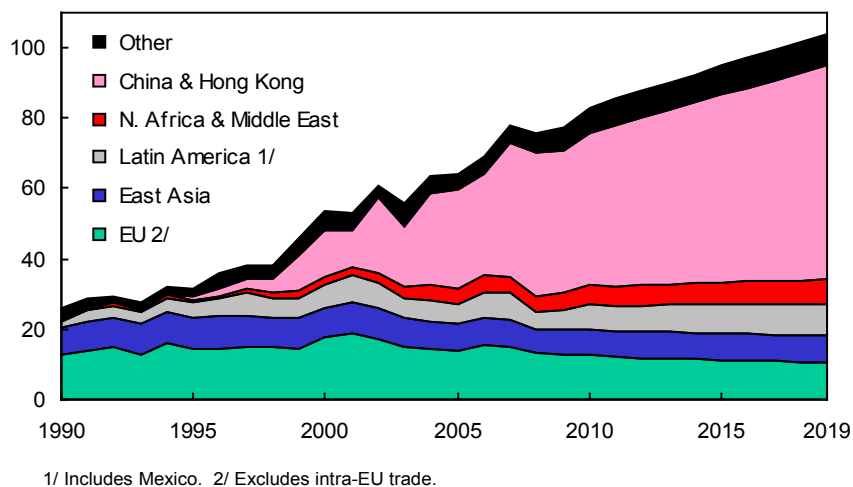
World soybean trade is projected to rise rapidly, climbing nearly 21 million tons (25 percent) during the next decade.

- The EU was the world's leading importer of soybeans until 2002. However, increases in grain and rapeseed meal feeding and rising imports of soybean meal have resulted in declining soybean imports since then. These trends are projected to continue.

- China's soybean imports have risen sharply and now account for nearly 60 percent of world trade. China will face policy decisions regarding tradeoffs in producing or importing corn and soybeans. The projections assume that Chinese policies will support maintaining domestic corn production and importing soybeans. Thus, China accounts for more than 85 percent of the projected 20.8-million-ton growth in global soybean imports over the next 10 years. China's significant underutilized oilseed crushing capacity drives strong gains in soybean imports as China seeks to capture the value added from processing oilseeds into protein meal and vegetable oil. The use of vegetable oils for biodiesel production is assumed to have a negligible impact on China's total vegetable oil use.

- Soybean imports by East Asia (Japan, South Korea, and Taiwan) are dominated by a continuing shift from importing feedstuffs to importing meat and other livestock products. As a result, this region's import demand for protein meal and oilseeds does not rise during the coming decade despite rising meat consumption.

- Mexico's soybean imports are projected to increase by about one-fourth during the projection period. These imports will support the production of soybean meal for the Mexican poultry industry and soybean oil for domestic food consumption.

- For Argentina to operate its expanding crushing facilities at full capacity, it is expected to annually import more than 2 million tons of soybeans from Brazil, Paraguay, Uruguay, and Bolivia during the projection period.

Global soybean exports

Million metric tons
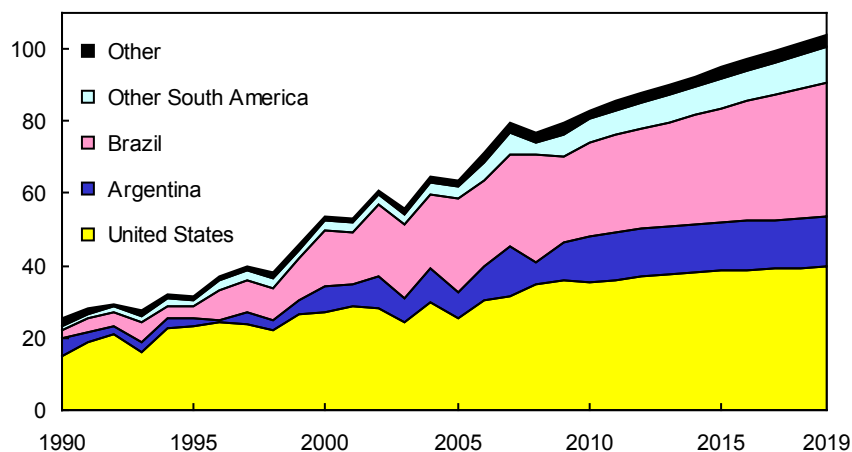
The three leading soybean exporters—the United States, Brazil, and Argentina—have accounted for about 90 percent of world trade in recent years. Their market share is projected to decline slightly as exports rise from other exporting countries, such as Uruguay, Paraguay, and Bolivia.

- With continuing area gains, Brazil strengthens its position as a leading exporter of soybeans and soybean products. Combating soybean rust disease increases production costs. However, because of the increased domestic demand for soybean meal for livestock feed and soybean oil for human consumption and biodiesel production, soybeans remain more profitable than other crops in most areas of Brazil. It is assumed that some land in southern Brazil will shift from oilseed to corn production during the middle of the projection period in response to higher corn prices and more limited competition from U.S. corn exports. Still, with increasing soybean plantings in the Cerrados region and expansion extending into the Legal Amazon region, the growth rate for Brazil's soybean planted area is projected to average nearly 3 percent per year during the coming decade. Soybean exports are projected to rise more than 40 percent.

- Argentina's export tax rates are higher for soybeans than for soybean products, which favors domestic crushing of whole seeds and exporting the products. However, in response to world demand for soybeans for crushing, Argentina's soybean exports have risen sharply and remain above 12 million tons throughout the projection period.

- Other South American countries, principally Uruguay, Paraguay, and Bolivia, expand exports about 45 percent to nearly 10 million tons. Two million tons are destined for the crushing industry in Argentina.

- Russia and Ukraine respond to higher international market prices for oilseeds by increasing production of rapeseed and soybeans. Although rapeseed production will be most affected, Ukrainian soybean exports are projected to rise nearly 50 percent.

Global soybean meal imports

Million metric tons

1/ Excludes intra-EU trade.
2/ Includes Mexico. 3/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
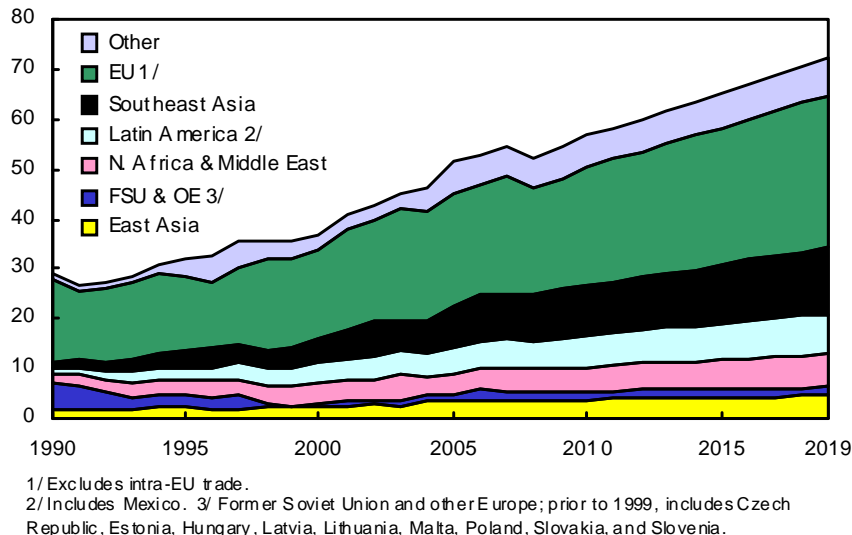
World trade in soybean meal grows briskly during the projections, rising nearly 17 million tons (about 28 percent) by 2019. Continuing growth in the demand for livestock products, limited capability to increase oilseed production, and relatively lower world prices for protein meals boost demand for soybean meal by a number of countries with rising middle-income populations. Lower import prices for soybean meal relative to soybeans and grains provide incentives for countries to use imported soybean meal at a higher rate in livestock feed rations.

- The EU remains the world's largest destination for soybean meal throughout the projection period, despite increased domestic feeding of grains and rapeseed meal. Although there will be abundant supplies of low-cost rapeseed meal available for feed as a result of the EU biofuels expansion, there are technical limits on the amount of rapeseed meal that can be incorporated in livestock rations. As a result, growth in EU soybean meal imports is expected to continue and to account for nearly 45 percent of the increase in world soybean meal trade. Also, higher milk production, due to an increase in the dairy production quota, increases soybean meal feeding.

- The regions of Southeast Asia, Latin America, and North Africa and the Middle East all become larger importers of soybean meal due to increasing demand for livestock feed.

- The former Soviet Union is projected to experience the most rapid growth rate in soybean meal imports, although from a small base. Increased livestock production in Russia and Ukraine, especially from larger, more modern facilities, will boost the demand for soybean meal.

- Mexico's strong growth in demand for protein feed and vegetable oils is projected to continue.

Global soybean meal exports

Million metric tons
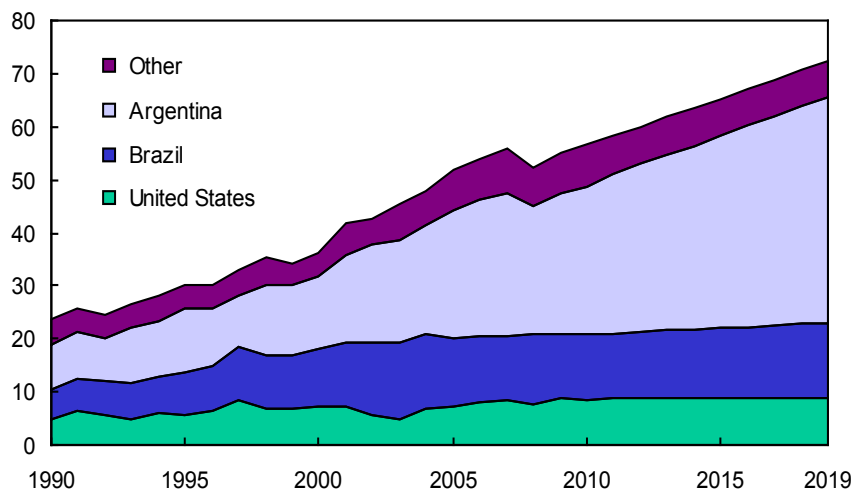
Argentina, Brazil, and the United States remain the three major exporters in international soybean meal markets. Together, they account for about 90 percent of world soybean meal trade during the next 10 years. Argentina, the world's largest soybean meal exporter, increases its share of the world market from less than 50 percent in recent years to nearly 60 percent. Trade shares held by all other major exporters decline.

- Argentina imposes higher export taxes on soybeans than on soybean products. This has provided an incentive for the country to develop a large oilseed crushing capacity. Argentina maintains high utilization of its growing crushing capacity by importing soybeans from Brazil and other South American countries.

- In Brazil, strong growth in domestic meal consumption due to rapid expansion of the poultry and pork sectors limits increases in soybean meal exports. Also, domestic soybean crushing capacity is not expected to grow as fast as soybean production because Brazil's differential export tax structure favors exporting soybeans rather than soybean products. Brazil's share of world exports declines from about 25 percent in recent years to less than 19 percent by 2019.

- U.S. soybean meal exports climb very slowly to nearly 9 million tons by 2019. The U.S. share of world exports declines steadily from more than 14 percent in recent years to about 12 percent by 2019.

- The volume of India's soybean meal exports declines from 3.7 million tons in 2009 to 2.3 million by 2019 as rapidly increasing poultry, egg, and milk production absorb more of India's soybean meal supplies.

- The EU continues to be a small but steady exporter of soybean meal to Russia and other East European countries.

Global soybean oil imports

Million metric tons
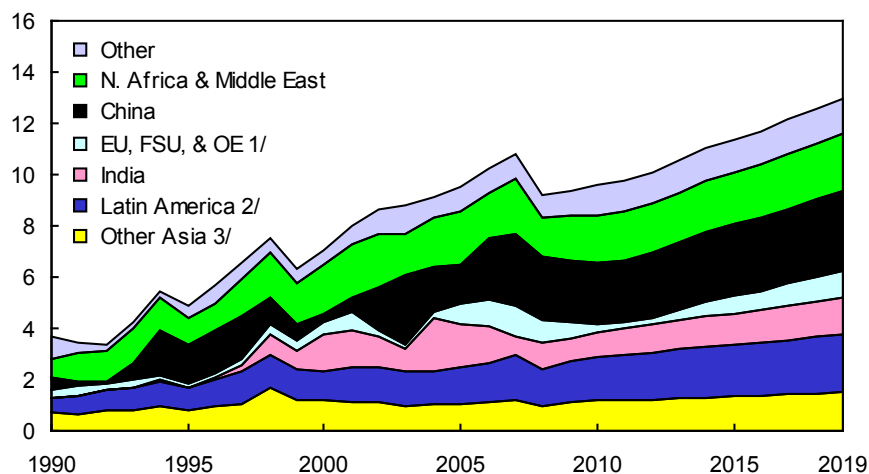
1/ European Union, former Soviet Union, and other Europe.
2/ Includes Mexico.   3/ Asia excluding India and China.

World soybean oil imports climb 3.4 million tons (35 percent) in the projection years, bolstered by rising food use and increased demand for use in biofuel production. China and India are the world's two largest soybean oil importers, primarily for food use. In recent years, their combined imports have been more than a third of total world imports. The growth in soybean oil trade will be constrained by competition with palm oil, which claims the top ranking in world vegetable oil trade.

- Income and population growth in Latin America, North Africa, and the Middle East contribute to gains in soybean oil demand and imports. Although rising international prices for soybean oil will temper consumption, especially in developing countries, imports by the North Africa and the Middle East region are projected to be exceeded only by those of China.

- India remains one of the world's largest soybean oil importers. Factors that contribute to continued growth in imports include burgeoning domestic demand for vegetable oils and limited capacity to expand domestic production of oilseeds. Low yields, associated with erratic rainfed growing conditions and low input use, inhibit growth of oilseed production in India. India sharply reduced its edible oil import tariffs to zero in 2008 in response to high world prices. It is assumed that during the next decade, the soybean oil tariff gradually rises toward the prior rate of 45 percent, but that tariffs for the other major imported oils—palm and sunflower—remain below their historical highs of 75-85 percent.

- China experiences a growing demand for vegetable oils. However, land-use competition from other crops constrains area planted to oilseed crops. Even with strong increases in soybean imports for crush, domestic demand outpaces China's vegetable oil production and fuels a moderate expansion in soybean oil imports.

Global soybean oil exports

Million metric tons

1/ Excludes intra-EU trade.
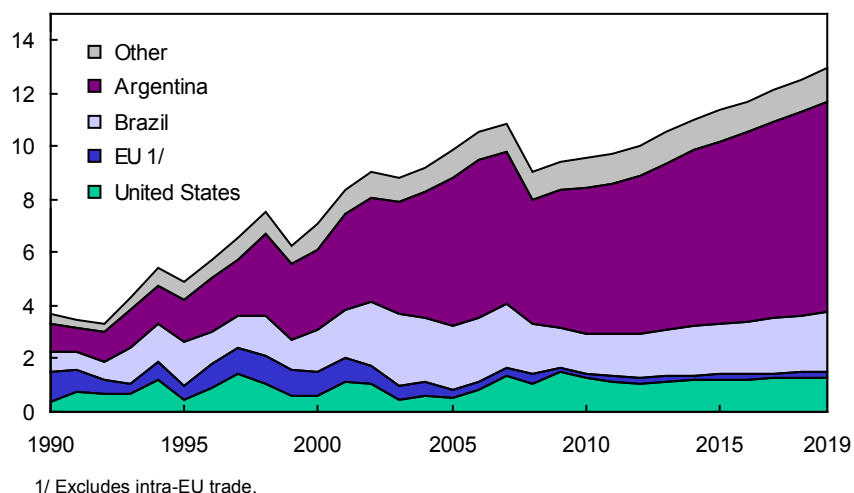
Argentina's and Brazil's combined share of world soybean oil exports has typically been in the 75-80 percent range during the last half decade, but dropped to below 73 percent in 2008/09 because of poor harvests. However, these countries regain their traditional export share during the projection period.

- Argentina is the leading exporter of soybean oil, reflecting the country's large crushing capacity, its small domestic market for soybean oil, and an export tax structure that favors exports of soybean products rather than soybeans. Gains in Argentine soybean production due to extensive double cropping, further adjustments in crop-pasture rotations, and the addition of marginal lands in the northwest part of the country, contribute to increased soybean crush and soybean oil exports. Argentina also continues to import soybeans from other South American countries in order to more fully utilize its crushing capacity. Despite continued expansion in Argentina's biodiesel production, soybean oil exports are expected to rise strongly.

- Brazil's expansion of soybean production into new areas of cultivation enables it to increase its volume of soybean oil exports and raise its share of world exports.

- The United States remains the world's third-largest soybean oil exporter. U.S. soybean oil exports will be constrained by increased use of soybean oil for biodiesel production. U.S. canola oil imports from Canada and palm oil imports from Southeast Asia are projected to continue to grow strongly and augment the U.S. edible oil supply.

- In the EU, exportable supplies of vegetable oils are limited by the growth in biodiesel production.

Global cotton imports

Million bales

1/ Includes Mexico. 2/ Malaysia, Indonesia, Philippines, Thailand, and Vietnam. 3/ Bangladesh, India, and Pakistan. 4/ European Union, former Soviet Union, and other Europe.
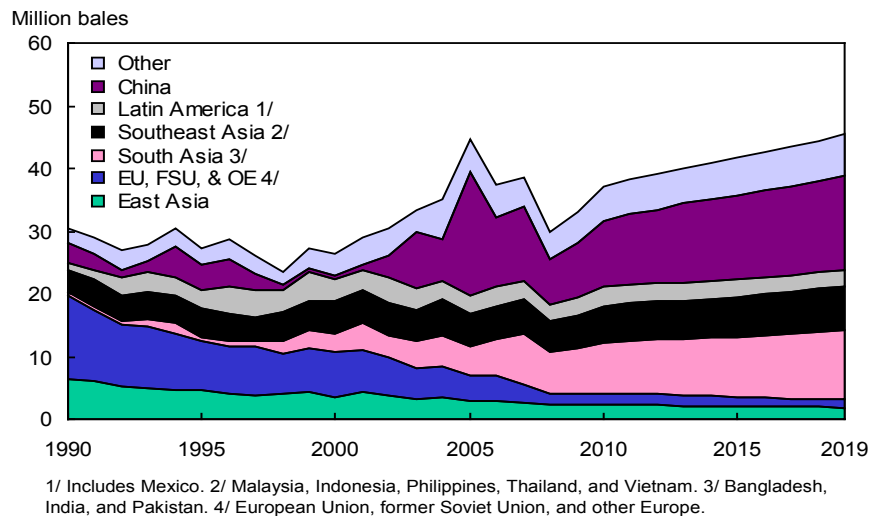
World cotton trade is projected to trend upward at 2.2 percent a year until 2019, but does not surpass the 2005 record until the end of the coming decade. There have been dramatic geographical shifts in mill use and trade of cotton since the 5 years prior to the elimination of the Multifiber Arrangement (MFA) quotas in 2005. Asia's share of world cotton imports has risen from less than 50 percent in the late 1990s to 72 percent in 2009 and is projected to reach more than 78 percent by 2019. Asia accounts for nearly all of the increase in world cotton imports during the coming decade.

- The textile industries in China, India, and Pakistan were the major beneficiaries of textile trade liberalization as a result of the elimination of the MFA quotas in 2005. However, imports have risen in other Asian countries as well, most notably Vietnam and Bangladesh.

- China's textile industry and its cotton imports are expected to grow during the projection period, but more slowly than the rapid increases from 2001 to 2005 after joining the World Trade Organization (WTO). Nonetheless, during the coming decade, China is projected to account for half of the global increase in cotton imports.

- Pakistan has emerged as a major importer in recent years and is projected to be the world's second largest importing country during the next 10 years. However, if new *Bacillus thuringiensis* (*Bt*) cotton varieties specific to Pakistan's cotton sector prove more productive, imports could fall.

- Until several years ago, Turkey's textile industry benefited from favorable trade access to the EU, its major market for textile and apparel exports. However, the end of the MFA quotas gave lower-cost competitors more favorable access to EU markets. Turkey's cotton imports have fallen and are projected to continue declining over the next 10 years.

- The EU, Japan, Taiwan, and South Korea all steadily reduce their cotton imports as textile trade reforms or higher wages in these countries, or both, drive textile production to countries with lower wages and other costs.

Global cotton exports

Million bales
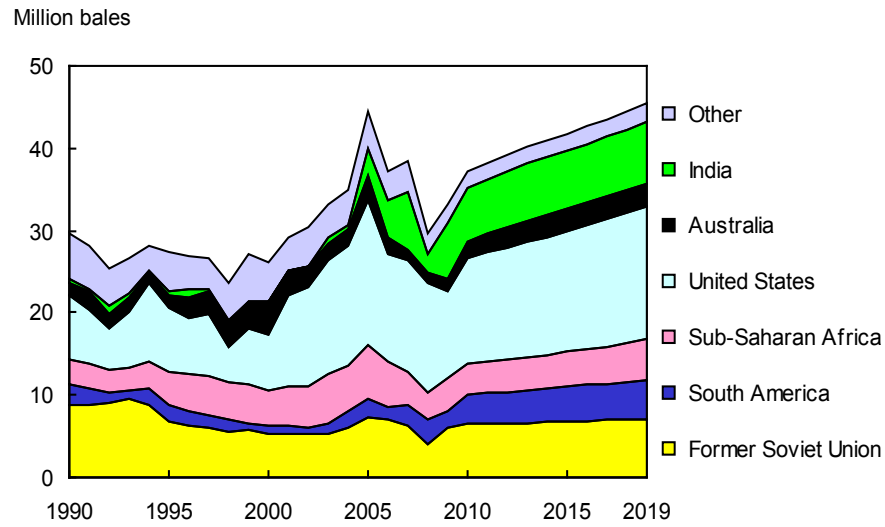
Globalization is expected to continue to move raw cotton production to countries with favorable resource endowments and technology. Traditional producers with large land bases suitable for cotton production continue to benefit from post-MFA trade patterns, including the United States, Sub-Saharan Africa, India, and Brazil. The importance of technology has been highlighted by the impact of India's rapid adoption of genetically modified cotton, nearly all *Bt* cotton.

- The United States continues as the world's leading cotton exporter throughout the projections. U.S. exports climb 24 percent to more than 16 million bales by 2019, exceeding 35 percent of overall world trade. However, the U.S. share of world exports is still below the 40-percent share realized in 2004.

- The Central Asian countries of the FSU have been the world's second-largest exporter since the early 1990s. However, Government policies in Central Asia promoting investment in textiles have resulted, to some extent, in more exports of textile products rather than exports of raw cotton, thereby somewhat limiting the region's growth in the projection years.

- Sub-Saharan Africa's exports rose rapidly during much of the last decade, but since 2006, low world prices and the strength of the Communaute Financiere Africaine (CFA) franc— due to its link to the euro—have led to lower output and exports by West Africa. The planted area in the 14 member countries of the CFA has fallen to its lowest level since just after the 1994 devaluation of the CFA franc. Some rebound in output is expected as these economies develop and as *Bt* cotton is adopted by the region's producers. Sub-Saharan Arica's exports are projected to rise more than one-third during the next 10 years.

- Improved cotton yields in India, largely due to the adoption of hybrid cotton containing the *Bt* gene, have raised India's production and exports in recent years. Yield growth is projected to continue as the area planted to hybrid cotton expands and cultivation practices improve. The increase in cotton output is expected to enable India to increase domestic textile production and exports. Its export volume has already surpassed those of Sub-Saharan Africa and Central Asia, and it is expected to maintain this rank throughout the forecast period.

Meat exports 1/

Million metric tons
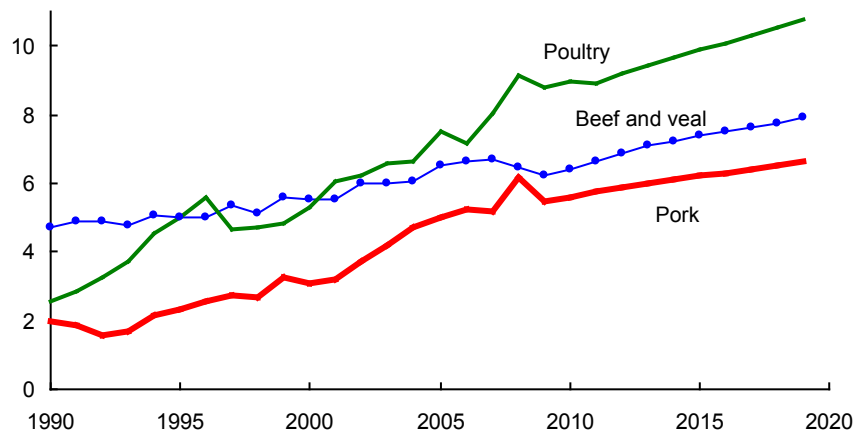
1/ Major exporters.

The growth in world per capita meat consumption is expected to slow during the 2010-19 projection period to about two-thirds of one percent per year. Still, meat shipments from major exporters trend upwards at 1.8 percent per year. The projected growth rates of exports from major exporters of beef, pork, and poultry meat are 2.2, 1.8, and 1.9 percent per year, respectively. During this period, exports rise 1.5 million tons for beef, 0.9 million for pork, and 1.5 million for poultry. Rising per capita incomes combined with population growth in a number of countries are the driving forces behind the projected growth in global meat demand.

- Russia's net imports of meat decline slowly during the coming decade in response to the country's policies to stimulate meat production.

- Canadian beef exports are projected to rise slowly during the next decade but do not reach the record set in 2002, just prior to Canada's first discovered case of bovine spongiform encephalopathy (BSE), because the cow herd contracted significantly during 2006-09.

- EU beef exports remain well below the annual WTO limit on subsidized exports (817,000 tons) as policy changes lower beef production and limit the EU's competitiveness in international markets.

- Argentine beef exports have declined sharply since the 2005 peak, as export taxes on beef and changes in other policies made Argentina's exports less competitive. However, beef exports are projected to begin rising again as production growth renews and per capita consumption remains well below the levels of the last decade.

- The projections assume no changes in the set of countries that recognize Brazil as free of foot-and-mouth disease (FMD), thus limiting Brazil's ability to compete in some markets for pork and beef. However, exports from Brazil's expanding pork sector are expected to be competitive in price-sensitive markets such as Russia and Asian countries other than Japan and South Korea.

- During the coming decade, Brazil is expected to continue as the largest exporter of poultry products, as a result of low production costs and competitive export prices.

Beef imports 1/

Million metric tons

1/ Selected importers.
2/ Excludes intra-EU trade.
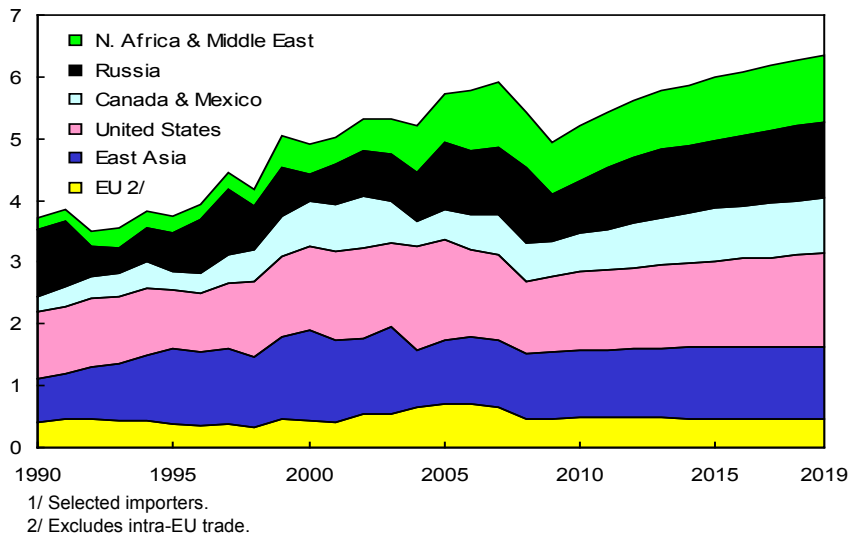
The global recession caused beef imports to decline in 2008 and 2009. The most significant declines occurred in South Asian countries, the EU, and Egypt in 2008, and in Russia and Mexico in 2009.

Between 2010 and 2019, beef imports by major importers resume growth and expand nearly 1.5 million tons (23 percent). Traditionally, developed countries have been the primary importers of beef. However, imports by a number of lower-income countries have increased, especially imports of lower-priced, grass-fed beef from Brazil.

- The projections assume that Russia's tariff-rate quota (TRQ) for beef, first imposed in 2003 and extended in 2009, remains in effect throughout the projection period. In the longer run, growth in Russia's beef imports resumes as rising consumer demand outpaces gains in domestic production. Russia remains a large market for EU and South American beef exports.

- Imports of grain-fed beef by higher-income countries are projected to rise slowly. U.S. beef exports to these countries are projected to increase somewhat over the next 10 years.

- U.S. beef imports, primarily of grass-fed, lean beef from Australia and New Zealand for use in ground beef and processed products, rise slightly during the projection period. Also, strong Asian imports of beef enable Australia and New Zealand to maintain significant levels of exports over the projection period.

- Strong growth in Mexican beef imports is projected to resume in 2010. Much of Mexico's imports consist of higher valued, grain-fed beef from the United States.

Pork imports 1/

Million metric tons

1/ Selected importers.
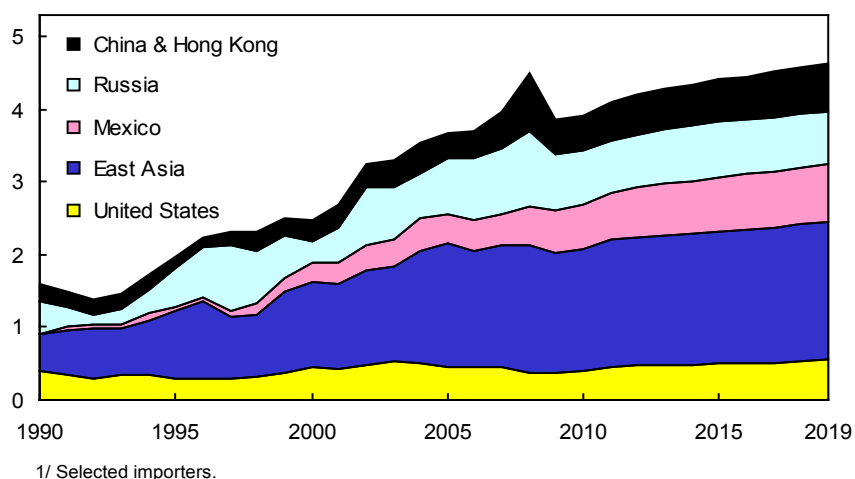
Pork imports rose sharply in 2008, but dropped off in 2009 in response to the global economic recession. Russia, China, other countries of the FSU, Japan, and South Korea experienced the largest declines in imports.

In the projections for 2010 to 2019, growth in world pork imports is expected to resume and to increase by more than 700,000 tons (18 percent).

- Mexican pork imports increase by more than 190,000 tons (31 percent) between 2010 and 2019, making Mexico one of the largest growth markets for the world's pork exporters. Increases in income and population are the primary drivers of Mexico's increasing demand for pork. Mexico accounts for more than one-fourth of the growth in global pork trade during the coming decade.

- Some higher-income countries in East Asia increase pork imports to satisfy demand for selected cuts of pork, especially pork bellies. Japan is by far the world's largest pork importer, but its imports are not projected to rise significantly. South Korea is Asia's fastest growing pork importer and its imports account for one-fifth of the increase in world pork imports during the projections.

- As with beef, the projections assume the TRQ that Russia imposed for pork in 2003 and extended in 2009 remains in effect until 2019. Although the TRQ initially lowered pork imports, Russian imports of competitively-priced pork from the EU and Brazil have risen as demand growth continues to exceed Russian pork production. However, during the projection period, Russia's policies to stimulate livestock production are projected to cause pork imports to decline.

- China's pork production declined in 2007 due in large part to swine disease problems, and the country became a small net importer in 2008. Production resumed growth in 2008 and the country became a small net exporter once again in 2009. In the projections, expanding production offsets rising pork consumption and the country remains a small net exporter. Hong Kong's pork imports are expected to continue rising during the coming decade.

Poultry imports 1/

Million metric tons

1/ Selected importers.
2/ Excludes intra-EU trade.
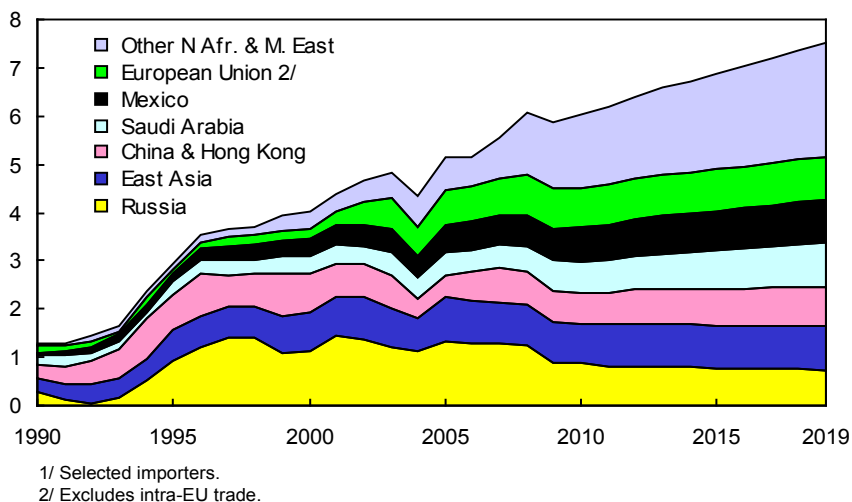
Poultry meat imports by major importers did not decline during the global recession and are projected to increase by about 1.5 million tons (25 percent) between 2010 and 2019. The projections indicate strong poultry import growth throughout most of the world except for the FSU, Europe, and Japan.

- Poultry imports by Egypt, Saudi Arabia, and other countries in the North Africa and Middle East region now account for 25 percent of major-trader imports and are projected to account for more than half of the increase in imports between 2010-19 as income and population growth boosts demand. Ongoing animal disease concerns in a number of countries are expected to slow growth in domestic production and to increase demand for imports.

- Rising consumer incomes increase poultry demand and imports in Mexico and the Central American and Caribbean region. Poultry products remain less expensive than beef or pork, further stimulating demand. Mexico's domestic poultry production continues to increase during the projection period, but rises at a slower rate than consumption, with the result that imports rise more than 180,000 tons (26 percent).

- Russia's poultry imports decline during the projection period, but Russia remains the world's largest poultry importer. Policies that make the poultry TRQ regime more restrictive restrain poultry imports and stimulate domestic poultry production. Slower growth in income and per capita poultry consumption further reduce the need for imports.

- In South Korea, increasing per capita consumption, combined with environmental restrictions on expanding production, boost imports 20 percent during the next decade.

- Because of avian influenza, some major poultry-exporting countries such as Thailand and China have shifted most of their exports to fully cooked products and are projected to continue to do so. Because of higher production costs, these cooked products will be marketed to developed or high-income countries in Asia, Europe, and the Middle East.

- China's rising consumption of poultry meat is met by expanding domestic production, while the country's poultry imports and exports each grow by about 150,000 tons.

Table 4. Coarse grains trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Imports, million metric tons											
Importers												
Former Soviet Union[1]	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Other Europe	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
European Union[2]	3.2	2.9	3.4	3.9	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.9
North Africa & Middle East	32.7	30.0	32.3	33.5	34.7	35.9	36.9	37.7	38.7	39.7	40.7	41.7
Sub-Saharan Africa[3]	3.5	2.9	3.2	3.3	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9
Japan	19.6	19.4	19.3	19.3	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.1
South Korea	7.3	7.6	7.9	8.0	8.0	8.1	8.1	8.1	8.2	8.2	8.3	8.3
Taiwan	4.5	4.7	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8
China	1.7	1.6	1.7	1.9	2.2	2.6	3.2	3.8	4.4	5.1	5.7	6.4
Other Asia & Oceania	4.4	4.7	5.1	5.3	5.4	5.6	5.9	6.1	6.4	6.6	6.9	7.2
Mexico	10.4	11.9	12.5	12.8	13.1	13.4	13.9	14.3	15.0	15.6	16.2	16.7
Central America & Caribbean	4.5	5.0	5.3	5.5	5.6	5.7	5.7	5.8	5.8	5.9	6.0	6.0
Brazil	1.4	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Other South America	9.0	9.3	9.2	9.3	9.5	9.6	9.6	9.7	9.7	9.8	9.9	9.9
Other foreign[4]	5.8	6.8	5.1	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.1	5.0
United States	3.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Total trade	112.5	111.6	114.5	117.7	120.5	123.0	125.5	127.9	130.7	133.6	136.5	139.2
	Exports, million metric tons											
Exporters												
European Union[2]	5.6	4.1	4.7	5.0	5.4	6.0	6.3	6.4	6.8	7.1	7.4	7.8
China	0.2	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3
Argentina	9.3	9.9	13.5	14.1	14.3	14.7	15.1	15.6	16.0	16.4	16.7	17.1
Australia	4.8	4.7	5.3	5.3	5.3	5.3	5.4	5.4	5.4	5.5	5.5	5.6
Canada	3.9	3.6	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0
Republic of South Africa	2.5	1.5	2.4	2.3	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.3
Other Europe	1.7	1.6	1.8	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5	2.6
Former Soviet Union[1]	17.1	13.0	12.8	13.8	14.4	14.9	15.5	16.0	16.7	17.2	17.9	18.6
Other foreign	16.2	15.4	10.5	10.3	10.2	10.3	10.4	10.6	10.9	11.5	11.9	12.0
United States	51.2	57.2	58.8	60.3	61.8	62.7	63.6	64.5	65.4	66.3	67.2	68.1
	Percent											
U.S. trade share	45.5	51.2	51.4	51.2	51.3	51.0	50.7	50.4	50.0	49.6	49.2	48.9

1/ Covers FSU-12, includes intra-FSU trade.
2/ Covers EU-27, excludes intra-EU trade.
3/ Includes Republic of South Africa.
4/ Includes unaccounted.
The projections were completed in November 2009.

Table 5. Corn trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Imports, million metric tons											
Importers												
European Union[1]	2.5	2.5	3.0	3.5	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.5
Former Soviet Union[2]	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Egypt	4.8	4.2	4.9	5.0	5.1	5.3	5.4	5.5	5.6	5.8	5.9	6.0
Algeria	1.9	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.7	2.9	3.0	3.0
Morocco	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9
Iran	3.1	2.9	3.1	3.3	3.6	3.7	3.9	4.0	4.1	4.3	4.5	4.6
Saudi Arabia	1.7	1.8	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.6
Turkey	0.5	0.1	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0
Other N. Africa & Middle East	5.1	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	6.5	6.6	6.7
Japan	16.5	16.3	16.3	16.3	16.3	16.2	16.2	16.2	16.2	16.2	16.2	16.2
South Korea	7.2	7.5	7.9	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.2	8.2
Taiw an	4.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.7
China	0.0	0.1	0.0	0.2	0.5	0.8	1.3	1.9	2.4	3.0	3.5	4.1
Indonesia	0.3	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8
Malaysia	2.0	2.6	2.7	2.7	2.8	2.9	2.9	3.0	3.1	3.2	3.3	3.4
Other Asia & Oceania	2.1	1.9	2.2	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9	3.0
Canada	1.8	2.0	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.3
Mexico	7.7	9.0	9.5	9.8	9.9	10.0	10.3	10.5	10.9	11.3	11.7	12.1
Central America & Caribbean	4.5	5.0	5.3	5.5	5.6	5.7	5.7	5.8	5.8	5.9	6.0	6.0
Brazil	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other South America	7.9	8.2	8.2	8.2	8.4	8.5	8.5	8.5	8.6	8.6	8.6	8.7
Sub-Saharan Africa[3]	2.6	2.2	2.3	2.4	2.4	2.5	2.5	2.6	2.7	2.7	2.8	2.8
Other foreign[4]	1.6	3.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
United States	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total trade	81.4	84.3	87.7	90.1	92.0	93.6	95.5	97.3	99.5	101.7	103.9	105.9
Exporters	*Exports, million metric tons*											
European Union[1]	1.8	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5
China	0.2	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Argentina	7.5	8.0	11.4	11.9	12.0	12.3	12.8	13.2	13.6	14.0	14.3	14.7
Brazil	7.5	9.0	6.0	5.6	5.3	5.2	5.2	5.4	5.6	6.2	6.5	6.5
Republic of South Africa	2.5	1.5	2.4	2.2	2.2	2.2	2.4	2.6	2.7	2.9	3.0	3.2
Other Europe	1.7	1.6	1.8	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.6
Former Soviet Union[2]	6.9	4.2	5.0	5.6	6.0	6.3	6.6	6.8	7.3	7.5	7.9	8.4
Other foreign	6.2	4.7	4.4	4.5	4.7	4.9	5.0	5.0	5.1	5.1	5.2	5.2
United States	47.2	53.3	54.6	55.9	57.2	57.8	58.4	59.1	59.7	60.3	61.0	61.6
	Percent											
U.S. trade share	58.0	63.2	62.3	62.0	62.1	61.7	61.2	60.7	60.0	59.3	58.7	58.1

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
3/ Includes Republic of South Africa.
4/ Includes unaccounted.
The projections w ere completed in November 2009.

Table 6. Barley trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
						Imports, million metric tons						
Importers												
Former Soviet Union[1]	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Japan	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4
South Korea	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Taiwan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	1.6	1.5	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2
European Union[2]	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Latin America[3]	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.2
Algeria	0.4	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Saudi Arabia	7.6	7.5	7.6	7.7	8.0	8.3	8.5	8.5	8.7	8.8	8.9	9.0
Morocco	0.3	0.1	0.3	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9
Tunisia	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Republic of South Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Iran	1.9	1.0	1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7
Other N. Africa & M. East	3.4	2.7	2.7	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.0	3.1
Other foreign[4]	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
United States	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total trade	19.9	17.1	17.9	18.6	19.2	19.9	20.3	20.5	20.9	21.3	21.7	22.2
						Exports, million metric tons						
Exporters												
European Union[2]	3.6	2.3	2.6	2.7	2.9	3.3	3.4	3.3	3.4	3.5	3.6	3.8
Australia	3.5	3.5	4.2	4.3	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.6
Canada	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Russia	3.4	2.2	1.4	1.5	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.2
Ukraine	6.4	6.0	5.5	5.8	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.0
Other Former Soviet Union[5]	0.3	0.5	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6
Turkey	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Other foreign	0.9	0.8	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4
United States	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
						Percent						
U.S. trade share	1.4	1.3	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.5

1/ Covers FSU-12, includes intra-FSU trade.
2/ Covers EU-27, excludes intra-EU trade.
3/ Includes Mexico.
4/ Includes unaccounted.
5/ Covers FSU-12 except Russia and Ukraine, includes intra-FSU trade.
The projections were completed in November 2009.

Table 7. Sorghum trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Importers						*Imports, million metric tons*						
Japan	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4
Mexico	2.5	2.6	2.7	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3
North Africa & Middle East	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
South America	0.7	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
Sub-Saharan Africa[1]	0.7	0.6	0.7	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0
Other[2]	1.1	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total trade	6.7	6.0	6.1	6.4	6.6	6.8	7.1	7.3	7.5	7.8	8.1	8.3
Exporters						*Exports, million metric tons*						
Argentina	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Australia	1.1	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8
Brazil	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Other foreign	1.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
United States	3.6	3.6	3.8	4.1	4.3	4.6	4.8	5.1	5.3	5.6	5.8	6.1
						Percent						
U.S. trade share	54.2	59.4	62.4	63.9	65.6	67.1	68.4	69.6	70.7	71.6	72.5	73.4

1/ Includes the Republic of South Africa.

2/ EU-27 and the rest of the world. Excludes intra-EU trade. Includes unaccounted.

The projections were completed in November 2009.

Table 8. Wheat trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Imports, million metric tons											
Importers												
Algeria	6.4	5.3	6.0	6.1	6.2	6.3	6.5	6.6	6.8	6.9	7.0	7.2
Tunisia	1.8	1.5	1.7	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Morocco	3.8	1.8	2.9	2.9	3.0	3.1	3.1	3.2	3.3	3.3	3.4	3.5
Egypt	9.9	8.3	9.0	9.5	10.0	10.5	10.8	10.8	11.0	11.1	11.2	11.3
Saudi Arabia	1.4	1.6	2.0	2.2	2.4	2.6	2.8	3.0	3.1	3.1	3.2	3.2
Iran	6.7	5.5	1.5	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
Iraq	3.9	3.8	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4
Other N. Africa & Middle East	15.3	13.0	11.5	11.6	11.9	12.1	12.4	12.6	12.9	13.2	13.4	13.7
Sub-Saharan Africa[1]	13.2	13.1	13.6	14.1	14.5	15.0	15.5	15.9	16.4	16.9	17.4	18.0
Mexico	3.3	3.3	3.4	3.4	3.4	3.5	3.5	3.6	3.7	3.7	3.8	3.9
Central America & Caribbean	3.5	3.6	3.8	3.8	3.9	4.0	4.0	4.0	4.0	4.1	4.1	4.1
Brazil	6.0	6.5	6.7	6.7	6.6	6.6	6.7	6.7	6.7	6.7	6.8	6.9
Other South America	6.4	6.4	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.9	7.0	7.1
European Union[2]	7.7	7.0	7.2	7.7	8.2	8.6	8.9	9.1	9.1	9.1	9.1	9.0
Other Europe	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0
Former Soviet Union[3]	6.5	5.1	5.4	5.4	5.5	5.6	5.6	5.6	5.7	5.7	5.8	5.8
Japan	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3
South Korea	3.4	3.7	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.8
Philippines	3.2	3.0	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.8
Indonesia	5.4	5.5	5.6	5.8	5.9	6.1	6.2	6.3	6.4	6.6	6.7	6.8
China	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5
Bangladesh	2.9	2.6	2.5	2.6	2.7	2.8	2.9	2.9	3.0	3.0	3.1	3.2
Malaysia	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5
Thailand	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Vietnam	1.0	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.7	1.8	1.8	1.9
Pakistan	3.1	1.0	2.0	2.4	2.6	2.6	2.5	2.4	2.5	2.5	2.6	2.6
Other Asia & Oceania	8.1	5.4	6.0	6.4	6.7	7.0	7.3	7.6	7.9	8.2	8.6	8.9
Other foreign[4]	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0
United States	3.5	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.3	3.3	3.4	3.4
Total trade	138.9	123.8	124.4	127.9	131.3	134.2	137.3	139.6	142.1	144.5	147.0	149.5
	Exports, million metric tons											
Exporters												
European Union[2]	25.4	19.0	13.8	13.6	12.6	12.9	13.1	12.9	13.4	13.6	13.9	14.4
Canada	18.8	18.0	17.0	16.0	16.2	16.1	16.0	16.1	16.2	16.2	16.3	16.4
Australia	14.8	15.5	15.8	16.1	16.2	16.4	16.5	16.7	16.8	17.0	17.2	17.3
Argentina	6.0	2.5	7.0	8.0	8.5	8.7	8.9	9.1	9.4	9.6	9.8	9.9
Russia	18.4	18.0	18.0	19.0	20.7	21.6	22.7	23.9	25.2	26.3	27.5	28.7
Ukraine	13.0	9.0	8.9	9.0	9.3	9.7	9.9	10.2	10.5	10.8	11.1	11.4
Other Former Soviet Union[5]	6.2	7.9	8.0	9.0	10.0	10.8	11.8	12.0	12.2	12.3	12.7	12.8
Other Europe	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
India	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
China	0.7	1.5	2.1	2.7	3.2	3.5	3.7	3.8	3.9	4.0	4.0	4.1
Turkey	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9
Other foreign	5.1	5.5	7.0	7.1	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3
United States	27.6	23.8	23.8	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
	Percent											
U.S. trade share	19.9	19.2	19.1	19.1	18.7	18.3	17.8	17.5	17.2	17.0	16.7	16.4

1/ Includes Republic of South Africa.
2/ Covers EU-27, excludes intra-EU trade.
3/ Covers FSU-12, includes intra-FSU trade.
4/ Includes unaccounted which can be negative.
5/ Covers FSU-12 except Russia and Ukraine, includes intra-FSU trade.
The projections were completed in November 2009.

Table 9. Rice trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Imports, million metric tons											
Importers												
Canada	0.35	0.34	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40	0.40
Mexico	0.50	0.60	0.61	0.62	0.63	0.65	0.67	0.69	0.71	0.73	0.75	0.77
Central America/Caribbean	1.27	1.53	1.60	1.67	1.72	1.78	1.85	1.91	1.97	2.01	2.06	2.11
Brazil	0.47	0.75	0.52	0.62	0.65	0.72	0.77	0.76	0.76	0.74	0.73	0.72
Other South America	0.64	0.57	0.71	0.76	0.79	0.82	0.85	0.86	0.87	0.89	0.90	0.92
European Union[1]	1.35	1.40	1.38	1.41	1.46	1.50	1.53	1.57	1.61	1.65	1.69	1.73
Former Soviet Union[2]	0.36	0.33	0.35	0.35	0.36	0.35	0.34	0.33	0.32	0.31	0.29	0.28
Other Europe	0.10	0.10	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Bangladesh	0.60	0.70	0.75	0.81	0.87	0.94	1.00	1.07	1.13	1.20	1.27	1.34
China	0.33	0.35	0.40	0.40	0.43	0.46	0.49	0.52	0.55	0.58	0.63	0.67
Japan	0.70	0.70	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
South Korea	0.26	0.30	0.36	0.38	0.40	0.42	0.44	0.44	0.44	0.44	0.44	0.44
Indonesia	0.25	0.30	0.42	0.40	0.50	0.60	0.72	0.89	0.96	1.03	1.08	1.15
Malaysia	1.02	0.83	0.87	0.89	0.92	0.95	0.97	1.01	1.04	1.07	1.10	1.13
Philippines	2.60	2.60	2.68	2.78	2.85	2.90	2.98	3.05	3.16	3.25	3.38	3.50
Other Asia & Oceania	2.52	2.56	2.28	2.34	2.37	2.39	2.42	2.47	2.51	2.57	2.63	2.68
Iraq	1.00	1.10	1.08	1.09	1.12	1.16	1.19	1.22	1.25	1.28	1.31	1.34
Iran	1.70	1.70	1.58	1.52	1.52	1.52	1.56	1.60	1.63	1.67	1.72	1.76
Saudi Arabia	1.36	1.37	1.40	1.43	1.46	1.49	1.52	1.54	1.57	1.59	1.62	1.64
Other N. Africa & M. East	2.05	2.10	2.06	2.18	2.24	2.29	2.34	2.39	2.45	2.50	2.55	2.61
Sub-Saharan Africa[3]	6.53	6.68	6.70	6.89	7.08	7.30	7.50	7.73	7.96	8.19	8.41	8.65
Republic of South Africa	0.59	0.75	0.86	0.84	0.85	0.86	0.88	0.90	0.91	0.93	0.95	0.97
Other foreign[4]	0.79	1.35	2.04	2.10	2.10	2.11	2.11	2.08	2.14	2.19	2.19	2.19
United States	0.61	0.67	0.70	0.72	0.75	0.77	0.79	0.82	0.84	0.87	0.89	0.92
Total imports	27.94	29.67	30.51	31.36	32.24	33.15	34.09	35.03	35.97	36.89	37.81	38.73
	Exports, million metric tons											
Exporters												
Australia	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Argentina	0.50	0.60	0.56	0.57	0.57	0.58	0.59	0.61	0.62	0.64	0.65	0.66
Other South America	1.69	1.61	1.29	1.31	1.33	1.31	1.35	1.37	1.39	1.43	1.45	1.47
European Union[1]	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.15
China	0.80	1.30	1.53	1.64	1.80	1.90	2.11	2.32	2.48	2.62	2.71	2.80
India	2.00	1.50	1.50	1.80	2.22	2.53	2.82	3.00	3.23	3.40	3.60	3.78
Pakistan	3.00	3.30	3.30	3.30	3.30	3.30	3.30	3.32	3.39	3.47	3.56	3.66
Thailand	8.50	10.00	10.28	10.38	10.46	10.70	10.93	11.26	11.50	11.75	12.00	12.30
Vietnam	5.80	5.50	5.81	5.99	6.05	6.20	6.23	6.30	6.40	6.52	6.67	6.80
Egypt	0.30	0.45	0.65	0.61	0.57	0.56	0.54	0.53	0.50	0.47	0.44	0.42
Other foreign	2.20	2.16	2.22	2.30	2.40	2.49	2.54	2.62	2.68	2.74	2.80	2.87
United States	2.99	3.07	3.20	3.29	3.36	3.42	3.49	3.55	3.61	3.68	3.74	3.77
Total exports	27.93	29.66	30.51	31.36	32.24	33.15	34.09	35.03	35.97	36.89	37.81	38.73
	Percent											
U.S. trade share	10.7	10.3	10.5	10.5	10.4	10.3	10.2	10.1	10.0	10.0	9.9	9.7

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
3/ Excludes Republic of South Africa
4/ Includes unaccounted.
The projections were completed in November 2009.

Table 10. Soybean trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
					Imports, million metric tons							
Importers												
European Union[1]	13.0	12.7	12.5	12.1	11.9	11.6	11.4	11.2	11.0	10.8	10.6	10.4
Japan	3.4	4.0	4.0	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0
South Korea	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Taiwan	2.1	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Mexico	3.1	3.5	3.7	3.7	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.6
Former Soviet Union[2]	0.8	1.0	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Other Europe	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	41.1	40.5	43.1	45.5	47.5	49.4	51.4	53.3	55.2	57.2	59.1	61.0
Malaysia	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7
Indonesia	1.2	1.6	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	2.0	2.0
Other	9.1	9.7	12.6	13.0	13.4	13.8	14.1	14.5	14.9	15.2	15.5	15.9
Total imports	75.9	77.5	83.1	85.5	87.8	90.2	92.5	94.8	97.1	99.4	101.6	103.9
					Exports, million metric tons							
Exporters												
Argentina	5.7	10.2	12.4	12.9	13.2	13.3	13.4	13.5	13.6	13.7	13.8	14.0
Brazil	30.0	24.0	26.2	27.0	27.9	28.8	30.1	31.5	33.1	34.5	36.0	37.2
Other South America	3.5	6.2	6.6	6.9	7.2	7.6	7.9	8.2	8.5	8.9	9.2	9.6
China	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Other foreign	2.3	2.5	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
United States	34.9	36.1	35.4	36.1	36.9	37.7	38.2	38.6	38.8	39.1	39.3	39.6
Total exports	76.8	79.4	83.1	85.5	87.8	90.2	92.5	94.8	97.1	99.4	101.6	103.9
					Percent							
U.S. trade share	45.4	45.4	42.6	42.2	42.0	41.8	41.3	40.8	39.9	39.3	38.7	38.1

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
The projections were completed in November 2009.

Table 11. Soybean meal trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
					Imports, million metric tons							
Importers												
European Union[1]	21.8	22.8	23.6	24.3	25.1	25.9	26.6	27.4	28.1	28.9	29.7	30.4
Former Soviet Union[2]	0.8	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.3
Other Europe	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Canada	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Japan	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
Southeast Asia	9.1	9.7	10.1	10.4	10.7	11.1	11.4	11.7	12.1	12.4	12.8	13.1
Latin America	7.3	7.6	7.9	8.1	8.4	8.7	9.0	9.3	9.5	9.8	10.1	10.3
North Africa & Middle East	4.4	4.7	4.9	5.0	5.2	5.4	5.5	5.7	5.8	6.0	6.2	6.3
Other	4.7	4.9	5.5	5.6	5.7	5.9	6.0	6.1	6.3	6.4	6.6	6.7
Total imports	51.8	54.2	56.5	58.3	60.0	61.8	63.5	65.2	67.0	68.8	70.6	72.4
					Exports, million metric tons							
Exporters												
Argentina	24.4	26.7	28.0	30.0	31.6	33.0	34.6	36.2	37.9	39.5	41.1	42.6
Brazil	13.0	12.2	12.2	12.3	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.1
Other South America	2.2	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.7
China	1.0	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
India	3.2	3.7	3.8	3.2	3.1	3.1	2.9	2.7	2.6	2.4	2.4	2.3
European Union[1]	0.5	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Other foreign	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
United States	7.7	8.7	8.5	8.7	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9
Total exports	52.5	55.2	56.5	58.3	60.0	61.8	63.5	65.2	67.0	68.8	70.6	72.4
					Percent							
U.S. trade share	14.7	15.8	15.1	14.9	14.6	14.2	13.9	13.6	13.3	12.9	12.6	12.3

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
The projections were completed in November 2009.

Table 12. Soybean oil trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
					Imports, million metric tons							
Importers												
China	2.5	2.4	2.5	2.5	2.5	2.6	2.7	2.8	2.9	2.9	3.0	3.1
India	1.1	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4
Other Asia	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5
Latin America	1.4	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.1	2.1	2.2	2.2
North Africa & Middle East	1.5	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2
European Union[1]	0.8	0.6	0.2	0.1	0.2	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Former Soviet Union & Other Europe[2]	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other	0.9	1.0	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4
Total imports	9.2	9.3	9.6	9.7	10.1	10.5	11.0	11.4	11.7	12.1	12.5	12.9
					Exports, million metric tons							
Exporters												
Argentina	4.7	5.2	5.5	5.7	6.0	6.3	6.6	6.9	7.1	7.4	7.7	8.0
Brazil	1.9	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
European Union[1]	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other foreign	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
United States	1.0	1.5	1.2	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3
Total exports	9.0	9.5	9.6	9.7	10.1	10.5	11.0	11.4	11.7	12.1	12.5	12.9
					Percent							
U.S. trade share	11.3	15.6	13.0	11.9	10.8	10.8	10.7	10.6	10.5	10.3	10.1	10.0

1/ Covers EU-27, excludes intra-EU trade.
2/ Includes intra-FSU trade.
The projections were completed in November 2009.

Table 13. All cotton trade long-term projections

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Imports, million bales											
Importers												
European Union[1]	1.0	1.0	0.9	0.8	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4
Former Soviet Union[2]	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7
Indonesia	2.0	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Thailand	1.6	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1
India	0.6	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Brazil	0.1	0.1	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Asia & Oceania	5.7	5.9	6.4	6.8	7.0	7.3	7.6	7.9	8.3	8.6	9.0	9.4
Pakistan	2.2	2.8	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.9	4.1	4.2
Japan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
South Korea	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8
China	7.0	8.5	10.4	11.1	11.5	12.3	12.7	13.2	13.7	14.0	14.4	14.9
Taiwan	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
Turkey	2.9	3.3	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4
Mexico	1.3	1.6	1.6	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.2	1.1
Other	2.3	2.6	2.9	2.8	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.1
Total imports	29.8	33.1	37.2	38.3	39.1	40.1	40.9	41.8	42.6	43.4	44.4	45.4
	Exports, million bales											
Exporters												
Former Soviet Union[2]	4.1	6.1	6.6	6.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.1
Australia	1.2	1.6	2.1	2.3	2.5	2.6	2.7	2.7	2.7	2.8	2.8	2.9
Argentina	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pakistan	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
India	2.3	6.7	6.6	6.6	6.7	6.8	7.0	7.1	7.1	7.3	7.4	7.5
Egypt	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Brazil	2.7	1.9	3.1	3.4	3.5	3.8	4.0	4.1	4.2	4.2	4.4	4.5
Other Latin America	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Sub-Saharan Africa[3]	3.5	3.8	3.8	3.9	4.0	4.0	4.1	4.2	4.4	4.6	4.8	5.1
Other foreign	1.7	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
United States	13.3	10.5	12.9	13.3	13.6	14.0	14.3	14.7	15.0	15.4	15.7	16.0
Total exports	29.8	33.1	37.2	38.3	39.1	40.1	40.9	41.8	42.6	43.4	44.4	45.4
	Percent											
U.S. trade share	44.6	31.7	34.7	34.7	34.9	34.8	35.0	35.1	35.2	35.4	35.4	35.3

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
3/ Includes Republic of South Africa.
The projections were completed in November 2009.

Table 14. Beef trade long-term projections

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Imports, thousand metric tons, carcass weight											
Importers												
Japan	659	672	678	680	690	698	698	693	690	684	683	682
South Korea	295	290	295	299	311	322	335	345	359	361	372	384
Taiwan	103	110	110	111	113	114	114	115	116	116	117	117
Philippines	159	110	120	126	135	145	155	163	169	175	179	186
European Union[1]	465	470	490	483	480	478	471	469	465	462	456	450
Russia	1,137	700	780	932	1,006	1,026	1,023	1,043	1,070	1,096	1,119	1,139
Other Europe	67	54	54	52	55	53	51	52	53	53	54	55
Egypt	195	150	175	181	188	192	197	199	198	200	203	204
Mexico	408	300	335	383	428	469	505	538	554	570	576	580
Canada	230	270	290	293	296	302	303	305	308	311	311	314
United States	1,151	1,234	1,268	1,293	1,319	1,345	1,372	1,404	1,428	1,456	1,485	1,515
Major importers	4,869	4,360	4,595	4,834	5,020	5,143	5,223	5,323	5,409	5,485	5,554	5,627
	Exports, thousand metric tons, carcass weight											
Exporters												
Australia	1,407	1,390	1,350	1,336	1,295	1,288	1,291	1,301	1,319	1,327	1,338	1,347
New Zealand	533	525	517	526	524	527	533	542	553	563	571	578
Other Asia	745	719	734	764	764	769	780	800	810	831	845	863
European Union[1]	203	160	160	162	164	166	166	161	163	165	167	169
Argentina	422	560	390	342	435	477	504	530	547	566	582	612
Brazil	1,801	1,555	1,870	2,063	2,134	2,185	2,223	2,258	2,299	2,332	2,358	2,382
Canada	494	475	490	475	504	525	539	552	560	570	577	583
United States	856	828	873	961	1,053	1,144	1,195	1,227	1,251	1,276	1,302	1,328
Major exporters	6,461	6,212	6,384	6,629	6,873	7,081	7,231	7,370	7,502	7,630	7,740	7,860

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2009.

Table 15. Pork trade long-term projections

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Imports, thousand metric tons, carcass weight											
Importers												
Japan	1,267	1,210	1,210	1,235	1,237	1,243	1,252	1,253	1,252	1,256	1,260	1,263
China	430	150	120	156	178	187	194	199	206	226	242	256
Hong Kong	346	345	348	354	362	368	375	383	390	397	404	412
South Korea	430	375	400	438	464	478	489	504	516	531	548	559
Russia	1,053	750	750	733	739	753	760	758	749	742	731	714
Mexico	535	600	620	652	684	707	723	739	760	777	796	814
Canada	194	170	200	202	204	205	206	207	208	209	209	209
United States	377	373	390	456	469	481	493	503	512	519	532	548
Major importers	4,632	3,973	4,038	4,225	4,337	4,421	4,492	4,547	4,593	4,656	4,721	4,775
	Exports, thousand metric tons, carcass weight											
Exporters												
Brazil	625	645	700	757	781	801	814	833	847	862	879	895
Canada	1,129	1,130	1,100	1,060	1,057	1,061	1,068	1,077	1,083	1,088	1,100	1,105
Mexico	91	86	95	97	98	100	101	103	104	105	106	108
European Union[1]	1,726	1,250	1,200	1,235	1,299	1,319	1,342	1,339	1,339	1,353	1,364	1,373
China	223	230	240	248	258	271	283	298	313	328	344	361
United States	2,117	1,876	2,018	2,108	2,139	2,180	2,228	2,281	2,326	2,372	2,417	2,461
Major exporters	5,911	5,217	5,353	5,504	5,632	5,731	5,836	5,930	6,012	6,108	6,209	6,302

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2009.

Table 16. Poultry trade long-term projections[1]

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Imports, thousand metric tons, ready to cook											
Importers												
Russia	1,227	900	870	821	814	804	784	773	761	757	750	735
European Union[2]	837	830	830	838	847	855	864	872	881	890	899	908
Other Europe	28	21	24	24	24	24	24	24	24	24	24	24
Canada	142	139	144	146	148	150	152	154	155	157	159	161
Mexico	651	660	695	718	747	774	797	815	837	858	867	877
Central America/Caribbean	275	275	285	296	309	318	324	330	333	337	342	346
Japan	737	700	680	710	735	739	739	737	737	738	742	742
Hong Kong	236	250	260	263	266	268	271	274	276	279	281	284
China	444	395	385	401	430	446	466	482	495	510	526	539
South Korea	70	63	65	68	69	69	69	69	70	72	75	78
Saudi Arabia	510	625	650	689	718	745	772	797	825	853	881	908
Other N. Africa & M. East	1,302	1,383	1,509	1,598	1,699	1,793	1,887	1,983	2,075	2,172	2,256	2,372
Major importers	6,459	6,241	6,397	6,572	6,806	6,986	7,149	7,308	7,470	7,647	7,802	7,973
	Exports, thousand metric tons, ready to cook											
Exporters												
European Union[2]	863	830	825	711	706	703	702	698	692	691	690	689
Brazil	3,446	3,313	3,520	3,754	3,973	4,101	4,213	4,295	4,369	4,456	4,538	4,638
China	285	250	254	270	274	289	303	320	343	366	389	415
Thailand	383	385	420	446	454	471	485	504	529	555	582	610
United States	3,464	3,232	3,105	2,938	2,979	3,028	3,072	3,121	3,170	3,209	3,247	3,284
Major exporters	8,441	8,010	8,124	8,119	8,387	8,592	8,774	8,937	9,102	9,277	9,446	9,636

1/ Broilers and turkeys only.
2/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2009.

U.S. Crops

Global economic recovery with steady growth provides an improved foundation for demand for crops over the next several years and through the remainder of the projection period to 2019. Although growth in corn-based ethanol production in the United States is projected to slow, the large expansion in recent years keeps this use of corn high. In combination, these factors support longer run increases in global consumption and trade, with prices for many crops remaining at historically high levels.

Projections for field crops reflect provisions of the Food, Conservation, and Energy Act of 2008 (2008 Farm Act), which are assumed to continue through the projection period. The 2008 Farm Act reduced the maximum acreage enrollment in the Conservation Reserve Program (CRP) from 39.2 million acres to 32 million acres, effective October 1, 2009. This policy change provides some additional cropland for potential use in production rather than tightening cropland availability over the projection period.

Sustained high prices (prompted by strong demand), combined with increased cropland availability (resulting from the reduction in the CRP), keep U.S. cropland use high during the projection period. Although declining somewhat from planted acreage of almost 249 million in 2009, projected plantings for the 8 major field crops remain in a range of 246 to 248 million acres over the next 10 years.

U.S. planted area: Eight major crops 1/

Million acres
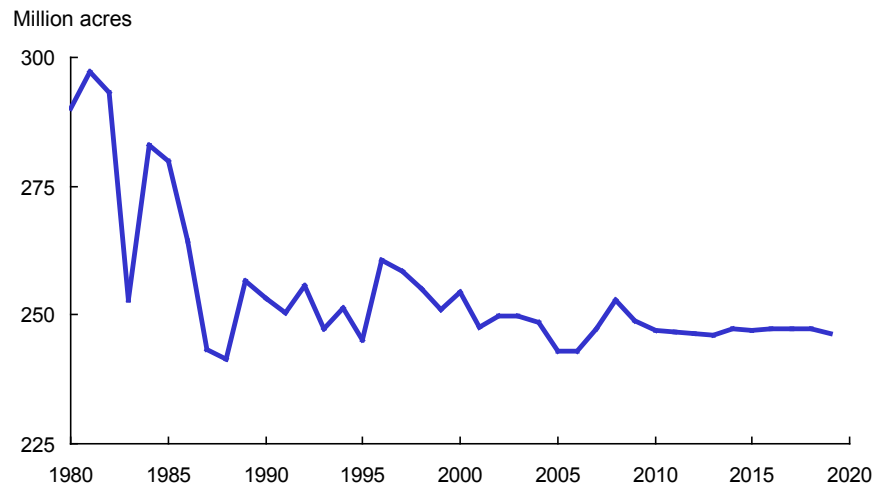
1/ The eight major crops are corn, sorghum, barley, oats, wheat, rice, upland cotton, and soybeans.

U.S. planted area: Corn, wheat, and soybeans

Million acres
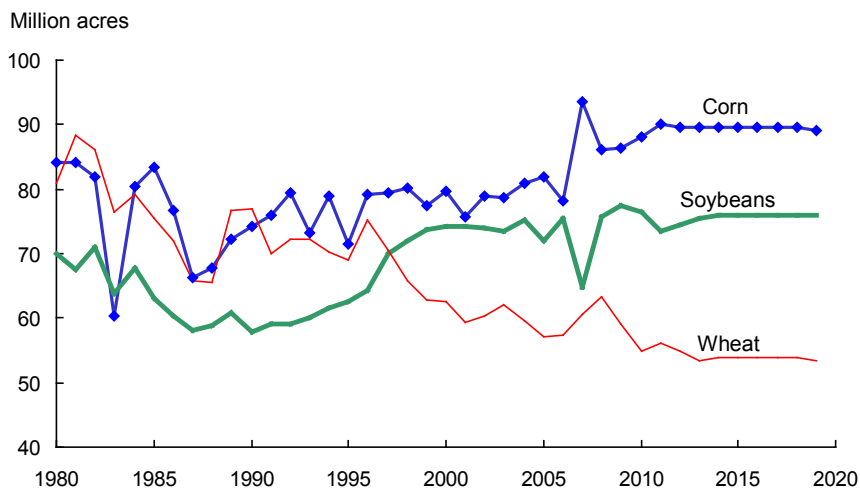
Plantings of different crops are influenced by expected net returns. Net returns are primarily determined by market prices, yields, and production costs. Producer planting decisions are also affected by revenue protection available through the Federal Crop Insurance program and the Average Crop Revenue Election (ACRE) program, a new program under the 2008 Farm Act which started in 2009.

- Continuing high levels of domestic corn-based ethanol production and gains in exports keep corn demand high. Strong producer returns keep corn acreage in a range of 88 to 90 million acres over the projection period.

- Soybean plantings decline over the next several years from the high level in 2009 as producer returns are reduced due to the influence of higher carryover stocks. As stocks are reduced in subsequent years, returns improve and plantings increase to 76 million acres.

- Wheat plantings initially fall as producer returns are lower and late-harvest of some 2009 crops has prevented some winter wheat plantings. With relatively weak overall demand growth and continuing large stocks, producer returns remain lower than in recent years, leading to a decline in wheat plantings to about 54 million acres through much of the projection period.

U.S. corn: Feed and residual use, ethanol, and exports

Billion bushels
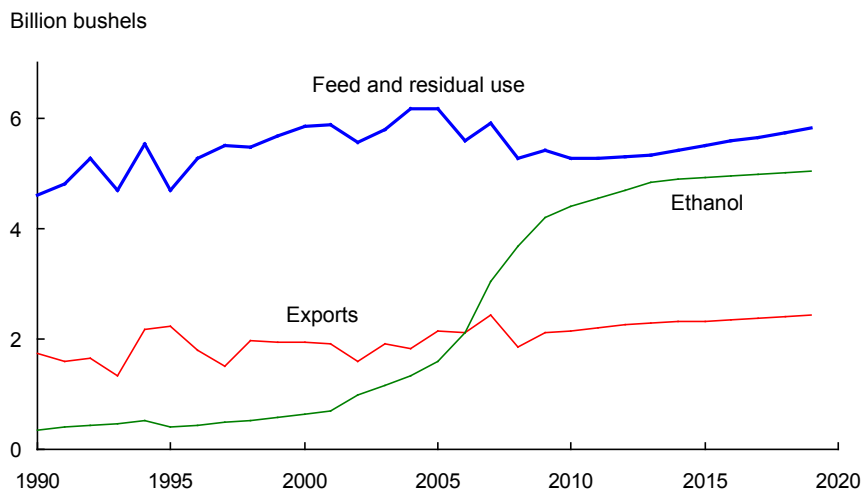
Domestic corn use grows throughout the projection period, largely reflecting increases in corn used in the production of ethanol. Global economic growth underlies increases in U.S. corn exports.

- Most ethanol production in the United States currently uses corn as the feedstock, with close to a third of total corn use expected to go to ethanol production in 2009/10. The tax credit available to blenders of ethanol and the 54-cents-per-gallon tariff on imported fuel ethanol are assumed to remain in effect through the end of the projection period.
- While expansion in the ethanol industry continues, smaller gains for corn-based ethanol are projected over the next 10 years. This result reflects only moderate growth in overall gasoline consumption in the United States, limited potential for further market penetration of ethanol into the E10 (10-percent ethanol blend) market (the blend wall), and the small size of the E85 (85-percent ethanol blend) market. In the latter years of the projections, production of ethanol for fuel accounts for 34-35 percent of total corn use and corn-based ethanol production exceeds 9 percent of annual gasoline consumption.
- Feed and residual use of corn bottoms out in the initial years due to reduced meat production and increased feeding of distillers grains, a coproduct of dry mill ethanol production. Feed use rises through the rest of the projections as meat production picks up and growth in the availability of distillers grains slows with the reduced pace of corn-based ethanol expansion.
- Food and industrial use of corn (other than for ethanol production) is projected to rise over the next decade. Use of corn for high fructose corn syrup, glucose, and dextrose increases at less than half the rate of population gain, limited by consumer dietary concerns and other changes in tastes and preferences. Other food uses of corn are also projected to rise more slowly than the increase in population. Starch use of corn responds to industrial demand, rebounding as the U.S. economy recovers and then continuing to rise faster than population through the rest of the projections.
- U.S. corn exports rise in response to stronger global demand for feed grains to support growth in meat production. Nonetheless, the U.S. share of global corn trade drops below 60 percent by the end of the projections.

U.S. wheat: Domestic use and exports

Billion bushels
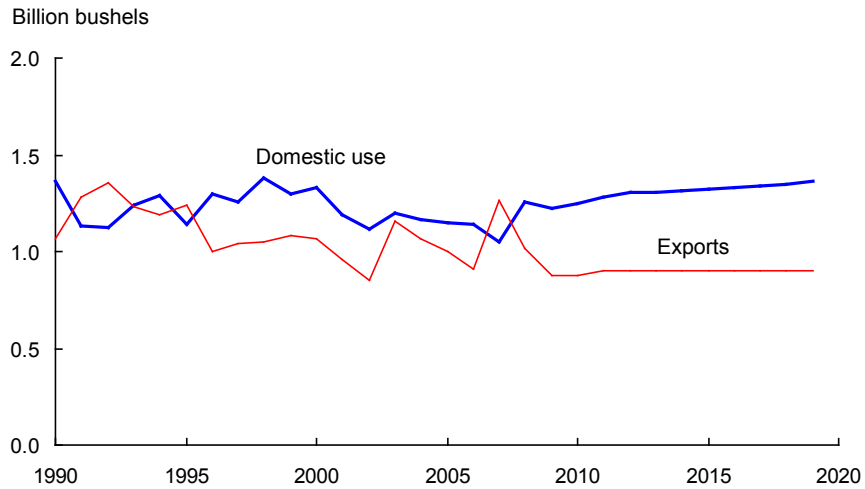
Overall demand in the U.S. wheat sector grows slowly through the projection period.

- Domestic demand for wheat reflects a relatively mature market. Food use of wheat is projected to show moderate gains, generally in line with population increases.

- Feed use of wheat, a lower value use of the crop, increases from the level of 2009/10 and remains relatively constant through the projections as prices relative to corn allow some competition of feed wheat with feed grains.

- U.S. wheat exports remain flat over the projection period, limited by competition primarily from the Black Sea region. In particular, the export market share for Russia rises from 14 percent to 19 percent over the next decade. For the same time period, the U.S. market share declines from 19 percent to 16 percent.

U.S. soybeans: Domestic use and exports

Billion bushels
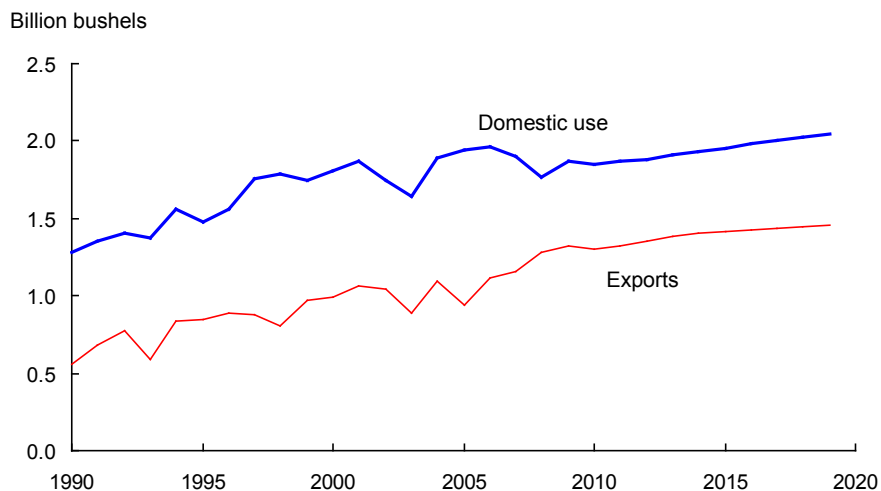
Domestic use of soybeans rises slowly through most of the projection period. U.S. soybean exports also increase over the next decade.

- Declines in the U.S. livestock sector in recent years have reduced demand for soybean meal for livestock feed, thereby lowering domestic soybean crush. However, as meat production gains resume, soybean crush will follow.

- Competition from South America, particularly Brazil, limits gains in U.S. exports. Consequently, the U.S. market share of global soybean trade declines from 45 percent in 2009/10 to 38 percent in 2019/20.

- Soybean oil used for methyl ester for production of biodiesel grows to 2.9 billion pounds, representing 13 to 15 percent of total use of soybean oil and supporting the production of close to 400 million gallons of biodiesel. Although some other first-use vegetable oils are used to produce biodiesel, most of the remaining biodiesel production needed to reach the 1-billion-gallon use mandate of the 2007 Energy Act uses animal fats or recycled vegetable oil as the feedstock. The $1-per-gallon blending tax credit for biodiesel is assumed to be in effect over the projection period.

- Strengthening competition from Argentina and Brazil, combined with increasing use for the growing U.S. livestock sector, lead to only small gains in U.S. soybean meal exports from 2010/11-2019/20, reducing the U.S. export share in global soybean meal trade. U.S. soybean oil exports similarly face increasing competition from South America. Argentina, in particular, is a competitive exporter of soybean oil because of its graduated export taxes that favor exports of soybean products over soybeans.

USDA Long-term Projections, February 2010

U.S. farm-level prices: Corn, wheat, and soybeans

Dollars per bushel
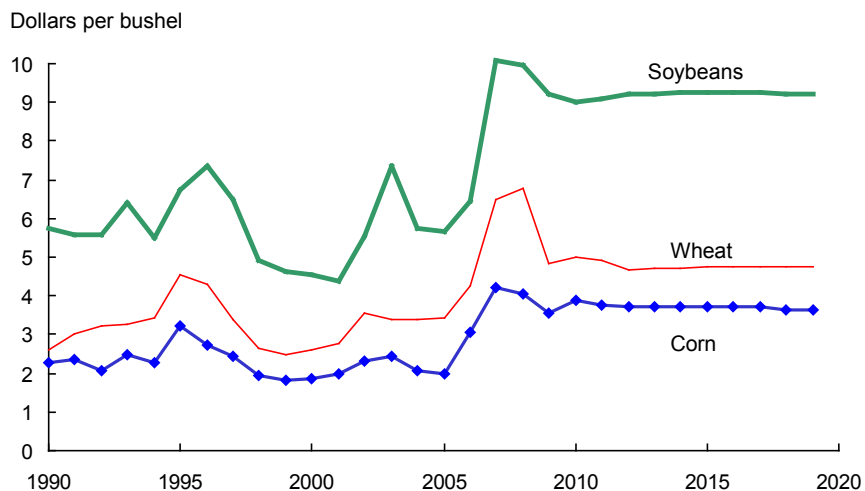
Farm-level prices for corn, wheat, and soybeans have fallen from the very high levels seen in 2007/08 and 2008/09 that reflected a number of short-term factors. However, prices are projected to remain historically high due to the influence of continuing longer term factors, including structural shifts that drive demand for these crops.

- Although corn prices are lower than their high 2007/08 and 2008/09 levels, they are projected to remain historically high due to continued demand for corn to produce ethanol as well as growth in feed use and exports.

- Strengthening demand for soybeans and soybean products hold soybean prices high throughout the projections.

- As for other crops, wheat prices have declined from levels of 2007/08 and 2008/09, but remain historically high. Wheat prices are projected to be relatively stable over the next decade as yield gains offset much of the increase in demand (despite falling acreage) and current high stock levels are slowly reduced.

U.S. rice: Domestic and residual use and exports

Million hundredweight
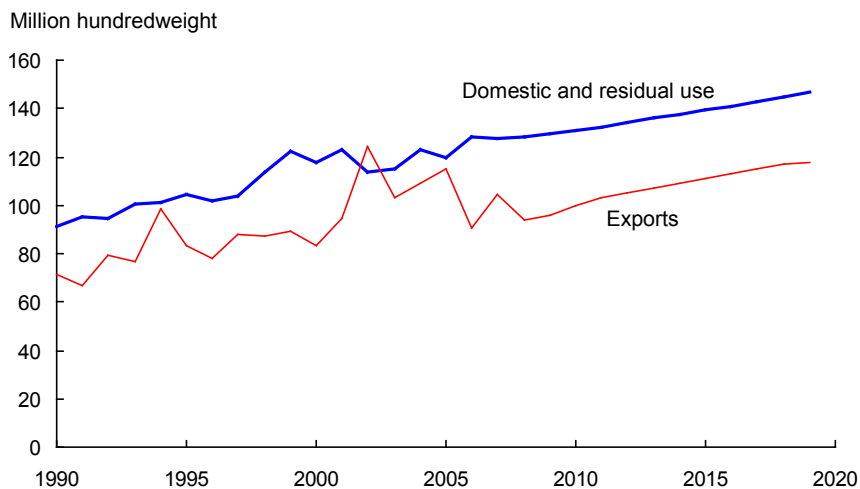
Continued expansion in domestic food use of rice is projected over the next decade. U.S. rice exports increase as well, but somewhat slower than overall growth in global rice trade.

- Domestic use of rice is projected to grow slightly faster than population growth. Imports of aromatic varieties of rice from Asia account for a growing share of domestic use in the projections.

- U.S. rice exports are projected to increase, reflecting a lower U.S. price difference over Asian competitors' price than in recent years. Nonetheless, export growth falls short of the pace of overall rice trade gains, so the U.S. market share declines. Rough rice exports to Latin America are expected to continue increasing, and account for most of the U.S. export expansion.

- Stocks of rice fall from initially large levels, reducing the stocks-to-use ratio to a more sustainable level of about 13 percent.

- Global rice prices are projected to continue their decline over the next several years from the highs of 2008/09. After these near-term declines, global prices increase about 2.5 percent per year, exceeding $11 per hundredweight (rough basis) at the end of the projection period. These price increases largely reflect tightening global stocks of rice, which is due to slow yield growth and limited ability to expand area in most producing countries. This effect is partially offset by declining global per capita disappearance of rice, caused largely by dietary shifts away from staple foods in Asia as incomes rise.

- U.S. rice prices follow a pattern similar to global prices, initially declining from the high levels of 2008/09 before rising in the latter years of the projections. By the end of the projection period, U.S. rice prices increase to over $13 per hundredweight.

U.S. upland cotton: Domestic mill use and exports

Million bales
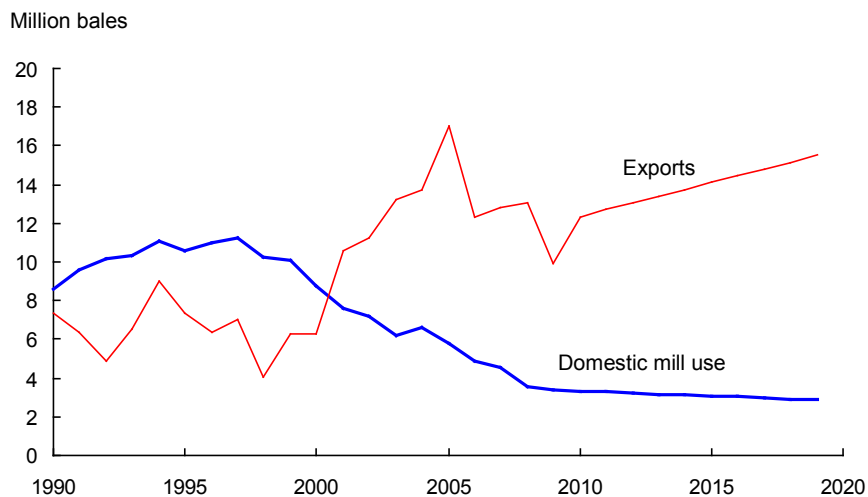
U.S. mill use of upland cotton continues to decline in the projections while cotton exports rise.

- The decline in mill use of cotton is projected to continue over the next decade. At the end of the projection period, domestic mill use is projected to represent less than 16 percent of total use. Underlying this projection is an increase in apparel imports by the United States over the next 10 years, reducing domestic apparel production and lowering the apparel industry's demand for fabric and yarn produced in the United States.

- U.S. upland cotton exports have fallen sharply in 2009/10, reflecting two years of reduced acreage and production and diminished availability of stocks. Exports in 2010/11 are projected to rebound and then grow moderately through the rest of the projection period. As a consequence, the U.S. cotton's share of world trade grows from its 2009/10 share of about 32 percent to about 35 percent by 2019/20.

- As projected cotton prices strengthen, higher net returns than realized in 2009/10 provide economic incentives for cotton acreage to rise and production to increase. As a consequence, cotton stocks are projected to rise over the next decade.

U.S. sugar: Domestic production, use, and imports

Million short tons
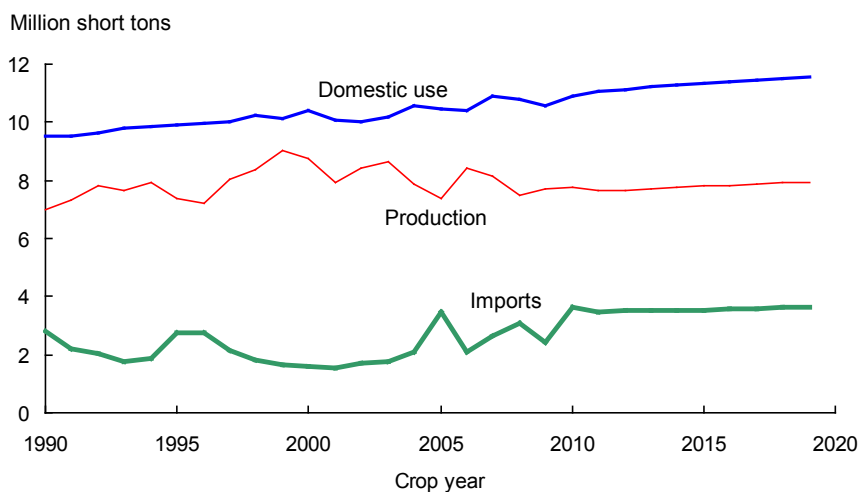
The two primary determinants of U.S. sugar supply and use over the long-term projection period are the implementation of the sugar and energy provisions of the 2008 Farm Act and an increased reliance on sugar imports from Mexico to maintain balance in the U.S. sugar market.

- The 2008 Farm Act increased the raw sugar loan rate from 18 cents per pound in the 2008 crop year (October 2008-September 2009) to 18.25 cents per pound in the 2009 crop year, to 18.50 cents per pound in the 2010 crop year, and to 18.75 cents per pound in the 2011 and 2012 crop years. The refined beet sugar loan rate is specified to equal 128.5 percent of the raw cane sugar loan rate. Marketing allotments for sugar are set annually at a level not less than 85 percent of estimated sugar deliveries for domestic human consumption. The 2008 Farm Act also introduced the Feedstock Flexibility Program, which requires the diversion of sugar from food use to ethanol producers, if needed, to keep sugar prices above levels at which sugar processors might otherwise forfeit sugar under loan to the Commodity Credit Corporation (CCC).

- The projections assume that sugar tariff-rate quotas are not increased above initial levels and that U.S. policymakers aim for an ending year stocks-to-use ratio equal to that in 2008/09 of 13.5 percent.

- U.S. producers do not expand area and growth in U.S. beet and cane sugar production is low over the projection period. Production averages only 72 percent of domestic consumption, far below the 85-percent minimum allotment level. Mexico is assumed to export sugar to the United States to meet the 13.5 percent stocks-to-use ratio.

- Deliveries of sugar for human use grow at about 0.6 percent per year, less than population growth of 0.9 percent (United States plus Puerto Rico). Per capita sugar consumption in 2010/11 is 61.7 pounds and falls to 60.3 pounds in 2019/20.

- There are no sugar loan forfeitures and no CCC purchases of sugar for ethanol. With an annual stocks-to-use ratio of 13.5 percent, raw cane and refined beet sugar prices are above the minimum prices to avoid forfeiture for the entire projection period. There is sufficient refining capacity to keep upward pressure off refined sugar prices. The long term equilibrium world raw sugar price is assumed to equal 16 cents per pound–historically high but not high enough to exert upward pressure on the U.S. raw cane price.

U.S. sugar imports

Million short tons, raw value
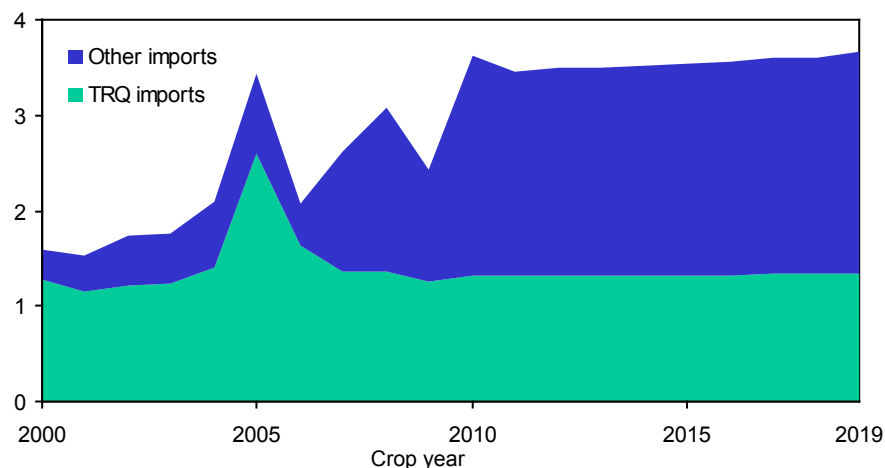
- The sugar provisions of the North American Free Trade Agreement (NAFTA) removed all duties and quantitative restrictions on sweetener trade between Mexico and the United States as of January 1, 2008. In the long term, Mexican exportable sugar supplies are expected to increase as a result of increased use of high fructose corn syrup (HFCS) displacing sugar in beverage and food manufacturing end uses in Mexico.

- The projections assume that Mexico will import sugar from the world market when necessary to assure sufficient supplies to meet domestic consumption requirements.

- It is assumed that demand for HFCS by beverage manufacturers in Mexico increases from 48 percent of their total sweetener demand in 2009/10 to 75 percent in 2012/13. Average HFCS consumption in 2012/13 to 2019/20 is 1.351 million metric tons, dry weight. Mexican sugar consumption drops to a low of 4.637 million metric tons, raw value (MTRV) in 2012/13, but then expands due to population and real income growth, reaching 4.971 million MTRV in 2019/20. There is no assumed net investment growth in the Mexican sugar industry, and production averages only 5.806 million MTRV. Average Mexican imports for human consumption are 495,000 MTRV. U.S. imports from Mexico average 1.824 million STRV and constitute about 16.8 percent of U.S. domestic consumption.

Value of horticultural trade

Billion dollars
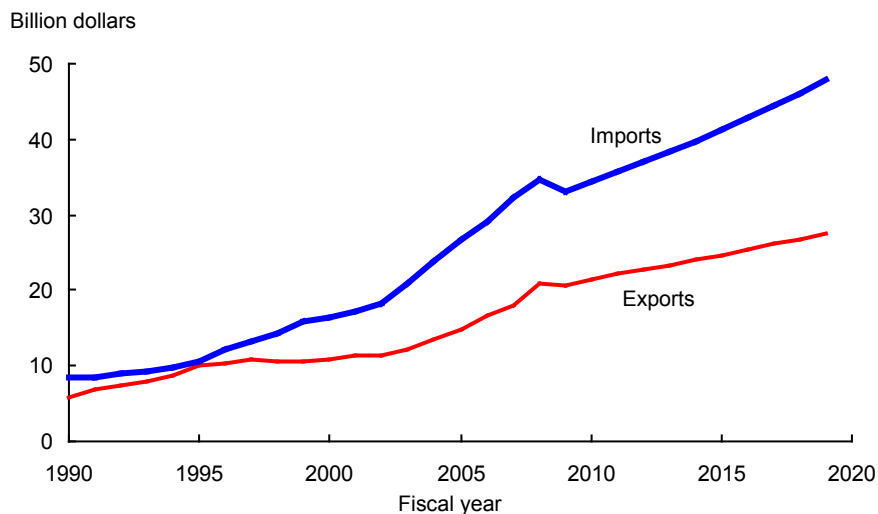
Farm sales of horticultural crops are projected to grow by 2.3 percent annually over the next decade, reaching $68.6 billion in calendar year 2019, up from $56 billion in 2010. U.S. horticultural trade continues to become increasingly important, both in terms of the export share of production and the import share of consumption.

- Within horticultural products, vegetables and melons continue to rank first in farm sales value, accounting for about 38 percent of the total. However, annual growth from 2010 to 2019 is expected to be strongest for fruits and tree nuts, at 2.8 percent, followed by vegetables at 2.4 percent and greenhouse and nursery crops at 1.6 percent.

- The volume of farm production of horticultural crops is projected to rise at an average annual rate of 0.7 percent. Total vegetable production volume is projected to expand at 0.6 percent annually and fruit and nut production is forecast to increase on average by 0.9 percent in the next decade. These gradual increases in production volume hold gains in producer prices for farm produce to an average annual increase of 1.9 percent in the projection period.

- The average annual growth of U.S. horticultural import values is 3.7 percent from fiscal year (FY) 2010 to 2019. The value of exports grows at a 2.8 percent average annual rate. Both import and export growth of fresh-market vegetables and fruits exceed that of their processed products.

- The U.S. trade deficit in horticulture crops and products increases from about $13 billion in FY 2010 to more than $20 billion in FY 2019. Of the $27.5 billion total for U.S. exports of horticultural products in FY 2019, fruits and nuts contribute $12.5 billion and vegetables represent $6.5 billion. Total imports of $47.8 billion in FY 2019 include $16.8 billion worth of fruits and nuts, and $11.1 billion of vegetables and vegetable products.

- Imports will increasingly supplement the domestic supply of horticultural crops and products. The share of imports in U.S. consumption of horticultural crops and products (based on dollar value) is projected to climb from 47 percent in FY 2010 to 52 percent in FY 2019. Horticultural exports are projected to increase their share of U.S. production value from 35 percent in FY 2010 to 39 percent in FY 2019. The export share of fruits and nuts is about twice as large as the export share of vegetables. The import share of fruits and nuts is about two-thirds larger than the import share for vegetables.

Table 17. Acreage for major field crops and Conservation Reserve Program (CRP) assumptions, long-term projections

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						Million acres						
Planted acreage, eight major crops												
Corn	86.0	86.4	88.0	90.0	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.0
Sorghum	8.3	6.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Barley	4.2	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.4
Oats	3.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Wheat	63.2	59.1	55.0	56.0	55.0	53.5	54.0	54.0	54.0	54.0	54.0	53.5
Rice	3.0	3.1	3.1	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.1
Upland cotton	9.3	9.0	10.5	10.5	10.6	10.6	10.7	10.7	10.8	10.8	10.9	10.9
Soybeans	75.7	77.5	76.5	73.5	74.5	75.5	76.0	76.0	76.0	76.0	76.0	76.0
Total	252.9	248.7	247.1	246.8	246.5	246.1	247.2	247.2	247.3	247.3	247.4	246.3
CRP acreage assumptions												
Total CRP	34.6	33.8	31.4	30.2	30.0	30.0	30.4	31.2	31.8	31.9	31.9	31.9
Total planted plus CRP	287.5	282.5	278.5	277.0	276.5	276.0	277.6	278.4	279.0	279.1	279.3	278.1
Harvested acreage, eight major crops												
Corn	78.6	79.3	80.8	82.8	82.3	82.3	82.3	82.3	82.3	82.3	82.3	81.8
Sorghum	7.3	5.7	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Barley	3.8	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	2.9
Oats	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Wheat	55.7	49.9	46.8	47.6	46.8	45.5	45.9	45.9	45.9	45.9	45.9	45.5
Rice	3.0	3.1	3.1	2.8	2.8	2.9	3.0	3.0	3.0	3.0	3.1	3.1
Upland cotton	7.4	7.6	9.3	9.3	9.4	9.4	9.5	9.5	9.6	9.6	9.7	9.7
Soybeans	74.7	76.6	75.5	72.5	73.5	74.5	75.0	75.0	75.0	75.0	75.0	75.0
Total	231.9	226.7	226.1	225.6	225.4	225.2	226.3	226.2	226.3	226.3	226.5	225.5

Table 18. U.S. corn long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	86.0	86.4	88.0	90.0	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.0
Harvested acres	78.6	79.3	80.8	82.8	82.3	82.3	82.3	82.3	82.3	82.3	82.3	81.8
Yields (bushels per acre):												
Yield/harvested acre	153.9	162.9	160.4	162.4	164.4	166.4	168.4	170.4	172.4	174.4	176.4	178.4
Supply and use (million bushels):												
Beginning stocks	1,624	1,674	1,625	1,480	1,610	1,590	1,550	1,520	1,470	1,450	1,460	1,505
Production	12,101	12,921	12,960	13,445	13,530	13,695	13,860	14,025	14,190	14,355	14,520	14,595
Imports	14	10	15	15	15	15	15	15	15	15	15	15
Supply	13,739	14,605	14,600	14,940	15,155	15,300	15,425	15,560	15,675	15,820	15,995	16,115
Feed & residual	5,254	5,400	5,275	5,275	5,300	5,325	5,400	5,500	5,575	5,650	5,725	5,800
Food, seed, & industrial	4,953	5,480	5,695	5,855	6,015	6,150	6,205	6,265	6,300	6,335	6,365	6,400
Ethanol for fuel	3,677	4,200	4,400	4,550	4,700	4,825	4,875	4,925	4,950	4,975	5,000	5,025
Domestic use	10,207	10,880	10,970	11,130	11,315	11,475	11,605	11,765	11,875	11,985	12,090	12,200
Exports	1,858	2,100	2,150	2,200	2,250	2,275	2,300	2,325	2,350	2,375	2,400	2,425
Total use	12,065	12,980	13,120	13,330	13,565	13,750	13,905	14,090	14,225	14,360	14,490	14,625
Ending stocks	1,674	1,625	1,480	1,610	1,590	1,550	1,520	1,470	1,450	1,460	1,505	1,490
Stocks/use ratio, percent	13.9	12.5	11.3	12.1	11.7	11.3	10.9	10.4	10.2	10.2	10.4	10.2
Prices (dollars per bushel):												
Farm price	4.06	3.55	3.90	3.75	3.70	3.70	3.70	3.70	3.70	3.70	3.65	3.65
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Variable costs of production (dollars):												
Per acre	296	255	254	266	272	278	283	289	295	301	307	313
Per bushel	1.92	1.57	1.58	1.64	1.66	1.67	1.68	1.70	1.71	1.73	1.74	1.75
Returns over variable costs (dollars per acre):												
Net returns	329	323	372	343	336	338	340	341	342	344	337	339

Note: Marketing year beginning September 1 for corn.

Table 19. U.S. sorghum long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	8.3	6.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Harvested acres	7.3	5.7	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Yields (bushels per acre):												
Yield/harvested acre	65.0	64.0	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
Supply and use (million bushels):												
Beginning stocks	53	55	49	54	49	49	49	49	49	49	49	49
Production	472	364	385	385	385	385	385	385	385	385	385	385
Imports	0	0	0	0	0	0	0	0	0	0	0	0
Supply	525	419	434	439	434	434	434	434	434	434	434	434
Feed & residual	232	140	140	140	125	115	105	95	85	75	65	55
Food, seed, & industrial	95	90	90	90	90	90	90	90	90	90	90	90
Domestic	327	230	230	230	215	205	195	185	175	165	155	145
Exports	143	140	150	160	170	180	190	200	210	220	230	240
Total use	470	370	380	390	385	385	385	385	385	385	385	385
Ending stocks	55	49	54	49	49	49	49	49	49	49	49	49
Stocks/use ratio, percent	11.7	13.2	14.2	12.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Prices (dollars per bushel):												
Farm price	3.20	3.15	3.50	3.40	3.40	3.40	3.40	3.45	3.45	3.45	3.40	3.40
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Variable costs of production (dollars):												
Per acre	161	133	137	144	147	150	153	156	159	162	166	169
Per bushel	2.48	2.08	2.16	2.27	2.33	2.37	2.41	2.46	2.51	2.56	2.61	2.66
Returns over variable costs (dollars per acre):												
Net returns	47	69	85	72	68	65	63	62	59	56	50	47

Note: Marketing year beginning September 1 for sorghum.

Table 20. U.S. barley long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	4.2	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.4
Harvested acres	3.8	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	2.9
Yields (bushels per acre):												
Yield/harvested acre	63.6	73.0	66.1	66.7	67.3	67.9	68.5	69.2	69.8	70.4	71.0	71.6
Supply and use (million bushels):												
Beginning stocks	68	89	116	101	86	86	85	84	83	82	81	84
Production	240	227	205	205	210	210	210	210	210	210	215	210
Imports	29	30	25	25	25	25	25	25	25	25	25	25
Supply	337	346	346	331	321	321	320	319	318	317	321	319
Feed & residual	67	50	60	60	50	50	50	50	50	50	50	50
Food, seed, & industrial	169	170	170	170	170	171	171	171	171	171	172	172
Domestic	236	220	230	230	220	221	221	221	221	221	222	222
Exports	13	10	15	15	15	15	15	15	15	15	15	15
Total use	249	230	245	245	235	236	236	236	236	236	237	237
Ending stocks	89	116	101	86	86	85	84	83	82	81	84	82
Stocks/use ratio, percent	35.7	50.4	41.2	35.1	36.6	36.0	35.6	35.2	34.7	34.3	35.4	34.6
Prices (dollars per bushel):												
Farm price	5.37	4.35	4.05	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.95	3.95
Loan rate	1.85	1.85	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Variable costs of production (dollars):												
Per acre	147	125	126	132	136	138	141	144	147	150	153	156
Per bushel	2.31	1.72	1.91	1.98	2.02	2.04	2.06	2.09	2.11	2.13	2.16	2.18
Returns over variable costs (dollars per acre):												
Net returns	195	192	141	134	134	133	133	133	132	131	127	127

Note: Marketing year beginning June 1 for barley.

Table 21. U.S. oats long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	3.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Harvested acres	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Yields (bushels per acre):												
Yield/harvested acre	63.7	67.5	63.8	64.2	64.6	64.9	65.3	65.7	66.0	66.4	66.8	67.1
Supply and use (million bushels):												
Beginning stocks	67	84	74	70	66	62	57	57	57	56	60	59
Production	89	93	90	90	90	90	90	90	90	95	95	95
Imports	115	95	100	100	100	100	100	100	100	100	100	100
Supply	270	272	264	260	256	252	247	247	247	251	255	254
Feed & residual	109	120	115	115	115	115	110	110	110	110	115	115
Food, seed, & industrial	74	75	76	76	76	77	77	77	78	78	78	79
Domestic	183	195	191	191	191	192	187	187	188	188	193	194
Exports	3	3	3	3	3	3	3	3	3	3	3	3
Total use	186	198	194	194	194	195	190	190	191	191	196	197
Ending stocks	84	74	70	66	62	57	57	57	56	60	59	57
Stocks/use ratio, percent	45.2	37.4	36.1	34.0	32.0	29.2	30.0	30.0	29.3	31.4	30.1	28.9
Prices (dollars per bushel):												
Farm price	3.15	2.15	2.40	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.25	2.25
Loan rate	1.33	1.33	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
Variable costs of production (dollars):												
Per acre	113	94	94	99	101	104	106	108	111	113	115	118
Per bushel	1.77	1.39	1.48	1.54	1.57	1.60	1.62	1.65	1.68	1.70	1.73	1.75
Returns over variable costs (dollars per acre):												
Net returns	88	51	59	49	47	46	44	43	41	40	35	33

Note: Marketing year beginning June 1 for oats.

Table 22. U.S. wheat long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	63.2	59.1	55.0	56.0	55.0	53.5	54.0	54.0	54.0	54.0	54.0	53.5
Harvested acres	55.7	49.9	46.8	47.6	46.8	45.5	45.9	45.9	45.9	45.9	45.9	45.5
Yields (bushels per acre):												
Yield/harvested acre	44.9	44.4	42.7	43.9	44.2	44.6	44.9	45.3	45.6	46.0	46.3	46.7
Supply and use (million bushels):												
Beginning stocks	306	657	885	874	895	873	811	775	750	736	728	727
Production	2,499	2,216	2,000	2,090	2,070	2,030	2,060	2,080	2,095	2,110	2,125	2,125
Imports	127	110	110	110	110	110	115	115	120	120	125	125
Supply	2,932	2,983	2,995	3,074	3,075	3,013	2,986	2,970	2,965	2,966	2,978	2,977
Food	925	955	960	980	990	999	1,008	1,017	1,026	1,035	1,044	1,053
Seed	75	78	76	74	72	73	73	73	73	73	72	72
Feed & residual	260	190	210	225	240	230	230	230	230	230	235	235
Domestic	1,260	1,223	1,246	1,279	1,302	1,302	1,311	1,320	1,329	1,338	1,351	1,360
Exports	1,015	875	875	900	900	900	900	900	900	900	900	900
Total use	2,275	2,098	2,121	2,179	2,202	2,202	2,211	2,220	2,229	2,238	2,251	2,260
Ending stocks	657	885	874	895	873	811	775	750	736	728	727	717
Stocks/use ratio, percent	28.9	42.2	41.2	41.1	39.6	36.8	35.1	33.8	33.0	32.5	32.3	31.7
Prices (dollars per bushel):												
Farm price	6.78	4.85	5.00	4.90	4.65	4.70	4.70	4.75	4.75	4.75	4.75	4.75
Loan rate	2.75	2.75	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
Variable costs of production (dollars):												
Per acre	127	108	108	114	116	119	121	124	127	129	132	134
Per bushel	2.97	3.18	2.54	2.59	2.63	2.66	2.70	2.74	2.77	2.81	2.84	2.87
Returns over variable costs (dollars per acre):												
Net returns	177	107	105	102	89	91	90	91	90	89	88	88

Note: Marketing year beginning June 1 for wheat.

Table 23. U.S. soybeans and products long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Soybeans												
Area (million acres):												
Planted	75.7	77.5	76.5	73.5	74.5	75.5	76.0	76.0	76.0	76.0	76.0	76.0
Harvested	74.7	76.6	75.5	72.5	73.5	74.5	75.0	75.0	75.0	75.0	75.0	75.0
Yield/harvested acre (bushels)	39.7	43.3	42.8	43.2	43.6	44.0	44.4	44.9	45.3	45.7	46.1	46.5
Supply (million bushels)												
Beginning stocks, September 1	205	138	270	354	299	271	260	258	260	261	262	262
Production	2,967	3,319	3,230	3,130	3,205	3,280	3,330	3,370	3,400	3,430	3,460	3,490
Imports	13	8	5	5	5	5	5	5	5	5	5	5
Total supply	3,185	3,465	3,505	3,489	3,509	3,556	3,595	3,633	3,665	3,696	3,727	3,757
Disposition (million bushels)												
Crush	1,662	1,695	1,680	1,695	1,710	1,735	1,755	1,775	1,800	1,820	1,840	1,860
Seed and residual	101	175	171	170	173	176	177	178	179	179	180	181
Exports	1,283	1,325	1,300	1,325	1,355	1,385	1,405	1,420	1,425	1,435	1,445	1,455
Total disposition	3,047	3,196	3,151	3,190	3,238	3,296	3,337	3,373	3,404	3,434	3,465	3,496
Carryover stocks, August 31												
Total ending stocks	138	270	354	299	271	260	258	260	261	262	262	261
Stocks/use ratio, percent	4.5	8.4	11.2	9.4	8.4	7.9	7.7	7.7	7.7	7.6	7.6	7.5
Prices (dollars per bushel)												
Loan rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Soybean price, farm	9.97	9.20	9.00	9.10	9.20	9.20	9.25	9.25	9.25	9.25	9.20	9.20
Variable costs of production (dollars):												
Per acre	127	121	123	127	130	132	134	136	138	140	142	144
Per bushel	3.20	2.80	2.87	2.95	2.97	2.99	3.01	3.03	3.05	3.07	3.08	3.10
Returns over variable costs (dollars per acre):												
Net returns	269	277	262	266	271	273	277	279	281	283	282	284
Soybean oil (million pounds)												
Beginning stocks, October 1	2,485	2,739	2,304	2,109	2,109	2,059	2,019	1,934	1,854	1,839	1,829	1,824
Production	18,753	19,240	19,070	19,255	19,445	19,745	19,990	20,235	20,540	20,785	21,030	21,280
Imports	90	75	85	95	105	115	125	135	145	155	165	175
Total supply	21,328	22,054	21,459	21,459	21,659	21,919	22,134	22,304	22,539	22,779	23,024	23,279
Domestic disappearance	16,339	16,500	16,600	16,800	17,200	17,400	17,600	17,800	18,000	18,200	18,400	18,600
For methyl ester[1]	1,904	2,200	2,400	2,600	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900
Exports	2,250	3,250	2,750	2,550	2,400	2,500	2,600	2,650	2,700	2,750	2,800	2,850
Total demand	18,589	19,750	19,350	19,350	19,600	19,900	20,200	20,450	20,700	20,950	21,200	21,450
Ending stocks, September 30	2,739	2,304	2,109	2,109	2,059	2,019	1,934	1,854	1,839	1,829	1,824	1,829
Soybean oil price (dollars per lb)	0.322	0.350	0.370	0.390	0.395	0.395	0.400	0.400	0.400	0.400	0.400	0.400
Soybean meal (thousand short tons)												
Beginning stocks, October 1	294	239	300	300	300	300	300	300	300	300	300	300
Production	39,112	40,321	40,035	40,335	40,735	41,235	41,735	42,285	42,785	43,285	43,785	44,285
Imports	90	140	165	165	165	165	165	165	165	165	165	165
Total supply	39,496	40,700	40,500	40,800	41,200	41,700	42,200	42,750	43,250	43,750	44,250	44,750
Domestic disappearance	30,757	30,800	30,800	30,900	31,250	31,700	32,150	32,650	33,150	33,650	34,150	34,650
Exports	8,500	9,600	9,400	9,600	9,650	9,700	9,750	9,800	9,800	9,800	9,800	9,800
Total demand	39,257	40,400	40,200	40,500	40,900	41,400	41,900	42,450	42,950	43,450	43,950	44,450
Ending stocks, September 30	239	300	300	300	300	300	300	300	300	300	300	300
Soybean meal price (dollars per ton)	331.17	280.00	255.00	250.00	255.00	255.00	255.00	255.00	255.00	255.00	253.00	253.00
Crushing yields (pounds per bushel)												
Soybean oil	11.28	11.35	11.35	11.36	11.37	11.38	11.39	11.40	11.41	11.42	11.43	11.44
Soybean meal	47.08	47.58	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60
Crush margin (dollars per bushel)	1.45	1.43	1.27	1.28	1.36	1.36	1.38	1.38	1.38	1.39	1.39	1.40

Note: Marketing year beginning September 1 for soybeans; October 1 for soybean oil and soybean meal.

1/ Soybean oil used for methyl ester for production of biodiesel, history from the U.S. Department of Commerce.

Table 24. U.S. rice long-term projections, rough basis

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (thousand acres):												
Planted	2,995	3,125	3,100	2,800	2,850	2,950	3,000	3,050	3,050	3,050	3,075	3,075
Harvested	2,976	3,101	3,081	2,783	2,833	2,932	2,982	3,032	3,032	3,032	3,057	3,057
Yields (pounds per acre):												
Yield/harvested acre	6,846	7,038	7,130	7,231	7,298	7,360	7,421	7,483	7,550	7,610	7,668	7,729
Supply and use (million hundredweight):												
Beginning stocks	29.4	30.4	44.2	54.9	43.3	34.2	31.1	30.5	32.5	33.6	33.4	34.0
Production	203.7	218.2	219.7	201.2	206.8	215.8	221.3	226.9	228.9	230.7	234.4	236.3
Imports	19.2	21.0	22.0	22.7	23.3	24.0	24.8	25.5	26.3	27.1	27.9	28.7
Total supply	252.4	269.7	285.9	278.8	273.4	274.0	277.2	282.9	287.7	291.3	295.7	299.0
Domestic use and residual	128.4	129.5	131.0	132.5	134.2	135.9	137.7	139.4	141.1	142.9	144.7	146.5
Exports	93.6	96.0	100.0	103.0	105.0	107.0	109.0	111.0	113.0	115.0	117.0	118.0
Total use	222.0	225.5	231.0	235.5	239.2	242.9	246.7	250.4	254.1	257.9	261.7	264.5
Ending stocks	30.4	44.2	54.9	43.3	34.2	31.1	30.5	32.5	33.6	33.4	34.0	34.5
Stocks/use ratio, percent	13.7	19.6	23.8	18.4	14.3	12.8	12.4	13.0	13.2	13.0	13.0	13.0
Milling rate, percent	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
Prices (dollars per hundredweight):												
World price	13.90	11.20	10.75	9.25	9.30	9.53	9.77	10.01	10.26	10.52	10.78	11.05
Average market price	16.80	14.35	12.75	11.50	11.55	11.78	12.02	12.26	12.51	12.77	13.03	13.30
Loan rate	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Variable costs of production (dollars):												
Per acre	495	430	443	462	472	481	489	498	507	516	525	534
Per hundredweight	7.23	6.11	6.21	6.39	6.47	6.53	6.59	6.66	6.72	6.78	6.85	6.91
Returns over variable costs (dollars per acre):												
Net returns	655	580	467	370	371	386	403	419	437	456	474	494

Note: Marketing year beginning August 1 for rice.

Table 25. U.S. upland cotton long-term projections

Item	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Area (million acres):												
Planted acres	9.3	9.0	10.5	10.5	10.6	10.6	10.7	10.7	10.8	10.8	10.9	10.9
Harvested acres	7.4	7.6	9.3	9.3	9.4	9.4	9.5	9.5	9.6	9.6	9.7	9.7
Yields (pounds per acre):												
Yield/harvested acre	803	767	820	830	840	850	860	870	880	890	900	910
Supply and use (thousand bales):												
Beginning stocks	9,888	6,031	4,806	5,086	5,216	5,446	5,476	5,606	5,636	5,766	5,796	5,926
Production	12,384	12,129	15,900	16,100	16,500	16,600	17,000	17,200	17,600	17,800	18,200	18,400
Imports	0	3	10	10	10	10	10	10	10	10	10	10
Supply	22,272	18,163	20,716	21,196	21,726	22,056	22,486	22,816	23,246	23,576	24,006	24,336
Domestic use	3,558	3,370	3,320	3,270	3,220	3,170	3,120	3,070	3,020	2,970	2,920	2,870
Exports	13,044	9,950	12,300	12,700	13,050	13,400	13,750	14,100	14,450	14,800	15,150	15,500
Total use	16,602	13,320	15,620	15,970	16,270	16,570	16,870	17,170	17,470	17,770	18,070	18,370
Ending stocks	6,031	4,806	5,086	5,216	5,446	5,476	5,606	5,636	5,766	5,796	5,926	5,956
Stocks/use ratio, percent	36.3	36.1	32.6	32.7	33.5	33.0	33.2	32.8	33.0	32.6	32.8	32.4
Prices (dollars per pound):												
Farm price	0.478	0.560	0.600	0.600	0.605	0.610	0.615	0.620	0.625	0.630	0.635	0.640
Loan rate	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Variable costs of production (dollars):												
Per acre	447	431	447	466	477	487	497	508	518	529	539	550
Per pound	0.56	0.56	0.55	0.56	0.57	0.57	0.58	0.58	0.59	0.59	0.60	0.60
Returns over variable costs (dollars per acre):												
Net returns[1]	157	104	150	139	141	143	145	146	147	149	150	151

Note: Marketing year beginning August 1 for upland cotton.
1/ Net returns include estimates of marketing loan benefits.

Table 26. U.S. sugar long-term projections

Item	Units	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Sugarbeets													
Planted area	1,000 acres	1,091	1,173	1,182	1,154	1,140	1,144	1,142	1,140	1,137	1,134	1,132	1,132
Harvested area	1,000 acres	1,005	1,156	1,133	1,105	1,092	1,096	1,093	1,091	1,088	1,086	1,085	1,084
Yield	Tons/acre	26.8	25.5	26.0	25.9	25.9	26.0	26.1	26.2	26.3	26.4	26.5	26.6
Production	Mil. s. tons	27.0	29.5	29.4	28.6	28.3	28.5	28.6	28.6	28.7	28.7	28.8	28.8
Sugarcane													
Harvested area	1,000 acres	824	809	801	797	798	799	800	802	803	803	801	791
Yield	Tons/acre	32.2	33.6	34.1	34.0	34.2	34.4	34.6	34.7	34.9	35.1	35.3	35.5
Production	Mil. s. tons	26.6	27.2	27.3	27.1	27.3	27.5	27.7	27.8	28.0	28.2	28.2	28.1
Supply:													
Beginning stocks	1,000 s. tons	1,660	1,451	1,016	1,473	1,496	1,503	1,513	1,522	1,531	1,539	1,548	1,555
Production	1,000 s. tons	7,484	7,713	7,741	7,649	7,647	7,714	7,759	7,803	7,843	7,884	7,918	7,930
Beet sugar	1,000 s. tons	4,166	4,400	4,477	4,396	4,371	4,412	4,430	4,448	4,463	4,482	4,500	4,525
Cane sugar	1,000 s. tons	3,318	3,313	3,264	3,253	3,276	3,302	3,329	3,355	3,380	3,403	3,417	3,405
Total imports	1,000 s. tons	3,082	2,427	3,624	3,454	3,497	3,500	3,522	3,544	3,569	3,592	3,611	3,661
TRQ imports	1,000 s. tons	1,370	1,257	1,309	1,311	1,317	1,319	1,322	1,324	1,329	1,332	1,334	1,337
Other imports	1,000 s. tons	1,712	1,170	2,315	2,143	2,181	2,181	2,200	2,220	2,240	2,260	2,276	2,323
Total supply	1,000 s. tons	12,226	11,591	12,382	12,576	12,640	12,718	12,793	12,868	12,943	13,016	13,076	13,146
Use:													
Exports	1,000 s. tons	137	200	200	200	200	200	200	200	200	200	200	200
Domestic deliveries	1,000 s. tons	10,638	10,375	10,709	10,880	10,937	11,005	11,071	11,138	11,203	11,268	11,321	11,382
Miscellaneous	1,000 s. tons	0	0	0	0	0	0	0	0	0	0	0	0
Total use	1,000 s. tons	10,774	10,575	10,909	11,080	11,137	11,205	11,271	11,338	11,403	11,468	11,521	11,582
CCC surplus disbursements[1]	1,000 s. tons	0	0	0	0	0	0	0	0	0	0	0	0
Ending stocks	1,000 s. tons	1,451	1,016	1,473	1,496	1,503	1,513	1,522	1,531	1,539	1,548	1,555	1,564
Raw sugar price:													
New York (No. 16)	Cents/lb.	26.04	24.98	22.92	22.92	22.92	22.92	22.92	22.92	22.92	22.92	22.92	22.92
Raw sugar loan rate	Cents/lb.	18.00	18.25	18.50	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75
Beet sugar loan rate	Cents/lb.	23.13	23.45	23.77	24.09	24.09	24.09	24.09	24.09	24.09	24.09	24.09	24.09
Grower prices:													
Sugarbeets	Dol./ton	45.00	43.58	40.66	39.47	39.47	39.47	39.47	39.47	39.47	39.47	39.47	39.47
Sugarcane	Dol./ton	28.70	29.05	28.63	28.92	29.37	29.81	30.26	30.70	31.15	31.60	32.03	32.42

Note: Marketing year beginning October 1 for sugar.

1/ CCC is the Commodity Credit Corporation, U.S. Department of Agriculture.

Table 27. Horticultural crops long-term supply and use projections, calendar years

Item	Unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Production area[1]													
Fruit, nuts, and vegetables	1,000 acres	10,612	10,703	10,819	10,849	10,869	10,900	10,923	10,957	10,982	11,018	11,045	11,083
Fruit and tree nuts	1,000 acres	3,943	3,880	3,859	3,848	3,828	3,817	3,797	3,787	3,767	3,758	3,738	3,729
Vegetables and melons	1,000 acres	6,669	6,823	6,960	7,000	7,041	7,083	7,126	7,169	7,214	7,260	7,307	7,355
Supply													
Production, farm weight													
Fruit and nuts	Mil. lbs.	65,242	64,062	61,967	63,036	63,440	63,969	64,384	64,927	65,355	65,913	66,354	66,923
Citrus	Mil. lbs.	25,676	23,948	21,630	22,400	22,512	22,737	22,851	23,079	23,195	23,427	23,544	23,779
Noncitrus	Mil. lbs.	35,284	35,460	35,638	35,852	36,067	36,283	36,501	36,720	36,940	37,162	37,385	37,609
Tree nuts	Mil. lbs.	4,282	4,653	4,700	4,784	4,861	4,948	5,032	5,128	5,220	5,325	5,426	5,535
Vegetables and melons[2]	Mil. lbs.	133,692	137,029	133,499	134,274	135,071	135,881	136,705	137,543	138,395	139,261	140,142	141,039
Fresh market	Mil. lbs.	55,983	55,796	56,983	57,512	58,061	58,621	59,191	59,771	60,363	60,967	61,582	62,209
Processing	Mil. lbs.	36,644	40,195	35,022	34,987	34,952	34,917	34,882	34,847	34,812	34,777	34,743	34,708
Potatoes	Mil. lbs.	36,960	36,203	36,649	36,832	37,016	37,201	37,387	37,574	37,762	37,951	38,141	38,331
Pulses	Mil. lbs.	4,104	4,835	4,846	4,943	5,042	5,142	5,245	5,350	5,457	5,566	5,678	5,791
Total fruit, nuts, vegetables[3]	Mil. lbs.	198,934	201,090	195,467	197,310	198,510	199,850	201,089	202,470	203,750	205,174	206,497	207,962
Imports													
Fruit, nuts, and vegetables	Mil. lbs.	39,764	38,476	39,552	40,632	41,809	43,019	44,266	45,549	46,870	48,231	49,631	51,073
Fruit and tree nuts	Mil. lbs.	20,601	19,730	20,506	21,016	21,544	22,086	22,642	23,212	23,796	24,395	25,008	25,638
Vegetables & melons	Mil. lbs.	19,164	18,746	19,046	19,617	20,264	20,933	21,624	22,337	23,074	23,836	24,623	25,435
Use													
Exports													
Fruit, nuts, and vegetables	Mil. lbs.	21,274	20,757	21,007	21,239	21,496	21,757	22,022	22,291	22,564	22,841	23,123	23,409
Fruit and tree nuts	Mil. lbs.	9,139	9,165	9,300	9,414	9,553	9,695	9,839	9,986	10,136	10,289	10,445	10,605
Vegetables & melons	Mil. lbs.	12,135	11,592	11,707	11,825	11,943	12,062	12,183	12,305	12,428	12,552	12,677	12,804
Domestic use[4]													
Fruit, nuts, and vegetables	Mil. lbs.	206,518	206,600	202,086	204,674	206,681	208,855	210,958	213,232	215,436	217,816	220,127	222,613
Fruit and tree nuts	Mil. lbs.	78,691	74,627	73,174	74,637	75,431	76,360	77,187	78,153	79,015	80,019	80,918	81,956
Vegetables & melons	Mil. lbs.	127,827	131,974	128,912	130,037	131,250	132,495	133,771	135,079	136,421	137,797	139,209	140,658
Farm sales value[5]													
Fruit and nuts	$ Mil.	18,900	17,400	17,544	17,883	18,355	18,888	19,449	20,014	20,610	21,208	21,839	22,474
Citrus	$ Mil.	2,926	2,476	2,501	2,538	2,602	2,654	2,720	2,774	2,844	2,901	2,973	3,033
Noncitrus	$ Mil.	12,259	11,393	11,507	11,737	12,031	12,392	12,765	13,148	13,543	13,950	14,369	14,800
Tree nuts	$ Mil.	3,686	3,502	3,537	3,607	3,723	3,842	3,965	4,092	4,223	4,358	4,497	4,641
Vegetables and melons	$ Mil.	21,394	20,873	21,082	21,502	22,037	22,584	23,145	23,721	24,311	24,915	25,535	26,170
Fresh market	$ Mil.	13,088	12,899	13,019	13,268	13,586	13,912	14,246	14,588	14,939	15,297	15,665	16,041
Processing	$ Mil.	3,424	3,501	3,533	3,608	3,702	3,798	3,897	3,998	4,102	4,209	4,319	4,431
Potatoes	$ Mil.	3,689	3,269	3,301	3,367	3,451	3,538	3,626	3,717	3,810	3,905	4,003	4,103
Pulses	$ Mil.	1,193	1,205	1,229	1,260	1,297	1,336	1,376	1,418	1,460	1,504	1,549	1,596
Nursery and greenhouse[6]	$ Mil.	16,097	16,354	16,518	16,733	17,000	17,272	17,549	17,829	18,115	18,404	18,699	18,998
Total horticulture crops[3]	$ Mil.	57,210	55,459	55,989	56,977	58,267	59,634	61,048	62,484	63,970	65,480	67,041	68,627
Producer prices[7]													
Fresh fruits	1982=100	122.9	107.2	111.7	112.0	114.2	116.5	119.2	121.7	124.5	127.0	129.9	132.5
Citrus	1982=100	156.9	165.1	184.6	180.9	184.5	186.3	190.0	191.9	195.7	197.7	201.6	203.6
Noncitrus	1982=100	123.5	104.6	105.1	106.5	108.5	111.1	113.8	116.5	119.3	122.2	125.1	128.1
Tree nuts	1982=100	804.3	821.0	821.0	822.6	835.6	847.1	859.6	870.5	882.5	892.9	904.3	914.9
Vegetables	1982=100	172.3	158.3	164.1	166.4	169.5	172.7	175.9	179.2	182.5	185.9	189.4	192.8
Fresh vegetables	1982=100	175.7	165.7	163.8	165.3	167.7	170.1	172.5	174.9	177.4	179.8	182.3	184.8
Potatoes (fresh)	1982=100	210.0	162.2	161.8	164.2	167.5	170.8	174.2	177.7	181.3	184.9	188.5	192.3
Pulses (dried)	1982=100	181.4	156.2	159.0	159.7	161.3	162.9	164.5	166.1	167.7	169.4	171.0	172.7
Fruit, nuts, and vegetables	1982=100	157.6	143.5	149.0	150.5	153.4	156.4	159.6	162.8	166.1	169.3	172.8	176.1

1/ Bearing acreage for fruit and nuts; harvested area for vegetables. 2/ Includes sweet potatoes and mushrooms. Utilized production is used for potatoes. Pulses include edible dry beans and peas, lentils, and other peas. 3/ Includes honey, maple syrup, hops, mint oils, taro, ginger root, and coffee from Hawaii and Puerto Rico. 4/ Calculated from ERS per capita use estimates multiplied by the U.S. population. 5/ Farm cash receipts for fresh and processing vegetables are allocated based on their relative production value shares. 6/ Includes floral crops, greenhouse vegetables such as tomatoes, cucumbers, and colored peppers, and fruit and vegetable transplants. 7/ Not seasonally adjusted producer price indexes for farm commodities from U.S. Bureau of Labor Statistics. Prices for fresh fruits include melons.

Data sources: USDA, National Agricultural Statistics Service; Foreign Agricultural Service; Economic Research Service; U.S. Department of Labor, Bureau of Labor Statistics.

Table 28. Horticultural crops long-term export and import projections, fiscal years

Item	Unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Exports													
Fruit and nuts													
Fresh fruits	$ Mil.	3,572	3,520	3,751	3,841	3,933	4,027	4,124	4,222	4,323	4,427	4,532	4,641
Citrus	$ Mil.	856	727	852	857	861	865	868	871	874	876	877	878
Noncitrus	$ Mil.	2,716	2,793	2,899	2,984	3,072	3,162	3,255	3,351	3,450	3,551	3,655	3,763
Processed fruits	$ Mil.	2,355	2,268	2,508	2,570	2,634	2,699	2,766	2,834	2,904	2,976	3,050	3,125
Fruit juices	$ Mil.	1,156	1,108	1,133	1,159	1,185	1,211	1,238	1,266	1,295	1,324	1,354	1,384
Tree nuts	$ Mil.	3,487	3,495	3,600	3,715	3,835	3,958	4,084	4,215	4,351	4,490	4,634	4,783
Total fruit and nuts	$ Mil.	9,413	9,283	9,859	10,127	10,401	10,684	10,974	11,272	11,578	11,893	12,216	12,549
Vegetables													
Fresh	$ Mil.	1,936	1,892	1,949	2,007	2,067	2,128	2,191	2,257	2,324	2,393	2,464	2,538
Processed[1]	$ Mil.	3,014	3,112	3,192	3,273	3,356	3,441	3,529	3,618	3,710	3,805	3,901	4,001
Total vegetables	$ Mil.	4,950	5,005	5,140	5,280	5,422	5,569	5,720	5,875	6,034	6,198	6,366	6,538
Other horticulture													
Nursery and greenhouse	$ Mil.	375	354	360	365	370	376	381	387	393	399	405	410
Essential oils	$ Mil.	1,279	1,233	1,271	1,311	1,352	1,394	1,438	1,483	1,529	1,577	1,626	1,677
Wine	$ Mil.	966	827	847	867	888	909	930	952	975	998	1,022	1,046
Beer	$ Mil.	266	296	302	309	316	323	330	337	345	352	360	368
Other[2]	$ Mil.	3,544	3,628	3,720	3,840	3,964	4,093	4,225	4,362	4,503	4,649	4,799	4,954
Total horticulture	$ Mil.	20,792	20,626	21,500	22,099	22,714	23,348	23,999	24,668	25,357	26,065	26,794	27,543
Fresh produce[3]	$ Mil.	5,508	5,412	5,700	5,848	6,000	6,155	6,315	6,479	6,647	6,820	6,997	7,178
Processed produce[3]	$ Mil.	5,369	5,380	5,700	5,842	5,988	6,138	6,292	6,449	6,610	6,775	6,945	7,118
Export share of production[4]	Percent	36	35	35	36	36	36	36	37	37	37	37	39
Imports													
Fruit and nuts													
Fresh fruits	$ Mil.	5,544	6,069	6,600	6,930	7,277	7,640	8,022	8,423	8,845	9,287	9,751	10,239
Citrus	$ Mil.	417	442	513	569	629	694	763	838	918	1,003	1,095	1,193
Noncitrus	$ Mil.	5,127	5,627	6,087	6,361	6,647	6,946	7,259	7,586	7,927	8,284	8,656	9,046
Processed fruits	$ Mil.	3,981	3,376	3,600	3,727	3,859	3,996	4,138	4,284	4,436	4,593	4,755	4,924
Fruit juices	$ Mil.	1,932	1,415	1,500	1,550	1,602	1,656	1,711	1,769	1,828	1,889	1,952	2,018
Tree nuts	$ Mil.	1,276	1,151	1,190	1,230	1,271	1,314	1,359	1,405	1,452	1,501	1,552	1,604
Total fruit and nuts	$ Mil.	10,801	10,596	11,390	11,887	12,407	12,951	13,519	14,112	14,733	15,381	16,059	16,767
Vegetables													
Fresh	$ Mil.	4,441	4,234	4,300	4,472	4,650	4,836	5,029	5,230	5,438	5,656	5,881	6,116
Processed[1]	$ Mil.	3,520	3,483	3,600	3,737	3,878	4,025	4,178	4,336	4,501	4,671	4,849	5,032
Total vegetables	$ Mil.	7,962	7,717	7,900	8,208	8,528	8,861	9,207	9,566	9,939	10,327	10,730	11,148
Other horticulture													
Nursery and greenhouse	$ Mil.	1,515	1,357	1,400	1,418	1,436	1,455	1,473	1,492	1,511	1,531	1,550	1,570
Essential oils	$ Mil.	2,653	2,408	2,500	2,558	2,616	2,676	2,738	2,801	2,865	2,931	2,999	3,068
Wine	$ Mil.	4,753	4,085	4,200	4,348	4,502	4,661	4,826	4,996	5,172	5,355	5,544	5,740
Beer	$ Mil.	3,662	3,428	3,500	3,614	3,732	3,853	3,979	4,108	4,242	4,381	4,523	4,671
Other[2]	$ Mil.	3,362	3,422	3,510	3,638	3,770	3,907	4,050	4,197	4,350	4,508	4,672	4,842
Total horticulture	$ Mil.	34,707	33,013	34,400	35,671	36,992	38,365	39,791	41,273	42,813	44,414	46,077	47,806
Fresh produce[3]	$ Mil.	9,985	10,303	10,900	11,402	11,927	12,476	13,051	13,653	14,283	14,942	15,633	16,355
Processed produce[3]	$ Mil.	7,501	6,859	7,200	7,464	7,738	8,021	8,315	8,620	8,936	9,264	9,604	9,956
Import share of domestic use[4]	Percent	48	46	47	47	48	48	49	49	50	50	51	52

1/ Includes dry edible beans, peas, lentils, and potatoes. 2/ Includes hops, ginseng, sauces, condiments, mixed food, yeast, starches, and other products that contain horticulture ingredients. 3/ Includes fruits and vegetables only. 4/ Percent shares are based on values of production and use.

Exports are free alongside ship (FAS) value at U.S. port of exportation. Imports are customs value at U.S. port of entry.

Data source: U.S. Department of Commerce, Bureau of the Census.

U.S. Livestock

The livestock sector continues to make adjustments in the first several years of the projections in response to high grain and soybean meal prices in 2007 and 2008, followed by weak meat demand caused by the global economic recession. With producer returns squeezed, production incentives fell, leading to declines in total U.S. meat and poultry production through 2011. These production adjustments combine with strengthening meat exports to reduce domestic per capita consumption through 2012. The result is lower production at higher prices, which improves net returns and provides economic incentives for moderate expansion in the sector later in the projection period.
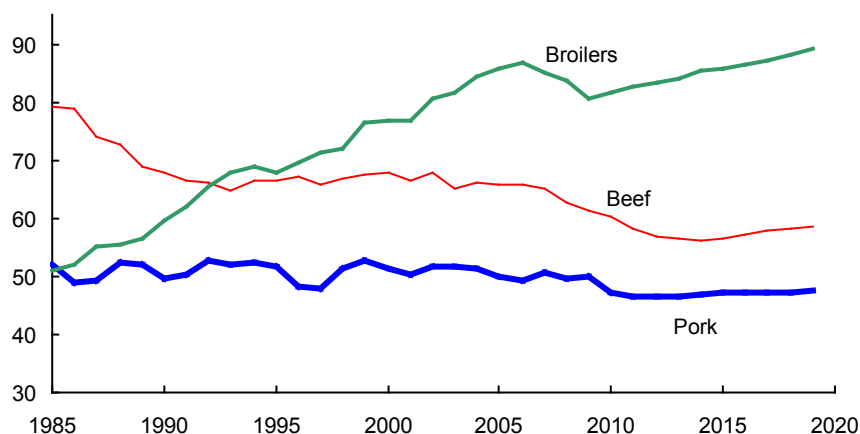
U.S. red meat and poultry production

Billion pounds
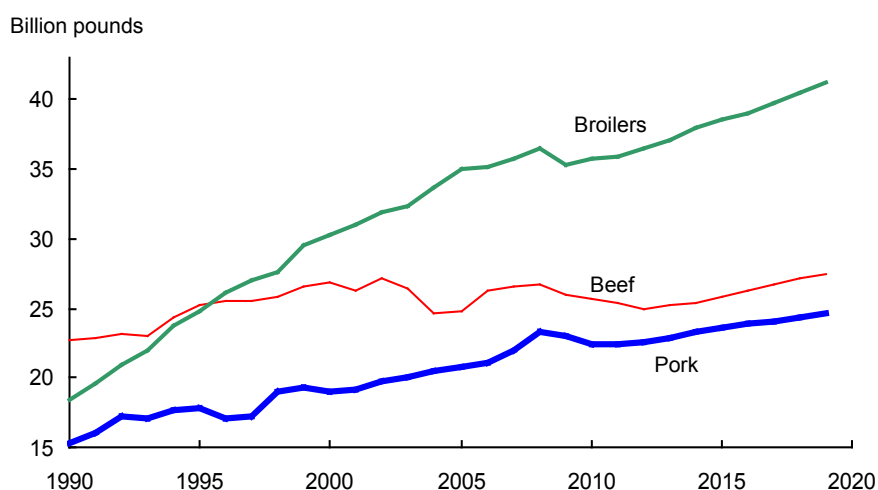
- Higher grain prices and reduced demand push cattle inventories down through the start of 2011 and result in U.S. beef production declines in 2009-12. Beef production then rises in the remainder of the projection period as returns improve and herds are rebuilt. The total cattle inventory drops below 92 million head before expanding to about 94.5 million at the end of the projection period. Rising slaughter weights also contribute to the moderate expansion of beef production beyond 2012. Continued high feed costs are expected to result in stocker cattle remaining on pasture to heavier weights before entering feedlots.

- Pork production declines in 2009-11 in response to high feed prices and lower demand and then grows for the remainder of the projection period as higher hog prices improve returns. However, high feed costs are expected to limit growth in producer returns.

- Poultry production fell in 2009 but is projected to rise the most among the meats over the next decade, as poultry is the most efficient feed-to-meat converter. Growth will remain below rates of the past decade.

U.S. per capita meat consumption

Pounds per capita, retail weight

Continuing near-term production reductions in the livestock sector, along with some recovery in meat and poultry exports, result in higher consumer prices and lower per capita consumption. Annual consumption of red meats and poultry falls from over 221 pounds per capita in 2004-07 to less than 206 pounds in 2012. As production increases over the remainder of the projection period, per capita consumption of red meats and poultry resumes growth, but only rises to about 215 pounds by 2019.

- Per capita beef consumption declines through the first half of the projection period, before rising somewhat over the last half. The initial decline reflects a lagged response in beef production coupled with continuing expansion of exports. However, as beef production expands more rapidly in the second half of the decade, per capita consumption grows.

- Reductions in pork production combine with rising pork exports to push per capita pork consumption down in 2010-12. A gradual rebound in per capita pork consumption occurs over the remainder of the projection period as production gains strengthen.

- Due partly to higher feed conversion rates and a shorter production process, the poultry sector has adjusted faster than red meats to the combination of higher feed costs and reduced demand. As a result, poultry production is projected to resume growth in 2010. As producer returns improve, production strengthens further. Per capita consumption rises through the end of the projection period and, in contrast to red meats, surpasses levels of the past decade.

Nominal U.S. livestock prices

Dollars per hundredweight

Beef cattle: Choice steers, Nebraska

Broilers: 12-city market price

Hogs: National base
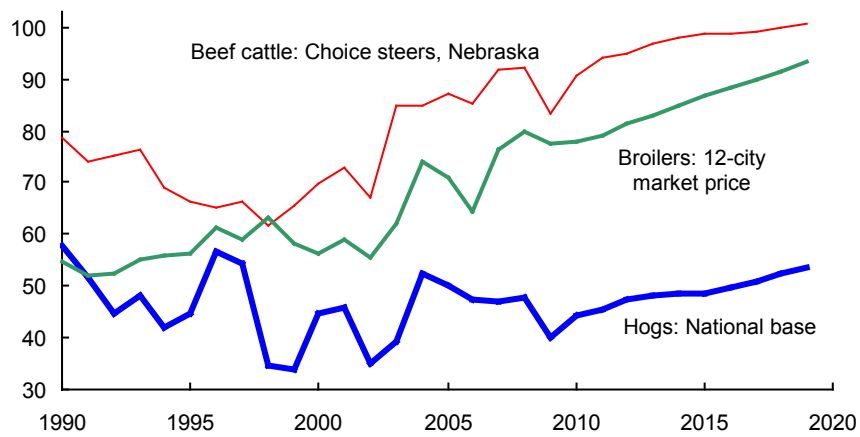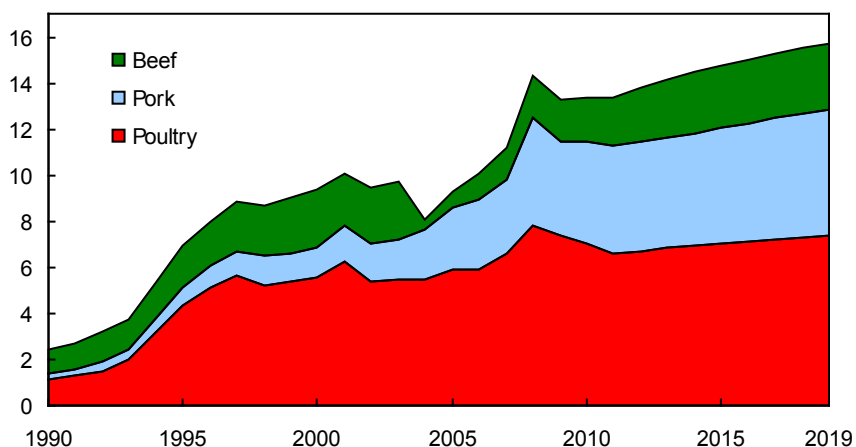
After the price declines seen in the livestock sector in 2009, largely due to recession-related effects on meat demand, prices rise over the projection period. A moderate pace of expansion combined with improving domestic and export demand support prices in the projections.

U.S. meat exports

Billion pounds

Reduced demand resulting from the global recession lowered overall U.S. meat and poultry exports in 2009 by more than 7 percent. After 2009, exports are projected to rise as global economic growth resumes and the U.S. dollar depreciates. With this growth, exports account for a growing share of U.S. meat use, although the domestic market remains the dominant source of overall meat demand.

- Most U.S. beef exports, primarily reflecting demand for high-quality fed beef, typically go to Mexico, Canada, and Pacific Rim nations. A gradual recovery is assumed for U.S. beef exports to Japan and South Korea, export markets that were initially closed to the United States following the first U.S. case of bovine spongiform encephalopathy (BSE) in December 2003.

- U.S. imports of processing beef from Australia and New Zealand increase in the projection period. With more beef demand in East Asian markets being met by the United States, exports from Australia and New Zealand to those markets are reduced, resulting in more of their product going to the United States. Additionally, moderate beef cow inventories and beef cow slaughter in the United States raise import demand for processing beef.

- Although efficiency in U.S. pork production enhances the competitiveness of U.S. pork products in global trade, longer term gains in U.S. pork exports will be determined by costs of production and environmental regulations relative to competitors. Production costs tend to be lower in countries that are developing integrated pork industries, such as Brazil. However, Brazilian pork producers' ability to compete in some markets is limited because some countries do not recognize Brazil as free of foot-and-mouth disease (FMD). Thus, Pacific Rim nations and Mexico remain key markets for long-term growth of U.S. pork exports, while Brazil's pork exports expand to markets such as Russia, Argentina, and Asian markets other than Japan and South Korea.

- After declining in 2009-11, U.S. broiler exports rise through the rest of the projection period. Major U.S. export markets include China and Mexico. Longer term gains in these markets reflect their economic growth and increasing consumer demand. Demand for poultry also remains strong because of its lower cost relative to beef and pork. U.S. producers continue to face strong competition from other major exporters, particularly Brazil. For most of the projection period, exports from avian influenza-affected countries are expected to be limited to fully cooked products.

U.S. dairy herd and milk production per cow

Million cows   1,000 pounds per cow
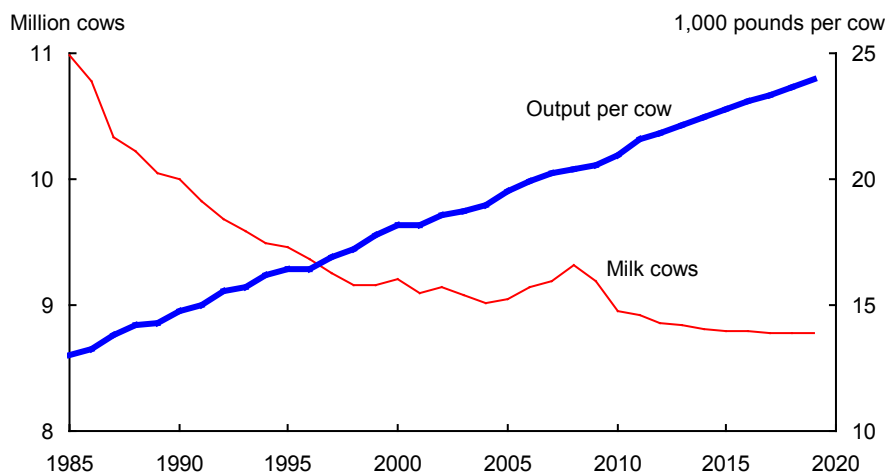
Milk production is projected to continue rising over the projection period, although at a slower pace than in the past several years. An upward trend in output per cow continues, but the 4-year increase in milk cow numbers from 2004 to 2008 ended during 2009.

- After a relatively sharp drop in 2009-10, milk cow numbers are expected to resume a more typical path of year-to-year declines. However, projected annual reductions are more moderate compared with past years. As the transition from small, diversified farms to large, specialized dairy farms matures, cow numbers decline at lower rates and level off toward the end of the projection period.

- Milk output per cow is projected to increase through the projection period, reflecting continued technological and genetic developments and the transition from smaller, diversified farms to larger, specialized dairy operations in most regions.

- Domestic commercial use of dairy products increases somewhat faster than the growth in U.S. population over most of the next decade. Cheese demand benefits from greater consumption of prepared foods and increased away-from-home eating. However, per capita consumption of fluid milk is expected to continue to decline slowly.

- U.S. dairy product exports decline from the levels reached in 2008 but remain high by historical standards. Exports on a skim-solids basis fall less than fat-basis exports because of commercial sales of dry-milk products, as the United States is projected to be a competitive exporter of non-fat dry milk through the projection period.

- Farm-level milk prices have fallen from the high levels of 2007 and 2008, due in part to lower exports of U.S. dairy products. Prices are projected to rebound somewhat in 2010 as production decreases in response to lower 2009 prices. Following continued production and price adjustments through 2012, milk prices rise steadily over the latter part of the projection period. However, prices increase less than the general inflation rate largely because of efficiency gains in production resulting from technological improvements and consolidation in the sector.

Table 29. Per capita meat consumption, retail weight

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						Pounds						
Total beef	62.8	61.3	60.1	58.3	56.8	56.4	56.2	56.5	57.1	57.8	58.1	58.4
Total veal	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total pork	49.5	49.9	47.2	46.5	46.5	46.6	46.9	47.2	47.2	47.2	47.3	47.4
Lamb and mutton	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Total red meat	113.7	112.6	108.8	106.3	104.6	104.3	104.5	105.1	105.6	106.3	106.7	107.0
Broilers	83.5	80.4	81.7	82.6	83.3	84.1	85.2	85.8	86.3	87.2	88.1	89.2
Other chicken	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Turkeys	17.6	16.7	16.6	16.4	16.6	16.7	16.9	17.0	17.1	17.2	17.3	17.5
Total poultry	102.5	98.4	99.5	100.2	101.1	102.0	103.2	104.0	104.6	105.6	106.6	107.9
Red meat & poultry	216.2	211.0	208.2	206.5	205.7	206.4	207.7	209.0	210.2	211.9	213.3	214.9

Table 30. Beef long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning stocks	Mil. lbs.	630	642	590	460	460	460	460	460	460	460	460	460
Commercial production	Mil. lbs.	26,561	25,874	25,510	25,215	24,896	25,076	25,274	25,640	26,116	26,658	27,047	27,369
Change from previous year	Percent	0.5	-2.6	-1.4	-1.2	-1.3	0.7	0.8	1.4	1.9	2.1	1.5	1.2
Farm production	Mil. lbs.	102	102	102	102	102	102	102	102	102	102	102	102
Total production	Mil. lbs.	26,663	25,976	25,612	25,317	24,998	25,178	25,376	25,742	26,218	26,760	27,149	27,471
Imports	Mil. lbs.	2,537	2,720	2,795	2,851	2,908	2,966	3,025	3,096	3,148	3,210	3,275	3,341
Total supply	Mil. lbs.	29,830	29,338	28,997	28,628	28,366	28,604	28,861	29,298	29,826	30,430	30,884	31,272
Exports	Mil. lbs.	1,887	1,825	1,925	2,119	2,321	2,523	2,634	2,704	2,758	2,813	2,870	2,928
Ending stocks	Mil. lbs.	642	590	460	460	460	460	460	460	460	460	460	460
Total consumption	Mil. lbs.	27,301	26,923	26,612	26,049	25,585	25,621	25,767	26,134	26,608	27,157	27,554	27,884
Per capita, carcass weight	Pounds	89.7	87.6	85.8	83.3	81.1	80.5	80.3	80.8	81.5	82.5	83.1	83.4
Per capita, retail weight	Pounds	62.8	61.3	60.1	58.3	56.8	56.4	56.2	56.5	57.1	57.8	58.1	58.4
Change from previous year	Percent	-3.8	-2.3	-2.0	-3.0	-2.6	-0.7	-0.3	0.6	1.0	1.2	0.6	0.4
Prices:													
Beef cattle, farm	$/cwt	89.23	80.80	87.99	91.32	91.99	93.68	95.03	95.76	95.80	96.18	96.82	97.52
Calves, farm	$/cwt	113.58	107.89	115.42	117.35	119.94	123.39	125.65	126.06	125.15	124.82	124.94	125.67
Choice steers, Nebraska	$/cwt	92.27	83.32	90.75	94.19	94.88	96.63	98.02	98.78	98.82	99.21	99.87	100.59
Yearling steers, Oklahoma City	$/cwt	102.98	96.97	103.75	105.49	107.81	110.91	112.94	113.32	112.49	112.20	112.31	112.97
Costs and returns, cow-calf enterprise:													
Total cash expenses	$/cow	507.75	521.53	490.21	500.27	513.55	528.41	540.51	552.98	566.06	579.08	592.21	604.73
Returns above cash costs	$/cow	15.99	-24.39	50.14	53.16	61.76	72.52	80.68	79.81	71.89	66.64	63.78	64.75
Cattle inventory	1,000 head	96,035	94,491	93,000	91,900	92,344	92,266	92,270	92,650	93,211	93,761	94,161	94,502
Beef cow inventory	1,000 head	32,377	31,815	31,640	31,212	31,144	31,293	31,472	31,777	32,162	32,524	32,785	32,980
Total cow inventory	1,000 head	41,692	41,005	40,400	40,427	40,329	40,449	40,592	40,853	41,189	41,494	41,713	41,908

Table 31. Pork long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning stocks	Mil. lbs.	519	635	650	650	650	650	650	650	650	650	650	650
Commercial production	Mil. lbs.	23,347	23,052	22,435	22,375	22,552	22,832	23,208	23,581	23,832	24,091	24,350	24,648
Change from previous year	Percent	6.4	-1.3	-2.7	-0.3	0.8	1.2	1.6	1.6	1.1	1.1	1.1	1.2
Farm production	Mil. lbs.	20	20	20	19	19	19	19	19	19	19	19	19
Total production	Mil. lbs.	23,367	23,072	22,455	22,394	22,571	22,851	23,227	23,600	23,851	24,110	24,369	24,667
Imports	Mil. lbs.	832	821	860	1,005	1,033	1,060	1,086	1,110	1,128	1,145	1,172	1,201
Total supply	Mil. lbs.	24,718	24,528	23,965	24,049	24,254	24,561	24,963	25,360	25,629	25,905	26,191	26,518
Exports	Mil. lbs.	4,667	4,135	4,450	4,647	4,717	4,806	4,913	5,028	5,128	5,230	5,328	5,425
Ending stocks	Mil. lbs.	635	650	650	650	650	650	650	650	650	650	650	650
Total consumption	Mil. lbs.	19,416	19,743	18,865	18,752	18,887	19,105	19,400	19,682	19,851	20,025	20,213	20,443
Per capita, carcass weight	Pounds	63.8	64.3	60.9	60.0	59.9	60.0	60.5	60.8	60.8	60.9	60.9	61.1
Per capita, retail weight	Pounds	49.5	49.9	47.2	46.5	46.5	46.6	46.9	47.2	47.2	47.2	47.3	47.4
Change from previous year	Percent	-2.5	0.8	-5.3	-1.5	-0.1	0.3	0.7	0.6	0.0	0.0	0.1	0.3
Prices:													
Hogs, farm	$/cwt	47.64	41.37	45.53	46.85	48.61	49.45	49.74	50.08	51.22	52.37	53.74	55.07
National base, live equivalent	$/cwt	47.84	40.19	44.25	45.53	47.25	48.06	48.35	48.68	49.79	50.90	52.23	53.53
Costs and returns, farrow to finish:													
Total cash expenses	$/cwt	64.66	62.56	57.98	50.48	49.42	49.34	50.19	51.08	51.99	52.92	53.87	54.56
Returns above cash costs	$/cwt	-13.90	-19.92	-11.03	-2.17	0.71	1.65	1.11	0.56	0.83	1.08	1.55	2.24
Hog inventory, December 1, previous year	1,000 head	68,177	67,148	65,150	64,984	65,470	66,239	67,270	68,292	68,980	69,690	70,399	71,216

Table 32. Young chicken long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning stocks	Mil. lbs.	719	745	635	655	655	655	655	655	655	655	655	655
Federally inspected slaughter	Mil. lbs.	36,906	35,632	36,100	36,271	36,864	37,515	38,276	38,871	39,458	40,138	40,829	41,619
Change from previous year	Percent	2.1	-3.5	1.3	0.5	1.6	1.8	2.0	1.6	1.5	1.7	1.7	1.9
Production	Mil. lbs.	36,511	35,251	35,714	35,883	36,495	37,140	37,893	38,482	39,064	39,737	40,421	41,202
Total supply	Mil. lbs.	37,309	36,076	36,429	36,618	37,230	37,875	38,628	39,217	39,799	40,472	41,156	41,937
Change from previous year	Percent	2.0	-3.3	1.0	0.5	1.7	1.7	2.0	1.5	1.5	1.7	1.7	1.9
Exports	Mil. lbs.	6,961	6,683	6,300	5,888	5,969	6,065	6,153	6,250	6,350	6,426	6,499	6,575
Ending stocks	Mil. lbs.	745	635	655	655	655	655	655	655	655	655	655	655
Consumption	Mil. lbs.	29,603	28,758	29,474	30,075	30,606	31,155	31,820	32,312	32,794	33,391	34,002	34,707
Per capita, carcass weight	Pounds	97.2	93.6	95.1	96.2	97.0	97.9	99.2	99.9	100.5	101.5	102.5	103.8
Per capita, retail weight	Pounds	83.5	80.4	81.7	82.6	83.3	84.1	85.2	85.8	86.3	87.2	88.1	89.2
Change from previous year	Percent	-1.9	-3.7	1.6	1.1	0.9	0.9	1.3	0.7	0.6	1.0	1.0	1.3
Prices:													
Broilers, farm	Cents/lb.	47.4	50.1	50.2	51.0	52.4	53.5	54.7	55.9	57.0	57.8	59.0	60.2
12-city market price	Cents/lb.	79.7	77.6	77.8	79.1	81.3	83.0	84.8	86.7	88.4	89.7	91.5	93.3
Costs and returns:													
Total costs	Cents/lb.	81.54	79.54	76.16	76.95	76.92	77.72	78.50	79.33	80.18	81.57	82.99	84.29
Net returns	Cents/lb.	-1.84	-1.94	1.64	2.14	4.37	5.24	6.25	7.34	8.26	8.14	8.51	9.02

Table 33. Turkey long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning stocks	Mil. lbs.	261	396	375	340	340	340	340	340	340	340	340	340
Federally inspected slaughter	Mil. lbs.	6,246	5,697	5,725	5,790	5,895	5,998	6,097	6,192	6,285	6,377	6,477	6,592
Change from previous year	Percent	5.0	-8.8	0.5	1.1	1.8	1.7	1.6	1.6	1.5	1.5	1.6	1.8
Production	Mil. lbs.	6,164	5,622	5,650	5,714	5,819	5,920	6,018	6,111	6,203	6,294	6,393	6,506
Total supply	Mil. lbs.	6,433	6,031	6,037	6,066	6,171	6,272	6,370	6,463	6,555	6,646	6,745	6,858
Change from previous year	Percent	5.4	-6.2	0.1	0.5	1.7	1.6	1.6	1.5	1.4	1.4	1.5	1.7
Exports	Mil. lbs.	676	534	545	585	595	605	615	625	634	644	654	664
Ending stocks	Mil. lbs.	396	375	340	340	340	340	340	340	340	340	340	340
Consumption	Mil. lbs.	5,361	5,122	5,152	5,141	5,236	5,327	5,415	5,498	5,581	5,662	5,751	5,854
Per capita	Pounds	17.6	16.7	16.6	16.4	16.6	16.7	16.9	17.0	17.1	17.2	17.3	17.5
Change from previous year	Percent	0.5	-5.3	-0.3	-1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.7	1.0
Prices:													
Turkey, farm	Cents/lb.	56.4	49.7	50.5	52.7	53.9	53.8	53.7	53.5	53.5	53.5	54.1	55.0
Hen turkey (wholesale) East	Cents/lb.	87.5	79.1	80.3	83.7	85.7	85.6	85.4	85.1	85.1	85.1	86.1	87.5
Costs and returns:													
Total costs	Cents/lb.	80.34	80.52	76.24	77.16	76.88	77.58	78.23	78.87	79.50	80.12	80.74	81.11
Net returns	Cents/lb.	7.16	-1.42	4.06	6.58	8.85	8.02	7.14	6.25	5.57	5.01	5.36	6.41

Table 34. Egg long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning stocks	Mil. doz.	11	17	17	16	16	16	16	16	16	16	16	16
Production	Mil. doz.	7,509	7,507	7,565	7,603	7,664	7,748	7,833	7,919	8,006	8,087	8,167	8,249
Change from previous year	Percent	-1.0	0.0	0.8	0.5	0.8	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Imports	Mil. doz.	15	13	16	16	16	16	16	16	16	16	16	16
Total supply	Mil. doz.	7,535	7,537	7,598	7,635	7,696	7,780	7,865	7,951	8,038	8,119	8,199	8,281
Change from previous year	Percent	-1.0	0.0	0.8	0.5	0.8	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Hatching use	Mil. doz.	995	950	982	987	996	1,009	1,023	1,035	1,047	1,059	1,072	1,087
Exports	Mil. doz.	206	220	200	203	206	209	212	215	218	221	224	227
Ending stocks	Mil. doz.	17	17	16	16	16	16	16	16	16	16	16	16
Consumption	Mil. doz.	6,316	6,350	6,400	6,429	6,477	6,546	6,614	6,685	6,758	6,822	6,887	6,951
Per capita	Number	248.9	248.0	247.7	246.7	246.4	246.9	247.4	247.9	248.5	248.8	249.2	249.5
Change from previous year	Percent	-1.1	-0.4	-0.1	-0.4	-0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1
Prices:													
Eggs, farm	Cents/doz.	106.5	80.3	83.0	89.1	90.7	91.5	92.3	93.2	94.0	94.8	95.6	96.4
New York, Grade A large	Cents/doz.	128.3	99.8	103.3	110.0	112.0	113.0	114.0	115.0	116.0	117.0	118.0	119.0
Costs and returns:													
Total costs	Cents/doz.	119.18	114.27	104.26	107.41	106.34	107.27	108.27	109.43	110.59	111.78	113.01	113.63
Net returns	Cents/doz.	9.12	-14.47	-0.96	2.59	5.66	5.73	5.73	5.57	5.41	5.22	4.99	5.37

Table 35. Dairy long-term projections

Item	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Milk production and marketings:													
Number of cows	1,000	9,315	9,195	8,960	8,915	8,865	8,840	8,815	8,800	8,790	8,785	8,785	8,785
Milk per cow	Pounds	20,396	20,570	20,950	21,550	21,840	22,145	22,445	22,745	23,105	23,340	23,640	23,950
Milk production	Bil. lbs.	190.0	189.2	187.7	192.1	193.6	195.8	197.9	200.2	203.1	205.0	207.7	210.4
Farm use	Bil. lbs.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Marketings	Bil. lbs.	188.9	188.1	186.6	191.0	192.5	194.7	196.8	199.1	202.0	203.9	206.6	209.3
Supply and use, milkfat basis:													
Beginning commercial stocks	Bil. lbs.	10.4	10.0	10.7	8.5	7.8	7.3	7.0	6.9	7.0	7.1	7.3	7.5
Marketings	Bil. lbs.	188.9	188.1	186.6	191.0	192.5	194.7	196.8	199.1	202.0	203.9	206.6	209.3
Imports	Bil. lbs.	3.9	4.4	4.2	4.3	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3
Commercial supply	Bil. lbs.	203.2	202.5	201.5	203.8	204.7	206.4	208.2	210.4	213.4	215.3	218.2	221.1
Domestic commercial use[1]	Bil. lbs.	184.4	187.0	187.8	191.3	193.2	195.1	197.3	199.5	202.5	204.2	207.0	209.5
Commercial exports	Bil. lbs.	8.7	4.0	4.8	4.7	4.2	4.3	4.0	3.9	3.8	3.8	3.7	3.7
Ending commercial stocks	Bil. lbs.	10.0	10.7	8.5	7.8	7.3	7.0	6.9	7.0	7.1	7.3	7.5	7.9
Total utilization	Bil. lbs.	203.1	201.7	201.1	203.8	204.7	206.4	208.2	210.4	213.4	215.3	218.2	221.1
CCC net removals[2]	Bil. lbs.	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply and use, skim solids basis:													
Beginning commercial stocks	Bil. lbs.	9.9	10.9	10.7	8.7	8.5	8.1	7.9	7.8	7.8	7.9	8.1	8.4
Marketings	Bil. lbs.	188.9	188.1	186.6	191.0	192.5	194.7	196.8	199.1	202.0	203.9	206.6	209.3
Imports	Bil. lbs.	3.7	4.0	4.0	4.2	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Commercial supply	Bil. lbs.	202.6	202.9	201.3	203.9	205.4	207.2	209.1	211.3	214.2	216.2	219.1	222.1
Domestic commercial use[1]	Bil. lbs.	163.8	168.0	168.1	171.5	173.7	175.3	177.2	179.4	182.3	184.3	186.9	189.7
Commercial exports	Bil. lbs.	26.6	22.0	25.5	23.9	23.6	24.0	24.1	24.1	24.0	23.8	23.8	23.7
Ending commercial stocks	Bil. lbs.	10.9	10.7	8.7	8.5	8.1	7.9	7.8	7.8	7.9	8.1	8.4	8.7
Total utilization	Bil. lbs.	201.3	200.6	202.2	203.9	205.4	207.2	209.1	211.3	214.2	216.2	219.1	222.1
CCC net removals[2]	Bil. lbs.	1.3	2.9	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices:													
All milk	$/cwt	18.29	12.65	16.50	15.60	16.85	17.05	17.40	17.65	17.90	18.10	18.35	18.50

Dairy projections were completed in November 2009.

CCC is the Commodity Credit Corporation, U.S. Department of Agriculture.

Totals may not add due to rounding.

1/ Domestic commercial use is adjusted for the Barter Program. 2/ Includes products exported under the Dairy Export Incentive Program.

U.S. Agricultural Sector Aggregate Indicators
Farm Income, U.S. Trade Value, Food Prices, and Food Expenditures

The world recession was the major underlying factor contributing to a decline in global agricultural demand, trade, and prices, which reduced farm income and the value of U.S. agricultural exports in 2009. As economies of the world recover, steady domestic and international economic growth supports gains in the U.S. agricultural sector over the next decade. In addition, longrun developments reflect continued demand for agricultural commodities for the production of biofuels. Thus, after declining in 2009, cash receipts to farmers and the value of U.S. agricultural trade grow through the 2010-19 projection period. With increases in production expenses offsetting some of the gains in cash receipts, net farm income rises moderately from 2011 to 2019. Retail food prices rise faster than the general inflation rate through 2012, partly reflecting higher meat prices in 2011 and 2012.

U.S. net farm income

Billion dollars
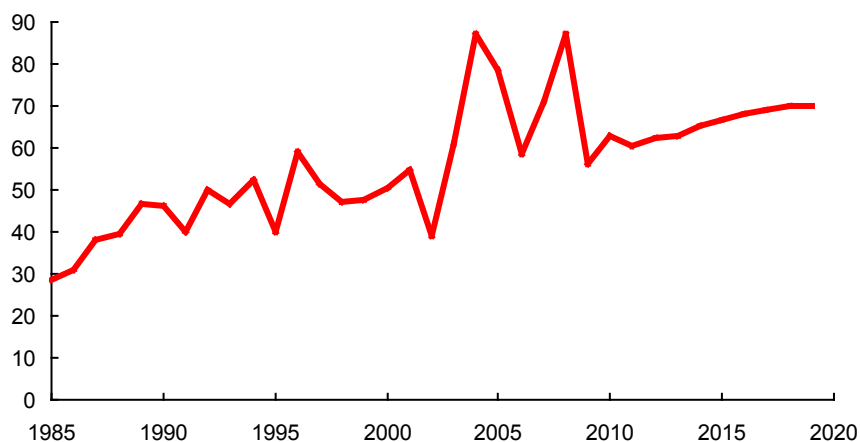
Net farm income declines in the near term from the high levels of 2007 and 2008, but then grows moderately over the next decade and exceeds the average of the previous 10 years by the middle of the projection period.

- Sustained biofuel demand and strengthening global food demand provide a major impetus for projections of rising cash receipts after 2009.

- Lower government payments and rising farm production expenses offset some of the gains in cash receipts and other sources of farm income.

Direct government payments

Billion dollars
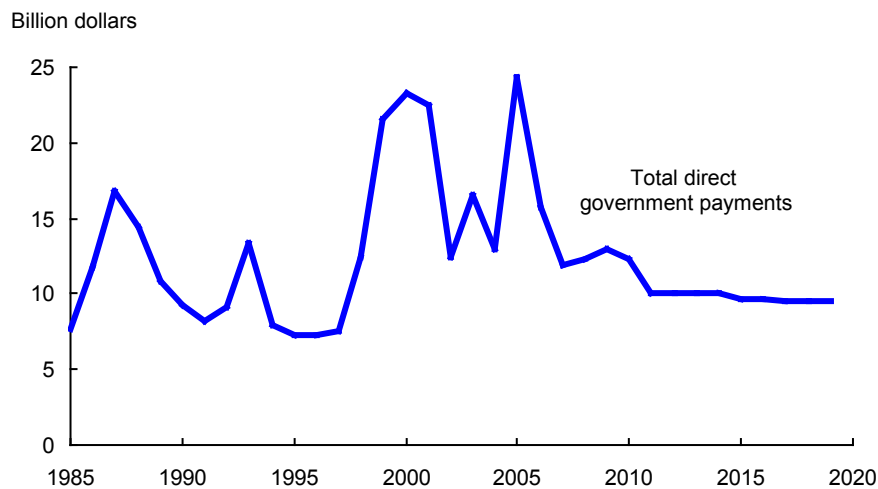
Direct government payments to farmers are projected to fall from a projected $12.4 billion in 2010 to an average of less than $10 billion annually in 2011 to 2019. Price-dependent program benefits account for a declining share of payments.

- Strengthening domestic and international demand holds prices for most crops above levels that would result in marketing loan benefits or counter-cyclical payments. For example, even with stochastic considerations (included here to capture potential variation in farm program benefits due to variability in production yields and the impacts on prices), payments for marketing loan benefits and counter-cyclical payments for feed grains are minimal, totaling less than $100 million from 2011 through 2019. Marketing loan benefits and counter-cyclical payments for upland cotton average about $450 million per year (including stochastic effects), representing more than 90 percent of payments under those programs.

- Initial enrollment in the Average Crop Revenue Election (ACRE) program covered less than 13 percent of eligible base acres (see box, *ACRE Program Enrollment*, page 90). Projections of government payments under the ACRE program exceed $400 million in 2010 (for 2009 crops), mostly reflecting reductions in prices from 2008 highs. Assuming stochastic yield variability for 2010 and later crops, annual ACRE payments over 2011-19 average about $110 million, reflecting relative stability in agricultural commodity markets in the projections and an assumed continued moderate level of producer enrollment in the program.

- Sustained higher crop prices make the use of land for production more valuable, so rental rates for land in the Conservation Reserve Program (CRP) rise. Nonetheless, with reduced CRP acreage enrollment due to the 2008 Farm Act's lowering of the maximum acreage permitted in the program, CRP payments rise only moderately from about $1.8 billion in 2010 to $2.3 billion in 2019.

- With higher prices, government payments have a smaller role in the agricultural sector's income. Government payments, which represented more than 8 percent of gross cash income in 2005, account for less than 3 percent during most of the projection period. Conversely, the sector relies on the market for more of its income. Cash receipts plus farm-related income rise to more than 97 percent of gross cash income.

ACRE Program Enrollment

The Average Crop Revenue Election (ACRE) program was authorized by the 2008 Farm Act. ACRE is a revenue guarantee program based on agricultural revenues and planted acres. Farmers have the option to enroll in the program as an alternative to counter-cyclical payments. Enrollment in the ACRE program is a multiyear commitment through the 2012 crop year for the entire farm. By participating in ACRE, an agricultural producer forgoes counter-cyclical payments, has a 20-percent reduction in direct payments, and has a 30-percent reduction in marketing assistance loan rates.

Participants in the ACRE program are eligible for State-based revenue coverage each crop year that reflects recent yields and recent national prices for designated program crops. ACRE payments are crop-specific, although enrollment covers all farm-program eligible crops on a participating farm. Eligible crops include wheat, corn, barley, grain sorghum, oats, upland cotton, long-grain and medium-grain rice, peanuts, pulse crops,[1] and soybeans and other oilseeds.[2] As a revenue-based program, benefits can be triggered by prices and/or yields. Enrolled producers will receive ACRE payments for a crop when both the State's per-acre revenue and the farm's per-acre revenue fall below the respective revenue guarantees calculated for the crop.

Agricultural producers had the opportunity to enroll in ACRE for 2009 crops through August 14, 2009. Most eligible crop acreage was not entered into the ACRE program. Initial enrollment data as of October 2009 indicated that about 8 percent of farms enrolled in the direct and counter-cyclical and ACRE programs elected to participate in ACRE, representing less than 13 percent of eligible base acres (see first box chart). ACRE enrollment is largely concentrated on farms that grow wheat, corn, and soybeans. These three crops comprise 96 percent of crops planted on ACRE enrolled acreage (see second box chart). Enrollment is also concentrated regionally for these three crops. Seventy-four percent of wheat plantings on farms enrolled in ACRE are in five States: Oklahoma, Washington, South Dakota, Montana, and North Dakota. Seventy-one percent of corn and soybean plantings on ACRE farms were in Illinois, Iowa, Nebraska, South Dakota, and North Dakota. Farm enrollment is much lower in regions where upland cotton, rice, and peanuts are grown; this is due to higher direct payments per base acre for these crops and greater expected counter-cyclical payments and marketing loan benefits.

The 2009 signup for the ACRE program was less than had been expected given price- and yield-based analysis of expected program costs and benefits. However, other factors may have influenced farmers' participation decisions including the complexity of the new program, the multiyear commitment, and the requirement that all producers and landowners in the farm operation agree to enroll.

In subsequent years, ACRE program enrollment will end on June 1. Producers of eligible crops who did not participate in the program for 2009 may enroll in ACRE in any of the next 3 years, but, as is true of other ACRE program participants, those who do enroll will remain in the program through 2012.

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[1] Pulse crops include dry peas, lentils, large chickpeas, and small chickpeas.
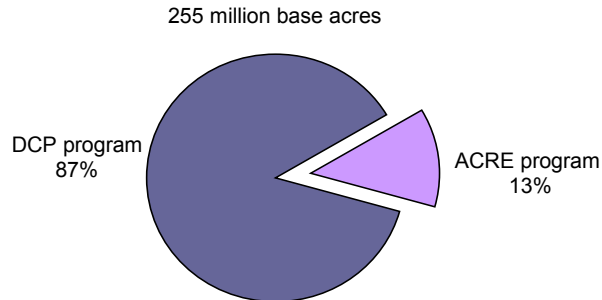
[2] Other oilseeds include sunflowers, canola, flaxseed, safflower, mustard seed, rapeseed, crambe, and sesame.

--Continued

ACRE Program Enrollment *(Continued)*

Base acres enrolled in the Direct and Counter-cyclical payment (DCP) program and the Average Crop Revenue Election (ACRE) program, 2009

255 million base acres

DCP program
87%

ACRE program
13%

Source: USDA, Farm Service Agency.

Crop plantings on farms electing ACRE are predominantly corn, soybeans, and wheat, 2009

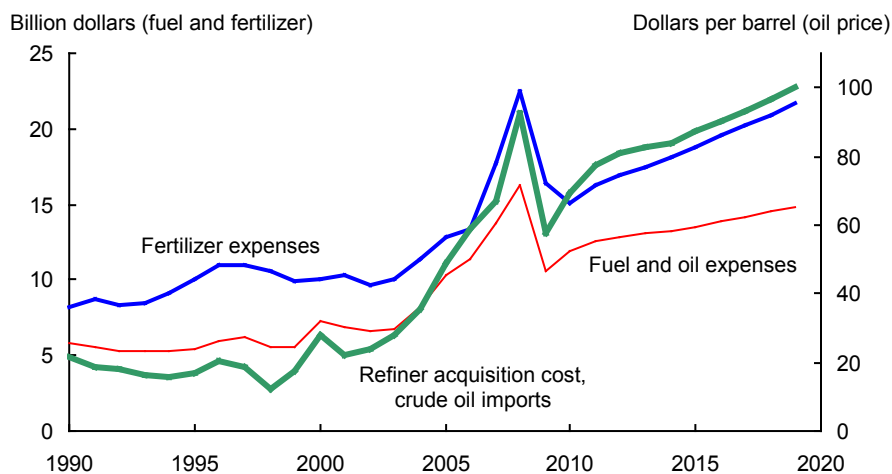32 million acres

Corn
43%

Soybeans
30%

Other
4%

Wheat
23%
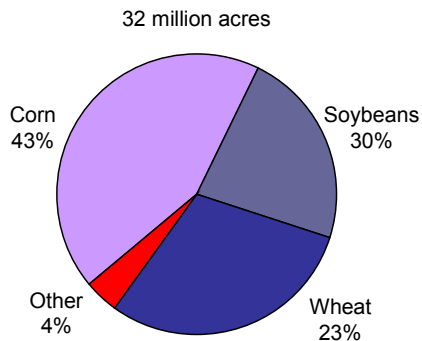
Source: USDA, Farm Service Agency.

For further information on the ACRE program, see:

- Woolverton, Andrea, and Edwin Young. *Factors Influencing ACRE Program Enrollment*, Economic Research Report No. 84, December 2009, available at http://www.ers.usda.gov/Publications/ERR84/.

Selected energy-related production expenses and crude oil prices

Billion dollars (fuel and fertilizer)   Dollars per barrel (oil price)

Following the runup in farm production expenses in 2008, expenses fell in 2009, largely due to reductions in energy-related costs. For example, production expenses for fertilizer and for fuel and oil fell by almost $12 billion in 2009. After further adjustments in 2010, total production expenses are projected to rise somewhat less rapidly than the general inflation rate over 2010-2019.

- Energy-related production expenses for fertilizer and for fuel and oil rise faster than the general inflation rate over the projection period, largely reflecting increases in crude oil prices.

- Projected increases in interest costs also rise faster than the general inflation rate, due to rising interest rates from the low rates of recent years as well as increased debt.

- Expenses for farm-origin inputs (seed, feed, and livestock) rise less than the general inflation rate. Feed expenses, which rose rapidly in recent years with higher corn prices, have declined from their 2008 peak as corn prices have fallen and the livestock sector has contracted. Moderate increases in feed expenses are projected for 2010-19 as the livestock sector resumes growth. Seed expenses, which rose sharply in 2008 and 2009, increase slowly in the projection period. Expenses for purchased livestock increase over the projection period as production growth in the sector resumes following the contraction of 2009-11.

U.S. agricultural trade value

Billion dollars
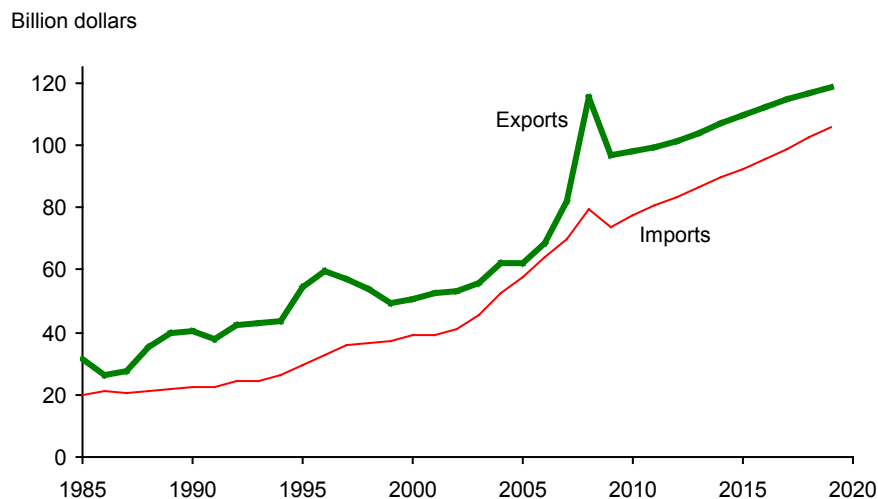
After falling in fiscal year 2009 from the peak reached the previous year, the value of U.S. agricultural exports rises through the remainder of the projections because of increased global economic growth and agricultural demand and a weaker U.S. dollar. A resumption of domestic economic growth boosts U.S. agricultural imports. (Fiscal years are October 1 through September 30 and are named after the second calendar year that they span.)

- The value of U.S. agricultural exports reached a record level exceeding $115 billion in fiscal year 2008 as both trade volumes and prices were high. With lower volumes and declining prices, export values fell in 2009. Agricultural export values are then projected to grow over the next decade and surpass the 2008 record by the end of the projection period. A resumption of global economic growth, particularly in developing countries, provides a foundation for gains in trade and U.S. agricultural exports. High commodity prices, due to continued global biofuel demand, also contribute to the gains in export values. Furthermore, a depreciation of the U.S. dollar is an important factor underlying projected gains in U.S. exports.

- Exports of high-value products (HVP) grow in importance over the projection period. By the end of the projection period, HVP exports represent about 66 percent of the value of U.S. exports, up from about 62 percent in fiscal year 2009. Much of the growth in HVP exports is for animal products and horticultural products.

- U.S. agricultural import values rise to $106 billion in fiscal year 2019, boosted by gains in consumer income and demand for a large variety of foods. Strong growth in horticultural imports is assumed to continue, contributing almost half of the overall agricultural import increase from 2010 to 2019.

- The agricultural trade balance is projected to decline from the record surplus of $36 billion in fiscal year 2008, but remains a surplus of about $13 billion at the end of the projection period.

**U.S. food inflation**

Percent change
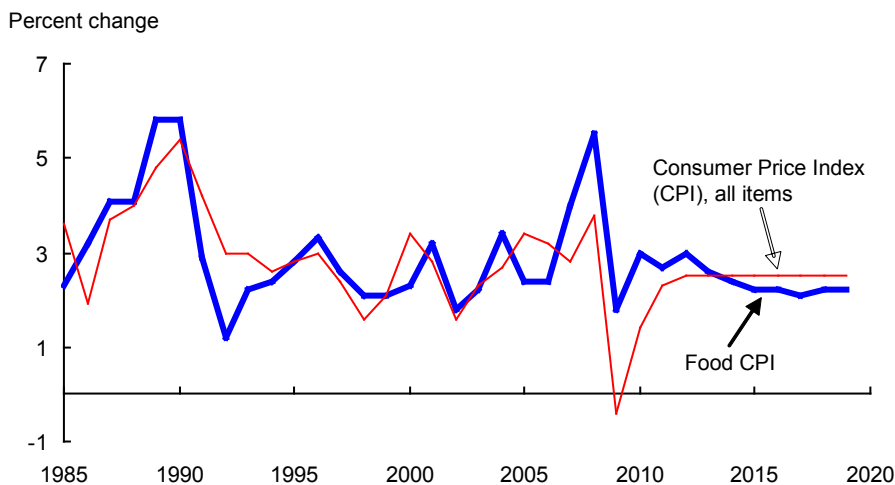
Lower energy prices and reduced demand for meats and away-from-home meals due to the recession held U.S. consumer food prices in 2009 to the smallest annual increase since 1992. As the economy recovers, retail food prices are projected to rise faster than overall inflation in 2010 through 2012. Then consumer food prices in the United States return to the longer term relationship of rising less than the general inflation rate over the latter part of the projection period.

- Retail prices for beef and pork declined in 2009 despite lower production reflecting lower consumer demand due to the recession. Further production declines in the livestock sector in response to reduced demand and higher feed costs push consumer meat prices up more than the general inflation rate through 2012.

- Following large increases in 2008 caused by higher commodity prices for food grains and oil-bearing crops, projected retail prices for cereals and bakery products and for fats and oils rise closer to the general inflation rate. Prices for these highly processed foods tend to reflect processing and marketing costs in the long run.

- Retail price increases for food away from home slowed in 2009 as demand weakened due to the recession. As the economy rebounds, income gains will support growth in food consumption away from home. Thus, retail prices for food consumed away from home are expected to rise more than the general inflation rate over the next several years. In the longer run, prices for food away from home reflect the overall inflation rate as well as some linkage to prices for retail meat and poultry. Competition in the fast-food and foodservice industries tends to moderate these price increases, resulting in prices rising closer to the general inflation rate toward the end of the projection period.

U.S. food expenditures

Billion dollars
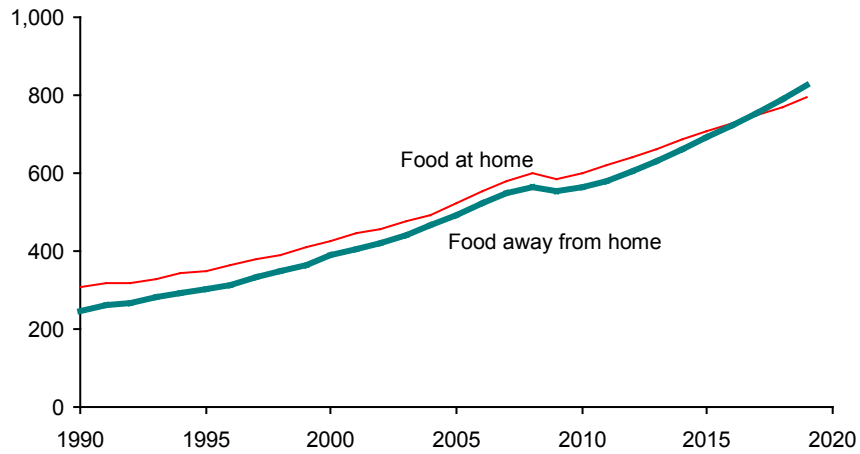
The U.S. economic recession reduced consumer sales in 2009 for both at-home food and meals eaten away from home. With consumer demand remaining weak in 2010, only moderate increases in food expenditures are expected this year.

- In the longer run, as the domestic economic rebounds, food expenditures resume stronger growth. As consumer demand strengthens, expenditures for meals away from home rise faster than expenditures for food at home and thus account for a growing share of total food spending. By the end of the projection period, away-from-home expenditures surpass at-home spending.

Table 36. Farm receipts, expenses, and income, long-term projections

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						Billion dollars						
Cash receipts:												
Crops	183.1	166.3	160.3	162.9	164.2	166.9	170.0	173.1	175.8	178.4	180.8	182.9
Livestock and products	141.1	118.8	130.3	131.5	135.0	138.0	141.0	143.7	146.6	149.3	152.2	155.0
All commodities	324.2	285.0	290.5	294.4	299.2	304.9	311.0	316.8	322.4	327.7	333.1	337.9
Farm-related income	19.8	20.7	21.6	22.0	22.6	23.1	23.6	24.1	24.7	25.2	25.8	26.3
Government payments	12.2	12.9	12.4	10.0	10.0	10.0	10.0	9.6	9.6	9.6	9.5	9.5
Gross cash income	356.2	318.6	324.5	326.4	331.8	338.0	344.6	350.5	356.7	362.5	368.3	373.7
Cash expenses	258.7	247.8	248.2	252.8	257.7	262.9	267.5	272.2	277.4	282.4	287.2	292.1
Net cash income	97.5	70.8	76.3	73.6	74.1	75.1	77.2	78.3	79.2	80.1	81.1	81.6
Value of inventory change	-2.4	-1.8	0.2	0.1	1.3	0.9	1.0	1.2	1.3	1.3	1.2	0.9
Noncash income	23.3	20.3	19.7	20.2	20.9	21.4	21.9	22.4	22.8	23.3	23.8	24.2
Gross farm income	377.1	337.1	344.4	346.7	354.0	360.3	367.5	374.1	380.8	387.1	393.3	398.8
Noncash expenses	19.8	21.1	21.6	21.9	22.1	22.4	22.6	22.9	23.1	23.3	23.6	23.8
Operator dwelling expenses	11.5	11.8	11.6	11.6	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.8
Total production expenses	290.0	280.7	281.4	286.4	291.6	297.2	302.2	307.3	312.9	318.3	323.5	328.7
Net farm income	87.1	56.4	63.0	60.3	62.3	63.0	65.4	66.8	67.9	68.8	69.8	70.1

Table 37. Summary of U.S. agricultural trade long-term projections, fiscal years

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						Billion dollars						
Agricultural exports (value):												
Livestock, dairy, and poultry	22.2	18.8	19.9	20.1	20.9	21.8	22.6	23.1	23.6	24.1	24.5	25.0
Livestock, poultry, and products	18.1	16.4	17.3	17.2	18.1	19.2	20.0	20.6	21.1	21.6	22.0	22.5
Dairy products	4.1	2.3	2.6	2.8	2.7	2.6	2.6	2.6	2.5	2.5	2.5	2.5
Grain and feeds	38.3	26.3	26.1	26.6	26.5	26.4	27.2	27.6	28.2	28.8	29.4	29.9
Coarse grains	15.7	10.0	10.1	11.5	11.4	11.5	11.7	11.9	12.0	12.2	12.4	12.4
Oilseeds and products	22.8	21.0	20.4	19.7	19.7	20.4	20.9	21.2	21.5	21.8	21.9	22.1
Soybeans and products	19.3	17.7	17.5	16.4	16.2	16.2	16.7	17.1	17.4	17.6	17.6	17.7
Horticultural products	20.8	20.6	21.5	22.1	22.7	23.3	24.0	24.7	25.4	26.1	26.8	27.5
Fruits and vegetables, fresh	5.5	5.4	5.7	5.8	6.0	6.2	6.3	6.5	6.6	6.8	7.0	7.2
Fruits and vegetables, processed	5.4	5.4	5.7	5.8	6.0	6.1	6.3	6.4	6.6	6.8	6.9	7.1
Cotton	4.8	3.6	3.3	4.2	4.4	4.6	4.7	4.9	5.0	5.2	5.4	5.5
Other exports	6.4	6.3	6.8	6.9	7.2	7.4	7.7	7.9	8.2	8.5	8.6	8.9
Total agricultural exports	115.4	96.6	98.0	99.6	101.4	103.8	107.0	109.4	112.0	114.5	116.6	118.9
Bulk commodity exports	50.6	37.0	35.4	36.3	36.6	37.1	37.9	38.6	39.2	39.8	40.3	40.6
High-value product exports	64.8	59.6	62.6	63.4	64.8	66.6	69.1	70.8	72.7	74.7	76.4	78.3
High-value product share	56.1%	61.7%	63.8%	63.6%	63.9%	64.2%	64.6%	64.7%	64.9%	65.2%	65.5%	65.9%
						Million metric tons						
Agricultural exports (volume):												
Bulk commodity exports	138.9	115.6	123.5	125.3	128.2	130.7	132.6	134.1	136.1	137.7	139.5	141.3
						Billion dollars						
Agricultural imports (value):												
Livestock, dairy, and poultry	12.2	10.7	11.3	11.8	12.4	12.9	13.3	13.7	14.1	14.4	14.8	15.3
Livestock and meats	8.7	7.6	8.0	8.4	8.8	9.2	9.6	9.9	10.1	10.4	10.7	11.0
Dairy products	3.0	2.7	2.9	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7
Grain and feeds	7.9	7.4	7.6	7.7	7.9	8.2	8.5	8.9	9.2	9.6	10.0	10.4
Grain products	4.6	4.5	4.6	4.7	5.0	5.2	5.5	5.8	6.0	6.3	6.7	7.0
Oilseeds and products	6.6	5.4	6.0	6.2	6.4	6.7	6.9	7.2	7.5	7.8	8.1	8.4
Vegetable oils	4.6	3.7	4.2	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9
Horticultural products	34.7	33.0	34.4	35.7	37.0	38.4	39.8	41.3	42.8	44.4	46.1	47.8
Fruits and vegetables, fresh	10.0	10.3	10.9	11.4	11.9	12.5	13.1	13.7	14.3	14.9	15.6	16.4
Fruits and vegetables, processed	7.5	6.9	7.2	7.5	7.7	8.0	8.3	8.6	8.9	9.3	9.6	10.0
Wine and beer	8.4	7.5	7.7	8.0	8.2	8.5	8.8	9.1	9.4	9.7	10.1	10.4
Sugar and tropical products	16.4	15.3	16.5	17.7	18.1	18.6	19.1	19.7	20.2	20.8	21.4	22.0
Sugar and related products	3.0	3.3	3.5	4.4	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.8
Cocoa, coffee, and products	7.4	7.4	7.9	8.1	8.4	8.6	8.9	9.2	9.5	9.8	10.1	10.4
Other imports	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0
Total agricultural imports	79.3	73.4	77.5	80.9	83.6	86.5	89.5	92.6	95.7	99.0	102.4	106.0
Net agricultural trade balance	36.1	23.2	20.5	18.8	17.8	17.3	17.5	16.8	16.2	15.5	14.2	12.9

Sources: U.S. Department of Agriculture and Bureau of Census, U.S. Department of Commerce.

U.S. trade value projections were completed in November 2009 based on policy decisions and other information known at that time. For updates of the nearby year forecasts, see USDA's *Outlook for U.S. Agricultural Trade* report, published in February, May, August, and November.

Notes: Other exports includes tobacco, seeds, sugar and tropical products, and beverages and preparations. Bulk commodity exports covers wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value product (HVP) exports is calculated as total exports less bulk commodities. HVP's include semiprocessed and processed grains and oilseeds, animals and animal products, horticultural products, and sugar and tropical products. Other imports include cotton, tobacco, and planting seeds.

Table 38. Prices received by farmers, selected food commodities, long-term projections

CPI category	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Price indexes:						*1990-92=100*						
Food commodities[1]	147.0	129.0	139.6	140.6	143.1	144.6	146.6	148.1	149.5	150.8	152.5	153.9
Food grains	259.0	185.0	173.0	172.5	166.2	159.6	161.6	162.3	164.3	165.0	165.8	166.5
Oil-bearing crops	202.0	178.0	164.3	160.7	162.5	164.3	164.3	165.1	165.1	165.1	165.1	164.3
Fruit and nuts	148.0	138.0	143.4	144.4	147.1	149.9	153.4	156.4	160.0	163.1	166.9	170.1
Vegetables[2]	152.7	163.7	169.7	172.2	174.7	177.3	179.9	182.5	185.1	187.8	190.4	193.2
Meat animals	117.0	106.0	115.4	119.4	121.0	123.3	125.0	125.9	126.2	127.0	128.2	129.4
Dairy products	140.0	98.0	127.8	120.9	130.5	132.1	134.8	136.7	138.7	140.2	142.2	143.3
Poultry and eggs	151.0	139.0	140.7	145.8	149.3	151.4	153.6	155.9	158.0	159.6	162.2	164.9
Changes in price indexes:						*Percent*						
Food commodities[1]	6.5	-12.2	8.2	0.7	1.8	1.0	1.4	1.0	0.9	0.9	1.1	0.9
Food grains	39.2	-28.6	-6.5	-0.3	-3.7	-4.0	1.3	0.4	1.2	0.4	0.5	0.4
Oil-bearing crops	47.4	-11.9	-7.7	-2.2	1.1	1.1	0.0	0.5	0.0	0.0	0.0	-0.5
Fruit and nuts	-6.3	-6.8	3.9	0.7	1.9	1.9	2.3	2.0	2.3	1.9	2.3	1.9
Vegetables[2]	1.5	7.2	3.7	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.4	1.5
Meat animals	-0.8	-9.4	8.9	3.5	1.3	1.9	1.4	0.7	0.2	0.6	0.9	0.9
Dairy products	-4.1	-30.0	30.4	-5.4	7.9	1.2	2.0	1.4	1.5	1.1	1.4	0.8
Poultry and eggs	7.9	-7.9	1.2	3.6	2.4	1.4	1.5	1.5	1.3	1.0	1.6	1.7

1/ The aggregate price index for food commodities is a weighted average using the NASS relative weights, which are based on average shares of farm cash receipts from 1990 to 1992. 2/ The price index for vegetables is a weighted average of the index for commercial vegetables and the index for potatoes and dry beans.

Sources: USDA, National Agricultural Statistics Service (NASS), *Agricultural Prices* ; Economic Research Service.

Table 39. Consumer food price indexes and food expenditures, long-term projections

CPI category	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Consumer price indices							*1982-84=100*					
All food	214.106	217.955	224.5	230.5	237.5	243.7	249.5	255.0	260.6	266.2	272.1	278.1
Food away from home	215.769	223.272	230.0	236.9	244.5	251.8	258.6	265.1	271.7	278.5	285.5	292.6
Food at home	214.125	215.124	221.6	227.0	233.8	239.3	244.5	249.5	254.5	259.4	264.6	270.0
Meats	201.815	200.545	204.0	210.7	219.8	225.5	229.4	232.2	234.4	236.3	238.8	241.6
Beef and veal	220.586	218.273	221.6	229.1	242.4	250.7	256.4	260.0	261.9	263.0	265.0	267.5
Pork	185.034	181.366	183.9	190.3	194.7	196.7	197.6	198.5	200.7	202.9	205.7	208.7
Other meats	190.588	194.901	200.4	206.0	211.2	215.4	219.3	222.6	225.9	229.3	232.7	236.2
Poultry	200.901	204.220	207.3	215.2	223.2	226.9	228.5	230.3	231.6	232.0	233.0	234.5
Fish and seafood	232.122	240.556	249.7	259.2	268.8	278.2	287.9	298.0	308.4	319.2	330.4	342.0
Eggs	222.708	190.024	194.8	198.4	203.0	205.8	208.6	211.4	214.3	217.1	220.0	222.9
Dairy products	210.396	197.013	202.5	205.0	212.5	216.5	221.0	225.0	229.0	233.0	237.5	241.5
Fats and oils	196.751	201.224	208.3	214.5	220.9	226.2	231.8	237.3	242.9	248.7	254.7	260.7
Fruits and vegetables	278.932	272.945	282.3	286.4	292.6	298.9	305.6	312.2	319.2	326.1	333.3	340.6
Sugar and sweets	186.577	196.933	205.3	209.5	213.9	218.3	222.7	227.3	231.9	236.6	241.4	246.4
Cereals and bakery products	244.853	252.567	261.4	269.4	276.4	283.2	290.4	297.7	305.3	313.0	320.8	328.8
Nonalcoholic beverages	160.045	163.034	167.1	171.3	175.6	180.0	184.5	189.1	193.8	198.6	203.6	208.7
Other foods	198.103	205.497	212.6	218.9	224.4	229.8	235.3	241.0	246.8	252.7	258.7	265.0
Food expenditures:							*Billion dollars*					
All food	1,165.3	1,139.0	1,165.1	1,200.8	1,248.6	1,296.3	1,346.8	1,397.4	1,449.6	1,503.5	1,560.2	1,618.7
Food at home	600.0	586.3	601.3	620.1	643.4	664.0	684.8	705.5	726.6	748.0	770.6	793.7
Food away from home	565.3	552.7	563.8	580.7	605.2	632.3	662.0	691.9	723.0	755.5	789.6	825.0
Changes in consumer food prices:							*Percent*					
All food	5.5	1.8	3.0	2.7	3.0	2.6	2.4	2.2	2.2	2.1	2.2	2.2
Food away from home	4.4	3.5	3.0	3.0	3.2	3.0	2.7	2.5	2.5	2.5	2.5	2.5
Food at home	6.4	0.5	3.0	2.4	3.0	2.4	2.2	2.0	2.0	1.9	2.0	2.0
Meats	3.5	-0.6	1.7	3.3	4.3	2.6	1.7	1.2	0.9	0.8	1.1	1.2
Beef and veal	4.5	-1.0	1.5	3.4	5.8	3.4	2.3	1.4	0.7	0.4	0.8	0.9
Pork	2.3	-2.0	1.4	3.5	2.3	1.0	0.5	0.5	1.1	1.1	1.4	1.5
Other meats	3.1	2.3	2.8	2.8	2.5	2.0	1.8	1.5	1.5	1.5	1.5	1.5
Poultry	5.0	1.7	1.5	3.8	3.7	1.7	0.7	0.8	0.6	0.2	0.4	0.6
Fish and seafood	5.9	3.6	3.8	3.8	3.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Eggs	14.0	-14.7	2.5	1.8	2.3	1.4	1.4	1.3	1.4	1.3	1.3	1.3
Dairy products	8.0	-6.4	2.8	1.2	3.7	1.9	2.1	1.8	1.8	1.7	1.9	1.7
Fats and oils	13.8	2.3	3.5	3.0	3.0	2.4	2.5	2.4	2.4	2.4	2.4	2.4
Fruits and vegetables	6.2	-2.1	3.4	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Sugar and sweets	5.5	5.6	4.2	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1
Cereals and bakery products	10.2	3.2	3.5	3.1	2.6	2.5	2.5	2.5	2.6	2.5	2.5	2.5
Nonalcoholic beverages	4.3	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Other foods	5.2	3.7	3.5	3.0	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4

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