# USDA Agricultural Projections to 2020

**United States Department of Agriculture**

Office of the Chief Economist

World Agricultural Outlook Board

Long-term Projections Report OCE-2011-1

February 2011

## Interagency Agricultural Projections Committee

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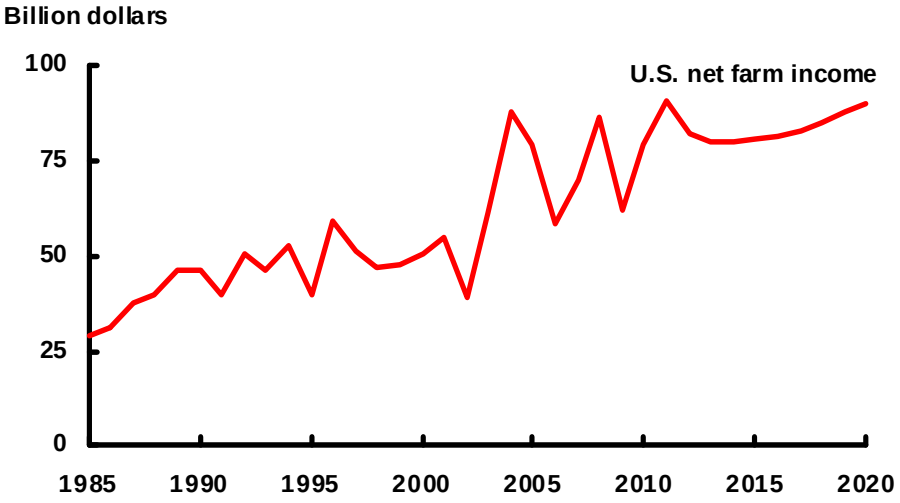
**Strong global agricultural demand projected to keep U.S. net farm income historically high**




*USDA Long-term Projections*

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**USDA Agricultural Projections to 2020.** 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-2011-1, 100 pp.

## Abstract

This report provides projections for the agricultural sector through 2020. 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. The projections in this report were prepared during October through December 2010, reflecting a composite of model results and judgment-based analyses.

Prospects for the agricultural sector in the near term reflect market adjustments to the supply-and-demand conditions underlying recent price increases for many farm commodities. In response, global agricultural production increases in 2011, particularly for grains. Production adjustments are made in the livestock sector during the first several years of the projections in response to high grain and soybean meal prices in 2011. Longrun developments for global agriculture reflect a resumption of steady world economic growth following the global recession and continued demand for biofuels, which combine to support increases in consumption, trade, and prices. Thus, after near-term declines from 2011 record levels, the value of U.S. agricultural exports and net farm income each rise through the rest of the decade. U.S. retail food prices increase faster than the overall rate of inflation rate in 2011 and 2012, reflecting higher food commodity prices and energy costs. Food prices rise less than the general inflation rate over the remainder of the projections, largely reflecting production increases in the livestock sector which limit meat price increases.

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



Washington, D.C. 20250-3812 February 2011

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### Features in this Report

**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 2010 *World Agricultural Supply and Demand Estimates* report. The macroeconomic assumptions were completed in October 2010.

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.

**Long-term Projections on the Internet**

USDA's Economic Research Service has a briefing room for long-term projections at:

http://www.ers.usda.gov/briefing/projections/

Also, data from the new USDA long-term projections are available electronically at:

http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1192

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**Acknowledgments**

The report coordinators, on behalf of the Interagency Agricultural Projections Committee, thank the many analysts in different agencies of USDA for their contributions to the long-term projections analysis and to the preparation and review of this report.

# USDA Agricultural Projections to 2020

## Interagency Agricultural Projections Committee

### Introduction and Projections Overview

This report provides longrun projections for the agricultural sector through 2020. 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 2010 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 2010 *World Agricultural Supply and Demand Estimates* report. The macroeconomic assumptions were completed in October 2010.

Prospects for the agricultural sector in the near term reflect market adjustments to the supply-and-demand conditions underlying recent high prices for many farm commodities. In response, global agricultural production increases in 2011, particularly for grains. Production adjustments are made in the livestock sector during the first several years of the projections in response to high grain and soybean meal prices in 2011. The high prices underlie record projected levels of U.S. agricultural exports and U.S. net farm income in 2011.

Longrun developments for global agriculture reflect a resumption of steady world economic growth following the global recession and continued demand for biofuels, particularly in the United States and the European Union (EU). These factors combine to support longer run increases in consumption, trade, and prices for agricultural products. Thus, after near-term reductions from 2011 records, the value of U.S. agricultural exports and net farm income each rise through the rest of the decade. U.S. retail food prices increase faster than the general inflation rate in 2011 and 2012, reflecting higher food commodity prices and energy costs. Food prices rise less than the overall rate of inflation over the remainder of the projections, largely reflecting production increases in the livestock sector which limit meat price increases.

## Key Assumptions and Implications

**Major assumptions underlying the projections and selected implications include:**

***Economic Growth***

- U.S. and world economic growth reflect a movement back toward long-run steady growth in the aftermath of the global financial crisis and economic recession.

- Global economic growth is assumed at a 3.4-percent average growth rate for 2011-2020. Continued high growth rates in emerging market countries, such as China and India, and a return to strong growth in other developing countries underpin world macroeconomic gains.

- The U.S. economy is projected to grow at an average rate of 2.6 percent over the next decade. With slower growth in the United States than in the world economy, the U.S. share of global gross domestic product (GDP) falls from over 26 percent currently to less than 25 percent at the end of the projection period. Employment gains are projected to be slow, with high rates of unemployment lasting for a number of years.

- In the longer run, the return to 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.

***Population***

- Stronger global economic growth over the next decade contributes to the continued slowing of population gains around the world as birth rates decline. Growth in global population is assumed to average about 1 percent per year over the projection period compared with average annual rates of 1.7 percent in the 1980s, 1.4 percent in the 1990s, and 1.2 percent in the last decade.

- 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 82 percent by 2020, up from 74 percent in 1980 and 77 percent in 1990.

- 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 diverse types.

### *The Value of the U.S. Dollar*

- The U.S. dollar is assumed to depreciate somewhat over the next decade. Although there has been a recent depreciation of the euro due to the sovereign debt problems in the EU, the longer term depreciation of the dollar relative to the euro and yen is part of an ongoing global rebalancing of international currency portfolios.

- 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*

- Crude oil prices are assumed to increase over the next decade as global economic activity improves. Increases are expected to be faster than the general inflation rate, with the nominal refiner acquisition cost for crude oil imports projected to exceed $110 per barrel by the end of the projection period.

- These increases in crude oil prices raise production costs 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. Acreage enrolled in the program has fallen from more than 36 million acres to about 31.4 million acres and is projected to remain close to its legislated maximum throughout the projections. This reduction in CRP acreage provides some additional cropland for potential use in production.

- With high prices for many crops, price-dependent farm program benefits have become less important in overall Government payments to the U.S. agricultural sector. The CRP and fixed direct payments represent most payments to the sector throughout the projection period. As a consequence, Government payments have a smaller role and the sector relies on the market for more of its income.

### *U.S. Biofuels*

- The projections assume that the 45-cents-per-gallon tax credit available to blenders of ethanol and the 54-cents-per-gallon tariff on imported ethanol used as fuel are in effect through the projection period. The $1.00-per-gallon tax credit for blending biodiesel, which had expired at the end of 2009, was not assumed to be available since its retroactive reinstatement and extension through 2011 occurred after these projections were completed.
- Expansion in the U.S. ethanol industry is projected to continue. However, growth is projected to be slower than the rapid gains during 2005-09, despite some potential to increase into the E15 (15-percent ethanol blend) market for some vehicles. The projections reflect the October 2010 approval by the U.S. Environmental Protection Agency (EPA) of E15 for use in model year 2007 and newer passenger vehicles (including cars, sport utility vehicles, and light pickup trucks), but were completed before the more-recent EPA announcement of E15 approval for model years 2001-06.
- Corn is expected to remain the primary feedstock for U.S. ethanol production during the projection period, with about 36 percent of total corn use going to ethanol production over the next decade. Nonetheless, smaller gains for corn-based ethanol are projected, 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, constraints in the E15 market, and the small size of the E85 (85-percent ethanol blend) market. By the end of the projection period, corn-based ethanol production represents more than 10 percent of annual gasoline consumption.
- Biodiesel production in the United States is assumed to increase to 1 billion gallons by 2012. Almost half of this volume is assumed to be from domestic first-use vegetable oils, with animal fats and recycled vegetable oil accounting for the remainder.

### *Livestock and Meat Trade*

- The projections assume continued policies in Russia that build toward self sufficiency in their poultry and pork sectors.
- Beef exports from competitor countries of Argentina, Australia, and Canada increase slowly as those countries rebuild breeding herds.
- The projections were completed before the recent outbreak of food and mouth disease in South Korea.

### *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 2010.
- 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***

- Demand for biofuel feedstocks is projected to continue growing in a number of countries. The largest markets—the United States, Brazil and the EU—will grow at a slower pace than in recent years. Continued expansion is largely due to biofuel policies, mainly use mandates and tax incentives.
- The projections assume that 60 percent of the EU 2020 mandate, that renewable fuels provide 10 percent of the energy used in the transportation sector, is achieved from annual agricultural crop feedstocks. Biodiesel accounts for 60 percent of total biofuel use in 2020 and ethanol accounts for 40 percent, compared with 69 percent for biodiesel and 31 percent for ethanol estimated for 2010.
- To boost biodiesel production, the EU is projected to increase oilseed production as well as imports of oilseeds and vegetable oil from countries in the former Soviet Union and non-EU Europe. EU wheat provides the feedstock for EU ethanol expansion in the early years but corn used as an ethanol feedstock grows more rapidly toward the end of the projections.
- The EU imports biodiesel from Argentina and ethanol from Brazil, and is the world's largest importer of both throughout the projection period. Overall, biofuel imports become increasingly important in the EU, rising to about one-fourth of total use.

***Prices***

- Prices for major crops are projected to decline in the near term as production globally responds to current high prices. Nonetheless, after near-term price declines, 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.
- Adjustments in the U.S. livestock sector to high feed costs continue in the near term, lowering production of total meat and poultry and raising livestock and meat prices. Improving net returns provide economic incentives for expansion later in the decade, with nominal livestock prices rising moderately over most of the rest of the projection period.
- Although farm income initially declines from a projected 2011 record, strengthening global food demand and sustained biofuel demand keep net farm income historically high.
- U.S. retail food prices rise faster than the general inflation rate in 2011 and 2012, reflecting higher food commodity prices, rising energy costs, and improved demand as the economic recovery continues. Food prices rise less than the overall rate of inflation over the remainder of the projections, largely reflecting production increases in the livestock sector which limit meat price increases.

## Macroeconomic Assumptions

The United States and much of the developed world are moving to steady growth following the most serious worldwide economic downturn since the end of World War II. Given the depth and widespread nature of the recession, the transition has been characterized by slow economic growth and slow employment gains, and is likely to result in high rates of unemployment lasting a number of years.

Thus, macroeconomic assumptions underlying USDA's long-term projections reflect this slow transition back toward longrun sustainable growth in 2011 and beyond. Implicit in this baseline is the assumption that the U.S. Federal Reserve Board and other major central banks around the world continue to take aggressive action, as needed, to counter the continuing financial problems lingering from the recession. Even with these actions, evolving situations will affect the recovery and provide risks for the longer term outlook. (See boxes, *Financial Crisis in the Eurozone: Implications for U.S. Agricultural Exports*, page 9; and *Macroeconomic Risks in the Projections*, page 10.) The macroeconomic assumptions were completed in October 2010.

After averaging 2.9-percent growth between 2001 and 2008, overall global real gross domestic product (GDP) fell by 2.1 percent in 2009. World economic growth for 2010 is estimated to be 3.3 percent. From 2011 through 2020, world growth is projected to increase at an annual average rate of 3.5 percent. Most of these economic gains reflect continued high growth rates in emerging market countries such as China and India and a return to strong growth in other developing countries. While developed countries' share of global real GDP is still more than 60 percent at the end of the projection period, that is down from 80 percent in 1970 and almost 70 percent in 2007.

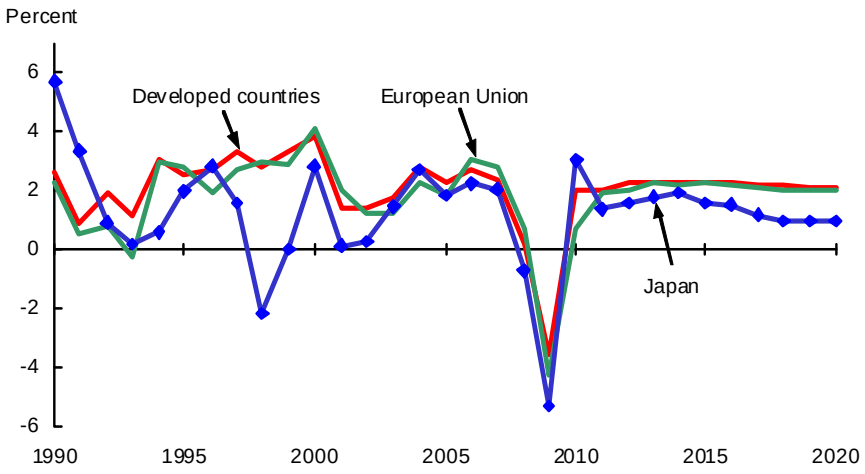
Following a contraction of about 2.6 percent in 2009, the U.S. economy is expected to grow by 2.4 to 2.5 percent in 2010 and 2011, 2.8 percent in 2012, and then settle at a longer term rate of 2.6 percent in 2013 and beyond. With U.S. GDP growing more slowly than the world economy throughout the projections period, the U.S. share of global GDP falls below 25 percent by 2020.

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

## Agricultural Implications

The return of global economic growth beginning in 2010 and the continuation of population gains are expected to boost food demand. This is particularly true since world growth is concentrated in emerging markets and developing countries with high income-related propensities for consumption of food and agricultural products. In addition, growing biofuel demand will remain an important factor 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 its continued decline through the projection period. The declining dollar makes U.S. agricultural exports increasingly competitive in international markets.

**GDP growth for developed countries, European Union, and Japan**




Developed economies are projected to grow at an average annual rate of 2.2 percent in 2011-20, more than half a percentage point lower than the 1970-2008 historical average. Both the European Union (EU) and Japan experienced more severe recessions than the United States, with prospects for both countries growing more slowly than the U.S. economy in coming years.

- Economic growth rates for the EU remain about 2 percent per year in the projection period, somewhat less than their historical average. The EU was less aggressive in combating the impact of the global financial crisis than was the United States. The Eurozone crisis of 2010 further set back growth prospects for the EU (see box, *Financial Crisis in the Eurozone: Implications for U.S. Agricultural Exports*). Lingering structural rigidities, particularly inflexible labor laws and a very expensive social security system, impinge on growth and the EU financial system. Political difficulties also limit the benefits of economic integration, particularly with continued restrictions on labor mobility between EU countries and the cumbersome EU Commission decisionmaking process. Unemployment rates are expected to decline from double-digit rates in the projection period.
- The projections assume economic growth in Japan averages around 1.4 percent per year, a continuation of the slow growth and deflationary environment that Japan has experienced since the 1990s. Japan continues to face constraints to economic growth, largely the result of long-term structural rigidities (such as legal constraints on new business entry), a difficult political process for economic reform, and a rapidly aging population. Japan's labor market liberalization partly eases these constraints, aiding some productivity growth. Increasing integration with the other economies of Asia, especially China, will mitigate some of the growth constraints in the Japanese economy. Nonetheless, while Japan is a heavily trade-dependent country, its trade-dependent sectors have declined significantly. The yen has continued to appreciate against the dollar in spite of the interventions of Japan's central bank to moderate the appreciation. Slow growth prospects in Japan relative to high growth in other major Asian countries suggest that the importance of Japan in the global economy will diminish throughout the projection period.

**Financial Crisis in the Eurozone: Implications for U.S. Agricultural Exports**

The Eurozone Crisis of 2010 was the result of the evolution of large current account imbalances between Eurozone countries. The large fiscal debt accumulation in Greece, Ireland, Spain, Portugal, and Italy became unsustainable. The resulting dramatic increase in the market cost of credit to those countries precipitated the crisis.

The creation of a European Financial Stabilization Facility to support the sovereign debt of Eurozone deficit countries put a short-term halt to the threat of default. The facility, largely funded by Germany, is also based on commitments by the deficit countries to institute austerity measures to substantially reduce Government deficits. The longer term outcome will depend largely on whether the programs put in place to address the imbalances in trade and Government finances are effective.

One potential outcome of the crisis would be a sustained long-term depreciation of the euro against the dollar and other currencies. In this case, Eurozone products would become more competitive in world markets. On the other hand, some investment that would have gone to the Eurozone would instead go to other countries. This investment would strengthen global growth and demand for agricultural products, particularly in developing economies, and thus benefit U.S. agricultural exports. On balance, even with near-term appreciation relative to the euro, the U.S. dollar still depreciates overall and remains relatively low compared with currencies of most of its export markets. This depreciation facilitates continued strength in U.S. agricultural exports over the projection period.

## Macroeconomic Risks in the Projections

Macroeconomic assumptions behind the projections in this report include a modest recovery in the U.S. economy, with a return to steady long-term growth and a pickup in job growth in late 2011. Economic gains in the rest of the developed world, which have been uneven in the early part of the recovery, are expected to pick up in late 2011. Developing economies overall are now in an expansion phase starting in China and India (whose economies showed no signs of an overall recession) joined by much of Latin America and almost all of Asia in 2010. Thus, the overall world economy is expected to return to near longer term trend growth rates by mid 2011 although, unlike many previous recovery periods, no sharp short-term bounce back with accelerated growth is assumed. Nonetheless, even with this return to sustained world economic growth, there has been a dramatic change in the underlying macroeconomic policy environment and an increased risk of downside scenarios from multiple sources.

**Labor Market Risks in Developed Economies**. The potential for a noticeable slowing of world and U.S. growth in 2011-20 is substantial. Relatively slow growth in the United States and other developed countries implies continuing high levels of unemployment. The U.S. unemployment rate is projected to remain persistently high and to stay above 6 percent until 2018-20.

Prolonged weakness in U.S. labor markets would have important implications for trend productivity and output growth due to both supply side and demand side risks. On the supply side, relatively high unemployment could substantially curtail growth in the capacity of the U.S. economy. Larger unemployment would imply substantial risks to labor incomes, potentially dampening consumption and causing aggregate demand growth to stagnate. Similar risks are present in the European economies.

**Financial Market Risks**. There remain notable risks to U.S. and world economic growth because of continuing problems in financial markets. The potential for a substantial decline in the euro due to problems with the internal Eurozone structural debt could be confined to European financial markets or could affect U.S. and other financial markets with uncertain consequences for world growth.

Additionally, due to increased economic and financial market uncertainty, consumers in developed economies could decide to add to savings, thereby shrinking 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 thereby dampen growth in developing economies.

*-- Continued*

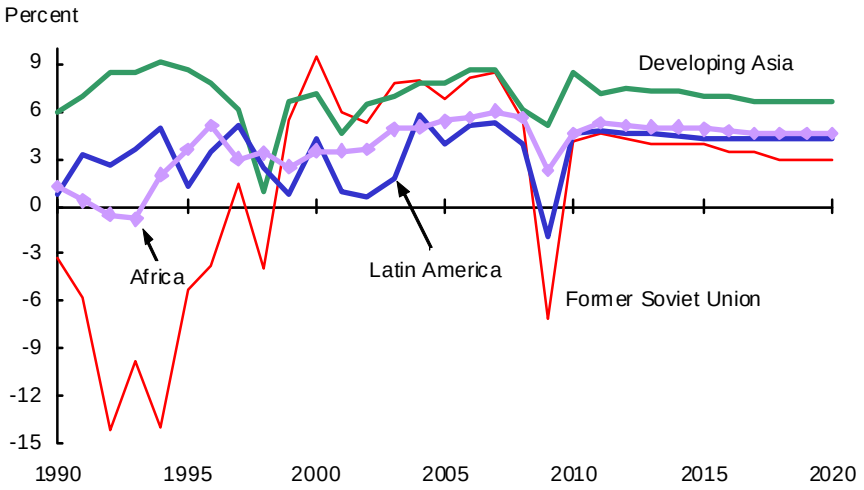
**Macroeconomic Risks in the Projections** *(Continued)*

**U.S. Business Confidence Risks.** The recovery of business confidence in the United States is a prerequisite to achieving sustained employment gains and economic growth. Businesses are now keeping record-high levels of cash and, while they are replenishing inventories and replacing old equipment, they are generally not starting many new major business projects. For the domestic economy to have sustained growth and move toward full employment, business confidence needs to improve so that new business projects can move forward. As a business cycle matures, business confidence typically rises, leading to job growth and increasing demand for capital as new business projects are started. Thus, a weaker recovery of business confidence represents a major risk to domestic GDP growth, employment gains, and consumer spending increases.

**U.S. Dollar Risks.** If the U.S. economy were to undergo a longer and deeper recession due to some combination of the factors above, one low-probability outcome could be a weakening of the U.S. dollar as the default reserve currency in the world. Such an outcome would imply a substantial decline in the dollar's value and a potential decline in U.S. living standards. In turn, this would lead to lower U.S. demand for raw materials and manufactured goods from developing countries, lowering their growth as well. For agriculture, implications would depend on how weaker economic growth and demand gains in the developing economies would balance against agricultural trade effects of a sharply lower dollar.

**China's Inflation Risks.** China may face a more difficult problem in constraining inflation in the next decade than in the last, as industrial commodity and wage inflation speed up. Consumer price inflation went above 3 percent in the fall of 2010, despite a 2 to 3 percent appreciation of the yuan, a modest tightening of credit, and a Government edict to prevent provincial hoarding of coal and oil. Bank reserve requirements were raised six times in 2010, and short-term interest rates were increased as well. However, as inflation in China continued to rise, many analysts suggested that the increases in bank reserve requirements, interest rates, and the yuan were too modest. A medium-term risk is that fighting inflation may sharply limit bank credit expansion and thus slow GDP growth. The yuan may be allowed to appreciate more rapidly than projected to keep Chinese inflation in check.

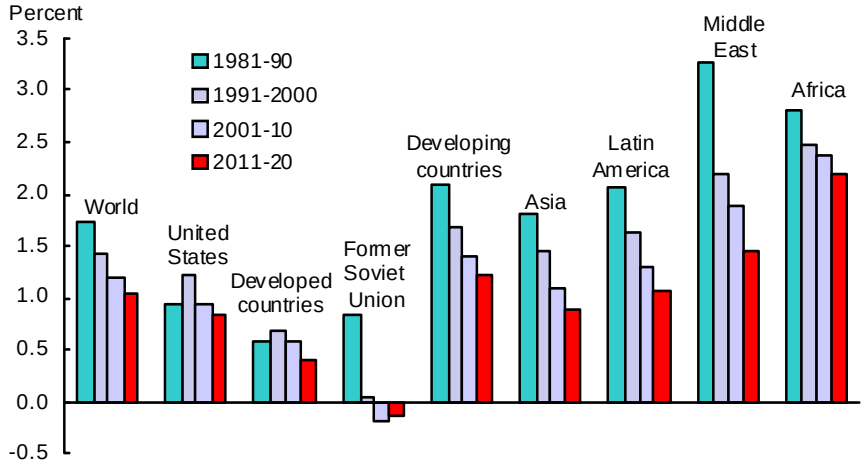
**GDP growth for developing economies and the former Soviet Union**




Economic growth in developing countries is projected to average close to 6 percent annually during 2011-20. These countries were much less affected by the global recession than were the developed countries. The pattern of developing countries producing and consuming a larger share of world output, relative to developed countries, strengthens in the projections.

- 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 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. Projected growth for Southeast Asia is 5.2 percent for the next decade while growth in developing countries of East Asia is projected to be more than 7 percent.
- China's economic growth has been consistently the strongest in Asia, averaging almost 10 percent between 2001 and 2010. While some slowing is expected, China's growth is expected to average more than 8 percent over the next decade and will account for almost 12 percent of the world economy. India's projected average economic growth of almost 8 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 $962 in 2010, compared with $2,800 in China. Continued strong income growth in India and China is expected to bring their real per capita income to $1,800 and nearly $6,000 by 2020. This continued rapid growth in per capita income is expected to move a significant number of people out of poverty.
- Latin America sustains projected growth of about 4.4 percent per year. An overall improvement in macroeconomic policies has attracted foreign capital inflows (particularly foreign direct investment 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 3.6 percent annually for the next decade as these countries return to sustainable growth after 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**




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

World population growth continues to slow over the next decade, rising about 1 percent per year for the projection period compared to an annual rate of 1.7 percent in the 1980s.

- Developed countries have very low projected rates of population growth, at 0.4 percent over 2011-20. Projected annual average population growth rates for the United States in the 0.8 to 0.9 percent range over the period are the highest among developed countries, in part reflecting large immigration. Japan's population is projected to decline by an average of 0.4 percent over the projection period.

- 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 82 percent by 2020, compared to 74 percent in 1980.

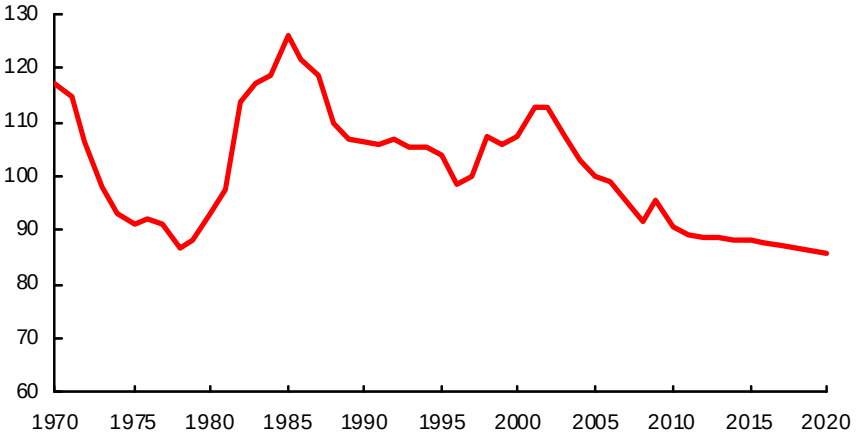
- China and India together account for 37 percent of the world's population. China's population growth rate slows from 1.5 percent per year in 1981-90 to 0.4 percent in 2011-20. The population growth rate in India, the world's second most populous nation, is projected to decline from 2.0 percent to 1.2 percent per year over the same period.

- Brazil's population growth rate falls from 2.1 percent per year in 1981-90 to 1 percent annually in 2011-20. Although Sub-Saharan Africa's population growth rate declines from 2.9 percent to 2.3 percent per year between the same periods, this region continues to have the highest population growth rate of any region in the world.

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

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

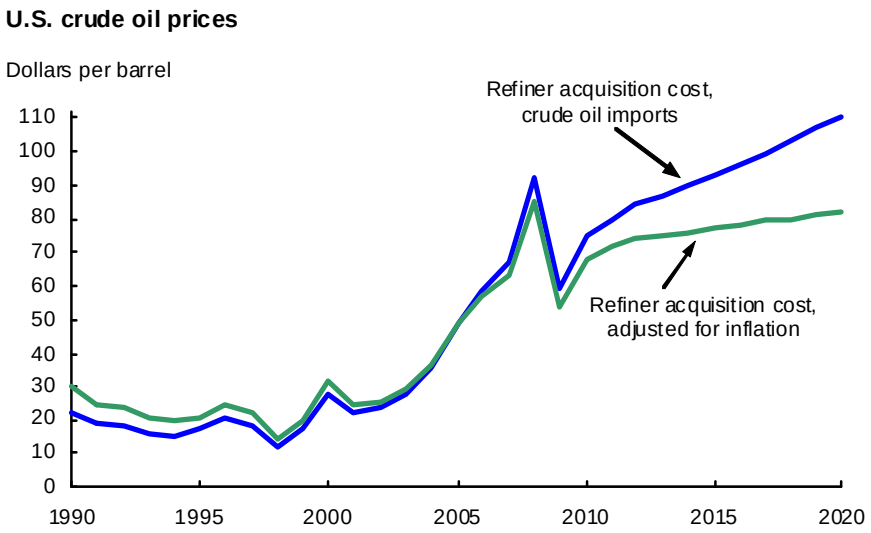
Index values, 2005=100




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

The U.S. dollar is projected to depreciate moderately through the projection period and thus continue to facilitate growth in U.S. agricultural exports. Among agricultural products, U.S. exports of bulk commodities and horticultural products tend to be the most sensitive to movements in the U.S. dollar's value, because they face more global trade competition. The dollar depreciation is part of a global rebalancing of trade and financial markets in the aftermath of the global financial crisis and recession.

- 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 immediate effect of the debt crisis in Greece was a depreciation of the euro relative to the dollar, with the euro depreciating by about 25 percent between December 2009 and June 2010. In the longer term, a depreciation of the dollar relative to the euro and yen is likely as part of the global rebalancing of international currency portfolios.
- China initiated a process for appreciating its currency in 2005 after a long period of maintaining a fixed nominal exchange rate and an undervalued currency. However, that process was halted in 2008. After nearly two years of maintaining a constant nominal exchange rate of the yuan to the dollar, the Chinese Central Bank announced in June 2010 that they will allow increased flexibility in the bilateral exchange rate. Since then, there has been a very modest 2-3 percent nominal appreciation of the yuan. The projections assume that China allows its real exchange rate to continue to appreciate modestly. The real appreciation of yuan also leads to some appreciation of other Asian currencies. These developments will strengthen U.S. agricultural exports to Asian countries.




Crude oil prices are assumed to increase over the projection period as global economic activity picks up. From 2011 through 2020, crude oil prices are expected to rise somewhat faster than the general inflation rate. By the end of the projection period, the nominal refiner acquisition cost for crude oil imports is projected to be around $110 per barrel.

Table 1. U.S. macroeconomic assumptions

| Item | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP, billion dollars | | | | | | | | | | | | |
| Nominal | 14,119 | 14,574 | 15,118 | 15,758 | 16,492 | 17,293 | 18,133 | 19,013 | 19,937 | 20,905 | 21,921 | 22,985 |
| Real 2005 chained dollars | 12,881 | 13,190 | 13,519 | 13,898 | 14,259 | 14,630 | 15,010 | 15,401 | 15,801 | 16,212 | 16,634 | 17,066 |
| percent change | -2.6 | 2.4 | 2.5 | 2.8 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| Disposable personal income | | | | | | | | | | | | |
| Nominal (billion dollars) | 11,035 | 11,344 | 11,741 | 12,246 | 12,834 | 13,475 | 14,149 | 14,856 | 15,599 | 16,379 | 17,198 | 18,058 |
| percent change | 0.7 | 2.8 | 3.5 | 4.3 | 4.8 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Nominal per capita, dollars | 35,888 | 36,567 | 37,517 | 38,792 | 40,307 | 41,964 | 43,694 | 45,498 | 47,381 | 49,346 | 51,396 | 53,535 |
| percent change | -0.1 | 1.9 | 2.6 | 3.4 | 3.9 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.2 | 4.2 |
| Real (billion 2005 chained dollars) | 10,100 | 10,302 | 10,539 | 10,845 | 11,148 | 11,460 | 11,781 | 12,111 | 12,450 | 12,799 | 13,157 | 13,526 |
| percent change | 0.6 | 2.0 | 2.3 | 2.9 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Real per capita, 2005 chained dollars | 32,848 | 33,209 | 33,676 | 34,353 | 35,013 | 35,690 | 36,382 | 37,091 | 37,816 | 38,559 | 39,320 | 40,098 |
| percent change | -0.3 | 1.1 | 1.4 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 |
| Consumer spending | | | | | | | | | | | | |
| Real (billion 2005 chained dollars) | 9,154 | 9,364 | 9,589 | 9,839 | 10,084 | 10,337 | 10,595 | 10,860 | 11,131 | 11,410 | 11,695 | 11,987 |
| percent change | -1.2 | 2.3 | 2.4 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Inflation measures | | | | | | | | | | | | |
| GDP price index, chained, 2005=100 | 109.6 | 110.5 | 111.8 | 113.4 | 115.7 | 118.2 | 120.8 | 123.5 | 126.2 | 128.9 | 131.8 | 134.7 |
| percent change | 2.2 | 0.8 | 1.2 | 1.4 | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| CPI-U, 1982-84=100 | 214.5 | 217.1 | 220.6 | 224.8 | 230.4 | 236.2 | 242.1 | 248.1 | 254.3 | 260.7 | 267.2 | 273.9 |
| percent change | -0.4 | 1.2 | 1.6 | 1.9 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| PPI, finished goods 1982=100 | 172.5 | 181.0 | 188.2 | 192.0 | 195.6 | 199.3 | 203.1 | 207.0 | 210.9 | 214.9 | 219.0 | 223.1 |
| percent change | -2.6 | 4.9 | 4.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| PPI, crude goods 1982=100 | 175.2 | 210.3 | 218.7 | 223.0 | 225.3 | 227.5 | 229.8 | 232.1 | 234.4 | 236.8 | 239.1 | 241.5 |
| percent change | -30.4 | 20.0 | 4.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Crude oil price, $/barrel | | | | | | | | | | | | |
| EIA refiner acq. cost, imports | 59.0 | 74.9 | 80.1 | 84.0 | 87.0 | 90.0 | 93.2 | 96.5 | 99.9 | 103.4 | 107.0 | 110.8 |
| percent change | -36.2 | 26.8 | 6.9 | 4.9 | 3.6 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.6 |
| Real 2005 chained dollars | 53.9 | 67.8 | 71.6 | 74.1 | 75.2 | 76.1 | 77.1 | 78.1 | 79.1 | 80.2 | 81.2 | 82.3 |
| percent change | -36.8 | 25.8 | 5.6 | 3.5 | 1.5 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Labor compensation per hour | | | | | | | | | | | | |
| nonfarm business, 2005=100 | 113.5 | 116.0 | 118.9 | 122.0 | 125.4 | 128.9 | 132.5 | 136.2 | 140.0 | 143.9 | 147.9 | 152.0 |
| percent change | 1.9 | 2.2 | 2.5 | 2.6 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Interest rates, percent | | | | | | | | | | | | |
| 3-month Treasury bills | 0.2 | 0.4 | 2.8 | 4.0 | 4.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| 3-month commercial paper | 0.3 | 1.8 | 3.0 | 4.2 | 5.1 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 |
| Bank prime rate | 3.3 | 4.0 | 5.4 | 6.8 | 7.7 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| 10-year Treasury bonds | 3.3 | 3.5 | 5.2 | 5.2 | 5.6 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.8 |
| Moody's Aaa bond yield index | 5.3 | 4.8 | 5.4 | 5.7 | 6.3 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 |
| Labor and population | | | | | | | | | | | | |
| Civilian unemployment rate, percent | 9.3 | 9.7 | 9.3 | 8.5 | 8.0 | 7.5 | 7.0 | 6.5 | 6.2 | 6.0 | 6.0 | 6.0 |
| Nonfarm payroll emp., millions | 130.9 | 130.3 | 131.6 | 133.2 | 134.5 | 135.9 | 137.2 | 138.6 | 139.8 | 141.0 | 142.1 | 143.2 |
| percent change | -4.3 | -0.5 | 1.0 | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 |
| Total population, millions | 307.5 | 310.2 | 313.0 | 315.7 | 318.4 | 321.1 | 323.8 | 326.5 | 329.2 | 331.9 | 334.6 | 337.3 |
| percent change | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |

Domestic macroeconomic assumptions were completed in October 2010. 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, 2009 | Share of world GDP 2007-2009 | Per capita income, 2009 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Average 1991-2000 | Average 2001-2010 | Average 2011-2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Bil. 2005 dollars* | *Percent* | *2005 dollars* | | | | | *Percent change* | | | | |
| World | 48,350 | 100.0 | 7,164 | -2.1 | 3.3 | 3.2 | 3.5 | 3.6 | 3.6 | 2.7 | 2.4 | 3.4 |
| Less United States | 35,469 | 73.1 | 5,506 | -1.9 | 3.6 | 3.5 | 3.8 | 3.9 | 3.9 | 2.5 | 2.7 | 3.7 |
| North America | 14,128 | 29.5 | 41,436 | -2.6 | 2.5 | 2.6 | 2.9 | 2.7 | 2.6 | 3.4 | 1.7 | 2.7 |
| Canada | 1,248 | 2.6 | 37,262 | -2.5 | 3.5 | 3.8 | 3.5 | 3.3 | 3.0 | 2.9 | 2.0 | 3.2 |
| United States | 12,881 | 26.9 | 41,890 | -2.6 | 2.4 | 2.5 | 2.8 | 2.6 | 2.6 | 3.4 | 1.6 | 2.6 |
| Latin America | 3,085 | 6.3 | 5,281 | -2.0 | 4.6 | 4.7 | 4.6 | 4.6 | 4.4 | 3.1 | 3.0 | 4.4 |
| Mexico | 787 | 1.7 | 7,075 | -6.5 | 4.5 | 4.7 | 4.3 | 4.2 | 4.1 | 3.5 | 1.6 | 4.0 |
| Caribbean & Central America | 318 | 0.7 | 3,911 | -0.5 | 1.9 | 3.4 | 4.5 | 4.5 | 4.4 | 3.1 | 2.7 | 4.1 |
| South America | 1,980 | 4.0 | 5,056 | -0.2 | 5.0 | 4.9 | 4.8 | 4.7 | 4.5 | 3.0 | 3.6 | 4.5 |
| Argentina | 221 | 0.4 | 5,411 | 0.9 | 4.5 | 4.3 | 4.0 | 3.8 | 3.8 | 4.4 | 4.1 | 3.8 |
| Brazil | 1,072 | 2.3 | 5,656 | -0.2 | 6.5 | 5.4 | 5.2 | 5.1 | 4.8 | 2.6 | 3.4 | 4.7 |
| Other | 635 | 1.3 | 4,176 | -0.7 | 2.6 | 4.2 | 4.3 | 4.4 | 4.3 | 3.3 | 3.8 | 4.3 |
| Europe | 14,775 | 31.1 | 27,169 | -4.1 | 1.0 | 1.6 | 2.0 | 2.2 | 2.2 | 2.1 | 1.2 | 2.1 |
| European Union-27 | 13,936 | 29.4 | 27,340 | -4.2 | 0.7 | 1.9 | 2.0 | 2.2 | 2.2 | 2.1 | 1.2 | 2.1 |
| Other Europe | 839 | 1.7 | 24,601 | -1.8 | 1.5 | 2.2 | 2.3 | 2.5 | 2.6 | 1.8 | 1.8 | 2.3 |
| Former Soviet Union | 1,178 | 2.5 | 4,267 | -7.1 | 4.1 | 4.6 | 4.2 | 4.0 | 3.9 | -4.0 | 5.3 | 3.6 |
| Russia | 896 | 1.9 | 6,401 | -7.9 | 4.0 | 4.3 | 3.8 | 3.8 | 3.5 | -3.6 | 4.8 | 3.4 |
| Ukraine | 85 | 0.2 | 1,859 | -15.1 | 3.6 | 5.8 | 6.9 | 5.7 | 5.4 | -7.7 | 4.5 | 5.1 |
| Other | 197 | 0.4 | 2,179 | 1.0 | 4.9 | 5.1 | 4.7 | 4.2 | 4.9 | -3.8 | 8.3 | 4.0 |
| Asia and Oceania | 12,493 | 25.2 | 3,342 | 1.1 | 6.2 | 5.0 | 5.2 | 5.3 | 5.4 | 3.7 | 4.2 | 5.1 |
| East Asia | 9,139 | 18.5 | 5,962 | 0.3 | 6.3 | 4.7 | 5.0 | 5.1 | 5.3 | 3.4 | 4.0 | 4.9 |
| China | 3,385 | 6.4 | 2,557 | 8.7 | 10.8 | 8.6 | 8.6 | 8.6 | 8.8 | 10.5 | 9.9 | 8.3 |
| Hong Kong | 196 | 0.4 | 27,848 | -2.8 | 5.6 | 5.1 | 5.6 | 5.3 | 4.8 | 4.5 | 4.0 | 4.4 |
| Japan | 4,203 | 9.0 | 33,074 | -5.3 | 3.0 | 1.4 | 1.6 | 1.8 | 1.9 | 1.2 | 0.8 | 1.4 |
| South Korea | 956 | 1.9 | 19,702 | 0.2 | 5.3 | 3.8 | 4.0 | 4.1 | 4.0 | 6.2 | 4.0 | 3.8 |
| Taiwan | 383 | 0.8 | 16,651 | -1.9 | 6.6 | 4.5 | 5.9 | 5.0 | 4.5 | 6.5 | 3.5 | 4.2 |
| Southeast Asia | 1,131 | 2.3 | 1,887 | 1.1 | 6.1 | 5.6 | 5.8 | 5.6 | 5.4 | 5.2 | 4.7 | 5.2 |
| Indonesia | 371 | 0.7 | 1,546 | 4.5 | 6.0 | 6.3 | 6.5 | 6.3 | 6.0 | 4.4 | 5.2 | 5.7 |
| Malaysia | 156 | 0.3 | 5,610 | -1.7 | 6.7 | 5.1 | 5.8 | 5.2 | 5.0 | 7.2 | 4.4 | 5.0 |
| Philippines | 124 | 0.3 | 1,267 | 0.9 | 5.0 | 5.3 | 5.0 | 4.8 | 4.7 | 3.1 | 4.4 | 4.7 |
| Thailand | 207 | 0.4 | 3,111 | -2.3 | 5.0 | 5.3 | 5.5 | 5.3 | 5.0 | 4.6 | 4.1 | 4.8 |
| Vietnam | 69 | 0.1 | 775 | 5.3 | 6.5 | 7.0 | 7.2 | 6.9 | 6.4 | 7.4 | 7.2 | 6.9 |
| South Asia | 1,308 | 2.5 | 832 | 7.1 | 7.5 | 7.7 | 7.8 | 7.7 | 7.5 | 5.2 | 7.0 | 7.4 |
| Bangladesh | 68 | 0.1 | 444 | 5.9 | 5.5 | 6.0 | 6.3 | 6.1 | 6.1 | 4.8 | 5.7 | 5.9 |
| India | 1,043 | 2.0 | 902 | 7.6 | 8.1 | 8.2 | 8.4 | 8.2 | 8.0 | 5.5 | 7.5 | 7.9 |
| Pakistan | 141 | 0.3 | 779 | 3.7 | 4.1 | 4.4 | 4.6 | 4.9 | 4.4 | 4.0 | 5.2 | 4.3 |
| Oceania | 915 | 1.9 | 26,337 | 1.1 | 2.9 | 3.2 | 3.3 | 3.4 | 3.3 | 3.5 | 2.9 | 3.2 |
| Australia | 779 | 1.6 | 36,659 | 1.3 | 2.9 | 3.3 | 3.4 | 3.5 | 3.3 | 3.6 | 3.0 | 3.2 |
| New Zealand | 104 | 0.2 | 24,651 | -0.5 | 2.5 | 2.3 | 3.1 | 3.1 | 2.9 | 2.9 | 2.5 | 2.7 |
| Middle East | 1,542 | 3.1 | 5,420 | -1.0 | 4.1 | 5.0 | 5.0 | 4.9 | 4.7 | 3.6 | 4.0 | 4.4 |
| Iran | 223 | 0.5 | 2,932 | -2.2 | 3.2 | 5.2 | 4.4 | 4.3 | 4.4 | 2.6 | 5.1 | 4.1 |
| Iraq | 85 | 0.2 | 2,920 | 5.6 | 7.5 | 7.9 | 7.3 | 6.9 | 6.0 | 9.5 | 11.9 | 6.1 |
| Saudi Arabia | 350 | 0.7 | 13,828 | 0.6 | 3.2 | 4.5 | 5.2 | 5.3 | 4.9 | 2.6 | 3.6 | 4.3 |
| Turkey | 367 | 0.8 | 4,775 | -4.7 | 5.7 | 5.0 | 4.9 | 4.8 | 4.5 | 3.6 | 3.6 | 4.5 |
| Other | 517 | 1.0 | 6,687 | 0.1 | 3.4 | 4.7 | 4.9 | 4.6 | 4.5 | 4.8 | 4.3 | 4.3 |
| Africa | 1,149 | 2.3 | 1,170 | 2.2 | 4.6 | 5.2 | 5.0 | 5.0 | 5.0 | 2.2 | 4.6 | 4.8 |
| North Africa | 381 | 0.8 | 2,366 | 3.4 | 4.6 | 4.8 | 4.7 | 4.4 | 4.3 | 3.5 | 4.6 | 4.0 |
| Algeria | 111 | 0.2 | 3,246 | 2.0 | 4.0 | 3.5 | 3.6 | 3.6 | 3.6 | 1.7 | 3.9 | 3.0 |
| Egypt | 125 | 0.2 | 1,590 | 4.7 | 5.2 | 5.8 | 5.0 | 4.2 | 4.0 | 4.5 | 5.0 | 4.3 |
| Morocco | 65 | 0.1 | 7,361 | 4.9 | 3.8 | 4.8 | 5.2 | 5.1 | 5.0 | 2.4 | 4.7 | 4.5 |
| Tunisia | 34 | 0.1 | 2,065 | 3.1 | 4.2 | 4.6 | 5.2 | 5.9 | 5.5 | 4.8 | 4.6 | 4.9 |
| Sub-Saharan Africa | 767 | 1.5 | 935 | 1.6 | 4.7 | 5.4 | 5.2 | 5.2 | 5.3 | 1.6 | 4.7 | 5.2 |
| South Africa | 248 | 0.5 | 5,063 | -1.8 | 3.1 | 3.5 | 3.9 | 3.8 | 4.2 | 1.8 | 3.2 | 4.4 |
| Other Sub-Saharan Africa | 519 | 1.0 | 673 | 3.2 | 5.5 | 6.3 | 5.8 | 5.8 | 5.8 | 1.5 | 5.4 | 5.5 |

International macroeconomic assumptions were based on information available in July 2010.

Table 3. Population growth assumptions

| Region/country | Population in 2009 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Average 1991-2000 | Average 2001-2010 | Average 2011-2020 |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Millions* | | | | *Percent change* | | | | | |
| World[1] | 6,749 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.4 | 1.2 | 1.0 |
| Less United States | 6,442 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.4 | 1.2 | 1.0 |
| North America | 341 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 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 | 307 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.2 | 0.9 | 0.8 |
| Latin America | 584 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.6 | 1.3 | 1.1 |
| Mexico | 111 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.6 | 1.2 | 1.0 |
| Caribbean & Central America | 81 | 1.3 | 0.9 | 1.1 | 1.1 | 1.1 | 1.1 | 1.7 | 1.3 | 1.1 |
| South America | 392 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.6 | 1.3 | 1.1 |
| Argentina | 41 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 | 1.0 | 0.9 |
| Brazil | 199 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.6 | 1.3 | 1.0 |
| Other | 152 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.8 | 1.4 | 1.1 |
| Europe | 544 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 |
| European Union-27 | 510 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.1 |
| Other Europe | 34 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 |
| Former Soviet Union | 276 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.2 | -0.1 |
| Russia | 140 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.1 | -0.5 | -0.5 |
| Ukraine | 46 | -0.6 | -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 | 3,738 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 1.4 | 1.1 | 0.9 |
| East Asia | 1,533 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.9 | 0.5 | 0.3 |
| China | 1,324 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.0 | 0.5 | 0.4 |
| Hong Kong | 7 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 1.6 | 0.6 | 0.3 |
| Japan | 127 | -0.2 | -0.2 | -0.3 | -0.3 | -0.3 | -0.4 | 0.3 | 0.0 | -0.4 |
| South Korea | 49 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.9 | 0.4 | 0.1 |
| Taiwan | 23 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.9 | 0.4 | 0.1 |
| Southeast Asia | 600 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.1 | 1.8 | 1.4 | 1.1 |
| Indonesia | 240 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.6 | 1.3 | 1.0 |
| Malaysia | 28 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 2.6 | 2.0 | 1.4 |
| Philippines | 98 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 2.2 | 2.1 | 1.8 |
| Thailand | 67 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 1.2 | 0.8 | 0.5 |
| Vietnam | 89 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.6 | 1.2 | 1.0 |
| South Asia | 1,571 | 1.5 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.9 | 1.6 | 1.3 |
| Bangladesh | 154 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 |
| India | 1,157 | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 | 1.8 | 1.5 | 1.2 |
| Pakistan | 181 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 2.5 | 1.9 | 1.5 |
| Oceania | 35 | 1.4 | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 1.4 | 1.2 |
| Australia | 21 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 |
| New Zealand | 4 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 1.1 | 1.1 | 0.8 |
| Middle East | 284 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.5 | 2.2 | 1.9 | 1.5 |
| Iran | 76 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.7 | 1.1 | 1.2 |
| Iraq | 29 | 2.6 | 2.5 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.7 | 2.2 |
| Saudi Arabia | 25 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 2.9 | 1.9 | 1.5 |
| Turkey | 77 | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.8 | 1.5 | 1.1 |
| Other | 77 | 2.4 | 2.3 | 2.1 | 1.5 | 1.3 | 1.7 | 3.1 | 2.8 | 1.8 |
| Africa | 982 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.5 | 2.4 | 2.2 |
| North Africa | 161 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 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 | 79 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.7 | 2.1 | 1.8 |
| Morocco | 31 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 1.9 | 2.1 | 2.3 | 1.8 |
| Tunisia | 10 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.6 | 1.2 | 1.0 |
| Sub-Saharan Africa | 820 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.6 | 2.5 | 2.3 |
| South Africa | 49 | 0.6 | 0.1 | -0.2 | -0.4 | -0.4 | -0.5 | 1.6 | 0.9 | -0.1 |
| Other Sub-Saharan Africa | 771 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.5 |

1/ Totals for the world and world less United States include countries not otherwise 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 were completed in July 2010 based on the June 2010 update from the U.S. Census Bureau.

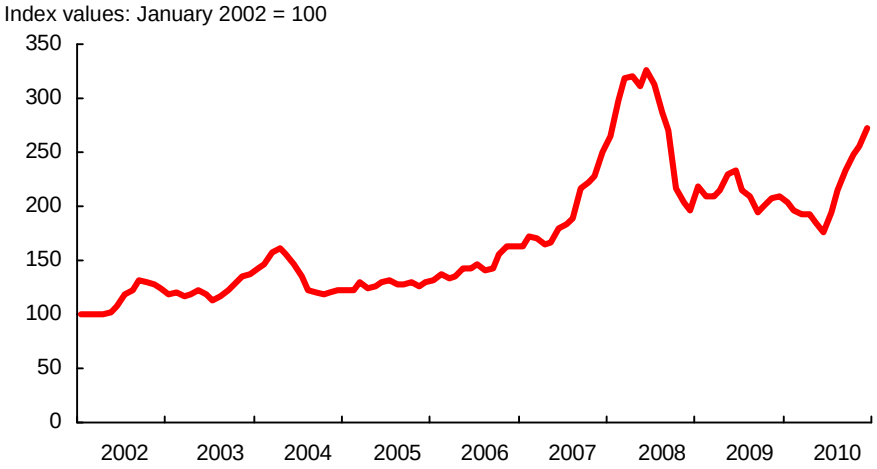
# Agricultural Trade

Renewed economic growth following the global recession began in 2010. During the 2011-2020 projection period, income growth is projected to continue and to be slightly above the historical average long-term rate during the last half of the period. This growth provides a foundation for gains in world demand and trade for agricultural products. Consequently, agricultural product prices are projected to remain historically high.

## Historical Background for Trade Projections

Since the beginning of 2002, fluctuations in production, trade, and stocks of agricultural commodities have been unusually large, and have been contributing factors to wide price fluctuations. Between January 2002 and June 2008, an index of monthly-average world prices of wheat, rice, corn, and soybeans rose 226 percent and then declined 40 percent in the following 6 months. By June 2010, the index had fallen another 11 percent. The price index then rose 55 percent by December 2010 and stood at about 172 percent above the January 2002 level, although still 17 percent below the June 2008 peak. The 55-percent increase between June and December 2010 raised concerns about another major food-commodity price spike as in 2007-08.

**Monthly average crop prices 1/**




1/ ERS calculations based on International Monetary Fund (IMF) average monthly world price quotes for wheat, corn, soybeans, and rice; aggregated by IMF's fixed historical exports weights.

The main factors contributing to this recent increase in staple food prices was a series of weather events, beginning with a severe drought in Russia and parts of Ukraine and Kazakhstan that reduced production of all crops, but particularly wheat. In late summer 2010, yield prospects for U.S. corn declined due to high temperatures during pollination. About the same time, rain on the nearly mature wheat crops in Canada and northwestern Europe reduced the quality of much of the crop to feed-grade wheat. Continued drought in the former Soviet Union significantly reduced winter wheat plantings. Since November 2010, drought and periodic high temperatures associated with a La Niña weather pattern have reduced prospects for the corn and soybean crops in central Argentina. Dry fall and winter weather also affected the U.S. hard red winter wheat crop in the

western Great Plains. Additionally, rains in Australia in late 2010-early 2011 downgraded much of the Australian wheat crop to feed quality, further reducing global supplies of food-quality wheat.

Other factors contributing to the recent rise in prices include resurgent global economic growth and increasing energy prices. The run-up in crop prices during the last half of 2010 is expected to stimulate increased plantings and more intensive use of production inputs in 2011. Assuming average weather in major producing regions in 2011, global production and world stocks of grains and oilseeds are projected to increase. However, even with the projected increases in world crop production and stocks, world market prices are expected to remain well above historical levels for the next decade.

**Trade Projections Overview**

Developing countries are the main source of growth in world agricultural demand and trade. Food consumption and feed use are particularly responsive to income growth in developing countries, with movement away from staple and/or traditional foods and toward more diversified diets. Agricultural demand in developing countries is further reinforced by population growth rates that are nearly twice those of developed countries.

In particular, Africa and the Middle East as a combined region is projected to have some of the strongest growth in food demand and agricultural trade over the coming decade. Both poultry imports and beef imports have their largest increases in the countries of Africa and the Middle East. With these projected gains, in 2020 the region accounts for about 45 percent of poultry imports and 20 percent of beef imports by the major importers of the world. Strong policy support for domestically produced meat also motivates growth in feed-grain imports, especially where land constraints or agroclimatic conditions limit an expansion of domestic crop production. As a result, the region accounts for about 35 percent of the projected growth in world coarse grain imports over the next 10 years. Strong import growth by Africa and the Middle East over the projection period also accounts for 58 percent of the increase in wheat imports, 35 percent of the growth in rice imports, and 27 percent of the rise in soybean oil trade.

**General International Assumptions**

Trade projections to 2020 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 2010. International macroeconomic assumptions were completed in October 2010.

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.

Mexico is projected to be another large growth market for meat imports. Large increases in Mexican meat demand provide incentives to expand livestock production as well as to import more meat. Imports of beef, pork, and poultry each rise by 50 percent or more.

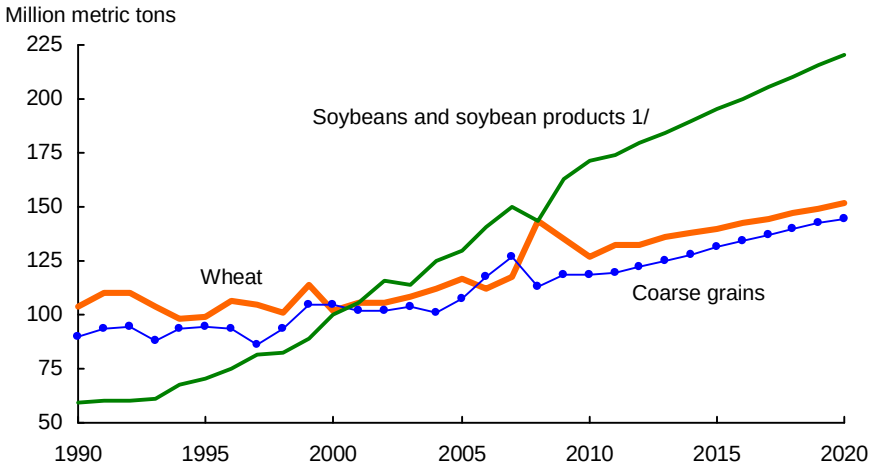
Agricultural prices are projected to remain above pre-2006 levels during the coming decade as a result of increasing world demand for grains, oilseeds, and livestock products; a devaluation of the U.S. dollar; continuing high energy prices; and some further growth in biofuels production.

Prices for vegetable oils are projected to rise relative to prices for 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, a number of factors are expected to slow production growth in the future. Many countries have a limited ability to expand planted area. And, in many regions, the expansion that does occur takes place on land with lower productive capacity. The growth rate in world average crop yields has been slowing for nearly two decades, to some extent as a result of reduced research and development funding. Water constraints in some countries are impeding the expansion in irrigation. Where irrigation water is pumped from deep wells, the energy cost of pumping is projected to continue to increase. Other costs of production such as fertilizers and chemicals are also likely to increase.

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.

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




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.

- In most countries, the projected growth in total harvested area of 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, Argentina, 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 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. World per capita use of vegetable oils is projected to rise 15 percent over the next 10 years, compared with 9 percent for meat and 5 percent for total coarse grains. Per capita use is projected to be flat for wheat and to decline nearly 2 percent for rice.
- Wheat, coarse grains, oilseeds, and other crops compete for limited cropland. Higher prices for vegetable oils, as a result of increased demand for food use, biodiesel production, and other industrial uses, are bringing previously uncropped land in Brazil, Argentina, Indonesia, and Malaysia into soybean and palm oil production.
- 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.

**Demand for Biofuel Feedstocks**

The demand for biofuel feedstocks is projected to continue growing in a number of countries, although at a slower pace than in recent years. Expansion continues to depend on policy support, mainly tax incentives and use mandates which is motivated by environmental concerns and a goal to reduce energy dependence.

Six countries and regions (United States, Brazil, European Union (EU), Argentina, Canada, and China) accounted for 87 percent of world biodiesel production and 98 percent of ethanol production in 2009. Over the next 10 years, production in these countries is projected to rise 20 percent for biodiesel and nearly 25 percent for ethanol.

**Country Assumptions**

**EU.** The EU is the world's largest importer of both ethanol and biodiesel throughout the projection period. Two key pieces of legislation impacting the biofuel market are the Renewable Energy Directive and the amended Fuel Quality Directive that require by 2020 at least 10 percent of the energy used for transportation be from renewable sources and a 6-percent cut in greenhouse gas emissions by fuel suppliers. To boost biodiesel production, the EU increases its internal oilseed production and its imports of oilseeds and vegetable oil, mainly from Ukraine and Russia. Biodiesel production increases 22 percent by 2020. During the same period, ethanol production is projected to increase more than 40 percent. Internally produced wheat provides the growth for ethanol in the early years but corn used as a feedstock grows more rapidly toward the end of the projections. Ethanol's share of total biofuel use grows from 31 percent to about 40 percent. Ethanol imports rise to nearly one-third of domestic use by 2020. Nevertheless, in 2020 only 60 percent of the EU's mandate is achieved from annual-crop feedstocks.

**Brazil.** Sugarcane-based ethanol production is projected to rise 45 percent during the coming decade and a growing share of ethanol production is exported in response to demand from Europe and the United States. The rate of growth in soybean-oil-based biodiesel production is faster than for sugarcane-based ethanol, although rising from a much smaller base. However, most of the biodiesel is used domestically.

**Canada.** Ethanol production is projected to increase 17 percent, with corn imports accounting for an increasing share of the feedstock. Biodiesel production climbs 30 percent, most of it using rapeseed (canola) oil as a feedstock. Some of the rapeseed-meal byproduct is exported to the United States.

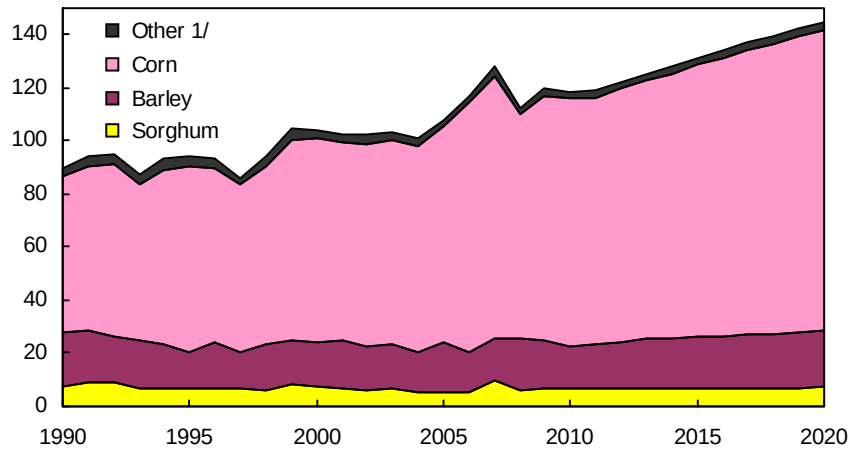
**Argentina.** Argentina's production of biodiesel is assumed to expand 16 percent during the projection period. Although some of the biodiesel is used to meet a mandated increase in the domestic blend rate, exports continue to rise and the country continues to be the world's largest biodiesel exporter. Argentina's ethanol production increases faster, but from a small base.

**China.** About 4 million tons of corn were used to produce fuel ethanol in 2010. China has implemented policies to limit the expansion of grain-based ethanol production for transportation fuel use, and is now emphasizing the use of nongrain feedstocks such as cassava.

**Non-EU Europe and the former Soviet Union (FSU).** 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.

**Global coarse grain trade**

Million metric tons




1/ Rye, oats, millet, and mixed grains.

World coarse grain trade expands 25 million metric tons (21 percent) from 2011 to 2020. The share of global coarse grain production used as animal feed trended downward from 66 percent a decade ago to about 60 percent in 2010, 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 increasing more than twice as fast.

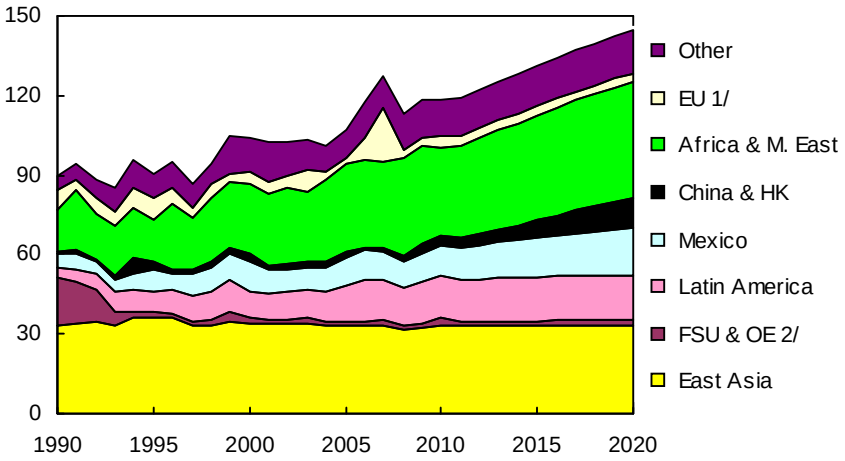
- Corn is the dominant feed grain traded in international markets. Corn's share of total world coarse grain trade continues to rise slowly and averages 78 percent through the projection period. Barley has the next largest share (15 percent), followed by sorghum (5 percent). The trade share of the other coarse grains, mostly oats and rye, continues declining slowly to about 2 percent by 2020.

- Corn's increasing share of world production and trade is attributable to yield growth that is more rapid than for other grains, to new varieties that enable it to be competitive in a wider range of climatic regions, and to its preferred qualities for feed, biofuels, and other industrial uses.

- 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



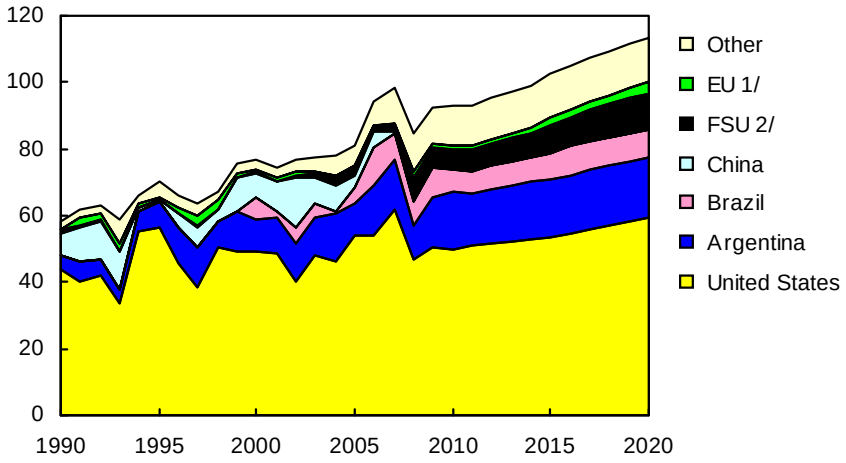

1/ Excludes intra-EU trade.
2/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

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 markets for coarse grain imports.

- Coarse grain imports by Africa and the Middle East did not decline during the recent global economic slowdown. The region accounts for more than 34 percent of growth in world trade through 2020 as rising populations and increasing incomes sustain strong demand growth for animal products. In Egypt, Government policy has shifted toward allowing more poultry meat imports. Still, poultry production is projected to increase, boosting corn imports 14 percent to more than 6 million tons.
- Mexico's corn imports are projected to rise from 9 million tons in 2011/12 to more than 14 million in 2020/21. Mexico's sorghum imports increase by one-third to more than 3.7 million tons, but do not surpass the 2000 record. Altogether, the growth in Mexico's coarse grain imports represents almost 25 percent of the increase in global coarse grain trade. This reflects increased demand for meat in Mexican diets that stimulates an expansion in meat production as well as increased meat imports.
- 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 nearly 1 million tons (29 percent) by 2020 as increased demand for livestock products exceeds the capacity to grow more feed grains.
- China is projected to become a net importer of 8 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. The increase in China's imports account for one-third of the growth in world corn trade.

**Global corn exports**

Million metric tons




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 2020. However, large world supplies of feed-quality wheat compete with U.S. corn exports at the beginning of the projection period. The U.S. share of world corn trade declines slowly from an average of nearly 60 percent during the last half decade to less than 53 percent by 2020 as exports rise from the FSU, Brazil, the EU, and Argentina.

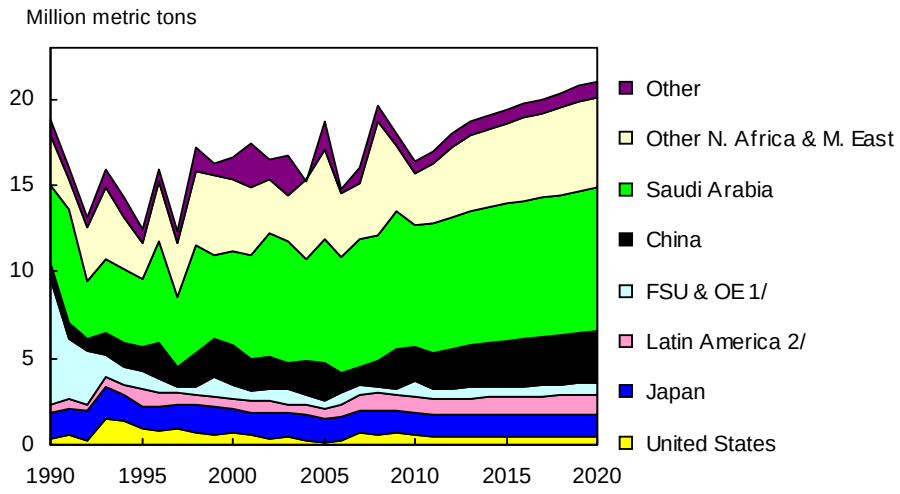
- Brazil's corn exports have been large during the last few years as Brazil has targeted the EU's demand for grain that has not been genetically modified (GM). However, this marketing situation has diminished as Brazil continues to expand production of GM corn varieties. Also, strong growth in demand for corn in Brazil's livestock and poultry sectors and the profitability of growing soybeans limit the country's production and exports of corn.

- Argentina, with a small domestic market, remains the world's second-largest corn exporter. Due to continued quantitative controls on exports, corn area is expected to stagnate.

- In the EU, increases in area and yields enable it to increase corn production. Although more corn is allocated to ethanol production, exports more than double during the projections. The Eastern EU countries have a transportation advantage to parts of North Africa and the Middle East. Exports from other European countries are also projected to rise.

- Corn exports from the FSU, mostly Ukraine, rise more than 80 percent to 11 million tons by 2020. Favorable resource endowments, increasing economic openness, wider use of hybrid seed, and greater investment in agriculture stimulate corn production in these countries.

**Global barley imports**




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 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 65 percent of the growth in world imports during the coming decade, and for 64 percent of total world imports in 2020.

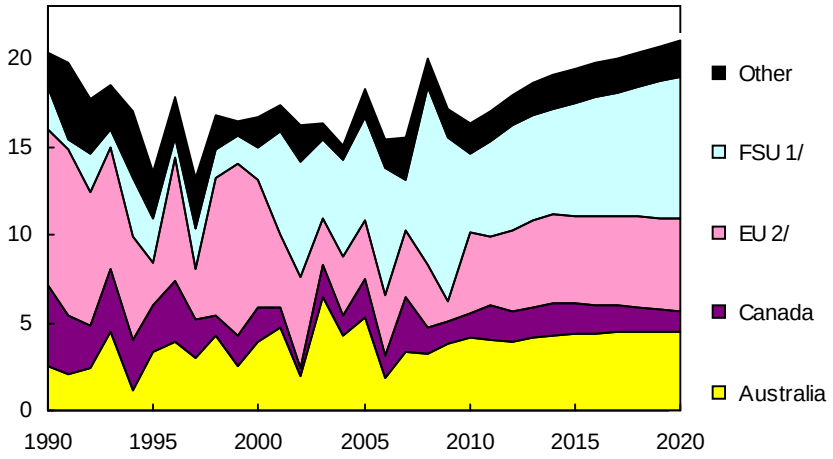
- Saudi Arabia—the world's foremost barley-importing country—accounts for over 40 percent of world barley trade through the coming decade. Saudi Arabia's barley imports are used primarily as feed for sheep, goats, and camels.

- Iran is another Middle East country whose barley imports are projected to increase rapidly. Although the total imports by other countries in the North Africa and Middle East region are projected to grow more slowly, they still account for about a third of the increase in world barley trade.

- 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 increased in the 2 years prior to the 2010 drought. Together, their share of world barley trade has been over 50 percent in some recent years. The drought-induced sharp drop in FSU production in 2010 reflects the variability of production and exports that can be expected in the FSU. However, assuming normal weather, exports are projected to recover over the next few years and then trend slowly upward. FSU exports are projected to rise 2.8 million tons by 2020 and to account for 70 percent of the increase in world exports.

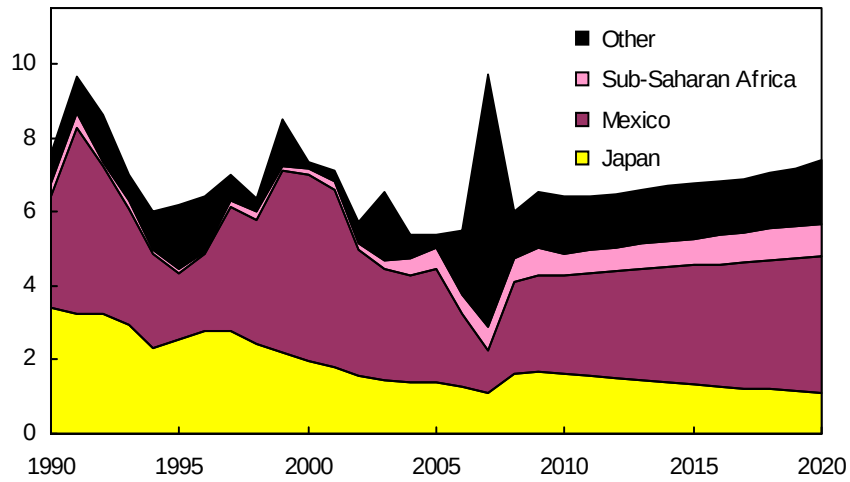
- Australia's barley exports are projected to rise slowly, and the country is expected to maintain its role as the world's third-largest exporter.

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

- 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. Canada's area planted to barley continues to decline gradually as canola remains more profitable.

**Global sorghum imports**

Million metric tons




World sorghum trade projected to trend upward from about 6.5 million tons to 7.3 million tons by 2020. Sorghum trade is driven mostly by U.S. exports to Mexico and Japan.

- Mexico's sorghum imports are projected to increase about 1 million tons to 3.7 million tons by 2020. Many Mexican livestock producers have a slight preference for feeding sorghum, while U.S. livestock feeders increasingly prefer corn, thus facilitating U.S. sorghum shipments to Mexico. Mexico generally accounts for about half of world sorghum imports.

- Sorghum imports by Japan, the world's second-largest importer, have trended slowly downward during the past decade. After a small rebound in the last 2 years, imports are projected to renew the downward trend. Slow growth in imports by Sub-Saharan Africa offsets declining imports by Japan.

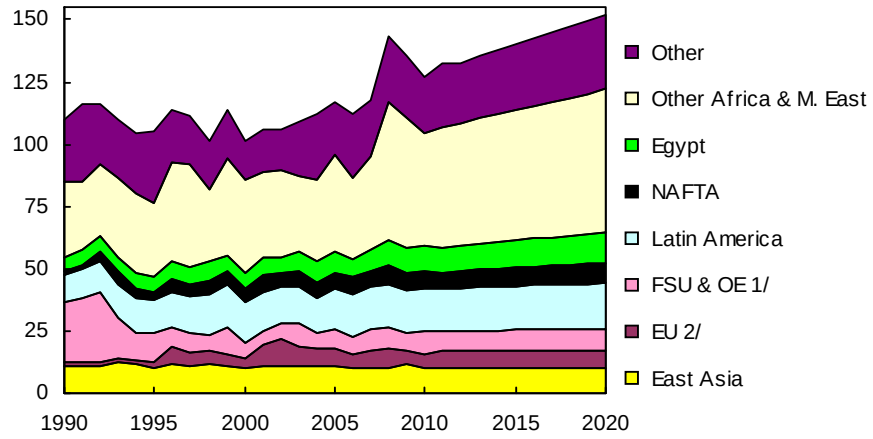
- EU imports of sorghum are projected to be modest as it normally imports only small quantities of sorghum as part of the Spain-Portugal Accession Agreement.

- The United States is projected to remain the largest exporter of sorghum. However, during the last decade, U.S. sorghum acreage and production have declined because of lower net returns compared with corn and soybeans. As a result, exportable supplies have generally tightened. Nonetheless, U.S. sorghum exports are projected to gradually recover, but remain slightly below historical highs. The U.S. share of world sorghum trade also recovers but remains well below that 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. The primary sorghum markets for Argentina are Japan, Chile, and Europe.

**Global wheat imports**

Million metric tons



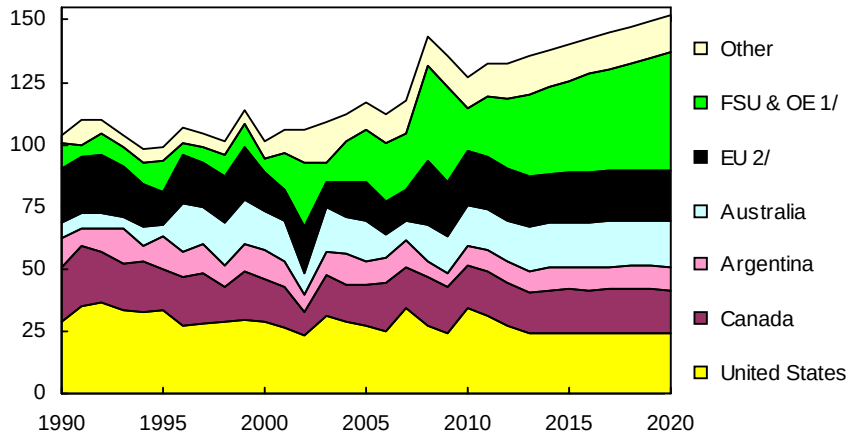

1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Excludes intra-EU trade.

World wheat trade (including flour) expands by 20 million tons (15 percent) between 2011 and 2020 to nearly 152 million tons. 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, Indonesia, Algeria, Saudi Arabia, and other countries in the Africa and Middle East region.

- In many 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.
- Egypt maintains its position as the world's largest wheat importing country, as its imports climb to more than 12 million tons. Imports by the EU, Algeria, Brazil, and Indonesia are each projected to exceed 6 million tons by 2020.
- Imports by countries in Africa and the Middle East rise 11.6 million tons and account for nearly 60 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 2020.
- China's imports remain small as per capita consumption of wheat is expected to continue to decline.
- EU wheat used to produce ethanol is projected to continue rising rapidly during the first half of the projection period, especially in the United Kingdom.
- Abundant quantities of feed quality wheat in a number of countries enable wheat to compete effectively with corn for feed use in the early years of the projection period. Europe is expected to continue to account for nearly half of global wheat feeding.

**Global wheat exports**

Million metric tons



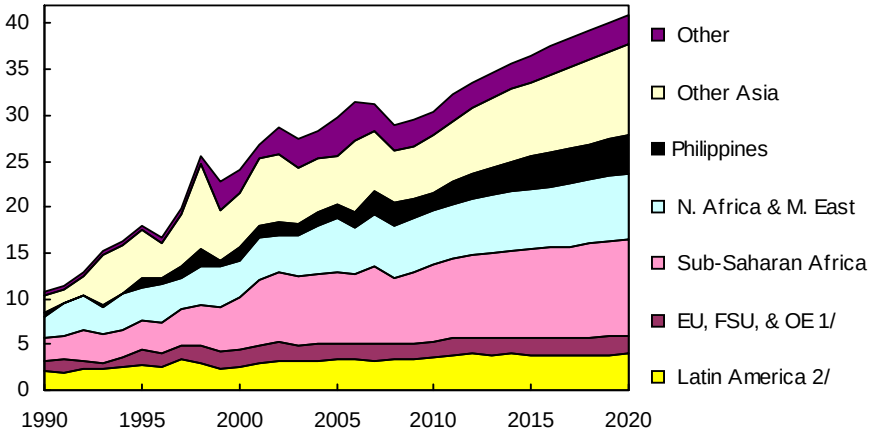

1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
2/ Excludes intra-EU trade.

The traditional five largest wheat exporters (the United States, Australia, the EU, Argentina, and Canada) are projected to account for almost 60 percent of world trade in 2020, compared with 70 percent during the last decade. 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 16 percent of global wheat trade at the end of the projection period, down from about 22 percent in the past 5 years. Although world wheat stocks are projected to continue increasing from their 2008 low during the next several years, prices are projected to remain above their pre-2006 average levels.

- Argentina is the only traditional exporter whose market share is not projected to decline. The shares of world wheat exports are projected to increase for Russia, Ukraine, Kazakhstan, and China, as well as for Argentina.
- Russia, Ukraine, and Kazakhstan have become significant wheat exporters in recent years. Low costs of production, new investments in agriculture production and marketing infrastructure, and generally favorable weather between 2001 and 2009 enabled their combined share of global wheat trade to rise to 36 percent in the 2 years before the 2010 drought caused exports to drop sharply. Exports from the former Soviet Union are expected to recover in the coming years and to account for about 30 percent of world exports by 2020. However, increasing wheat use for domestic feed is expected to restrain even more rapid export growth. Year-to-year volatility in production and trade, as occurred during the past year, can be expected because of the region's highly variable weather and yields.
- EU wheat exports decline slowly over the next decade as more wheat is used for ethanol. EU exports drop to about 21 million tons in 2020, down about 18 percent from the 2008/09 peak.
- In Canada, increased global 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 the smaller exporters change little during the projection period.

**Global rice imports**

Million metric tons



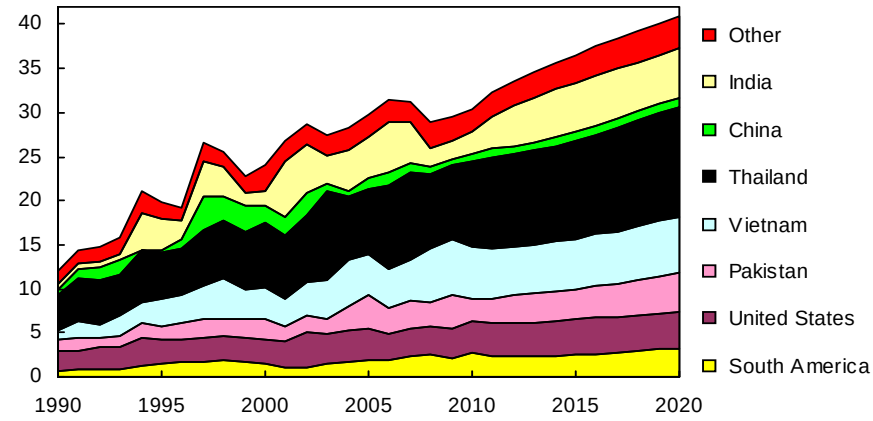

1/ European Union, former Soviet Union, and other Europe. 2/ Includes Mexico.

Global rice trade is projected to grow 2.7 percent per year from 2011 to 2020. In 2020, global rice trade reaches 41 million tons, 30 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 several key importers to significantly boost production. World trade as a share of world consumption, currently about 7 percent, remains substantially smaller than for other grains and oilseeds.

- 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, Indonesia, the EU, and Bangladesh become the largest individual rice-importing countries by the end of the projection period. By 2020, each country is projected to import 1.4 million tons of rice or more. These countries have limited ability to expand production and are expected to account for more than one-third of the increase in global rice imports over the next decade.
- In Africa and the Middle East, strong demand growth is driven by rapidly expanding population and income, while production growth is limited. In North Africa and the Middle East, production is primarily limited by climate. In Sub-Saharan Africa, expanding production is constrained by infrastructure deficiencies and resource constraints. Altogether, the entire Africa and Middle-East region accounts for more than one-third of the increase in world rice trade between 2011 and 2020. Africa accounts for most of this region's rising imports, but Iran, Iraq, and Saudi Arabia remain large importing countries.
- Rice imports by the Central America and Caribbean region are projected to increase by 0.4 million tons over the next decade and to surpass 2.1 million by 2020. Population growth and rising per capita incomes boost rice consumption and raise imports in this region.
- In the EU, Canada, and the United States, immigration is the driving force for rising per capita consumption and modest import growth. In Mexico, higher incomes contribute to higher per capita consumption and moderate gains in imports.
- Imports by the FSU are projected to decline slightly as a result of strong production growth and declining population that more than offsets slowly rising per capita consumption.

**Global rice exports**

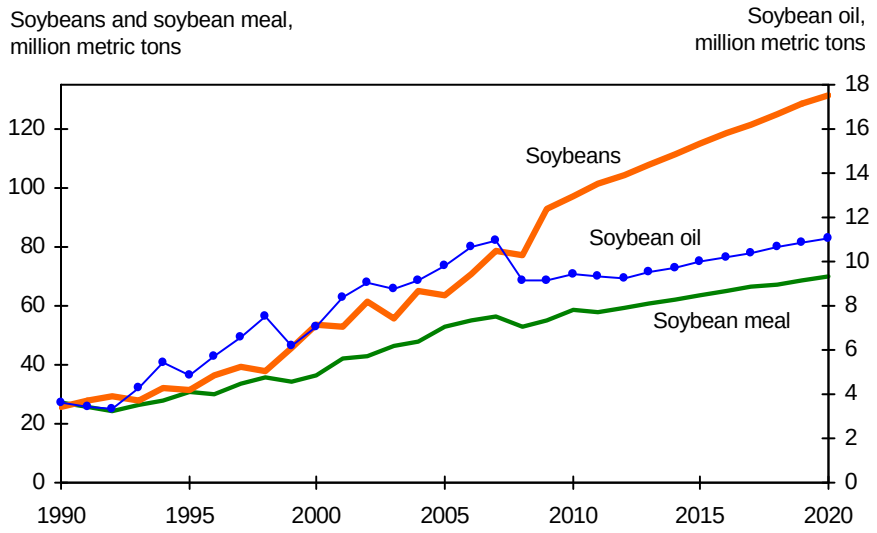
Million metric tons




Asia continues to be the source of most of the world's exports throughout the projection period.

- Rice exports from Thailand and Vietnam, the world's largest rice-exporting countries, account for more than 45 percent of world trade and for nearly 30 percent of the growth in world exports in the coming decade. Thailand's exports increase 2.1 million tons, to more than 12 million by 2020. Rice area and yields are projected to increase in Thailand. Vietnam's export expansion is smaller, rising from 5.8 to 6.4 million tons. Per capita consumption declines slowly 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 been well below previous levels for the last several years as exports of non-basmati rice have largely been banned since the spike in world prices in early 2008. The export ban is assumed to be lifted once stocks are rebuilt, enabling India's rice exports to rise to about 5.6 million tons by 2020, making it the third-largest exporter.
- Pakistan has been exporting slightly more than 3 million tons in recent years and the United States about 3.5 million tons. Both exporters are projected to raise their exports to around 4.3 million tons over the next decade. Pakistan has expanded its rice area and production in recent years although production declined in 2010 due to devastating floods. Some rehabilitation of irrigation systems will be required as a result of the 2010 floods, and in the coming decade, Pakistan's agricultural sector will be confronted by a growing water shortage and a deteriorating infrastructure, limiting production and export gains.
- U.S. expansion in rice exports is attributable to a slight area expansion after 2012, continued yield growth, and only modest growth in domestic use.
- Rice exports from China, the sixth-largest rice-exporting country, have declined in recent years but are projected to begin rising again and to reach 1.1 million tons by 2020, nearly double the level shipped in 2009. 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.
- Australian exports are projected to recover only modestly from extremely low levels shipped during much of the past decade. Exports still will be limited by competing demands for irrigation water.

**Global exports: Soybeans, soybean meal, and soybean oil**

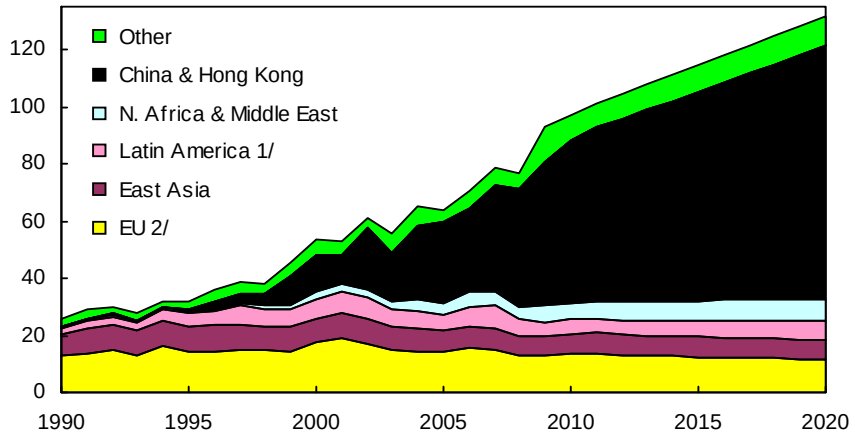



Economic growth and population increases in developing countries are projected to boost demand for vegetable oils for food consumption and for protein meals used in livestock production. Vegetable oil used for biodiesel production is also projected to increase. As demand for vegetable oils increases faster than for protein meals, vegetable oil prices rise more rapidly than for oilseeds and protein meals, particularly for rapeseed oil compared with rapeseed meal.

- 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 and should continue. Global trade in soybeans is projected to increase 30 percent, soymeal by 21 percent, and soyoil by 19 percent.
- In China, increasing per capita income is projected to continue a rapid expansion of consumer demand for livestock products and vegetable oils. Feed rations are expected to include an increasing percentage of protein meal to improve rates of weight gain for meat-producing animals. China will mostly import oilseeds for crushing rather than large amounts of oilseed meals and oils. This 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 about 89 percent of the world's aggregate exports of soybeans, soybean meal, and soybean oil 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 exports of soybeans and products remains above 30 percent. Brazil's soybean area continues to increase, but an increasing share of soybean production is crushed for domestic feed and food use and its share of exports remains in the 25-31 percent range. The U.S. share of world soybean and soybean meal trade declines from 29 percent to less than 26 percent by 2020.
- The EU is expected to expand biodiesel production using rapeseed oil as the primary feedstock. Rapeseed area increases early in the projections. Although EU imports of soybeans are projected to decline, imports of soybean meal and soybean oil increase.

**Global soybean imports**

Million metric tons



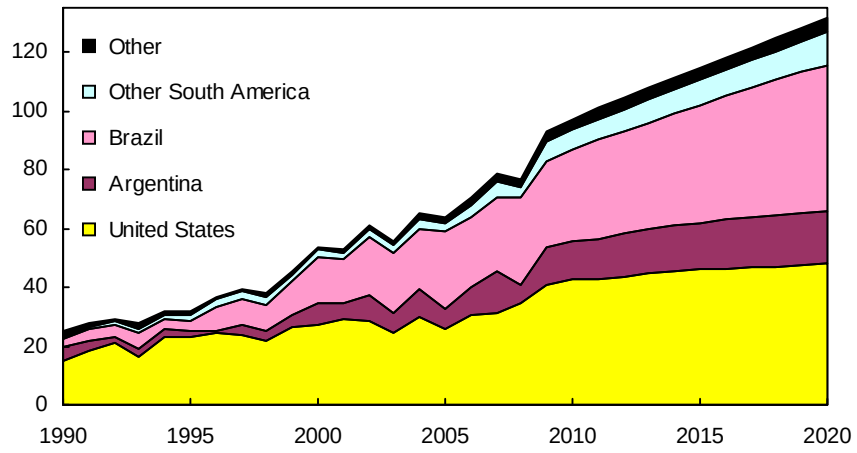

1/ Includes Mexico. 2/ Excludes intra-EU trade.

World soybean trade is projected to rise rapidly, but at a slower pace than in recent years, climbing nearly 30 million tons (nearly 30 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 more than 50 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 pursue self-sufficiency for domestic corn production and let soybean imports increase. Thus, China accounts for more than 90 percent of the projected 30-million-ton growth in global soybean imports over the next 10 years. China's 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.
- Imports of soybeans and meal 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 imports of soybeans do not change much during the coming decade. Small increases in soymeal imports support slowly rising meat production.
- Mexico's soybean imports are projected to increase by more than 20 percent during the projection period. These imports will support the production of soybean meal for the Mexican poultry and pork industries and soybean oil for domestic food consumption.
- In recent years, Argentina has imported more than a million tons of soybeans to enable its crushing plants to operate at full capacity. However, changes in Argentine policy provide disincentives to import in the future. The policy impediment to importing soybeans supports more rapid expansion in Argentine soybean area in order to supply the needs of the country's crushers.

**Global soybean exports**

Million metric tons




The three leading soybean exporters—the United States, Brazil, and Argentina—have accounted for nearly 90 percent of world trade in recent years. Although exports from other countries, such as Uruguay, Paraguay, and Bolivia increase during the projections, the share held by the traditional exports remains near 90 percent.

- 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, as world oilseed prices rise relative to the price of grains, soybeans remain more profitable than other crops in most areas of Brazil. 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 2.5 percent per year during the coming decade. During the next 10 years, soybean exports are projected to rise about 47 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 are projected to continue doing so, rising about 30 percent to nearly 18 million tons by 2020. Most of the soybeans exported by Argentina go to China.

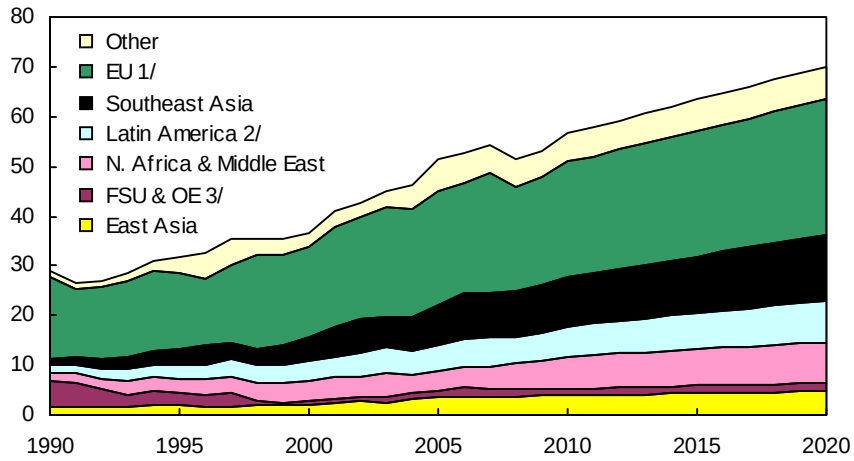
- Other South American countries, principally Uruguay, Paraguay, and Bolivia, respond to higher oilseed prices by expanding the area planted to soybeans. Exports rise more than 50 percent to nearly 11 million tons.

- Canada is the next largest soybean exporter, although its export volume and growth are well below those of the above-mentioned exporters.

- Ukraine responds to higher international market prices for oilseeds by increasing production of rapeseed and soybeans. Soybean exports from Ukraine are projected to rise rapidly (32 percent), but from a small base.

**Global soybean meal imports**

Million metric tons



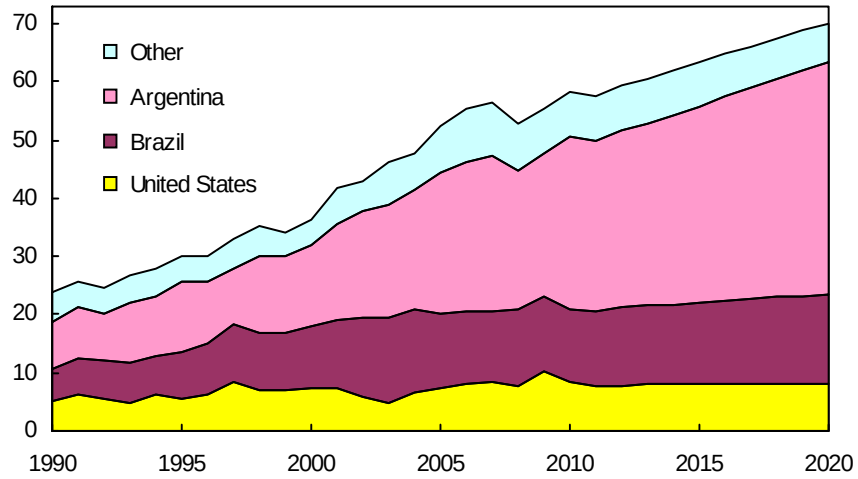

1/ Excludes intra-EU trade.
2/ Includes Mexico. 3/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

World trade in soybean meal climbs by more than 12 million tons (about 21 percent) in the projections to 2020. Continued 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 in 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 to increase and to account for more than one-fourth of the increase in world soybean meal trade.
- 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 and low oilseed meal prices.
- Russia is projected to experience rapid growth in soybean meal imports, although from a small base. Increased livestock production, especially from larger, more modern Russian facilities, will boost the demand for soybean meal.
- Mexico's strong growth in demand for protein feed and vegetable oils is projected to continue.
- Although the projected growth rate for China's use of soybean meal is one of the highest in the world, most of the meal will be supplied by domestic crush, either using domestically-produced or imported soybeans.

**Global soybean meal exports**

Million metric tons




Argentina, Brazil, and the United States remain the three major exporters in international soybean meal markets. Together, their share of world exports rises slightly to 90 percent 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 about 57 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. With Argentina's low cost of soybean production and the trade policy incentives to export soy products, soybean meal exports are projected to continue their robust growth.

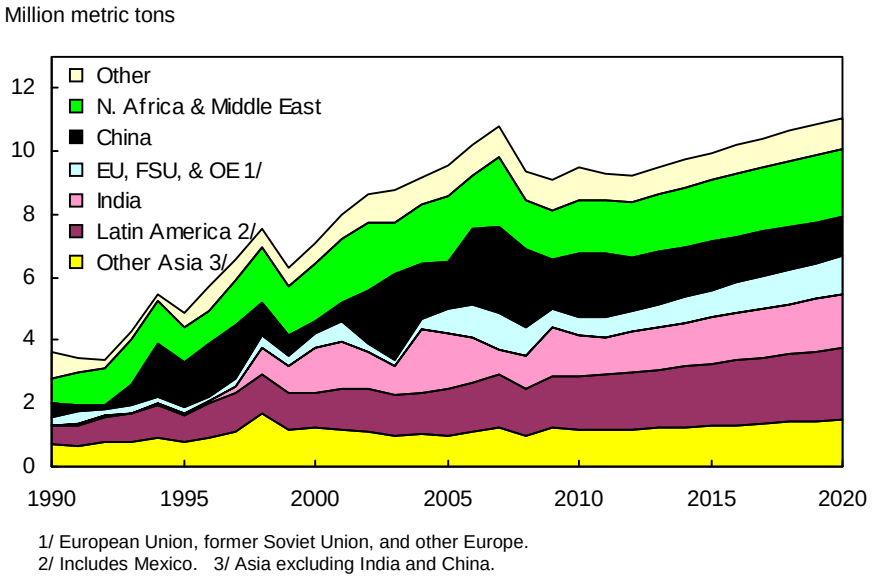
- In Brazil, strong growth in domestic meal consumption due to rapid expansion of the poultry and pork sectors limits increases in soybean meal exports. Also, domestic soybean crushing capacity is not expected to grow as fast due to heavy competition from Argentina. Brazil's share of world exports declines from about 25 percent in recent years to less than 19 percent by 2020.

- U.S. soybean meal exports remain at about 8 million tons during the next 10 years. The U.S. share of world exports declines steadily from about 15 percent in most recent years to less than 12 percent by 2020.

- The volume of India's soybean meal exports declines from more than 3.5 million tons in most recent years to 1.5 million by 2020 as rapidly increasing poultry, egg, and milk production absorbs 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 where livestock production is expected to increase significantly.

**Global soybean oil imports**




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

World soybean oil imports climb 1.8 million tons (19 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 trade. The growth in soybean oil trade will be constrained by competition with palm oil, which claims the top ranking in world vegetable oil trade.

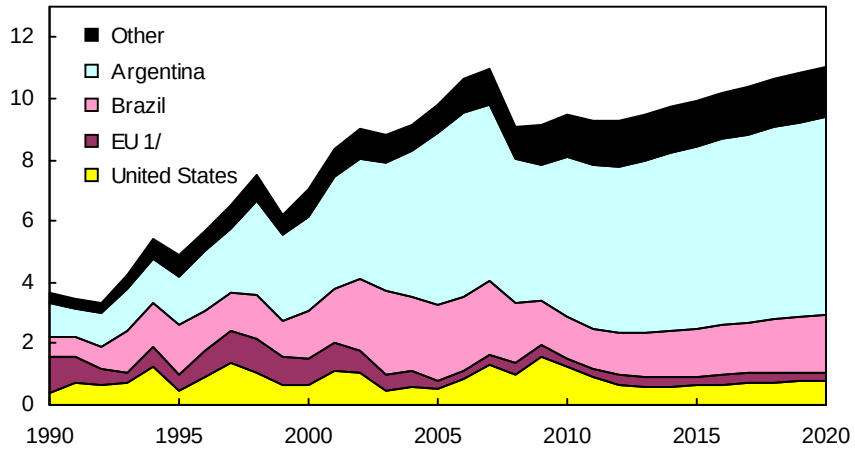
- Income and population growth in Latin America, North Africa, and the Middle East contribute to gains in soybean oil demand and imports. Although rising international prices for soybean oil will temper consumption, especially in developing countries, imports by the North Africa and the Middle East region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

- India remains the world's largest soybean oil importing country. 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. 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, and land-use competition from other crops constrains the expansion in area planted to oilseed crops. However, with the rapid increase in soybean imports for crush, China is able to slowly decrease its imports of soybean oil during the coming decade.

**Global soybean oil exports**

Million metric tons




1/ Excludes intra-EU trade.

Argentina's and Brazil's combined share of world soybean oil exports dropped from 84 percent in 2005/06 to 65 percent in 2009/10 due poor harvests. However, these countries are projected to recover partially during the next 5 years to about 75 percent of world trade.

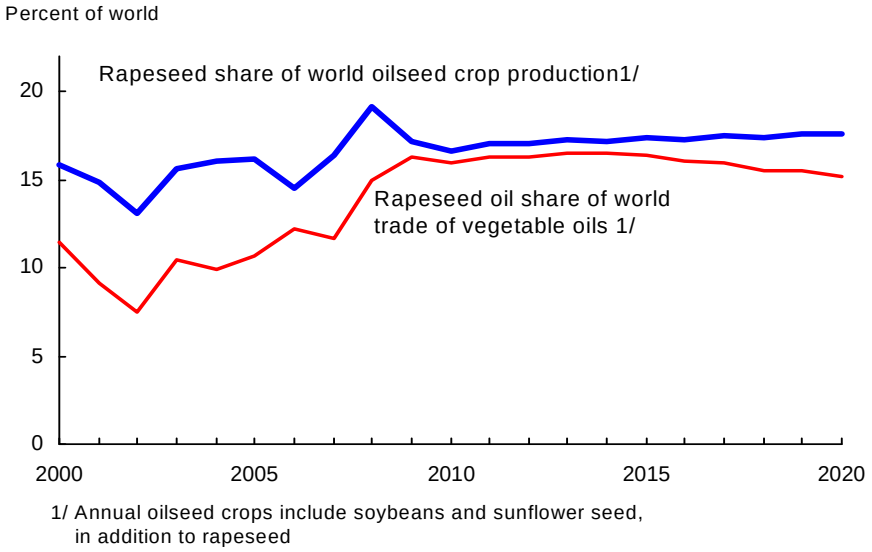
- Argentina is the leading exporter of soybean oil, reflecting the country's large crushing capacity, its small domestic market for soybean oil, and an export tax structure that favors exports of soybean products rather than soybeans. Gains in Argentine soybean production due to extensive double cropping, further adjustments in crop-pasture rotations, and the addition of marginal lands in the northwest part of the country, contribute to increased soybean production and crush. Argentina's soyoil exports are projected to continue increasing even though more soybean oil is expected to be used as a feedstock for biodiesel production—with most of the biodiesel destined for export. The projected 2011-2020 growth in soybean oil exports account for 60 percent of the increase in world soyoil trade.

- Brazil's projected increase in soybean oil exports accounts for most of the rest of global increases in soybean oil trade. Although Brazil is also projected to use more soyoil for biodiesel production, expansion of soybean production into new areas of cultivation enables it to increase its volume of soybean oil exports from its 2009/2010 reduced level. It does not however, recover to the large volumes exported between 2002 and 2007.

- 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.

**Rapeseed production and rapeseed oil trade**




In the last 10 years, rapeseed and rapeseed oil have captured an increasing share of world oilseed production and the trade in vegetable oils produced from annual oilseed crops.

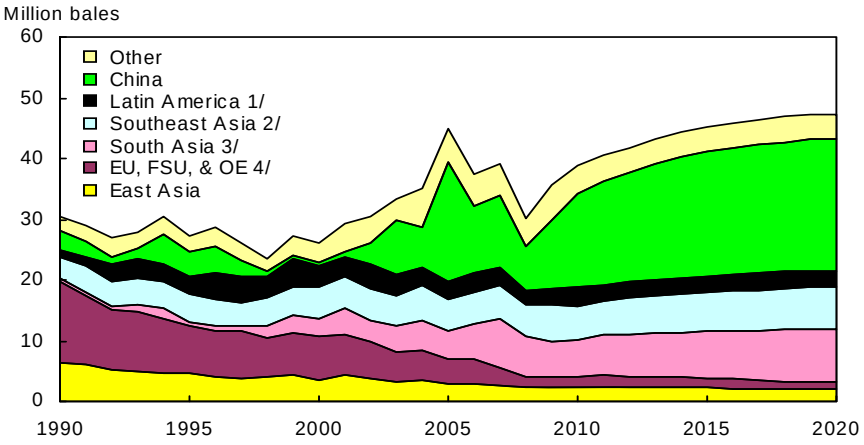
- Global demand for vegetable oils has been strong, trending up more than 5 percent a year for more than a decade. A higher oil content for rapeseed (40 percent) compared to soybeans (19 percent) and other annual oilseed crops has enhanced the demand for rapeseed over other oilseeds. Rapeseed oil has also become a major feedstock for producing biodiesel in the EU and Canada.

- Between 2000 and 2010, the growth rate in world average rapeseed yields (2.4 percent) rose more than twice as rapidly as for soybeans (0.8 percent) and in recent years world-average rapeseed yields have been higher than for soybeans. Faster yield growth combined with higher oil content, and more oil produced per hectare, provided economic incentives to produce more rapeseed. The rate of increase in area planted to rapeseed (3.4 percent) was higher than for soybeans (2.8 percent), and was considerably higher than the rate for all other oilseeds, and the rate for all field crops.

- The major rapeseed importers are Japan, EU, China, and Mexico. A second tier of importers includes Pakistan, the United States, Turkey, and Bangladesh. Canada is by far the largest exporter, followed by Ukraine and Australia.

- In the projections, the rate of growth in world rapeseed production continues to outpace that of soybeans, although the growth gap narrows. The projected growth rates for world rapeseed and rapeseed oil trade are also higher than the rates for soybeans and soybean oil. In Canada, rapeseed oil exports go mainly to the United States but start to slow as more oil is used for Canadian biodiesel production. Increasing exports from other countries, especially Russia and Ukraine, are assumed to partially offset slower growth in Canadian exports.

**Global cotton imports**

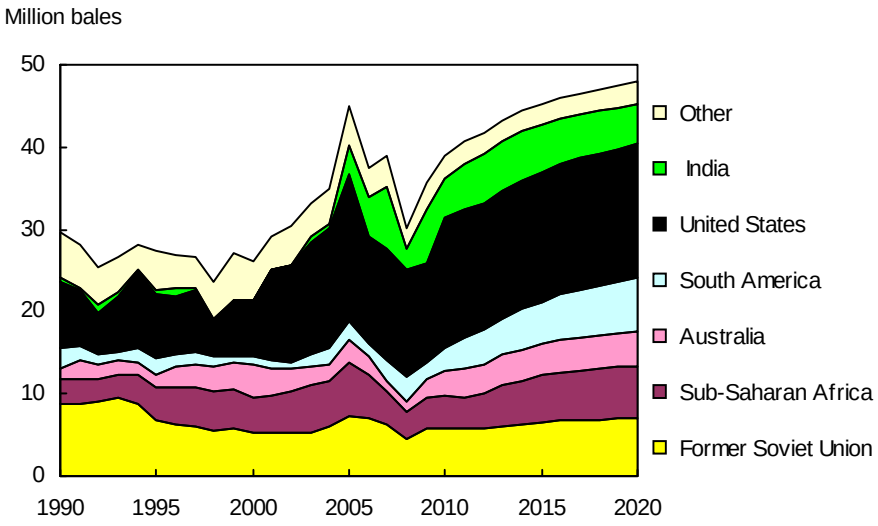



1/ Includes Mexico. 2/ Malaysia, Indonesia, Philippines, Thailand, and Vietnam. 3/ Bangladesh, India, and Pakistan. 4/ European Union, former Soviet Union, and other Europe.

World cotton trade is projected to trend upward at 1.8 per cent a year until 2020, but does not surpass the 2005 record until half way through the projection period. There continue to be geographical shifts in mill use and trade of cotton but not as dramatic as those associated with 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 more than 70 percent in 2010 and is projected to reach more than 83 percent by 2020.

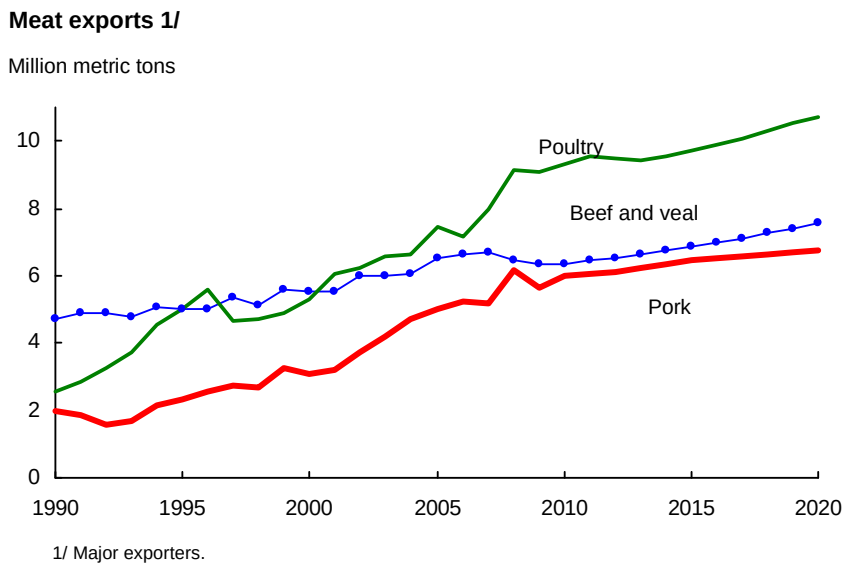
- The textile industries in China, India, and Pakistan were the major beneficiaries of textile trade liberalization as a result of the elimination of the MFA quotas in 2005. However, imports have risen in other Asian countries as well, most notably Bangladesh and Vietnam.
- China's textile industry and 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 more than two-thirds of the global increase in cotton imports.
- Bangladesh has become a major importer in recent years and as imports continue rising, the country is projected to become the world's second-largest importer by 2020.
- Pakistan has also become a significant importer in recent years but import growth slows in the projections as new *Bacillus thuringiensis* (*Bt*) cotton varieties specific to Pakistan's cotton production conditions prove more productive and reduce the need for imports.
- 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 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**




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, Brazil, and Sub-Saharan Africa. The importance of technology has been highlighted by the impact of India's rapid adoption of genetically modified cotton, nearly all *Bt* cotton.

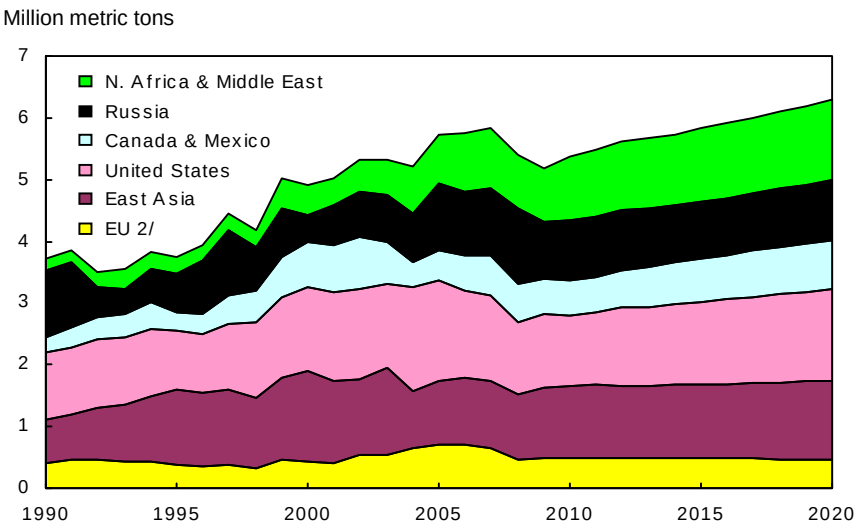
- The United States continues as the world's leading cotton exporter throughout the projections. U.S. exports rise slightly to about 16 million bales by 2020. The U.S. share of world exports declines slightly from 35 percent in recent years, to 34 percent by 2020.
- Brazil's cotton exports double during the coming decade as the area planted to cotton and soybeans expands. Exports from Brazil rise more than from any other country or region, surpassing exports from India and Australia, and enable Brazil to become the world's second-largest cotton exporter.
- Sub-Saharan Africa's exports are projected to rise rapidly during the coming decade as these economies develop and as *Bt* cotton is adopted by the region's producers. The region's exports are projected to rise about 60 percent during the next 10 years and to account for one third of world trade growth.
- Government policies in the Central Asian countries of the FSU promoting investment in textiles have contributed to more exports of textile products rather than exports of raw cotton. However, the continued increase in cotton exports account for 17 percent of the increase in world exports.
- Improved cotton yields in India, largely due to the adoption of *Bt* 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 *Bt* cotton expands and cultivation practices improve. The increase in cotton output is expected to enable India to increase textile production and maintain exports.




The growth in world per capita meat consumption is expected to slow during the 2011-20 projection period to less than two-thirds of 1 percent per year. Still, meat shipments from major exporters trend upwards at 1.4 percent per year. The projected growth rates of exports from major exporters of beef, pork, and poultry meat are 1.7, 1.3, and 1.2 percent per year, respectively. During this period, exports rise 1.1 million tons for beef, 1.2 million for pork, and 0.9 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 reduce imports and to stimulate meat production. Pork and poultry meat account for most of the decline in meat imports.
- Canadian beef exports and imports are each projected to rise slowly after 2012 with net exports remaining stable but well below the 2004 record. Canada's cow herd contracted significantly during 2006-10 and rebuilding beef herds is expected to progress slowly.
- EU beef exports, after steadily declining for more than a decade, stabilize at the current low level as policies continue to discourage beef production and limit the EU's competitiveness in international markets.
- Argentine beef exports declined sharply after the 2005 peak as export restrictions on beef and changes in other policies made Argentina's exports less competitive. Beef exports are projected to decline further during the next several years as Argentine producers begin to rebuild their herds. Beef exports then begin to rise slowly, but are constrained by reduced beef imports by Russia, which has been a major market for Argentine beef.
- The projections assume no changes in the set of countries that recognize all regions within 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/**




1/ Selected importers.
2/ Excludes intra-EU trade.

Beef imports by major importers declined in 2009. The most significant declines occurred in South Asian countries, the United States, Russia, and Mexico. In 2010, import growth renewed in the regions of North Africa, the Middle East, and Asia, but was offset by stagnant trade or continuing declines in most of the rest of the world.

Between 2011 and 2020, beef imports by major importers resume growth and expand nearly 0.7 million metric tons (14 percent). Traditionally, developed countries have been the primary importers of beef. However, imports by a number of low- and middle-income income countries are projected to increase, especially imports of lower priced, grass-fed beef from Brazil.

- During the next 10 years, Russian beef imports are projected to fluctuate around 0.9 million tons as rising consumer demand is offset by expanding Russian beef production and import restrictions. Russia remains a significant market for EU and South American beef exports.

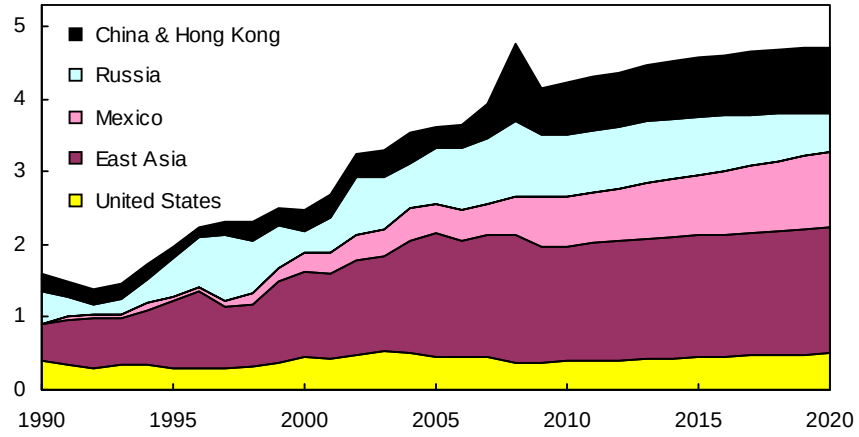
- Imports of grain-fed beef by higher-income countries are projected to rise slowly. U.S. beef exports to these countries are projected to increase somewhat over the next 10 years although they will have to compete with exports from other suppliers.

- U.S. beef imports, primarily of grass-fed, lean beef from Australia and New Zealand for use in ground beef and processed products, rise 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 over the next several years. 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.

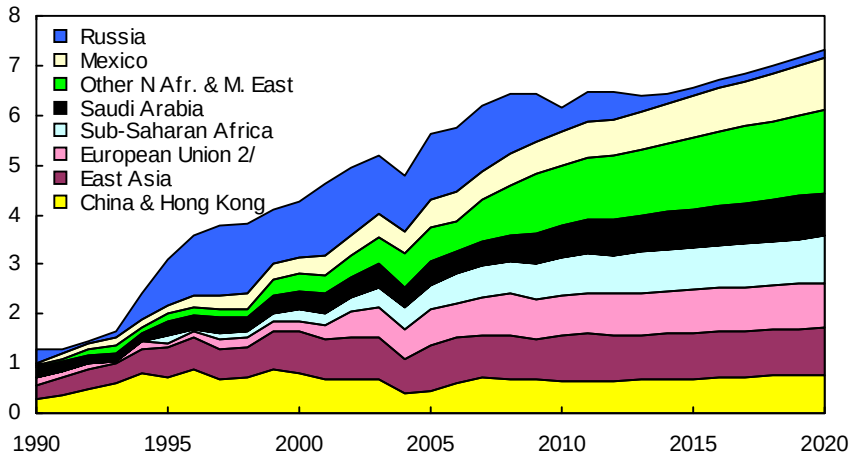
Global pork trade declined in 2009 in response to the global economic recession. Imports fell the most in China, Russia, Ukraine, other countries of the FSU, Japan, and South Korea. Although world imports partially recovered in 2010, import levels for many countries remained below the 2008 peak.

In the projections for 2011 to 2020, world pork imports are expected to resume growth, and to increase by more than 0.66 million tons (11 percent).

- Russia's policies to stimulate livestock production are expected to cause pork imports to decline steadily during the next 10 years. Although Russia's TRQ on pork imports is assumed to cease after 2012, other trade barriers may constrain growth in Russian pork imports.
- Mexican pork imports increase the most of any country in the world, rising more than 350,000 tons (52 percent) between 2011 and 2020. Increases in income and population are the primary drivers of Mexico's increasing demand for pork. Mexico accounts for more than one-half 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 as a mature market with declining population, its imports are not projected to rise significantly. South Korea is Asia's fastest growing pork importer and its imports account for one-fourth of the increase in world pork imports during the projection period.
- China's pork imports rose sharply in 2008 and it became a net importer. Since then, the country's pork imports have declined significantly but it remains a net importer. In the projections, pork exports rise slightly more than imports, but the country remains a small net importer in 2020. 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 are projected to increase by more than 1 million tons (20 percent) between 2011 and 2020. The projections indicate strong poultry import growth throughout much of the world except, most notably, for Russia, Europe, and Japan.

- Poultry imports by Africa and the Middle East now account for about 40 percent of imports by the major importers. Income and population growth boosts demand in the projections. In addition, ongoing animal disease concerns in a number of countries are expected to slow growth in production and to increase demand for imports. As a result, the region's imports grow more than the rest of the world combined.
- Rising consumer incomes increase poultry demand and imports in Mexico and the Central America 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 by 0.35 million tons (50 percent).
- Russia's poultry imports are projected to decline sharply during the next 5 years. Policies that make the poultry TRQ regime more restrictive will restrain poultry imports and stimulate domestic poultry production. Higher prices and slower growth in income and per capita poultry consumption also inhibit import growth.
- In South Korea, increasing per capita consumption, combined with environmental concerns that limit production growth, boost imports 16 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 higher income countries in Asia, Europe, and the Middle East.
- China's rising consumption of poultry meat is met by expanding domestic production and the country's poultry net exports climb by about 55,000 tons.

Table 4. Coarse grains trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| Former Soviet Union[1] | 0.5 | 2.3 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 |
| Other Europe | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| European Union[2] | 3.0 | 5.0 | 3.8 | 3.5 | 3.3 | 3.2 | 3.5 | 3.6 | 3.6 | 3.4 | 3.4 | 3.3 |
| North Africa & Middle East | 33.6 | 31.3 | 32.8 | 34.2 | 35.3 | 36.0 | 37.0 | 37.8 | 38.6 | 39.2 | 39.8 | 40.2 |
| Sub-Saharan Africa[3] | 3.1 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 | 2.7 | 2.8 | 2.9 | 3.0 | 3.2 | 3.3 |
| Japan | 19.2 | 19.2 | 19.0 | 19.0 | 18.9 | 18.8 | 18.8 | 18.7 | 18.6 | 18.5 | 18.5 | 18.4 |
| South Korea | 8.5 | 9.0 | 9.0 | 9.1 | 9.1 | 9.2 | 9.3 | 9.3 | 9.4 | 9.5 | 9.6 | 9.6 |
| Taiwan | 4.8 | 4.9 | 5.0 | 5.1 | 5.1 | 5.1 | 5.1 | 5.2 | 5.2 | 5.1 | 5.1 | 5.2 |
| China | 3.8 | 3.1 | 3.4 | 4.2 | 5.0 | 5.8 | 6.8 | 7.6 | 8.7 | 9.5 | 10.5 | 11.1 |
| Other Asia & Oceania | 6.4 | 6.2 | 6.5 | 6.9 | 7.0 | 7.2 | 7.5 | 7.7 | 7.9 | 8.0 | 8.2 | 8.3 |
| Mexico | 11.2 | 12.0 | 12.2 | 12.9 | 13.6 | 14.0 | 14.5 | 15.2 | 15.9 | 16.6 | 17.4 | 18.2 |
| Central America & Caribbean | 4.9 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.1 | 5.2 | 5.3 | 5.3 | 5.3 | 5.3 |
| Brazil | 1.1 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| Other South America | 9.9 | 9.3 | 9.4 | 9.6 | 9.7 | 9.9 | 10.1 | 10.1 | 10.2 | 10.2 | 10.2 | 10.1 |
| Other foreign[4] | 5.5 | 4.8 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.1 | 5.2 | 5.2 | 5.3 |
| United States | 2.6 | 2.3 | 2.7 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Total trade | 118.7 | 118.4 | 119.4 | 122.5 | 125.5 | 127.8 | 131.3 | 134.1 | 137.2 | 139.6 | 142.4 | 144.4 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| European Union[2] | 3.0 | 6.0 | 5.6 | 6.5 | 7.0 | 7.3 | 7.6 | 7.8 | 8.2 | 8.3 | 8.6 | 8.8 |
| China | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Argentina | 16.9 | 19.7 | 18.3 | 18.8 | 19.4 | 19.6 | 19.9 | 20.1 | 20.2 | 20.1 | 20.1 | 19.9 |
| Australia | 4.6 | 5.1 | 5.0 | 4.7 | 5.0 | 5.1 | 5.1 | 5.1 | 5.1 | 5.2 | 5.2 | 5.2 |
| Canada | 3.1 | 3.1 | 4.2 | 3.9 | 3.8 | 3.9 | 3.8 | 3.7 | 3.5 | 3.3 | 3.1 | 3.0 |
| South Africa | 2.5 | 2.5 | 2.5 | 2.5 | 2.7 | 2.7 | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 | 2.6 |
| Other Europe | 1.8 | 2.7 | 2.5 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 2.8 | 2.9 | 2.8 | 2.8 |
| Former Soviet Union[1] | 14.9 | 10.5 | 11.7 | 12.6 | 13.0 | 13.3 | 15.0 | 15.6 | 16.7 | 17.8 | 19.0 | 19.8 |
| Other foreign | 16.7 | 14.6 | 14.0 | 14.7 | 15.0 | 15.4 | 15.9 | 16.5 | 16.8 | 16.6 | 16.7 | 16.8 |
| United States | 54.8 | 53.9 | 55.3 | 56.0 | 56.8 | 57.5 | 58.3 | 59.7 | 61.1 | 62.5 | 63.9 | 65.3 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 46.2 | 45.5 | 46.3 | 45.7 | 45.3 | 45.0 | 44.4 | 44.5 | 44.5 | 44.8 | 44.9 | 45.2 |

1/ Covers FSU-12, includes intra-FSU trade.
2/ Covers EU-27, excludes intra-EU trade.
3/ Includes South Africa.
4/ Includes unaccounted.
The projections were completed in November 2010.

Table 5. Corn trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| European Union[1] | 2.9 | 4.5 | 3.4 | 3.0 | 2.8 | 2.7 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 | 2.6 |
| Former Soviet Union[2] | 0.3 | 1.2 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 |
| Egypt | 5.5 | 5.4 | 5.4 | 5.4 | 5.5 | 5.5 | 5.6 | 5.8 | 6.0 | 6.1 | 6.1 | 6.2 |
| Algeria | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.6 | 2.7 | 2.7 | 2.8 | 2.8 | 2.9 | 2.9 |
| Morocco | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 |
| Iran | 4.2 | 3.2 | 3.4 | 3.6 | 3.8 | 3.9 | 4.1 | 4.2 | 4.3 | 4.3 | 4.4 | 4.4 |
| Saudi Arabia | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 |
| Turkey | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 |
| Other N. Africa & Middle East | 5.6 | 6.0 | 6.0 | 6.1 | 6.1 | 6.2 | 6.3 | 6.3 | 6.4 | 6.4 | 6.5 | 6.5 |
| Japan | 16.0 | 16.1 | 16.0 | 16.0 | 16.0 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.8 | 15.8 |
| South Korea | 8.5 | 9.0 | 9.0 | 9.0 | 9.1 | 9.1 | 9.2 | 9.3 | 9.3 | 9.4 | 9.5 | 9.5 |
| Taiwan | 4.6 | 4.7 | 4.9 | 4.9 | 4.9 | 4.9 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| China | 1.3 | 1.0 | 1.2 | 1.8 | 2.5 | 3.2 | 4.1 | 4.9 | 5.8 | 6.6 | 7.5 | 8.0 |
| Indonesia | 1.2 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 |
| Malaysia | 2.8 | 2.8 | 2.9 | 3.0 | 3.0 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.4 |
| Other Asia & Oceania | 2.3 | 2.5 | 2.7 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.4 | 3.4 | 3.5 |
| Canada | 2.1 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.8 |
| Mexico | 8.4 | 9.1 | 9.2 | 9.9 | 10.4 | 10.8 | 11.1 | 11.8 | 12.3 | 13.0 | 13.6 | 14.3 |
| Central America & Caribbean | 4.9 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.1 | 5.2 | 5.3 | 5.3 | 5.3 | 5.3 |
| Brazil | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Other South America | 8.6 | 8.1 | 8.1 | 8.3 | 8.4 | 8.5 | 8.6 | 8.6 | 8.7 | 8.6 | 8.6 | 8.6 |
| Sub-Saharan Africa[3] | 2.3 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 |
| Other foreign[4] | 4.0 | 2.7 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| United States | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Total trade | 92.6 | 93.2 | 93.0 | 95.2 | 97.4 | 99.3 | 102.3 | 104.8 | 107.5 | 109.4 | 111.6 | 113.2 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| European Union[1] | 1.5 | 1.0 | 1.3 | 1.5 | 1.7 | 1.9 | 2.2 | 2.3 | 2.6 | 2.7 | 2.9 | 3.1 |
| China | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Argentina | 15.0 | 17.5 | 16.0 | 16.5 | 17.0 | 17.2 | 17.5 | 17.7 | 17.8 | 17.7 | 17.7 | 17.4 |
| Brazil | 9.0 | 7.0 | 6.5 | 7.0 | 7.2 | 7.5 | 8.0 | 8.5 | 8.8 | 8.5 | 8.5 | 8.5 |
| South Africa | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.7 | 2.6 |
| Other Europe | 1.8 | 2.7 | 2.4 | 2.4 | 2.6 | 2.7 | 2.8 | 2.8 | 2.8 | 2.9 | 2.8 | 2.8 |
| Former Soviet Union[2] | 5.5 | 5.6 | 6.1 | 6.4 | 6.6 | 7.1 | 8.3 | 8.5 | 9.2 | 10.0 | 10.8 | 11.1 |
| Other foreign | 6.6 | 7.1 | 7.1 | 7.2 | 7.3 | 7.4 | 7.4 | 7.5 | 7.6 | 7.7 | 7.8 | 7.9 |
| United States | 50.5 | 49.5 | 50.8 | 51.4 | 52.1 | 52.7 | 53.3 | 54.6 | 55.9 | 57.2 | 58.4 | 59.7 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 54.5 | 53.2 | 54.6 | 54.1 | 53.5 | 53.1 | 52.1 | 52.1 | 52.0 | 52.3 | 52.3 | 52.7 |

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
3/ Includes South Africa.
4/ Includes unaccounted.
The projections were completed in November 2010.

Table 6. Barley trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| Former Soviet Union[1] | 0.2 | 0.8 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 |
| Japan | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 |
| South Korea | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 2.3 | 2.0 | 2.1 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.7 | 2.8 | 2.9 | 3.0 |
| European Union[2] | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| Latin America[3] | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 |
| Algeria | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Saudi Arabia | 7.9 | 7.0 | 7.5 | 7.7 | 7.8 | 7.9 | 8.0 | 8.0 | 8.1 | 8.2 | 8.2 | 8.3 |
| Morocco | 0.3 | 0.2 | 0.3 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 |
| Tunisia | 0.1 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| South Africa | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Iran | 0.9 | 0.4 | 0.6 | 0.7 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 |
| Other N. Africa & M. East | 2.4 | 1.8 | 2.0 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 | 2.6 |
| Other foreign[4] | -0.2 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| United States | 0.7 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Total trade | 17.1 | 16.3 | 17.0 | 18.0 | 18.7 | 19.1 | 19.4 | 19.7 | 20.1 | 20.4 | 20.8 | 21.0 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| European Union[2] | 1.1 | 4.6 | 3.9 | 4.6 | 4.9 | 5.0 | 5.0 | 5.0 | 5.1 | 5.2 | 5.2 | 5.2 |
| Australia | 3.8 | 4.1 | 4.0 | 3.9 | 4.2 | 4.3 | 4.3 | 4.4 | 4.4 | 4.5 | 4.5 | 4.5 |
| Canada | 1.3 | 1.4 | 1.9 | 1.8 | 1.7 | 1.8 | 1.8 | 1.6 | 1.5 | 1.4 | 1.2 | 1.1 |
| Russia | 2.7 | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.9 | 1.0 |
| Ukraine | 6.2 | 4.0 | 4.2 | 4.7 | 4.9 | 4.8 | 5.1 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 |
| Other Former Soviet Union[5] | 0.4 | 0.2 | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 1.1 | 1.2 | 1.3 | 1.4 |
| Turkey | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 |
| Other foreign | 0.7 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| United States | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 0.7 | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 |

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 2010.

Table 7. Sorghum trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Importers | *Imports, million metric tons* | | | | | | | | | | | |
| Japan | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.1 |
| Mexico | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 |
| North Africa & Middle East | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| South America | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Sub-Saharan Africa[1] | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 |
| Other[2] | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 |
| Total trade | 6.5 | 6.4 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.8 | 6.9 | 7.0 | 7.2 | 7.3 |
| Exporters | *Exports, million metric tons* | | | | | | | | | | | |
| Argentina | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 |
| Australia | 0.6 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 |
| Brazil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other foreign | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| United States | 4.2 | 4.1 | 4.2 | 4.3 | 4.4 | 4.6 | 4.7 | 4.8 | 5.0 | 5.1 | 5.2 | 5.3 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 64.9 | 63.2 | 65.2 | 66.9 | 67.5 | 68.3 | 69.5 | 70.9 | 72.1 | 72.3 | 72.7 | 72.9 |

1/ Includes South Africa.

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

The projections were completed in November 2010.

Table 8. Wheat trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| Algeria | 5.2 | 5.3 | 5.7 | 5.8 | 5.9 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 |
| Tunisia | 1.5 | 1.8 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 |
| Morocco | 2.3 | 3.6 | 3.4 | 3.4 | 3.5 | 3.6 | 3.6 | 3.7 | 3.7 | 3.7 | 3.8 | 3.9 |
| Egypt | 10.3 | 9.8 | 10.0 | 10.1 | 10.4 | 10.7 | 10.9 | 11.1 | 11.3 | 11.6 | 11.8 | 12.1 |
| Saudi Arabia | 1.9 | 2.0 | 2.3 | 2.5 | 2.7 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 |
| Iran | 5.0 | 0.8 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Iraq | 3.9 | 3.6 | 3.2 | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.1 | 4.2 | 4.3 | 4.4 |
| Other N. Africa & Middle East | 15.2 | 13.1 | 13.7 | 13.6 | 13.9 | 14.0 | 14.1 | 14.2 | 14.4 | 14.5 | 14.5 | 14.6 |
| Sub-Saharan Africa[1] | 15.8 | 14.3 | 14.4 | 15.0 | 15.8 | 16.2 | 16.7 | 17.1 | 17.6 | 18.1 | 18.5 | 19.0 |
| Mexico | 3.2 | 3.3 | 3.4 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 | 3.8 | 3.9 | 3.9 | 4.0 |
| Central America & Caribbean | 3.5 | 3.5 | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 | 3.8 | 3.8 | 3.8 | 3.8 |
| Brazil | 7.0 | 6.5 | 6.5 | 6.6 | 6.7 | 6.7 | 6.7 | 6.8 | 6.8 | 6.9 | 7.0 | 7.0 |
| Other South America | 6.6 | 6.5 | 6.5 | 6.6 | 6.8 | 6.8 | 6.8 | 6.9 | 6.9 | 7.0 | 7.0 | 7.0 |
| European Union[2] | 5.5 | 5.5 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 6.9 | 7.0 |
| Other Europe | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 |
| Former Soviet Union[3] | 5.4 | 7.4 | 5.9 | 6.0 | 6.0 | 6.0 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.2 |
| Japan | 5.5 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 | 5.0 | 4.9 |
| South Korea | 4.5 | 3.6 | 4.0 | 3.9 | 3.9 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Philippines | 3.2 | 2.8 | 2.9 | 3.1 | 3.2 | 3.3 | 3.3 | 3.4 | 3.5 | 3.6 | 3.6 | 3.7 |
| Indonesia | 5.4 | 5.5 | 5.6 | 5.8 | 6.0 | 6.1 | 6.2 | 6.3 | 6.5 | 6.6 | 6.7 | 6.9 |
| China | 1.4 | 1.0 | 0.9 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.9 | 1.0 | 1.0 |
| Bangladesh | 3.3 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.0 | 3.1 | 3.2 | 3.3 |
| Malaysia | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 |
| Thailand | 1.6 | 1.1 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 |
| Vietnam | 1.9 | 1.5 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.2 |
| Pakistan | 0.2 | 0.3 | 2.6 | 1.0 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| Other Asia & Oceania | 7.7 | 7.2 | 7.4 | 7.6 | 8.1 | 8.4 | 8.7 | 9.0 | 9.3 | 9.6 | 9.9 | 10.2 |
| Other foreign[4] | 2.2 | 3.5 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| United States | 3.2 | 3.0 | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.3 | 3.3 | 3.4 | 3.4 | 3.5 |
| Total trade | 135.3 | 127.2 | 132.1 | 132.8 | 135.8 | 138.0 | 140.1 | 142.5 | 144.6 | 147.1 | 149.4 | 151.9 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| European Union[2] | 22.1 | 22.0 | 21.2 | 20.5 | 20.4 | 20.1 | 20.0 | 20.4 | 20.2 | 20.1 | 19.9 | 20.8 |
| Canada | 19.0 | 17.5 | 17.9 | 17.2 | 16.3 | 17.1 | 17.2 | 17.2 | 17.2 | 17.3 | 17.3 | 17.3 |
| Australia | 14.5 | 16.0 | 16.5 | 17.0 | 17.8 | 18.0 | 18.0 | 18.0 | 18.1 | 18.2 | 18.2 | 18.2 |
| Argentina | 5.5 | 8.0 | 8.1 | 8.2 | 8.4 | 8.6 | 8.8 | 9.0 | 9.2 | 9.4 | 9.6 | 9.8 |
| Russia | 18.6 | 4.0 | 7.0 | 10.8 | 14.0 | 16.0 | 17.5 | 18.8 | 20.0 | 21.2 | 22.5 | 23.5 |
| Ukraine | 9.3 | 6.0 | 8.5 | 9.0 | 9.4 | 9.7 | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 |
| Other Former Soviet Union[5] | 8.8 | 6.7 | 8.0 | 8.2 | 8.5 | 8.7 | 9.1 | 9.8 | 10.4 | 11.0 | 11.6 | 12.2 |
| Other Europe | 0.8 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| India | 0.1 | 0.2 | 0.4 | 1.3 | 3.0 | 1.5 | 0.9 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 |
| China | 0.9 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.1 | 3.3 | 3.4 | 3.5 | 3.6 | 3.8 |
| Turkey | 4.4 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.7 | 2.7 |
| Other foreign | 7.3 | 7.5 | 7.6 | 7.7 | 7.7 | 7.8 | 7.8 | 7.9 | 8.0 | 8.1 | 8.2 | 8.2 |
| United States | 24.0 | 34.0 | 31.3 | 27.2 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 23.8 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 17.7 | 26.7 | 23.7 | 20.5 | 18.0 | 17.8 | 17.5 | 17.2 | 16.9 | 16.7 | 16.4 | 15.7 |

1/ Includes 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 2010.

Table 9. Rice trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| Canada | 0.36 | 0.34 | 0.35 | 0.35 | 0.36 | 0.36 | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 | 0.39 |
| Mexico | 0.60 | 0.65 | 0.69 | 0.71 | 0.74 | 0.77 | 0.79 | 0.82 | 0.84 | 0.87 | 0.89 | 0.92 |
| Central America/Caribbean | 1.44 | 1.48 | 1.69 | 1.82 | 1.87 | 1.91 | 1.94 | 1.96 | 2.01 | 2.03 | 2.09 | 2.13 |
| Brazil | 0.90 | 0.65 | 0.94 | 0.87 | 0.84 | 0.88 | 0.82 | 0.72 | 0.61 | 0.60 | 0.61 | 0.61 |
| Other South America | 0.46 | 0.73 | 0.56 | 0.53 | 0.43 | 0.37 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 |
| European Union[1] | 1.24 | 1.35 | 1.29 | 1.32 | 1.35 | 1.37 | 1.39 | 1.41 | 1.43 | 1.45 | 1.47 | 1.49 |
| Former Soviet Union[2] | 0.37 | 0.34 | 0.35 | 0.36 | 0.35 | 0.35 | 0.35 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 |
| Other Europe | 0.13 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Bangladesh | 0.09 | 0.75 | 0.82 | 0.89 | 0.99 | 1.04 | 1.12 | 1.18 | 1.25 | 1.32 | 1.39 | 1.45 |
| China | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.45 | 0.49 | 0.52 | 0.54 | 0.57 | 0.60 | 0.62 |
| 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 | 0.30 | 0.33 | 0.35 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Indonesia | 0.80 | 0.65 | 0.80 | 0.93 | 1.05 | 1.11 | 1.17 | 1.25 | 1.34 | 1.43 | 1.51 | 1.57 |
| Malaysia | 1.07 | 1.02 | 1.01 | 1.09 | 1.17 | 1.24 | 1.28 | 1.30 | 1.32 | 1.34 | 1.36 | 1.37 |
| Philippines | 2.20 | 2.00 | 2.50 | 2.70 | 3.00 | 3.30 | 3.50 | 3.70 | 3.85 | 3.97 | 4.08 | 4.22 |
| Other Asia & Oceania | 2.37 | 2.46 | 2.55 | 2.70 | 2.81 | 2.90 | 3.02 | 3.13 | 3.26 | 3.41 | 3.55 | 3.70 |
| Iraq | 1.10 | 1.15 | 1.17 | 1.20 | 1.23 | 1.25 | 1.27 | 1.29 | 1.32 | 1.34 | 1.36 | 1.37 |
| Iran | 1.15 | 1.20 | 1.24 | 1.32 | 1.35 | 1.36 | 1.35 | 1.36 | 1.37 | 1.37 | 1.37 | 1.36 |
| Saudi Arabia | 1.10 | 1.10 | 1.10 | 1.12 | 1.14 | 1.16 | 1.18 | 1.21 | 1.23 | 1.26 | 1.29 | 1.32 |
| Other N. Africa & M. East | 2.54 | 2.46 | 2.50 | 2.46 | 2.57 | 2.68 | 2.76 | 2.83 | 2.91 | 3.00 | 3.09 | 3.17 |
| Sub-Saharan Africa[3] | 6.90 | 7.41 | 7.75 | 8.19 | 8.38 | 8.55 | 8.73 | 8.91 | 9.08 | 9.25 | 9.42 | 9.59 |
| South Africa | 0.80 | 0.90 | 0.91 | 0.92 | 0.91 | 0.92 | 0.94 | 0.96 | 0.97 | 0.99 | 1.00 | 1.02 |
| Other foreign[4] | 2.02 | 1.75 | 1.80 | 1.81 | 1.81 | 1.84 | 1.90 | 1.96 | 2.00 | 2.03 | 2.03 | 2.04 |
| United States | 0.60 | 0.62 | 0.64 | 0.65 | 0.67 | 0.69 | 0.71 | 0.72 | 0.74 | 0.76 | 0.78 | 0.80 |
| Total imports | 29.54 | 30.47 | 32.20 | 33.54 | 34.66 | 35.72 | 36.60 | 37.47 | 38.33 | 39.22 | 40.12 | 41.00 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Australia | 0.04 | 0.33 | 0.18 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Argentina | 0.55 | 0.70 | 0.66 | 0.61 | 0.61 | 0.63 | 0.66 | 0.69 | 0.72 | 0.74 | 0.76 | 0.78 |
| Other South America | 1.57 | 1.95 | 1.64 | 1.69 | 1.74 | 1.79 | 1.82 | 1.91 | 2.00 | 2.15 | 2.30 | 2.46 |
| European Union[1] | 0.23 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 |
| China | 0.60 | 0.90 | 0.90 | 0.90 | 0.95 | 0.99 | 0.97 | 1.01 | 1.02 | 1.03 | 1.04 | 1.07 |
| India | 2.20 | 2.50 | 3.64 | 4.62 | 5.07 | 5.42 | 5.58 | 5.65 | 5.55 | 5.56 | 5.55 | 5.59 |
| Pakistan | 3.80 | 2.65 | 2.75 | 3.09 | 3.20 | 3.31 | 3.46 | 3.63 | 3.80 | 3.98 | 4.18 | 4.38 |
| Thailand | 8.50 | 9.70 | 10.37 | 10.43 | 10.69 | 10.83 | 11.13 | 11.36 | 11.80 | 12.03 | 12.30 | 12.43 |
| Vietnam | 6.20 | 5.80 | 5.80 | 5.60 | 5.62 | 5.71 | 5.77 | 5.86 | 5.94 | 6.09 | 6.23 | 6.40 |
| Egypt | 0.70 | 0.30 | 0.28 | 0.26 | 0.24 | 0.23 | 0.21 | 0.20 | 0.18 | 0.17 | 0.15 | 0.14 |
| Other foreign | 1.69 | 1.83 | 2.02 | 2.18 | 2.34 | 2.55 | 2.66 | 2.77 | 2.88 | 2.99 | 3.10 | 3.21 |
| United States | 3.47 | 3.64 | 3.79 | 3.82 | 3.88 | 3.94 | 4.01 | 4.05 | 4.10 | 4.15 | 4.18 | 4.21 |
| Total exports | 29.54 | 30.47 | 32.20 | 33.54 | 34.66 | 35.72 | 36.60 | 37.47 | 38.33 | 39.22 | 40.12 | 41.00 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 11.7 | 12.0 | 11.8 | 11.4 | 11.2 | 11.0 | 10.9 | 10.8 | 10.7 | 10.6 | 10.4 | 10.3 |

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
3/ Excludes South Africa
4/ Includes unaccounted.
The projections were completed in November 2010.

Table 10. Soybean trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| European Union[1] | 12.9 | 13.5 | 13.5 | 13.1 | 12.9 | 12.7 | 12.5 | 12.3 | 12.1 | 11.9 | 11.7 | 11.5 |
| Japan | 3.4 | 3.5 | 3.6 | 3.4 | 3.3 | 3.3 | 3.3 | 3.2 | 3.2 | 3.1 | 3.1 | 3.0 |
| South Korea | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Taiwan | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Mexico | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 | 4.1 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 |
| Former Soviet Union[2] | 1.0 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 |
| 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 | 50.3 | 57.0 | 60.7 | 64.0 | 66.9 | 70.1 | 73.2 | 76.4 | 79.4 | 82.4 | 85.4 | 88.3 |
| Malaysia | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Indonesia | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 |
| Other | 15.2 | 11.9 | 12.1 | 12.4 | 12.8 | 13.1 | 13.5 | 13.9 | 14.2 | 14.6 | 15.0 | 15.3 |
| Total imports | 92.7 | 97.2 | 101.4 | 104.5 | 107.8 | 111.3 | 114.7 | 118.3 | 121.6 | 124.9 | 128.3 | 131.5 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Argentina | 13.0 | 13.0 | 13.7 | 14.8 | 15.1 | 15.6 | 16.1 | 16.7 | 17.1 | 17.5 | 17.5 | 17.9 |
| Brazil | 28.6 | 31.4 | 33.6 | 34.5 | 36.2 | 37.9 | 40.0 | 41.9 | 43.9 | 45.9 | 48.0 | 49.5 |
| Other South America | 7.3 | 6.4 | 7.2 | 7.4 | 7.8 | 8.0 | 8.5 | 8.9 | 9.4 | 9.9 | 10.5 | 11.1 |
| China | 0.2 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Other foreign | 2.8 | 3.2 | 3.6 | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 4.1 | 4.2 | 4.3 | 4.4 |
| United States | 40.9 | 42.7 | 42.9 | 43.7 | 44.5 | 45.4 | 45.9 | 46.4 | 46.7 | 47.1 | 47.5 | 48.0 |
| Total exports | 92.7 | 97.2 | 101.4 | 104.5 | 107.8 | 111.3 | 114.7 | 118.3 | 121.6 | 124.9 | 128.3 | 131.5 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 44.1 | 44.0 | 42.3 | 41.8 | 41.3 | 40.8 | 40.0 | 39.2 | 38.4 | 37.7 | 37.0 | 36.5 |

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
The projections were completed in November 2010.

Table 11. Soybean meal trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| European Union[1] | 21.8 | 23.3 | 23.6 | 24.0 | 24.4 | 24.8 | 25.2 | 25.6 | 26.0 | 26.3 | 26.7 | 27.1 |
| Former Soviet Union[2] | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 |
| 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 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 |
| Japan | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 |
| Southeast Asia | 9.6 | 10.2 | 10.1 | 10.4 | 10.8 | 11.2 | 11.5 | 11.9 | 12.3 | 12.6 | 13.0 | 13.4 |
| Mexico | 1.2 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.8 |
| Other Latin America | 5.6 | 6.1 | 6.3 | 6.5 | 6.7 | 7.0 | 7.2 | 7.4 | 7.6 | 7.9 | 8.1 | 8.3 |
| North Africa & Middle East | 5.8 | 6.2 | 6.6 | 6.8 | 7.0 | 7.2 | 7.4 | 7.5 | 7.7 | 7.9 | 8.0 | 8.2 |
| Other | 4.6 | 5.1 | 5.0 | 5.1 | 5.2 | 5.3 | 5.3 | 5.5 | 5.5 | 5.6 | 5.7 | 5.7 |
| Total imports | 53.1 | 56.8 | 57.8 | 59.3 | 60.6 | 62.0 | 63.4 | 64.8 | 66.1 | 67.5 | 68.8 | 70.1 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Argentina | 24.7 | 29.6 | 29.5 | 30.5 | 31.4 | 32.7 | 33.8 | 34.9 | 36.2 | 37.5 | 38.7 | 40.0 |
| Brazil | 13.0 | 12.8 | 12.6 | 13.3 | 13.6 | 13.8 | 14.1 | 14.3 | 14.5 | 14.8 | 15.0 | 15.3 |
| Other South America | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 | 2.7 |
| China | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 |
| India | 3.0 | 3.5 | 3.4 | 3.1 | 3.1 | 2.9 | 2.8 | 2.5 | 2.3 | 2.0 | 1.8 | 1.5 |
| European Union[1] | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Other foreign | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 |
| United States | 10.1 | 8.3 | 7.8 | 7.8 | 7.9 | 7.9 | 7.9 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| Total exports | 55.2 | 58.5 | 57.7 | 59.3 | 60.6 | 62.0 | 63.4 | 64.8 | 66.1 | 67.5 | 68.8 | 70.1 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 18.3 | 14.1 | 13.5 | 13.2 | 13.0 | 12.7 | 12.5 | 12.6 | 12.3 | 12.1 | 11.9 | 11.6 |

1/ Covers EU-27, excludes intra-EU trade.
2/ Covers FSU-12, includes intra-FSU trade.
The projections were completed in November 2010.

Table 12. Soybean oil trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| China | 1.5 | 2.0 | 2.0 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 1.2 |
| India | 1.6 | 1.3 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 |
| Other Asia | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.5 |
| Latin America | 1.6 | 1.7 | 1.7 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.2 | 2.2 | 2.3 |
| North Africa & Middle East | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 |
| European Union[1] | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 |
| Other | 1.0 | 1.1 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Total imports | 9.1 | 9.5 | 9.3 | 9.3 | 9.5 | 9.7 | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.1 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Argentina | 4.4 | 5.3 | 5.4 | 5.4 | 5.6 | 5.8 | 5.9 | 6.0 | 6.1 | 6.3 | 6.3 | 6.4 |
| Brazil | 1.4 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 |
| European Union[1] | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Other foreign | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 |
| United States | 1.5 | 1.2 | 0.9 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 |
| Total exports | 9.1 | 9.5 | 9.3 | 9.3 | 9.5 | 9.7 | 10.0 | 10.2 | 10.4 | 10.6 | 10.8 | 11.1 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 16.9 | 13.0 | 9.5 | 7.4 | 6.2 | 6.1 | 6.4 | 6.7 | 6.9 | 6.9 | 7.0 | 7.0 |

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2010.

Table 13. Rapeseed trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million metric tons* | | | | | | |
| Importers | | | | | | | | | | | | |
| European Union[1] | 2.2 | 2.1 | 2.6 | 3.1 | 3.4 | 3.7 | 4.0 | 4.2 | 4.6 | 4.8 | 5.1 | 5.3 |
| Japan | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| Mexico | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 |
| China | 2.2 | 1.9 | 1.8 | 1.8 | 1.9 | 2.0 | 2.0 | 2.2 | 2.2 | 2.5 | 2.6 | 2.8 |
| Bangladesh | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Pakistan | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| Other foreign | 1.4 | 1.0 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 |
| United States | 0.6 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 |
| Total imports | 10.9 | 9.7 | 10.2 | 10.8 | 11.3 | 11.7 | 12.2 | 12.7 | 13.3 | 13.9 | 14.5 | 15.1 |
| | | | | | | *Exports, million metric tons* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Canada | 7.2 | 6.4 | 6.6 | 6.7 | 6.8 | 7.0 | 7.1 | 7.4 | 7.7 | 8.0 | 8.3 | 8.6 |
| Russia | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 |
| Ukraine | 1.8 | 1.3 | 1.8 | 2.2 | 2.5 | 2.8 | 3.0 | 3.2 | 3.4 | 3.6 | 3.8 | 4.0 |
| Other Former Soviet Union | 0.2 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Australia | 1.3 | 1.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 |
| Other foreign | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 |
| United States | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| Total exports | 10.9 | 9.7 | 10.2 | 10.8 | 11.3 | 11.7 | 12.2 | 12.7 | 13.3 | 13.9 | 14.5 | 15.1 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 1.9 | 3.3 | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 |

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2010.

Table 14. All cotton trade long-term projections

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Imports, million bales* | | | | | | |
| Importers | | | | | | | | | | | | |
| European Union[1] | 1.0 | 0.9 | 1.1 | 1.0 | 1.0 | 1.0 | 0.9 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 |
| Former Soviet Union[2] | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 |
| Brazil | 0.2 | 0.8 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Mexico | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Japan | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| South Korea | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 |
| China | 10.9 | 15.0 | 16.5 | 17.6 | 18.8 | 19.6 | 20.1 | 20.5 | 20.8 | 21.0 | 21.2 | 21.5 |
| Indonesia | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 |
| Thailand | 1.8 | 1.6 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.0 |
| Pakistan | 1.4 | 1.7 | 1.9 | 2.0 | 2.2 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 |
| India | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Bangladesh | 3.8 | 3.9 | 4.2 | 4.3 | 4.4 | 4.6 | 4.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.9 |
| Taiwan | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 |
| Other Asia & Oceania | 2.7 | 2.5 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.4 | 3.5 |
| Turkey | 4.4 | 3.1 | 3.5 | 3.2 | 3.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 |
| Other | 2.4 | 2.6 | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 3.3 |
| Total imports | 35.6 | 38.8 | 40.6 | 41.8 | 43.3 | 44.4 | 45.2 | 45.9 | 46.4 | 46.9 | 47.4 | 47.9 |
| | | | | | | *Exports, million bales* | | | | | | |
| Exporters | | | | | | | | | | | | |
| Former Soviet Union[2] | 5.9 | 5.9 | 5.7 | 5.7 | 6.1 | 6.3 | 6.6 | 6.8 | 6.8 | 6.9 | 6.9 | 7.0 |
| Australia | 2.1 | 2.9 | 3.5 | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 4.0 | 4.1 | 4.1 | 4.2 |
| Argentina | 0.1 | 0.3 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| Brazil | 2.0 | 2.4 | 3.0 | 3.6 | 4.0 | 4.4 | 4.7 | 5.1 | 5.4 | 5.6 | 5.8 | 6.0 |
| Other Latin America | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 |
| Pakistan | 0.7 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| India | 6.6 | 4.8 | 5.7 | 6.0 | 6.1 | 6.1 | 5.9 | 5.5 | 5.3 | 5.2 | 5.0 | 5.0 |
| Egypt | 0.3 | 0.2 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Sub-Saharan Africa[3] | 3.8 | 4.0 | 4.0 | 4.4 | 4.9 | 5.3 | 5.6 | 5.8 | 6.0 | 6.1 | 6.3 | 6.4 |
| Other foreign | 2.0 | 2.1 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| United States | 12.0 | 15.8 | 15.6 | 15.6 | 15.6 | 15.6 | 15.7 | 15.8 | 15.9 | 16.0 | 16.1 | 16.2 |
| Total exports | 35.6 | 38.8 | 40.6 | 41.8 | 43.3 | 44.4 | 45.2 | 45.9 | 46.4 | 46.9 | 47.4 | 47.9 |
| | | | | | | *Percent* | | | | | | |
| U.S. trade share | 33.8 | 40.5 | 38.3 | 37.2 | 36.0 | 35.1 | 34.7 | 34.4 | 34.3 | 34.1 | 34.0 | 33.9 |

1/ Covers EU-27, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

3/ Includes South Africa.

The projections were completed in November 2010.

Table 15. Beef trade long-term projections

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Imports, thousand metric tons, carcass weight* | | | | | | | | | | | |
| Importers | | | | | | | | | | | | |
| Japan | 697 | 695 | 704 | 679 | 662 | 673 | 675 | 682 | 691 | 707 | 713 | 724 |
| South Korea | 315 | 345 | 350 | 360 | 370 | 375 | 380 | 388 | 391 | 394 | 397 | 400 |
| Taiwan | 112 | 135 | 140 | 141 | 142 | 144 | 146 | 147 | 148 | 148 | 149 | 149 |
| Philippines | 123 | 150 | 160 | 166 | 171 | 180 | 187 | 192 | 197 | 201 | 209 | 215 |
| European Union[1] | 497 | 490 | 490 | 488 | 485 | 483 | 480 | 478 | 476 | 473 | 471 | 468 |
| Russia | 895 | 940 | 950 | 955 | 924 | 881 | 875 | 877 | 887 | 904 | 918 | 929 |
| Other Europe | 63 | 65 | 69 | 68 | 69 | 70 | 71 | 71 | 72 | 72 | 73 | 73 |
| Egypt | 180 | 190 | 210 | 217 | 221 | 226 | 229 | 231 | 233 | 235 | 238 | 240 |
| Other N. Africa & M. East | 690 | 846 | 878 | 874 | 898 | 922 | 948 | 973 | 996 | 1,016 | 1,036 | 1,057 |
| Mexico | 322 | 335 | 330 | 357 | 403 | 439 | 462 | 476 | 491 | 499 | 512 | 533 |
| Canada | 247 | 235 | 245 | 247 | 249 | 251 | 253 | 255 | 257 | 259 | 261 | 263 |
| United States | 1,191 | 1,119 | 1,152 | 1,252 | 1,270 | 1,300 | 1,329 | 1,359 | 1,388 | 1,417 | 1,447 | 1,476 |
| Major importers | 5,332 | 5,545 | 5,678 | 5,803 | 5,863 | 5,942 | 6,034 | 6,127 | 6,226 | 6,325 | 6,423 | 6,528 |
| | *Exports, thousand metric tons, carcass weight* | | | | | | | | | | | |
| Exporters | | | | | | | | | | | | |
| Australia | 1,364 | 1,325 | 1,325 | 1,329 | 1,323 | 1,330 | 1,336 | 1,343 | 1,350 | 1,357 | 1,362 | 1,369 |
| New Zealand | 514 | 510 | 496 | 500 | 499 | 505 | 511 | 514 | 516 | 520 | 523 | 527 |
| Other Asia | 666 | 762 | 784 | 800 | 810 | 819 | 840 | 857 | 883 | 901 | 920 | 938 |
| European Union[1] | 148 | 160 | 160 | 159 | 161 | 160 | 156 | 158 | 161 | 163 | 166 | 166 |
| Argentina | 655 | 300 | 300 | 233 | 208 | 207 | 234 | 266 | 302 | 350 | 404 | 460 |
| Brazil | 1,596 | 1,675 | 1,810 | 1,846 | 1,903 | 1,934 | 1,960 | 1,986 | 2,013 | 2,038 | 2,064 | 2,090 |
| Canada | 480 | 525 | 530 | 512 | 499 | 508 | 524 | 535 | 542 | 547 | 548 | 553 |
| United States | 878 | 1,049 | 1,030 | 1,089 | 1,181 | 1,231 | 1,263 | 1,287 | 1,312 | 1,338 | 1,364 | 1,392 |
| Major exporters | 6,301 | 6,306 | 6,435 | 6,467 | 6,583 | 6,695 | 6,824 | 6,946 | 7,079 | 7,213 | 7,352 | 7,494 |

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2010.

Table 16. Pork trade long-term projections

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Imports, thousand metric tons, carcass weight* | | | | | | | | | | | |
| Importers | | | | | | | | | | | | |
| Japan | 1,138 | 1,150 | 1,157 | 1,182 | 1,189 | 1,190 | 1,189 | 1,185 | 1,186 | 1,189 | 1,190 | 1,190 |
| China | 270 | 350 | 370 | 373 | 387 | 397 | 407 | 418 | 434 | 443 | 452 | 457 |
| Hong Kong | 369 | 370 | 380 | 392 | 398 | 405 | 414 | 422 | 430 | 439 | 447 | 456 |
| South Korea | 390 | 380 | 410 | 412 | 427 | 438 | 451 | 463 | 477 | 493 | 505 | 520 |
| Russia | 845 | 850 | 850 | 848 | 847 | 837 | 803 | 756 | 709 | 652 | 588 | 516 |
| Mexico | 678 | 685 | 690 | 724 | 772 | 803 | 837 | 881 | 919 | 960 | 1,002 | 1,047 |
| Canada | 180 | 200 | 230 | 232 | 234 | 235 | 236 | 237 | 238 | 238 | 238 | 238 |
| United States | 378 | 394 | 406 | 413 | 422 | 433 | 445 | 456 | 467 | 479 | 490 | 501 |
| Major importers | 4,248 | 4,379 | 4,493 | 4,574 | 4,675 | 4,738 | 4,781 | 4,817 | 4,860 | 4,894 | 4,911 | 4,924 |
| | *Exports, thousand metric tons, carcass weight* | | | | | | | | | | | |
| Exporters | | | | | | | | | | | | |
| Brazil | 707 | 625 | 631 | 639 | 663 | 667 | 669 | 676 | 684 | 693 | 702 | 710 |
| Canada | 1,123 | 1,165 | 1,167 | 1,112 | 1,136 | 1,158 | 1,171 | 1,186 | 1,199 | 1,208 | 1,213 | 1,211 |
| Mexico | 70 | 80 | 85 | 86 | 87 | 88 | 90 | 91 | 91 | 92 | 93 | 94 |
| European Union[1] | 1,415 | 1,700 | 1,550 | 1,563 | 1,584 | 1,594 | 1,598 | 1,583 | 1,583 | 1,569 | 1,555 | 1,535 |
| China | 232 | 250 | 280 | 309 | 329 | 342 | 355 | 370 | 380 | 392 | 405 | 419 |
| United States | 1,857 | 1,981 | 2,121 | 2,170 | 2,215 | 2,268 | 2,325 | 2,370 | 2,409 | 2,448 | 2,488 | 2,530 |
| Major exporters | 5,404 | 5,801 | 5,834 | 5,880 | 6,014 | 6,118 | 6,207 | 6,275 | 6,346 | 6,402 | 6,455 | 6,499 |

1/ Covers EU-27, excludes intra-EU trade.
The projections were completed in November 2010.

Table 17. Poultry trade long-term projections[1]

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Imports, thousand metric tons, ready to cook* | | | | | | | | | | | |
| Importers | | | | | | | | | | | | |
| Russia | 954 | 500 | 610 | 543 | 300 | 200 | 187 | 176 | 166 | 157 | 149 | 143 |
| European Union[2] | 831 | 795 | 825 | 833 | 842 | 850 | 859 | 867 | 876 | 885 | 893 | 902 |
| Other Europe | 29 | 25 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 25 |
| Canada | 138 | 133 | 138 | 140 | 141 | 143 | 145 | 147 | 148 | 150 | 152 | 154 |
| Mexico | 636 | 670 | 700 | 740 | 785 | 810 | 845 | 880 | 915 | 960 | 1,005 | 1,050 |
| Central America/Caribbean | 289 | 308 | 320 | 340 | 365 | 390 | 405 | 420 | 435 | 455 | 475 | 498 |
| Japan | 645 | 745 | 760 | 735 | 742 | 746 | 743 | 747 | 747 | 746 | 745 | 743 |
| Hong Kong | 253 | 280 | 325 | 344 | 357 | 366 | 375 | 385 | 390 | 396 | 401 | 407 |
| China | 428 | 351 | 325 | 305 | 308 | 316 | 323 | 333 | 344 | 352 | 363 | 376 |
| South Korea | 71 | 90 | 90 | 88 | 88 | 90 | 90 | 92 | 94 | 97 | 101 | 104 |
| Saudi Arabia | 604 | 630 | 680 | 701 | 727 | 751 | 771 | 792 | 810 | 830 | 847 | 866 |
| Other N. Africa & M. East | 1,234 | 1,198 | 1,266 | 1,277 | 1,329 | 1,383 | 1,437 | 1,483 | 1,536 | 1,586 | 1,640 | 1,692 |
| Sub-Saharan Africa | 703 | 780 | 782 | 798 | 814 | 831 | 848 | 865 | 883 | 901 | 920 | 939 |
| Major importers | 6,815 | 6,505 | 6,847 | 6,869 | 6,824 | 6,902 | 7,053 | 7,211 | 7,370 | 7,539 | 7,716 | 7,897 |
| | *Exports, thousand metric tons, ready to cook* | | | | | | | | | | | |
| Exporters | | | | | | | | | | | | |
| European Union[2] | 889 | 950 | 945 | 925 | 931 | 935 | 935 | 927 | 922 | 917 | 914 | 908 |
| Brazil | 3,386 | 3,514 | 3,567 | 3,570 | 3,431 | 3,454 | 3,539 | 3,621 | 3,742 | 3,862 | 3,998 | 4,116 |
| China | 291 | 380 | 410 | 476 | 480 | 482 | 495 | 497 | 503 | 506 | 512 | 516 |
| Thailand | 379 | 410 | 440 | 484 | 497 | 503 | 512 | 525 | 541 | 555 | 567 | 579 |
| United States | 3,335 | 3,182 | 3,265 | 3,087 | 3,139 | 3,176 | 3,225 | 3,263 | 3,285 | 3,309 | 3,344 | 3,387 |
| Major exporters | 8,280 | 8,436 | 8,627 | 8,541 | 8,478 | 8,549 | 8,706 | 8,833 | 8,993 | 9,150 | 9,335 | 9,506 |

1/ Broilers and turkeys only.

2/ Covers EU-27, excludes intra-EU trade.

The projections were completed in November 2010.

# U.S. Crops

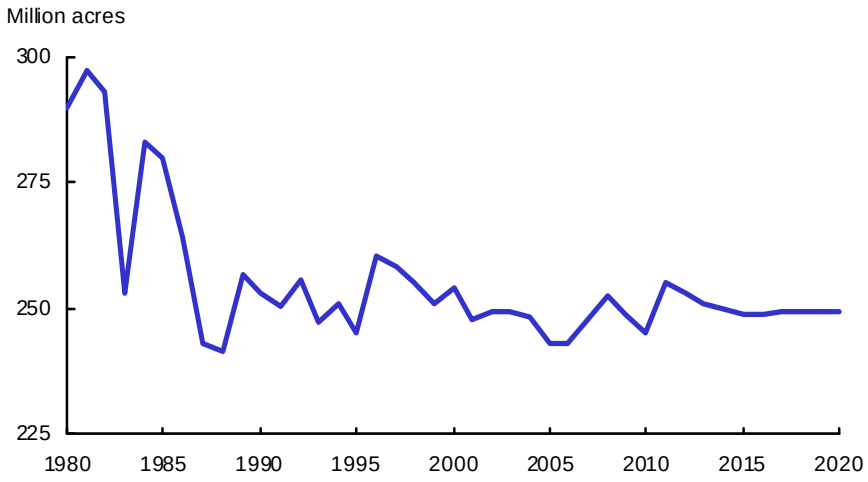
Near-term adjustments in the U.S. crops sector reflect market responses to relatively high prices that have resulted from the 2010 global wheat production shortfall (largely in Russia), reduced U.S. corn yields, and strong global demand for soybeans and cotton. Over the longer run, global economic recovery with steady growth provides an improved foundation for crop demand. Despite some growth potential from the E15 (15-percent ethanol blend) market, increases in corn-based ethanol production in the United States are projected to slow. Nonetheless, the large expansion in recent years keeps corn use for ethanol high. In combination, these factors support longer run increases in global consumption and trade. Prices fall from current high levels, but remain at historically high levels for many crops.

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. Acreage enrolled in the Conservation Reserve Program (CRP) has fallen from more than 36 million acres to about 31.4 million acres and is projected to remain close to 32 million acres throughout the projections. This reduction in CRP acreage provides some additional cropland for potential use in production.

The 45-cents-per-gallon 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. The tax credit for blending biodiesel that had expired at the end of 2009 was not assumed to be available because its reinstatement occurred after the projections were completed.

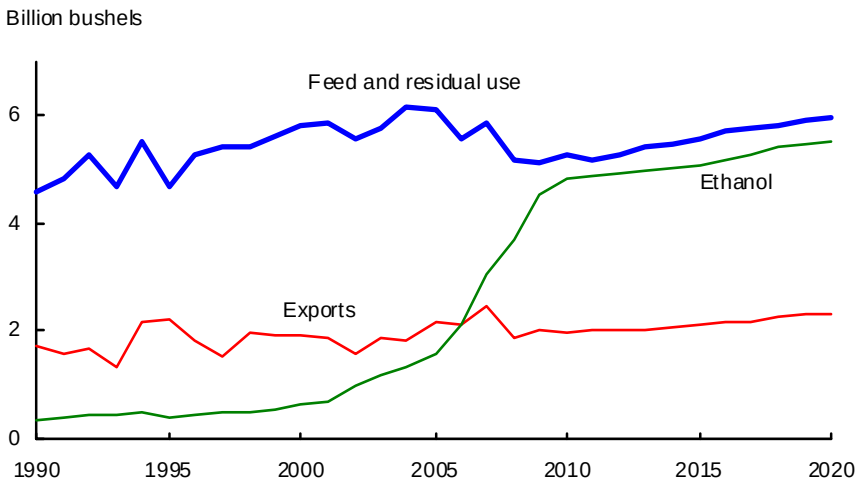
Current high prices lead to an increase in planted cropland in 2011, reaching 255 million acres for the 8 major field crops, up from 245 million in 2010 and above the recent high of 253 million in 2008. Although prices and plantings decline over the next several years, strong demand continues to keep prices historically high, providing economic incentives to hold projected plantings at 249-250 million acres over the remainder of the projection period.

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




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

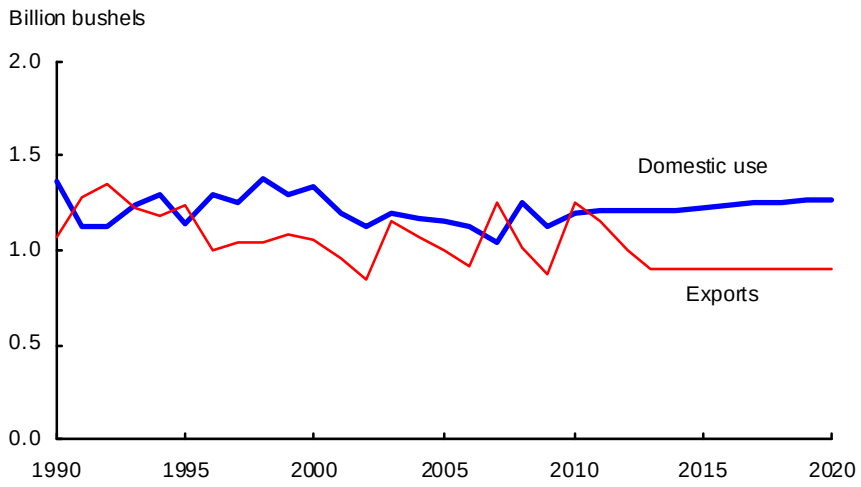
**U.S. corn: Feed and residual use, ethanol, and exports**




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 90 to 92 million acres over the projection period compared to 88 million in 2010. Acreage changes for other feed grains are minimal.

- Most ethanol production in the United States currently uses corn as the feedstock, with about 36 percent of total corn use expected to go to ethanol production over the projection period. Even with the U.S. Environmental Protection Agency's (EPA's) October 2010 announced approval for use of E15 in model year 2007 and newer passenger vehicles (including cars, sport utility vehicles, and light pickup trucks), smaller gains for corn-based ethanol are projected over the next 10 years than have occurred in recent 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, constraints in the E15 market, and the small size of the E85 (85-percent ethanol blend) market. By the end of the projection period, corn-based ethanol production represents more than 10 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 rising faster than population throughout the projection period.
- U.S. corn exports rise in response to stronger global demand for feed grains to support growth in meat production. Although lower than has been typical in the past, the U.S. share of global corn trade remains above 50 percent in the projections.

**U.S. wheat: Domestic use and exports**



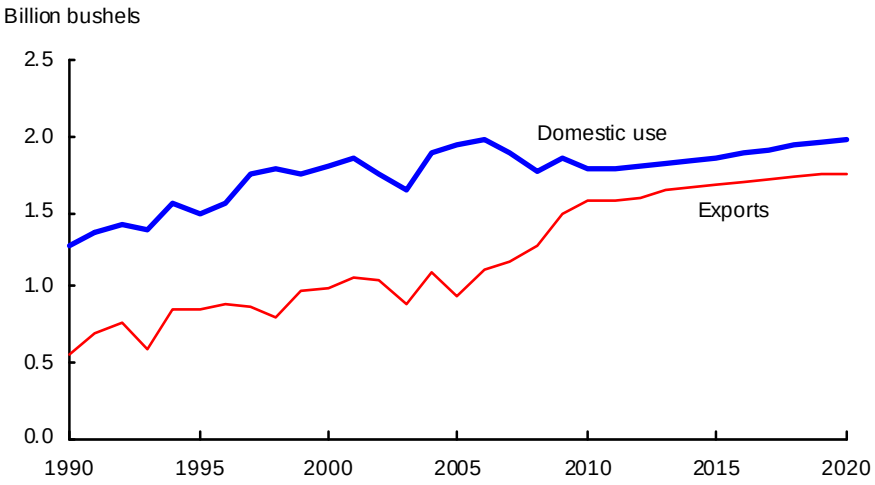

Strong wheat prices and expected net returns boost wheat plantings for 2011. However, with relatively weak overall demand growth for wheat and continuing large stocks, producer returns fall in subsequent years, leading to a decline in wheat plantings to about 51 million acres by the end of the projection period.

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

- Feed use of wheat, a lower value market for the crop, increases moderately into 2011/12 reflecting favorable prices relative to corn in the summer. For later years, wheat feed use levels off at 175 million bushels per year as prices relative to corn allow some competition of feed wheat with feed grains.

- U.S. wheat exports are boosted in the near term due to relatively tight market conditions following the 2010 production shortfall in Russia and other countries of the former Soviet Union. In the longer run, U.S. wheat exports fall back to 900 million bushels annually and remain flat over the projection period. U.S. wheat trade is limited in early years by large exports from India to reduce their high stocks and later by renewed competition primarily from the Black Sea region. Notably, India's wheat exports reach as high as 3 million metric tons (a 2.2-percent share of global wheat trade) in 2013/14 before dropping off to negligible levels toward the end of the projections. Russia's wheat exports rebound from the drought-reduced low levels of 2010/11, rising to account for 15 percent of global trade by the end of the decade. The EU market share declines from 17 percent in 2010/11 to 14 percent in 2020/21. For the same time period, the U.S. market share declines from 27 percent to 16 percent.

**U.S. soybeans: Domestic use and exports**




U.S. soybean plantings rise over the projection period as growth in both domestic and export demand keep prices and producer returns favorable.

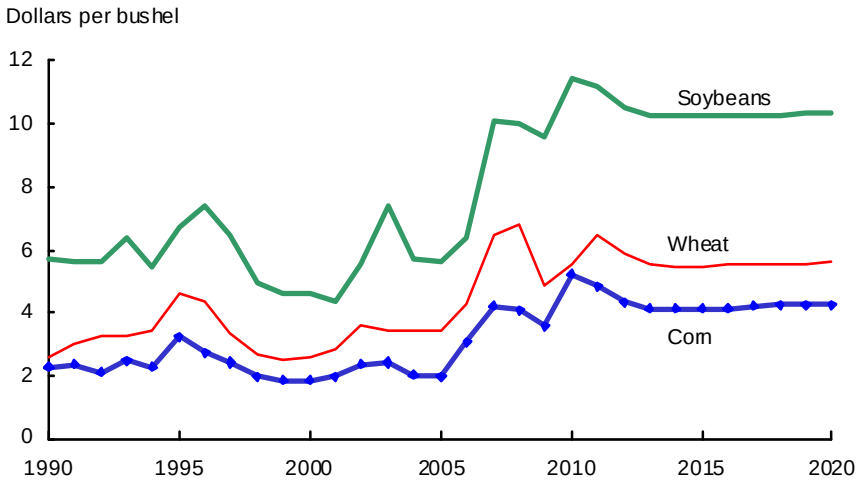
- Reductions in U.S. livestock production and increased availability of distillers grains have lowered demand for soybean meal for livestock feed in recent years, thereby reducing domestic soybean crush. However, as meat production gains resume, soybean crush will follow.

- Strong global demand for soybeans, particularly in China, supports increases in U.S. soybean exports. Despite rapid import growth, continued competition from South America, particularly Brazil, leads to a reduction in the U.S. share of global soybean trade from 44 percent in 2009/10 to about 37 percent toward the end of the projection period.

- Strengthening competition from Argentina and Brazil, combined with increasing use for the growing U.S. livestock sector, limit U.S. soybean meal exports in the projections. The U.S. export share in global soybean meal trade would decline from 14 percent in 2010/11 to below 12 percent by 2020/21. U.S. soybean oil exports similarly face increasing competition from South America. Argentina, in particular, is a competitive exporter of soybean oil because its graduated export taxes favor exports of soybean products over soybeans.

- Soybean oil used to produce methyl esters (biodiesel) grows to 3.6 billion pounds by the end of the projection period, representing about 17 percent of total use of soybean oil and supporting the production of close to 500 million gallons of biodiesel. Although some other first-use vegetable oils are also 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. Exports of biodiesel will continue to be constrained by the EU's anti-dumping and countervailing duties on U.S. shipments.

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



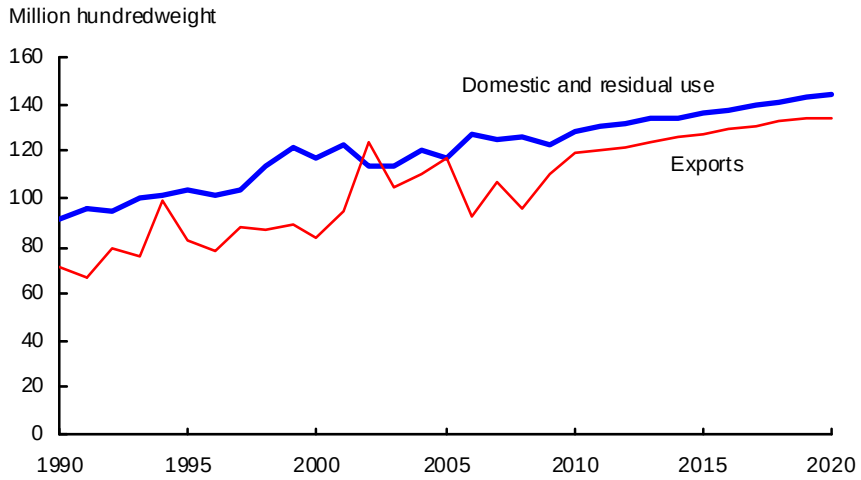

A number of short-term factors have led to high prices for grains and oilseeds in 2010/11, including reduced global wheat production (especially in Russia), a decline in U.S. corn yields, and strong global demand for soybeans. Although market responses to these prices are projected to reduce prices over the next several years, U.S. prices for corn, wheat, and soybeans are projected to remain historically high. The continuing influence of several factors, including global economic growth, a depreciating dollar, escalating costs for crude petroleum, and rising biofuel production, underlie these crop price projections over the long term.

- Although corn prices fall from their current high levels, they are projected to remain historically high due to continued demand for corn for ethanol production as well as growth in feed use and exports.

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

- Wheat prices decline from 2011/12 to 2015/16 and then are projected to rise moderately over the rest of the decade. Despite gains in wheat yields, declining acreage and increasing demand gradually reduce stocks.

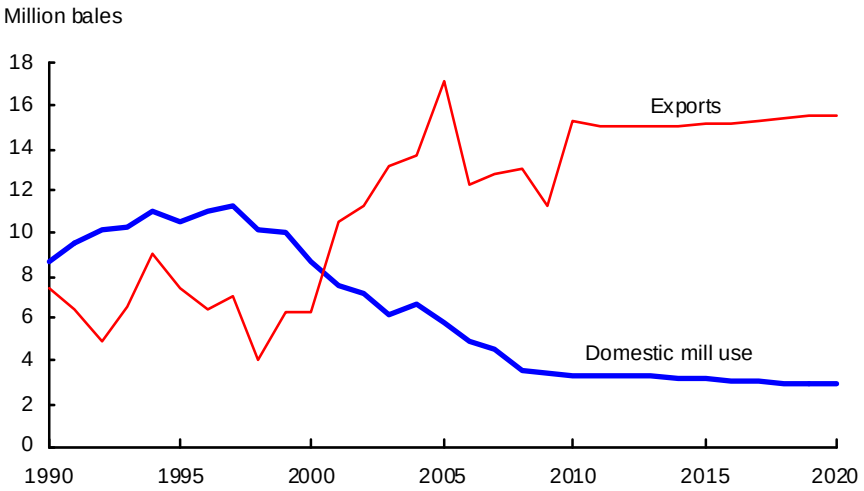
**U.S. rice: Domestic and residual use and exports**




U.S. planted area to rice is projected to fall over the next couple of years from 2010's near-record in response to declining expected producer returns and increased competition for land from other crops. Plantings then increase marginally after 2012 as producer returns improve. Continued expansion in U.S. 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 by the end of the projection period.
- Global rice prices have fallen from the highs of 2008/09 and are expected to continue dropping through 2013/14. Global prices then increase about 2 percent per year, reaching nearly $12 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, continuing their fall from the record high in 2008/09 for the next couple of years, before rising in the latter years of the projections. By the end of the projection period, U.S. rice prices are approaching $14 per hundredweight.

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

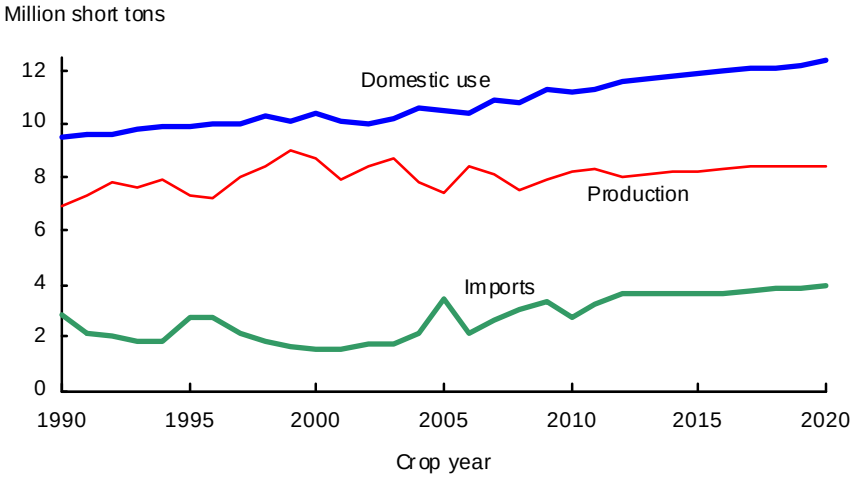



High cotton prices lead to a large increase in cotton plantings in 2011, but plantings subsequently decline moderately as lower prices reduce returns. U.S. mill use of upland cotton continues to decline throughout the projections while cotton exports rise.

- 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 rebounded in 2010/11 in response to strong global trade demand and facilitated by increased U.S. cotton plantings and production, boosting the U.S. trade share to over 40 percent. After falling back slightly during the first half of the projection period, continued strong global demand leads to moderate gains in U.S. cotton exports through the rest of the decade. Nonetheless, export gains are slower than global trade increases, so the U.S. share of world cotton trade falls to about 34 percent by 2020/21.

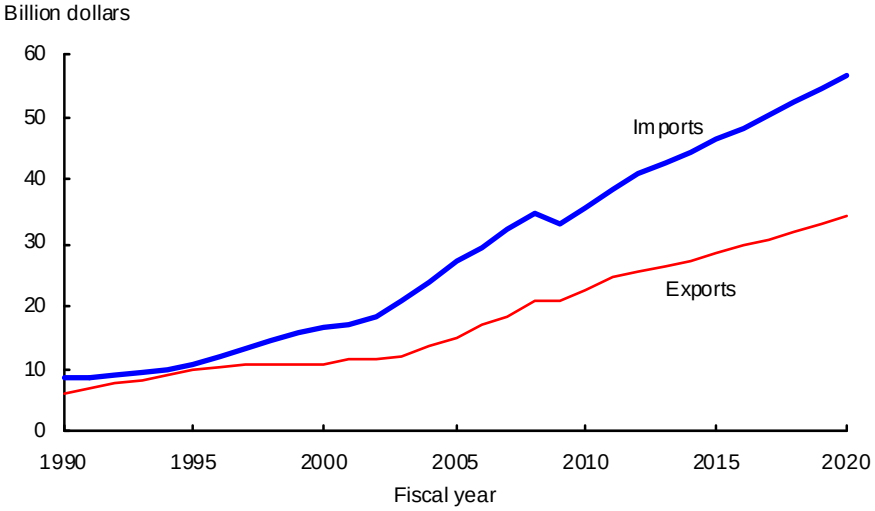
**U.S. sugar: Domestic production, use, and imports**




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 reliance on sugar imports from Mexico to maintain balance in the U.S. sugar market. 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 of 13.5 percent. Mexico is assumed to export sugar to the United States to meet this level.

- 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. Mexican exportable sugar supplies are expected to rise as a result of increased use of high fructose corn syrup (mostly imported from the United States) that displaces sugar in beverage and food manufacturing end uses in Mexico. As a consequence, Mexico's sugar exports to the higher-priced U.S. market grow over the decade and represent more than 15 percent of U.S. supplies at the end of the projection period, up from about 8 percent in 2010/11. The projections assume that Mexico will import sugar from the lower-priced world market when necessary to assure sufficient supplies to meet their domestic consumption requirements.
- Projected growth in U.S. beet and cane sugar production is low over the next decade. Beet sugar production averages 4.715 million short tons, raw value (STRV) over 2011/12 to 2020/21 and cane sugar production averages 3.567 million STRV. As a result, sugar production averages only 72 percent of domestic consumption, far below the 85-percent minimum allotment level.
- Deliveries of sugar for human use rebound in 2012/13 from the small changes in the prior 2 years. Gains over the remainder of the projections average 0.8 percent per year, slightly less than population growth.
- There are no sugar loan forfeitures in the projections nor any CCC purchases of sugar for ethanol for use in the Feedstock Flexibility Program. 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. Sugar refining capacity is sufficient to keep refined sugar prices from rising. 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 U.S. raw and refined sugar prices.

**Value of U.S. horticultural trade**




Farm sales of horticultural crops are projected to grow by 1.5 percent annually over the next decade, reaching $67.4 billion in calendar year 2020, up from $58 billion in 2010.

- Vegetables and melons, which rank first in farm sales value at 38 percent of the total, are projected to grow at 1.7 percent annually. Fruits and tree nuts are expected to increase slightly faster at 1.8 percent per year, while greenhouse and nursery crops grow at 0.8 percent.
- The volume of farm production of horticultural crops is forecast to rise by 0.7 percent annually. Vegetables and melons lead production growth at 0.8 percent, reaching 150 billion pounds in 2020. Fruit and nut production expands by 0.6 percent per year to 66 billion pounds in 2020.
- Producer prices for vegetables are expected to rise at 0.9 percent per year. Producer prices for fruits rise by 1.3 percent per year due to somewhat slower production growth than vegetables.
- U.S. per capita use of fruits and tree nuts is forecast to increase from 267 pounds in 2010 to 279 pounds by 2020, an annual change of 0.4 percent. Per capita use of vegetables is anticipated to grow from 425 pounds in 2010 to 436 in 2020, up an average of 0.3 percent per year. The total supply of fruits and vegetables over the next decade, both domestic and imported, is projected to grow at an average rate of 1.2 percent per year.
- U.S. horticultural import value is projected to increase by 4.8 percent annually over the next decade after increasing by 8 percent on average in the past decade. Imports of fresh fruits and vegetables will largely drive this growth. The import value of vegetables is expected to expand faster than for fruits and nuts due to relatively greater import demand for vegetables.
- The U.S. trade deficit in horticultural crops and products expands from $13 billion in fiscal year 2010 to $22.6 billion in 2020. Of the $34 billion total U.S. exports of horticultural products in 2020, fruits and nuts contribute $15.9 billion and vegetables account for $7.1 billion. Total imports of about $56.9 billion in 2020 include $18.3 billion worth of fruits and nuts, and $14.6 billion of fresh and processed vegetables.
- Imports increasingly supplement the domestic supply of horticultural crops and products. In terms of farm weight, imports of fruits and nuts will account for 45 percent of domestic use by 2020, up from 42 percent in 2010. Imported vegetables are projected to represent 24 percent of domestic use in 2020, an increase from 20 percent in 2010.
- The export market also becomes increasingly important for U.S. horticulture products, although relative gains are smaller than for imports. Exports represent more than a quarter of fruits and nuts production in 2020 while about 16 percent of vegetable production will be sold abroad, each up about 1 percentage point from 2010.

Table 18. Acreage for major field crops and Conservation Reserve Program (CRP) assumptions, long-term projections

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Million acres* | | | | | | |
| Planted acreage, eight major crops | | | | | | | | | | | | |
| Corn | 86.5 | 88.2 | 92.0 | 91.5 | 91.0 | 90.5 | 90.5 | 90.5 | 91.0 | 91.5 | 92.0 | 92.0 |
| Sorghum | 6.6 | 5.4 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Barley | 3.6 | 2.9 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Oats | 3.4 | 3.1 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Wheat | 59.2 | 53.6 | 57.0 | 55.5 | 54.0 | 53.0 | 52.0 | 51.5 | 51.5 | 51.5 | 51.0 | 51.0 |
| Rice | 3.1 | 3.6 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| Upland cotton | 9.0 | 10.8 | 12.8 | 12.5 | 12.2 | 12.0 | 11.9 | 11.8 | 11.8 | 11.7 | 11.7 | 11.6 |
| Soybeans | 77.5 | 77.7 | 78.0 | 78.3 | 78.5 | 79.0 | 79.0 | 79.5 | 79.5 | 79.5 | 79.5 | 79.5 |
| Total | 248.9 | 245.3 | 255.3 | 253.2 | 251.1 | 249.9 | 248.9 | 248.8 | 249.3 | 249.7 | 249.7 | 249.6 |
| CRP acreage assumptions | | | | | | | | | | | | |
| Total CRP | 33.7 | 31.4 | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 | 32.0 | 31.9 | 31.9 | 31.9 | 31.9 |
| Total planted plus CRP | 282.6 | 276.7 | 287.2 | 285.0 | 283.0 | 281.9 | 280.8 | 280.8 | 281.2 | 281.6 | 281.6 | 281.5 |
| Harvested acreage, eight major crops | | | | | | | | | | | | |
| Corn | 79.6 | 81.3 | 84.9 | 84.4 | 83.9 | 83.4 | 83.4 | 83.4 | 83.9 | 84.4 | 84.9 | 84.9 |
| Sorghum | 5.5 | 4.7 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| Barley | 3.1 | 2.5 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Oats | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Wheat | 49.9 | 47.6 | 48.5 | 47.2 | 45.9 | 45.1 | 44.2 | 43.8 | 43.8 | 43.8 | 43.4 | 43.4 |
| Rice | 3.1 | 3.6 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| Upland cotton | 7.4 | 10.6 | 11.3 | 11.1 | 10.9 | 10.7 | 10.5 | 10.5 | 10.5 | 10.4 | 10.4 | 10.3 |
| Soybeans | 76.4 | 76.8 | 77.1 | 77.3 | 77.6 | 78.1 | 78.1 | 78.5 | 78.5 | 78.5 | 78.5 | 78.5 |
| Total | 226.4 | 228.4 | 234.3 | 232.4 | 230.7 | 229.7 | 228.7 | 228.7 | 229.2 | 229.6 | 229.7 | 229.6 |

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

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 86.5 | 88.2 | 92.0 | 91.5 | 91.0 | 90.5 | 90.5 | 90.5 | 91.0 | 91.5 | 92.0 | 92.0 |
| Harvested acres | 79.6 | 81.3 | 84.9 | 84.4 | 83.9 | 83.4 | 83.4 | 83.4 | 83.9 | 84.4 | 84.9 | 84.9 |
| Yields (bushels per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 164.7 | 154.3 | 162.0 | 164.0 | 166.0 | 168.0 | 170.0 | 172.0 | 174.0 | 176.0 | 178.0 | 180.0 |
| Supply and use (million bushels): | | | | | | | | | | | | |
| Beginning stocks | 1,673 | 1,708 | 827 | 1,127 | 1,332 | 1,437 | 1,447 | 1,442 | 1,342 | 1,262 | 1,227 | 1,242 |
| Production | 13,110 | 12,540 | 13,755 | 13,840 | 13,925 | 14,010 | 14,180 | 14,345 | 14,600 | 14,855 | 15,110 | 15,280 |
| Imports | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Supply | 14,792 | 14,257 | 14,592 | 14,977 | 15,267 | 15,457 | 15,637 | 15,797 | 15,952 | 16,127 | 16,347 | 16,532 |
| Feed & residual | 5,159 | 5,300 | 5,200 | 5,300 | 5,400 | 5,500 | 5,600 | 5,700 | 5,750 | 5,800 | 5,875 | 5,950 |
| Food, seed, & industrial | 5,938 | 6,180 | 6,265 | 6,320 | 6,380 | 6,435 | 6,495 | 6,605 | 6,740 | 6,850 | 6,930 | 6,990 |
| Ethanol for fuel | 4,568 | 4,800 | 4,875 | 4,925 | 4,975 | 5,025 | 5,075 | 5,175 | 5,300 | 5,400 | 5,475 | 5,525 |
| Domestic use | 11,097 | 11,480 | 11,465 | 11,620 | 11,780 | 11,935 | 12,095 | 12,305 | 12,490 | 12,650 | 12,805 | 12,940 |
| Exports | 1,987 | 1,950 | 2,000 | 2,025 | 2,050 | 2,075 | 2,100 | 2,150 | 2,200 | 2,250 | 2,300 | 2,350 |
| Total use | 13,084 | 13,430 | 13,465 | 13,645 | 13,830 | 14,010 | 14,195 | 14,455 | 14,690 | 14,900 | 15,105 | 15,290 |
| Ending stocks | 1,708 | 827 | 1,127 | 1,332 | 1,437 | 1,447 | 1,442 | 1,342 | 1,262 | 1,227 | 1,242 | 1,242 |
| Stocks/use ratio, percent | 13.1 | 6.2 | 8.4 | 9.8 | 10.4 | 10.3 | 10.2 | 9.3 | 8.6 | 8.2 | 8.2 | 8.1 |
| Price (dollars per bushel): | | | | | | | | | | | | |
| Farm price | 3.55 | 5.20 | 4.80 | 4.30 | 4.10 | 4.10 | 4.10 | 4.15 | 4.20 | 4.25 | 4.25 | 4.25 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 299 | 287 | 304 | 310 | 314 | 318 | 323 | 329 | 335 | 341 | 347 | 353 |
| Per bushel | 1.82 | 1.86 | 1.87 | 1.89 | 1.89 | 1.90 | 1.90 | 1.91 | 1.93 | 1.94 | 1.95 | 1.96 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 286 | 515 | 474 | 395 | 367 | 370 | 374 | 384 | 396 | 407 | 410 | 412 |

Note: Marketing year beginning September 1 for corn.

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

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 6.6 | 5.4 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Harvested acres | 5.5 | 4.7 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| Yields (bushels per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 69.4 | 72.5 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 | 65.3 |
| Supply and use (million bushels): | | | | | | | | | | | | |
| Beginning stocks | 55 | 41 | 39 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Production | 383 | 338 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 340 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Supply | 438 | 379 | 379 | 384 | 384 | 384 | 384 | 384 | 384 | 384 | 384 | 384 |
| Feed & residual | 140 | 90 | 80 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 |
| Food, seed, & industrial | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Domestic use | 230 | 180 | 170 | 170 | 165 | 160 | 155 | 150 | 145 | 140 | 135 | 130 |
| Exports | 166 | 160 | 165 | 170 | 175 | 180 | 185 | 190 | 195 | 200 | 205 | 210 |
| Total use | 396 | 340 | 335 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 340 |
| Ending stocks | 41 | 39 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Stocks/use ratio, percent | 10.4 | 11.5 | 13.1 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| Price (dollars per bushel): | | | | | | | | | | | | |
| Farm price | 3.22 | 5.30 | 4.35 | 3.95 | 3.80 | 3.80 | 3.80 | 3.85 | 3.90 | 3.95 | 3.95 | 3.95 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 146 | 149 | 157 | 161 | 164 | 166 | 169 | 172 | 175 | 178 | 181 | 185 |
| Per bushel | 2.10 | 2.06 | 2.41 | 2.47 | 2.51 | 2.55 | 2.59 | 2.64 | 2.68 | 2.73 | 2.78 | 2.83 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 78 | 235 | 127 | 97 | 84 | 82 | 79 | 79 | 80 | 80 | 77 | 73 |

Note: Marketing year beginning September 1 for sorghum.

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

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 3.6 | 2.9 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Harvested acres | 3.1 | 2.5 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Yields (bushels per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 73.0 | 73.1 | 67.4 | 68.0 | 68.6 | 69.2 | 69.7 | 70.3 | 70.9 | 71.5 | 72.1 | 72.7 |
| Supply and use (million bushels): | | | | | | | | | | | | |
| Beginning stocks | 89 | 115 | 86 | 80 | 80 | 82 | 81 | 81 | 82 | 80 | 79 | 80 |
| Production | 227 | 180 | 189 | 190 | 192 | 194 | 195 | 197 | 199 | 200 | 202 | 204 |
| Imports | 17 | 15 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Supply | 333 | 311 | 295 | 290 | 292 | 296 | 296 | 298 | 301 | 300 | 301 | 304 |
| Feed & residual | 48 | 50 | 40 | 35 | 35 | 40 | 40 | 40 | 45 | 45 | 45 | 45 |
| Food, seed, & industrial | 164 | 165 | 165 | 165 | 165 | 165 | 165 | 166 | 166 | 166 | 166 | 166 |
| Domestic | 212 | 215 | 205 | 200 | 200 | 205 | 205 | 206 | 211 | 211 | 211 | 211 |
| Exports | 6 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Total use | 217 | 225 | 215 | 210 | 210 | 215 | 215 | 216 | 221 | 221 | 221 | 221 |
| Ending stocks | 115 | 86 | 80 | 80 | 82 | 81 | 81 | 82 | 80 | 79 | 80 | 83 |
| Stocks/use ratio, percent | 53.0 | 38.2 | 37.2 | 38.1 | 39.0 | 37.7 | 37.7 | 38.0 | 36.2 | 35.7 | 36.2 | 37.6 |
| Price (dollars per bushel): | | | | | | | | | | | | |
| Farm price | 4.66 | 4.00 | 4.70 | 4.95 | 4.75 | 4.70 | 4.75 | 4.80 | 4.85 | 4.90 | 4.90 | 4.90 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 143 | 141 | 149 | 152 | 155 | 157 | 160 | 163 | 166 | 169 | 172 | 175 |
| Per bushel | 1.96 | 1.93 | 2.21 | 2.24 | 2.25 | 2.27 | 2.29 | 2.32 | 2.34 | 2.36 | 2.39 | 2.41 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 197 | 151 | 168 | 184 | 171 | 168 | 171 | 175 | 178 | 181 | 181 | 181 |

Note: Marketing year beginning June 1 for barley.

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

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 3.4 | 3.1 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Harvested acres | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Yields (bushels per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 67.5 | 64.3 | 65.0 | 65.4 | 65.8 | 66.2 | 66.6 | 67.0 | 67.5 | 67.9 | 68.3 | 68.7 |
| Supply and use (million bushels): | | | | | | | | | | | | |
| Beginning stocks | 84 | 80 | 48 | 47 | 46 | 45 | 44 | 44 | 43 | 43 | 43 | 43 |
| Production | 93 | 81 | 78 | 78 | 79 | 79 | 80 | 80 | 81 | 81 | 82 | 82 |
| Imports | 95 | 80 | 110 | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Supply | 272 | 242 | 236 | 230 | 225 | 224 | 224 | 224 | 224 | 224 | 225 | 225 |
| Feed & residual | 115 | 115 | 110 | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Food, seed, & industrial | 75 | 76 | 76 | 76 | 77 | 77 | 77 | 78 | 78 | 78 | 79 | 79 |
| Domestic | 190 | 191 | 186 | 181 | 177 | 177 | 177 | 178 | 178 | 178 | 179 | 179 |
| Exports | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total use | 192 | 194 | 189 | 184 | 180 | 180 | 180 | 181 | 181 | 181 | 182 | 182 |
| Ending stocks | 80 | 48 | 47 | 46 | 45 | 44 | 44 | 43 | 43 | 43 | 43 | 43 |
| Stocks/use ratio, percent | 41.7 | 24.7 | 24.9 | 25.0 | 25.0 | 24.4 | 24.4 | 23.8 | 23.8 | 23.8 | 23.6 | 23.6 |
| Price (dollars per bushel): | | | | | | | | | | | | |
| Farm price | 2.02 | 2.35 | 2.75 | 2.55 | 2.50 | 2.50 | 2.50 | 2.50 | 2.55 | 2.55 | 2.55 | 2.55 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 102 | 101 | 107 | 109 | 111 | 112 | 114 | 117 | 119 | 121 | 124 | 126 |
| Per bushel | 1.52 | 1.57 | 1.64 | 1.66 | 1.68 | 1.70 | 1.72 | 1.74 | 1.76 | 1.79 | 1.81 | 1.84 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 34 | 50 | 72 | 58 | 54 | 53 | 52 | 51 | 53 | 52 | 50 | 49 |

Note: Marketing year beginning June 1 for oats.

Table 23. U.S. wheat long-term projections

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 59.2 | 53.6 | 57.0 | 55.5 | 54.0 | 53.0 | 52.0 | 51.5 | 51.5 | 51.5 | 51.0 | 51.0 |
| Harvested acres | 49.9 | 47.6 | 48.5 | 47.2 | 45.9 | 45.1 | 44.2 | 43.8 | 43.8 | 43.8 | 43.4 | 43.4 |
| Yields (bushels per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 44.5 | 46.4 | 43.8 | 44.2 | 44.5 | 44.8 | 45.2 | 45.5 | 45.8 | 46.1 | 46.5 | 46.8 |
| Supply and use (million bushels): | | | | | | | | | | | | |
| Beginning stocks | 657 | 976 | 848 | 718 | 706 | 746 | 759 | 743 | 718 | 694 | 682 | 661 |
| Production | 2,218 | 2,208 | 2,125 | 2,085 | 2,045 | 2,020 | 2,000 | 1,995 | 2,005 | 2,020 | 2,020 | 2,030 |
| Imports | 119 | 110 | 110 | 110 | 110 | 115 | 115 | 120 | 120 | 125 | 125 | 130 |
| Supply | 2,993 | 3,294 | 3,083 | 2,913 | 2,861 | 2,881 | 2,874 | 2,858 | 2,843 | 2,839 | 2,827 | 2,821 |
| Food | 917 | 940 | 950 | 959 | 968 | 977 | 986 | 995 | 1,004 | 1,013 | 1,022 | 1,031 |
| Seed | 69 | 76 | 75 | 73 | 72 | 70 | 70 | 70 | 70 | 69 | 69 | 69 |
| Feed & residual | 150 | 180 | 190 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 |
| Domestic | 1,137 | 1,196 | 1,215 | 1,207 | 1,215 | 1,222 | 1,231 | 1,240 | 1,249 | 1,257 | 1,266 | 1,275 |
| Exports | 881 | 1,250 | 1,150 | 1,000 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Total use | 2,018 | 2,446 | 2,365 | 2,207 | 2,115 | 2,122 | 2,131 | 2,140 | 2,149 | 2,157 | 2,166 | 2,175 |
| Ending stocks | 976 | 848 | 718 | 706 | 746 | 759 | 743 | 718 | 694 | 682 | 661 | 646 |
| Stocks/use ratio, percent | 48.4 | 34.7 | 30.4 | 32.0 | 35.3 | 35.8 | 34.9 | 33.6 | 32.3 | 31.6 | 30.5 | 29.7 |
| Price (dollars per bushel): | | | | | | | | | | | | |
| Farm price | 4.87 | 5.50 | 6.50 | 5.90 | 5.55 | 5.45 | 5.45 | 5.50 | 5.50 | 5.55 | 5.55 | 5.60 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 129 | 125 | 133 | 136 | 138 | 140 | 142 | 145 | 148 | 151 | 154 | 157 |
| Per bushel | 2.89 | 2.70 | 3.03 | 3.07 | 3.09 | 3.12 | 3.15 | 3.19 | 3.23 | 3.27 | 3.30 | 3.35 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 88 | 130 | 152 | 125 | 109 | 104 | 104 | 105 | 104 | 105 | 104 | 105 |

Note: Marketing year beginning June 1 for wheat.

Table 24. U.S. soybeans and products long-term projections

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Soybeans | | | | | | | | | | | | |
| Area (million acres): | | | | | | | | | | | | |
| Planted | 77.5 | 77.7 | 78.0 | 78.3 | 78.5 | 79.0 | 79.0 | 79.5 | 79.5 | 79.5 | 79.5 | 79.5 |
| Harvested | 76.4 | 76.8 | 77.1 | 77.3 | 77.6 | 78.1 | 78.1 | 78.5 | 78.5 | 78.5 | 78.5 | 78.5 |
| Yield/harvested acre (bushels) | 44.0 | 43.9 | 43.5 | 44.0 | 44.4 | 44.9 | 45.3 | 45.8 | 46.2 | 46.7 | 47.1 | 47.6 |
| Supply (million bushels) | | | | | | | | | | | | |
| Beginning stocks, September 1 | 138 | 151 | 185 | 190 | 195 | 194 | 197 | 199 | 196 | 197 | 198 | 199 |
| Production | 3,359 | 3,375 | 3,355 | 3,395 | 3,445 | 3,505 | 3,540 | 3,590 | 3,625 | 3,660 | 3,695 | 3,735 |
| Imports | 15 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Total supply | 3,512 | 3,536 | 3,550 | 3,595 | 3,650 | 3,709 | 3,747 | 3,799 | 3,831 | 3,867 | 3,903 | 3,945 |
| Disposition (million bushels) | | | | | | | | | | | | |
| Crush | 1,752 | 1,665 | 1,660 | 1,670 | 1,695 | 1,715 | 1,735 | 1,770 | 1,790 | 1,810 | 1,830 | 1,850 |
| Seed and residual | 108 | 117 | 125 | 125 | 126 | 127 | 128 | 128 | 129 | 129 | 129 | 130 |
| Exports | 1,501 | 1,570 | 1,575 | 1,605 | 1,635 | 1,670 | 1,685 | 1,705 | 1,715 | 1,730 | 1,745 | 1,765 |
| Total disposition | 3,361 | 3,351 | 3,360 | 3,400 | 3,456 | 3,512 | 3,548 | 3,603 | 3,634 | 3,669 | 3,704 | 3,745 |
| Carryover stocks, August 31 | | | | | | | | | | | | |
| Total ending stocks | 151 | 185 | 190 | 195 | 194 | 197 | 199 | 196 | 197 | 198 | 199 | 200 |
| Stocks/use ratio, percent | 4.5 | 5.5 | 5.7 | 5.7 | 5.6 | 5.6 | 5.6 | 5.4 | 5.4 | 5.4 | 5.4 | 5.3 |
| Price (dollars per bushel) | | | | | | | | | | | | |
| Soybean price, farm | 9.59 | 11.45 | 11.20 | 10.55 | 10.25 | 10.20 | 10.25 | 10.25 | 10.30 | 10.30 | 10.35 | 10.35 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 132 | 131 | 136 | 139 | 140 | 142 | 144 | 146 | 148 | 150 | 152 | 154 |
| Per bushel | 3.01 | 2.98 | 3.13 | 3.15 | 3.16 | 3.17 | 3.18 | 3.19 | 3.20 | 3.22 | 3.23 | 3.24 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 290 | 372 | 351 | 325 | 315 | 315 | 320 | 323 | 328 | 330 | 335 | 338 |
| Soybean oil (million pounds) | | | | | | | | | | | | |
| Beginning stocks, October 1 | 2,861 | 3,358 | 2,653 | 2,368 | 2,073 | 2,093 | 2,143 | 2,123 | 2,208 | 2,223 | 2,198 | 2,128 |
| Production | 19,615 | 18,980 | 18,940 | 19,070 | 19,375 | 19,620 | 19,865 | 20,285 | 20,530 | 20,780 | 21,025 | 21,275 |
| Imports | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 185 | 195 | 205 | 215 |
| Total supply | 22,581 | 22,453 | 21,718 | 21,573 | 21,593 | 21,868 | 22,173 | 22,583 | 22,923 | 23,198 | 23,428 | 23,618 |
| Domestic disappearance | 15,822 | 17,100 | 17,400 | 18,000 | 18,200 | 18,425 | 18,650 | 18,875 | 19,125 | 19,375 | 19,625 | 19,875 |
| For methyl ester[1] | 1,682 | 2,900 | 3,100 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,525 | 3,550 | 3,575 | 3,600 |
| Exports | 3,400 | 2,700 | 1,950 | 1,500 | 1,300 | 1,300 | 1,400 | 1,500 | 1,575 | 1,625 | 1,675 | 1,700 |
| Total demand | 19,222 | 19,800 | 19,350 | 19,500 | 19,500 | 19,725 | 20,050 | 20,375 | 20,700 | 21,000 | 21,300 | 21,575 |
| Ending stocks, September 30 | 3,358 | 2,653 | 2,368 | 2,073 | 2,093 | 2,143 | 2,123 | 2,208 | 2,223 | 2,198 | 2,128 | 2,043 |
| Soybean oil price (dollars per lb) | 0.357 | 0.445 | 0.455 | 0.455 | 0.455 | 0.460 | 0.460 | 0.460 | 0.463 | 0.465 | 0.468 | 0.470 |
| Soybean meal (thousand short tons) | | | | | | | | | | | | |
| Beginning stocks, October 1 | 235 | 303 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Production | 41,702 | 39,532 | 39,435 | 39,685 | 40,235 | 40,685 | 41,235 | 41,985 | 42,485 | 42,985 | 43,485 | 43,985 |
| Imports | 150 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Total supply | 42,087 | 40,000 | 39,900 | 40,150 | 40,700 | 41,150 | 41,700 | 42,450 | 42,950 | 43,450 | 43,950 | 44,450 |
| Domestic disappearance | 30,634 | 30,600 | 31,000 | 31,250 | 31,700 | 32,150 | 32,650 | 33,150 | 33,650 | 34,150 | 34,650 | 35,150 |
| Exports | 11,150 | 9,100 | 8,600 | 8,600 | 8,700 | 8,700 | 8,750 | 9,000 | 9,000 | 9,000 | 9,000 | 9,000 |
| Total demand | 41,784 | 39,700 | 39,600 | 39,850 | 40,400 | 40,850 | 41,400 | 42,150 | 42,650 | 43,150 | 43,650 | 44,150 |
| Ending stocks, September 30 | 303 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Soybean meal price (dollars per ton) | 311.27 | 330.00 | 312.50 | 286.00 | 275.00 | 271.00 | 273.50 | 273.50 | 275.00 | 274.00 | 275.00 | 275.00 |
| Crushing yields (pounds per bushel) | | | | | | | | | | | | |
| Soybean oil | 11.20 | 11.40 | 11.41 | 11.42 | 11.43 | 11.44 | 11.45 | 11.46 | 11.47 | 11.48 | 11.49 | 11.50 |
| Soybean meal | 47.60 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 | 47.50 |
| Crush margin (dollars per bushel) | 1.81 | 1.46 | 1.41 | 1.44 | 1.48 | 1.50 | 1.51 | 1.52 | 1.54 | 1.55 | 1.55 | 1.59 |

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 25. U.S. rice long-term projections, rough basis

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | | | | | | | | | | | | |
| Area (thousand acres): | | | | | | | | | | | | |
| Planted | 3,135 | 3,642 | 3,300 | 3,200 | 3,215 | 3,230 | 3,290 | 3,300 | 3,310 | 3,310 | 3,310 | 3,310 |
| Harvested | 3,103 | 3,623 | 3,275 | 3,176 | 3,191 | 3,206 | 3,265 | 3,275 | 3,285 | 3,285 | 3,285 | 3,285 |
| Yields (pounds per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 7,085 | 6,669 | 7,102 | 7,191 | 7,267 | 7,339 | 7,400 | 7,466 | 7,534 | 7,595 | 7,662 | 7,726 |
| Supply and use (million hundredweight): | | | | | | | | | | | | |
| Beginning stocks | 30.6 | 36.7 | 49.8 | 50.9 | 45.9 | 41.4 | 37.4 | 36.7 | 36.5 | 36.9 | 36.7 | 36.7 |
| Production | 219.9 | 241.6 | 232.6 | 228.4 | 231.9 | 235.3 | 241.6 | 244.5 | 247.5 | 249.5 | 251.7 | 253.8 |
| Imports | 19.0 | 19.5 | 20.0 | 20.6 | 21.1 | 21.7 | 22.3 | 22.8 | 23.4 | 24.0 | 24.7 | 25.3 |
| Total supply | 269.4 | 297.8 | 302.4 | 299.9 | 298.9 | 298.4 | 301.2 | 304.0 | 307.5 | 310.4 | 313.0 | 315.8 |
| Domestic use and residual | 122.6 | 129.0 | 130.5 | 132.0 | 133.5 | 135.0 | 136.5 | 138.0 | 139.6 | 141.2 | 142.8 | 144.4 |
| Exports | 110.2 | 119.0 | 121.0 | 122.0 | 124.0 | 126.0 | 128.0 | 129.5 | 131.0 | 132.5 | 133.5 | 134.5 |
| Total use | 232.7 | 248.0 | 251.5 | 254.0 | 257.5 | 261.0 | 264.5 | 267.5 | 270.6 | 273.7 | 276.3 | 278.9 |
| Ending stocks | 36.7 | 49.8 | 50.9 | 45.9 | 41.4 | 37.4 | 36.7 | 36.5 | 36.9 | 36.7 | 36.7 | 36.9 |
| Stocks/use ratio, percent | 15.8 | 20.1 | 20.2 | 18.1 | 16.1 | 14.3 | 13.9 | 13.7 | 13.6 | 13.4 | 13.3 | 13.2 |
| Milling rate, percent | 69.4 | 68.9 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 | 69.0 |
| Prices (dollars per hundredweight): | | | | | | | | | | | | |
| World price | 11.24 | 11.15 | 11.00 | 10.30 | 10.30 | 10.51 | 10.72 | 10.93 | 11.15 | 11.37 | 11.60 | 11.83 |
| Average farm price | 14.00 | 12.60 | 12.60 | 12.10 | 12.20 | 12.51 | 12.72 | 12.93 | 13.15 | 13.37 | 13.60 | 13.83 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 472 | 480 | 502 | 513 | 520 | 528 | 536 | 544 | 553 | 562 | 571 | 580 |
| Per hundredweight | 6.71 | 7.19 | 7.07 | 7.13 | 7.16 | 7.19 | 7.24 | 7.29 | 7.34 | 7.39 | 7.45 | 7.51 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 520 | 361 | 393 | 357 | 366 | 390 | 406 | 421 | 438 | 454 | 471 | 489 |
| LONG GRAIN | | | | | | | | | | | | |
| Area (thousand acres): | | | | | | | | | | | | |
| Planted | 2,290 | 2,836 | 2,500 | 2,400 | 2,400 | 2,400 | 2,450 | 2,450 | 2,450 | 2,450 | 2,450 | 2,450 |
| Harvested | 2,265 | 2,821 | 2,480 | 2,381 | 2,381 | 2,381 | 2,430 | 2,430 | 2,430 | 2,430 | 2,430 | 2,430 |
| Yields (lbs per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 6,743 | 6,434 | 6,800 | 6,892 | 6,974 | 7,051 | 7,123 | 7,194 | 7,266 | 7,339 | 7,412 | 7,486 |
| Supply and use (million hundredweight): | | | | | | | | | | | | |
| Beginning stocks | 20.1 | 23.2 | 38.6 | 39.6 | 34.6 | 30.0 | 25.7 | 25.1 | 24.6 | 24.3 | 24.1 | 24.2 |
| Production | 152.7 | 181.5 | 168.6 | 164.1 | 166.1 | 167.9 | 173.1 | 174.8 | 176.6 | 178.3 | 180.1 | 181.9 |
| Imports | 16.5 | 17.0 | 17.4 | 17.9 | 18.3 | 18.8 | 19.3 | 19.7 | 20.2 | 20.7 | 21.3 | 21.8 |
| Total supply | 189.3 | 221.6 | 224.6 | 221.6 | 219.0 | 216.7 | 218.1 | 219.6 | 221.4 | 223.3 | 225.5 | 227.9 |
| Domestic use & residual | 90.8 | 99.0 | 100.0 | 101.0 | 102.0 | 103.0 | 104.0 | 105.0 | 106.1 | 107.2 | 108.3 | 109.4 |
| Exports | 75.4 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 | 90.0 | 91.0 | 92.0 | 93.0 | 94.0 |
| Total use | 166.2 | 183.0 | 185.0 | 187.0 | 189.0 | 191.0 | 193.0 | 195.0 | 197.1 | 199.2 | 201.3 | 203.4 |
| Ending stocks | 23.2 | 38.6 | 39.6 | 34.6 | 30.0 | 25.7 | 25.1 | 24.6 | 24.3 | 24.1 | 24.2 | 24.5 |
| Stocks/use ratio, percent | 13.9 | 21.1 | 21.4 | 18.5 | 15.9 | 13.5 | 13.0 | 12.6 | 12.3 | 12.1 | 12.0 | 12.0 |
| Price (dollars per hundredweight): | | | | | | | | | | | | |
| Average farm price | 12.80 | 11.00 | 10.75 | 10.45 | 10.59 | 10.98 | 11.19 | 11.47 | 11.81 | 12.03 | 12.26 | 12.47 |
| MEDIUM & SHORT GRAIN | | | | | | | | | | | | |
| Area (thousand acres): | | | | | | | | | | | | |
| Planted | 845 | 806 | 800 | 800 | 815 | 830 | 840 | 850 | 860 | 860 | 860 | 860 |
| Harvested | 838 | 802 | 795 | 795 | 810 | 825 | 835 | 845 | 855 | 855 | 855 | 855 |
| Yields (lbs per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 8,010 | 7,495 | 8,050 | 8,090 | 8,129 | 8,168 | 8,208 | 8,248 | 8,289 | 8,330 | 8,372 | 8,414 |
| Supply and use (million hundredweight): | | | | | | | | | | | | |
| Beginning stocks | 8.0 | 12.1 | 9.7 | 9.8 | 9.8 | 9.9 | 10.2 | 10.2 | 10.5 | 11.1 | 11.1 | 11.1 |
| Production | 67.1 | 60.1 | 64.0 | 64.3 | 65.8 | 67.4 | 68.5 | 69.7 | 70.9 | 71.2 | 71.6 | 71.9 |
| Imports | 2.5 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 |
| Total supply | 78.7 | 74.7 | 76.3 | 76.8 | 78.4 | 80.2 | 81.7 | 83.0 | 84.6 | 85.6 | 86.1 | 86.5 |
| Domestic use & residual | 31.8 | 30.0 | 30.5 | 31.0 | 31.5 | 32.0 | 32.5 | 33.0 | 33.5 | 34.0 | 34.5 | 35.0 |
| Exports | 34.8 | 35.0 | 36.0 | 36.0 | 37.0 | 38.0 | 39.0 | 39.5 | 40.0 | 40.5 | 40.5 | 40.5 |
| Total use | 66.6 | 65.0 | 66.5 | 67.0 | 68.5 | 70.0 | 71.5 | 72.5 | 73.5 | 74.5 | 75.0 | 75.5 |
| Ending stocks | 12.1 | 9.7 | 9.8 | 9.8 | 9.9 | 10.2 | 10.2 | 10.5 | 11.1 | 11.1 | 11.1 | 11.0 |
| Stocks/use ratio, percent | 18.1 | 14.9 | 14.7 | 14.6 | 14.4 | 14.6 | 14.3 | 14.5 | 15.1 | 14.9 | 14.8 | 14.6 |
| Price (dollars per hundredweight): | | | | | | | | | | | | |
| Average farm price | 17.70 | 17.80 | 17.40 | 16.37 | 16.31 | 16.34 | 16.50 | 16.53 | 16.55 | 16.62 | 16.85 | 17.16 |

Note: Marketing year beginning August 1 for rice.

Table 26. U.S. upland cotton long-term projections

| Item | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (million acres): | | | | | | | | | | | | |
| Planted acres | 9.0 | 10.8 | 12.8 | 12.5 | 12.2 | 12.0 | 11.9 | 11.8 | 11.8 | 11.7 | 11.7 | 11.6 |
| Harvested acres | 7.4 | 10.6 | 11.3 | 11.1 | 10.9 | 10.7 | 10.5 | 10.5 | 10.5 | 10.4 | 10.4 | 10.3 |
| Yields (pounds per acre): | | | | | | | | | | | | |
| Yield/harvested acre | 766 | 814 | 820 | 825 | 830 | 835 | 840 | 845 | 850 | 855 | 860 | 865 |
| Supply and use (thousand bales): | | | | | | | | | | | | |
| Beginning stocks | 6,032 | 2,929 | 2,179 | 3,100 | 3,870 | 4,390 | 4,760 | 4,880 | 5,050 | 5,270 | 5,340 | 5,460 |
| Production | 11,788 | 17,920 | 19,300 | 19,100 | 18,800 | 18,600 | 18,400 | 18,500 | 18,600 | 18,500 | 18,600 | 18,600 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Supply | 17,820 | 20,849 | 21,479 | 22,200 | 22,670 | 22,990 | 23,160 | 23,380 | 23,650 | 23,770 | 23,940 | 24,060 |
| Domestic use | 3,429 | 3,420 | 3,370 | 3,320 | 3,270 | 3,220 | 3,170 | 3,120 | 3,070 | 3,020 | 2,970 | 2,920 |
| Exports | 11,343 | 15,275 | 15,000 | 15,000 | 15,000 | 15,000 | 15,100 | 15,200 | 15,300 | 15,400 | 15,500 | 15,600 |
| Total use | 14,772 | 18,695 | 18,370 | 18,320 | 18,270 | 18,220 | 18,270 | 18,320 | 18,370 | 18,420 | 18,470 | 18,520 |
| Ending stocks | 2,929 | 2,179 | 3,100 | 3,870 | 4,390 | 4,760 | 4,880 | 5,050 | 5,270 | 5,340 | 5,460 | 5,530 |
| Stocks/use ratio, percent | 19.8 | 11.7 | 16.9 | 21.1 | 24.0 | 26.1 | 26.7 | 27.6 | 28.7 | 29.0 | 29.6 | 29.9 |
| Price (dollars per pound): | | | | | | | | | | | | |
| Farm price | 0.629 | 0.800 | 0.850 | 0.750 | 0.700 | 0.705 | 0.710 | 0.715 | 0.720 | 0.725 | 0.730 | 0.735 |
| Variable costs of production (dollars): | | | | | | | | | | | | |
| Per acre | 446 | 468 | 486 | 496 | 505 | 514 | 523 | 533 | 543 | 553 | 563 | 574 |
| Per pound | 0.58 | 0.58 | 0.59 | 0.60 | 0.61 | 0.62 | 0.62 | 0.63 | 0.64 | 0.65 | 0.65 | 0.66 |
| Returns over variable costs (dollars per acre): | | | | | | | | | | | | |
| Net returns | 134 | 299 | 328 | 239 | 189 | 187 | 187 | 185 | 184 | 183 | 181 | 179 |

Note: Marketing year beginning August 1 for upland cotton.

Table 27. U.S. sugar long-term projections

| Item | Units | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sugarbeets | | | | | | | | | | | | | |
| Planted area | 1,000 acres | 1,186 | 1,183 | 1,186 | 1,100 | 1,107 | 1,119 | 1,121 | 1,119 | 1,115 | 1,110 | 1,106 | 1,102 |
| Harvested area | 1,000 acres | 1,149 | 1,154 | 1,138 | 1,055 | 1,062 | 1,073 | 1,075 | 1,073 | 1,069 | 1,065 | 1,060 | 1,057 |
| Yield | Tons/acre | 25.7 | 27.7 | 26.1 | 26.3 | 26.4 | 26.4 | 26.5 | 26.6 | 26.7 | 26.8 | 26.9 | 26.9 |
| Production | Mil. s. tons | 29.6 | 31.9 | 29.7 | 27.7 | 28.0 | 28.3 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 |
| Sugarcane | | | | | | | | | | | | | |
| Harvested area | 1,000 acres | 812 | 819 | 818 | 815 | 815 | 816 | 816 | 816 | 816 | 816 | 816 | 816 |
| Yield | Tons/acre | 34.8 | 33.6 | 34.1 | 34.2 | 34.4 | 34.6 | 34.8 | 34.9 | 35.1 | 35.3 | 35.5 | 35.7 |
| Production | Mil. s. tons | 28.3 | 27.5 | 27.8 | 27.9 | 28.0 | 28.2 | 28.4 | 28.5 | 28.7 | 28.8 | 29.0 | 29.1 |
| Supply: | | | | | | | | | | | | | |
| Beginning stocks | 1,000 s. tons | 1,534 | 1,501 | 1,265 | 1,522 | 1,564 | 1,578 | 1,591 | 1,603 | 1,616 | 1,629 | 1,641 | 1,652 |
| Production | 1,000 s. tons | 7,967 | 8,230 | 8,321 | 8,013 | 8,098 | 8,201 | 8,268 | 8,313 | 8,349 | 8,385 | 8,418 | 8,457 |
| Beet sugar | 1,000 s. tons | 4,575 | 4,800 | 4,845 | 4,525 | 4,589 | 4,668 | 4,712 | 4,735 | 4,749 | 4,764 | 4,775 | 4,793 |
| Cane sugar | 1,000 s. tons | 3,392 | 3,430 | 3,476 | 3,488 | 3,510 | 3,533 | 3,556 | 3,578 | 3,600 | 3,621 | 3,643 | 3,664 |
| Total imports | 1,000 s. tons | 3,320 | 2,744 | 3,208 | 3,613 | 3,607 | 3,597 | 3,622 | 3,670 | 3,726 | 3,783 | 3,831 | 3,886 |
| TRQ imports | 1,000 s. tons | 1,854 | 1,409 | 1,409 | 1,415 | 1,417 | 1,420 | 1,422 | 1,427 | 1,430 | 1,432 | 1,435 | 1,436 |
| Mexico | 1,000 s. tons | 807 | 1,025 | 1,474 | 1,873 | 1,865 | 1,852 | 1,874 | 1,918 | 1,972 | 2,026 | 2,071 | 2,125 |
| Other imports | 1,000 s. tons | 658 | 310 | 325 | 325 | 325 | 325 | 325 | 325 | 325 | 325 | 325 | 325 |
| Total supply | 1,000 s. tons | 12,821 | 12,475 | 12,794 | 13,148 | 13,269 | 13,376 | 13,480 | 13,586 | 13,691 | 13,797 | 13,890 | 13,995 |
| Use: | | | | | | | | | | | | | |
| Exports | 1,000 s. tons | 211 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Domestic deliveries | 1,000 s. tons | 11,133 | 11,060 | 11,122 | 11,434 | 11,541 | 11,635 | 11,727 | 11,820 | 11,913 | 12,006 | 12,088 | 12,181 |
| Miscellaneous | 1,000 s. tons | -22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total use | 1,000 s. tons | 11,321 | 11,210 | 11,272 | 11,584 | 11,691 | 11,785 | 11,877 | 11,970 | 12,063 | 12,156 | 12,238 | 12,331 |
| 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 | 1,501 | 1,265 | 1,522 | 1,564 | 1,578 | 1,591 | 1,603 | 1,616 | 1,629 | 1,641 | 1,652 | 1,665 |
| Raw sugar price: | | | | | | | | | | | | | |
| New York (No. 16) | Cents/lb. | 35.36 | 23.99 | 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. | 18.25 | 18.50 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 | 18.75 |
| Beet sugar loan rate | Cents/lb. | 23.45 | 23.77 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 | 24.09 |
| Grower prices: | | | | | | | | | | | | | |
| Sugarbeets | Dol./ton | 46.70 | 48.86 | 41.83 | 41.09 | 41.09 | 41.09 | 41.09 | 41.09 | 41.09 | 41.09 | 41.09 | 41.09 |
| Sugarcane | Dol./ton | 34.59 | 30.87 | 29.54 | 29.49 | 29.51 | 29.53 | 29.55 | 29.57 | 29.59 | 29.61 | 29.63 | 29.65 |

Note: Marketing year beginning October 1 for sugar.

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

Table 28. Horticultural crops long-term supply and use projections, calendar years

| Item | Unit | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Production area[1] | | | | | | | | | | | | | |
| Fruit, nuts, and vegetables | 1,000 acres | 10,827 | 10,931 | 10,974 | 11,018 | 11,064 | 11,111 | 11,159 | 11,209 | 11,261 | 11,314 | 11,368 | 11,424 |
| Fruit and tree nuts | 1,000 acres | 3,987 | 3,990 | 3,993 | 3,996 | 4,000 | 4,005 | 4,010 | 4,015 | 4,021 | 4,028 | 4,034 | 4,042 |
| Vegetables and melons | 1,000 acres | 6,840 | 7,100 | 6,650 | 6,850 | 7,064 | 7,106 | 7,150 | 7,194 | 7,240 | 7,286 | 7,334 | 7,383 |
| Supply | | | | | | | | | | | | | |
| Production, farm weight | | | | | | | | | | | | | |
| Fruit and nuts | Mil. lbs. | 63,954 | 62,502 | 64,523 | 64,666 | 64,816 | 64,972 | 65,134 | 65,303 | 65,479 | 65,661 | 65,850 | 66,045 |
| Citrus | Mil. lbs. | 23,678 | 21,856 | 23,502 | 23,267 | 23,034 | 22,804 | 22,576 | 22,350 | 22,127 | 21,905 | 21,686 | 21,469 |
| Noncitrus | Mil. lbs. | 36,258 | 36,548 | 36,840 | 37,135 | 37,432 | 37,732 | 38,034 | 38,338 | 38,645 | 38,954 | 39,265 | 39,579 |
| Tree nuts | Mil. lbs. | 4,018 | 4,098 | 4,180 | 4,264 | 4,349 | 4,436 | 4,525 | 4,615 | 4,708 | 4,802 | 4,898 | 4,996 |
| Vegetables and melons[2] | Mil. lbs. | 140,552 | 138,832 | 138,718 | 139,889 | 141,078 | 142,286 | 143,513 | 144,760 | 146,028 | 147,316 | 148,626 | 149,958 |
| Fresh market | Mil. lbs. | 58,662 | 56,850 | 59,602 | 60,261 | 60,934 | 61,622 | 62,325 | 63,043 | 63,777 | 64,527 | 65,293 | 66,077 |
| Processing | Mil. lbs. | 41,581 | 38,633 | 38,864 | 39,098 | 39,332 | 39,568 | 39,806 | 40,045 | 40,285 | 40,526 | 40,770 | 41,014 |
| Potatoes | Mil. lbs. | 35,349 | 33,000 | 35,108 | 35,284 | 35,460 | 35,638 | 35,816 | 35,995 | 36,175 | 36,356 | 36,537 | 36,720 |
| Pulses | Mil. lbs. | 4,959 | 5,475 | 5,143 | 5,246 | 5,351 | 5,458 | 5,567 | 5,678 | 5,792 | 5,908 | 6,026 | 6,146 |
| Total fruit, nuts, vegetables | Mil. lbs. | 204,506 | 201,334 | 203,241 | 204,555 | 205,893 | 207,258 | 208,648 | 210,064 | 211,507 | 212,977 | 214,476 | 216,003 |
| Imports, farm weight | | | | | | | | | | | | | |
| Fruit, nuts, and vegetables | Mil. lbs. | 59,894 | 64,931 | 66,487 | 68,148 | 69,852 | 71,601 | 73,395 | 75,236 | 77,124 | 79,062 | 81,050 | 83,090 |
| Fruit and tree nuts | Mil. lbs. | 36,952 | 39,520 | 40,314 | 41,164 | 42,032 | 42,918 | 43,822 | 44,746 | 45,690 | 46,653 | 47,637 | 48,641 |
| Vegetables & melons | Mil. lbs. | 22,941 | 25,411 | 26,173 | 26,984 | 27,821 | 28,683 | 29,572 | 30,489 | 31,434 | 32,409 | 33,414 | 34,449 |
| Use | | | | | | | | | | | | | |
| Exports, farm weight | | | | | | | | | | | | | |
| Fruit, nuts, and vegetables | Mil. lbs. | 33,409 | 34,899 | 35,323 | 35,753 | 36,189 | 36,633 | 37,083 | 37,540 | 38,004 | 38,476 | 38,955 | 39,441 |
| Fruit and tree nuts | Mil. lbs. | 13,577 | 14,325 | 14,440 | 14,557 | 14,675 | 14,796 | 14,918 | 15,043 | 15,170 | 15,299 | 15,430 | 15,564 |
| Vegetables & melons | Mil. lbs. | 19,833 | 20,574 | 20,883 | 21,196 | 21,514 | 21,837 | 22,164 | 22,497 | 22,834 | 23,177 | 23,525 | 23,877 |
| Domestic use[3] | | | | | | | | | | | | | |
| Fruit, nuts, and vegetables | Mil. lbs. | 222,423 | 222,827 | 226,045 | 228,480 | 230,973 | 233,527 | 236,143 | 238,821 | 241,565 | 244,375 | 247,253 | 250,201 |
| Fruit and tree nuts | Mil. lbs. | 94,300 | 94,697 | 97,612 | 98,558 | 99,529 | 100,524 | 101,544 | 102,589 | 103,661 | 104,758 | 105,882 | 107,033 |
| Vegetables & melons | Mil. lbs. | 128,123 | 128,130 | 128,433 | 129,921 | 131,444 | 133,003 | 134,599 | 136,232 | 137,905 | 139,617 | 141,371 | 143,168 |
| Farm sales value[4] | | | | | | | | | | | | | |
| Fruit and nuts | $ Mil. | 18,965 | 19,320 | 19,696 | 20,043 | 20,397 | 20,760 | 21,132 | 21,512 | 21,900 | 22,298 | 22,705 | 23,121 |
| Citrus | $ Mil. | 2,845 | 2,859 | 2,888 | 2,879 | 2,870 | 2,862 | 2,853 | 2,845 | 2,836 | 2,828 | 2,819 | 2,811 |
| Noncitrus | $ Mil. | 11,944 | 12,185 | 12,404 | 12,628 | 12,855 | 13,086 | 13,322 | 13,562 | 13,806 | 14,054 | 14,307 | 14,565 |
| Tree nuts | $ Mil. | 4,151 | 4,276 | 4,404 | 4,536 | 4,672 | 4,812 | 4,957 | 5,105 | 5,258 | 5,416 | 5,579 | 5,746 |
| Vegetables and melons | $ Mil. | 21,554 | 21,783 | 22,153 | 22,530 | 22,913 | 23,303 | 23,700 | 24,104 | 24,515 | 24,933 | 25,359 | 25,793 |
| Fresh market | $ Mil. | 13,394 | 13,518 | 13,709 | 13,903 | 14,099 | 14,298 | 14,500 | 14,704 | 14,912 | 15,122 | 15,335 | 15,551 |
| Processing | $ Mil. | 3,635 | 3,683 | 3,765 | 3,848 | 3,933 | 4,020 | 4,109 | 4,200 | 4,293 | 4,388 | 4,484 | 4,583 |
| Potatoes | $ Mil. | 3,396 | 3,430 | 3,496 | 3,562 | 3,630 | 3,699 | 3,769 | 3,840 | 3,913 | 3,988 | 4,064 | 4,141 |
| Pulses | $ Mil. | 1,129 | 1,151 | 1,184 | 1,217 | 1,251 | 1,286 | 1,322 | 1,359 | 1,397 | 1,436 | 1,476 | 1,518 |
| Nursery and greenhouse[5] | $ Mil. | 15,915 | 16,026 | 16,154 | 16,283 | 16,414 | 16,545 | 16,677 | 16,811 | 16,945 | 17,081 | 17,217 | 17,355 |
| Other horticulture crops[6] | $ Mil. | 859 | 875 | 899 | 925 | 950 | 977 | 1,004 | 1,033 | 1,061 | 1,091 | 1,122 | 1,153 |
| Total horticulture crops | $ Mil. | 57,294 | 58,003 | 58,902 | 59,780 | 60,674 | 61,585 | 62,513 | 63,459 | 64,422 | 65,403 | 66,403 | 67,422 |
| Producer prices[7] | | | | | | | | | | | | | |
| Fresh fruits | 1982=100 | 110.4 | 122.2 | 120.7 | 122.5 | 124.4 | 126.3 | 128.3 | 130.2 | 132.2 | 134.3 | 136.3 | 138.4 |
| Citrus | 1982=100 | 164.3 | 167.0 | 159.9 | 164.0 | 168.1 | 172.3 | 176.6 | 180.8 | 185.1 | 189.4 | 193.7 | 198.1 |
| Noncitrus | 1982=100 | 107.6 | 123.5 | 124.7 | 126.0 | 127.2 | 128.5 | 129.7 | 131.0 | 132.3 | 133.6 | 135.0 | 136.3 |
| Tree nuts | 1982=100 | 808.9 | 836.0 | 844.2 | 852.5 | 860.8 | 869.3 | 877.8 | 886.4 | 895.1 | 903.9 | 912.7 | 921.7 |
| Vegetables | 1982=100 | 162.2 | 181.7 | 184.9 | 186.5 | 188.1 | 189.7 | 191.2 | 192.8 | 194.4 | 196.0 | 197.6 | 199.2 |
| Fresh vegetables | 1982=100 | 169.4 | 195.0 | 183.3 | 186.9 | 190.4 | 193.9 | 197.5 | 201.0 | 204.5 | 207.9 | 211.4 | 214.8 |
| Potatoes (fresh) | 1982=100 | 155.7 | 137.0 | 137.2 | 139.1 | 141.1 | 143.0 | 145.0 | 147.0 | 149.1 | 151.2 | 153.3 | 155.4 |
| Pulses (dried) | 1982=100 | 156.6 | 145.0 | 158.7 | 175.0 | 176.4 | 177.8 | 179.2 | 180.6 | 182.0 | 183.4 | 184.8 | 186.3 |
| Fruit, nuts, and vegetables | 1982=100 | 146.7 | 162.3 | 163.7 | 165.5 | 167.2 | 169.0 | 170.8 | 172.6 | 174.5 | 176.3 | 178.2 | 180.0 |

1/ Bearing acreage for fruit and nuts; harvested area for vegetables. 2/ Utilized production is used for potatoes. Pulses include edible dry beans and peas, lentils, and other peas. 3/ In farm or fresh weight units. Stock changes are accounted for. 4/ Farm cash receipts for fresh and processing vegetables are allocated based on their relative production value shares. 5/ Includes floral crops, greenhouse vegetables such as tomatoes, cucumbers, sweet and hot peppers, and fruit and vegetable transplants. 6/ Includes honey, maple syrup, hops, mint oils, taro, ginger root, and coffee from Hawaii and Puerto Rico. 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 29. Horticultural crops long-term export and import projections, fiscal years

| Item | Unit | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Exports | | | | | | | | | | | | | |
| Fruit and nuts | | | | | | | | | | | | | |
| Fresh fruits | $ Mil. | 3,522 | 3,799 | 4,082 | 4,273 | 4,429 | 4,589 | 4,756 | 4,929 | 5,108 | 5,293 | 5,485 | 5,684 |
| Citrus | $ Mil. | 726 | 924 | 975 | 1,040 | 1,063 | 1,087 | 1,110 | 1,134 | 1,159 | 1,183 | 1,207 | 1,232 |
| Noncitrus | $ Mil. | 2,795 | 2,874 | 3,107 | 3,234 | 3,366 | 3,503 | 3,646 | 3,794 | 3,949 | 4,110 | 4,278 | 4,452 |
| Processed fruits | $ Mil. | 2,266 | 2,380 | 2,578 | 2,712 | 2,797 | 2,885 | 2,976 | 3,070 | 3,167 | 3,267 | 3,370 | 3,476 |
| Fruit juices | $ Mil. | 1,107 | 1,152 | 1,180 | 1,209 | 1,239 | 1,269 | 1,300 | 1,332 | 1,364 | 1,398 | 1,432 | 1,467 |
| Tree nuts | $ Mil. | 3,495 | 4,060 | 4,300 | 4,519 | 4,749 | 4,990 | 5,244 | 5,511 | 5,792 | 6,087 | 6,396 | 6,722 |
| Total fruit and nuts | $ Mil. | 9,283 | 10,239 | 10,960 | 11,504 | 11,974 | 12,465 | 12,977 | 13,510 | 14,066 | 14,646 | 15,251 | 15,882 |
| Vegetables | | | | | | | | | | | | | |
| Fresh | $ Mil. | 1,892 | 2,060 | 2,118 | 2,184 | 2,252 | 2,322 | 2,394 | 2,469 | 2,546 | 2,625 | 2,707 | 2,791 |
| Processed[1] | $ Mil. | 3,113 | 3,233 | 3,322 | 3,423 | 3,526 | 3,634 | 3,744 | 3,858 | 3,975 | 4,095 | 4,220 | 4,348 |
| Total vegetables | $ Mil. | 5,005 | 5,294 | 5,440 | 5,607 | 5,778 | 5,956 | 6,138 | 6,327 | 6,521 | 6,720 | 6,927 | 7,139 |
| Other horticulture | | | | | | | | | | | | | |
| Nursery and greenhouse | $ Mil. | 355 | 336 | 340 | 345 | 350 | 354 | 359 | 364 | 369 | 374 | 379 | 384 |
| Essential oils | $ Mil. | 1,234 | 1,367 | 1,424 | 1,484 | 1,546 | 1,611 | 1,679 | 1,750 | 1,823 | 1,900 | 1,980 | 2,063 |
| Wine | $ Mil. | 827 | 1,004 | 1,036 | 1,069 | 1,104 | 1,139 | 1,176 | 1,214 | 1,253 | 1,293 | 1,335 | 1,377 |
| Beer | $ Mil. | 296 | 296 | 304 | 313 | 321 | 330 | 340 | 349 | 359 | 369 | 379 | 390 |
| Other[2] | $ Mil. | 3,636 | 4,076 | 4,796 | 4,997 | 5,206 | 5,424 | 5,651 | 5,887 | 6,132 | 6,387 | 6,652 | 6,928 |
| Total horticulture | $ Mil. | 20,634 | 22,610 | 24,300 | 25,318 | 26,280 | 27,280 | 28,319 | 29,399 | 30,522 | 31,688 | 32,901 | 34,162 |
| Fresh produce[3] | $ Mil. | 5,414 | 5,859 | 6,200 | 6,457 | 6,681 | 6,912 | 7,150 | 7,398 | 7,654 | 7,918 | 8,192 | 8,475 |
| Processed produce[3] | $ Mil. | 5,379 | 5,613 | 5,900 | 6,134 | 6,324 | 6,519 | 6,720 | 6,928 | 7,142 | 7,362 | 7,589 | 7,824 |
| Imports | | | | | | | | | | | | | |
| Fruit and nuts | | | | | | | | | | | | | |
| Fresh fruits | $ Mil. | 6,074 | 6,803 | 7,500 | 7,938 | 8,287 | 8,650 | 9,029 | 9,425 | 9,838 | 10,270 | 10,720 | 11,190 |
| Citrus | $ Mil. | 442 | 464 | 500 | 527 | 549 | 571 | 594 | 618 | 644 | 670 | 697 | 725 |
| Noncitrus | $ Mil. | 5,632 | 6,339 | 7,000 | 7,411 | 7,738 | 8,079 | 8,435 | 8,807 | 9,195 | 9,600 | 10,023 | 10,465 |
| Processed fruits | $ Mil. | 3,375 | 3,276 | 3,500 | 3,682 | 3,826 | 3,976 | 4,131 | 4,293 | 4,461 | 4,635 | 4,816 | 5,004 |
| Fruit juices | $ Mil. | 1,414 | 1,279 | 1,400 | 1,447 | 1,483 | 1,521 | 1,559 | 1,598 | 1,638 | 1,679 | 1,722 | 1,765 |
| Tree nuts | $ Mil. | 1,151 | 1,332 | 1,500 | 1,559 | 1,619 | 1,683 | 1,748 | 1,817 | 1,888 | 1,961 | 2,038 | 2,118 |
| Total fruit and nuts | $ Mil. | 10,601 | 11,411 | 12,500 | 13,179 | 13,732 | 14,309 | 14,909 | 15,535 | 16,187 | 16,866 | 17,574 | 18,312 |
| Vegetables | | | | | | | | | | | | | |
| Fresh | $ Mil. | 4,237 | 5,180 | 5,800 | 6,172 | 6,468 | 6,779 | 7,105 | 7,446 | 7,804 | 8,179 | 8,573 | 8,985 |
| Processed[1] | $ Mil. | 3,483 | 3,574 | 3,800 | 4,104 | 4,270 | 4,442 | 4,621 | 4,807 | 5,001 | 5,203 | 5,412 | 5,630 |
| Total vegetables | $ Mil. | 7,720 | 8,754 | 9,600 | 10,276 | 10,738 | 11,221 | 11,726 | 12,254 | 12,805 | 13,382 | 13,985 | 14,615 |
| Other horticulture | | | | | | | | | | | | | |
| Nursery and greenhouse | $ Mil. | 1,357 | 1,441 | 1,600 | 1,617 | 1,635 | 1,653 | 1,671 | 1,689 | 1,707 | 1,726 | 1,744 | 1,763 |
| Essential oils | $ Mil. | 2,406 | 2,414 | 2,600 | 2,789 | 2,941 | 3,102 | 3,271 | 3,450 | 3,638 | 3,836 | 4,046 | 4,267 |
| Wine | $ Mil. | 4,084 | 4,258 | 4,500 | 4,792 | 4,999 | 5,215 | 5,441 | 5,676 | 5,922 | 6,178 | 6,445 | 6,724 |
| Beer | $ Mil. | 3,428 | 3,452 | 3,600 | 3,781 | 3,908 | 4,039 | 4,175 | 4,315 | 4,460 | 4,610 | 4,764 | 4,924 |
| Other[2] | $ Mil. | 3,421 | 3,820 | 4,100 | 4,407 | 4,604 | 4,809 | 5,023 | 5,247 | 5,481 | 5,725 | 5,981 | 6,247 |
| Total horticulture | $ Mil. | 33,017 | 35,549 | 38,500 | 40,843 | 42,558 | 44,348 | 46,216 | 48,165 | 50,200 | 52,323 | 54,539 | 56,852 |
| Fresh produce[3] | $ Mil. | 10,311 | 11,983 | 13,300 | 14,110 | 14,755 | 15,429 | 16,134 | 16,872 | 17,643 | 18,449 | 19,293 | 20,175 |
| Processed produce[3] | $ Mil. | 6,859 | 6,850 | 7,300 | 7,787 | 8,096 | 8,418 | 8,752 | 9,100 | 9,462 | 9,838 | 10,229 | 10,635 |

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.

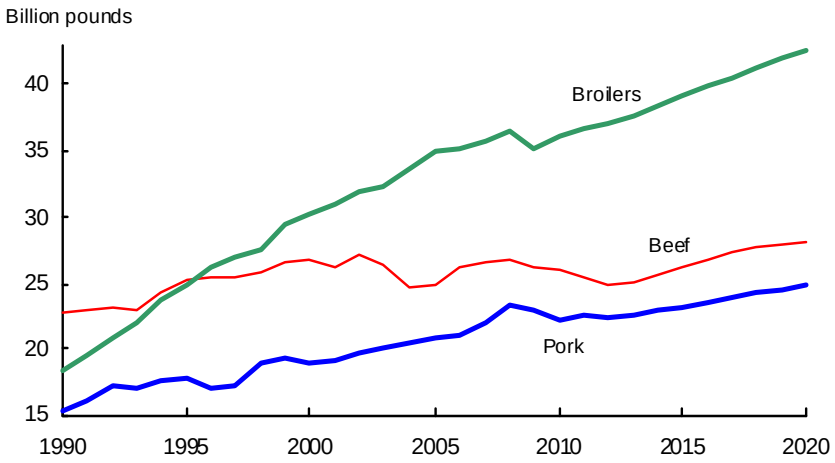
Exports are free alongside ship (FAS) value at U.S. port of exportation. Imports are customs value at U.S. port of entry.

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

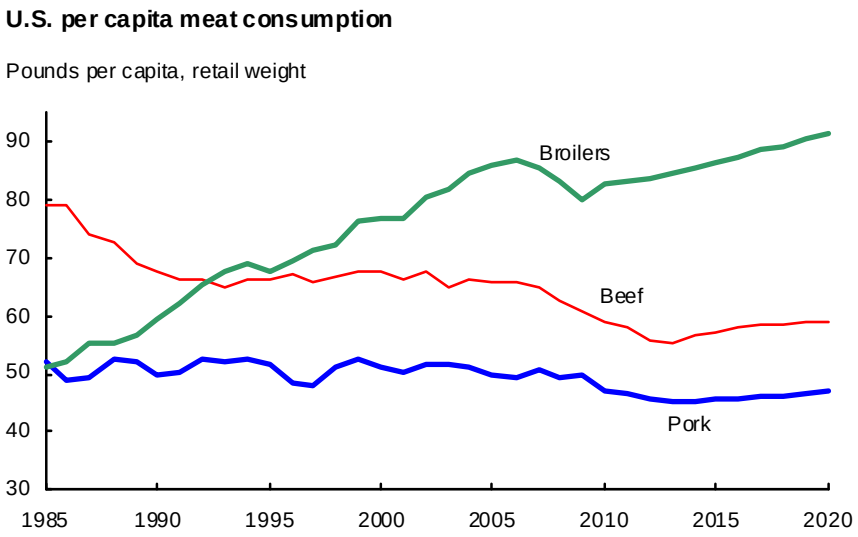
# U.S. Livestock

During the first several years of the projections, the livestock sector responds to high grain and soybean meal prices in 2011—with producer returns squeezed, production incentives are reduced, leading to declines in total U.S. red meat and poultry production in 2012 and only moderate increases in 2011 and 2013. Combined with strengthening exports, the result is declining domestic per capita consumption of red meat and poultry through 2013. As a consequence, prices in the sector rise, which improves net returns and provides economic incentives for expansion in the sector later in the projection period.

**U.S. red meat and poultry production**




- Despite improved returns for cow-calf operators in 2010, strong demand for feeder cattle and cows for slaughter have limited producer interest in expanding beef cow inventories after several years of declines. Thus, reduced inventories and expected heifer retention during 2011 are expected to lead to reduced beef production through 2012. Beef production then rises in the remainder of the projection period as strengthening returns support herd rebuilding. Beef cow numbers rise from about 31 million head at the beginning of 2011 to over 34 million by 2020. The total cattle inventory drops below 92 million head before expanding to about 96.7 million at the end of the projection period. Rising slaughter weights also contribute to the longer term expansion of beef production. Although feed prices decline from current levels, continued historically-high feed costs result in stocker cattle remaining on pasture to heavier weights before entering feedlots.
- Pork production falls in 2012 in response to reduced returns in 2011, but as the projection period progresses, producers are expected to increase farrowings as higher hog prices and lower feed prices improve returns. Pork production increases will also be supported by gains in breeding herd productivity and increased slaughter weights albeit at slower rates of gain than in the past several years.
- Poultry production is projected to rise the most among the meats over the next decade, as poultry is the most efficient feed-to-meat converter. However growth in the sector will be slower than occurred in the 1980s and 1990s. Poultry prices are expected to improve with increased demand, although poultry will face competition from increased supplies of red meats. Additionally, despite declining from recent highs, feed prices are projected to remain relatively high. Poultry production growth is expected to come from both higher bird numbers and higher average weights. Both broiler production and turkey production expand over the projection period, with broilers increasing at a slightly faster rate.



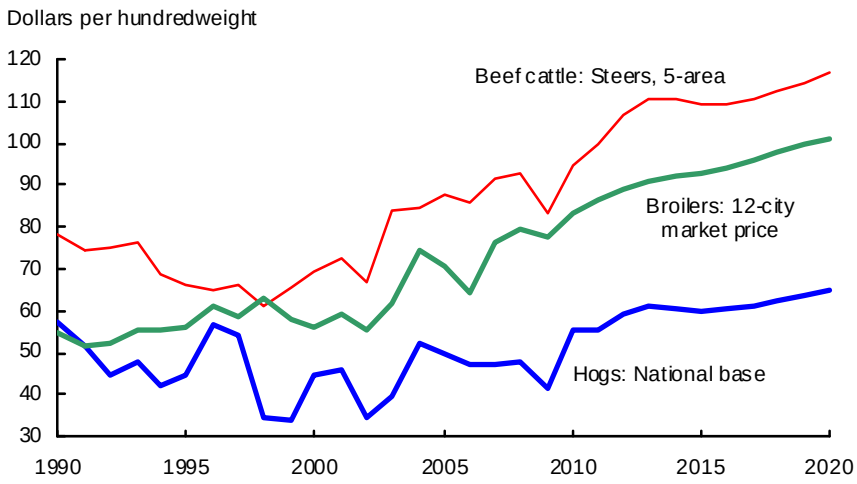

Moderate near-term changes in production in the livestock sector, along with projected gains in meat exports, result in higher consumer prices and lower per capita consumption. Annual average consumption of red meats and poultry falls from over 221 pounds per capita in 2004-07 to about 203 pounds in 2012 and 2013. 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 216 pounds by 2020.

- Per capita beef consumption declines through 2013, before rising moderately over the remainder of the projection period. The initial decline reflects continuing reductions in beef production through 2012 coupled with expanding exports. However, as beef production increases in later years, per capita consumption grows.

- Gains in U.S. pork exports combine with moderate pork production changes to push per capita pork consumption down in 2010 through 2013. 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 adjusts faster than the red meats sector to higher feed costs. As a result, poultry production is projected to grow throughout the decade. Per capita consumption rises through the end of the projection period and, in contrast to red meats, surpasses levels of the past decade. Further, poultry meat consumption exceeds red meat consumption toward the end of the projection period.

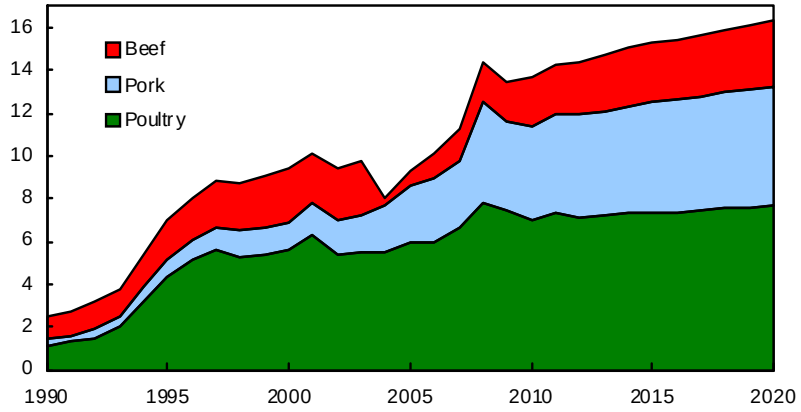
**Nominal U.S. livestock prices**




Prices in the livestock sector are projected to generally rise over the projection period, reflecting a moderate pace of expansion combined with improving domestic and export demands.

**U.S. meat exports**

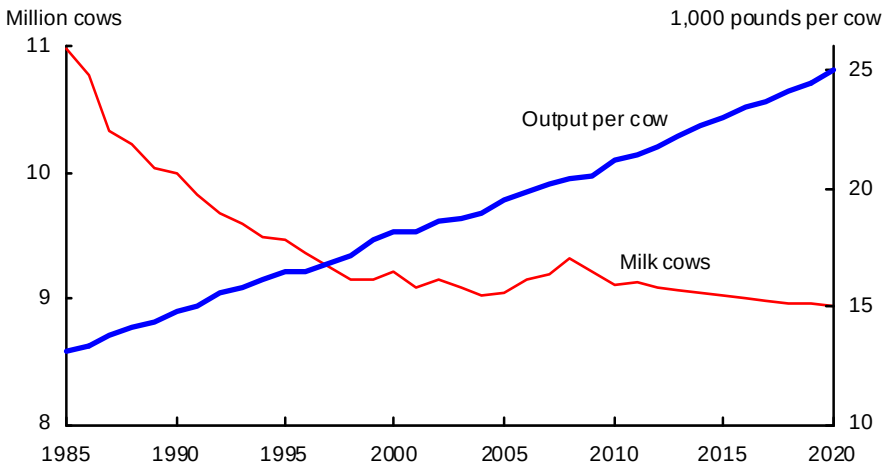
Billion pounds




The projected rise in U.S. meat and poultry exports over the next decade reflects the resumption of global economic growth, a depreciation of the U.S. dollar, and continued foreign demand for selected cuts and parts from the large U.S. market. As a result, exports account for a larger share of U.S. meat and poultry use, although the domestic market remains the dominant source of overall meat and poultry demand.

- Most U.S. beef exports are high-quality fed beef, typically going to Mexico, Canada, and Pacific Rim nations. A continuing 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. Beef exports by competitor countries of Australia and Canada increase slowly as herds are rebuilt.
- 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 U.S. grain-fed beef, exports of grass-fed beef from Australia and New Zealand to those markets are reduced, freeing more of that product for sale to the United States. Additionally, moderate beef cow inventories and beef cow slaughter in the United States raise import demand for processing beef.
- Production efficiency in the U.S. pork sector enhances the competitiveness of U.S. pork products in global trade. However, longer term U.S. pork export gains will be determined by costs of production and environmental regulations relative to competitors. Production costs tend to be lower in countries such as Brazil that have established or are developing integrated pork industries. However, Brazilian pork producers' ability to compete in some markets is limited because the projections assume that 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 Argentina and Asian markets other than Japan and South Korea. Russia is projected to reduce pork imports to facilitate expansion of their domestic industry, with pork exports from the United States and Brazil affected the most.
- U.S. broiler exports rise from 2012 through the rest of the projection period. Major U.S. export markets include China and Mexico, but U.S. broiler exports also have been increasing to a number of other countries. Longer term gains in these markets reflect their economic growth and increasing consumer demand. International 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. As with pork, Russia is projected to support their domestic poultry industry by limiting imports.

**U.S. dairy herd and milk production 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, while milk cow numbers decrease in 2012-20.

- After a 4-year increase during 2005-08, milk cow numbers fell in 2009 and 2010 and are projected to continue on a more typical path of year-to-year declines in 2012-20. Cow numbers decline at lower rates toward the end of the projection period as the transition in most regions from smaller, diversified farms to larger, specialized dairy operations matures.

- Milk output per cow is projected to increase through the projection period, reflecting continued technological and genetic developments.

- 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.

- Commercial U.S. dairy exports are forecast to increase steadily over the next decade, reaching record levels on a fat and a skim-solids basis. Increased production among the major dairy exporting countries is expected to lag growth in global import demand. The United States is expected to be well positioned to expand exports of dairy products, with sales of cheese and nonfat dry milk growing strongly.

- Farm-level milk prices are projected to rise steadily over the projection period. However, increases are less than the overall rate of inflation largely because of efficiency gains in production resulting from technological improvements and consolidation in the sector.

Table 30. Per capita meat consumption, retail weight

| Item | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Pounds* | | | | | | |
| Total beef | 61.1 | 59.0 | 57.8 | 55.9 | 55.7 | 56.6 | 57.4 | 58.2 | 58.6 | 58.8 | 58.8 | 58.9 |
| Total veal | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Total pork | 50.1 | 47.0 | 46.6 | 45.7 | 45.2 | 45.3 | 45.7 | 45.8 | 46.1 | 46.3 | 46.5 | 46.9 |
| Lamb and mutton | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Total red meat | 112.7 | 107.4 | 105.8 | 103.0 | 102.2 | 103.2 | 104.4 | 105.2 | 105.9 | 106.3 | 106.5 | 106.9 |
| Broilers | 79.7 | 82.7 | 83.0 | 83.5 | 84.1 | 85.2 | 86.3 | 87.3 | 88.2 | 89.1 | 90.3 | 91.5 |
| Other chicken | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Turkeys | 16.9 | 16.2 | 15.8 | 15.7 | 15.8 | 15.9 | 16.1 | 16.1 | 16.2 | 16.3 | 16.4 | 16.5 |
| Total poultry | 97.9 | 100.3 | 100.1 | 100.5 | 101.2 | 102.3 | 103.6 | 104.8 | 105.7 | 106.7 | 107.9 | 109.3 |
| Red meat & poultry | 210.6 | 207.7 | 205.9 | 203.5 | 203.4 | 205.5 | 208.0 | 210.0 | 211.6 | 212.9 | 214.5 | 216.2 |

Table 31. Beef long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginning stocks | Mil. lbs. | 642 | 565 | 535 | 515 | 515 | 515 | 515 | 515 | 515 | 515 | 515 | 515 |
| Commercial production | Mil. lbs. | 25,965 | 25,871 | 25,445 | 24,770 | 25,023 | 25,712 | 26,318 | 26,875 | 27,305 | 27,614 | 27,842 | 28,075 |
| Change from previous year | Percent | -2.2 | -0.4 | -1.6 | -2.7 | 1.0 | 2.8 | 2.4 | 2.1 | 1.6 | 1.1 | 0.8 | 0.8 |
| Farm production | Mil. lbs. | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |
| Total production | Mil. lbs. | 26,067 | 25,973 | 25,547 | 24,872 | 25,125 | 25,814 | 26,420 | 26,977 | 27,407 | 27,716 | 27,944 | 28,177 |
| Imports | Mil. lbs. | 2,626 | 2,468 | 2,540 | 2,760 | 2,800 | 2,865 | 2,930 | 2,995 | 3,060 | 3,125 | 3,190 | 3,255 |
| Total supply | Mil. lbs. | 29,335 | 29,006 | 28,622 | 28,147 | 28,440 | 29,194 | 29,865 | 30,487 | 30,982 | 31,356 | 31,649 | 31,947 |
| Exports | Mil. lbs. | 1,935 | 2,313 | 2,270 | 2,401 | 2,603 | 2,714 | 2,784 | 2,838 | 2,893 | 2,950 | 3,008 | 3,068 |
| Ending stocks | Mil. lbs. | 565 | 535 | 515 | 515 | 515 | 515 | 515 | 515 | 515 | 515 | 515 | 515 |
| Total consumption | Mil. lbs. | 26,835 | 26,158 | 25,837 | 25,231 | 25,322 | 25,965 | 26,566 | 27,134 | 27,574 | 27,891 | 28,126 | 28,364 |
| Per capita, carcass weight | Pounds | 87.3 | 84.3 | 82.6 | 79.9 | 79.5 | 80.9 | 82.0 | 83.1 | 83.8 | 84.0 | 84.1 | 84.1 |
| Per capita, retail weight | Pounds | 61.1 | 59.0 | 57.8 | 55.9 | 55.7 | 56.6 | 57.4 | 58.2 | 58.6 | 58.8 | 58.8 | 58.9 |
| Change from previous year | Percent | -2.6 | -3.4 | -2.1 | -3.2 | -0.5 | 1.7 | 1.5 | 1.3 | 0.8 | 0.3 | 0.0 | 0.0 |
| Prices: | | | | | | | | | | | | | |
| Beef cattle, farm | $/cwt | 80.36 | 91.45 | 96.22 | 103.03 | 106.52 | 106.31 | 105.63 | 105.62 | 106.34 | 108.31 | 110.48 | 112.56 |
| Calves, farm | $/cwt | 106.42 | 118.78 | 119.82 | 132.61 | 137.04 | 135.10 | 132.75 | 131.61 | 131.65 | 133.98 | 136.65 | 139.67 |
| Steers, 5-area | $/cwt | 83.25 | 94.81 | 99.75 | 106.81 | 110.43 | 110.21 | 109.51 | 109.50 | 110.24 | 112.29 | 114.54 | 116.69 |
| Yearling steers, Oklahoma City | $/cwt | 96.14 | 108.42 | 109.25 | 120.91 | 124.95 | 123.18 | 121.04 | 120.00 | 120.03 | 122.16 | 124.60 | 127.35 |
| Costs and returns, cow-calf enterprise: | | | | | | | | | | | | | |
| Total cash expenses | $/cow | 522.11 | 493.51 | 524.46 | 535.76 | 545.75 | 554.00 | 564.85 | 576.30 | 588.23 | 599.96 | 611.44 | 622.40 |
| Returns above cash costs | $/cow | -30.11 | 72.69 | 54.97 | 112.80 | 133.66 | 125.69 | 112.99 | 105.64 | 104.03 | 114.84 | 128.25 | 144.48 |
| Cattle inventory | 1,000 head | 94,521 | 93,701 | 92,550 | 91,951 | 92,271 | 93,661 | 94,849 | 95,496 | 95,799 | 95,991 | 96,219 | 96,696 |
| Beef cow inventory | 1,000 head | 31,712 | 31,376 | 31,104 | 31,193 | 31,640 | 32,320 | 32,877 | 33,265 | 33,483 | 33,647 | 33,825 | 34,130 |
| Total cow inventory | 1,000 head | 41,045 | 40,456 | 40,200 | 40,254 | 40,676 | 41,331 | 41,868 | 42,236 | 42,440 | 42,583 | 42,747 | 43,036 |

Table 32. Pork long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginning stocks | Mil. lbs. | 635 | 525 | 485 | 475 | 475 | 475 | 475 | 475 | 475 | 475 | 475 | 475 |
| Commercial production | Mil. lbs. | 22,999 | 22,234 | 22,560 | 22,446 | 22,474 | 22,757 | 23,178 | 23,486 | 23,798 | 24,105 | 24,445 | 24,827 |
| Change from previous year | Percent | -1.5 | -3.3 | 1.5 | -0.5 | 0.1 | 1.3 | 1.9 | 1.3 | 1.3 | 1.3 | 1.4 | 1.6 |
| Farm production | Mil. lbs. | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| Total production | Mil. lbs. | 23,020 | 22,256 | 22,581 | 22,467 | 22,495 | 22,778 | 23,199 | 23,507 | 23,819 | 24,126 | 24,466 | 24,848 |
| Imports | Mil. lbs. | 834 | 868 | 895 | 910 | 930 | 955 | 980 | 1,005 | 1,030 | 1,055 | 1,080 | 1,105 |
| Total supply | Mil. lbs. | 24,489 | 23,649 | 23,961 | 23,852 | 23,900 | 24,208 | 24,654 | 24,987 | 25,324 | 25,656 | 26,021 | 26,428 |
| Exports | Mil. lbs. | 4,095 | 4,368 | 4,675 | 4,785 | 4,884 | 5,000 | 5,125 | 5,224 | 5,310 | 5,396 | 5,484 | 5,577 |
| Ending stocks | Mil. lbs. | 525 | 485 | 475 | 475 | 475 | 475 | 475 | 475 | 475 | 475 | 475 | 475 |
| Total consumption | Mil. lbs. | 19,869 | 18,796 | 18,811 | 18,592 | 18,541 | 18,733 | 19,054 | 19,288 | 19,539 | 19,785 | 20,062 | 20,376 |
| Per capita, carcass weight | Pounds | 64.6 | 60.6 | 60.1 | 58.9 | 58.2 | 58.3 | 58.8 | 59.1 | 59.3 | 59.6 | 60.0 | 60.4 |
| Per capita, retail weight | Pounds | 50.1 | 47.0 | 46.6 | 45.7 | 45.2 | 45.3 | 45.7 | 45.8 | 46.1 | 46.3 | 46.5 | 46.9 |
| Change from previous year | Percent | 1.5 | -6.2 | -0.8 | -2.0 | -1.1 | 0.2 | 0.9 | 0.4 | 0.5 | 0.4 | 0.6 | 0.8 |
| Prices: | | | | | | | | | | | | | |
| Hogs, farm | $/cwt | 41.98 | 54.97 | 55.43 | 58.55 | 60.34 | 60.17 | 59.57 | 60.16 | 60.99 | 62.15 | 63.27 | 64.28 |
| National base, live equivalent | $/cwt | 41.24 | 55.29 | 55.75 | 58.90 | 60.70 | 60.53 | 59.93 | 60.53 | 61.36 | 62.52 | 63.65 | 64.67 |
| Costs and returns, farrow to finish: | | | | | | | | | | | | | |
| Total cash expenses | $/cwt | 63.26 | 59.86 | 70.78 | 68.04 | 64.17 | 62.83 | 63.02 | 63.52 | 64.24 | 65.04 | 65.74 | 66.26 |
| Returns above cash costs | $/cwt | -19.50 | -1.20 | -11.63 | -5.54 | 0.23 | 1.40 | 0.57 | 0.70 | 0.87 | 1.30 | 1.80 | 2.36 |
| Hog inventory, | | | | | | | | | | | | | |
| December 1, previous year | 1,000 head | 67,148 | 64,887 | 64,450 | 64,143 | 64,217 | 64,981 | 66,118 | 66,947 | 67,791 | 68,617 | 69,536 | 70,565 |

Table 33. Young chicken long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginning stocks | Mil. lbs. | 745 | 616 | 695 | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 |
| Federally inspected slaughter | Mil. lbs. | 35,511 | 36,612 | 37,150 | 37,490 | 38,056 | 38,760 | 39,502 | 40,243 | 40,899 | 41,580 | 42,383 | 43,208 |
| Change from previous year | Percent | -3.8 | 3.1 | 1.5 | 0.9 | 1.5 | 1.8 | 1.9 | 1.9 | 1.6 | 1.7 | 1.9 | 1.9 |
| Production | Mil. lbs. | 35,131 | 36,220 | 36,752 | 37,088 | 37,649 | 38,345 | 39,079 | 39,812 | 40,461 | 41,135 | 41,929 | 42,746 |
| Total supply | Mil. lbs. | 35,961 | 36,919 | 37,543 | 37,838 | 38,399 | 39,095 | 39,829 | 40,562 | 41,211 | 41,885 | 42,679 | 43,496 |
| Change from previous year | Percent | -3.6 | 2.7 | 1.7 | 0.8 | 1.5 | 1.8 | 1.9 | 1.8 | 1.6 | 1.6 | 1.9 | 1.9 |
| Exports | Mil. lbs. | 6,818 | 6,346 | 6,650 | 6,500 | 6,550 | 6,600 | 6,650 | 6,700 | 6,750 | 6,800 | 6,850 | 6,900 |
| Ending stocks | Mil. lbs. | 616 | 695 | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 |
| Consumption | Mil. lbs. | 28,527 | 29,878 | 30,233 | 30,678 | 31,189 | 31,835 | 32,519 | 33,202 | 33,801 | 34,425 | 35,169 | 35,936 |
| Per capita, carcass weight | Pounds | 92.8 | 96.3 | 96.6 | 97.2 | 98.0 | 99.1 | 100.4 | 101.7 | 102.7 | 103.7 | 105.1 | 106.5 |
| Per capita, retail weight | Pounds | 79.7 | 82.7 | 83.0 | 83.5 | 84.1 | 85.2 | 86.3 | 87.3 | 88.2 | 89.1 | 90.3 | 91.5 |
| Change from previous year | Percent | -4.5 | 3.8 | 0.3 | 0.6 | 0.8 | 1.2 | 1.3 | 1.3 | 1.0 | 1.0 | 1.3 | 1.4 |
| Prices: | | | | | | | | | | | | | |
| Broilers, farm | Cents/lb. | 45.2 | 48.5 | 50.0 | 51.5 | 52.6 | 53.3 | 53.8 | 54.4 | 55.4 | 56.6 | 57.6 | 58.6 |
| 12-city market price | Cents/lb. | 77.6 | 83.4 | 86.0 | 88.8 | 90.7 | 91.9 | 92.8 | 93.8 | 95.6 | 97.6 | 99.4 | 101.0 |
| Costs and returns: | | | | | | | | | | | | | |
| Total costs | Cents/lb. | 79.65 | 77.50 | 85.09 | 83.80 | 82.07 | 82.14 | 83.27 | 84.71 | 86.26 | 87.93 | 89.50 | 91.03 |
| Net returns | Cents/lb. | -2.04 | 5.90 | 0.91 | 4.98 | 8.67 | 9.75 | 9.52 | 9.12 | 9.33 | 9.70 | 9.86 | 9.95 |

Table 34. Turkey long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginning stocks | Mil. lbs. | 396 | 262 | 210 | 225 | 250 | 275 | 300 | 300 | 300 | 300 | 300 | 300 |
| Federally inspected slaughter | Mil. lbs. | 5,663 | 5,587 | 5,560 | 5,598 | 5,685 | 5,776 | 5,859 | 5,934 | 6,010 | 6,089 | 6,175 | 6,268 |
| Change from previous year | Percent | -9.3 | -1.3 | -0.5 | 0.7 | 1.5 | 1.6 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.5 |
| Production | Mil. lbs. | 5,588 | 5,514 | 5,487 | 5,525 | 5,611 | 5,700 | 5,783 | 5,857 | 5,932 | 6,010 | 6,094 | 6,186 |
| Total supply | Mil. lbs. | 5,997 | 5,788 | 5,709 | 5,762 | 5,873 | 5,987 | 6,095 | 6,169 | 6,244 | 6,322 | 6,406 | 6,498 |
| Change from previous year | Percent | -6.8 | -3.5 | -1.4 | 0.9 | 1.9 | 2.0 | 1.8 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 |
| Exports | Mil. lbs. | 534 | 555 | 550 | 560 | 570 | 580 | 590 | 600 | 610 | 620 | 630 | 640 |
| Ending stocks | Mil. lbs. | 262 | 210 | 225 | 250 | 275 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Consumption | Mil. lbs. | 5,201 | 5,023 | 4,934 | 4,952 | 5,028 | 5,107 | 5,205 | 5,269 | 5,334 | 5,402 | 5,476 | 5,558 |
| Per capita | Pounds | 16.9 | 16.2 | 15.8 | 15.7 | 15.8 | 15.9 | 16.1 | 16.1 | 16.2 | 16.3 | 16.4 | 16.5 |
| Change from previous year | Percent | -3.8 | -4.3 | -2.6 | -0.5 | 0.7 | 0.7 | 1.0 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 |
| Prices: | | | | | | | | | | | | | |
| Turkey, farm | Cents/lb. | 49.9 | 60.0 | 60.0 | 61.7 | 62.3 | 61.4 | 60.6 | 60.4 | 60.7 | 61.4 | 62.2 | 63.0 |
| Hen turkeys, National | Cents/lb. | 76.5 | 90.0 | 90.0 | 92.6 | 93.5 | 92.2 | 90.9 | 90.6 | 91.1 | 92.2 | 93.4 | 94.6 |
| Costs and returns: | | | | | | | | | | | | | |
| Total costs | Cents/lb. | 77.49 | 74.94 | 84.23 | 82.21 | 79.17 | 78.32 | 78.74 | 79.52 | 80.37 | 81.29 | 82.07 | 82.73 |
| Net returns | Cents/lb. | -0.99 | 15.05 | 5.77 | 10.40 | 14.29 | 13.85 | 12.16 | 11.08 | 10.74 | 10.87 | 11.29 | 11.83 |

Table 35. Egg long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginning stocks | Mil. doz. | 17 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| Production | Mil. doz. | 7,534 | 7,607 | 7,635 | 7,597 | 7,574 | 7,574 | 7,612 | 7,688 | 7,765 | 7,843 | 7,913 | 7,984 |
| Change from previous year | Percent | 0.4 | 1.0 | 0.4 | -0.5 | -0.3 | 0.0 | 0.5 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 |
| Imports | Mil. doz. | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Total supply | Mil. doz. | 7,562 | 7,637 | 7,665 | 7,627 | 7,604 | 7,604 | 7,642 | 7,718 | 7,795 | 7,873 | 7,943 | 8,014 |
| Change from previous year | Percent | 0.5 | 1.0 | 0.4 | -0.5 | -0.3 | 0.0 | 0.5 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 |
| Hatching use | Mil. doz. | 955 | 982 | 1,010 | 1,018 | 1,028 | 1,041 | 1,055 | 1,069 | 1,082 | 1,095 | 1,110 | 1,125 |
| Exports | Mil. doz. | 242 | 244 | 237 | 240 | 243 | 246 | 249 | 252 | 255 | 258 | 261 | 264 |
| Ending stocks | Mil. doz. | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| Consumption | Mil. doz. | 6,347 | 6,393 | 6,400 | 6,351 | 6,315 | 6,300 | 6,320 | 6,379 | 6,440 | 6,501 | 6,555 | 6,607 |
| Per capita | Number | 247.7 | 247.3 | 245.4 | 241.4 | 238.0 | 235.4 | 234.2 | 234.4 | 234.7 | 235.0 | 235.1 | 235.1 |
| Change from previous year | Percent | -0.2 | -0.2 | -0.8 | -1.6 | -1.4 | -1.1 | -0.5 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| Prices: | | | | | | | | | | | | | |
| Eggs, farm | Cents/doz. | 82.1 | 82.8 | 79.7 | 86.4 | 93.6 | 98.4 | 103.2 | 105.6 | 106.4 | 107.2 | 108.0 | 109.2 |
| New York, Grade A large | Cents/doz. | 103.0 | 103.0 | 99.3 | 108.0 | 117.0 | 123.0 | 129.0 | 132.0 | 133.0 | 134.0 | 135.0 | 136.5 |
| Costs and returns: | | | | | | | | | | | | | |
| Total costs | Cents/doz. | 115.40 | 109.58 | 133.24 | 127.84 | 120.10 | 117.72 | 118.54 | 120.05 | 121.97 | 124.06 | 125.93 | 127.41 |
| Net returns | Cents/doz. | -12.40 | -6.58 | -33.94 | -19.84 | -3.10 | 5.28 | 10.46 | 11.95 | 11.03 | 9.94 | 9.07 | 9.09 |

Table 36. Dairy long-term projections

| Item | Units | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Milk production and marketings: | | | | | | | | | | | | | |
| Number of cows | 1,000 | 9,201 | 9,115 | 9,130 | 9,095 | 9,070 | 9,045 | 9,025 | 9,005 | 8,990 | 8,970 | 8,955 | 8,940 |
| Milk per cow | Pounds | 20,576 | 21,160 | 21,425 | 21,780 | 22,180 | 22,600 | 22,990 | 23,425 | 23,735 | 24,105 | 24,480 | 24,950 |
| Milk production | Bil. lbs. | 189.3 | 192.8 | 195.6 | 198.1 | 201.2 | 204.4 | 207.5 | 210.9 | 213.4 | 216.2 | 219.2 | 223.1 |
| Farm use | Bil. lbs. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 |
| Marketings | Bil. lbs. | 188.3 | 191.9 | 194.6 | 197.1 | 200.2 | 203.5 | 206.6 | 210.0 | 212.5 | 215.4 | 218.4 | 222.3 |
| Supply and use, milkfat basis: | | | | | | | | | | | | | |
| Beginning commercial stocks | Bil. lbs. | 10.1 | 11.3 | 10.1 | 10.6 | 10.9 | 11.1 | 11.1 | 10.9 | 10.5 | 10.0 | 9.6 | 9.3 |
| Marketings | Bil. lbs. | 188.3 | 191.9 | 194.6 | 197.1 | 200.2 | 203.5 | 206.6 | 210.0 | 212.5 | 215.4 | 218.4 | 222.3 |
| Imports | Bil. lbs. | 5.6 | 4.6 | 4.1 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.9 | 5.1 | 5.2 |
| Commercial supply | Bil. lbs. | 204.0 | 207.8 | 208.9 | 212.0 | 215.5 | 219.1 | 222.3 | 225.6 | 227.8 | 230.3 | 233.1 | 236.8 |
| Domestic commercial use[1] | Bil. lbs. | 187.3 | 189.7 | 192.1 | 194.9 | 197.6 | 200.4 | 203.3 | 206.6 | 208.8 | 211.1 | 213.7 | 216.9 |
| Commercial exports | Bil. lbs. | 4.5 | 7.7 | 6.2 | 6.2 | 6.8 | 7.6 | 8.1 | 8.5 | 9.0 | 9.6 | 10.1 | 10.8 |
| Ending commercial stocks | Bil. lbs. | 11.3 | 10.1 | 10.6 | 10.9 | 11.1 | 11.1 | 10.9 | 10.5 | 10.0 | 9.6 | 9.3 | 9.1 |
| Total utilization | Bil. lbs. | 203.1 | 207.5 | 208.9 | 212.0 | 215.5 | 219.1 | 222.3 | 225.6 | 227.8 | 230.3 | 233.1 | 236.8 |
| CCC net removals[2] | Bil. lbs. | 0.7 | 0.2 | 0.0 | 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. | 10.9 | 11.3 | 11.8 | 11.5 | 11.1 | 10.9 | 10.7 | 10.6 | 10.5 | 10.5 | 10.5 | 10.6 |
| Marketings | Bil. lbs. | 188.3 | 191.9 | 194.6 | 197.1 | 200.2 | 203.5 | 206.6 | 210.0 | 212.5 | 215.4 | 218.4 | 222.3 |
| Imports | Bil. lbs. | 5.5 | 5.1 | 4.9 | 5.1 | 5.3 | 5.5 | 5.7 | 5.9 | 6.1 | 6.4 | 6.6 | 6.9 |
| Commercial supply | Bil. lbs. | 204.7 | 208.2 | 211.3 | 213.7 | 216.6 | 219.9 | 223.0 | 226.5 | 229.1 | 232.3 | 235.5 | 239.8 |
| Domestic commercial use[1] | Bil. lbs. | 168.6 | 167.0 | 170.3 | 172.5 | 174.8 | 177.5 | 180.3 | 183.3 | 185.5 | 188.0 | 190.5 | 193.8 |
| Commercial exports | Bil. lbs. | 22.4 | 29.8 | 29.5 | 30.1 | 30.9 | 31.7 | 32.1 | 32.7 | 33.1 | 33.8 | 34.4 | 35.3 |
| Ending commercial stocks | Bil. lbs. | 11.3 | 11.8 | 11.5 | 11.1 | 10.9 | 10.7 | 10.6 | 10.5 | 10.5 | 10.5 | 10.6 | 10.7 |
| Total utilization | Bil. lbs. | 202.3 | 208.6 | 211.3 | 213.7 | 216.6 | 219.9 | 223.0 | 226.5 | 229.1 | 232.3 | 235.5 | 239.8 |
| CCC net removals[2] | Bil. lbs. | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prices: | | | | | | | | | | | | | |
| All milk | $/cwt | 12.83 | 16.35 | 16.40 | 16.95 | 17.10 | 17.30 | 17.45 | 17.70 | 17.90 | 18.20 | 18.50 | 18.70 |

Dairy projections were completed in November 2010.

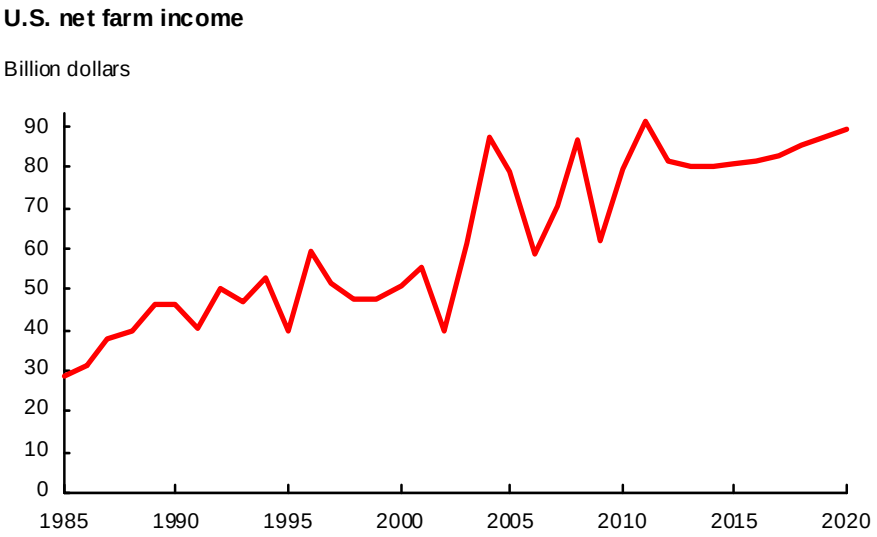
CCC is the Commodity Credit Corporation, U.S. Department of Agriculture.

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

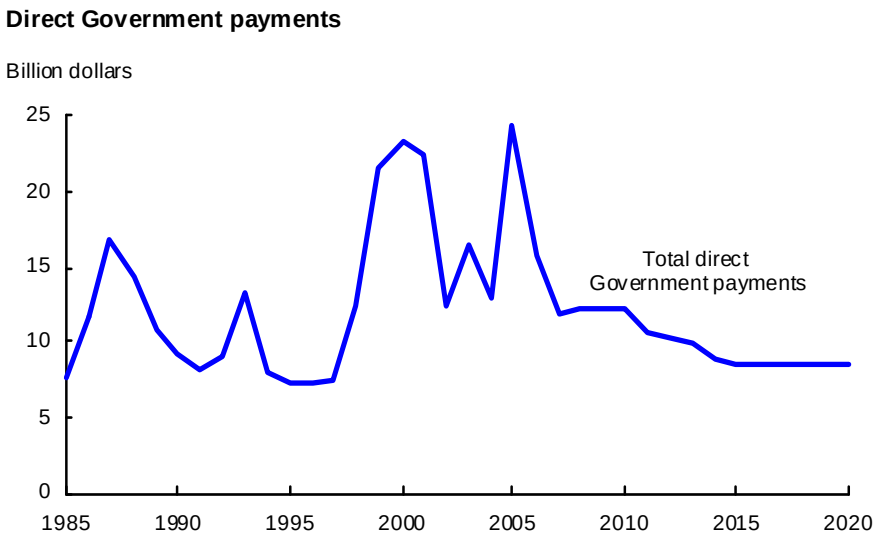
High commodity prices underlie record projected levels of U.S. agricultural exports and U.S. net farm income in 2011. Although grain, oilseed, and cotton prices, export value, and farm income retreat somewhat in the next several years, a return to steady domestic and international economic growth supports demand for U.S. agricultural products over the next decade. In addition, rising global demand for agricultural commodities for the production of biofuels continues. Thus, after the near-term declines, the value of U.S. agricultural exports and net farm income each rise through the rest of the decade. U.S. retail food prices increase faster than the overall rate of inflation in 2011 and 2012, reflecting higher food commodity prices and energy costs and improved demand as the economic recovery continues.




Net farm income rises to record levels in 2011, largely reflecting the recent runup in prices for many agricultural commodities. While income declines in 2012-14, it grows over the rest of the decade and remains well above the average of the previous decade (2001-10) throughout the projection period.

- Strengthening global food demand and sustained biofuel demand provide a major impetus for projections of rising cash receipts.

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



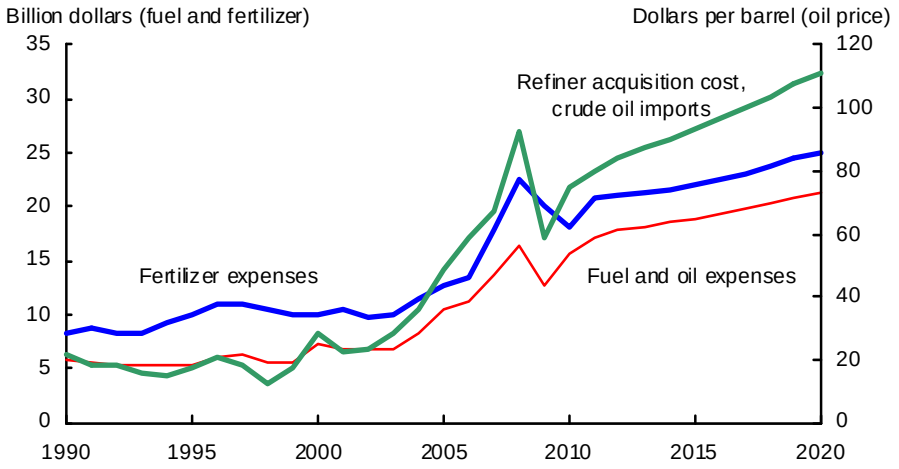

Direct Government payments to farmers fall to about $8.5 billion for the latter half of the next decade. Price-dependent program benefits have become less important. Ad hoc and emergency payments are projected to fall from recent levels, in part because the supplemental agricultural disaster assistance programs authorized under the 2008 Farm Act only cover qualifying losses that occur before October 2011. As a result, the Conservation Reserve Program (CRP) and fixed direct payments represent about 88 percent of direct Government payments toward the end of the projection period.

- Improving domestic and international demand holds prices for most crops above levels that would result in marketing loan benefits or counter-cyclical payments, so projected benefits for these programs are negligible over the next decade. Similarly, with relatively low enrollment and projected long-run stability in commodity prices, projections of payments under the Average Crop Revenue Election (ACRE) program average less than $100 million over 2012-20.

- High crop prices make the use of land for production more valuable, so rental rates for land in the CRP rise. Even with reduced CRP acreage enrollment due to the 2008 Farm Act's lowering of the maximum acreage permitted in the program, CRP payments rise from about $1.9 billion in 2010 to $2.4 billion in 2020.

- With high 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, fall to about 2 percent by the end of the projection period. Conversely, the sector relies on the market for more of its income.

**Selected energy-related production expenses and crude oil prices**

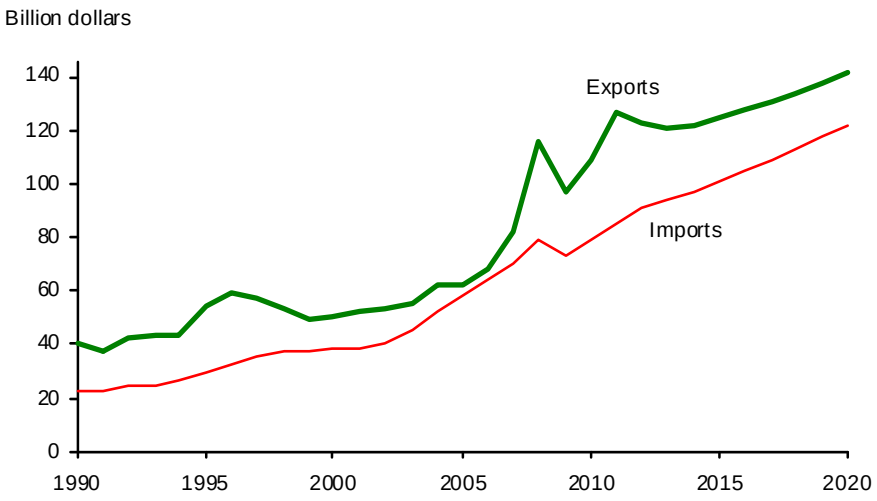



Total farm production expenses are projected to rise somewhat less rapidly than the overall rate of inflation over 2011-2020. While interest expenses and some energy-related costs rise faster than the general inflation rate, expenses for farm-origin inputs (seed, feed, and livestock) and most other nonfarm-origin expenses are up less than the general inflation rate.

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

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

**U.S. agricultural trade value**



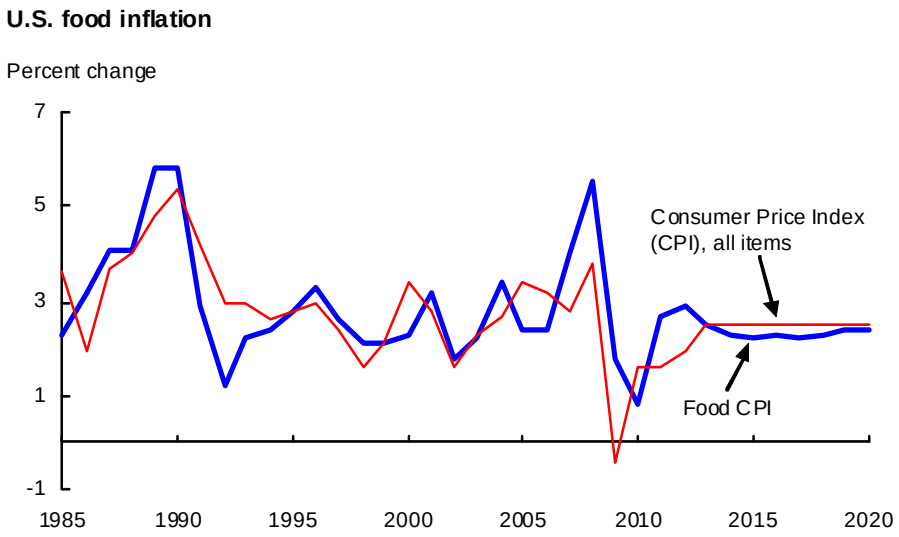

The value of U.S. agricultural exports initially falls from the record levels projected for fiscal year 2011 as prices for major field crops decline from current high levels. Agricultural exports then rise through the remainder of the projections because of increased global economic growth and agricultural demand and a weaker U.S. dollar. Domestic economic growth boosts demand for 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 is projected to reach a new record exceeding $126 billion in 2011 largely reflecting high commodity prices. With declining prices projected for major crops over the next several years, export values fall through fiscal 2013. Agricultural export values are then projected to grow over the next decade and surpass the 2011 record. A resumption of world economic growth, particularly in developing countries, provides a foundation for increases in global food demand, trade, and U.S. agricultural exports. Continued global biofuel demand also contributes to high commodity prices and gains in export values. Furthermore, a depreciation of the U.S. dollar is an important factor underlying projected gains in U.S. exports.

- The share of U.S. agricultural exports represented by high-value products (HVP) falls in 2011 as high commodity prices boost bulk commodity exports. However, for the remainder of the projection period, HVP exports grow in importance and reach nearly two-thirds of the value of U.S. exports. Much of the growth in HVP exports is for animal products and horticultural products.

- U.S. agricultural import values rise to $122 billion in 2020, boosted by gains in consumer income and demand for a large variety of foods. Strong growth in horticultural imports is assumed to continue, contributing about half of the overall agricultural import increase over the projection period.

- The agricultural trade balance declines from the record surplus of $41 billion projected for 2011, but remains a surplus of about $19 billion at the end of the projection period.




U.S. consumer food prices in 2010 had the smallest annual increase since the 1960s. In particular, the 1.3 percent rise in prices for away-from-home meals was the smallest increase since 1955, partly reflecting promotions to augment otherwise weak demand following the recession.

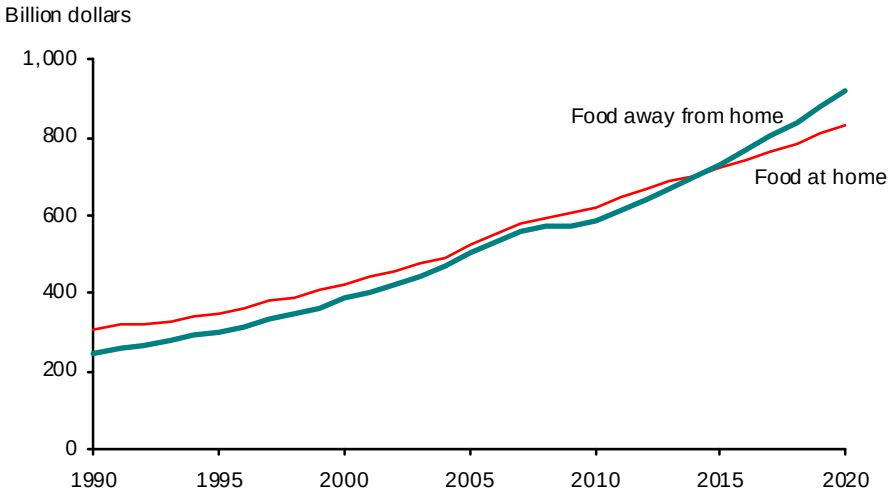
- Higher food commodity and energy prices will exert pressure on retail food prices into 2011. Additionally, as the economy recovers, retail food prices are projected to rise faster than overall inflation in 2011 and 2012. Over the remainder of the projection period, consumer food prices in the United States rise less than the general inflation rate. This moderation largely reflects production increases in the livestock sector which facilitate gains in per capita meat consumption and limit meat price increases.

- Higher commodity prices for food grains and oil-bearing crops push projected retail prices for cereals and bakery products and for fats and oils up more than the overall inflation rate in the near term. However, in the longer run, prices for these highly processed foods tend to reflect processing and marketing costs, thus keeping their increases near the general rate of inflation.

- Retail price increases for food away from home slowed in 2009 and 2010 as demand weakened due to the recession and the away-from-home food industry used promotions in response. As the economy rebounds, income gains will support growth in food consumption away from home. This factor, along with some linkage to price increases for meat and poultry, suggests that retail prices for food consumed away from home are likely to rise more than the overall rate of inflation over the next several years.

- In the longer run, prices for food away from home largely reflect the overall rate of inflation. Competition in the fast-food and foodservice industries tends to moderate away-from-home price increases, keeping their gains close to the general inflation rate over the rest of the projection period.

**U.S. food expenditures**




The U.S. economic recession reduced consumer sales for meals eaten away from home in 2009. In response, the away-from-home food industry relied heavily on promotions in 2010 to partly offset otherwise continued weak demand.

- As the domestic economy 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 account for a growing share of total food spending.

Table 37. Farm receipts, expenses, and income, long-term projections

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Billion dollars* | | | | | | |
| Cash receipts: | | | | | | | | | | | | |
| Crops | 163.7 | 171.4 | 192.8 | 187.8 | 182.6 | 182.3 | 184.3 | 186.8 | 189.9 | 193.1 | 195.9 | 198.5 |
| Livestock and products | 119.8 | 140.6 | 143.0 | 149.0 | 153.6 | 156.3 | 158.6 | 161.5 | 164.5 | 168.5 | 172.6 | 176.6 |
| All commodities | 283.4 | 312.1 | 335.8 | 336.9 | 336.2 | 338.5 | 342.8 | 348.4 | 354.4 | 361.6 | 368.5 | 375.2 |
| Farm-related income | 22.0 | 21.0 | 21.1 | 21.4 | 21.9 | 22.4 | 22.9 | 23.5 | 24.0 | 24.5 | 25.1 | 25.6 |
| Government payments | 12.3 | 12.2 | 10.6 | 10.3 | 9.9 | 8.8 | 8.4 | 8.4 | 8.4 | 8.5 | 8.4 | 8.4 |
| Gross cash income | 317.6 | 345.2 | 367.6 | 368.6 | 368.0 | 369.8 | 374.2 | 380.2 | 386.8 | 394.6 | 402.0 | 409.2 |
| Cash expenses | 248.5 | 254.4 | 271.7 | 276.1 | 278.1 | 281.1 | 284.9 | 289.6 | 295.0 | 300.6 | 305.9 | 311.0 |
| Net cash income | 69.1 | 90.8 | 95.8 | 92.6 | 89.9 | 88.6 | 89.3 | 90.6 | 91.8 | 94.0 | 96.1 | 98.2 |
| Value of inventory change | 4.5 | -0.2 | 5.6 | -0.1 | 0.9 | 2.2 | 2.0 | 1.7 | 1.6 | 1.4 | 1.5 | 1.6 |
| Non-money income | 21.1 | 21.7 | 23.1 | 23.6 | 24.1 | 24.6 | 25.0 | 25.5 | 26.0 | 26.5 | 27.1 | 27.6 |
| Gross farm income | 343.2 | 366.7 | 396.3 | 392.2 | 393.1 | 396.5 | 401.2 | 407.4 | 414.4 | 422.6 | 430.6 | 438.4 |
| Noncash expenses | 20.8 | 21.2 | 21.5 | 21.9 | 22.4 | 22.7 | 23.0 | 23.2 | 23.5 | 23.7 | 24.0 | 24.2 |
| Operator dwelling expenses | 11.7 | 11.8 | 12.1 | 12.3 | 12.4 | 12.6 | 12.7 | 12.9 | 13.0 | 13.1 | 13.3 | 13.5 |
| Total production expenses | 281.0 | 287.5 | 305.4 | 310.2 | 312.9 | 316.4 | 320.6 | 325.7 | 331.5 | 337.5 | 343.2 | 348.7 |
| Net farm income | 62.2 | 79.3 | 90.9 | 81.9 | 80.2 | 80.0 | 80.6 | 81.8 | 82.9 | 85.1 | 87.4 | 89.7 |

The projections were completed in December 2010.

Table 38. Summary of U.S. agricultural trade long-term projections, fiscal years

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Billion dollars* | | | | | | |
| Agricultural exports (value): | | | | | | | | | | | | |
| Livestock, dairy, and poultry | 18.6 | 21.5 | 23.0 | 22.8 | 24.2 | 25.5 | 26.2 | 26.8 | 27.3 | 28.0 | 28.9 | 29.7 |
| Livestock, poultry, and products | 16.4 | 18.2 | 19.8 | 19.5 | 20.7 | 21.8 | 22.4 | 22.8 | 23.2 | 23.7 | 24.4 | 25.1 |
| Dairy products | 2.3 | 3.4 | 3.2 | 3.3 | 3.5 | 3.7 | 3.8 | 4.0 | 4.1 | 4.3 | 4.5 | 4.7 |
| Grain and feeds | 26.3 | 27.3 | 35.4 | 32.4 | 29.3 | 28.2 | 28.7 | 29.3 | 30.2 | 31.2 | 32.1 | 32.8 |
| Coarse grains | 10.0 | 9.8 | 13.3 | 12.6 | 11.5 | 11.1 | 11.3 | 11.4 | 11.8 | 12.2 | 12.7 | 13.0 |
| Oilseeds and products | 20.9 | 25.4 | 28.3 | 27.5 | 26.3 | 26.0 | 26.3 | 26.7 | 27.1 | 27.4 | 27.6 | 27.9 |
| Soybeans and products | 17.6 | 22.1 | 24.8 | 23.7 | 22.5 | 22.1 | 22.4 | 22.8 | 23.1 | 23.4 | 23.6 | 23.9 |
| Horticultural products | 20.6 | 22.6 | 24.3 | 25.3 | 26.3 | 27.3 | 28.3 | 29.4 | 30.5 | 31.7 | 32.9 | 34.2 |
| Fruits and vegetables, fresh | 5.4 | 5.9 | 6.2 | 6.5 | 6.7 | 6.9 | 7.2 | 7.4 | 7.7 | 7.9 | 8.2 | 8.5 |
| Fruits and vegetables, processed | 5.4 | 5.6 | 5.9 | 6.1 | 6.3 | 6.5 | 6.7 | 6.9 | 7.1 | 7.4 | 7.6 | 7.8 |
| Cotton | 3.5 | 4.8 | 8.0 | 6.9 | 6.3 | 5.9 | 6.0 | 6.0 | 6.1 | 6.2 | 6.3 | 6.3 |
| Other exports | 6.3 | 7.0 | 7.5 | 7.5 | 7.8 | 8.1 | 8.4 | 8.8 | 9.1 | 9.3 | 9.6 | 10.0 |
| Total agricultural exports | 96.3 | 108.7 | 126.5 | 122.4 | 120.1 | 121.1 | 124.0 | 127.0 | 130.3 | 133.8 | 137.4 | 140.9 |
| Bulk commodity exports | 36.8 | 41.0 | 55.0 | 50.7 | 46.2 | 44.3 | 44.7 | 45.2 | 46.1 | 46.8 | 47.7 | 48.4 |
| High-value product exports | 59.5 | 67.6 | 71.5 | 71.6 | 73.9 | 76.8 | 79.3 | 81.7 | 84.2 | 86.9 | 89.7 | 92.6 |
| High-value product share | 61.8% | 62.3% | 56.5% | 58.5% | 61.5% | 63.4% | 63.9% | 64.4% | 64.6% | 65.0% | 65.3% | 65.7% |
| | | | | | | *Million metric tons* | | | | | | |
| Agricultural exports (volume): | | | | | | | | | | | | |
| Bulk commodity exports | 115.2 | 128.9 | 139.5 | 137.9 | 135.6 | 135.1 | 136.9 | 138.2 | 140.5 | 142.6 | 144.8 | 146.9 |
| | | | | | | *Billion dollars* | | | | | | |
| Agricultural imports (value): | | | | | | | | | | | | |
| Livestock, dairy, and poultry | 10.7 | 10.8 | 11.5 | 12.4 | 12.8 | 13.2 | 13.5 | 13.8 | 14.2 | 14.7 | 15.2 | 15.7 |
| Livestock and meats | 7.6 | 7.9 | 8.5 | 9.3 | 9.6 | 9.8 | 10.0 | 10.2 | 10.5 | 10.8 | 11.2 | 11.5 |
| Dairy products | 2.7 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 |
| Grain and feeds | 7.4 | 7.5 | 8.2 | 8.4 | 8.7 | 9.1 | 9.5 | 9.9 | 10.3 | 10.8 | 11.3 | 11.8 |
| Grain products | 4.5 | 4.9 | 5.4 | 5.7 | 6.0 | 6.3 | 6.6 | 6.9 | 7.2 | 7.6 | 8.0 | 8.4 |
| Oilseeds and products | 5.4 | 5.3 | 5.6 | 5.9 | 6.2 | 6.5 | 6.8 | 7.2 | 7.5 | 7.9 | 8.3 | 8.8 |
| Vegetable oils | 3.7 | 3.8 | 4.0 | 4.2 | 4.5 | 4.7 | 5.0 | 5.2 | 5.5 | 5.8 | 6.1 | 6.5 |
| Horticultural products | 33.0 | 35.5 | 38.5 | 40.8 | 42.6 | 44.3 | 46.2 | 48.2 | 50.2 | 52.3 | 54.5 | 56.9 |
| Fruits and vegetables, fresh | 10.3 | 12.0 | 13.3 | 14.1 | 14.8 | 15.4 | 16.1 | 16.9 | 17.6 | 18.4 | 19.3 | 20.2 |
| Fruits and vegetables, processed | 6.9 | 6.8 | 7.3 | 7.8 | 8.1 | 8.4 | 8.8 | 9.1 | 9.5 | 9.8 | 10.2 | 10.6 |
| Wine and beer | 7.5 | 7.7 | 8.1 | 8.6 | 8.9 | 9.3 | 9.6 | 10.0 | 10.4 | 10.8 | 11.2 | 11.6 |
| Sugar and tropical products | 15.3 | 18.3 | 20.3 | 21.3 | 21.9 | 22.6 | 23.3 | 24.1 | 24.8 | 25.7 | 26.5 | 27.4 |
| Sugar and related products | 3.3 | 4.1 | 4.6 | 5.1 | 5.1 | 5.2 | 5.3 | 5.4 | 5.6 | 5.7 | 5.9 | 6.0 |
| Cocoa, coffee, and products | 7.4 | 8.6 | 9.5 | 9.9 | 10.2 | 10.6 | 11.0 | 11.4 | 11.8 | 12.3 | 12.8 | 13.2 |
| Other imports | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 |
| Total agricultural imports | 73.4 | 79.0 | 85.5 | 90.5 | 93.9 | 97.4 | 101.0 | 104.9 | 108.9 | 113.2 | 117.6 | 122.3 |
| Net agricultural trade balance | 22.9 | 29.7 | 41.0 | 31.9 | 26.2 | 23.7 | 23.0 | 22.1 | 21.4 | 20.6 | 19.8 | 18.6 |

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

U.S. trade value projections were completed in November 2010. 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. 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 39. Prices received by farmers, selected food commodities, long-term projections

| CPI category | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Price indexes: | | | | | | *1990-92=100* | | | | | | |
| Food commodities[1] | 128.0 | 144.0 | 146.8 | 151.4 | 153.4 | 153.9 | 154.4 | 155.3 | 156.7 | 158.8 | 161.0 | 163.0 |
| Food grains | 186.0 | 177.0 | 207.3 | 198.0 | 188.6 | 186.8 | 187.4 | 189.4 | 190.0 | 192.0 | 192.7 | 194.8 |
| Oil-bearing crops | 177.0 | 173.0 | 192.0 | 188.8 | 183.4 | 182.6 | 183.4 | 183.4 | 184.3 | 184.3 | 185.2 | 185.2 |
| Fruit and nuts | 135.0 | 150.0 | 148.6 | 150.9 | 153.2 | 155.6 | 158.0 | 160.4 | 162.9 | 165.4 | 167.9 | 170.5 |
| Vegetables[2] | 158.4 | 164.4 | 166.2 | 167.6 | 169.0 | 170.4 | 171.8 | 173.3 | 174.7 | 176.1 | 177.5 | 179.0 |
| Meat animals | 105.0 | 124.0 | 128.4 | 137.6 | 142.5 | 142.1 | 140.9 | 140.9 | 141.8 | 144.3 | 147.1 | 149.9 |
| Dairy products | 98.0 | 125.0 | 125.0 | 129.2 | 130.4 | 131.9 | 133.0 | 134.9 | 136.5 | 138.7 | 141.0 | 142.6 |
| Poultry and eggs | 139.0 | 151.0 | 151.4 | 158.0 | 163.8 | 166.9 | 169.7 | 171.7 | 174.0 | 176.5 | 178.9 | 181.4 |
| Changes in price indexes: | | | | | | *Percent* | | | | | | |
| Food commodities[1] | 6.5 | 12.5 | 1.9 | 3.1 | 1.3 | 0.3 | 0.3 | 0.6 | 0.9 | 1.3 | 1.4 | 1.2 |
| Food grains | 39.2 | -4.8 | 17.1 | -4.5 | -4.7 | -1.0 | 0.3 | 1.1 | 0.3 | 1.1 | 0.4 | 1.1 |
| Oil-bearing crops | 47.4 | -2.3 | 11.0 | -1.7 | -2.9 | -0.4 | 0.4 | 0.0 | 0.5 | 0.0 | 0.5 | 0.0 |
| Fruit and nuts | -6.3 | 11.1 | -0.9 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 |
| Vegetables[2] | 1.5 | 3.8 | 1.1 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 |
| Meat animals | -0.8 | 18.1 | 3.5 | 7.2 | 3.6 | -0.3 | -0.8 | 0.0 | 0.6 | 1.8 | 1.9 | 1.9 |
| Dairy products | -4.1 | 27.6 | 0.0 | 3.4 | 0.9 | 1.2 | 0.8 | 1.4 | 1.2 | 1.6 | 1.7 | 1.1 |
| Poultry and eggs | 7.9 | 8.6 | 0.3 | 4.4 | 3.7 | 1.9 | 1.7 | 1.2 | 1.3 | 1.4 | 1.4 | 1.4 |

1/ The aggregate price index for food commodities is a weighted average using 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 40. Consumer food price indexes and food expenditures, long-term projections

| CPI category | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consumer price indices | | | | | | *1982-84=100* | | | | | | |
| All food | 217.955 | 219.625 | 225.5 | 232.0 | 237.9 | 243.3 | 248.7 | 254.4 | 260.1 | 266.2 | 272.5 | 279.0 |
| Food away from home | 223.272 | 226.114 | 231.1 | 237.6 | 244.3 | 250.7 | 257.2 | 263.9 | 270.8 | 277.8 | 285.0 | 292.4 |
| Food at home | 215.124 | 215.836 | 222.3 | 228.8 | 234.2 | 239.1 | 243.9 | 248.9 | 254.0 | 259.6 | 265.4 | 271.3 |
| Meats | 200.545 | 206.232 | 212.4 | 222.5 | 227.9 | 230.1 | 231.5 | 233.4 | 235.8 | 239.5 | 243.4 | 247.4 |
| Beef and veal | 218.273 | 224.511 | 231.3 | 243.3 | 248.5 | 250.0 | 250.8 | 252.1 | 254.4 | 258.7 | 263.6 | 268.6 |
| Pork | 181.366 | 189.957 | 196.6 | 207.0 | 213.4 | 216.0 | 217.1 | 219.1 | 221.3 | 224.0 | 226.7 | 229.4 |
| Other meats | 194.901 | 194.787 | 198.5 | 203.7 | 207.9 | 211.4 | 214.8 | 218.0 | 221.3 | 224.6 | 228.0 | 231.4 |
| Poultry | 204.220 | 203.978 | 209.3 | 217.3 | 221.5 | 223.5 | 225.1 | 226.9 | 229.4 | 232.6 | 235.6 | 238.4 |
| Fish and seafood | 240.556 | 243.229 | 250.5 | 258.0 | 265.7 | 273.7 | 281.9 | 290.4 | 299.1 | 308.1 | 317.3 | 326.8 |
| Eggs | 190.024 | 192.833 | 198.6 | 207.0 | 217.8 | 227.0 | 236.3 | 242.4 | 246.3 | 250.2 | 254.2 | 258.9 |
| Dairy products | 197.013 | 199.245 | 209.0 | 214.5 | 218.5 | 223.0 | 227.5 | 232.5 | 237.0 | 242.0 | 247.5 | 252.5 |
| Fats and oils | 201.224 | 200.587 | 208.1 | 212.7 | 217.8 | 223.2 | 228.7 | 234.4 | 240.1 | 246.1 | 252.3 | 258.5 |
| Fruits and vegetables | 272.945 | 273.458 | 281.8 | 287.9 | 294.9 | 302.1 | 309.3 | 316.7 | 324.2 | 331.8 | 339.6 | 347.4 |
| Sugar and sweets | 196.933 | 201.242 | 206.0 | 210.4 | 215.1 | 220.0 | 225.0 | 230.0 | 235.2 | 240.5 | 245.9 | 251.5 |
| Cereals and bakery products | 252.567 | 250.449 | 257.0 | 263.4 | 269.1 | 275.2 | 281.9 | 289.0 | 296.4 | 304.0 | 311.6 | 319.6 |
| Nonalcoholic beverages | 163.034 | 161.602 | 164.0 | 167.3 | 171.5 | 175.8 | 180.2 | 184.7 | 189.3 | 194.0 | 198.9 | 203.9 |
| Other foods | 205.497 | 204.553 | 208.3 | 212.5 | 217.6 | 222.9 | 228.2 | 233.6 | 239.2 | 245.0 | 250.9 | 256.9 |
| Food expenditures: | | | | | | *Billion dollars* | | | | | | |
| All food | 1,182.0 | 1,213.6 | 1,257.2 | 1,307.0 | 1,356.7 | 1,406.2 | 1,457.2 | 1,511.2 | 1,567.7 | 1,627.2 | 1,689.2 | 1,753.6 |
| Food at home | 607.4 | 622.0 | 643.7 | 665.8 | 684.9 | 703.3 | 722.1 | 742.2 | 763.2 | 785.8 | 809.2 | 833.2 |
| Food away from home | 574.5 | 591.6 | 613.5 | 641.2 | 671.8 | 702.9 | 735.1 | 769.0 | 804.5 | 841.4 | 880.0 | 920.4 |
| Changes in consumer food prices: | | | | | | *Percent* | | | | | | |
| All food | 1.8 | 0.8 | 2.7 | 2.9 | 2.5 | 2.3 | 2.2 | 2.3 | 2.2 | 2.3 | 2.4 | 2.4 |
| Food away from home | 3.5 | 1.3 | 2.2 | 2.8 | 2.8 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| Food at home | 0.5 | 0.3 | 3.0 | 2.9 | 2.4 | 2.1 | 2.0 | 2.1 | 2.0 | 2.2 | 2.2 | 2.2 |
| Meats | -0.6 | 2.8 | 3.0 | 4.8 | 2.4 | 1.0 | 0.6 | 0.8 | 1.0 | 1.6 | 1.6 | 1.6 |
| Beef and veal | -1.0 | 2.9 | 3.0 | 5.2 | 2.1 | 0.6 | 0.3 | 0.5 | 0.9 | 1.7 | 1.9 | 1.9 |
| Pork | -2.0 | 4.7 | 3.5 | 5.3 | 3.1 | 1.2 | 0.5 | 0.9 | 1.0 | 1.2 | 1.2 | 1.2 |
| Other meats | 2.3 | -0.1 | 1.9 | 2.6 | 2.1 | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Poultry | 1.7 | -0.1 | 2.6 | 3.8 | 1.9 | 0.9 | 0.7 | 0.8 | 1.1 | 1.4 | 1.3 | 1.2 |
| Fish and seafood | 3.6 | 1.1 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Eggs | -14.7 | 1.5 | 3.0 | 4.2 | 5.2 | 4.2 | 4.1 | 2.6 | 1.6 | 1.6 | 1.6 | 1.8 |
| Dairy products | -6.4 | 1.1 | 4.9 | 2.6 | 1.9 | 2.1 | 2.0 | 2.2 | 1.9 | 2.1 | 2.3 | 2.0 |
| Fats and oils | 2.3 | -0.3 | 3.7 | 2.2 | 2.4 | 2.5 | 2.5 | 2.5 | 2.4 | 2.5 | 2.5 | 2.5 |
| Fruits and vegetables | -2.1 | 0.2 | 3.1 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.4 | 2.3 |
| Sugar and sweets | 5.6 | 2.2 | 2.4 | 2.1 | 2.2 | 2.3 | 2.3 | 2.2 | 2.3 | 2.3 | 2.2 | 2.3 |
| Cereals and bakery products | 3.2 | -0.8 | 2.6 | 2.5 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.5 | 2.6 |
| Nonalcoholic beverages | 1.9 | -0.9 | 1.5 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Other foods | 3.7 | -0.5 | 1.8 | 2.0 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |

## List of Tables