

USDA Agricultural Baseline Projections to 2014

Interagency Agricultural Projections Committee

Introduction

This report provides longrun baseline projections for the agricultural sector through 2014. Projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector, such as farm income and food prices. The baseline identifies major forces and uncertainties affecting future agricultural markets; prospects for global long-term economic growth, consumption, and trade; and future price trends, trade flows, and U.S. exports of major farm commodities.

The projections are a conditional scenario with no shocks and are based on specific assumptions regarding the macroeconomy, agricultural policy, the weather, and international developments. The baseline assumes that current farm legislation, the Farm Security and Rural Investment Act of 2002 (the 2002 Farm Act), remains in effect through the projections period. The projections are not intended to be a Departmental forecast of what the future will be, but instead a description of what would be expected to happen under a continuation of the 2002 Farm Act, with very specific external circumstances. Thus, the baseline is a neutral backdrop, reference scenario that provides 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 in October through December 2004 in support of the fiscal year 2006 President's Budget Estimates. Projections reflect a composite of model results and judgment-based analysis. Normal weather is assumed. Short-term projections included in the baseline are from the November 2004 *World Agricultural Supply and Demand Estimates* report.

Overview of Baseline Assumptions and Projections

Key assumptions underlying the baseline projections include the following:

Economic growth

- World economic growth is projected to strengthen from the slow growth of 2001-03, averaging over 3 percent through 2014. The baseline assumes that growth in the U.S. gross domestic product (GDP) slows from the high recovery rate in 2004, and moves toward a sustainable longrun rate near 3 percent. Strong economic growth in developing countries of more than 5 percent annually is projected for 2006-14.

Population

- Growth in global population is assumed to slow in the baseline, from an annual rate of 1.7 percent in the 1980s to an average of about 1.1 percent over the projection period. Nonetheless, world population increases by more than 700 million people between 2004 and 2014. Although slowing, population growth rates in 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 from 80 percent in 2004 to 82 percent by 2014.

The value of the U.S. dollar

- A continuing depreciation of the U.S. dollar is assumed through 2006. However, the dollar is projected to appreciate again starting in 2007. The strengthening of the U.S. dollar assumes that capital moves into the United States to take advantage of well-functioning financial markets and high expected long-term productivity growth.

Oil prices

- From 2006 to 2009, real oil prices are projected to fall as supply and demand adjust to recent high prices and move the market to a more sustainable long-term balance. In subsequent years, crude oil prices are projected to rise slightly faster than the general inflation rate, as new oil discoveries as well as new technologies for extracting and refining oil allow for substantial demand growth with moderate energy price increases.

U.S. agricultural policy

- The Farm Security and Rural Investment Act of 2002 (2002 Farm Act) is assumed to continue through the projections period.
- Area enrolled in the Conservation Reserve Program (CRP) is assumed to rise to 39.2 million acres from about 35 million acres currently.

- Tobacco projections reflect legislation enacted in October 2004 that ends the Federal tobacco marketing quota and price support loan program after the 2004 crop year and provides for buyout payments to tobacco quota holders and tobacco quota producers.

Asian soybean rust

- The baseline does not include potential effects of Asian soybean rust in the United States. The finding of U.S. cases of soybean rust occurred after the baseline commodity projections were completed (see box, page 24).

Beef trade

- The baseline assumes a gradual rebuilding of U.S. beef exports to Japan, reflecting the October 2004 U.S.-Japan beef trade framework agreement that will permit the resumption of beef trade between the two countries (see box, page 49). A gradual recovery in U.S. beef exports to South Korea is also assumed.
- The resumption of imports from Canada of slaughter cattle under 30 months of age and feeder cattle is assumed to begin in 2006. The baseline projections were prepared before the minimal risk rule was published, which is expected to allow that trade to begin, effective March 7, 2005.

International policy

- Baseline trade projections assume that all countries fully comply with all existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The baseline incorporates effects of trade agreements and domestic policy reforms in place in November 2004, but does not incorporate any effects of agreements not formally ratified by that date.
- Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current path, based on the consensus judgment of USDA's regional and commodity analysts. In particular, economic and trade reform underway in many developing countries is assumed to continue.

Key results in the baseline projections include the following:

- Improved global economic performance and growth in population strengthen demand for food and agricultural products in the baseline, providing the foundation for gains in agricultural trade, U.S. exports, farm commodity prices, and cash receipts. Economic growth in developing countries is important for this result, because consumption and imports of food and feed are particularly responsive to income growth in those countries, with movement away from staple foods and increased diversification of diets.
- The United States will remain competitive in most global agricultural markets, although trade competition will continue to be strong. Expanding production in a number of countries, such as Brazil, Argentina, Canada, Ukraine, and Kazakhstan, provides competition to U.S. exports for some agricultural commodities. Additionally, a strengthening U.S. dollar assumed in the baseline starting in 2007 is a constraining factor for U.S. agricultural competitiveness and export growth in the longer run. Nonetheless, increases in exports contribute to gains in cash receipts to U.S. farmers and improvement in the financial condition of the U.S. agricultural sector.
- Overall meat exports benefit from stronger foreign economic growth in the baseline. Although U.S. beef exports to Japan and South Korea are projected to gradually rebuild, overall beef exports do not return to the levels attained prior to the U.S. case of bovine spongiform encephalopathy (BSE) in 2003.
- Canada continues to be a strong competitor with the United States in pork exports to Pacific Rim nations and Mexico. Canada is also the major supplier of live hog imports to the United States.
- Increased production of pork and poultry allow Brazil to become very competitive in world meat trade, enabling Brazil's pork and poultry exports to sustain strong growth.
- Domestic demand increases for meat, feeds, horticultural products, corn used in ethanol production, and food use of rice.
- Market prices and cash receipts rise, which helps to improve the economic and financial condition of the U.S. agricultural sector. Government payments become relatively less important over time as a greater share of gross cash income comes from the marketplace due to growing domestic and export demands. Increasing gross cash income assists in asset accumulation and debt management, raising farm equity and reducing the debt-to-asset ratio in the sector. Net farm income projections for the next decade average over \$60 billion, compared to \$47.7 billion in the 1990s.
- Consumer food prices are projected to rise less than the general inflation rate.
- Steady global economic growth and stronger global trade lead to gains for U.S. agricultural export volumes and higher commodity prices. Thus, the value of U.S. agricultural exports is projected to grow from \$56 billion in fiscal year 2005 to \$78.6 billion in 2014. High-

value product (HVP) exports continue to account for almost two-thirds of total U.S. exports. Much of the growth in HVP exports is for animal products and horticultural products. Most of the growth in the value of bulk commodity exports reflects expected price increases and gains in volume for grains.

- Increases in U.S. consumer income and demand for a large variety of foods underlie growth in U.S. agricultural imports, which rise from \$56 billion in fiscal year 2005 to more than \$76 billion by 2014. Strong growth in horticultural product imports is assumed to continue in the projections, contributing much of the overall increase in agricultural imports. Processed foods are expected to account for a growing share of U.S. agricultural imports.
- China is projected to be a net importer of corn in the baseline starting in 2007/08, reflecting declining stocks of grain and increasing incomes which raise consumer demand for meat and derived demand for feed for a growing livestock sector.
- Brazil's rapidly increasing area planted to soybeans enables it to gain a larger share of world soybean and soybean meal exports, despite increasing domestic feed use. Its share of world exports of soybeans plus the soybean equivalent of soybean meal exports rises from about 35 percent in recent years to 45 percent by 2014.
- Kazakhstan and Ukraine are projected to have a growing importance in world wheat trade, reflecting low costs of production and continued investments in their agricultural sectors. Their share of world wheat exports is projected to increase from 4-6 percent in recent years to about 11 percent by the end of the period. However, high year-to-year volatility in these countries' production and trade can be expected.
- Removal of textile and apparel import quotas, resulting from the completion of the Multi-Fiber Arrangement (MFA) phaseout on December 31, 2004, is expected to have a major influence on world cotton production and trade. The MFA phaseout is expected to speed the transfer of raw cotton production to countries where resource endowments and technology result in the lowest production costs. Textile production and raw cotton consumption will increase in developing countries, such as China, India, and Pakistan, where labor costs are lowest. Countries in Europe and East Asia with higher cost labor markets will continue to reduce their cotton imports through the baseline.