Highlights of FAPRI 1999 World Agricultural Outlook

The Food and Agricultural Policy Research Institute (FAPRI) prepares baseline projections each year for the U.S. agricultural sector and international commodity markets. FAPRI projections depend primarily on two external factors: macroeconomic assumptions and agricultural policy assumptions. The baseline assumes average weather patterns worldwide, existing policy, and policy commitments under existing trade agreements, but does not make conjectures on likely reforms such as the European Union’s (EU) “Agenda 2000” or the forthcoming round of the World Trade Organization (WTO).

The 1999 baseline outlook predicts short-term weakness in world import demand, with recovery during the latter half of the projection period. As global food demand progressively recovers, the United States is in an excellent position to capitalize on expanding consumption, especially in meats and feed grains. The current weakness is due to abundant supplies and weaker demand in many markets for various commodities. With the progressive recovery of Asian, Latin American, and transitional economies, U.S. exports to these countries will recover in the long run, especially soybean, corn, and meat products.

As shown in Figure 1, the value of U.S. exports will increase more than 40 percent by 2008. Feed grain exports, led by corn, are projected to rise by 19 million metric tons (mmt) by 2008. This growth comes primarily from an increase in per capita meat consumption. World meat production will increase 20 percent to satisfy the additional global demand. And, feed grain use will rise with increased meat production.

The Macroeconomic Assumptions

Macroeconomic projections used in the FAPRI baseline were obtained from Standard & Poor’s DRI, Project Link, and WEFA. World economic growth is projected to slow to 1 percent in 1999. As shown in Figure 2, many Asian and Latin American countries are likely to have negative growth in 1999. After 1999, macro forecasters predict recovery in world economic growth with positive real gross domestic product (GDP) growth in most Asian and Latin American countries.

Among developed countries, Japan, which has the second largest economy in the world, is projected to have –3.2 percent real GDP growth in 1999, and the Former Soviet Union (FSU) countries continue their decline. Over the long run, the macroeconomic outlook calls for sustained and evenly distributed global economic growth. Russia and Ukraine are also projected to turn to positive economic growth during the second half of the projection period.

The Asian situation remains uncertain. Apart from Far East Asian countries, the projections show a slowdown in Chinese economic growth to 4.3 percent in 1999. However, over the long run, China is projected to grow between 7.0 and 7.5 percent. In addition to China, other Asian economies not directly affected by the recent crisis, such as India, Vietnam, and Hong Kong, are also projected to slow significantly in the short run.

The largest economy in the Latin American region, Brazil, is also experiencing financial problems because of its huge government debt and its strong ties with Asian economies. Recently, Brazilian currency was devalued by more than 50 percent, and its real GDP is projected to have negative growth in 1999. Other major countries in the region, such as Argentina, Paraguay, and Venezuela, are also projected to have negative real GDP growth in 1999. Brazil, along with other Latin American countries, is expected to recover quickly, and real GDP of the region is projected to grow between 4.5 and 5.0 percent annually.
World Crop Outlook

World grain production is expected to grow by 13 percent over the next decade, with corn accounting for 16 percent of the increase, followed by wheat with 13 percent. The increased corn production is expected to come from both area and yield, with yield accounting for more than 90 percent of the growth. Developing countries are the primary growth market for world grain imports for the next decade. Many developing countries, particularly Asian countries, are likely to depend on imported food to meet their growing domestic consumption because of limited resources, particularly land. World grain trade is projected to grow more than 24 percent in the next decade.

World grain stock-to-use ratio, which has been increasing since 1996/97, is projected to decline from 17.3 percent in 1998/99 to 15.48 percent in 2008/09. The low stock-to-use ratio in the future suggests that grain prices will be more responsive to any shock from weather, macroeconomic situations, and other external factors. The average grain price is projected to bottom out this year and slowly recover from $127 per metric tons (mt) in 1998/99 to $159 per mt in 2008/09.

Among coarse grains, corn increases more than 36 percent over the projection period. Most of the growth in import demand is likely to come from developing regions, see Figure 3. Asia remains the fastest growing market for corn, accounting for more than 50 percent of the increase, followed by Latin America with 13 percent growth in import demand. Among Asian markets, China remains a wild card player. Slow economic growth is likely to slow the growth in animal production, and China is projected to be a net exporter of corn until 2002/03. However, during the second half of the projection period, domestic demand is likely to outpace production, leaving the country in a net importer position. By 2008/09, China is projected to import more than 5 mmt of corn.

World wheat trade is projected to decline by more than 5 percent in 1998/99. The decline would have been much higher without the more than 4 mmt of wheat exported through food aid by the United States and the EU. Contrary to general belief, this decline is attributable to lower imports by traditionally large wheat importing countries, such as China, India, Pakistan, Iran, and Morocco, rather than the results of the Far East Asian financial turmoil. Even with lower world wheat trade and a rebound in production during 1999/00, the FOB Gulf wheat price is expected to rise by more than $14 per ton because of lower carry-over stock.

After 1999/00, as economies recover from the financial crisis, world wheat trade is projected to increase by more than 15 percent in the following decade. Most of the growth is expected to come from developing countries, where strong economic growth increases domestic wheat demand, especially in Asia. U.S. wheat exports will grow steadily through 2005/06 as weak world prices limit EU exports to levels stipulated by the General Agreement on Trade and Tariffs (GATT). However, after 2005/06, the EU is projected to be able to export without subsidy, limiting U.S. exports through 2008/09.

World oilseed area harvested is expected to continue expanding over the projection period, although at a slower rate. The total harvested area under selected oilseed crops is expected to be around 147.2 million hectares (mha) by 2008/09, and the total oilseeds production is projected to reach 284 mmt by 2008/09 (an increase of 16.4 percent). There is a similar increase in oilseeds crush (19.5 percent). World oilseed prices are expected to fall again for the next year and stabilize thereafter, registering a moderate increase over the rest of the projection period.

World meal consumption is expected to increase sharply from the current 141.1 mmt to nearly 170 mmt by the end of the projection period. Among different oil meals, the highest absolute increase is expected in soy meal consumption (more than 21 mmt, which is very similar to the

![Figure 1. Value of U.S. Agricultural Exports](image1)

![Figure 2. Real GDP Growth Rates](image2)
increase in soy meal production expected from the nearly 28 mmt increase in soybean crush). The EU imported record amounts of soy meal during 1998/99, an increase of about 1 mmt over the last year and 2.6 mmt over 1997/98. In the long run, the demand for soy meal is primarily driven by the demand from the EU and the expansion of the Chinese meat sector.

Increasing incomes in less-developed countries play a crucial role in the nearly 16.3 mmt increase in selected vegetable oil consumption by 2008/09. On a per capita basis, world vegetable oil consumption is expected to increase by another 1.5 kilograms (kg) per person per year over the entire period. The largest increase is expected for palm oil and soy oil (0.5 kg for each), followed by rapeseed. Lower initial prices boost stock levels early in the projection period, and prices are expected to level off subsequently. Vegetable oil prices are projected to fall in the early projection years but are expected to strengthen later in the projection period.

U.S. oilseeds and oilseed product exports are expected to rise, with soybeans accounting for most of the increase. Although soybean oil and meal consumption are rising significantly in developing countries, the United States is unlikely to capture much of the market expansion because of competition from Argentina and Brazil. The United States is projected to capture 10 percent of the 10 mmt increase in demand.

**World Meat**

Excess pork supplies, which pushed processors to capacity, have kept hog prices low, allowing U.S. exporters to post an 18 percent increase in shipments, despite a downturn in Asian demand. Hog prices in 1999 are expected to average $35.41 per hundredweight, enabling U.S. exporters to increase their share of the international pork market and boost exports an additional 14 percent. Continued export growth will help bring U.S. hog prices back to more than $40 per hundredweight in 2000 and for most of the next decade.

China will remain the world’s largest producer of pork in the next decade. Pork production in China is projected to climb more than 50 percent, spurred by continued growth in domestic consumption. In the long run, strong domestic demand will put upward pressure on Chinese hog prices and reduce China’s pork exports.

Pork imports by Japan and Hong Kong rise in response to growing per capita income. Japanese pork imports are projected to grow more than 38 percent in the next 10 years. Consumers in Hong Kong are purchasing more meat from supermarkets, increasing the demand for frozen pork products. Hong Kong pork imports rise to 337 thousand metric ton (tmt) by 2008; however, most likely between 100 and 150 tmt will be unofficially transshipped to Mainland China.

U.S. exports of beef and poultry are expected to decline slightly this year, but broad-based growth in meat trade is projected to coincide with the recovery of most Asian economies in 2000. Low cattle prices and gradually rising feed costs are projected to induce further declines in slaughter and beef production in the United States until prices peak in 2002.

Despite rising cattle prices and beef imports, weak domestic demand allows U.S. beef net exports to rise more than 80 tmt annually after 2000. High-quality beef exports will allow the United States to surpass Australia as the world’s largest beef exporter in 2001 and to become a net exporter of beef in 2003.

The combination of rising Canadian beef prices and growing packing capacity is expected to reduce Canadian live cattle exports to the United States. Beef consumption in Mexico is projected to grow at an average rate of 1.6 percent annually over the next decade. Production rises slightly slower than consumption, prompting an average increase in beef imports of 15 tmt each year, see Figure 4.

Argentine cattle inventories and beef production declined again in 1998, but high domestic beef prices, declining feed costs,
and a positive outlook for the industry spur steady growth in Argentina’s beef sector for the remainder of the projection period. Brazilian beef production increases 16 percent over the next decade, but a 5 percent increase in per capita beef consumption keeps Brazilian exports from growing appreciably.

Russian beef imports in 2000 are projected to be 30 percent below the 1997 level as a consequence of the economic downturn in August 1998, see Figure 4. As economic growth begins, per capita beef consumption is expected to stabilize at 14.1 kg per person; however, more than a decade of declining cattle inventories prevents domestic production from recovering before the end of the projection period.

Likewise, low production costs and competitive prices make it possible for the United States to capture virtually all the projected growth in the international broiler market after 2000. Also, U.S. poultry exports to Mexico will double following the elimination of barriers under the North American Free Trade Agreement (NAFTA).

Over the next 10 years, per capita poultry consumption is projected to rise an average of 1.4 percent annually. World poultry production will grow briskly at 2.8 percent each year. Roughly 40 percent of the total growth in production is expected to occur in the United States. Other countries experiencing major increases in poultry output are China, Brazil, the EU, and Mexico. Broiler trade expands 39.8 percent from 1998 to 2008 for a total change of more than 1.3 mmt. China, Japan, and Mexico account for 73 percent of the import growth. Hong Kong, Russia, and South Korea absorb the remainder of the increase in broiler exports. U.S. exports of broiler meat are projected to climb rapidly, rising an average 5.5 percent annually. Low production costs, high quality, and competitive prices allow the United States to capture virtually all of the projected growth in international broiler trade.

**World Dairy**

Cheese demand dominates the U.S. dairy sector in the coming decade. U.S. non-fat dry (NFD) milk prices will drop 12.5 percent after federal support prices are removed, yet prices will remain well above international levels, limiting unsubsidized U.S. dairy exports.

Per capita cheese demand around the world grows an average of 8 percent over the next decade for a total increase in cheese consumption of 18.8 percent. The United States and the EU account for 71 percent of the total increase in cheese consumption, and Argentina, Brazil, and Japan account for an additional 16.3 percent. Excluding Japan, domestic producers supply virtually all of the additional cheese consumed in these countries. Growing cheese demand in Japan is met by imports, largely from Australia and New Zealand. International cheese prices dropped 8 percent in 1998 as a consequence of below-average Russian imports. Beginning in 1999, cheese prices gradually ascend, remaining above $2,400 per mt for the majority of the projection period. WTO export subsidy constraints will cause EU cheese exports to fall slightly in the next two years; however, strong international prices will enable EU cheese exports to grow slowly after 2001.

In the long run, rising demand for NFD in Mexico and Asia outpaces domestic production, causing imports and international prices to creep upward. The strong demand for cheese in the United States and Europe attracts milk from production of other dairy products in these countries, adding to the upward pressure on international milk powder and butter prices. Whole milk powder trade is projected to grow a modest 4.5 percent over the next decade.

In summary, the world outlook is characterized by excess supply and falling prices in the short run in many markets. In the longer run, economic recovery and declining inventory-to-use ratios will increase demand and induce higher prices for most commodities—a more optimistic outlook!