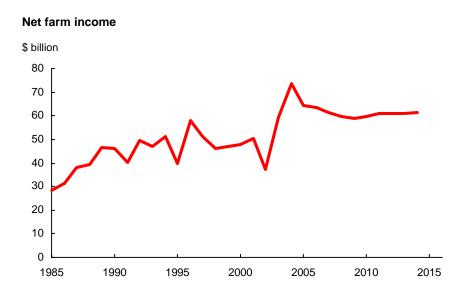
# U.S. Agricultural Sector Aggregate Indicators Farm Income, Food Prices, and U.S. Trade Value

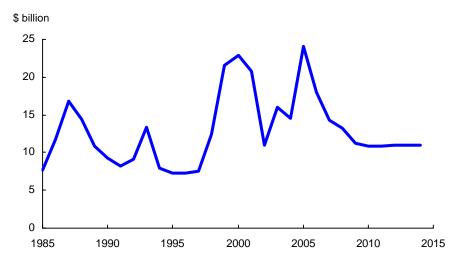
Longrun developments for the U.S. farm sector reflect steady domestic and international economic growth, which support gains in consumption, trade, and prices. With productivity of U.S. agriculture growing faster than domestic demand, farmers rely increasingly on export market growth. Although export competition is projected to continue, global economic growth, particularly in developing countries, provides a foundation for gains in world trade and U.S. agricultural exports. Combined with gains in domestic demand, the results are rising market prices and cash receipts, as well as improvement in the financial condition of the agricultural sector. Consumer food prices are projected to rise more slowly than the general rate of inflation.



Strengthening domestic and export demands help to improve financial conditions in the sector. Income projections for the next decade average about \$61 billion, sharply higher than the \$47.7 billion average in the 1990s. Gross cash income (cash receipts, direct government payments, and farm-related income) gradually rises through the projections, with cash receipts for both crops and livestock increasing.

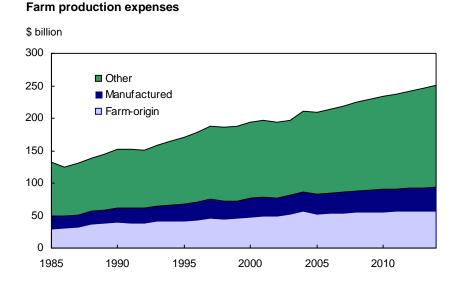
- Net farm income falls from the record high 2004 level over the next several years, reflecting changes in cash receipts that are largely offset by changes in government payments, large swings in changes in the value of inventory, and generally rising farm production expenses.
- As growing demand pushes market prices and cash receipts higher, gains in gross incomes match increases in production expenses. This results in net farm income stabilizing at near \$60 billion, particularly after prices for crops rise high enough to eliminate most counter-cyclical payments and stabilize aggregate government payments to farmers.

### **Direct government payments**



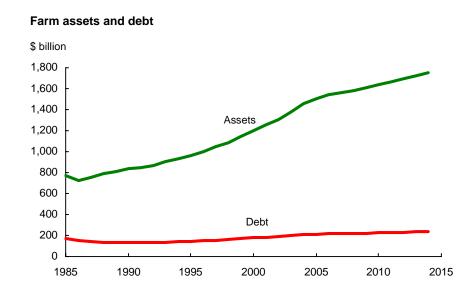
After a large increase in government payments in 2005 that reflects emergency spending and higher expenditures for price-linked programs, government payments fall and level off as rising market prices for program commodities reduce marketing loan benefits and counter-cyclical payments.

- Direct government payments to farmers are projected to fall from over \$24 billion in 2005 to about \$11 billion in 2010-14. Toward the end of the projections, direct government payments largely reflect fixed direct payments under the 2002 Farm Act and conservation payments.
- With government payments stabilizing, the agriculture sector relies increasingly on the market for more of its income and the share of income provided by government payments declines. Government payments, which are projected to represent about 9 percent of gross cash income in 2005, account for less than 4 percent at the end of the projections.



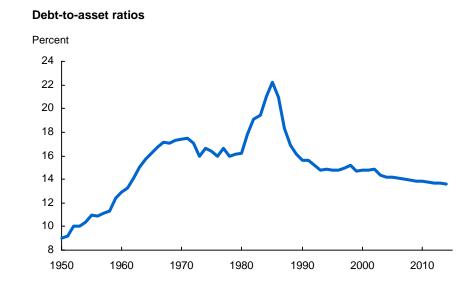
Total production expenses increase at slightly less than the general inflation rate in the projections. These expenses are divided into three categories in the chart above: farm-origin (seed, feed, and feeder livestock), manufactured (fuel, fertilizer, pesticides, and electricity), and other (labor, interest, and other expenses).

- The largest percentage increase is for the other expenses category, reflecting increases in labor expenses and interest costs. Labor expenses rise as sector output increases and wage rates rise. Projected increases in interest costs reflect higher interest rates, as well as higher debt facilitated by rising gross cash income.
- Increases in manufactured input expenses reflect movements in oil prices and expansion of crop production. Overall, these expenses rise less than the general rate of inflation as increases in 2006-09 are held down by decreases in oil prices from recent highs.
- Cash operating margins tighten somewhat over the next several years as expenses rise while changes in cash receipts and government payments combine to keep gross cash incomes relatively constant. For 2009-14, however, as government payments level off, operating margins stabilize, with cash expenses representing 75-76 percent of gross cash income.



Increasing cash receipts and gross cash income assist in asset accumulation and debt management, with farm equity rising through the projections.

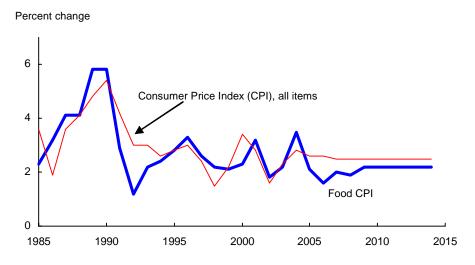
- Gains in farmland values and real estate assets (representing about 80 percent of total farm assets) reflect increases in agricultural revenues, as well as rising demand for nonagricultural land uses, such as housing and recreation.
- There is considerable variation in the growth of farmland prices across the country. This reflects a variety of factors, including differences in land quality and location, demand for urban development and recreational use, credit conditions, nonfarm investment opportunities, and production risks and weather uncertainties unique to each region's agriculture. As the general economy continues to expand, demand for land for nonagricultural uses contributes to rising farmland values. Farmland in areas with recreational amenities also will increase in value as second-home market demand remains strong.
- Farm debt moves up less rapidly than asset values in the projections, rising an average of about 1.2 percent per year compared with an increase of 1.7 percent annually for assets, resulting in equity gains of 1.8 percent.



Increasing gross cash income assists in asset accumulation and debt management, raising farm equity and leading to improved financial conditions in the agricultural sector.

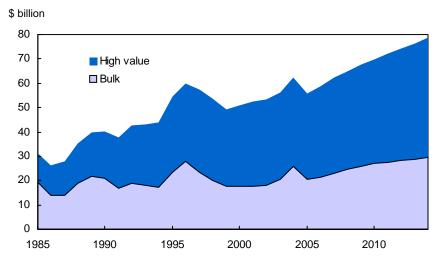
• Debt-to-asset ratios decline moderately in the projections to under 14 percent by 2014, compared with over 20 percent in the mid-1980s.

## **Food inflation**

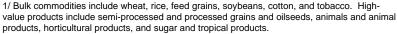


Retail food prices are projected to increase less than the general inflation rate.

- Among foods purchased for consumption at home, projected price increases are generally strongest for more highly processed foods such as cereals and bakery products and fats and oils. For these foods, prices are related more to processing and marketing costs than to farm-level prices and, therefore, rise at a rate near the general inflation rate.
- Prices for food away from home reflect a large service component, with gains held down by competition in the fast-food and foodservice industries.



U.S. agricultural export value: Bulk and high value 1/

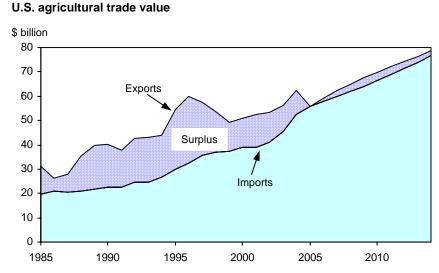


A forecasted decline in the value of U.S. agricultural exports and an increase in agricultural imports for fiscal year 2005 are expected to result in a U.S. agricultural trade balance of 0, which, if realized, would be the first year without a surplus since 1959 (see box, page 68). The 2005 export value decline results from large 2004 production and lower prices for many grains, oilseeds, and fibers and reduced exports of beef due to BSE-related bans on shipments to Japan and South Korea. Strong domestic economic growth and consumer demand boost imports in 2005, particularly horticultural products, continuing to reflect U.S. consumer preferences for a wide variety of foods. Beyond 2005, as export demand rises in the baseline due to increasing global income and as commodity prices strengthen from recent lows, U.S. exports rise more than imports through most of the projections. The agricultural trade surplus increases moderately to over \$3 billion before declining in the last few years of the projections as export growth slows while imports growth continues.

- Strengthening world economic growth, particularly in developing countries, provides a foundation for gains in trade and U.S. agricultural exports. However, competition in global markets remains strong. Overall, 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 grow, accounting for almost two-thirds of total U.S. exports. Much of the growth in HVP exports is in animal products and horticultural products. Most of the growth in the value of bulk commodity exports (grains, oilseeds, cotton, and tobacco) reflects expected price increases and gains in volume for grains.
- U.S. agricultural imports rise to more than \$76 billion in 2014, reflecting gains in consumer income and demand for a large variety of foods. Strong growth in horticultural imports is assumed to continue in the projections, contributing much of the overall agricultural import increase. Processed foods are expected to account for a growing share of total agricultural imports.

## **U.S. Agricultural Trade Balance**

Although the U.S. agricultural trade balance is a closely watched measure, it is not an indicator of export competitiveness or import dependence. Trade is a means of providing for the needs and wants of consumers that are not satisfied domestically or are produced more cheaply elsewhere. U.S. farmers and food manufacturers do not and cannot produce all or enough of the foods that Americans desire, especially tropical products. Thus, the United States imports large quantities of grain products, vegetable oils, horticultural products, beef, pork, and cattle. Likewise, foreign producers cannot meet all the food needs of consumers abroad. The United States remains a competitive exporter of grains, oilseeds, horticultural products, red meats, poultry, and cotton.



U.S. agricultural imports generally differ from U.S. agricultural exports and will continue to increase independently of exports. U.S. imports consist mostly of high-value products, with very little bulk imports. In contrast, although the share has declined in the past 25 years, about 37 percent of U.S. exports are bulk commodities. A lower U.S. agricultural trade surplus does not signal reduced competitiveness of the U.S. farm sector, but rather Americans' preference for a wide variety of foods and beverages. It also reflects intense competition among foreign food producers and manufacturers and American companies abroad and their affiliates to supply the large American market.

Domestic population growth, income gains, and consumer tastes push U.S. agricultural imports and total food spending higher in the baseline projections. Fueled largely by immigration, the size and diversity of the population in the United States will continue to increase. Both the quantity and the variety of imported foods are projected to grow, with imports accounting for a rising share of total food consumed as well. U.S. agricultural exports, which depend on economic gains and population growth in the rest of the world, are also projected to increase. Both imports and exports are dependent on the dollar's exchange value. The higher the purchasing power of the dollar, the faster imports will grow relative to exports, enabling Americans to buy more of the foods they want. In the baseline projections, the result is a smaller agricultural trade surplus than historical levels.

**For more information on this topic**, see "The U.S. Ag Trade Balance. . . More Than Just A Number," by Alberto Jerardo, *Amber Waves*, USDA, ERS, February 2004, pp. 36-41, available at: http://www.ers.usda.gov/AmberWaves/February04/pdf/features\_agtradebalance.pdf.

Table 29	Farm receipts	expenses	, and incomes in nominal dollars	
	i anni ieceipio,	expenses,		

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
						Billion	dollars					
Cash receipts:												
Crops	106.2	113.2	104.6	106.2	109.9	113.6	117.0	120.1	123.0	125.4	127.8	130.6
Livestock and products	105.5	122.2	117.9	121.0	123.5	124.5	126.2	128.3	130.1	131.2	132.2	133.8
All commodities	211.6	235.4	222.4	227.2	233.4	238.1	243.3	248.5	253.2	256.6	260.0	264.3
Farm-related income	16.3	16.1	16.8	17.2	17.6	18.1	18.5	19.0	19.4	19.9	20.3	20.8
Government payments	15.9	14.5	24.1	18.0	14.3	13.3	11.2	10.9	10.9	11.0	10.9	10.9
Gross cash income	243.9	266.1	263.4	262.4	265.3	269.5	273.0	278.3	283.5	287.4	291.3	296.1
Cash expenses	175.4	188.3	185.3	190.0	195.5	201.0	205.2	209.7	213.5	217.7	221.6	225.9
Net cash income	68.6	77.8	78.1	72.4	69.8	68.5	67.8	68.6	70.0	69.7	69.7	70.2
Value of inventory change	0.8	6.1	-3.4	1.3	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Non-money income	12.1	12.9	13.4	13.7	14.0	14.2	14.5	14.7	14.9	15.2	15.4	15.7
Gross farm income	256.9	285.0	273.4	277.5	280.8	284.8	288.6	294.1	299.5	303.7	307.8	312.9
Noncash expenses	15.4	16.1	16.6	16.6	16.8	16.9	17.0	17.2	17.3	17.5	17.7	17.9
Operator dwelling expenses	6.8	7.0	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.7	7.8
Total production expenses	197.6	211.4	208.9	213.8	219.5	225.2	229.6	234.4	238.4	242.9	247.0	251.6
Net farm income	59.2	73.6	64.4	63.7	61.3	59.6	58.9	59.7	61.1	60.8	60.8	61.3
Farm assets	1,378.8	1,452.9	1,504.5	1,543.2	1,559.7	1,579.6	1,608.5	1,634.0	1,663.1	1,693.5	1,724.1	1,754.2
Farm debt	198.0	205.9	213.3	217.0	218.7	220.4	223.3	226.1	229.0	232.0	235.0	238.0
Farm equity	1,180.8	1,247.0	1,291.2	1,326.1	1,341.0	1,359.2	1,385.2	1,407.8	1,434.0	1,461.5	1,489.1	1,516.2
						Per	cent				132.2 260.0 20.3 10.9 291.3 221.6 69.7 1.1 15.4 307.8 17.7 7.7 247.0 60.8 1,724.1 235.0 1,489.1 15.8	
Debt/equity ratio	16.8	16.5	16.5	16.4	16.3	16.2	16.1	16.1	16.0	15.9	15.8	15.7
Debt/assets ratio	14.4	14.2	14.2	14.1	14.0	14.0	13.9	13.8	13.8	13.7	13.6	13.6

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
						Billion 199	96 dollars <sup>1</sup>					
Cash receipts:												
Crops	93.9	97.8	88.2	87.5	88.7	89.6	90.3	90.7	90.9	90.7	90.4	90.4
Livestock and products	93.3	105.7	99.5	99.7	99.6	98.2	97.4	96.9	96.2	94.9	93.6	92.6
All commodities	187.1	203.5	187.7	187.2	188.2	187.8	187.7	187.7	187.1	185.5	184.0	183.1
Farm-related income	14.5	13.9	14.2	14.1	14.2	14.2	14.3	14.3	14.4	14.4	14.4	14.4
Government payments	14.1	12.5	20.3	14.9	11.5	10.5	8.6	8.2	8.0	7.9	7.7	7.6
Gross cash income	215.7	230.0	222.3	216.2	214.0	212.5	210.6	210.2	209.5	207.8	206.1	205.0
Cash expenses	155.0	162.7	156.3	156.5	157.7	158.5	158.3	158.4	157.8	157.4	156.8	156.4
Net cash income	60.6	67.2	65.9	59.6	56.3	54.0	52.3	51.8	51.7	50.4	49.3	48.6
Value of inventory change	0.7	5.2	-2.9	1.1	1.2	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Non-money income	10.7	11.1	11.3	11.3	11.3	11.2	11.2	11.1	11.0	11.0	10.9	10.9
Gross farm income	227.1	246.3	230.7	228.6	226.4	224.6	222.6	222.1	221.4	219.6	217.8	216.7
Noncash expenses	13.7	13.9	14.0	13.7	13.5	13.3	13.1	13.0	12.8	12.7	12.5	12.4
Operator dwelling expenses	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.6	5.6	5.5	5.5	5.4
Total production expenses	174.7	182.7	176.3	176.1	177.0	177.6	177.2	177.0	176.2	175.6	174.8	174.2
Net farm income	52.4	63.6	54.4	52.5	49.4	47.0	45.5	45.1	45.2	44.0	43.0	42.4
Farm assets	1,219.1	1,255.7	1,269.6	1,271.1	1,257.8	1,245.8	1,241.1	1,234.1	1,229.2	1,224.5	1,220.2	1,214.8
Farm debt	175.1	178.0	180.0	178.8	176.4	173.9	172.3	170.8	169.3	167.7	166.3	164.8
Farm equity	1,044.0	1,077.8	1,089.6	1,092.4	1,081.4	1,071.9	1,068.8	1,063.3	1,059.9	1,056.8	1,053.9	1,050.

1/ Nominal dollar values divided by the GDP chain-type price index.

CPI category	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Consumer price indexes:						19	82-84=10	0					
All food	176.2	180.0	186.2	190.3	193.4	197.3	201.2	205.6	210.1	214.9	219.6	224.3	229.2
Food away from home	178.3	182.1	187.5	191.5	195.5	199.3	203.3	207.4	211.5	215.7	220.1	224.4	228.9
Food at home	175.6	179.4	186.2	190.3	192.9	196.9	200.7	205.3	210.1	215.2	220.1	225.1	230.3
Meats	160.3	169.0	183.2	185.8	181.0	181.9	180.9	182.3	184.6	186.9	189.0	191.2	193.4
Beef and veal	160.6	175.1	195.3	197.0	186.6	187.5	185.4	187.0	189.8	192.7	194.9	196.8	198.7
Pork	161.8	164.9	174.2	178.0	178.0	177.8	176.7	177.2	178.2	179.5	180.9	183.2	185.5
Other meats	161.9	166.0	173.4	176.1	178.2	180.2	182.0	184.3	186.8	189.3	192.0	194.9	197.9
Poultry	167.0	169.1	181.7	183.0	185.3	186.2	187.3	192.2	195.4	200.2	203.1	207.2	210.9
Fish and seafood	188.1	190.0	194.3	199.2	204.2	209.3	214.5	219.9	225.4	231.0	236.8	242.7	248.8
Eggs	138.2	157.3	167.0	163.0	151.5	149.7	149.7	151.4	154.0	159.6	164.4	167.3	170.2
Dairy products	168.1	167.9	180.2	184.9	190.1	194.6	199.3	204.1	208.9	214.1	218.5	222.8	227.5
Fats and oils	155.4	157.4	167.8	172.3	176.9	181.2	185.7	190.3	194.9	199.8	204.6	209.3	214.3
Fruits and vegetables	220.9	225.9	232.7	240.2	248.1	256.2	264.7	273.4	282.4	291.8	301.4	311.3	321.7
Sugar and sweets	159.0	162.0	163.2	167.3	170.1	172.8	176.8	181.2	184.5	188.5	191.4	195.2	199.1
Cereals and bakery products	198.0	202.8	206.0	210.3	214.7	220.0	225.6	231.4	237.1	243.0	249.0	254.8	261.0
Nonalcoholic beverages	139.2	139.8	140.4	143.3	146.3	149.4	152.5	155.7	159.0	162.3	165.7	169.2	172.8
Other foods	177.1	178.8	179.7	184.4	189.1	193.6	198.2	203.0	207.8	212.8	218.0	223.2	228.5

CPI category	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
	Percent													
All food	1.8	2.2	3.4	2.2	1.6	2.0	2.0	2.2	2.2	2.3	2.2	2.1	2.2	
Food away from home	2.5	2.1	3.0	2.1	2.1	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Food at home	1.3	2.2	3.8	2.2	1.4	2.1	1.9	2.3	2.3	2.4	2.3	2.3	2.3	
Meats	0.6	5.4	8.4	1.4	-2.6	0.5	-0.5	0.8	1.3	1.2	1.1	1.2	1.2	
Beef and veal	0.1	9.0	11.5	0.9	-5.3	0.5	-1.1	0.9	1.5	1.5	1.1	1.0	1.0	
Pork	-0.4	1.9	5.6	2.2	0.0	-0.1	-0.6	0.3	0.6	0.7	0.8	1.3	1.3	
Other meats	3.5	2.5	4.5	1.6	1.2	1.1	1.0	1.3	1.4	1.3	1.4	1.5	1.5	
Poultry	1.3	1.3	7.5	0.7	1.3	0.5	0.6	2.6	1.7	2.5	1.4	2.0	1.8	
Fish and seafood	-1.6	1.0	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Eggs	1.3	13.8	6.2	-2.4	-7.1	-1.2	0.0	1.1	1.7	3.6	3.0	1.8	1.7	
Dairy products	0.6	-0.1	7.3	2.6	2.8	2.4	2.4	2.4	2.4	2.5	2.1	2.0	2.1	
Fats and oils	-0.2	1.3	6.6	2.7	2.7	2.4	2.5	2.5	2.4	2.5	2.4	2.3	2.4	
Fruits and vegetables	4.1	2.3	3.0	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	
Sugar and sweets	2.1	1.9	0.7	2.5	1.7	1.6	2.3	2.5	1.8	2.2	1.5	2.0	2.0	
Cereals and bakery products	2.2	2.4	1.6	2.1	2.1	2.5	2.5	2.6	2.5	2.5	2.5	2.3	2.4	
Nonalcoholic beverages	0.0	0.4	0.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
Other foods	0.6	1.0	0.5	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	

### Table 31. Consumer food price indexes baseline

### Table 33. Summary of U.S. agricultural trade projections, fiscal years

	2002	2003	2004	2005 /1	2006	2007	2008	2009	2010	2011	2012	2013	2014
							Billion d	ollars					
Agricultural exports:													
Animals and products	11.9	12.1	10.8	10.8	11.3	11.7	12.1	12.6	13.2	13.8	14.5	15.2	16.1
Grains, feeds, and products	14.2	14.8	17.9	15.1	15.9	17.6	18.7	19.9	20.9	21.7	22.4	23.0	23.6
Oilseeds and products	9.8	10.2	11.2	8.8	9.4	9.6	10.0	10.5	10.6	10.8	10.9	11.0	11.1
Horticultural products	11.1	11.9	13.3	13.8	14.0	14.4	14.8	15.2	15.6	16.0	16.5	16.9	17.4
Tobacco, unmanufactured	1.1	1.0	1.1	1.1	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.2
Cotton and linters	2.1	2.9	4.5	3.1	3.8	4.4	4.4	4.5	4.5	4.5	4.5	4.6	4.6
Other exports	3.2	3.3	3.5	3.3	3.6	3.8	3.9	4.1	4.2	4.3	4.5	4.6	4.7
Total agricultural exports	53.3	56.2	62.3	56.0	58.9	62.2	64.6	67.5	69.8	72.1	74.3	76.4	78.6
Bulk commodities exports	18.2	20.4	25.8	20.5	21.4	23.1	24.4	25.8	26.9	27.6	28.4	28.9	29.5
High-value product exports	35.1	35.8	36.5	35.5	37.5	39.1	40.2	41.7	42.9	44.5	45.9	47.5	49.1
High-value product share	65.9%	63.8%	58.6%	63.3%	63.7%	62.9%	62.2%	61.8%	61.5%	61.7%	61.8%	62.1%	62.5%
Agricultural imports:													
Animals and products	9.1	8.6	10.4	11.1	11.2	11.6	11.8	12.1	12.4	12.8	13.2	13.7	14.2
Grains, feeds, and products	3.6	3.9	4.2	4.3	4.5	4.7	4.9	5.2	5.4	5.7	6.0	6.2	6.5
Oilseeds and products	1.7	2.0	2.9	2.5	2.7	2.8	3.0	3.1	3.3	3.5	3.6	3.8	4.0
Horticultural products	17.5	20.2	22.9	24.8	25.9	26.8	27.7	28.7	29.6	30.7	31.7	32.8	33.9
Tobacco, unmanufactured	0.7	0.7	0.8	0.9	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4
Sugar and related products	1.7	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7	2.8	2.9
Coffee, cocoa, and rubber	4.0	5.3	6.1	6.7	6.9	7.2	7.5	7.8	8.1	8.5	8.8	9.2	9.6
Other imports	2.6	3.0	3.3	3.6	3.7	3.8	4.0	4.2	4.3	4.5	4.7	4.9	5.1
Total agricultural imports	41.0	45.7	52.7	56.0	57.9	60.0	62.0	64.1	66.3	68.8	71.3	73.9	76.6
Net agricultural trade balance	12.3	10.5	9.6	0.0	1.0	2.2	2.7	3.4	3.5	3.4	3.0	2.5	2.0
						I	Million me	tric tons					
Agricultural exports (volume):													
Bulk commodity exports	113.9	106.0	115.1	117.4	123.8	127.7	131.2	134.0	136.8	139.6	142.2	144.8	147.0

Notes: Other exports consists of seeds, sugar and tropical products, and beverages and preparations. Essential oils, fruit juices, wine, and beer are included in horticultural products. Bulk commodities include wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value product (HVP) values are calculated as total exports less the bulk commodities. HVP's includes semi-processed and processed grains and oilseeds, animals and products, horticultural products, and sugar and tropical products. Other imports include seeds, beverages except beer and wine, and miscellaneous commodities.