# **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.

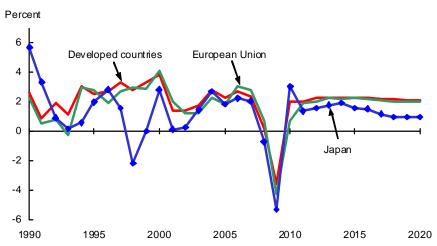
#### Percent 5 World 4 3 **United States** 2 1 0 -1 -2 -3 2000 2005 2010 2020 1990 1995 2015

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.





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.

<u>Labor Market Risks in Developed Economies</u>. 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.

<u>Financial Market Risks</u>. 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.

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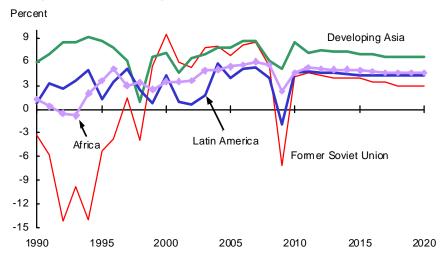
### **Macroeconomic Risks in the Projections** (Continued)

<u>U.S. Business Confidence Risks.</u> 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>U.S. Dollar Risks.</u> 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.

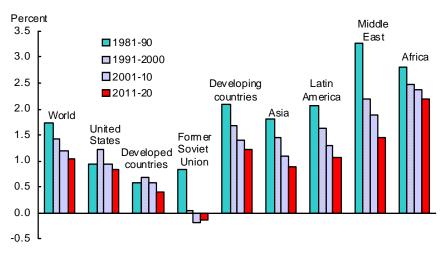




Economic growth in developing countries is projected to average close to 6 percent annually during 2011-20. These countries were much less affected by the global recession than were the developed countries. The pattern of developing countries producing and consuming a larger share of world output, relative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

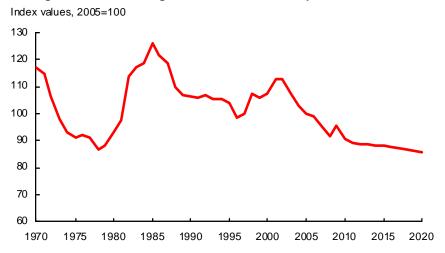


Source: U.S. Department of Commerce, U.S. Census Bureau and U.S. Department of Agriculture. Economic Research Service.

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/

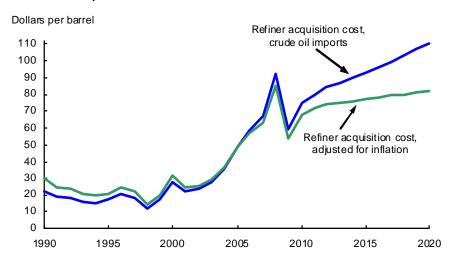


1/ Real U.S. agricultural trade-weighted do llar exchange rate, using U.S. agricultural export weights, based on 192 countries.

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.

### U.S. crude oil prices



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

Table 1. U.S. macroeconomic assump	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
llem	2009	2010	2011	2012	2013	2014	2013	2010	2017	2010	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 percent change	175.2 -30.4	210.3 20.0	218.7 4.0	223.0 2.0	225.3 1.0	227.5 1.0	229.8 1.0	232.1 1.0	234.4 1.0	236.8 1.0	239.1 1.0	241.5 1.0
Crude oil price, \$/barrel	50.0	74.0	00.4	040	07.0	00.0	00.0	00.5	00.0	400.4	407.0	440.0
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 percent change	53.9 -36.8	67.8 25.8	71.6 5.6	74.1 3.5	75.2 1.5	76.1 1.2	77.1 1.3	78.1 1.3	79.1 1.3	80.2 1.3	81.2 1.3	82.3 1.3
percent change	30.0	20.0	0.0	0.0	1.0	1.2	1.5	1.5	1.0	1.0	1.0	1.0
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

Table 2. Global real GDF grow in as	, , , , , , , , , , , , , , , , , , ,	Share of world GDP	Per capita income,						_		Average	
Region/country	GDP, 2009	2007-2009	2009	2009	2010	2011	2012	2013	2014 1	991-2000	2001-2010 2	2011-2020
	Bil. 2005		2005									
	dollars	Percent	dollars						nt 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 Dellinging	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 Vietnam	207 69	0.4 0.1	3,111 775	-2.3	5.0	5.3 7.0	5.5 7.2	5.3 6.9	5.0 6.4	4.6 7.4	4.1 7.2	4.8 6.9
South Asia	1,308	2.5	832	5.3 7.1	6.5 7.5	7.0	7.2	7.7	7.5	7. <del>4</del> 5.2	7.2 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		4.5
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		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							F	verage	
	in 2009	2009	2010	2011	2012	2013	2014	1991-2000 20	01-2010 20	11-2020
	Millions					Percent c	hange			
World <sup>1</sup>	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	8.0	0.8	8.0	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
Taiw an	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	8.0	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		2.6	2.6	2.6	2.6	2.6	2.5	2.7	2.6	2.5

<sup>1/</sup> 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.