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Economic Update

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February 11, 2011

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We expect a strong sustained global economic expansion in 2011 and 2012. We continue to expect global real GDP growth to average about 4% to 4.5% in 2011, with the fastest growth in those countries in the strongest financial position (largely in the developing world) and the slowest growth likely in those countries with a debt hangover (largely in the developed world). The fundamental trend of rising global productivity and incomes due to wider dispersion of modern technology should persist. While global inflation pressures are rising, this is occurring after a period of disinflation. We believe that policy is unlikely to tighten enough—in either the developed countries or the emerging countries—to threaten the global expansion.

Despite all the complex structural and secular shifts in the global economy, the single theme that best summarizes recent events is the “old business cycle.” Policy is cyclical and so are economic activity, inflation and interest rates. The “old business cycle” precedent applies most clearly to the overall global economy and to the financial markets. However, we believe that it applies in a more differentiated way in

specific employment markets, due to the globalization of production and to national differences in the health of the housing sector. In our view, the global economy is currently in the “sustainable midcycle phase” of the “old business cycle.”

Global macroeconomic policy remains stimulative. Macroeconomic policy has a variety of aspects: currency policy, monetary policy, fiscal policy and energy policy. We divide each of these and the overall macroeconomic policy into five cyclical stages: (1) aggressively stimulative, (2) stimulative, (3) neutral, (4) restrictive, and (5) aggressively restrictive.

In 2010, most countries had a macroeconomic policy setting of either stimulative or aggressively stimulative. In 2011, some countries are likely to shift their policy from aggressively stimulative to stimulative and others are likely to shift from stimulative towards neutral. This is a normal pattern for the middle phase of a global economic recovery. Few countries are likely to have a substantially

restrictive set of macroeconomic policies in 2011, other than in peripheral Europe. While many emerging countries are expected to shift to policies that are less stimulative, we believe that hardly any are likely to reach a policy setting that will be restrictive enough to threaten sustained expansion.

With respect to currencies, we expect the Chinese RMB to trend higher, accompanied by many associated currencies. Among the major currencies of the developed world, a neutral rotational pattern rather than a trending pattern may prevail in response to sentiment shifts about monetary policy, economic growth and financial stresses.

Commodity prices have been quite strong, which reflects a combination of (1) the secular uptrend in demand from fast-growing emerging markets, (2) a cyclical rebound in global economic activity, (3) supply shocks, and (4) easy financial conditions.

There has been a shift in the mix of global growth towards emerging countries (which have fast-growing demand for commodities) relative to developed countries (which have slow-growing demand for commodities). Under these conditions, high prices for energy and base metals reflect a change in relative prices appropriate to the new mix in the sources of global growth during the midcycle phase of a sustained global expansion. Prices of food reflect some of these same shifts in the mix of growth, but also reflect powerful supply shocks from adverse weather. In our interpretation, the main theme is that commodity prices have moved to levels that appropriately reflect current global supply/demand fundamentals. However, a secondary theme is that agricultural prices are quite vulnerable to supply shocks.

Higher food and energy prices are more likely to motivate substantial macroeconomic policy tightening in the emerging market countries than in most developed countries for two reasons. First, commodities such as food are a much heavier weight in emerging countries than in developed countries both in the basket of consumer purchases and in the consumer price indices. Second, the output gaps of excess productive capacity and excess labor supply are large in most developed countries, in contrast to most emerging countries. The excess supply of productive capacity and labor in the developed countries limits the degree to which higher commodity prices are likely to drive up overall inflation to an unacceptable degree. We expect a normalization of developed country inflation over the next two years, after a period of unsustainably low inflation. Underlying inflation should drift gradually higher in many developed countries.

We believe that many emerging countries have had macroeconomic policy settings which have been aggressively stimulative or stimulative. Real interest rates have been low, interest rates have been low relative to nominal GDP growth rates, exchange rates have been undervalued and in some countries energy prices have been subsidized. A natural consequence has been strong real GDP growth, strong nominal GDP growth and rising inflation pressures. In response, we expect substantial policy tightening to occur in many emerging countries. Emerging country policies are likely to shift from stimulative to neutral, but not to either restrictive or aggressively restrictive. Symptoms of a reluctance among emerging countries to become aggressively restrictive include heavy foreign exchange intervention to hold down undervalued currencies and relatively hesitant increases in policy interest

rates despite upward pressure on inflation. Many emerging countries retain a set of policies designed to support a rapid expansion of domestic productive capacity for both domestic consumption and export. Thus the response to strong demand is likely to include not just policy tightening but also expansion of supply capacity. Trend inflation is likely to drift somewhat higher in many emerging countries. We expect commodity prices to remain relatively high but, unless there is an additional major agricultural supply shock, the rate of increase in commodity prices appears likely to slow over the course of this year, with the potential for prices to ease off somewhat from price spikes.

While we recognize the strong demand for crude oil, we are less convinced of some of the more aggressive interpretations of the peak oil thesis. We believe that much of the “peak oil” debate is too narrowly focused on the supply and demand for oil rather than the supply and demand for energy more broadly. The potential problem of “peak whale oil” a century and a half ago was not solved by an increase in the number of whales. Rather it was solved by innovation, as substitutes derived from crude oil were developed. Similarly, innovations in the broader supply and demand for energy are likely to help resolve the “peak oil” problem over the coming years. Already the rapid development of unconventional gas in the U.S. due to improved technology has lowered natural gas prices and the energy cost of some U.S. plants.

We expect the Chinese economy to slow modestly over the course of 2011, especially in the second half of the year, in response to the shift in economic policy from hyperstimulative towards neutral. The policy mix in China has included a substantially undervalued exchange rate, very low real yields and a

set of specific policies to (1) support domestic production, (2) hold down the cost of capital for expansion of productive capacity, and (3) promote exports. The growth of productive capacity in China has been so strong that non-food consumer price inflation has remained relatively low until now, despite easy macroeconomic policy and double-digit nominal and real GDP growth. However, easy monetary policy has stimulated asset inflation in the property market, to a degree that has created serious concerns among policymakers. We believe that the property price surge is likely to be halted soon due to a succession of both broad and targeted measures.

We view China’s exchange rate as having been hyperstimulative. However, more recently China’s real exchange rate (exchange rate adjusted for relative inflation) has been rising via two channels (1) a rise in the nominal RMB/dollar exchange rate and (2) differential inflation, with inflation higher in China than in most developed countries. We believe that China’s exchange rate policy has thus shifted from aggressively stimulative to stimulative.

Real interest rates (interest rates relative to inflation) and natural rates of interest (interest rates relative to nominal GDP growth) have been exceptionally low in China, symptoms of an aggressively stimulative policy. Even following recent interest rate hikes, both the real rate of interest and the natural rate of interest remain quite low. The one-year deposit rate has risen from 2.25% to 3.00%, but that is still well below the 12-month rate of inflation and far below the nominal GDP growth rate.

China has recently fostered accelerated wage inflation, with minimum wage increases near 20%. This is occurring at the start of a major demographic

turning point. The prior trend of a rapidly growing supply of migrant labor moving from rural to urban areas has reached a major inflection point. The lagged impact of the adoption of a one-child-per-family policy in 1979 is likely to be a sharp slowing in the growth rate of the workforce in China in coming years. A strong rise in real wages (wages net of inflation) is likely to shift the use of labor in China to higher value products. In addition, it should foster the beginning of internal rebalancing within China, as the consumption share of GDP can rise while the contribution of growth in real net exports slows.

Another aspect of domestic rebalancing within China is the increase in required dividends from state-owned enterprises. We believe that this may somewhat narrow the gap between China and the developed countries in the required hurdle rates for investment. The hurdle rate is the expected rate of return required to trigger a decision to invest. We believe that this large "hurdle rate gap" has been and continues to be a major factor in the geographic shift of production from developed countries to China.

The "China price" is rising. The "China price" refers to the price of goods exported from China to other countries. It has tended to be low relative to production costs in developed countries, due to (1) labor cost arbitrage (wages in China are still low relative to developed country wages) and (2) production efficiencies due to both a supportive infrastructure and a set of knowledge, skills and productive practices which have been transferred from abroad and developed internally.

Over the coming decades, we believe that the U.S. and China will be "demographically congruent," which is also likely to be true of the U.S. and many

other Asian countries. Due to immigration, the population and workforce of the U.S. should expand at a faster pace than many other countries. Although U.S. economic growth is subpar during this cycle due to the housing bust, the long-term population growth and economic growth of the U.S. economy is likely to be higher than many other countries at a similar stage of development. These demographic trends are not of much cyclical benefit, but the "U.S. demographic advantage" should prove a favorable long-term trend.

Our assumption for the European economic outlook for 2011 is that the euro will probably remain intact but that peripheral countries should remain weak due to the hangover from the credit boom. We expect a strong German economy and continued expansion in other core countries. The net result is likely to be a real GDP growth rate for Europe near 1.5% to 2.0%, led by strength in Germany.

The one segment of the world which currently has both a very restrictive macroeconomic policy and stressed financial conditions is peripheral Europe. Peripheral Europe is undergoing a forced fiscal contraction while risk spreads for its sovereign credits and bank credits remain wide. However, peripheral Europe is a small segment of the global economy. Its stresses are occurring in a context of sustained global expansion and low interest rates elsewhere in the developed world. Our assumption is that the stronger core countries of Europe will probably manage the European stresses to limit the risk of contagion to their own banking systems.

What is the outlook for the U.S. economy in 2011? Like the Federal Reserve, we prefer to focus on the growth rate from the fourth quarter of one year to

the fourth quarter of the next year. On that basis, we expect a four quarter real GDP growth rate in 2011 of 3.5% to 4.0%, an acceleration from the four quarter growth rate of 2.8% for 2010 (which was only marginally above the long-term real GDP trend growth rate of about 2.5%). The four quarter growth rate, which we believe better indicates the growth acceleration we expect, should run almost one half of one percent higher than the more commonly quoted year-over-year growth rate, which we expect to shift up slightly to a range of 3.0% to 3.5% in 2011.

There are several reasons for the somewhat faster U.S. growth rate in 2011. First, much of the mid-2010 slowdown was attributable not to the onset of persistently weak growth but rather to temporary causes, such as an inventory slowdown, import surge and the Greek sovereign risk crisis. Second, despite housing prices likely to stagnate near the bottom of an L-shaped pattern, we believe that the period of a negative contribution of construction to real GDP growth has ended. Third, Chairman Bernanke preannounced on August 27, 2010 the likelihood of additional monetary easing in the form of QE2. This contributed to a major rise in the stock market, generating a positive wealth effect, especially at the upper end of the income and wealth distribution. Fourth, after a political debate over whether to avoid a supply side shock by extending all the Bush tax cuts or to provide new Keynesian fiscal stimulus to the economy, a tax compromise was reached at the end of 2010 to do both. Both aspects of this fiscal stimulus are being financed by increased deficit financing.

The U.S. now has a “quadruple stimulus” of (1) a zero policy rate, (2) QE2, (3) avoidance of a supply side tax shock, and (4) new Keynesian stimulus. This

“quadruple stimulus” is massive but is likely to prove relatively inefficient due to the structure of the U.S. economy. Spending on both imported consumer goods and imported energy tends to increase as the economy grows, thus diluting the benefit to the domestic U.S. economy and employment from stimulating domestic consumer demand. Little has been done yet to improve U.S. competitiveness. The U.S. corporate tax rate is destined to become the highest among major countries this year when the rate cut in Japan is implemented. However, because the U.S. policy setting is so aggressively stimulative, it is likely to generate above-trend U.S. economic growth in both 2011 and 2012.

There has been a key debate among economists about whether continued deleveraging after the past credit boom would merely generate a subpar expansion or would substantially disrupt the expansion. We believe that the evidence has supported our case that deleveraging in the private sector would merely generate a subpar expansion but would not trigger a double-dip recession or a stalled expansion. We believe that current Federal Reserve policy is designed in part to enable a “nominal fix” to debt-to-income ratios in the private sector. If private sector debt grows slowly over the next half-decade and nominal GDP (real GDP plus inflation) averages a normal 5% growth rate, private sector debt-to-income ratios should gradually improve. This is a key channel of the “orderly deleveraging” we expect.

We believe that the labor market will be stronger in 2011 than in 2010. The expansion in 2010 was not “jobless,” but was what we have called a “job light recovery,” with monthly payroll gains averaging only 76,000 per month. We expect growth in payroll jobs

to roughly double in 2011, with job gains likely to run at a net 150,000 to 200,000 per month pace, even after continued layoffs in the state and local sector. Weather fluctuations and flows into and out of the labor market have created a confusing picture in the employment data. However, there has been an improvement in the labor market demand seen by staffing companies. Consumer surveys of “jobs easy to get, jobs hard to get” have also improved. While the unemployment rate appears temporarily understated at 9.0%, we believe that a trend of improvement has begun in labor market demand. This should be consistent with our expectation of U.S. real GDP growth that is “above-trend” (higher than 2.5%) but “below-normal” (slower than past recoveries from severe recessions).

We believe that core inflation in the U.S. is near a cyclical low and should drift gradually higher over the next two years, despite the disinflationary pressure from surplus productive capacity and an excess supply of labor. We interpret this as an “inflation normalization”—the disinflationary forces should gradually ebb as above-trend growth persists. Unit labor costs have been declining rapidly due to weak wage gains and strong productivity growth. We expect wages to remain weak but the pace of productivity improvement should slow somewhat over the next two years. Another source of upward pressure on core inflation should come from rents, both directly and indirectly via the “owners’ equivalent rent,” a measure of the cost of housing. The rental vacancy rate is down and apartment REITS are reporting good demand for apartments. We believe that a gradual but persistent uptrend in rents has begun. In addition, some companies are starting to have success in passing on price increases. The disinflationary contribution from imported consumer

goods produced abroad is likely to be limited by the emerging wage inflation in China, despite the rapid growth in labor productivity in China. Overall, we expect the inflation rate of the core personal consumption expenditure deflator, the Fed’s key measure, to rise from a 0.7% rate in the last 12 months (and 0.4% in the last six months) to the 1% to 1.5% range over the course of the next year. This should still be below the Fed’s implicit target of 1.75% to 2%.

The U.S. faces two different budget deficit problems: a short-term cyclical deficit problem and a long-term structural deficit problem. The short-term budget deficit reflects both (1) the automatic impact of the recession on revenues and spending as well as (2) active fiscal stimulus via the passage of legislation which has increased Federal spending, cut taxes and postponed planned tax increases.

The large short-term budget deficit is occurring in a context which makes it relatively easy to finance for now: (1) inflation is low, (2) the Fed is holding the short-term policy rate at zero, (3) Federal borrowing costs are being temporarily suppressed by low current interest rates, (4) the new supply of intermediate-term and long-term Treasury bonds available to investors is being temporarily reduced by the Federal Reserve via its QE2 purchases, (5) given the strong rise in their profits and cash flow, corporations have a limited need for borrowing other than for refinancing high-cost debt, (6) demand for credit for mortgages is weak due to a weak housing market, (7) growth in consumer credit is recovering relatively slowly, (8) pro-cyclical regulation is restraining the pace of expansion of bank balance sheets, and (9) monetary policy is so stimulative that the cyclical influences on short-term budget deficits

may generate favorable surprises on tax revenues and expenditures in the next year or two. We expect that only gradually over the coming years will the nine mitigating factors cited above become less supportive for the financing of near-term U.S. budget deficits. While the short-term budget deficit is relatively easy to finance, the resulting permanent increase in Federal debt can be expected to make the long-term budget deficits even more of a challenge in future years during those periods when interest rates are significantly higher. Despite the high current budget deficit, we retain an optimistic cyclical economic outlook. However, we remain concerned about a potential for a future fiscal train wreck at some point after the next few years if the U.S. continues to postpone a major reform of budget policy.

The outlook for the budget deficit in the long run is very challenging. Some of these issues are reviewed in the report entitled "Budget and Economic Outlook: Fiscal Years 2011 to 2021" published by the Congressional Budget Office on January 26, 2011. As stated in this report, the core of the long-term budget problem is that "...spending on the government's major mandatory health care programs—Medicare, Medicaid, the Children's Health Insurance Program, and health insurance subsidies to be provided through insurance exchanges—along with Social Security will increase from roughly 10 percent of GDP in 2011 to about 16 percent over the next 25 years."

We are pessimistic about the prospects of substantial political progress any time soon in dealing with the long-term structural budget deficits in the U.S. The two main political parties in the U.S. fundamentally disagree about the split between the Federal government and the private sector of both (1)

decision-making power and (2) the share of the economy. There has already been a large shift in decision-making power away from the private sector to the Federal government and its regulatory agencies, a shift that we do not expect to be reversed.

A key political struggle is likely to occur over whether the large rise in Federal spending as a share of GDP will prove to be temporary or permanent. Our expectation is that a higher Federal spending share of GDP will most likely prove to be permanent. We do not expect the political left to agree to any major reduction in the non-defense Federal spending share of GDP and we do not expect the political right to concede the permanence of that upward shift in any near-term budget compromise. In the near term, we believe that a succession of small mini-deals on the Federal budget may prove more likely between now and the 2012 election than any major compromise on the entitlement programs.

In our opinion, the current budget deficit is being "short-funded" rather than permanently financed. Since the Fed's profits go to the Treasury, we regard the Fed's holdings of Treasuries as being indirectly owned by the U.S. government itself. The Fed's purchases of intermediate-term and long-term Treasury securities under QE2 are shortening the effective average maturity of Treasury debt truly held by investors other than U.S. government entities (including the Fed). With the policy rate temporarily at zero, this "short-funding" of the Federal debt lowers the current cost of the Federal debt as the interest payments on new Treasury debt are channeled back to the U.S. Treasury via the profits of the Federal Reserve. Unfortunately, "short-funding" also increases the vulnerability to sharp rises in

Federal financing costs in any future spike in interest rates. There is a worrisome precedent. During the severe interest rate spike in 1981, the U.S. Treasury felt it needed to keep selling long-term Treasury bonds into an unreceptive bond market because the average maturity of the Treasury debt had shortened in prior years. We believe that the “short-funding” of current budget deficits should tend to increase the risks in some distant future year when monetary policy needs to be aggressively restrictive. We regard this as a “pay me later” policy which supports above-trend growth now at the expense of greater risks and costs in the future.

The Fed’s Treasury purchase program under QE2 creates the risk that central bank credibility could be eroded, to the degree that the Fed is regarded as monetizing unsustainable fiscal deficits. The Fed’s independence in monetary policy from supporting the Treasury bond market was won roughly six decades ago, as described in “Treasury-Fed Accord: A New Narrative Account,” available from the Federal Reserve Bank of Richmond. There is some risk that the Fed’s relative independence in monetary policy could be eroded in the course of financing persistently high budget deficits. As stated by President Richard Fisher of the Federal Reserve Bank of Dallas on February 8, 2011, “...we will be purchasing the equivalent of all newly issued Treasury debt through June. By this action, we have run the risk of being viewed as an accomplice to Congress’ fiscal nonfeasance...The entire FOMC knows the history and the ruinous fate that is meted out to countries whose central banks take to regularly monetizing government debt...The Fed could not monetize the debt if the debt were not being created by Congress in the first place.” We believe that the Fed’s program of purchasing intermediate-term and

long-term Treasury bonds under QE2 was only justifiable as an emergency measure to lower the risk that the feared double-dip recession might occur in 2010. Because we anticipate a flow of economic data consistent with our forecast of sustained cyclical expansion, we expect that QE2 will not need to be renewed.

What is the outlook for U.S. monetary policy and interest rates? The Federal Reserve currently has monetary policy set at maximum stimulus, which helps explain why the yield curve has become so steep. There are two channels for the gradual withdrawal of aggressive monetary stimulus: (1) the Fed’s balance sheet and (2) the policy interest rate. We expect QE2 to be terminated when the current phase ends in June 2011, although it is conceivable that it could be reduced earlier as an interim step to termination. Somewhat later, the reinvestment of mortgage-backed securities should end. This would halt the rapid expansion of the Fed’s balance sheet and would represent reduced stimulus even with a zero policy rate. We believe that the first rise in the Federal funds rate is not likely to occur until the first half of 2012, since the core of the Federal Reserve leadership (Chairman Bernanke, Vice Chairman Yellen, and New York Federal Reserve President Dudley) appears convinced that the U.S. economy is not very inflation-prone.

We attribute the recent rise in intermediate-term and long-term yields to (1) a shift from expectations of further disinflation to an expectation of gradually rising inflation, (2) an upward shift in expectations for economic growth, and (3) a reduction in fears of a renewed financial crisis potentially triggered by stresses in peripheral Europe. Overall, we view this as the beginning of a cyclical “interest rate

normalization.” Our view is that the secular and cyclical lows in bond yields have been reached and that yields will drift gradually but persistently higher over the next several years.

The U.S. has benefited from declining interest rates for nearly three decades. We believe that a 27-year secular decline of about 1400 basis points in yields on 10-year Treasury bonds has now ended. We believe that the decline from 16% on September 30, 1981 to near 2% at the end of 2008 has completed the secular decline in Treasury yields. The secular bull market in Treasury bonds lasted more than a quarter century, but we believe that it is now over. Some will label the next decade or two a secular bear

market in Treasury bonds, since Treasury yields are unlikely to drop below their December 2008 lows. However, we believe the most likely bond market outlook is better described as a “secular neutral” trend in interest rates. Over the next decade, we would expect a “secular neutral” center of gravity for 10-year Treasury yields of around 4% to 5% with a normal cyclical range of about 100 basis points on either side of this center of gravity. We believe that the normal cyclical rise in long-term rates has begun. The initial rise in yields reflected the abandonment of expectations of deflation and double-dip recession. From this point forward, we expect a normal cyclical upward drift in interest rates as the economic expansion persists.



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