December 7, 2011

WELLS FARGO SECURITIES

Economics Group

2012 Economic Outlook

The Game Has Changed: Transitioning to a Post-Leveraged World

Despite many challenges, we believe U.S. and global economic growth is poised to continue over the course of next year. However, businesses will need to remain cognizant of the evolving economic and policy landscape that will prove to be a game changer in 2012.

Together we'll go far

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Executive Summary and Outlook

*"Happy **economic recoveries** are all alike;*
*every unhappy **recovery** is unhappy in its own way."*

— With thanks—or perhaps apologies—to Leo Tolstoy

Current economic difficulties call for a re-examination of the business and policy fundamentals that underlie the recovery.

Over the past year, we have often been greeted by friends and colleagues with the comment that "your job must be really interesting," or "you economists are very much in demand." Indeed, economics does give the appearance to be a countercyclical business where the more problems in the economy, the greater the demand for our views. However, after the polite greetings, the real story is that current economic difficulties call for a re-examination of the business and policy fundamentals that underlie the recovery, and that re-examination has been very uncomfortable to many. Therefore, when in doubt, call in the economists for this economic recovery has truly been an unhappy one, with the outward evidence of disappointing growth, high unemployment and a seemingly unending stagnation in the housing sector.

We continue to view this economy as threading a thin needle between below-historical growth rates associated with the idealized economic recovery and the decline in growth associated with the non-idealized recession. There is no easy economic policy that will quickly resolve problems that have been developing for more than 40 years. So, what are we facing?

We expect the economy to expand 2.0 percent for the year ahead.

Our key theme in the second half of this year was one of moderate, subpar economic growth accompanied by modest inflation pressures, and no change in the Federal Funds target rate. As we transition into 2012, our growth outlook reflects more of the same for the year ahead. We expect the economy to expand 2.0 percent for the year ahead, with small gains from many sectors of the economy as opposed to a major contribution from any one segment (Figure 1).

We build our outlook upon the idea that consumer spending will continue to add to economic growth. However, the slow pace of job gains, marginal improvement in personal income and modest inflation pressures in the first half of the year will keep consumer spending in check. We expect approximately 1.5 million jobs to be added over next year, for an average of 123,000 jobs per month. The pace of job growth will be disappointing as structural challenges in the labor market persist. The disconnect between the skills among the American labor force and the skills in demand by firms remains the biggest challenge to stability in the labor market.

The sluggish pace of job gains should result in only a marginal improvement in personal income. Inflation is likely to remain somewhat elevated in the first half of the year at 2.3 percent but should moderate in the second half of 2012 (Figure 2). The inflation environment in light of only marginal personal income gains will restrain personal consumption to 1.5 percent in the first half of the year before giving way to somewhat stronger growth in the second half of the year.

Figure 1

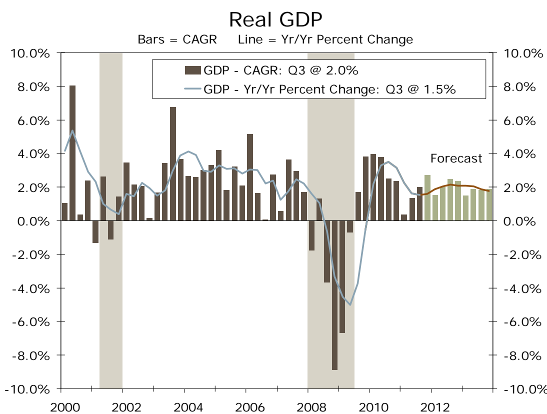
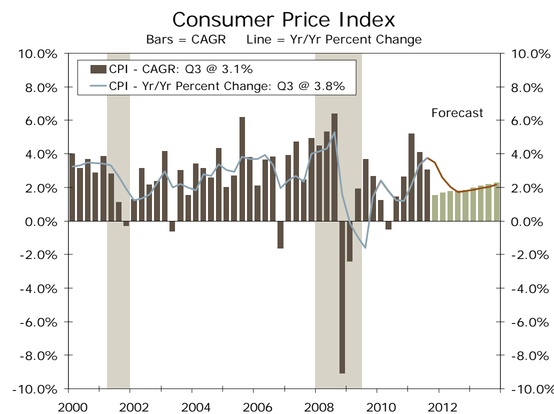


Figure 2



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities, LLC

Business fixed investment will remain a strong support to growth over the next year.

Reiterating our view of "more of the same" in 2012, business fixed investment will remain a strong support to growth over the next year. The main driver of business investment over the past year—investments in capital equipment—should remain strong, but will not reach the double-digit gains observed in 2011. The composition of business fixed investment should shift toward structures as stability in the commercial real estate market begins to slowly return. Short-term interest rates should remain low for most of the year, while longer-term borrowing rates should begin to rise in the latter half of 2012. As promised, the Fed should remain on hold for the duration of year.

We expect the government sector to remain a drag on economic growth in the year ahead. State and local governments will continue the process of aligning spending with the slower pace of revenue growth. Local governments will likely continue to aggressively reduce spending over the next 12 months in light of falling property tax collections and fewer resources from the federal and state governments.

Federal spending will likely detract from economic growth in the second half of the year.

At the federal level, the process of reigning in spending will begin as a result of the first $900 billion federal budget cuts from the Budget Control Act passed earlier this year. The first wave of cuts are spread out over the next 10 years, thus the impact will likely be minimal in the year ahead. However, the more aggressive $1.2 trillion in cuts set to begin in 2013 have the potential to weigh heavily on growth the following year. Continued stalemate in Washington will likely do the same. Nonetheless, federal spending will likely remain more restrained than in years past and should detract from economic growth in the second half of the year.

On the trade front, we expect to see the pace of export growth pull back slightly in light of a modest recession in Europe. However, exports to emerging market economies should continue to help support domestic global producers and, in turn, a moderate pace of corporate profit growth. Import growth will likely remain constrained with the slower pace of consumer spending. Imports should begin to pick up in the latter part of 2012 as employment growth and consumer spending continue to improve. In the year ahead, we expect net exports to subtract a modest 0.1 percent from headline GDP growth as the trade balance begins to widen in the second half of the year.

A discussion of our forecast for next year would not be complete without addressing the risks to our outlook, which mostly come in the form of policy risks. On the fiscal policy front, we expect unemployment benefits and the Social Security payroll tax reduction to be continued in 2012. However, the recent failure of the Deficit Reduction Committee in Congress reflects the underlying theme of policymakers' inability to make tough fiscal policy choices. In light of the additional costs of these payroll extensions after the collapse of the deficit reduction talks, there is a moderate risk that these policies will not be extended, which would put slight downward pressure on personal consumption and, in turn, headline GDP growth next year.

On the monetary policy front, discussions of additional quantitative easing (QE) have emerged in recent weeks. Given our inflation forecast for the first half of the year, we believe that another QE program is unlikely. However, if such a program were implemented, our outlook for interest rates would be adjusted downward in the short run, but, depending on the size of the program, another round of QE would not likely affect our outlook for economic growth.

Our base-case scenario assumes that the sovereign debt crisis in Europe does not "blow up."

Our outlook also calls for continued global growth in 2012, though at a below-average pace. Growth in Asia will likely remain intact as receding inflation has lowered the probability of excessive central bank tightening in the near term. We look for the expansion in Latin America to also proceed, although growth will likely slow over the next year. Our base-case scenario assumes that the sovereign debt crisis in Europe does not "blow up" and that the Eurozone experiences only a mild recession through early 2012. That said, there is a significant risk that the sovereign debt situation could incite another global financial crisis, which would downgrade our outlook for both U.S. and global growth in 2012.

- Wells Fargo Economics Group

Three Game Changers to the Old Framework

What appears to be generating the interest in economics is the search for a framework to explain our current environment. Clearly, the old framework of stimulus to economic boom, modeled on the experience of the early 1960s and, then again, the early 1980s, did not deliver in this recovery. In addition, the failure to deliver economic success within the old framework suggests that we are playing a very different game with the underlying socioeconomic structure of both the American consumer and the European welfare state. Traditional policy actions within the inherited institutional structure have not provided the expected economic results. This indicates that the conventional macroeconomic model no longer serves as a meaningful working framework for policy analysis.

The failure to deliver economic success within the old framework suggests that we are playing a very different game.

From our viewpoint, three structural challenges in the domestic economy have limited the pace of economic growth in 2011 and are also likely to limit growth in the year ahead. In each case, the experience of this cycle is significantly different than in prior cycles, implying that decision makers must adjust to the new rules of the game.

First, the Great Recession exposed the credit dependency for the American consumer, the U.S. federal government and European sovereigns. Over the past 30 years, the broadening of credit availability provided the means for many households to spend beyond their income earnings in the hope of paying off those debts out of future income. This ended with the Great Recession.

Second, expectations for continued home price appreciation, built upon the experiences of the post-WWII period, set the tone for the strategy to buy a home today in anticipation of capital gains down the road. This ended with the Great Recession.

Finally, state and local governments had also anticipated that future retiree benefits and health care, woefully underfunded in many states and localities, could be paid out of future tax revenues. Well, we know how this ended.

A Game Changer to Households: Credit Constraint

Persistent employment and income growth below the perceived long-term trend has forced many households to reevaluate their expected income and spending patterns. During the Great Recession, two major shocks affected households' perceptions of wealth. First, both real estate and financial assets declined more quickly and significantly than households had anticipated (Figure 3). Second, while the value of financial and housing wealth dropped quickly, the value of the outstanding debt accumulated over the prior years did not. As a result, debt quickly exceeded the wealth—particularly in housing—such that the net worth position for many households was negative on their real estate.

Figure 3

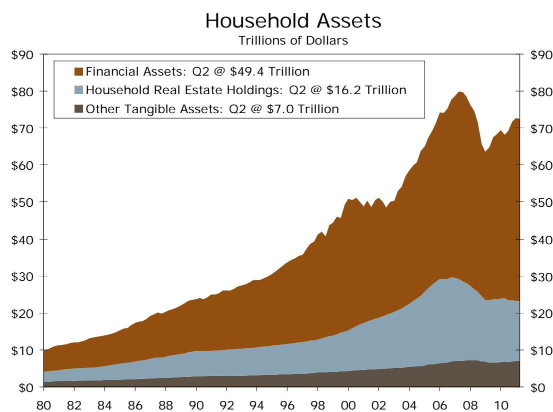
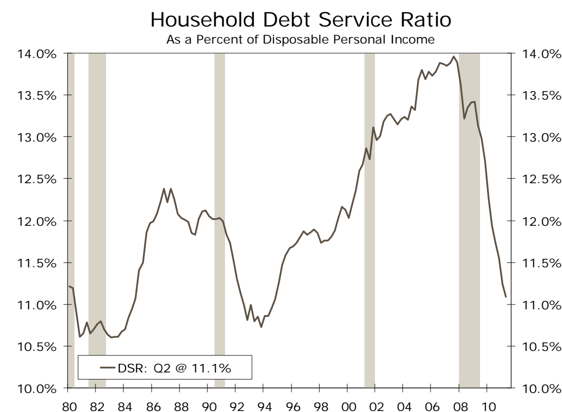


Figure 4



Source: Federal Reserve Board and Wells Fargo Securities, LLC

From the viewpoint of economics, the rapid drop in wealth and the associated recession gave rise to a credit or liquidity constraint for households. Under these conditions, households are unable to borrow due to their lack of liquidity, and moreover, their current income is below what they formerly perceived as their permanent income. As a result, households quickly adjust their current consumption to reflect their current income, despite their previously held beliefs about their lifetime income expectations. At least in the short run, households would reduce their consumption and increase their savings—a result clearly visible in the 2008-2010 experience of the American household.

The chance of a period of low income sometime in the future will lead some households to cut spending today.

In addition, for many households, concerns about job and income stability suggest that the liquidity/credit constraint may also be binding in the future; therefore, households will reduce current consumption even if they had retained the same job at the same income. Simply put, the chance of a period of low income (associated with unemployment) sometime in the future will lead some households to cut spending today.

With the liquidity constraint, households need savings today to get through the tough patch tomorrow. Therefore, households boost savings, or pay down debt, for insurance against the impact of a potential future decline in income. Moreover, when households anticipate that credit has become less available and there will be a possible lower borrowing constraint in the future, households will reduce current consumption even if not credit constrained today.

This credit constraint helps explain the weakness of consumer spending in the current expansion relative to prior recoveries. As illustrated in Figure 4, households have rapidly reduced their debt service by paying down debt and deleveraging the household balance sheet. Effectively, the Great Recession has altered expectations for future income and employment for many households. Therefore, these households will attempt to restore balance to their long-run consumption and saving patterns commensurate with future earning power.[1] Households will also overcompensate in the short run to increase saving to protect against unforeseen future events.

The economy cannot rely on the consumer to fuel growth in the same way the consumer has in prior economic expansions.

Events in this cycle have weighed heavily on consumer and business confidence. From the viewpoint of lenders, the weaker balance sheets and income prospects have also increased the perceived credit risk for many potential borrowers. Volatility leads to risk aversion and makes it more difficult for both borrowers and lenders to gauge permanent income. As a result, the credit constraint has become a long-term structural issue for the balance sheets of households to an extent not typical of an economic recovery. Further complicating the consumer situation is the altering of the labor market framework, where long-term unemployment has been more persistent than many had expected and has changed the long-run view of expected lifetime earnings of many workers. Moreover, at least a modest amount of this long-term unemployment represents a depreciation of workers' skills, thereby creating further downward pressure on lifetime earnings. Taken together, the economy cannot rely on the consumer to fuel growth in the same way the consumer has in prior economic expansions.

A Game Changer to Economic Growth: Housing

Several years of declining home prices across many metropolitan markets is the change that has led to a revaluation of the role of residential construction in the classic business cycle recovery and even the long-term trend of the economy. The feedback effects of the these price declines were felt on both the demand and supply sides of the housing marketplace, leading to a deep and prolonged lull in residential building (Figure 5). On the demand side, sharp and significant price declines brought into question the intrinsic value of homes and certainly the investment aspect of homes as part of retirement planning. Households have made the choice to back away from the housing market, thereby reducing demand as reflected in the demographics of Figure 6. On the supply side, the rapid decline in prices has made it difficult for builders, who are often small entrepreneurs with very small cash cushions, to compete with large inventories of discounted homes. For mortgage lenders, the rapid decline in the value of the housing collateral suggested that credit standards were too lenient and would have to be raised in the future. This choice to tighten credit standards by lenders, plus the diminished liquidity in the follow-on mortgage-

[1] **Franco Modigliani's life-cycle hypothesis**

backed-security market, reduced the ability of households to obtain financing and consequently further weakened home demand.

Housing had been a significant driver of recoveries after most recessions in the United States since WWII. However, the overhang of distressed and foreclosed properties and underwater mortgages suggest that the simple game of supply and demand has changed. A new framework appears to be in place. Demand has downshifted in response to the new reality that home prices have a downside. There is now risk to wealth from poorly timed home purchases, which may limit mobility. On the supply side, building depends on credit availability. With the risks of lending now relearned, the supply of credit directed to housing is also more limited, as well as more expensive for buyers given stricter down-payment requirements.

Demand has downshifted in response to the new reality that home prices have a downside.

Given the large multiplier effect of new home construction, the current sluggish pace of housing market activity has continued to weigh on growth. Employment in the construction sector has declined dramatically since the housing bust. Even with some recovery in the housing market, many of the construction jobs lost will not return. This leaves a large portion of the labor force without the skills needed to compete in a more service-oriented economy. Furthermore, home price declines and negative equity have harmed labor mobility. This has prevented some workers from taking advantage of job opportunities in other parts of the country, which has typically been a strength of the U.S. labor market and has supported previous recoveries.

Figure 5

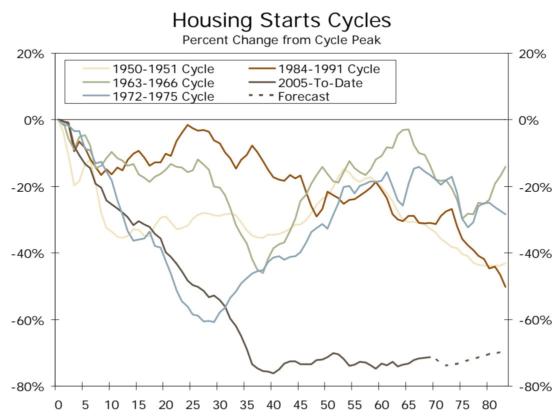
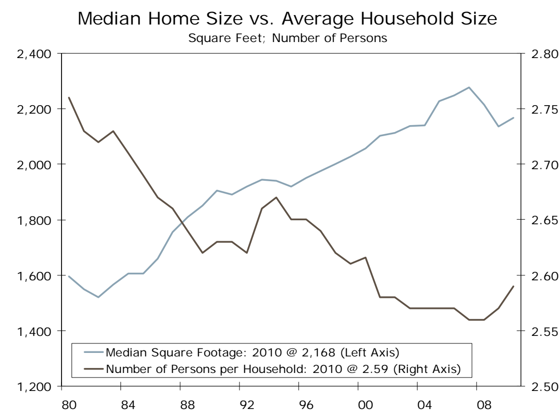


Figure 6



Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

A Game Changer to State and Local Government: Subpar Growth, Subpar Revenues

The thoughtful observer will recognize that the old models of state and local government decision making must face the new realities of slower revenue growth, and that the new pace of revenue growth will fall short in covering the spending promises of prior generations. Over the past year, state governments have cut back considerably on outlays and increased revenues to rebalance their spending with the new slower pace of revenue growth. These policy changes played an important role in creating sustainable and balanced budgets among some state governments. However, these policy changes have come with side effects that have been felt more acutely in some states than others. Budget cuts at the state level affected everything from employment and local funding to education and healthcare funding. Given that many of the economic forces which led to states having to rebalance their budgets remain in place—namely, slow revenue growth and increasing pension liabilities—the reduced level of state and local spending is likely to continue. We suspect that the state and local government sector will become less of a drag to growth over the next year; however, this sector will not significantly add to economic growth either.

The old models of state and local government decision making must face the new realities of slower revenue growth.

Early estimates of state budget shortfalls indicate that budget gaps for the fiscal year ending in June will be much lower than in previous years (Figure 7). While state and local budgets are

showing signs of improvement, the potential for revenue shortfalls still exist in light of federal spending cuts and a slow pace of economic growth.

Slower future revenue growth among state and local governments, combined with large budget gaps left over from revenue declines during the recession, have prompted the dramatic budget reductions that took place over the past year. Another, less publicized, reason for the large budget cuts on the part of state governments lies in the fact that many state legislatures around the nation decided to also reduce taxes (Figure 8). These tax policy changes were in part expirations of existing taxes that were implemented as a means to reduce the large budget shortfalls in prior years along with some additional reductions in business taxes.

Now that many states are achieving fiscal balance, our concern has shifted to local governments and municipalities.

Now that many states are achieving fiscal balance, our concern has shifted to local governments and municipalities. Historically, municipalities are heavily dependent on two sources of revenues—state and federal government transfers and local property taxes. The federal budget cuts will likely minimally affect municipalities. The main concern, however, is the ongoing decline in home prices around the country, which will lower the assessed value of local properties and, in turn, lower local revenues. As assessments lag changes in market prices by about three years, the effects of these declines will continue to weigh on local revenues for years to come.[2]

Figure 7

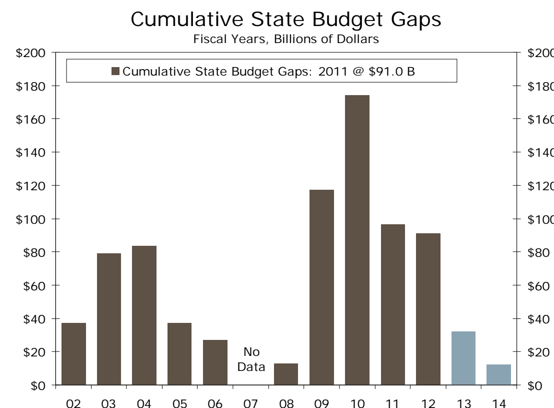
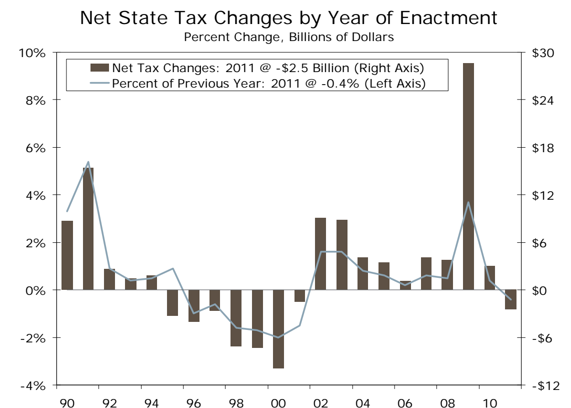


Figure 8



Source: National Conference of State Legislatures and Wells Fargo Securities, LLC

Fiscal restraint enacted by many states and local governments has detracted from both job and economic growth over the past year. Job losses have been particularly hard on areas with a high dependence on public sector employment or government contractors. Many of the government job losses have been concentrated in public education at a time when future American workers need to be better educated than ever to compete successfully in today's global economy. In addition, cuts to Medicaid and Medicare repayments should adversely affect job gains in the health care industry, which has been one of the few bright spots in the employment picture since the Great Recession ended.

Another issue facing the state and local government sector in the second half of the year is the prospect of $1.2 trillion in spending cuts triggered by the failure of the Deficit Reduction Committee. These federal cuts may put some pressure on state and local governments, as many discretionary federal grant programs will likely be adversely affected. However, we expect the cuts to these programs to be minimal in 2012 and thus not a major impediment to state budgeting in the next year.

The new rules of the game call for spending growth that is balanced with the new, slower pace of revenue growth.

Our outlook for the state and local government sector is for a moderation in the size of budget gaps over the next year. Revenue growth at the state level will continue to slowly recover as the U.S. economic recovery continues. Given the slow pace of economic growth, combined with revenue collections that remain below their prerecession levels for many states, it will take years

[2] Lutz, B. (2008) The Connection Between House Price Appreciation and Property Tax Revenues. Federal Reserve Board FEDS Papers 2008-48.

before the scale of many state and local governments return to prerecession levels. Job growth will be very limited over the next year in the government sector with the ongoing restructuring in this segment of the economy. The new rules of the game call for spending growth that is more in line with the new, slower pace of revenue growth, a formula that ensures that the state and local government sector of the economy will not meaningfully add to economic growth in the year ahead.

Housing Outlook: Another Tough Year for Homebuilders

Starts of single-family homes are expected to hit a modern-era low in 2011 and improve only modestly during the coming year.

Residential construction continues to struggle across much of the country amid a glut of excess single-family homes and condominiums. Starts of single-family homes are expected to hit a modern-era low of 420,000 units in 2011 and improve only modestly during the coming year, rising around 8 percent to 455,000 units (Figure 9). Overall starts were down less dramatically in 2011, thanks largely to a 35 percent rise in multifamily starts. Most of that increase was in apartments. Apartment construction should increase further in 2012, helping to push multifamily starts up 25 percent.

Single-family construction is essentially dead in the water, with the exception of a few infill developments in some better performing metro areas. New single-family construction continues to be weighed down by the oversupply of existing homes, which has been bloated by the backlog of foreclosures and bank-owned properties (Figure 10). The latest data place the inventory of existing homes at around 2.86 million units. We conservatively estimate that the shadow inventory totals an additional 2.0 million units, made up of homes either already in the foreclosure process or homes where the mortgage is currently 90 days or more past due.

Figure 9

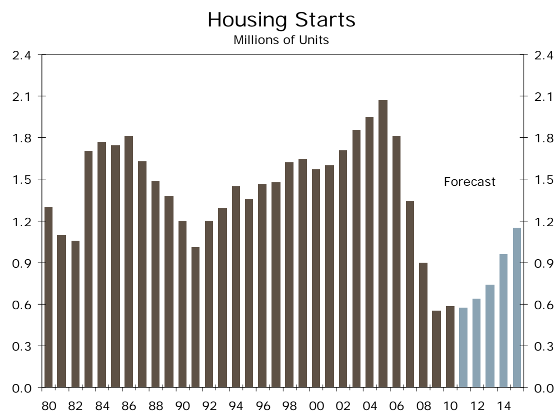
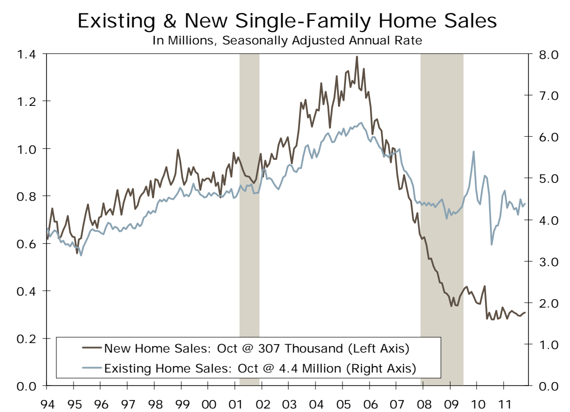


Figure 10



Source: U.S. Department of Commerce, National Association of Realtors and Wells Fargo Securities, LLC

With so much supply on the market, home prices have continued to drift lower. The S&P/Case-Shiller Home Price Index has fallen every month since April and is expected to slide an additional 6 percent by the middle of 2012 as distressed transactions account for a larger proportion of overall sales. The prospect of so much additional supply coming onto the market is also weighing on appraisals, which has led to a spike in contract cancelations and also discouraged many would-be home sellers from putting their home on the market.

The competition from foreclosures has severely limited the pricing power of new homebuilders, which has reduced their ability and incentive to build. Inventories of new homes are at a modern-era low of just 163,000 units, and builders are limiting new construction to niche markets, such as infill locations or partially built-out developments where lot prices have fallen substantially.

Amid the gloom, there are a few bright spots. The Northeast continues to do relatively well, particularly Boston and New York. The Washington, D.C., region has been strong for quite some time and seems to be weathering concerns about a slowdown in government spending. Activity also remains strong in most of the Texas markets, particularly Austin, San Antonio and Houston.

Even California is looking a little bit better, particularly Los Angeles and San Francisco, which are benefitting from growth in international trade and the entertainment and technology sectors.

We are still a long way off from a true recovery in homebuilding.

While there will likely be a few positive developments in 2012, for the most part the year is likely to look like a rerun of 2011. Sales will likely languish during the early part of the year and pick up modestly in the spring and summer, but we are still a long way off from a true recovery in homebuilding. Conditions will not improve on a sustained basis until the backlog of distressed properties is cleared, which will enable the price discovery process to play out. From there appraisals and underwriting standards will normalize, which should set the stage for a sustainable recovery. There are other issues to be decided as well, including the issue of what the federal government's role in financing homeownership should be and what to do with Fannie Mae, Freddie Mac and the Federal Housing Administration (FHA).

Apartment construction remains the lone, unambiguous bright spot, and the recovery in that market still has quite a ways to go. Vacancy rates for apartments have fallen 1.5 percentage points to 5.6 percent over the past year and rents have increased 2.1 percent. Construction activity began to rev back up during the second half of the year and is expected to rise further in 2012. Development activity is still being constrained by concerns about sluggish job growth and credit availability. Sales remain strong, however, and the relatively high prices apartment communities are fetching should keep the development pipeline growing.

Residential improvements are also taking on renewed significance, having risen to 23 percent of private residential construction spending this year from around 16 percent at the height of the housing boom. Some of this increase reflects investor purchases of foreclosed properties, which are being repaired and remarketed either as for-sale properties or rentals. Homeowners are also likely spending a bit more refreshing their homes now that their time horizon for selling their current home has lengthened. This year's rash of violent storms also contributed to the rise in renovation spending. Most of these trends can be expected to remain in place in 2012.

Consumer Outlook: Spending to Remain Constrained

Consumer spending remains constrained by a lack of real income growth and continued deleveraging.

Consumer spending remains constrained by a lack of real income growth and continued deleveraging. Real after-tax income grew just 0.9 percent in 2011 and is expected to rise 1.0 percent in 2012. Income growth has been restrained by sluggish job growth and higher inflation, particularly for necessities, such as food and gasoline. Despite only tepid income gains, consumers managed to boost their spending by 2.3 percent in 2011 (Figure 11). That modest gain came at the cost of a 1.8 percentage point drop in the saving rate (Figure 12). Moreover, consumers benefitted from a temporary two percentage point reduction in Social Security taxes that may or may not be renewed for 2012.

Figure 11

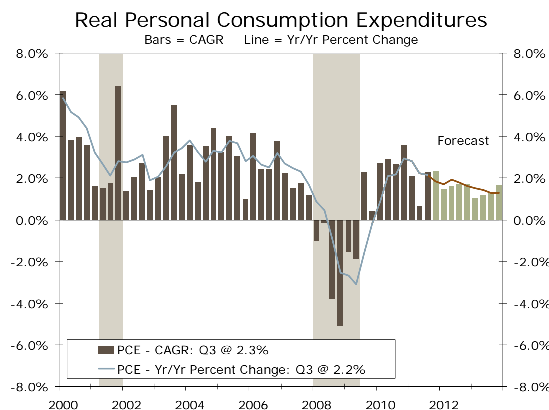
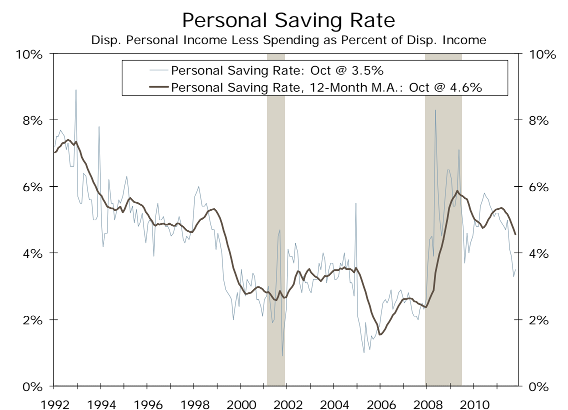


Figure 12



Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

Our forecast assumes the temporary payroll tax cut is extended another year. The initial tax cut provided little immediate relief, as it was more than offset by the surge in energy prices that occurred early last spring. Failure to extend the temporary tax break, however, would likely have a more immediate negative effect and result in much weaker income gains during the early part of the year. Even if the payroll tax cut is extended, consumer spending is expected to slow following the 2011 holiday shopping season. Sales during the holiday season are off to a surprisingly strong start and look to be in line with our forecast of a 5.2 percent gain. Holiday spending was led by purchases of highly popular, and relatively high-priced, tablet computers and smart phones. Once this euphoria dies down, spending should quickly fall back in line with real after-tax income growth, which, unfortunately, is expected to rise just 1.0 percent in 2012.

The sluggish pace of income growth incorporates a modest improvement in job growth and slightly lower inflation rate during the coming year. Businesses are expected to add an average of 123,000 workers per month in 2012, while state and local governments continue to trim payrolls. Inflation is expected to moderate, as energy prices subside amid a slowing global economy.

Even with slightly stronger job growth, consumers hardly appear to be won over. The Consumer Confidence index ended the year at a level more typical at the depths of a recession than two and half years into recovery. Consumers' view of current economic conditions is fairly dire and expectations for the future have been scaled back. One of the more disturbing aspects of the consumer confidence data published by the Conference Board is that for most of the second half of this year, more consumers expected their income to fall over the next six months than expected it to increase. The difference between these two responses has been a fairly reliable indicator of consumer spending in recent years, although the most recent data show a sharp deviation in the two series, with spending rising despite renewed worries about slower income growth.

Consumers' view of current economic conditions is fairly dire and expectations for the future have been scaled back.

Consumers' worries about the economy appear to be well placed and are the key reasons we see consumer spending slowing right after the holiday season. Consumers simply lack the wherewithal to increase spending more than a 2 percent annual rate on a sustained basis. With the saving rate already drawn down and many consumers apparently putting their holiday purchases on credit, some payback appears to be in order for early 2012. Hiring should gain momentum over the course of the year, however, providing a bit more income growth in the second half of the year.

Global Outlook: Assuming Europe Does Not Blow Up…

After posting its first outright contraction in at least 40 years, global GDP has rebounded sharply over the past two years (Figure 13). This rebound has been paced, in large part, by strong growth in the developing world. Under the assumption that Europe does not "blow up," we project that the global expansion will continue, albeit at a below-average pace, in 2012. However, the debt crisis in the Eurozone is very fluid at present, and the probability of another global financial crisis that emanates this time from Europe is not insignificant. We will return below to discuss, in more detail, the European debt crisis and the effect it could have on the global economy.

We project that the global expansion will continue, albeit at a below-average pace, in 2012.

Modest Expansion Should Continue in North America

Let's start with good news. The economic recovery that has been under way in North America for the past two years remains intact. As we previously discussed the U.S. economic outlook earlier in this report, we will not elaborate here other than to repeat our forecast of continued subpar U.S. economic growth in both 2012 and 2013. The United States is by far the largest export destination for both Canada and Mexico, and sluggish U.S. growth will exert headwinds on economic growth in the other two North American economies.

That said, real GDP growth in Canada generally has been stronger than in the United States over the past two years, and we project this relative outperformance should continue in both 2012 and 2013.[3] The resource-rich Canadian economy has benefitted from strong economic growth in Asia

[3] As shown in our global forecast on page 27, we project that U.S. GDP will grow 2.0 percent in 2012 and 1.9 percent in 2013. For Canada, we forecast growth rates of 2.3 percent and 3.0 percent, respectively.

over the past two years, and the continued expansion that we project for Asia should help to support Canadian export growth. In addition, Canada never had a housing bubble in the past decade, at least not to the same extent as the United States did. Therefore, growth in real consumer spending north of the border should be stronger than in the United States over the next two years.

The Mexican economy has grown faster during the current recovery than its colossal neighbor to the north, and we look for this relative outperformance to continue over our forecast period. There really are no major imbalances now in the Mexican economy that would likely trigger a stand-alone Mexican recession. That is, inflation is under control, interest rates are low and the current account is more or less in balance. As long as the American, and more broadly the global, economy continues to expand, which is our base-case scenario, then Mexico should continue to experience a modest pace of real GDP growth.[4]

Figure 13

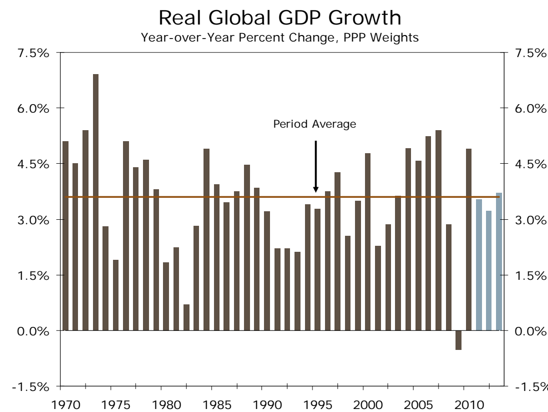
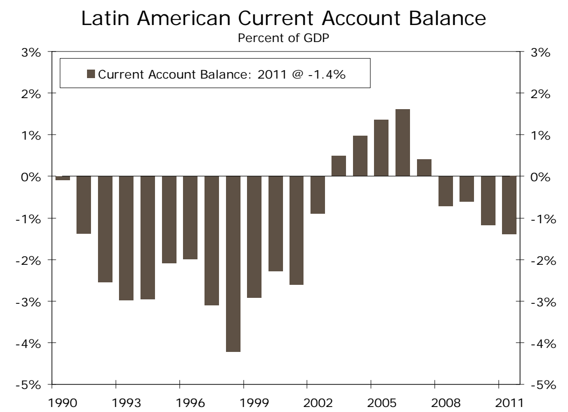


Figure 14



Source: International Monetary Fund and Wells Fargo Securities, LLC

South America: Absence of Serious Macroeconomic Imbalances

Speaking of balance, there generally are no serious macroeconomic imbalances in most South American economies at present. Yes, the region is incurring a current account deficit at present, but the size of the deficit is modest compared to the amount of red ink that was racked up more than a decade ago (Figure 14). Brazil has experienced a bit of run-up in CPI inflation over the past year or so, but the overall inflation rate is low relative to the rates that prevailed a decade or more ago. Moreover, it appears that Brazilian CPI inflation is beginning to recede, and we look for further modest disinflation over the next two years. Production of commodities is important to many Latin economies, and the continued global expansion that we project for the next two years should continue to support growth in Latin America. That said, most Latin economies probably will grow at a slower pace in 2012 and 2013 than they have over the past two years.[5]

Asia Should Continue to Experience Solid Growth

We look for the economic expansion in Asia to remain intact over our forecast period.

Due to their extensive trade ties with the rest of the world, most Asian economies experienced sharp downturns when the rest of the global economy imploded in the immediate aftermath of the 2008 financial crisis. However, Asia has bounced back sharply over the past two years. For example, real GDP in China rose more than 10 percent in 2010 and is on pace to add another 9 percent or so this year (Figure 15). Most other economies in the region have posted solid growth rates as well over the past two years, and we look for the economic expansion in Asia to remain intact over our forecast period.

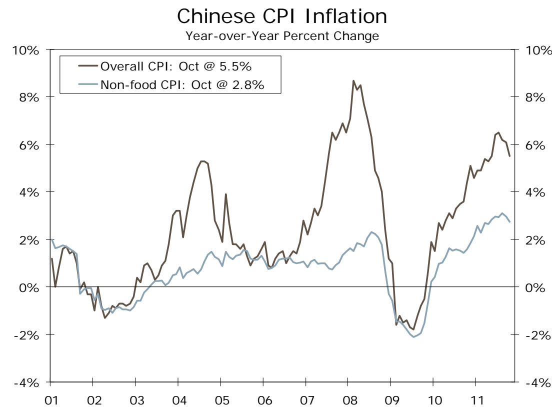
[4] We look for Mexican real GDP to increase 4.3 percent in 2012 and 4.5 percent in 2013.

[5] For example, real GDP in Brazil grew 7.5 percent in 2010 and we estimate it expanded 3.0 percent this year. Our forecast calls for 3.3 percent GDP growth in 2012 and 4.0 percent growth in 2013.

Outside of the possibility that the European sovereign debt crisis morphs into a generalized global financial crisis, there are two main risks facing Asia at present. First, inflation has risen across the region this year, and most Asian central banks have responded by tightening policy. If inflation continues to rise, central banks could tighten aggressively, potentially leading to recession. That said, overall inflation rates in Asia appear to be receding (Figure 16). Not only have food and energy prices trended lower over the past two quarters, but "core" rates of inflation have stabilized in many countries as economic growth has slowed. Consequently, the risk that central banks in the region would tighten too much has diminished considerably in recent months.

Figure 15

Figure 16



Source: Bloomberg LP, CEIC and Wells Fargo Securities, LLC

The second major Asian-specific risk relates to the possibility of housing bubbles in some economies, especially in China. Whether there is a housing bubble in China is open to question. But, would the Chinese economy be brought to its knees if house prices in that country fall significantly over the next year or so? Probably not, because China is not an overly leveraged economy at present. For example, household debt as a percentage of GDP currently stands around 90 percent in the United States. In China, this ratio is 30 percent. The loan-to-deposit ratio, a measure of bank leverage, is currently around 80 percent in the United States, whereas it is less than 70 percent in China. The collapse of a Chinese housing bubble, should it in fact occur, probably would lead to slower economic growth in China that would exert a dampening effect on many other Asian economies as well. Due to the unleveraged nature of the Chinese economy at present, however, a significant house price decline in China probably would not have the same global ramifications as the collapse of the U.S. housing bubble did.

Should We Worry About Europe?

After contracting more than 5 percent between early 2008 and mid-2009, the Eurozone has experienced a modest recovery (Figure 17). Unfortunately, recent monthly indicators suggest that the overall euro area is sliding back into recession. Industrial production dropped 2.0 percent in September relative to the previous month, and the purchasing managers' indices for both the manufacturing and service sectors have remained below the demarcation line separating expansion from contraction since September. In our base-case scenario, we project that real GDP in the Eurozone will contract about 1 percent over the next two quarters, and economic weakness in Europe will exert a modest slowing effect on the overall global economy. We look for the European Central Bank (ECB), which reduced its policy rate from 1.50 percent to 1.25 percent in November, to cut rates further by 75 bps by the end of the first quarter.

Recent monthly indicators suggest that the overall euro area is sliding back into recession.

As noted earlier, however, our rather benign base-case forecast of continued global growth in 2012 and 2013 is predicated on the assumption that Europe does not "blow up." The crisis that started in Greece, Portugal and Ireland has now spread to the much larger economies of Spain and Italy. Greek government debt totals nearly €400 billion, which is a manageable problem for the Eurozone. In Spain and Italy, however, the respective amounts of outstanding government debt are more than €800 billion and €2 trillion, making those countries too big to bail out.

Unfortunately, yields on Italian government bonds have risen into unsustainable territory in recent weeks, and Spanish yields have shot up sharply as well. If the governments of Spain and Italy are unable to roll over their maturing debt at less onerous rates, they too will face solvency issues at some point over the next few months.

In our view, the sovereign debt crisis could potentially lead to a generalized banking crisis in Europe.

In our view, the sovereign debt crisis could potentially lead to a generalized banking crisis in Europe. Because Italian and Spanish banks hold significant amounts of their country's government debt, the insolvency of the Italian and Spanish governments, should that occur, could lead to the collapse of those banking systems.[6] Banking crises in Spain and Italy would quickly spread to other European countries due to extensive financial ties in the continent. For example, French banking exposure to Italy alone totals about $400 billion, equivalent to roughly 15 percent of French GDP.[7] Banking systems in other major European countries, including Belgium, Germany and the Netherlands, also have large exposures to Italy and Spain (Figure 18). Restructuring of Italian and Spanish government debt could lead to hundreds of billions of euros worth of writedowns among European banks. In our view, a restructuring of Italian government debt would be a "Lehman-like" event that would have profound global ramifications.

Figure 17

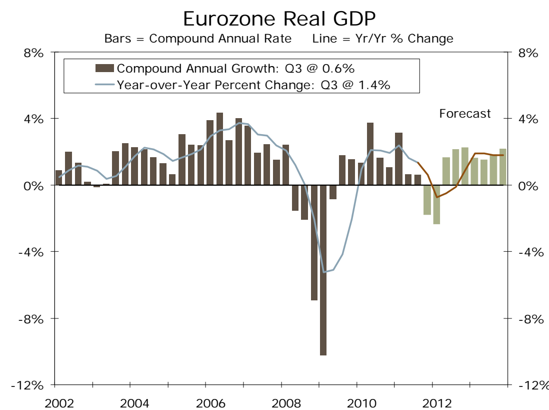
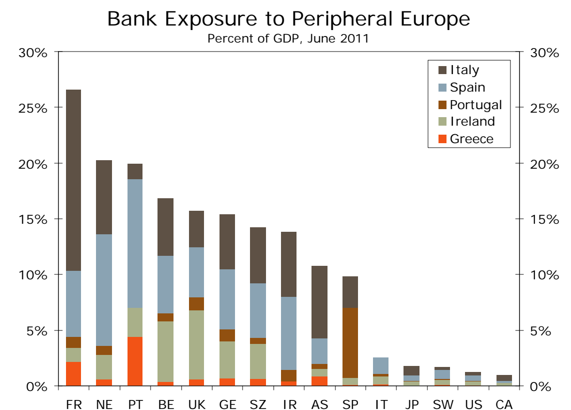


Figure 18



Source: IHS Global Insight, Bank for International Settlements and Wells Fargo Securities, LLC

We are becoming increasingly convinced that the only institution large enough to stop the meltdown that is occurring in the European sovereign bond market is the ECB.

How does this crisis end? We think one of two things needs to happen. First, we are becoming increasingly convinced that the only institution large enough to stop the meltdown that is occurring in the European sovereign bond market is the ECB. In our view, the ECB will need to eventually commit to unlimited purchases of Italian government bonds, either directly or indirectly. ECB intervention would be politically unpopular in Germany. The alternative, however, is the default of the Italian government, which would lead to large losses for German banks, and the potential breakup of the European Monetary Union (EMU). Trying to forecast political decisions is fraught with peril, but we think that faced with the unpalatable choice between unlimited ECB purchases of Italian government bonds and the dissolution of the EMU, which is the culmination of six decades of European economic and political integration, Germany will reluctantly agree to ECB intervention.

Even if the ECB steps in to buy unlimited quantities of Italian government bonds, the crisis likely will not truly be solved, however. To truly "solve" the crisis, Italy needs to take steps to improve its long-run growth prospects. As we showed in a special report this summer, it will be very difficult for Italy to stabilize its debt-to-GDP ratio if the economy remains stagnant in the long term.[8] In our view, Italy needs to move ahead with an aggressive agenda of structural reforms, especially reforms that are aimed at liberalizing its ossified labor market. Mario Monti, the newly installed

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[6] About 40 percent of Italian and Spanish government debt is held domestically.

[7] The $400 billion figure includes French bank holdings of Italian government debt as well as bank loans to Italian financial and nonfinancial enterprises.

[8] See "With Greece 'Stabilized,' Will the Fire Spread?" (July 27, 2011), which is available upon request.

technocratic prime minister of Italy, has promised to introduce reform legislation in the Italian parliament. Even if Italian politicians approve the legislation, it will take some time to ascertain whether the measures are working to eventually lead to stronger growth in the Italian economy. In the meantime, financial markets likely will remain volatile and the global economic outlook clouded. Stay tuned to this station for further developments.

BIICs as the World Growth Engine in 2012?

As the developed countries continue to struggle with their debt crises, the question everybody asks is whether emerging market economies—such as Brazil, India, Indonesia and China—have the wherewithal to carry the world economy into the next stage of economic growth, even in the face of little contribution from the developed world. In fact, recent speculation has indicated that Europe is looking for China to step up to the plate and give a helping hand to solve the European debt crisis. At the same time, it is said that the IMF chief, Christine Lagarde, is seeking support from the Latin American economies to "help contain Europe's mounting debt crisis."[9]

It is clear that China and Chinese politicians have what it takes to continue to keep the economy going for some time to come, even without the help of anybody else.

So far these economies, and perhaps China most prominently, have been able to deliver enough economic growth to help pull commodity prices out of the slump they were immersed in during the 1990s and into the first years of this millennium. Furthermore, China's massive economic stimulus during the 2008 and 2009 worldwide economic crisis showed the political determination to keep the Chinese economy growing no matter what happened to the rest of the world. It is clear that China and Chinese politicians have what it takes, i.e., plenty of resources and political determination, to continue to keep the economy going for some time to come, even without the help of anybody else. Economic growth north of 5 percent per year is needed to avoid any serious social disruptions across the country. Thus, the world probably expects China to have the same determination that it had in 2008 and 2009 to intervene and to prevent a further slowdown of the Chinese economy if the European sovereign crisis finally comes to bear.

However, the situation in Brazil, India and Indonesia is very different as those countries do not have the resources or the political will of China to help themselves and thus help the rest of the world economy. But, what China does not have, which is a nascent domestic consumer market and rising middle class, some of these countries do have, and this could help support global growth even if the developed world falters. A rebalancing toward consumer spending is something China will probably need if it wants to continue to grow at current rates.

Recent signs of an economic slowdown across the emerging markets are calling into question whether this new world order is here to stay and if the emerging market economies can deliver the growth necessary to keep the rest of the world economy afloat, even in the face of a shock stemming from the developed world.

Chinese Growth Model: Export-Led Growth

Let us return to discuss the Chinese growth model. This model is very similar to the economic development model used by Japan after the Second World War and by the East Asian Tigers during the 1970s and 1980s. It has consisted of a highly competitive exchange rate as well as highly subsidized interest rates for productive investment in these countries. However, the Chinese experiment is of such magnitude that the Chinese development model has rendered the Japanese and East Asian Tigers' models as an anecdote in the annals of export-led economic growth theory. The size of the Chinese government involvement, in terms of influence and might, has given China a degree of economic power that neither of these other countries had during their own rise to the top of the worldwide production ladder. Thus, the Chinese economic experiment has been more intense and more government-involved.

Until the worldwide financial crisis triggered by the collapse of Lehman Brothers and the ensuing U.S. housing crisis, Chinese economic growth was based on two basic objectives. First, China sought to secure a strong consumer market in the United States and in other developed countries

[9] Colitt, R. and Rastello, S. (2011, November 28). IMF's Lagarde Seeks Latin America Help for Europe in "Historic About-Turn." ***Bloomberg News.***

through a policy of committing to a very cheap yuan exchange rate versus the U.S. dollar.[10] Why? Because China continues to lack a strong domestic consumer market to justify the impressive expansion of its production capacity, and this means that China needs to count on foreign markets to absorb this increase in production over consumption. Furthermore, this excess production over consumption allows the economy as a whole to "save" a large percentage of its income. This accumulation of income is then used by the government to continue to grow its economy and buy U.S. Treasury securities to keep the yuan undervalued. The accumulation of reserves provides extra liquidity to inject into the economy if the economy starts to slow down and to invest in other countries to secure access to important natural resources.

In the end, the appreciation/ depreciation of the Latin American currencies will ultimately depend on the strength of Chinese economic growth.

At the same time, the overvaluation of the U.S. dollar to the yuan has added other benefits for Chinese producers and exporters. One of these benefits was that the countries in the sphere of influence of the U.S. dollar, including some very large economies such as Mexico, Brazil, Argentina, experienced a strong appreciation of their currencies vis-à-vis the U.S. dollar and thus against the Chinese currency during the period. This made Chinese exports to these countries very cheap and helped boost the share of Chinese exports headed to the region (Figure 19). This benefit is not something that Chinese exporters will probably be able to count on forever as there have been recent moves by these currencies to depreciate against the U.S. dollar due to the weakening of their economies and of commodity prices. Thus, we should expect some further weakening of Chinese exports to these countries as their currencies continue to readjust versus the U.S. dollar. However, in the end, the appreciation/depreciation of the Latin American currencies will ultimately depend on the strength of Chinese economic growth, as this will be fundamental in keeping commodity prices high.

Figure 19

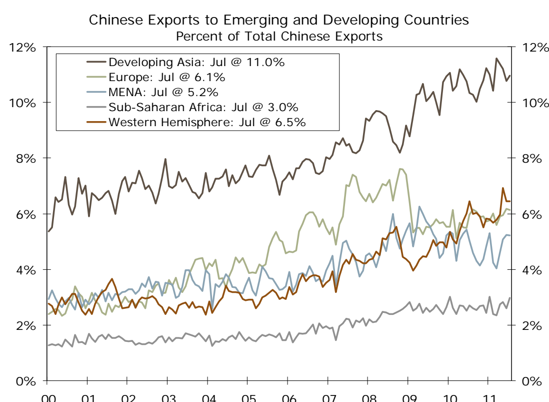


Figure 20

Source: IHS Global Insight and Wells Fargo Securities, LLC

Also benefitting these economies was the sharp increase in commodity prices as a consequence of the strong growth in the Chinese economy. China has become a major importer of commodities over the past several decades as its population transitions from subsistence agriculture to an industrialized society. At the same time, the need to secure important sources of inputs for production—basically natural resources—has also put pressure on commodity prices. Thus, commodity prices are being pulled up by several simultaneous effects: first, as direct demand from Chinese consumers; second, as indirect demand as input for increased Chinese production; and third, as a consequence of the depreciation of the U.S. dollar during the past decade or so.

The second objective for Chinese growth was based on Chinese entrepreneurs securing scarce resources all across the globe, with resource-rich countries being the targets of Chinese

[10] This objective has been achieved, partially, through the massive purchase of U.S. Treasury debt instruments.

investments.[11] These Chinese investments in resource-rich countries have deepened the links between these countries and the Chinese economy as well as further strengthened developed countries' currencies through an important inflow of capital from China.

The strong push for export-led growth has made Chinese economic growth highly reliant on foreign consumers.

The strong push for export-led growth has made Chinese economic growth highly reliant on foreign consumers. Thus, Chinese exports are highly dependent on developed economies even though developing economies have increased their share of Chinese exports and their importance during the past decades. Chinese exports to developed countries still account for close to 70 percent of total Chinese exports but have been slowly losing share to emerging and developing countries (Figure 20). If the trend continues, the developing countries will become more important for Chinese exporters in approximately 15 years. In the meantime, however, China still relies on the developed world. Thus, while the growth rate of developing economies is more important to China today than the growth rate of the developed economies, sales to the developed world are still more important for China and for world economic growth.

The Head Count Is There, the Income Is Not…Yet

Most analysts agree that emerging markets have a great future ahead of them. However, the size of their economies is still small compared to the size of their populations, or at least in terms of market exchange rates. This means that while the future is bright, emerging markets' role as drivers of worldwide economic growth is still in its infancy or, perhaps, in its teenage years.

Emerging market countries represent an enormous potential for the world economy in terms of population and in terms of income.

These countries represent an enormous potential for the world economy in terms of population and in terms of income (Figures 21 and 22). Just by looking at the sheer size of the population, a very small increase in the size of the middle classes in emerging markets could mean a lot for world producers and for world resource markets. China will need a rebalancing toward its own consumer sector at some point to be able to sustain economic growth, as every modernizing country has had to do through history. This would mean that Chinese incomes will start to increase and that every country in the world would have an opportunity to produce for this massive consumer market. A similar process will be true for other large economies of the world, such as India and Indonesia. However, the global economy will remain unbalanced for the foreseeable future as current Chinese policy is still concentrated in growing the country through exports rather than through the domestic market. That said, further appreciation of the yuan relative to the dollar could have a strong effect on Chinese income per capita in U.S. dollar terms and on worldwide consumption growth.

Figure 21

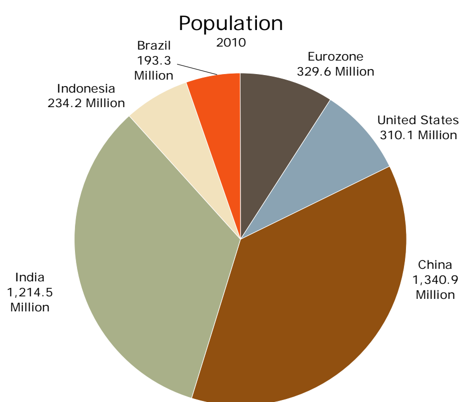
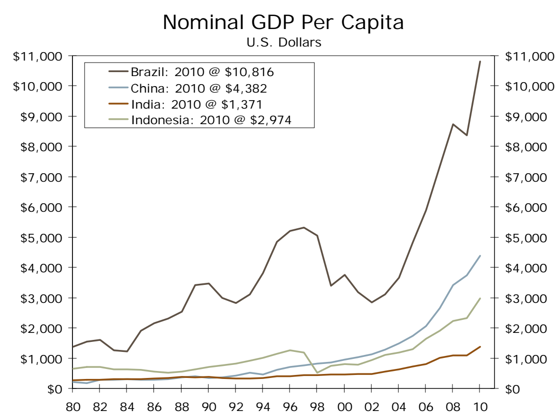


Figure 22



Source: IHS Global Insight, International Monetary Fund and Wells Fargo Securities, LLC

For resource producers, the inclusion of new and growing populations into the world middle classes should mean that commodity prices will remain high for the foreseeable future. As an

[11] Chinese efforts have also gone to buying resource companies across the world. This trend has been such that the Brazilian government has limited the ability of Chinese investors from buying Brazilian land in an effort to stop what they see as a threat to their national sovereignty.

example, it is illustrative to review the case of Brazil. According to Brazilian officials at the finance ministry and central bank, almost 40 million Brazilians have moved from the lower income classes to the middle class during the past 20 years. This new middle class is asking for more participation, not only at the political level, but also in terms of consumption. Over the next several decades, a similar situation will occur in many other emerging market economies, such as India, Indonesia and China. To get an idea of this potential, let us assume that only 5 percent of the poor populations of India, Indonesia and China join the middle classes during the next decade. How much would that represent in terms of new consumers into the world economy? The addition of 5 percent of these country's populations into the middle classes will represent almost 140 million new consumers into the world economy; that is, 140 million new consumers putting pressure on resources, on prices and on production.

This process will have an important effect on worldwide economic growth and on commodity prices for the foreseeable future. However, until that time has come for developing and emerging economies, the world will have to count on the developed countries' consumption if it wants the emerging economies to deliver on their promises in the future.

Why Do Capital Flows Matter?

The red ink in the nation's trade accounts means that America is still reliant on the savings of foreigners.

When a country incurs a current account deficit, its spending exceeds its output. Individuals who spend more than they earn must either borrow or sell assets to finance their excess spending. Likewise, a country with a current account deficit must finance its deficit via net capital inflows. Although the current account deficits that the United States racks up today are smaller than a few years ago, the red ink in the nation's trade accounts means that America is still reliant on the savings of foreigners (Figure 23). Not only is the United States potentially vulnerable to the whims of foreign investors, but the composition of the capital inflows can affect rates of return on various asset classes. For example, foreigners own roughly one-half of the outstanding marketable stock of U.S. Treasury securities. Clearly, yields on Treasury securities would be higher, which would jack up the borrowing costs of the U.S. government, if foreigners were not such willing buyers of Treasury debt. In a worst-case scenario, long-term U.S. interest rates could shoot significantly higher if foreigners decided to "dump" all their holdings of U.S. Treasury securities. Other asset classes could also be negatively affected by significant foreign redemptions of U.S. government bonds.

Figure 23

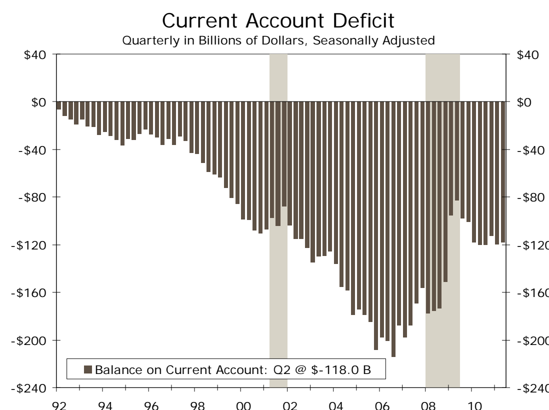
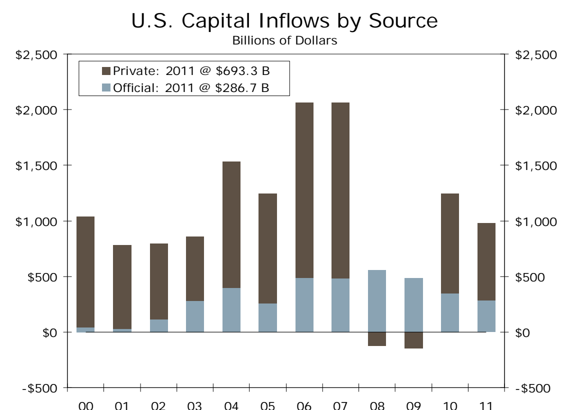


Figure 24



Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

Could Foreign Central Banks "Dump" Treasury Securities?

There is a perception among some individuals that the U.S. current account deficit is financed almost completely by purchases of Treasury securities by the Chinese government. Contrary to these perceptions, however, the reality is that the U.S. current account deficit is financed largely

by the foreign private sector rather than by the foreign "official" sector (Figure 24).[12] Although the absolute amount of overall capital inflows are smaller today than they were at their height in 2006 and 2007—the U.S. current account deficit is smaller today than it was in those years—private inflows account for nearly three-quarters of overall inflows, little changed from the percentages of a few years ago.

Although private sector foreign investors account for the majority of overall capital inflows, let us start by analyzing the composition of official inflows of capital. Attracted by higher rates of return and the perceived guarantee by the U.S. federal government, foreign official investors bought significant amounts of agency securities in the past decade and this inflow of foreign capital played a role in financing the housing boom (Figure 25). However, foreign official investors have largely eschewed new purchases of agency securities since Fannie Mae and Freddie Mac were placed into conservatorship in 2008.

As long as concerns about the sovereign debt situation in Europe remain foremost in investors' minds, foreign central banks likely will remain willing buyers of U.S. Treasury securities.

Since the global financial crisis, foreign official purchases of U.S. assets have been concentrated almost exclusively in U.S. Treasury securities, reflecting the underlying conservative investment philosophy of most central banks. Because almost 40 percent of marketable U.S. Treasury debt is held by the foreign official sector, some analysts worry that a move by foreign central banks to offload their Treasury holdings could have a profound effect on yields. However, any mass exodus from Treasury securities by foreign central banks appears to be more of an abstract possibility rather than a realistic risk, at least at this point. Indeed, the yield on the benchmark 10-year Treasury security is down almost 100 bps since the downgrade of U.S. debt in August. The $39 billion worth of Treasury notes and bonds that the foreign official sector purchased in September is the second-highest monthly total since records began in 1978. As long as concerns about the sovereign debt situation in Europe remain foremost in investors' minds, foreign central banks likely will remain willing buyers of U.S. Treasury securities. In other words, a significant increase in long-term interest rates caused by mass dumping of Treasury securities does not seem very likely, at least not in the foreseeable future.

Figure 25

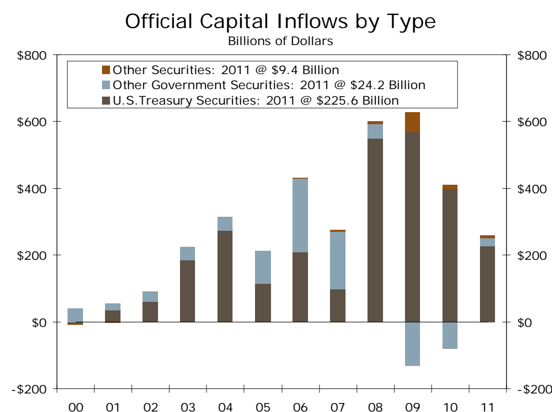
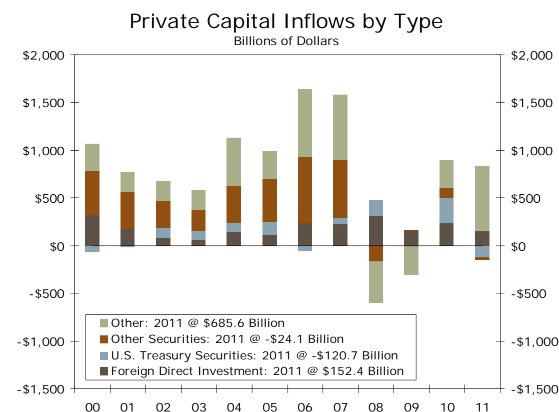


Figure 26



Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

Private Capital Inflows Are Broad Based

Whereas the foreign official sector concentrates most of its asset purchases in U.S. Treasury securities, the buying preferences of foreign private investors are much more diverse. For starters, foreign purchases of real assets, that is foreign direct investment (FDI), totaled $236 billion in 2010, and it is on pace to exceed $150 billion this year (Figure 26). There are a number of reasons for foreigners to invest directly in the United States, including the large market size and the high productivity of American workers. By the end of 2011, the outstanding stock of foreign capital in

[12] Institutions like central banks comprise the foreign "official" sector. As of this writing, data on overall capital inflows are complete only through the second quarter of 2011. The data points for 2011 that are shown in the charts in this section reflect annualized rates for the first two quarters of the year.

the United States should total about $2.8 trillion, which represents about 16 percent of the $17 trillion private nonresidential capital stock in the country today. The facilities that are owned directly by foreigners clearly employ millions of Americans.

But capital inflows from the foreign private sector are not limited to FDI only. Historically, inflows of portfolio capital, especially non-Treasury securities, have been strong. Prior to the global financial crisis of 2008, foreign investors snapped up agency debt as well as "corporate" bonds, which include most types of structured fixed-income securities, such as private-label mortgage-backed securities (MBS), commercial mortgage-backed securities (CMBS) and collaterized debt obligations (CDOs). Massive inflows of foreign portfolio capital in the middle years of the past decade were helping to underwrite the credit boom during that time.

If private investors were piling into Treasury securities like their official counterparts, Treasury yields would be even lower than they already are.

However, fixed-income investment in securities other than the "safest" Treasury securities completely fell out of favor during the global financial crisis, and purchases of agency securities and "corporate" bonds by foreign investors quickly collapsed (Figure 27). Although foreign purchases of U.S. equities have rebounded somewhat over the past few years, purchases of agency securities and "corporate" bonds remain very weak. Lack of foreign interest helps to explain weak issuance in structured finance since the global financial crisis. Interestingly, purchases of U.S. Treasury securities by private sector foreign investors have also weakened somewhat this year. If private investors were piling into Treasury securities like their official counterparts, Treasury yields would be even lower than they already are. Outside of FDI, the only significant category of private sector capital inflows at present is "other," which tends to be short-term capital inflows related to bank deposits and intercompany loans.

Figure 27

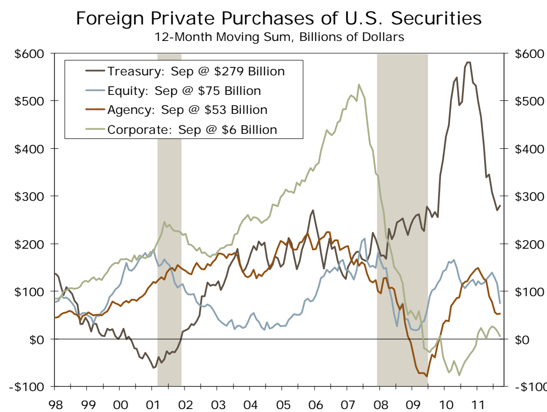
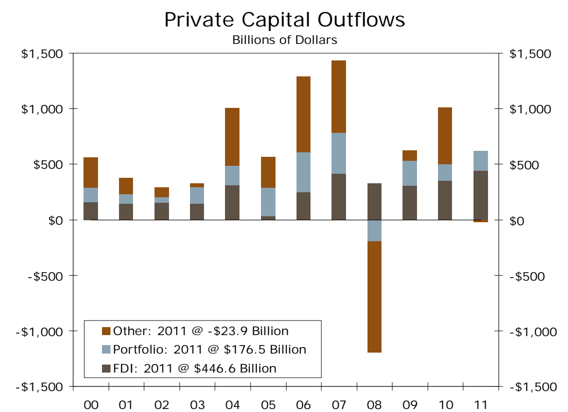


Figure 28



Source: U.S. Dept. of the Treasury, U. S. Dept. of Commerce and Wells Fargo Securities, LLC

Capital Can Flow the Other Way as Well

Although the current account deficit makes the United States a net capital importer by definition, there are also some gross capital outflows from the country. U.S. firms have historically exported capital via direct investment flows, and this behavior continues today. Indeed, direct investment abroad is on pace to hit an all-time high of nearly $450 billion this year (Figure 28). Anyone who has ever traveled abroad can attest to the significant presence of American businesses in foreign countries. In addition, outflows of portfolio capital have been stronger this year than in 2010, although they are not yet back at the levels that prevailed from 2005 through 2007 when the developing world was booming and money was pouring into those countries in search of high returns. A significant surge in American investment abroad, should that occur, would raise the cost of capital for American businesses. That said, for reasons to which we turn to now, a significant outflow of American capital does not seem very likely in the foreseeable future.

How Might Capital Flows Evolve Going Forward?

Our outlook assumes that the global economic expansion that has been in place over the past two years will continue. However, we project that the pace of global growth will be subpar in both

2012 and 2013.[13] The Eurozone appears to be sliding back into a modest recession, and economic growth in some of the major developing countries of the world probably will be slower in 2012 than in 2011. Under a scenario of sluggish global growth, risk aversion likely will remain elevated. What will capital flows look like under this projected scenario, and what are the implications for this composition of capital flows?

In times of slow global growth, FDI flows tend to weaken as profit growth slows and financing is less readily available.

Despite a subpar pace of global economic growth, FDI into the United States should remain positive, because there has never been a year since records began in 1960 in which FDI has turned negative. Although slow economic growth usually means weaker profit growth, the long-term strategic rationale for foreign businesses for greenfield investment or expansion of existing facilities within the United States will remain in place. That said, in times of slow global growth, FDI flows tend to weaken as profit growth slows and financing is less readily available. The European Union accounted for 60 percent of total FDI in the past decade, and the incipient renewed downturn in the Eurozone probably will lead to weaker direct investment flows in 2012. Foreign companies will continue to create new jobs in the United States, albeit probably at a slower pace than this year.

Foreign investors made sizable purchases of structured fixed-income securities in the middle of the past decade that helped to fuel the credit boom of those years. In the current environment of elevated risk aversion, however, it is difficult to envision significant investor appetite for structured fixed-income securities. Even if investment banks were willing to supply significant amounts of new structured finance, the demand for these fixed-income products, from domestic as well as foreign investors, likely will remain constrained for the foreseeable future. Therefore, another credit bubble that is fueled in part by the willing participation of foreign investors does not seem likely anytime soon. In terms of other flows of portfolio capital, foreign investors will probably continue to make limited purchases of U.S. equities. In an environment of elevated risk aversion, foreign investors will probably continue to find the safety of U.S. Treasury securities relatively attractive.

Official purchases of U.S. Treasury securities have been very strong since the global financial crisis of 2008, and we believe this trend will continue for the foreseeable future. Foreign central banks are conservative by nature. They may have been willing to buy higher-yielding agency securities during the housing boom, but they have largely eschewed these securities since boom turned to bust. Moreover, the exchange rate policies of many Asian countries probably will not change significantly. These countries generally incur large current account surpluses. To keep their exchange rates more or less fixed, Asian central banks need to buy large quantities of dollars in the foreign exchange market, and most of these dollars end up financing purchases of Treasury securities. Since the beginning of 2008, foreign holdings of U.S. Treasury securities have risen by roughly $2 trillion, and Asia has accounted for about 60 percent of this increase. The upshot is that yields on U.S. Treasury securities are not likely to snap higher in the foreseeable future.

Could the political gridlock in Washington that has prevented the U.S. government from enacting a significant deficit reduction plan cause foreign investors, from both the private and official sectors, to shy away from U.S. Treasury securities? Maybe. However, since the 112th Congress was seated in January 2011 and gridlock set in on Pennsylvania Avenue, the yield on the 10-year U.S. government bond has declined by more than 100 bps. As noted above, as long as investors have concerns about the sovereign debt situation in Europe, which we do not see abating soon, Treasury securities likely will find more willing buyers.

As we wrote in the section on the foreign economic outlook, the probability of another global financial crisis emanating this time from the Eurozone is not insignificant. What would happen to capital flows if another global financial crisis were to ensue? As witnessed during the financial crisis of 2008, foreign purchases of U.S. Treasury securities surged. When investors become extremely risk averse, they seek safety and liquidity, and the market for Treasury securities is the

[13] Measured at market exchange rates, global GDP growth averaged 2.8 percent per annum between 1980 and 2010. As shown in our forecast table on page 27 we project that global GDP will rise 3.2 percent in 2012 and 3.7 percent in 2013, respectively.

deepest, most liquid financial market in the world. If another financial crisis were to envelop the global economy, foreign investors likely would flock to U.S. Treasury securities, causing yields on these securities to drop even further.

Lessons for the United States from Japan's Lost Decade

There have been many comparisons between the United States since the financial crisis and the lost decade Japan experienced in the 1990s. In this section, we explore some of the similarities, differences and lessons that can be drawn from Japan. We find there are some striking similarities, several key differences and quite a few lessons that can be drawn from the Japanese experience.

First, let us explore some of the similarities. Both Japan and the United States experienced huge bubbles in their residential real estate markets and, to a lesser extent, in their stock markets and commercial real estate markets. When these bubbles eventually popped, they led to large asset price declines and prolonged recessions. In real terms, nationwide prices for land in Japan peaked in early 1991 after running up 53 percent over the prior 10 years. In the United States, the bubble in real land prices was nearly twice as big, with prices rising 103 percent over the same time span before peaking in early 2006 (Figure 29).[14]

In addition to real estate, both Japan's economy during the 1980s and the U.S. economy over the past decade experienced sizable increases in equity prices, which rapidly declined when the real estate bubble collapsed (Figure 30). While the Japanese stock market bubble was larger, the stock market declines in the United States hit consumer spending beginning in 2008 just as Japan's stock market collapse clearly added to the negative wealth effect on Japanese consumers.

Figure 29

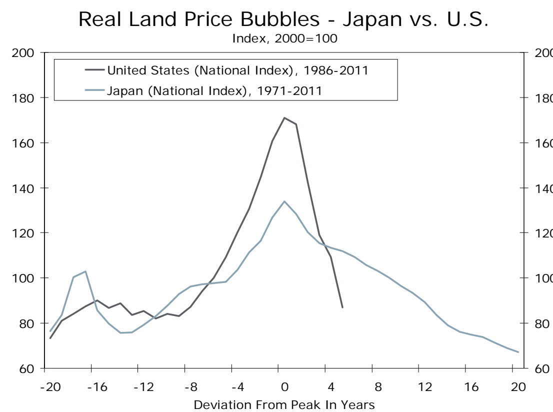
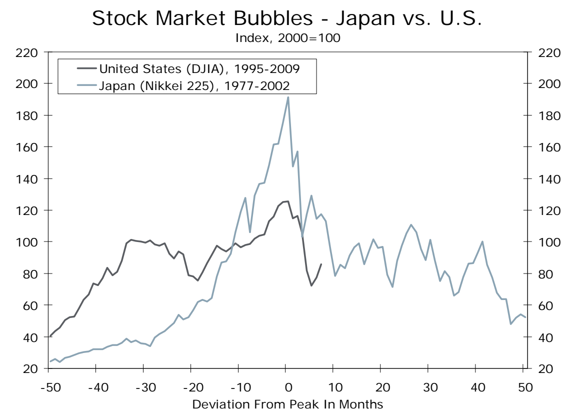


Figure 30



Source: Japan Real Estate Institute, Japan Statistics Bureau, FHFA, Bloomberg LP and Wells Fargo Securities, LLC

Long-term interest rates in both countries fell instead of rose in response to the higher levels of debt.

Other similarities are found when looking at fiscal policy in the aftermath of each country's financial crises. The debt-to-GDP ratios in Japan and the United States increased at comparable rates (Figure 31). Japan embarked on ambitious fiscal stimulus packages, much as the United States did in the early days following the financial crisis. Japan's fiscal stimulus also initially centered around building new infrastructure, including roads, bridges and railways to replace the lost private sector demand. In addition, government debt increased in both countries as the depth of the economic downturn led to an increase in social safety net spending. At the same time, long-term interest rates in both countries fell instead of rose in response to the higher levels of debt (Figure 32).

[14] We consider land prices because home price data for Japan are not readily available. In general, land prices and home prices move in tandem. Both series are deflated using each country's respective consumer price index.

Figure 31

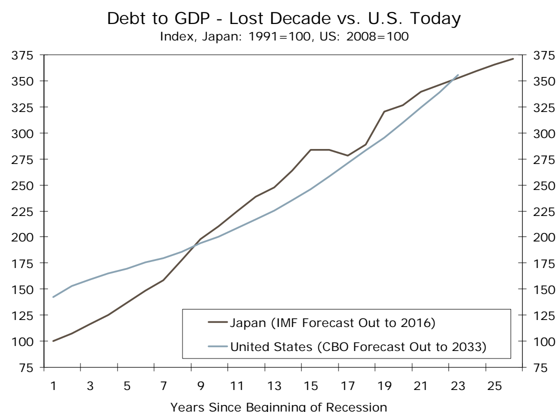
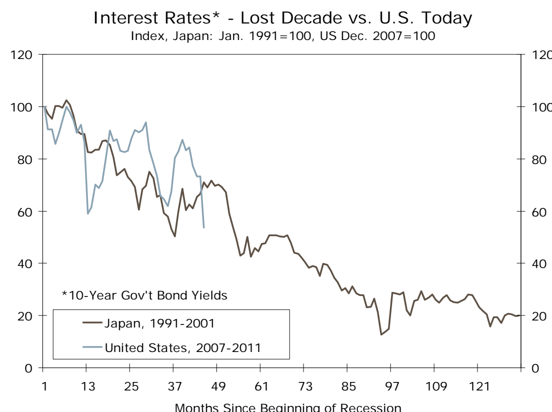


Figure 32



Source: International Monetary Fund, Congressional Budget Office, IHS Global Insight, Federal Reserve Board and Wells Fargo Securities, LLC

At first blush, the fact that interest rates fell in both Japan and the United States appears curious. Japan's financial problems are among the worst in the developed world. Since the early 1990s, Japan's net public debt has risen from 20 percent of GDP to 110 percent of GDP in 2010. Public debt in gross terms is even worse at around 225 percent of GDP in 2010. However, Japan's policymakers have been able to ignore this growing problem over the past 20 years due to a number of special factors that have limited the consequences of chronic deficit spending on interest rates, inflation and the yen. A recent study out of the International Monetary Fund noted that despite a rapid increase in public debt and large fiscal deficits, Japanese real government bond yields have remained fairly stable and, in nominal terms, have steadily declined. Ten-year Japanese government bond yields have declined from 7.0 percent in the early 1990s to just over 1.0 percent today.[15]

Standard economic theory suggests that fiscal deficits or a rising stock of government debt should have a positive relation to government bond yields. The crowding-out of private capital by public debt is a factor often cited in economic literature. Cross-country empirical studies around this question find that a 1 percent increase in the fiscal deficit as a percentage of GDP can increase long-term government bond yields by between 10 bps-60 bps, all else held equal.[16] Other studies that look at the stock of debt find that a 1 percent increase in the stock of debt as a percentage of GDP raises government bond yields by around 10 bps.[17] For Japan, however, the size of the primary deficit appears insignificant, and, for gross and net debt, the estimated coefficients from the IMF study are negative—not the sign expected by economic theory.

Different factors have led to the United States and Japan bucking the economic theory on government borrowing rates.

However, different factors have led to the United States and Japan bucking the economic theory on government borrowing rates. The IMF study finds that a growing pool of household savings, the presence of large and stable institutional investors and a strong home bias have all helped Japan avoid the upward pressure on government bond yields expected by economic theory. According to the Ministry of Finance, some 93.0 percent of Japanese government bonds were domestically held in 2008. While these special factors are likely to persist for awhile longer, the Japanese market's ability to absorb debt is likely to diminish in the years ahead. An aging Japanese population will reduce saving inflows, and financial reforms could enhance the risk appetite of investors. As these structural changes affect the marketplace for Japanese bonds, fiscal consolidation will be increasingly important for maintaining market stability.

For the United States, even a sovereign debt downgrade by S&P and skyrocketing deficits as a share of GDP have not been enough to push nominal interest rates higher. But for the United

[15] Tokuoka, K. (2010) The Outlook for Financing Japan's Public Debt. IMF working paper WP/10/19.
[16] Recent work that estimates the impact of fiscal deficits include Baldacci, Gupta and Mati (2008), Hauner and Kumar (2006) and Ardagna, Caselli, and Lane (2004).
[17] Recent empirical work includes Kinoshita (2006), Engen and Hubbard (2004) and Laubach (2003).

States, the reasons for the decline in government bond yields has more to do with Federal Reserve purchases, flight to safety flows coming from Europe and the Middle East and relatively benign inflation expectations. Less than 50 percent of marketable U.S. Treasury debt is domestically held. So we should not take too much comfort in the fact that U.S. interest rates are declining in line with Japan's in the 1990s, as the factors holding down U.S. yields are likely more transitory and could reverse much more quickly when economic conditions improve.

Another key difference between the United States and Japan is the role of households in each country's bubbles. The U.S. asset bubble was driven more by household debt than was the bubble in Japan. Consumer and mortgage debt among U.S. households more than doubled in the 10 years prior to the Great Recession, while in Japan, household debt remained relatively constant in comparison. It is the need for U.S. consumers to deleverage their debt before they have the ability to spend freely again that has been a major stumbling block against stronger U.S. economic growth.

This is evident in the relative economic performance of the United States and Japan following the asset bubble collapse. The economic performance from the U.S. economy in the aftermath of the asset bubble has so far been somewhat worse than Japan's during the lost decade on a number of metrics, including GDP, employment and the unemployment rate. The economic downturn in the United States from late 2007 to mid-2009 was much more devastating than the initial recession that Japan's economy experienced in 1991. Real GDP in the United States dropped about 5.0 percent, while GDP in Japan just stalled out (Figure 33). The U.S. employment drop was an even more severe 6.0 percent drop, while employment in Japan continued to rise at a modest pace.

Japan's demographic and population growth trends are much worse than those facing the United States.

However, there are some positive differences between where the U.S. economy is today and where the Japanese economy was at this time following each bubble collapse. Japan's demographic and population growth trends are much worse than those facing the United States as a declining fertility rate and aging population will soon cause Japan's total population to begin shrinking. These negative demographic trends helped contribute to Japan's drop in demand and inability to exit its deflationary spiral.

Figure 33

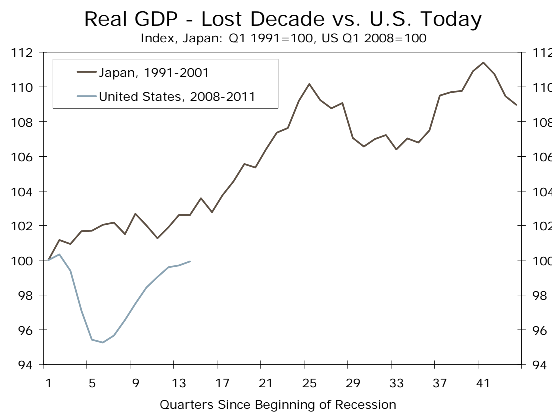
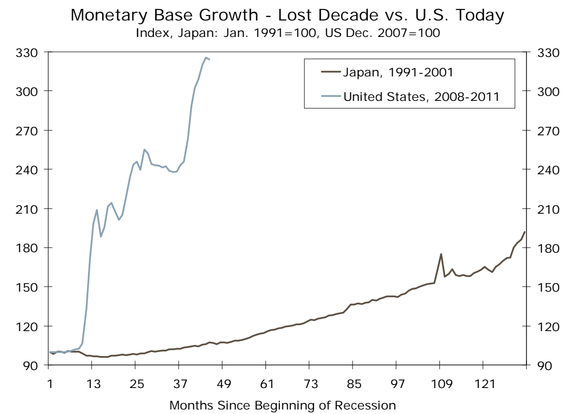


Figure 34



Source: IHS Global Insight, U.S. Department of Commerce and Wells Fargo Securities, LLC

Moreover, Japan's monetary policy response was much less aggressive than the Federal Reserve's actions to overcome the financial crisis. This helped deflation take hold in Japan, while in the United States the Fed has managed to keep deflation at bay. Policymakers at the Federal Reserve responded swiftly to the U.S. financial crisis in 2008, expanding the U.S. monetary base at an unprecedented rate. This, in turn, soaked the U.S. economy and its crippled financial system with enough liquidity to avoid deflationary pressures during the worst of the crisis. Monetary policymakers in Japan, on the other hand, were notoriously slow to address falling aggregate prices in the 1990s. In fact, in a span of just one year, Federal Reserve policymakers expanded the U.S. monetary base by more than what Bank of Japan policymakers expanded the Japanese

monetary base by over an entire decade (Figure 34). More recently, the U.S. monetary base has grown even further—an outcome largely tied to the Federal Reserve's second round of quantitative easing, which occurred from November 2010 to June 2011.

Since the Great Recession ended, profit growth at U.S. corporations has vastly outperformed the sluggish pace of growth that Japanese corporations experienced in the 1990s. Much of that outperformance has been tied to a weakening dollar and a V-shaped recovery in U.S. exports, especially exports of capital goods. As long as growth remains strong in developing countries around the world, U.S. corporations will continue to fare better than Japanese corporations during the lost decade. However, the potential for another global recession if the European sovereign debt crisis "blows up" poses certain risks to this forecast.

The Fed's actions to stabilize the banking system have helped banks and consumers accelerate the deleveraging process.

In addition, the Fed's actions to stabilize the banking system since the financial crisis have helped banks and consumers accelerate the deleveraging process. Deleveraging has been occurring much faster in the United States than what was the case in Japan. In just five years, home prices in the United States have already fallen back to more realistic fundamental levels. It took Japan nearly 12 years to achieve the same level of adjustment. U.S. banks have been much faster in repairing their balance sheets than those in Japan as U.S. banks have been more aggressive at writing down bad loans. This means that U.S. asset values could resume their appreciation much sooner than Japanese assets did in Japan, and U.S. banks will be better able to support economic growth with new lending in the years ahead.

The United States also has some structural advantages over Japan. The U.S. labor market is much more flexible than the Japanese labor market, and the saving rate in the United States has risen much faster than it did in Japan, which puts businesses and consumers in a better position to drive renewed economic growth over the medium term. The saving rate in the United States jumped 6.6 percentage points to 8.3 percent in a span of only nine months during the worst of the financial crisis. This compares to only a modest rise in the Japanese saving rate in the early 1990s, when Japan's asset bubble initially burst, which was followed by a gradual fall in the Japanese saving rate through the rest of the decade.

Concluding Lessons from Japan's Asset Bubble

Both the U.S. and Japanese economies went through horrific asset bubble collapses that laid waste to their economic performance and standing in the world. So far, it has been difficult to argue that U.S. policymakers have had much more success in fighting the after effects of the bubble collapse than did Japanese policymakers, but under the surface, the U.S. economy has achieved some important milestones that could lead to a better performance over the medium term. The Fed has been much more aggressive in fighting deflationary pressures than the Bank of Japan was in the 1990s, and the impact on the monetary base and inflationary expectations is far more constructive than what happened to Japan in the 1990s. Furthermore, U.S. banks are cleaning up their balance sheets at a rapid pace, which will put them in a better position to increase lending, while asset prices are already back to more sustainable levels that can be supported by fundamentals, such as income and rents. The churn of the labor market is making businesses more productive and more profitable than ever, laying the ground work for more balanced and sustainable U.S. growth ahead. Yet, the lessons from Japan suggest that economic recovery from an asset bubble collapse is not easy, and it will still take many more years for the U.S. economy to fully recover.

Wells Fargo U.S. Economic Forecast

	Actual							Forecast									Actual		Forecast		
	2010				2011				2012				2013				2009	2010	2011	2012	2013
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q					
Real Gross Domestic Product (a)	3.9	3.8	2.5	2.3	0.4	1.3	2.0	2.7	1.5	2.0	2.4	2.4	1.5	1.9	1.8	1.9	-3.6	3.0	1.7	2.0	1.9
Personal Consumption	2.7	2.9	2.6	3.6	2.1	0.7	2.3	2.3	1.4	1.6	1.7	1.7	1.0	1.2	1.3	1.6	-2.0	2.0	2.3	1.8	1.4
Business Fixed Investment	6.0	18.6	11.3	8.7	2.1	10.3	14.8	14.8	6.1	7.6	7.9	8.6	3.9	5.8	6.3	6.9	-18.0	4.4	9.3	9.7	6.3
Equipment and Software	21.7	23.2	14.1	8.1	8.7	6.2	15.6	6.3	5.5	7.5	8.0	8.9	3.6	5.6	6.1	6.6	-16.3	14.6	10.3	7.8	6.2
Structures	-24.7	7.5	4.2	10.5	-14.3	22.6	12.6	9.0	8.5	8.0	7.5	7.5	5.0	6.5	7.0	8.0	-21.2	-15.8	5.0	9.6	6.7
Residential Construction	-15.3	22.8	-27.7	2.5	-2.5	4.2	1.6	4.5	4.0	4.5	5.0	5.5	5.0	5.5	6.0	6.5	-22.3	-4.3	-1.7	4.1	5.4
Government Purchases	-1.2	3.7	1.0	-2.8	-5.9	-0.9	-0.1	-0.8	-1.7	-1.5	-1.1	-1.0	-1.1	-1.0	-0.7	-0.7	1.7	0.7	-1.9	-1.1	-1.0
Net Exports	-376.8	-437.4	-458.7	-414.2	-424.4	-416.4	-400.7	-419.0	-439.1	-445.6	-443.7	-446.0	-439.1	-426.3	-421.1	-426.0	-358.8	-421.8	-415.1	-443.6	-428.1
Pct. Point Contribution to GDP	-1.0	-1.9	-0.7	1.4	-0.3	0.2	0.5	-0.5	-0.6	-0.2	0.1	-0.1	0.2	0.4	0.1	-0.1	1.0	-0.5	0.1	-0.2	0.1
Inventory Change	39.9	64.6	92.3	38.3	49.1	39.1	-8.5	-11.0	10.0	23.0	35.0	44.0	50.0	50.0	50.0	50.0	-145.0	58.8	17.2	28.0	50.0
Pct. Point Contribution to GDP	3.1	0.8	0.9	-1.8	0.3	-0.3	-1.6	-0.1	0.6	0.4	0.4	0.3	0.2	0.0	0.0	0.0	-0.8	1.6	-0.3	0.1	0.2
Nominal GDP	5.5	5.4	3.9	4.2	3.1	4.0	4.6	5.0	3.7	4.1	4.5	4.4	3.5	4.0	4.1	4.1	-2.6	4.2	4.0	4.3	4.0
Real Final Sales	0.8	3.0	1.7	4.2	0.0	1.6	3.6	2.5	0.9	1.6	2.1	2.1	1.3	1.9	1.8	1.9	-2.8	1.4	2.1	1.9	1.8
Retail Sales (b)	5.3	6.9	5.6	7.6	8.2	7.8	8.0	6.9	5.1	4.9	4.7	3.9	3.7	3.6	3.9	4.2	-7.0	6.4	7.7	4.7	3.8
Inflation Indicators (b)																					
"Core" PCE Deflator	1.7	1.5	1.3	1.0	1.1	1.3	1.6	1.7	1.7	1.5	1.4	1.6	1.5	1.6	1.6	1.7	1.5	1.4	1.4	1.6	1.6
Consumer Price Index	2.4	1.8	1.2	1.2	2.2	3.3	3.8	3.5	2.6	2.0	1.7	1.8	1.9	1.9	2.0	2.2	-0.3	1.6	3.2	2.0	2.0
"Core" Consumer Price Index	1.3	1.0	0.9	0.6	1.1	1.5	1.9	2.2	2.1	1.8	1.5	1.5	1.5	1.6	1.7	1.7	1.7	1.0	1.7	1.7	1.6
Producer Price Index	5.1	4.3	3.7	3.8	5.0	6.7	6.9	5.7	3.2	2.0	2.2	2.5	2.8	2.9	2.9	2.9	-2.6	4.2	6.1	2.5	2.8
Employment Cost Index	1.7	1.9	1.9	2.0	2.0	2.2	2.0	2.0	2.2	2.0	2.0	2.1	2.3	2.1	2.2	2.2	1.7	1.3	2.1	2.1	2.2
Real Disposable Income (a)	4.9	5.6	2.3	1.5	1.2	-0.5	-2.1	1.2	1.5	1.6	1.8	2.0	-0.6	1.3	1.8	2.1	-2.1	1.8	0.9	1.0	1.1
Nominal Personal Income (b)	1.4	3.2	4.9	5.4	5.8	5.1	4.2	3.6	1.9	1.8	2.5	2.9	2.1	2.1	2.1	2.3	-4.0	3.7	4.7	2.3	2.2
Industrial Production (a)	8.1	7.1	6.7	3.1	4.8	0.6	5.2	2.6	2.9	3.6	3.0	2.2	-1.9	3.3	4.0	4.2	-11.1	5.3	4.0	3.1	1.9
Capacity Utilization	72.3	74.0	75.5	76.1	76.8	76.7	77.4	77.3	77.0	77.2	77.2	77.3	77.4	77.6	77.8	78.1	69.2	74.5	77.0	77.2	77.7
Corporate Profits Before Taxes (b)	46.7	41.5	27.4	18.2	8.8	8.5	7.9	6.4	6.2	6.0	6.4	6.6	6.7	6.9	7.1	7.2	7.9	32.2	7.9	6.3	7.0
Corporate Profits After Taxes	36.0	36.2	23.3	17.4	10.6	9.4	11.4	7.0	7.4	7.2	7.4	7.4	7.6	7.8	8.0	8.2	14.2	27.5	9.6	7.4	7.9
Federal Budget Balance (c)	-328.9	-287.0	-290.2	-369.0	-460.5	-141.1	-325.1	-263.5	-350.0	-146.0	-197.0	-190.0	-160.0	-130.0	-170.0	-185.0	-1415.7	-1294.2	-1295.6	-956.5	-650.0
Current Account Balance (d)	-118.3	-120.3	-120.1	-112.2	-119.6	-118.0	-110.0	-125.0	-145.0	-160.0	-165.0	-165.0	-160.0	-150.0	-145.0	-150.0	-376.6	-470.9	-472.6	-635.0	-605.0
Trade Weighted Dollar Index (e)	76.1	78.8	73.6	73.2	70.6	69.4	72.8	72.0	72.5	73.0	74.0	75.0	76.0	77.0	78.0	79.0	77.7	75.6	71.2	73.6	77.5
Nonfarm Payroll Change (f)	39.3	181.0	-45.7	138.7	165.7	96.7	147.0	113.3	110.0	120.0	130.0	130.0	110.0	125.0	130.0	130.0	-421.9	78.3	130.7	122.5	123.8
Unemployment Rate	9.7	9.6	9.6	9.6	8.9	9.1	9.1	8.8	9.0	9.1	9.0	8.9	9.0	8.9	8.8	8.8	9.3	9.6	9.0	9.0	8.9
Housing Starts (g)	0.61	0.60	0.58	0.54	0.58	0.57	0.61	0.61	0.61	0.64	0.67	0.68	0.70	0.73	0.77	0.80	0.55	0.58	0.59	0.65	0.75
Light Vehicle Sales (h)	11.0	11.4	11.6	12.3	13.0	12.1	12.4	13.5	13.4	13.5	13.7	13.9	13.5	13.7	14.1	14.4	10.4	11.6	12.8	13.6	13.9
Crude Oil - WTI - Front Contract (i)	78.72	78.03	76.20	85.17	94.10	102.56	89.76	92.86	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	61.80	79.53	94.82	95.00	95.0
Quarter-End Interest Rates (j)																					
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3 Month LIBOR	0.29	0.53	0.29	0.30	0.30	0.25	0.37	0.50	0.50	0.50	0.50	0.50	0.45	0.45	0.45	0.45	0.69	0.34	0.36	0.50	0.45
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Conventional Mortgage Rate	4.97	4.74	4.35	4.71	4.84	4.51	4.11	4.10	4.20	4.20	4.20	4.30	4.40	4.50	4.50	4.60	5.04	4.69	4.39	4.23	4.50
3 Month Bill	0.16	0.18	0.16	0.12	0.09	0.03	0.02	0.03	0.10	0.15	0.20	0.20	0.20	0.20	0.25	0.30	0.15	0.14	0.04	0.16	0.24
2 Year Note	1.02	0.61	0.42	0.61	0.80	0.45	0.25	0.30	0.50	0.50	0.50	0.60	0.60	0.70	0.80	0.90	0.96	0.70	0.45	0.53	0.75
5 Year Note	2.55	1.79	1.27	2.01	2.24	1.76	0.96	1.00	1.20	1.20	1.30	1.40	1.40	1.50	1.50	1.60	2.20	1.93	1.49	1.28	1.50
10 Year Note	3.84	2.97	2.53	3.30	3.47	3.18	1.92	2.10	2.30	2.40	2.40	2.50	2.60	2.70	2.70	2.80	3.26	3.22	2.67	2.40	2.70
30 Year Bond	4.72	3.91	3.69	4.34	4.51	4.38	2.90	3.10	3.30	3.30	3.40	3.50	3.60	3.70	3.70	3.80	4.08	4.25	3.72	3.38	3.70

Forecast as of: December 7, 2011

Notes: (a) Compound Annual Growth Rate Quarter-over-Quarter
(b) Year-over-Year Percentage Change
(c) Quarterly Sum - Billions USD; Annual Data Represents Fiscal Yr.
(d) Quarterly Sum - Billions USD
(e) Federal Reserve Major Currency Index, 1973=100 - Quarter End
(f) Average Monthly Change
(g) Millions of Units
(h) Quarterly Data - Average Monthly SAAR; Annual Data - Actual Total Vehicles Sold
(i) Quarterly Average of Daily Close
(j) Annual Numbers Represent Averages

Wells Fargo International Economic Forecast

(Year-over-Year Percent Change)

	GDP			CPI		
	2011	2012	2013	2011	2012	2013
Global (PPP weights)	3.5%	3.2%	3.7%	5.4%	4.2%	4.1%
Global (Market Exchange Rates)	2.4%	2.0%	2.5%	n/a	n/a	n/a
Advanced Economies[1]	1.5%	1.5%	2.1%	2.9%	1.7%	1.5%
United States	1.7%	2.0%	1.9%	3.2%	2.0%	2.0%
Eurozone	1.5%	-0.1%	1.8%	2.7%	1.7%	1.2%
United Kingdom	0.9%	0.8%	1.7%	4.5%	2.1%	1.6%
Japan	-0.2%	2.0%	1.5%	-0.2%	-0.1%	0.1%
Korea	3.6%	3.7%	3.7%	4.0%	3.4%	3.1%
Canada	2.3%	2.3%	3.0%	2.9%	2.2%	2.1%
Developing Economies[1]	5.9%	5.3%	5.7%	8.3%	7.0%	7.1%
China	9.2%	8.2%	8.6%	5.5%	3.6%	3.7%
India	7.3%	7.1%	7.7%	9.0%	7.7%	7.9%
Mexico	4.1%	4.3%	4.5%	3.3%	4.9%	5.3%
Brazil	3.0%	3.3%	4.0%	6.6%	5.5%	5.2%
Russia	4.1%	3.2%	3.0%	8.6%	6.7%	6.6%

Forecast as of: December 7, 2011

[1]Aggregated Using PPP Weights

Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	3-Month LIBOR						10-Year Bond					
	2011	2012				2013	2011	2012				2013
	Q4	Q1	Q2	Q3	Q4	Q1	Q4	Q1	Q2	Q3	Q4	Q1
U.S.	0.50%	0.50%	0.50%	0.50%	0.50%	0.45%	2.10%	2.30%	2.40%	2.40%	2.50%	2.60%
Japan	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	1.05%	1.09%	1.11%	1.13%	1.15%	1.16%
Euroland*	1.20%	0.65%	0.65%	0.65%	0.65%	0.65%	2.20%	2.25%	2.35%	2.50%	2.60%	2.80%
U.K.	1.00%	0.75%	0.70%	0.70%	0.70%	0.70%	2.40%	2.50%	2.60%	2.70%	2.80%	3.00%
Canada	1.30%	1.15%	1.15%	1.15%	1.20%	1.50%	2.20%	2.30%	2.60%	3.00%	3.20%	3.40%

Forecast as of: December 7, 2011

*10-year German Government Bond Yield

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