December 10, 2014

WELLS FARGO SECURITIES

Economics Group

2015 Economic Outlook

A Whole New Ball Game

Policy tightening, shifting dynamics in the domestic economy and slower global growth has changed the game for the economic environment. Despite our expectations for firmer growth in 2015, the economy will enter uncharted territory as businesses and consumers navigate the path to normalization of rates, a flatter yield curve, and structural reforms in other economies.

This report is available on wellsfargo.com/economics and on Bloomberg at WFRE

The Rules of the Game Have Changed

The rules of the game have changed for 2015, and we expect to see a whole new ball game. The home team has strong fundamentals and should allow the domestic economy to become more self-sustaining. We forecast that U.S. real GDP will grow roughly 2.5-3 percent in each of the next two years, marking the strongest two-year period since the middle of the 2001-2007 economic expansion. The composition of growth will remain broad-based. Much of the improvement will come from a stronger labor market as slack continues to diminish. We expect employers to continue to add an average of 210,000 jobs per month, and the unemployment rate to remain below 6.0 percent in 2015. At the same time, we expect inflation to move closer to the Fed's explicit target of 2.0 percent.

One notable area that will get a lift from better job prospects is consumer spending. In 2015, consumption will be bolstered by better household balance sheets, stronger income growth and lower retail gasoline prices. Business fixed investment (BFI) should also boost real GDP growth in 2015. In recent years, businesses have redirected their profits and credit to dividend payments, share buybacks and mergers and acquisitions at the expense of capital investment. However, BFI has accelerated in recent quarters, and businesses are now expected to channel a growing share of profits and credit to fixed investment. The largest downside risk to our BFI forecast is the recent sharp drop in oil prices. The steady decline in oil prices means less energy-related investment for domestic producers. Residential investment is expected to strengthen next year as single-family construction and sales activity continue to normalize. However, slower economic growth for some of America's important trading partners and a stronger dollar mean that trade will likely detract from U.S. real GDP growth for the second-straight year.

The composition of growth will also remain relatively broad-based

Fed Alters its Game Plan

Against this favorable backdrop, we expect the Federal Reserve to begin raising its short-term rate around the middle of 2015. Our forecast puts the upper end of the federal funds target rate at 1.00 percent at the end of 2015 and at 2.75 percent at the end of 2016. Given the expansion of the monetary base since the financial crisis, the Fed has also outlined new tools for normalizing monetary policy, including reverse repurchase facilities and raising the rate paid on excess reserves. In theory, the interest paid on excess reserves should be a floor on the fed funds rate, and the reverse repo facility should provide a target for repo rates. Without a historical precedent, we expect the Fed to proceed cautiously so as not to dislocate financial markets.

Although economic growth in the U.S. will run closer to its long-run average, the character of this recovery will be much different. For starters, the length of the U.S. economic expansion that began in mid-2009 will reach more than six years in 2015. The average length of expansions in the post-war era has been about five years, which means the current expansion will mark one of the longest in the post-war era. The more advanced age of the expansion hints that excesses may have built up that might make the economy vulnerable. In the near term, however, underlying economic conditions suggest there is an upward shift in momentum from the sluggish early stages of the recovery to more self-sustaining growth.

The Home Team is Pulling Away From the Competition

Stronger growth in the U.S. will be a bright spot in the global economy, but overall global growth is not expected to revisit its robust 5 percent annual rate registered during the 2004-2007 boom years. We expect global growth to slightly exceed its long-run average over the next two years; however, most advanced economies will grow only modestly. Economic activity in the Eurozone remains sluggish, and inflation is well below the European Central Bank's 2 percent target rate. The Japanese economy fell into a technical recession in 2014 following the hike in the national consumption tax that took effect in April. Hence, a significant acceleration in Japanese real GDP is not likely to occur until structural economic issues are addressed.

Somewhat "disappointing" growth in the developing world will also hold back headline global economic growth. Real GDP in China is currently growing in the 7.0-7.5 percent range, as government officials attempt to rebalance the economy from large amounts of investment spending toward more consumer spending to avoid a potential debt crisis. We look for further deceleration in the Chinese economy over the next two years, although we do not expect a debt-led crash to occur. Many other developing economies should experience slower economic growth in coming years as well.

It Will Be Harder to Score Pre-crisis Growth Rates

Five and a half years have now passed since the U.S. economy first emerged from its worst recession in the post-war era. Economic growth has averaged a solid, yet unspectacular, 2.3 percent during this period, a pace that has proved sufficient to allow the unemployment rate to drop back below 6 percent and pull capacity utilization back up near its long-run average of around 79 percent. The modest pace of economic growth has provided a false impression that the recovery is still in its infancy, even though the current economic expansion is already slightly longer than the average for the post-war period. Indeed, recent public opinion polls have shown that slightly more consumers believe the economy is still in recession than believe conditions are recovering. In fact, a whopping 78 percent of voters in November's midterm election noted that they were concerned or somewhat concerned about the economy.

Following such a deep recession, sluggish income growth explains a great deal about consumers' frustration with the pace and composition of economic gains. Not only has economic growth been slower than in recent recoveries, but the gains appear to have been more uneven. This pace of economic growth has given rise to a new sense of urgency for monetary and fiscal policies to address growing issues. Years of modest GDP growth and extremely accommodative monetary policy have also reduced volatility in the financial markets. This has possibly provided a false sense of comfort that there are fewer apparent imbalances currently present in the economy and that the recovery has plenty of room to run. Although we see the pace of economic growth picking up over the next couple of years, the risks have also increased. The energy and technology sectors, two of the workhorses through the first phase of the recovery, are beginning to show their age. Other sectors will need to step up if overall growth is going to accelerate.

Figure 1

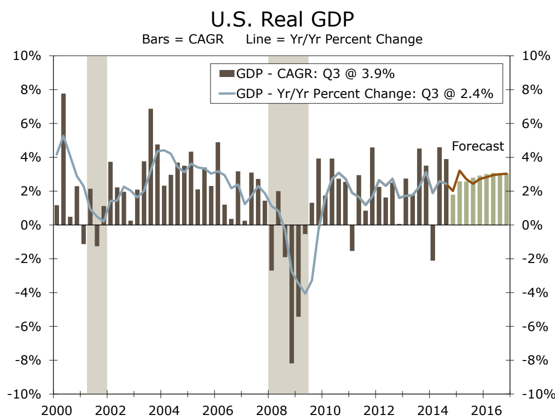
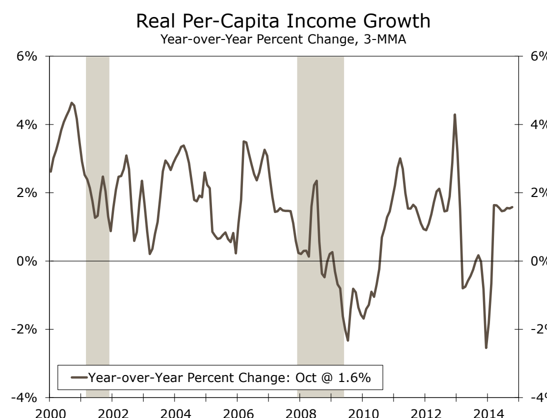


Figure 2



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

Second Half: Time for Some Offense

The tenor of the game is also changing. The first phase of the recovery was a defensive struggle. Easy monetary policy kept interest rates low and income maintenance programs, such as extended unemployment benefits and expanded supplemental nutrition assistance payments, helped to supplement meager labor income gains. That all changed this past year, as emergency supplemental benefit programs were ended and the Fed's balance sheet expansion program, quantitative easing, was gradually wound down. These defensive measures helped keep the economy in the game, yet they did not put many points on the board. Economic growth has averaged a modest 2.3 percent since the end of the recession, and our current estimate calls for real GDP to have grown by roughly that magnitude once again this past year (Figure 1).

The composition of growth has shifted and will adjust further in 2015

Although overall growth maintained roughly the same pace as in prior years, the composition of growth has shifted, and will adjust further in 2015. The team is finally beginning to gel, and all of the domestic sectors of the economy are growing again. One of the more notable improvements has been nonfarm employment growth, as employers added an average of 241,000 jobs per month through the

first 11 months of this year, up from an average of 194,000 jobs per month in 2013. Not only has job growth been firmer, it has also been more broadly based, with gains in high-paying sectors such as construction, manufacturing and professional and technical services helping to drive income growth (Figure 2). Moreover, data from the household survey show that most of the jobs added this past year were in full-time, not part-time, positions.

Stronger job and income growth has put the consumer in a much better position

Sound job and income growth has put the consumer in a much better position (Figure 3). Wage and salary growth accelerated in 2014, rising 4.9 percent year-to-date. These gains were strong enough to keep consumer spending growth at a solid pace, even though expanded emergency benefit payments were reduced at the start of the year. The loss of benefit payments had a marked impact on spending by middle-income and lower-middle-income households. Many retailers catering to these consumers struggled this past year. Improving job and income growth and lower gasoline prices should help increase spending in coming months. Consumer confidence has revived, suggesting that consumers feel better about their finances. Confidence has continued on an upward path since the recession ended and most measures of household finances, including the saving rate, the financial-obligation ratio and various measures of credit quality, all suggest that consumers are in a better position to spend in the coming year (Figure 4).

Figure 3

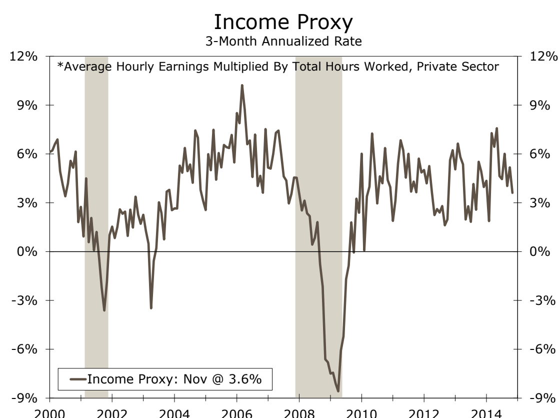
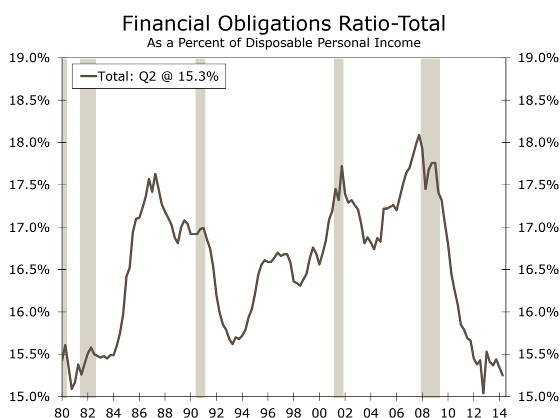


Figure 4



Source: U.S. Dept. of Labor, Federal Reserve Board and Wells Fargo Securities, LLC

The improvement in employment conditions is also evident in the public sector. At the federal level, receipts increased 8.9 percent year-to-date in 2014. Most state governments have also seen withholding tax receipts rise in recent years, and overall revenues are now back above their pre-recession peak. The improvement in public finances has advanced to the point that government outlays are growing again. Gains likely will not continue to be as large as they were in the third quarter of 2014, which saw a huge jump in defense outlays. Given the current state of the world, increased defense spending may produce an upward surprise to federal outlays going forward. State and local government budgets are somewhat more stable and we expect to see modest gains in coming years. That still marks a considerable improvement from the public sector's prior performance, which had mostly been a drag on overall growth.

Business fixed investment has maintained a fairly modest pace over the past few years, with growth primarily driven by the energy and technology booms. We expect that overall industrial capacity expanded 3.0 percent in 2014, with capacity in the manufacturing sector rising 2.3 percent. By contrast, capacity in the energy and technology sectors grew 8.7 percent and 8.4 percent, respectively, over the past 12 months. Lower oil prices are expected to lead to some pullback in exploration and production activity over the next few quarters, and growth in the tech sector also appears to be moderating. Investment outside the technology sector is expected to improve. Manufacturing capacity, excluding the technology sector, has only risen by 1.8 percent over the past year, which is a pace well below the growth in the overall economy. Moreover, commercial construction looks set to improve in 2015, with industrial and office projects leading the way.

Cutbacks in the energy sector are likely to be more heavily weighted toward the first half of the year, which will hold overall growth in business fixed investment at 5 percent for all of 2015, just below the pace seen this past year. Factory orders remain firm, however, and business confidence has steadily improved. The new orders series in the ISM surveys are consistent with solid growth in capital spending. Small businesses in particular appear poised to increase capital outlays, following years of only meager gains.

Lower Oil Prices Help Contain Inflation

Falling energy prices will likely pull headline inflation measures lower during the first half of 2015. Core inflation will be less impacted but should remain well contained given the still abundant slack available in labor market, as well as the stronger dollar, which will hold down prices of imported goods and services. With inflation running below the upper end of the Fed's target, the Federal Open Market Committee (FOMC) will continue to enjoy a wide degree of latitude in normalizing short-term interest rates. We are holding to our long-term view that kick off for raising short-term policy rates will be around the middle of the year, most likely at the June 16-17 FOMC meeting.

Housing: A Second Half Comeback

Residential construction is expected to gain momentum in 2015 as single-family construction finally gets back in the game. Starts of single-family homes likely rose just 6.0 percent this year to 655,000 units. The slow pace of single-family starts closely mirrors the trend in new-home sales, which have been held back by a weak job market, slow household formation and tight mortgage underwriting standards. Efforts have been made to loosen up the lending process and reduce down-payment requirements. Income verification requirements have not been eased, however, and that has been a major hurdle in recent years, when incomes have grown so modestly. Employment and income conditions strengthened this past year, however, and with consumer confidence generally rising and attitudes toward homeownership still very positive, we expect some additional strength in the housing market.

The solid growth in the apartment market is expected to continue in 2015, as we expect multifamily starts to rise just over 8 percent. Most of that growth will likely be in apartments rather than condominiums, a large subset of the multifamily market. Vacancy rates are rising from recent lows, however, and rents are growing less rapidly than in years past. There is a growing sense of permanence to the apartment boom, as many businesses are moving operations back toward the urban core in order to attract younger workers that appear to prefer an urban lifestyle. We increasingly expect the mix of new projects to reflect more for-sale housing, with condominiums and townhomes becoming more popular once again.

Global Weakness Causes Drag From Trade

Sluggish global economic conditions are expected to take a toll on U.S. exports in 2015

Although the domestic economy is expected to be firing on all cylinders in 2015, sluggish global economic conditions and a stronger dollar are expected to take a toll on U.S. exports. Demand for oilfield equipment and refined petroleum products are areas that could be notably weak. Exports of capital goods in general should be a tougher sale, given the sluggish pace of growth expected overseas. The import side of the ledger is also likely to widen as a stronger dollar reduces the price of imported goods.

Aside from some widening in the trade deficit, the U.S. economy appears poised for its strongest growth since the recession ended. Growth should not only be stronger but also more broadly based, as every segment of the domestic economy makes a positive contribution. Consumer spending will be bolstered by a pickup in job and income growth and lower gasoline prices, which should provide some much needed relief to households. Business fixed investment will face some near-term challenges, as energy exploration is scaled back, but should rise in line with recent years. Commercial construction and single-family homebuilding should post their strongest gains in years. Government outlays turned positive this past year and are expected to post modest gains again in 2015. Trade will be a drag as a result of the stronger dollar and global weakness.

Real Consumer Spending: Steady Ground Game, but No Hail Mary Passes

One of the key factors that has weighed on overall GDP growth over the past few years has been the more modest pace of real consumer spending. Since the end of the past recession, real consumer spending growth has been stuck in the 2.0-2.5 percent range (Figure 5) compared to an average of 3.6 percent over the previous two expansions. Most of the support for consumer spending has come from durable goods purchases, namely automobile sales. Auto sales have climbed from 11.6 million units in 2010 to an average annual rate of 16.4 million units so far this year. One of the key supports to durable goods spending has come from a gradual loosening of lending terms that has helped to drive auto sales growth in light of very slow disposable income growth. Besides the ongoing low interest rate environment, the average length of a new auto loan has also grown to 66 months as of the second quarter of this year, helping to lower monthly payments in the era of slow income growth.[1]

In the year ahead, we expect real consumer spending growth to maintain its current course, averaging 2.5 percent for the year (Figure 5). Employment gains and modest real disposable income growth will help to provide support to overall consumer spending. In addition, lower gasoline prices should also bolster more discretionary consumer spending activity.

While there are several factors that are serving as tailwinds to spending activity, there remain several challenges for consumers in the year ahead

Figure 5

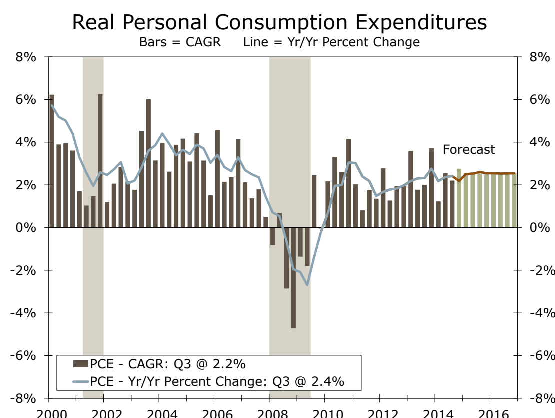
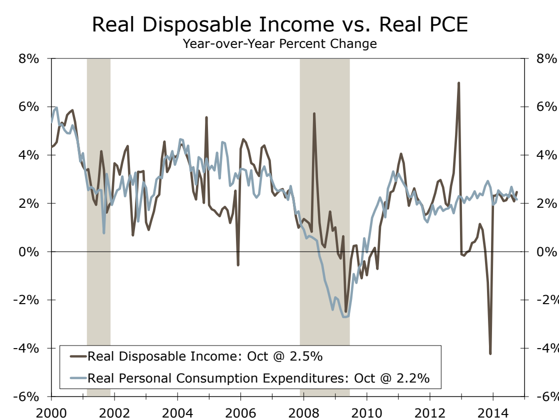


Figure 6



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

Challenges Ahead: A Steel Curtain of Interest Rates?

Although there are tailwinds to spending activity, several challenges remain for consumers in the year ahead. The first of these challenges, slow disposable income growth, is not new. Since the end of the recession in the second half of 2009, disposable income growth has averaged just 1.5 percent on a year-over-year basis. Part of the reason for this slower pace of income growth has been the disproportionate share of employment gains in lower-paying industries.[2] Outside of the overall slow pace of disposable income, there is also evidence that spending power remains uneven across income levels.[3] Most of the before-tax income growth following the recession has been concentrated among the highest 40 percent of income earners, which has translated into success of luxury retailers, while retailers focused on middle-income earners continue to struggle.

In addition to the direct effects of slow disposable income growth on consumer spending, there are also indirect effects, as access to credit has been limited by the slow pace of income growth and greater financial regulation. In the year ahead, the major game-changing factor that will influence overall economic activity will be the tightening of monetary policy and the resulting higher interest rate environment. Historically, real consumer spending has been quite responsive to changes in interest rates. In other words, when the cost of credit rises and credit availability declines, consumers have

[1] Zabritski, M. (2014). Experian Information Solutions. *"State of the Automotive Finance Market: Second Quarter 2014."*
[2] Bryson, J. H. and Watt, S. (2013). "*The U.S. Labor Market Is Not Working For Many.*" Wells Fargo Economics Group.
[3] Silvia, J.E. and Nelson, E. (2014). "*Income Growth: The Taxman Cometh.*" Wells Fargo Economics Group.

typically responded by spending less. There is reason to believe that this time around, real consumer spending will not be affected as dramatically by an increase in interest rates.[4] An analysis of the elasticity or responsiveness of real consumer spending to a rise in credit card interest rates shows that, since 1994, the elasticity between these two factors has been -1.29, meaning that for every one percent increase in interest rates, real consumer spending is reduced by 1.29 percent. Just looking at the same elasticity since the end of the recession in 2009, the elasticity has come down to just -0.44.[5] A separate study by the Federal Reserve Bank of Kansas City also found that durable goods spending has become less responsive to changes in interest rates.[6] Thus, we expect that changes in monetary policy will likely not have a major effect on the pace of consumer spending next year. If roughly two-thirds of the economy has become less responsive to interest rate changes, this could be problematic for the Fed.

There are several factors that have led to the reduced responsiveness of consumer spending to interest rates. To begin with, growth in credit availability and usage, particularly for revolving credit, remains lower relative to prior expansions (Figure 7). A majority of the increase in credit outstanding has come from non-revolving credit in the form of student and auto loans. The reduction in credit availability could be cyclical, in that economic uncertainty has been a key factor holding back the loosening of credit standards. Conversely, the current credit environment could be the by-product of financial reforms, thus creating a structural shift in credit markets that has permanently reduced access to credit. Regardless of the cause, we see overall access to credit changing only marginally next year, given our forecast for continued modest real disposable income growth in the 2.0-2.5 percent range. Coupled with our estimate for real consumer spending, our outlook implies a lower saving rate now that real per-capita wealth has returned to its pre-recession level (Figure 8). While a higher interest rate environment may incentivize additional saving, we view interest rates next year as still too low to make much of a significant difference in overall saving behavior.

We view interest rates next year as still too low to make much of a significant difference in overall saving behavior

Figure 7

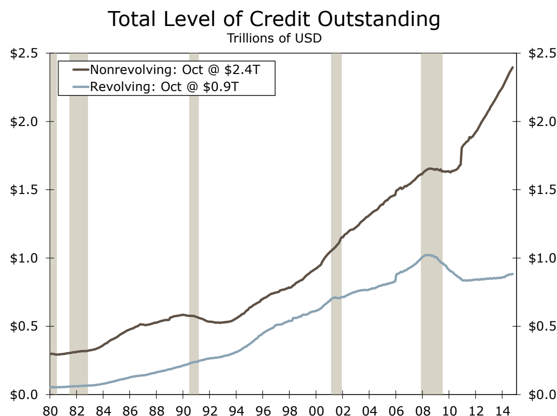
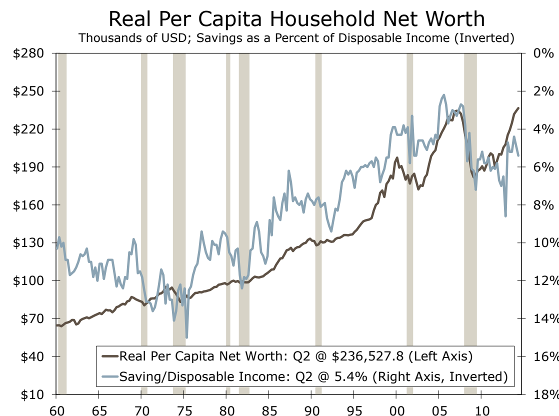


Figure 8



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

Risks and Opportunities

Beside the effects of an improving labor market and the modest credit growth environment that we expect next year, there are some upside and downside risks to our outlook. The largest downside risk we see is higher consumer spending sensitivity to the higher interest rate environment. Conversely, one potential upside opportunity would be that a shift occurs to favor employment growth in more higher-paying jobs. This environment would be more favorable for income growth and, in turn, consumer spending. An additional potential upside opportunity to our outlook would be that inflation runs somewhat below our expectations. A more gradual pace of inflation than our current forecast could support greater real disposable income growth, and, in turn, greater consumer spending.

---

[4] Silvia, J.E., Brown, M. A. and Nelson, E. (2014). "*Higher Interest Rates and Real Growth: Will This Time Be Different?*" Wells Fargo Economics Group.
[5] While we used nominal interest rates compared to real consumer spending consistent with Wilcox, J.A. (1990). Nominal Interest Rate Effects on Real Consumer Spending. Business Economics., our result of reduced elasticity in the current business cycle holds for real interest rates as well.
[6] Zandweghe, W.V. and Braxton, J.C. (2013). "*Has Durable Goods Spending Become Less Sensitive to Interest Rates?*" Federal Reserve Bank of Kansas City.

Business Fixed Investment Has Been a Steady, but Unimpressive, Driver of GDP growth

Caution and uncertainty over fiscal and regulatory policy have characterized the environment for investment in the current economic cycle, leading to an unimpressive recovery in business fixed investment (BFI). Still, since it turned positive in 2010, real BFI has only been negative in one quarter. Corporate profits as a share of real GDP reached an all-time high back in early 2010 and have stayed elevated ever since. Yet businesses have been slow to invest, with BFI from 2010 to 2013 running below corporate profits for the first time since the early 1960s (Figure 9). Instead, businesses have directed their profits and access to credit to dividend payments, share buybacks and, more recently, mergers and acquisitions.

In 2015, we expect businesses to channel a growing share of profits and credit to fixed investment, and for capital outlays to increase 5.9 percent (Figure 10). After practically idling in 2012 and 2013, BFI has accelerated in recent quarters and is now increasing at rates more typical of the middle phase of an expansion. Easier and cheaper credit remains a key support. Commercial banks have eased credit standards in all but one quarter over the past four and a half years, while credit spreads on balance have tightened further this past year. Many companies have been holding off on all but maintenance-related investment, leading to the oldest capital stock since 1956. The dearth of investment has been defensible given the weak demand environment, but capacity utilization is quickly approaching its longer-run average and suggests a need for stronger investment in the year ahead (Figure 11).

After practically idling in 2012 and 2013, BFI has accelerated and is now increasing at rates more typical of the middle phase of an expansion

Figure 9

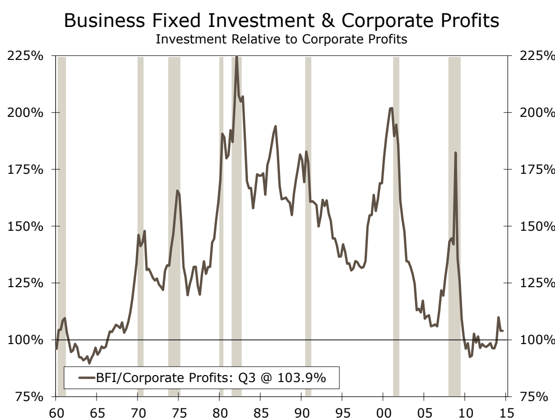
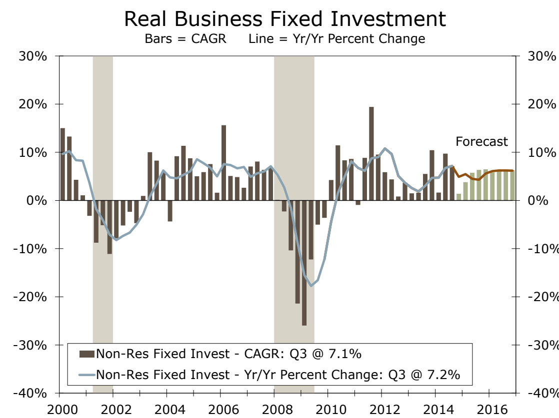


Figure 10



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

Challenges Remain for Business Fixed Investment

Of course, 2015 will not be without its challenges. Energy-related investment has been one of the clear bright spots of the recovery. The mining industry has accounted for nearly one-fifth of the growth in BFI since 2009 after contributing negligibly in the 1990s (Figure 12). Equipment investment in the mining sector has grown twice as fast as total equipment spending since 2009, and now accounts for 4.2 percent of real equipment investment—its largest share since 1985. Similarly, petroleum and natural gas drilling and energy-intensive manufacturing industries have been major drivers of investment in nonresidential structures. However, without a swift turnaround, the recent drop in oil prices is likely to restrict energy-related investment in 2015, as domestic producers grapple with lower cash flows.

After staying on hold for a record six years, the Fed is expected to finally raise interest rates in 2015. While we expect any increase in the fed funds target rate to be gradual, the rise in credit costs may deter some investment as businesses remain cautious in an environment of historically slow top-line economic growth. On the flip side, rising interest rates may offer upside risk to our outlook as businesses rush to take advantage of current borrowing rates. Any such boost, however, would likely be short lived and serve only to pull investment forward. Our base case remains that rising interest rates will not derail the expansion in BFI as stronger growth and the fundamental drivers described earlier will offset higher borrowing costs.

Equipment

Equipment accounts for roughly half of BFI, and has anchored the recovery in business spending since 2009. After a slow start to the year, equipment spending firmed over 2014, and we look for a decent pace of growth again in 2015. Spending in the transportation sector will likely lead the way. A record surge in aircraft orders this summer should keep the assembly lines at Boeing and its suppliers busy well into 2016, while an acceleration in unfilled orders for motor vehicles and parts suggests that the impressive performance in auto manufacturing still has legs. Spending on construction equipment should also improve this year as the housing and commercial real estate markets continue to recover. However, spending on mining and agricultural equipment looks set to slow given the headwinds facing commodity prices.

Figure 11

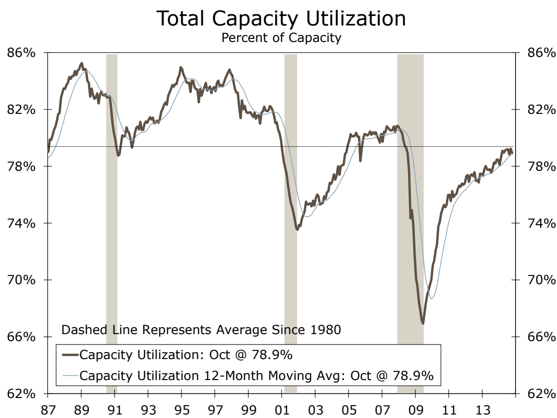
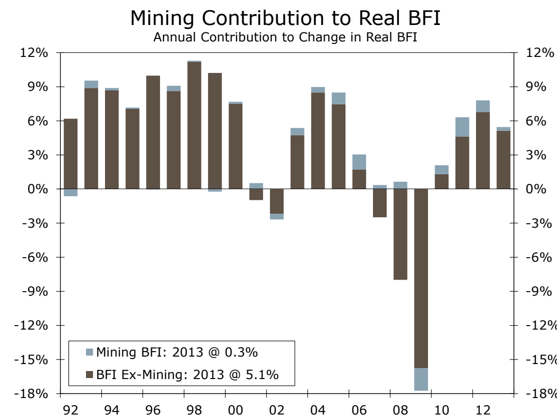


Figure 12



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

Intellectual Property

Investment in intellectual property, which includes expenditures on research and development as well as entertainment and art, looks set to proceed at a moderate pace in 2015. While businesses have been hesitant to invest in new plants or equipment since the recession, software spending has been relatively strong as companies look for smaller ways to streamline processes and boost productivity. Investment in research and development has been accelerating over the past two years and should remain strong in 2015, as improving profits give businesses room to devote spending to longer-term projects.

Structures

Despite improving in 2014, structure investment as a share of real GDP has remained stuck in an all-time low range for more than five years. Although a secular decline in this measure has been evident since the early 1980s, the new cycle low typifies caution, uncertainty and cost-saving strategies by many companies who decided to move operations overseas.

Forward-looking construction indicators suggest outlays will continue to strengthen in 2015

Forward-looking construction indicators suggest outlays will continue to strengthen in 2015. Commercial outlays (office, lodging, and retail) will continue to accelerate and institutional (healthcare, education, religious, public safety and amusement and recreation) should move from detracting from headline structure growth to making a positive contribution in 2015. The one component that poses the greatest risk to headline nonresidential outlays is spending on power structures, which accounts for almost one-fifth of structure investment. The largest sector within power spending is electric, which includes nuclear, oil, gas and alternative energy. Power spending had an unprecedented four-quarter run beginning in the second quarter of last year fueled by a production tax credit, which has now expired. The payback for this surge along with slower demand could weigh down power spending in 2015.

Housing: A Firm Foundation

Few areas have been consistently more disappointing than housing during the first phase of this recovery. The single-family market has had a difficult time finding its footing as the backlog of troubled mortgages moved their way through the foreclosure process (Figure 13). In addition, a large proportion of credit-worthy homeowners chose to refinance mortgages at the lowest mortgage rates in a generation and effectively stayed put in their current home. The foreclosure crisis is now mostly behind us. The sudden onslaught of low-priced homes brought out investors that purchased a large proportion of homes in major metropolitan areas. This helped establish a bid in many places where there previously were none and eventually sent home prices up well ahead of any material improvement in employment and income. Apartments have been the other active area, with investors rushing in to build apartments for younger households not yet ready to purchase a home and recondition older apartment complexes for folks that are not now in a position to buy a home. The apartment boom is now in full swing but likely near its peak.

The apartment boom is now in full swing but likely near its peak

There are numerous ways to see the evolution of the housing boom and bust. The two that we chose to highlight here are the recent trend in foreclosures and homeownership. Foreclosures have decreased significantly over the past three years but still remain above their long-run norm. Most of the problem, however, is limited to judicial states, such as Florida, New Jersey, Illinois and Nevada, where the foreclosure process is much more burdensome and time consuming. Florida and Nevada have both seen considerable improvements, however, and foreclosures are no longer dominating the housing market like they were a few years ago.

The rise in foreclosures and earlier slide in home prices have been major factors behind the turnaround in homeownership. The homeownership rate peaked 10 years ago and has tumbled 4.8 percentage points to 64.4 percent, which is its lowest rate in 19 years (Figure 14). We would expect this series to overcorrect because of tight mortgage credit, changing attitudes towards homeownership and household finances continue to be repaired.

Figure 13

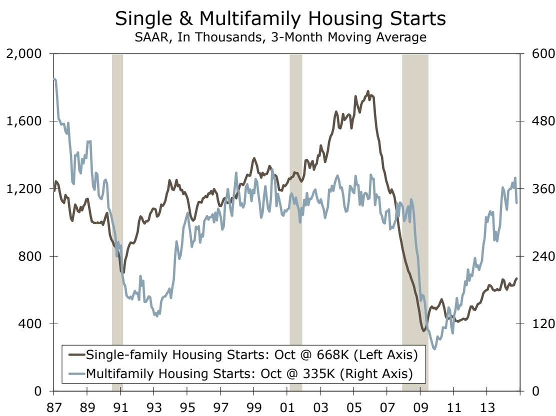
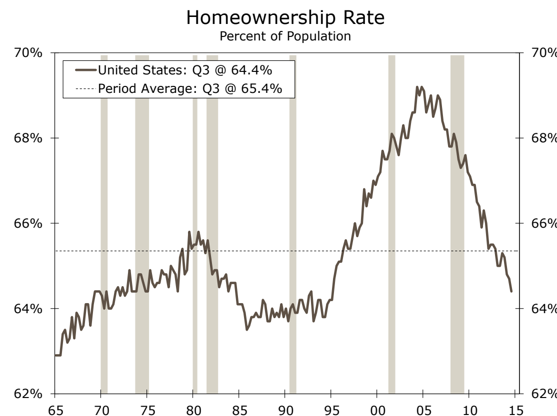


Figure 14



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

Homeownership: A Change in Attitudes

The decline in homeownership has sparked considerable debate as to how much attitudes toward homeownership have changed and how much of this change is long lasting. Nowhere has the debate been more vocal than among younger households, or “Millennials.” The thinking has been that this generation that has been raised on mobile devices and values mobility more than stability. The “free-agent” culture means that a smaller proportion of this 18- to 34-year old cohort is interested in forming a family or buying a home. Indeed, many Millennials have remained in school for longer than earlier generations and graduated with a great deal of student loan debt. The story line is certainly intriguing, but young persons have not traditionally been big players in the for-sale housing market. The last cycle was a bit of an exception, with a spike in homeownership among the young, particularly those buying

downtown and in-town condominiums. Homeownership among the young has completely reversed this earlier run-up.

The more troublesome decline in homeownership has been among households aged 35 to 44, which has fallen 11 percentage points since peaking 9 years ago. This age cohort accounts for the bulk of first-time and trade-up buyers, two categories that have largely been missing in action (Figure 15). Persons aged 35 to 44 were among the hardest hit during the Great Recession, suffering job and income losses early in their career when they did not have much savings or home equity to fall back on. This generation is also more likely to have purchased a home near the top of the past cycle and is more likely to be locked into an existing home and mortgage or simply is uninterested in buying a home.

Fortunately, demographic trends are seldom truly permanent. A stronger job market, like we have seen in the last year and expect over the next couple of years, will correct many of the afflictions besetting the housing market. Younger persons will eventually get older, find stable employment, find a mate and establish a family. The Great Recession has simply delayed that process. The widely publicized issues surrounding the Millennial generation seem to be most apt for the older cohort, those aged 25 to 34, which graduated into a weak job market and may have found themselves working in jobs they did not like, in cities they did not want to live in. There is little wonder why such a large proportion of this generation lived at home or rented. The younger cohort, aged 18-24, which is technically “Generation Z”, has come of age in a better job market and is less likely to be scarred by the housing bust. They are still likely to rent, however, because that is what young people do.

We see the housing market continuing to gradually gain momentum in 2015

We see the housing market continuing to gradually gain momentum in 2015 (Figure 16). Single-family starts are expected to rise 13.7 percent, as traditional residential development finally gets back on its feet. With job and income growth improving, credit easing further, and mortgage rates remaining near generation lows, buyers and sellers should both come back to the housing market in a meaningful way. We expect existing home sales to rise 4.1 percent in 2015, following a 3.8 percent drop in the first 10 months of 2014. Multifamily starts will rise more modestly. The apartment market appears to be peaking, with vacancy rates beginning to inch up and a torrent of supply in the pipeline.

Figure 15

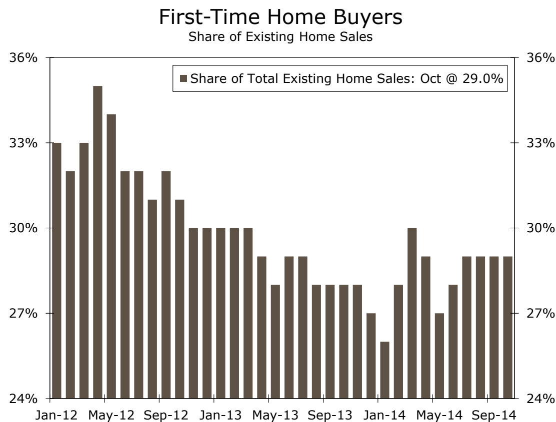
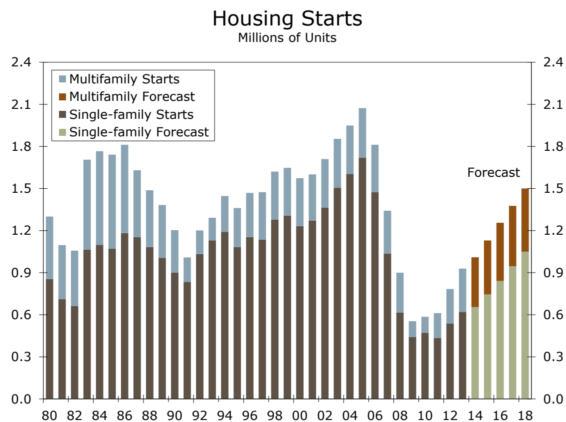


Figure 16



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

Money, Credit and Rates: Leaving the Practice Field
For many years now, credit and interest rates have operated in a cocoon created by growth in the money supply and the monetary base as a result of the Fed's large-scale asset purchases. In the year ahead, this will end, and the path of interest rates in this new environment is likely to be more volatile, with a twist—of the yield curve. The labor market continued to improve ahead of the FOMC's expectations in 2014. While altered by what increasingly looks to be a long-term shift in labor force participation rates, the unemployment rate is quickly approaching levels the FOMC would expect to see over the longer run. Meanwhile, inflation looks to be the bigger challenge for the Fed in the year ahead. With economic growth accelerating and labor market slack diminishing, we expect the PCE deflator to move closer to the Fed's target over the course of the year (Figure 17). Under this scenario, we look for the Fed to begin raising the fed funds target rate around the middle of 2015.

Although the FOMC will initiate interest rate hikes, we expect the pace to be more gradual than the FOMC's moves during the 2004-2006 period, when the FOMC hiked the federal funds rate a quarter of a percentage point at each meeting. Our forecast has the upper end of the federal funds target rate range ending 2015 at 1.00 percent and ending 2016 at 2.75 percent, which is slightly below the mid-point of the FOMC's most recent projections (Figure 18). Given the expansion of the monetary base since the financial crisis, the Fed has outlined new tools for raising rates, including raising the interest rate paid on excess reserves and reverse repurchase facilities. We believe the FOMC will proceed cautiously as the effectiveness of these tools, come game time, remains largely untested.

We expect the pace of interest rate hikes to be more gradual than the FOMC's moves during the 2004-2006 period

Figure 17

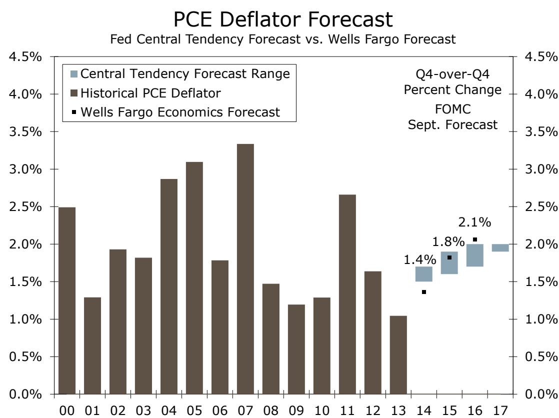
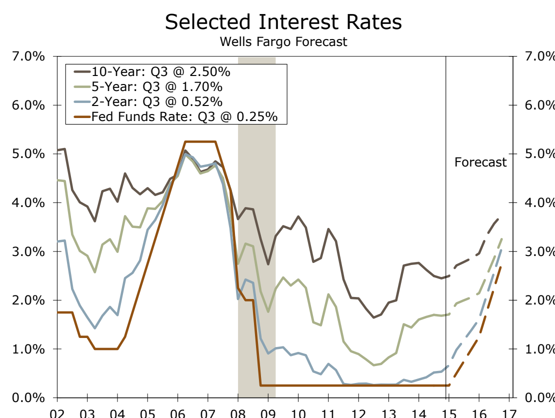


Figure 18



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

Misperceptions and Mispricing
A common misconception is that Treasury rates have fallen this year, even as economic fundamentals have strengthened and the Fed has moved closer to liftoff. Yet, this is only true for the long end of the curve. Interest rates on shorter-term (1- to 5-year) Treasuries have risen, and so unless you bought a bullet 10-year portfolio, rising rates have taken a bite out of your investment performance (Figure 19). We expect short-term yields will rise further in 2015 following the hike in the fed funds rate. Longer-term yields should also rise, but to a lesser extent, resulting in a flatter yield curve. While tightening is on the Fed's horizon, monetary policy remains extraordinarily accommodative elsewhere in the world. Further quantitative easing (QE) in Japan and the likely launch of QE in the Eurozone will weigh on longer-end U.S. Treasury rates as investors pile into longer-term Treasuries in search of safe assets with at least some positive relative yield.

For mispricing, normally, the yield on the 10-year Treasury is above or roughly even with the 10-year moving average of nominal GDP. Times have been anything but normal since the late 1990s, however, as the Fed has worked to combat the bursting of the dotcom bubble, the 9/11 attacks, and the Great Recession and its aftermath. We are of the view that potential GDP has downshifted since the financial crisis, driven by slower labor force growth and weaker productivity gains. The slower trend in

economic growth and more modest inflation expectations among investors (measured by TIPS spreads) will likely be another factor limiting any upward move for long-end rates.

Financial repression has been a characteristic of financial markets at the short end of the yield curve. This has reduced the incentive to save while increasing the incentive to borrow at the short-end of the curve. However, going forward, as interest rates escape the bounds of the administered-rates straightjacket, yields are likely to drift upwards and break above inflation towards the end of 2015.

Figure 19

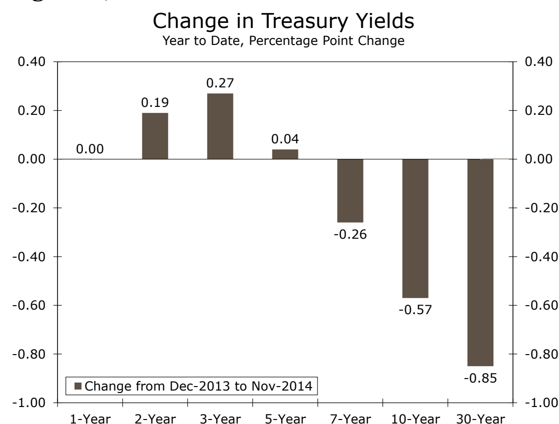
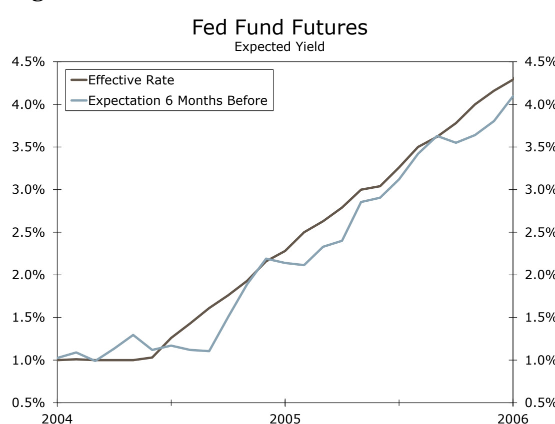


Figure 20



Source: U.S. Department of the Treasury, Federal Reserve Board, Bloomberg LP and Wells Fargo Securities, LLC

Surprises Await the Market: A Misallocation of Capital?

Financial markets continue to price in a later date in 2015 and a slower pace for tightening than has been indicated by the FOMC. Are they right to do so? Based upon our most recent history, the answer is no. Consider Figure 20. Looking six months ahead, a time frame suggested by Chair Yellen for the next rate hike, it is clear that in 2004, the last example we have of the Fed raising the funds rate after holding it at historic lows for an extended period of time, the market did not discount the Fed move. Why?

Simple my dear Dr. Watson. The market is efficient in the sense that it discounts all the publicly available information as well as discounting its expectations for the future. However, information and expectations change such that in six months there is often an entirely new set of expectations. The problem is that market information, expectations and actual Fed actions can change in the meantime. The result is that while the market will discount the expected path of the economy and Fed actions, such developments can, and often do, change.

The private sector and the federal government have also benefitted from suppressed interest rates

Financial markets may not be the only sector in for a surprise; the private sector and the federal government have also benefitted from suppressed interest rates although it came with the risk that financial capital has been misallocated over the past five years. First, in the nonfinancial corporate sector, interest expense as a percentage of pre-tax profits has remained very low during the current economic recovery. However, as profit growth slows and interest rates rise, this will likely lead to a reconsideration of corporate balance sheets. Second, in the household sector, rising rates, and modest deleveraging will result in higher debt service burdens. This creates risk to the housing and auto recovery—particularly as credit standards on both have eased recently and higher rates will decrease affordability for less credit-worthy borrowers. Lastly, as the era of federal deficit reduction nears its end, borrowing costs for the federal government are set to rise. The CBO estimates that interest expenses will rise from 1.3 percent of GDP this year to 1.5 percent of GDP by fiscal year 2016. Rising interest rates look set to surprise many and add to volatility, where firms and individuals have levered up on low rates.

Global GDP Growth: 3.4 Yards and a Cloud of Dust

As shown in Figure 21, global GDP has grown below its long-run average of 3.4 percent per annum over the past few years. The good news is that global growth should strengthen somewhat, and we look for it to slightly exceed its long-run average over the next two years. As detailed earlier in this report, we forecast that U.S. GDP growth will strengthen in 2015 and that it will remain solid during 2016. Stronger growth in the United States should help the Canadian and Mexican economies due to extensive trade ties among the three NAFTA partners. Economic growth in the Eurozone should tick up somewhat next year. Most developing countries, with the notable exception of China, which we will discuss in more detail below, should also experience stronger growth over the next two years. Economic policy should help to contribute to this modest acceleration in global economic activity. Specifically, monetary policy remains accommodative on a global basis and many economies should experience less fiscal drag in the future.

Global growth should strengthen somewhat, and we look for it to slightly exceed its long-run average over the next two years

Figure 21

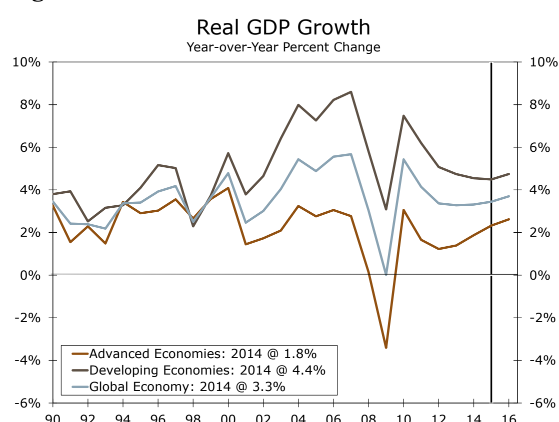
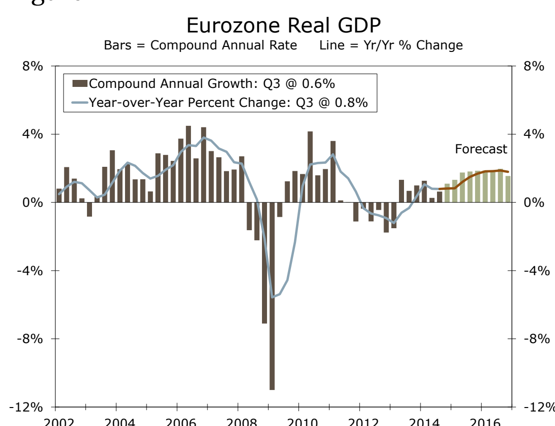


Figure 22



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

Advanced Economies: Slim Pace of Gains

The bad news, however, is that a return to the supercharged 5 percent per annum rates that characterized global GDP growth during the 2004-2007 period does not seem likely anytime soon. For starters, the 2.3 percent and 2.6 percent growth rates that we project for the advanced economies for 2015 and 2016, respectively, are slower than the 3.0 percent annual average growth rate that these economies collectively achieved between 2004 and 2007. As discussed earlier in this report, we believe that the U.S. economy will grow at a solid rate over the next two years, but not quite as strong as it did in 2005 and 2006 at the height of the American housing market bubble. Growth in some economies in the euro area, especially in Ireland and Spain, was supercharged by housing market bubbles during the past decade, and a return to those heady days simply seems unlikely in the foreseeable future (Figure 22). Besides, labor market reforms that are slowly being implemented in some European economies likely will keep consumers cautious in those economies over the next year or so. The Japanese economy should continue to grow, but a significant acceleration in Japan likely will not occur until more progress is made in the area of structural economic reform.

Developing Economies Underperform

Although most advanced economies likely will grow at a slower pace than they did in the past decade, the developing world represents the biggest reason for "disappointing" global growth in 2015 and 2016 relative to the boom years of 2004-2007. Growth in China, the second largest individual economy in the world, has been slowing over the past few years, and we forecast that real GDP in China will decelerate further over the next two years (Figure 23). Fixed capital formation has accounted for roughly one-half of Chinese economic growth over the past few decades, and the Chinese economy is now dangerously unbalanced. Chinese authorities are attempting to rebalance the economy away from excessive investment spending in favor of more consumption expenditures. Although we do not expect the Chinese economy to experience a "hard landing" in the foreseeable future, we also think that the resumption of double-digit growth on a sustained basis is very unlikely.

Figure 23

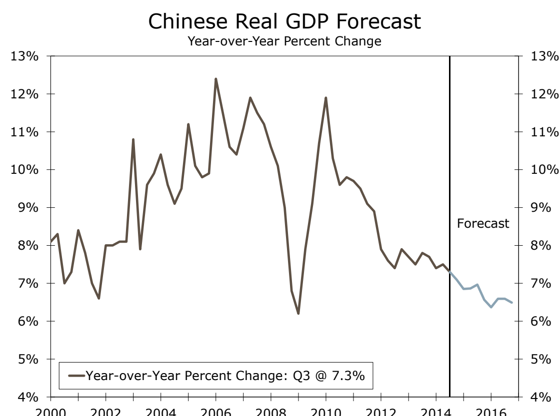
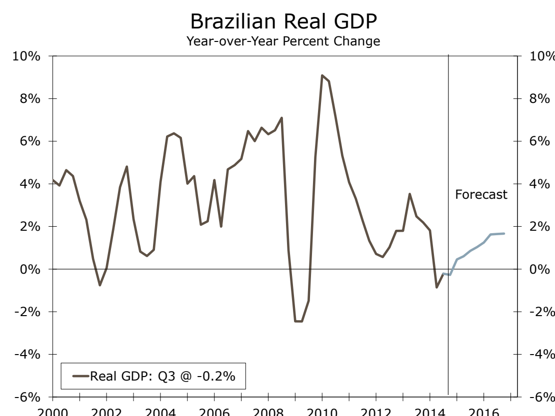


Figure 24



Source: Bloomberg LP, IHS Global Insight and Wells Fargo Securities, LLC

Many other developing economies should experience slower economic growth in coming years as well. Although we look for real GDP growth in Brazil, which is currently in recession, to strengthen somewhat next year, a return to the robust growth rates of the past decade does not seem very likely (Figure 24). Slower growth in China, which is Brazil's single largest export market, will constrain growth in Latin America's largest economy. Supply bottlenecks in Brazil resulting from poor infrastructure should also inhibit the economy's ability to achieve strong growth for the foreseeable future. The Russian economy is dead in the water at present, and the drop in petroleum prices and the effect of western sanctions will make it difficult, if not impossible, for Russia to return to the 7.5 percent average annual growth rate that was achieved between 2003 and 2007. We forecast that real GDP growth in India will strengthen from roughly 5 percent or so at present to more than 6 percent in 2016. As in Brazil, however, supply bottlenecks in India should constrain that economy's rate of economic growth over the next few years.

For many developing economies, a return to the robust growth rates of the past decade does not seem very likely

Upside Opportunities and Downside Risks to Our Global Growth Forecast

Although it may be easier to envision downside risks to growth, there are some credible upside opportunities to our global growth forecast for 2015 and 2016. In that regard, the combination of historically low interest rates and pent-up demand could lead to stronger growth in spending on durable goods in some countries than we currently expect.[7] The recent decline in energy prices, to the extent that they are caused by increased supply rather than reduced demand, could also lead to stronger economic growth on a global basis. That said, any upside surprise to global economic growth, should one come to pass, likely would represent a temporary overshoot rather than a permanent return to the supercharged growth rates that characterized the middle years of the past decade.

There are a number of downside risks to keep in mind. First, tensions between Russia and the West over Ukraine could rise again that could result in a spiral of sanctions and counter-sanctions. If Russia were to embargo its energy exports for even a short period, Western Europe could tumble into a steep recession. Although we do not look for a "hard landing" in China, perhaps construction in that country will weaken much more sharply than we expect. A significant slowdown in China, or perhaps outright economic contraction, would impart a slowing effect on the rest of the world. A major terrorist attack on a western economy could disrupt growth in that country, and perhaps more broadly, at least for a period of time.

Implications for the Dollar: Momentum on its Side

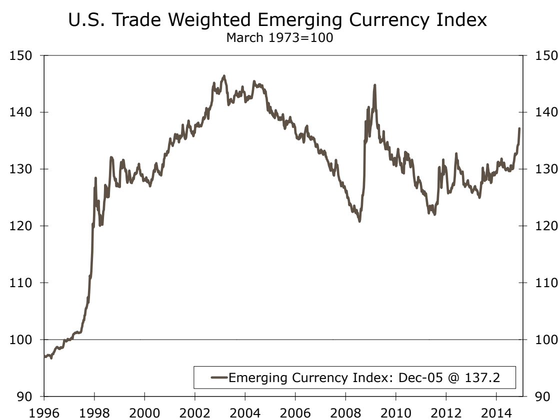
The dollar has strengthened over the past few months vis-à-vis many major currencies as the U.S. economy has generally accelerated and as the Federal Reserve has drawn closer to the commencement of removal of policy accommodation (Figure 25). On the other hand, disappointing growth outturns in

[7] **See "*Outlook for 'Big Ticket' Spending in the Eurozone*" (2014). We argue in the report that it appears that pent-up demand exists for durable goods consumption and investment spending in the euro area. We also argue, however, that it may take a policy catalyst to jumpstart spending in these spending categories. The report is available upon request.**

the Eurozone and Japan have led the European Central Bank (ECB) and the Bank of Japan (BoJ) to adopt further policy accommodation. Our currency strategy team looks for the upward trend in the value of the dollar to remain in place in coming quarters as the Fed raises its policy rates and as the ECB and the BoJ remain biased to ease policy even further.

Figure 25

Figure 26



Source: Bloomberg LP and Wells Fargo Securities, LLC

The greenback appreciated against the currencies of many developing economies starting in May 2013 when Fed officials indicated that the gradual removal of policy accommodation would happen sooner or later. Although many emerging market currencies may experience a brief period of stability over the next few months, our currency strategy team looks for those currencies to depreciate anew against the U.S. dollar when the Federal Reserve actually begins to hike rates starting in mid-2015. Higher rates of return in the United States should induce some investors to eschew "risky" emerging market assets in favor of the relative "safety" of U.S. assets.

Subscription Info

To subscribe please visit: www.wellsfargo.com/economicsemail

The *2015 Economic Outlook: A Whole New Ball Game* is available via the Internet at www.wellsfargo.com/economics

Via The Bloomberg Professional Service at WFRE.

And for those with permission at www.wellsfargoresearch.com

Wells Fargo U.S. Economic Forecast

	Actual							Forecast									Actual		Forecast		
	2013				2014				2015				2016								
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	2012	2013	2014	2015	2016
Real Gross Domestic Product (a)	2.7	1.8	4.5	3.5	-2.1	4.6	3.9	1.8	2.6	2.6	2.8	2.9	3.0	3.1	3.0	3.0	2.3	2.2	2.2	2.8	3.0
Personal Consumption	3.6	1.8	2.0	3.7	1.2	2.5	2.2	2.8	2.5	2.6	2.5	2.5	2.5	2.5	2.5	2.6	1.8	2.4	2.3	2.5	2.5
Business Fixed Investment	1.5	1.6	5.5	10.4	1.6	9.7	7.1	1.4	3.8	5.7	6.3	6.5	5.8	6.3	6.4	6.3	7.2	3.0	5.9	5.0	6.2
Equipment	4.8	1.5	4.7	14.1	-1.0	11.2	10.7	0.1	3.7	6.0	6.0	6.1	6.0	6.0	6.0	6.0	6.8	4.6	6.4	5.2	6.0
Intellectual Property Products	6.4	-1.9	2.8	3.6	4.7	5.5	6.4	3.1	4.5	4.6	4.6	4.6	5.0	5.0	5.0	5.0	3.9	3.4	4.1	4.6	4.9
Structures	-11.5	7.3	11.2	12.8	2.9	12.6	1.1	1.3	3.0	7.0	9.8	10.0	6.5	8.5	9.0	8.5	13.1	-0.5	7.4	5.0	8.4
Residential Construction	7.8	19.0	11.2	-8.5	-5.3	8.8	2.7	5.8	7.0	8.5	9.0	10.0	11.0	12.0	12.5	12.5	13.5	11.9	1.6	7.1	10.9
Government Purchases	-3.9	0.2	0.2	-3.8	-0.8	1.7	4.2	1.9	1.2	1.1	1.3	1.6	1.8	2.0	2.2	2.4	-1.4	-2.0	0.0	1.8	1.8
Net Exports	-427.2	-446.0	-424.6	-384.0	-447.2	-460.4	-431.0	-442.6	-447.8	-456.3	-465.5	-475.5	-482.4	-492.3	-508.4	-525.0	-452.5	-420.5	-445.3	-461.3	-502.0
Pct. Point Contribution to GDP	-0.1	-0.5	0.6	1.1	-1.7	-0.3	0.8	-0.3	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.4	-0.4	0.0	0.2	-0.2	-0.1	-0.2
Inventory Change	33.4	43.4	95.6	81.8	35.2	84.8	79.1	83.0	85.0	77.0	75.0	75.0	75.0	75.0	75.0	75.0	57.1	63.6	70.5	78.0	75.0
Pct. Point Contribution to GDP	0.7	0.3	1.5	-0.3	-1.2	1.4	-0.1	0.1	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Nominal GDP	4.2	2.9	6.2	5.0	-0.8	6.8	5.3	3.5	4.2	4.2	4.5	4.7	4.9	4.9	5.0	5.0	4.2	3.7	3.8	4.4	4.8
Real Final Sales	2.0	1.5	3.0	3.9	-1.0	3.2	4.1	2.2	2.5	2.8	2.9	2.9	3.0	3.1	3.0	3.0	2.2	2.2	2.2	2.8	3.0
Retail Sales (b)	4.1	4.5	4.4	3.8	2.5	4.6	4.5	4.3	5.2	4.0	4.2	4.8	4.8	4.8	4.7	4.6	5.1	4.2	4.0	4.6	4.7
Inflation Indicators (b)																					
PCE Deflator	1.4	1.1	1.2	1.0	1.1	1.6	1.5	1.4	1.4	1.2	1.4	1.8	2.0	2.0	2.0	2.1	1.8	1.2	1.4	1.5	2.0
Consumer Price Index	1.7	1.4	1.5	1.2	1.4	2.1	1.8	1.6	1.6	1.4	1.7	2.2	2.3	2.4	2.4	2.4	2.1	1.5	1.7	1.7	2.4
"Core" Consumer Price Index	1.9	1.7	1.7	1.7	1.6	1.9	1.8	1.8	1.9	1.8	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.8	1.8	1.9	2.1
Producer Price Index (Final Demand)	1.4	1.2	1.5	1.2	1.4	1.9	1.7	1.7	1.7	1.6	1.8	2.2	2.3	2.3	2.4	2.4	1.9	1.3	1.7	1.8	2.3
Employment Cost Index	1.9	1.9	1.9	2.0	1.8	2.0	2.2	2.2	2.4	2.3	2.3	2.5	2.6	2.7	2.7	2.8	1.9	1.9	2.1	2.4	2.7
Real Disposable Income (a)	-12.6	3.8	2.0	0.2	3.4	3.1	2.3	2.0	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	3.0	-0.2	2.4	2.4	2.5
Nominal Personal Income (b)	2.4	2.6	3.0	0.1	3.6	3.7	3.9	4.2	3.9	3.8	4.2	5.0	5.3	5.0	4.8	4.3	5.2	2.0	3.9	4.2	4.8
Industrial Production (a)	4.2	1.9	2.5	4.9	3.9	5.7	3.3	3.4	5.0	4.9	3.5	3.1	3.5	3.7	3.5	3.5	3.8	2.9	4.0	4.2	3.6
Capacity Utilization	77.7	77.8	77.9	78.4	78.6	79.1	79.1	79.2	79.5	79.7	80.0	80.2	80.2	80.2	80.2	80.2	77.3	77.9	79.0	79.9	80.2
Corporate Profits Before Taxes (b)	3.1	3.9	4.9	4.7	-4.8	0.1	0.4	3.2	3.7	3.6	4.1	4.6	5.1	5.6	4.9	5.2	11.4	4.2	-0.2	4.0	5.2
Corporate Profits After Taxes	2.5	6.0	4.5	3.4	-11.8	-8.9	-7.5	-3.8	-2.0	-2.4	-2.9	-2.4	1.5	2.5	3.0	3.5	9.1	4.1	-7.9	-2.4	2.7
Federal Budget Balance (c)	-307.2	90.7	-170.4	-172.6	-240.7	47.4	-117.5	-160.0	-130.0	-60.0	-120.0	-170.0	-140.0	-110.0	-140.0	-160.0	-1089.2	-680.2	-483.3	-470.0	-560.0
Current Account Balance (d)	-105.5	-106.1	-101.3	-87.3	-102.1	-98.5	-95.0	-80.0	-80.0	-85.0	-90.0	-90.0	-95.0	-100.0	-105.0	-105.0	-460.8	-400.3	-375.6	-345.0	-405.0
Trade Weighted Dollar Index (e)	76.2	77.5	75.2	76.4	76.9	75.9	81.3	83.8	83.8	84.8	85.8	86.8	87.5	88.0	88.5	89.0	73.5	75.9	79.5	85.3	88.3
Nonfarm Payroll Change (f)	206	201	172	198	190	267	239	263	210	212	210	210	200	197	195	190	186	194	240	210	195
Unemployment Rate	7.7	7.5	7.2	7.0	6.7	6.2	6.1	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.1	8.1	7.4	6.2	5.6	5.2
Housing Starts (g)	0.95	0.86	0.88	1.03	0.93	0.99	1.03	1.00	1.06	1.13	1.21	1.24	1.26	1.26	1.26	1.26	0.78	0.92	1.01	1.16	1.26
Light Vehicle Sales (h)	15.3	15.5	15.6	15.6	15.7	16.5	16.7	16.7	16.8	17.0	17.2	17.3	17.2	17.1	17.0	16.9	14.4	15.5	16.4	17.1	17.1
Crude Oil - Brent - Front Contract (i)	112.2	103.3	109.1	109.1	107.6	109.5	103.7	75.0	77.0	78.0	84.0	88.0	90.0	88.0	92.0	90.0	111.3	108.4	99.0	81.8	90.0
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	0.50	0.75	1.00	1.25	1.75	2.25	2.75	0.25	0.25	0.25	0.63	2.00
3 Month LIBOR	0.28	0.27	0.25	0.25	0.23	0.23	0.24	0.24	0.38	0.70	0.95	1.20	1.45	1.95	2.45	2.95	0.43	0.27	0.23	0.81	2.20
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.50	3.75	4.00	4.25	4.75	5.25	5.75	3.25	3.25	3.25	3.63	5.00
Conventional Mortgage Rate	3.57	4.07	4.49	4.46	4.34	4.16	4.16	4.14	4.16	4.20	4.30	4.40	4.48	4.80	5.20	5.30	3.66	3.98	4.20	4.27	4.95
3 Month Bill	0.07	0.04	0.02	0.07	0.05	0.04	0.02	0.05	0.20	0.54	0.78	1.02	1.28	1.77	2.28	2.79	0.09	0.06	0.04	0.64	2.03
6 Month Bill	0.11	0.10	0.04	0.10	0.07	0.07	0.03	0.09	0.24	0.58	0.80	1.03	1.29	1.80	2.30	2.80	0.13	0.09	0.07	0.66	2.05
1 Year Bill	0.14	0.15	0.10	0.13	0.13	0.11	0.13	0.14	0.25	0.65	0.95	1.25	1.55	2.05	2.55	3.05	0.17	0.13	0.13	0.78	2.30
2 Year Note	0.25	0.36	0.33	0.38	0.44	0.47	0.58	0.65	0.66	0.98	1.18	1.39	1.61	2.09	2.57	3.06	0.28	0.31	0.54	1.05	2.33
5 Year Note	0.77	1.41	1.39	1.75	1.73	1.62	1.78	1.68	1.71	1.83	1.90	1.96	2.05	2.40	2.76	3.15	0.76	1.17	1.70	1.85	2.59
10 Year Note	1.87	2.52	2.64	3.04	2.73	2.53	2.52	2.30	2.40	2.51	2.59	2.66	2.76	3.12	3.37	3.55	1.80	2.35	2.52	2.54	3.20
30 Year Bond	3.10	3.52	3.69	3.96	3.56	3.34	3.21	3.00	3.19	3.37	3.40	3.46	3.54	3.75	3.85	4.00	2.92	3.45	3.28	3.36	3.79

Forecast as of: December 10, 2014

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		
	2014	2015	2016	2014	2015	2016
Global (PPP weights)	3.3%	3.4%	3.7%	3.7%	3.5%	3.7%
Global (Market Exchange Rates)	2.7%	2.9%	3.2%	n/a	n/a	n/a
Advanced Economies[1]	1.9%	2.3%	2.6%	1.4%	1.3%	1.8%
United States	2.2%	2.8%	3.0%	1.7%	1.7%	2.4%
Eurozone	0.9%	1.3%	1.8%	0.5%	0.6%	1.2%
United Kingdom	3.0%	2.7%	2.3%	1.5%	1.3%	2.1%
Japan	0.4%	1.1%	1.9%	2.8%	1.4%	1.5%
Korea	3.4%	3.6%	3.6%	1.3%	1.2%	2.3%
Canada	2.5%	3.1%	2.7%	2.0%	1.6%	2.1%
Developing Economies[1]	4.5%	4.5%	4.7%	5.8%	5.6%	5.5%
China	7.4%	6.8%	6.5%	2.0%	2.0%	2.3%
India[2]	5.4%	5.8%	6.2%	6.7%	6.0%	5.7%
Mexico	2.1%	2.8%	3.2%	4.0%	4.0%	4.2%
Brazil	0.1%	0.7%	1.6%	6.3%	5.6%	5.5%
Russia	0.5%	-0.3%	1.3%	7.6%	8.5%	5.7%

Forecast as of: December 10, 2014

[1]Aggregated Using PPP Weights [2]Forecasts Refer to Fiscal Year

Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	3-Month LIBOR						10-Year Bond					
	2014	2015				2016	2014	2015				2016
	Q4	Q1	Q2	Q3	Q4	Q1	Q4	Q1	Q2	Q3	Q4	Q1
U.S.	0.24%	0.38%	0.70%	0.95%	1.20%	1.45%	2.30%	2.40%	2.51%	2.59%	2.66%	2.76%
Japan	0.10%	0.10%	0.10%	0.10%	0.10%	0.12%	0.45%	0.48%	0.50%	0.55%	0.60%	0.65%
Euroland[1]	0.05%	0.05%	0.05%	0.05%	0.05%	0.08%	0.75%	0.80%	0.82%	0.85%	0.90%	1.00%
U.K.	0.55%	0.55%	0.65%	0.90%	1.20%	1.45%	2.10%	2.20%	2.25%	2.30%	2.40%	2.60%
Canada[2]	1.28%	1.28%	1.30%	1.55%	1.80%	2.05%	1.95%	2.00%	2.10%	2.20%	2.30%	2.50%

Forecast as of: December 10, 2014

[1]10-year German Government Bond Yield [2]3-Month Canada Bankers Acceptances

Wells Fargo Securities, LLC Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Eugenio J. Aleman, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Anika R. Khan	Senior Economist	(704) 410-3271	anika.khan@wellsfargo .com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Eric Viloria, CFA	Currency Strategist	(212) 214-5637	eric.viloria@wellsfargo.com
Sarah Watt House	Economist	(704) 410-3282	sarah.house@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo .com
Michael T. Wolf	Economist	(704) 410-3286	michael.t.wolf@wellsfargo.com
Zachary Griffiths	Economic Analyst	(704) 410-3284	zachary.griffiths@wellsfargo.com
Mackenzie Miller	Economic Analyst	(704) 410-3358	mackenzie.miller@wellsfargo.com
Erik Nelson	Economic Analyst	(704) 410-3267	erik.f.nelson@wellsfargo.com
Alex Moehring	Economic Analyst	(704) 410-3247	alex.v.moehring@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@wellsfargo.com
Cyndi Burris	Senior Admin. Assistant	(704) 410-3272	cyndi.burris@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Advisors, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC. ("WFS") is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, NA ("WFBNA") is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. WFS and WFBNA are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2014 Wells Fargo Securities, LLC.

Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. The content of this report has been approved by WFSIL a regulated person under the Act. For purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients. This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE