

Economics Group

Special Commentary

John E. Silvia, Chief Economist
john.silvia@wellsfargo.com • (704) 374-7034

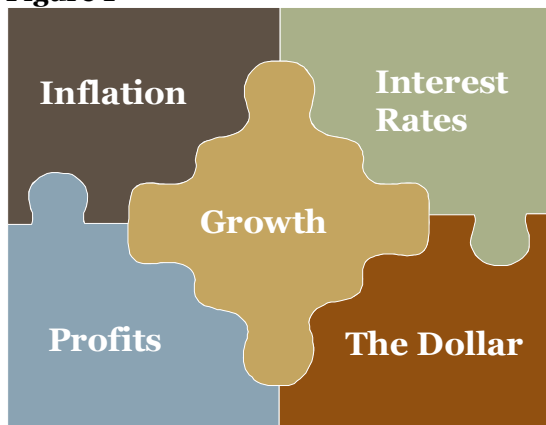
**Business, Banking & the 2008 Financial Crisis:
 Where Are We Now?***

Ongoing relationships between financial institutions and the real economy reflect the interweaving patterns of innovation in finance and structural and cyclical change in the real economy where, at times, the pieces fit and other times, well, they don't. Over the past five years, we have witnessed the coming apart of what appeared to be a symbiotic link between finance and housing, followed by the seeming disconnect of lower interest rates that have not been accompanied by a strong economic recovery. Good due diligence in any economic endeavor requires that we review the five economic fundamentals illustrated in the economic puzzle shown in Figure 1. How do these pieces fit together to give us a complete picture of the economy? Our outlook for growth is for a moderate expansion this year of 2.0-2.5 percent with a cyclical recovery in consumer spending, business investment and commercial real estate development hindered by the drags of structural change in housing and state and local government spending. Consumer spending will continue to add to economic growth as real income gains benefit from slower inflation and steady gains in employment. Business fixed investment will most likely also continue to support growth with gains in capital equipment and nonresidential construction.

Ongoing relationships between financial institutions and the real economy reflect the interweaving patterns of innovation in finance and structural and cyclical change in the real economy.

Inflation will slow in the year ahead, as commodity and producer prices moderate and unit labor costs stay tame. With moderate growth and lower inflation, we expect short-term interest rates to remain low for most of the year, while longer-term borrowing rates rise as the search for yield continues; risk trade moderates and investors seek opportunity away from Treasury debt.

Figure 1



Source: Wells Fargo Securities, LLC

Figure 2

How Do We Differ From Consensus?

- Sustained below-trend growth
- Still cautious on the consumer
- Still cautious on housing
- State and local governments—still restructuring
- Employment—cyclical and structural change

* This report is based on the presentation given at the Industrial College of the Armed Forces, National Defense University on April 12, 2012. Special thanks to Sarah Watt and Sam Bullard for their research support.



Europe, political developments and Middle East tensions in this election year are the main sources of surprise, with outcomes in many possible directions. We suspect a European recession is in swing right now, which should lower export growth and earnings for many U.S. companies. Therefore, profit growth is expected to slow. Meanwhile, the dollar exchange rate is expected to rise against the euro, but weaken over time against Asian and other developing economy's currencies. The election in November will bring out the event risk associated with new proposed policies.

Where Are We Now? Recessions Come, but They Also Go.

Our current outlook is for moderate growth at 2.3 percent for 2012, with a slower pace of growth for the remainder of the year in response to 3.0 percent growth in the fourth quarter of 2011 and a surprisingly strong first quarter of 2012. In Figure 3, we illustrate our baseline expectations for real GDP growth. Real final sales are expected to grow, with positive contributions from consumer spending, business investment and residential investment. Weakness will be in government spending, while net exports will subtract slightly from economic growth. Federal, state and local governments will be significant drags on growth in the short run, as all levels of government restructure to a new set of demographic and global economic forces. While we do not expect a fiscal cliff in early 2013, our expectation is that there will be modest cuts in military and nondefense discretionary spending in early 2013.

For some time, we have believed that throughout the most recent financial crisis, while there were endless comparisons between today's environment and the 1930s, a more apt comparison is the deep 1973–1975 recession, a period that also dealt with an oil price shock, a housing collapse and a banking crisis (Figure 4). This more recent recession, and not the Great Depression, provides a template for our outlook. This was indeed the correct approach as the recovery appears on track—although at a pace below that of earlier post-1973 recoveries.

While we do not expect a fiscal cliff in early 2013, our expectation is that there will be modest cuts in military and nondefense discretionary spending in early 2013.

Figure 3

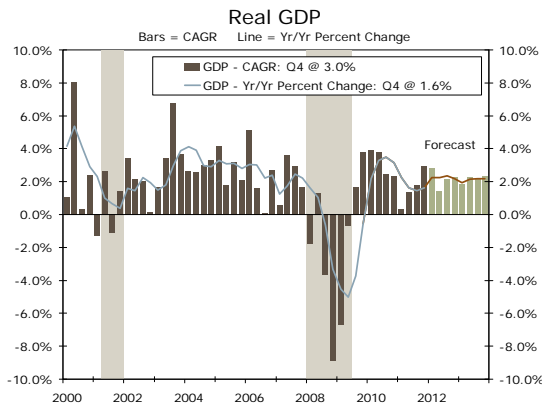
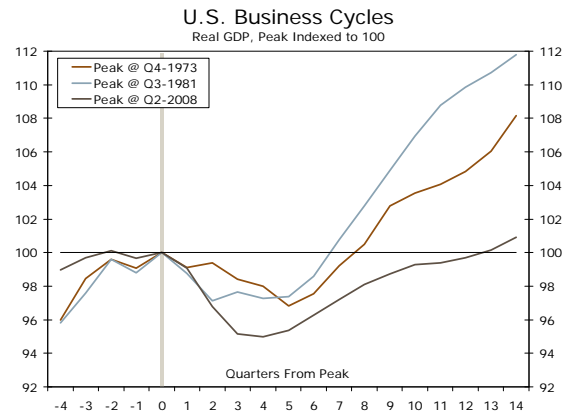


Figure 4



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

How Important Are Interest Rates in Decision Making? Not as Important as in Prior Cycles.

For financial market decision makers, the pattern of the recovery continues to intimate a more modest pace of growth, as issues such as bank capital and the value of collateral—housing—appear to have offset much of the traditional stimulus of lower interest rates. First, in contrast to the historical pattern of housing, we suspect housing starts will not recover neatly in line with the economic cycle. Traditional economic recoveries since World War II have been led by Federal Reserve policy easing that brought down interest rates and thereby kick-started housing. In this cycle, however, housing continues to go through a long-term correction that reflects a fundamental revaluation of the proper price and credit availability associated with home buying.

Second, in accordance with historical patterns, we suspect that nonresidential construction will lag the business cycle due to the negative effect of lowered economic expectations, higher energy prices and weaker corporate profits. Finally, the labor market has been altered by the upgrading of skills required by the global labor market reallocation on a scale previously unseen in the post-WWII period.

Cyclical Recovery with a Structural Overlay

On a cyclical basis, this recovery is quite typical in some sectors—note, the pattern of the Institute for Supply Management’s survey on manufacturing (Figure 5) and in the steady improvement in the decline in jobless claims, although from a high level (Figure 6).

On a cyclical basis, this recovery is quite typical in some sectors.

Figure 5

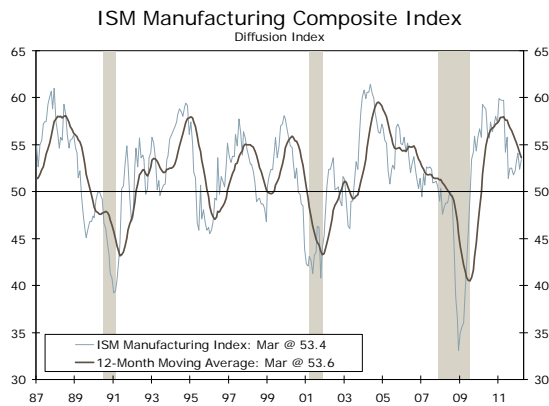
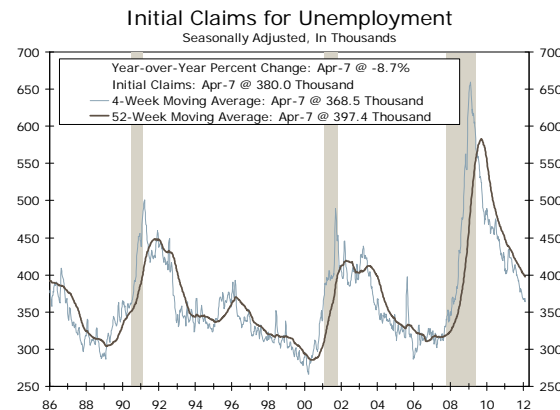


Figure 6



Source: Institute for Supply Management, U.S. Department of Labor and Wells Fargo Securities, LLC

Consumer Spending and the Altered Reality of the Labor Market

Yet, for many households, the pattern of cyclical recovery in the labor market has been limited, as evidenced by structural changes. First, the depth of the job losses and the modest recovery in jobs (Figure 7), along with the dramatic decline in the employment-population ratio (Figure 8) suggests an altered reality in the labor market compared to prior recessions and recoveries. The sharp drop in the employment-population ratio represents two major problems for our society and military decision makers.

Figure 7

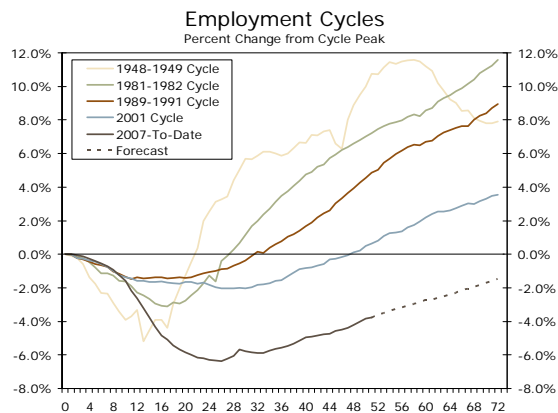
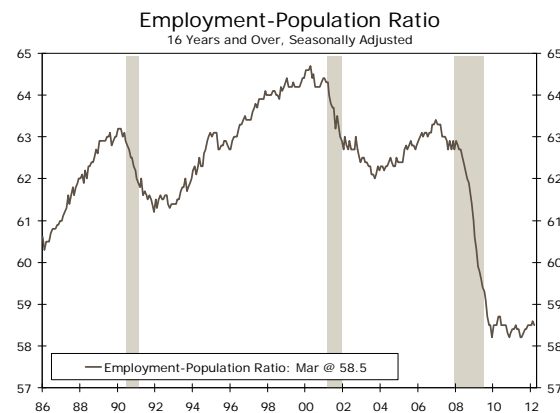


Figure 8



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

Over the long term, the persistent low level of the employment-population ratio suggests that fewer workers are involved in generating output that will provide for the larger population.

Strong productivity gains will be required if GDP growth per-capita is to be sustained.

Therefore, strong productivity gains will be required if GDP growth per-capita is to be sustained and it is that growth that generates the revenues to pay for defense and nondefense discretionary spending. A second problem is that the inverse of the employment-population ratio represents the rising dependency ratio of our society, and therefore, the retiree entitlement spending burden falls on a smaller working population. Within age cohorts of American society, there is also a shift in participation in the labor force. Meanwhile, the financial implications for households are evident in Figure 10, with the sharp drop in the debt service burden as households reduce their use of debt relative to income.

Figure 9

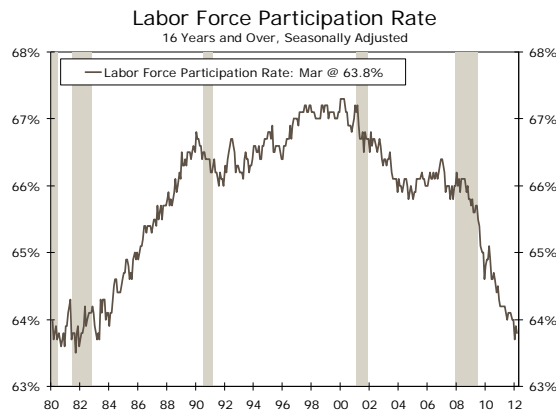
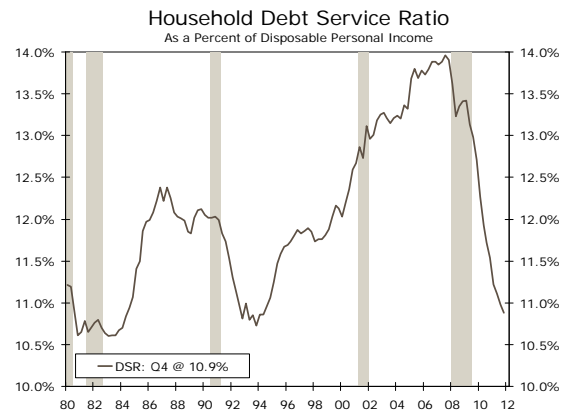


Figure 10



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

Housing: The Confluence of Cyclical and Structural Change

Uncertainty is a factor in all our decisions, although we often treat our decisions as if they will produce certain results. Consider the Japanese attack on Pearl Harbor. The expectation was that, as a preventative action, the attack would prevent the U.S. Pacific Fleet from interfering with Japanese actions in Southeast Asia, as well as damage U.S. morale and discourage Americans from committing to a war in Asia. The actual outcomes were very different.

The challenge going forward for financial institutions is: What is the sustainable pace of housing starts in the future?

In housing, buyers and lenders anticipated steady home price increases and widespread liquidity in the mortgage market. They got neither. As evidenced in Figure 11, the downdraft in housing starts was sharper and deeper than anyone anticipated. The challenge going forward for financial institutions is: What is the sustainable pace of housing starts in the future? Our view is that without special subprime financing options, for example, the pace of housing starts should follow the pace of household formation which we estimate at 1.2 million-1.4 million. On a cyclical basis, one positive sign is the decline in the rate of mortgage delinquencies for prime and subprime mortgages (Figure 12).

Figure 11

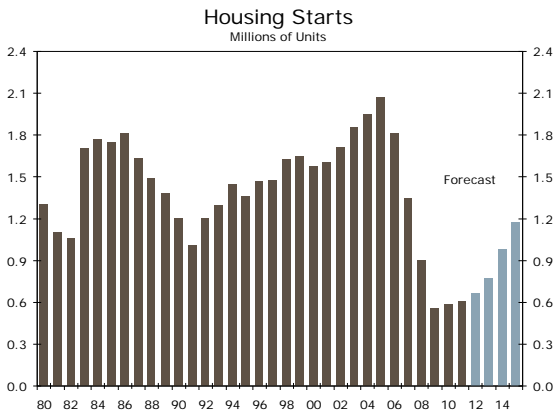
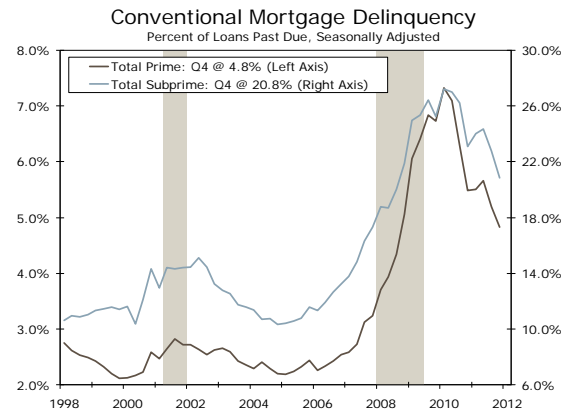


Figure 12



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

Yet, there are two structural issues that will influence that estimated sustainable pace. First, there is a wider-than-normal gap between the median new and existing home prices (Figure 13). New home prices are, on average, \$20,000 above existing home prices. However, in the most recent period, the gap has widened to \$60,000 due to distressed and foreclosure sales. Thereby, there is a huge disincentive to build new homes, and the shadow inventory of unsold existing homes will keep the price gap wider than average. A second issue is that the average home size has risen fairly steadily over the past 30 years while the average family size has declined (Figure 14). This suggests that there are many homes out there that are smaller than what many families desire and that some adjustments will be required in the future.

Figure 13

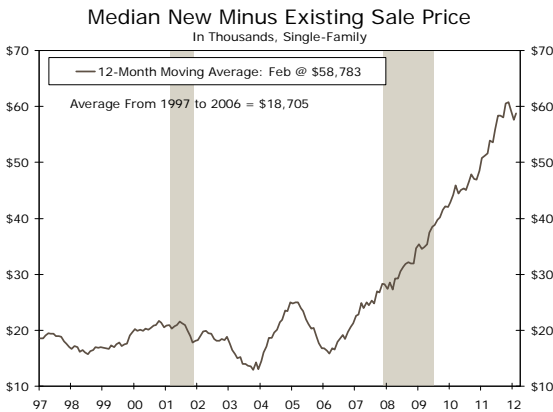
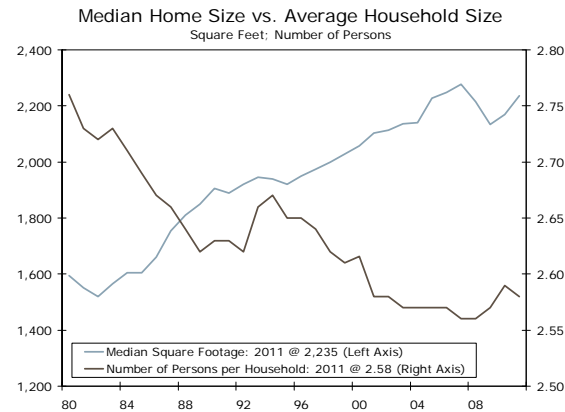


Figure 14



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

Scare Talk of Deflation: Is Inflation the More likely Outcome?

Yes, in our view the pressures are more likely to be on the upside than the downside of inflation over time. In the short run this year, inflation should moderate as commodity and producer price inflation slows and unit labor costs rise, but at a moderate pace. The Employment Cost Index likely will moderate to 2.1 percent in 2012 from 2.6 percent in 2011. Producer price increases are expected to slow to 2.7 percent in 2012 after a gain of 6.0 percent last year. When viewed over time, the high consumer inflation of the 1970s appears to be an aberration (Figure 15) and that inflation seems to have settled into a range between 2.5 percent and 3.5 percent. On a cyclical basis, this appears to be consistent with the modest upswing in the 10-year implied inflation expectations (nominal less TIPS), as illustrated in Figure 16.

*In the short run
 this year, inflation
 should moderate.*

Figure 15

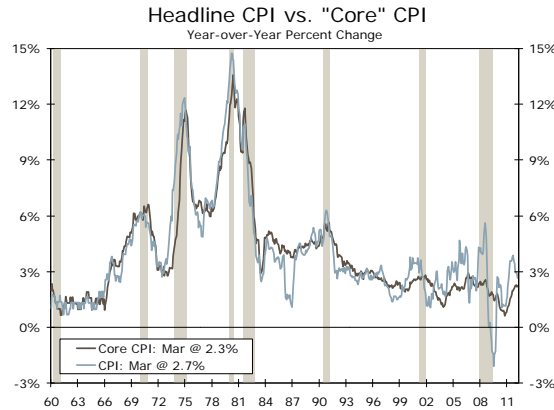
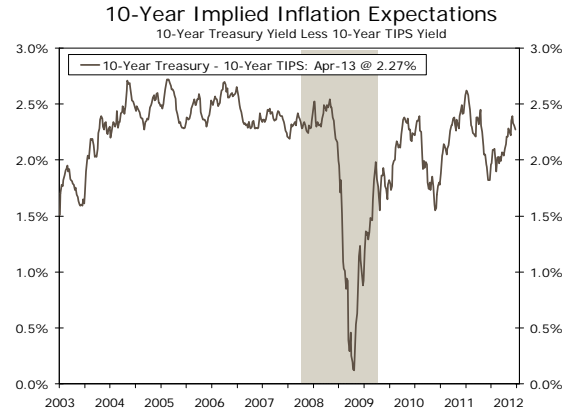


Figure 16



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

Interest Rates, Private Markets Misprice Credit

At the global level, average consumer price inflation has been remarkably steady.

At the global level, average consumer price inflation has been remarkably steady at just under 5 percent since the mid-1990s (Figure 17), despite all the talk about escalating inflation being just around the corner. Yet, interestingly enough, the five-year Treasury yield appears to be disconnected from U.S. inflation expectations over the same period (Figure 18). In this case, the influence of the risk-off trade from Europe and concerns about the sustainable pace of the U.S. expansion appear to be the driving force in the Treasury market.

Figure 17

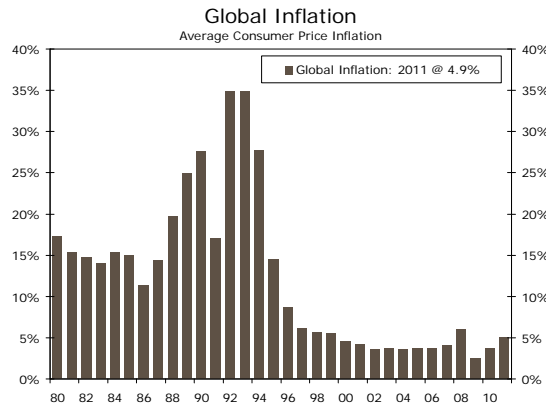
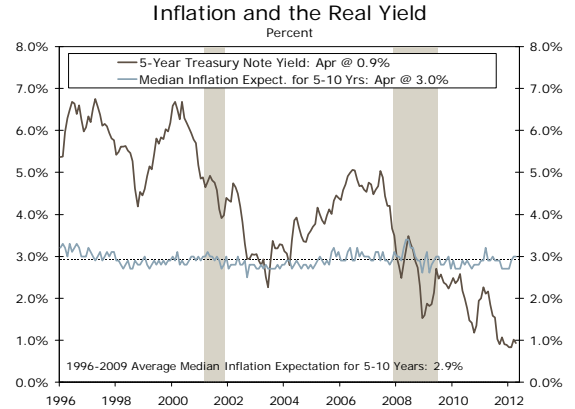


Figure 18



Source: IMF, University of Michigan, Federal Reserve Board and Wells Fargo Securities, LLC

Meanwhile, the risk trade is evidenced in the LIBOR-OIS spreads in the euro versus the dollar market (Figure 19), and this is probably a factor helping to explain the difference between inflation expectations and the current five-year yield reviewed above. Recently, this risk premium in the euro-area has declined and perhaps signals a less risk-averse global investor and some upward movement in Treasury rates. In addition, a greater interest in nonfinancial corporate debt in the United States (Figure 20) implies that the private bond market has indeed moved to a middle ground between the recession fears of 2008–2009 and the overconfidence position of the Great Moderation of the 2006–2007 period. This middle ground may indeed advocate the case for a new equilibrium in the financing of nonfinancial corporate debt.

Figure 19

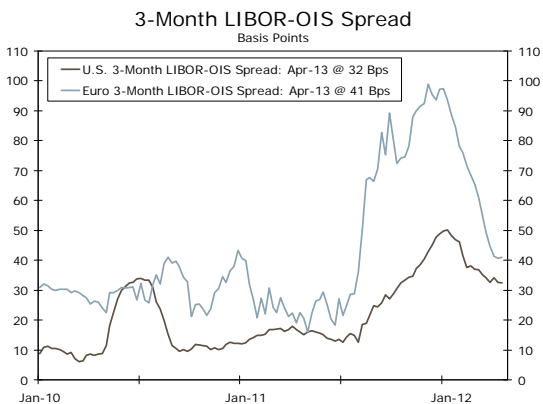
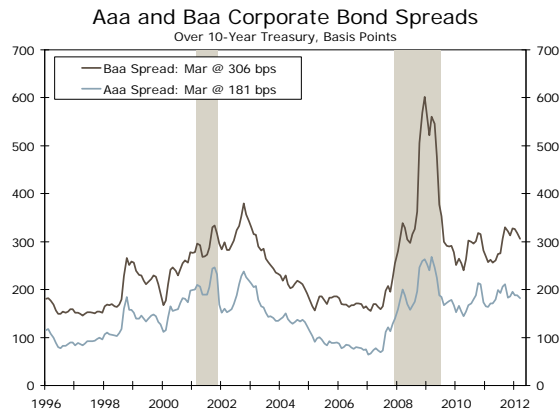


Figure 20



Source: Bloomberg LP, Federal Reserve Board and Wells Fargo Securities, LLC

With moderate growth and lower inflation, we expect short-term interest rates to remain low for most of the year, while longer-term borrowing rates begin to rise as the search for yield continues; the risk-averse trade moderates and investors seek opportunity. Our outlook is for the yield on the 10-year Treasury note to gradually rise to end the year at 2.5 percent. For now, we estimate that any Federal Reserve action toward more quantitative easing would take place through a purchase of mortgage-backed securities and, therefore, work primarily to provide liquidity, while lowering the mortgage rate. This outlook argues the case that the five-year Treasury yield is too rich relative to the pace of nominal growth. While there have been periods of sharp differences in these two series, over time, the patterns are roughly consistent, and at least when they differ, they motivate decision makers to think about the reasons for such a difference. Finally, at the short end of the curve, the TED spread remains consistent with the prerecession period, although there appears to be some fallout from the recent European financial concerns.

Global Growth and Investment Opportunities as a Challenge to the Financing of Federal Debt and Dollar Exchange Rate

Going forward, one of the structural changes we may witness is a shift of investor interest from the safety of U.S. Treasury debt toward emerging market opportunities. As illustrated in Figure 21, emerging markets offer a significant growth advantage over the western European, American and Japanese opportunities. Moreover, these emerging markets are not the same as in the past as they represent a more modern combination of political and economic reforms that should support greater economic stability than their history in the earlier post-WWII period.

Although in the short run, the focus remains on global downside risks, the rise in global equity prices and stabilization of global financial conditions has improved the odds of a gradual slowdown in global growth rather than a plunge off the cliff. In contrast to the long-run optimism of growth in the reformed countries of the emerging world, the outsized fiscal deficits in the United States (Figure 22) represent a significant downside risk in a political environment that finds it practically impossible to come to a set of solutions. Moreover, these outsized deficits are likely to persist over the long run (Figure 23), bringing into question the viability of the current mix of low interest rates, moderate inflation, modest growth and a stable dollar exchange rate. Overtime, something has to give. Furthermore, the persistence of these fiscal deficits reflects the influence of entitlements. Rising entitlements and rising federal deficit interest expenses suggest further budget pressures on other federal spending priorities.

One of the structural changes we may witness is a shift of investor interest from the safety of U.S. Treasury debt toward emerging market opportunities.

Figure 21

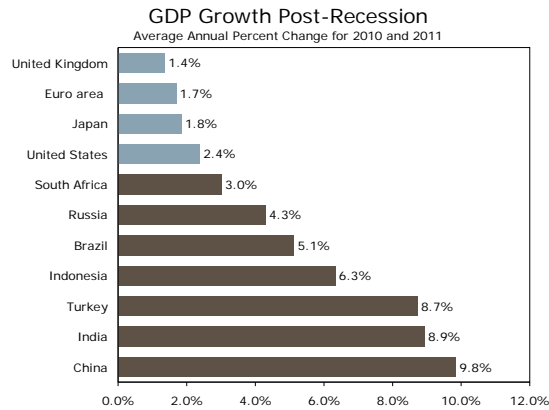
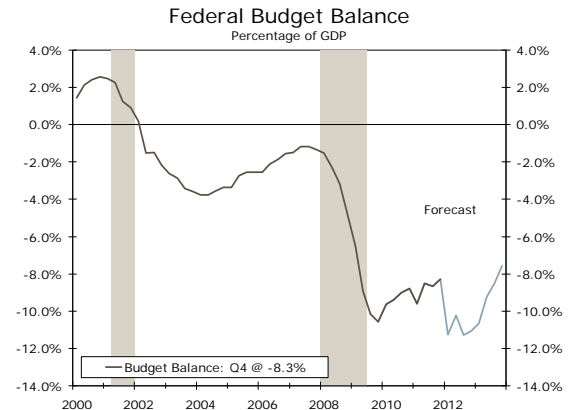


Figure 22



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

Meanwhile, we expect a persistent restructuring going on at the state and local level (Figure 24), as these governments come to grips with limited revenue growth and a legacy of overpromised benefits from the prior 40-plus years of generous political promises.

Figure 23

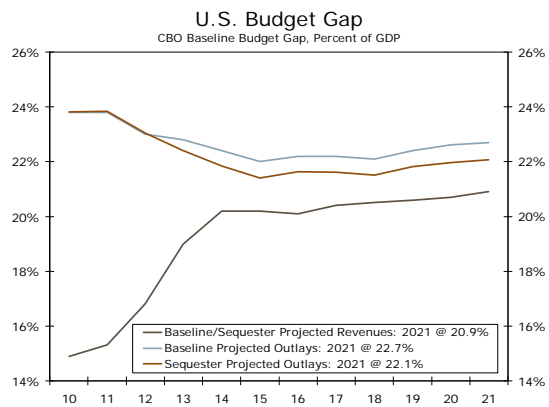
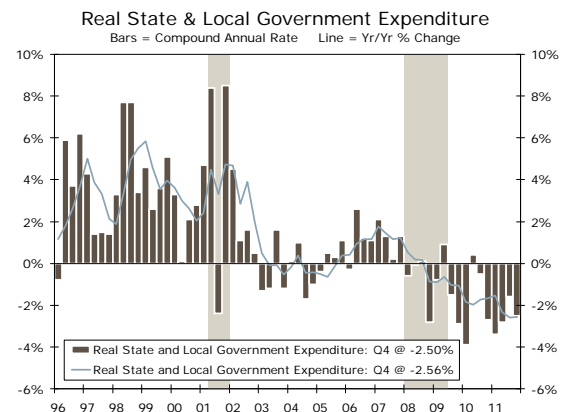


Figure 24



Source: Congressional Budget Office, U.S. Dept. of Commerce and Wells Fargo Securities, LLC

A Return to Traditional Business Financing? Only in Part.

Consolidation in the banking industry is not a new phenomenon, as illustrated in Figure 25, but the scale of banking is also being challenged. The total number of commercial banks has been steadily declining since 1990, as increased bank regulation and competitive pricing has increased the cost of doing business, while also decreasing the pricing power of banks in many product areas. Meanwhile, the scale of resources available to major banks, as a proxy for all banks, has diminished, as measured by the KBW banking index (Figure 26).

Consolidation in the banking industry is not a new phenomenon, but the scale of banking is also being challenged.

Figure 25

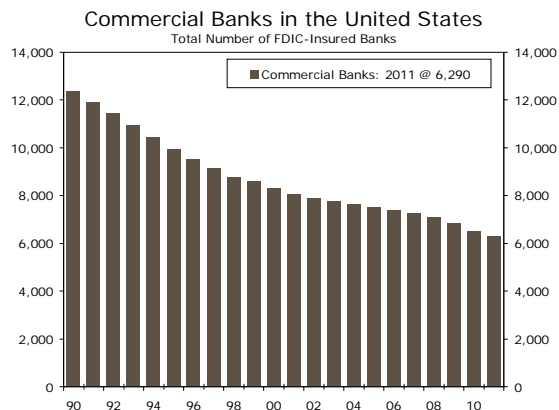
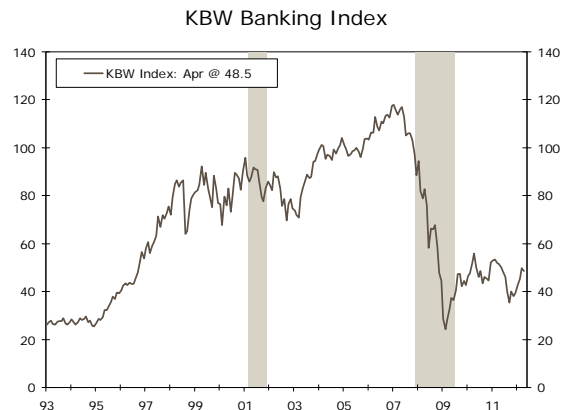


Figure 26



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

What is intriguing is that the credit markets for the nonfinancial corporate business sector have taken on the appearance of improvement in the willingness to make loans to consumers (Figure 27) and a movement to a balanced market for bank lending to business and a much more solid capital market. As illustrated in Figure 28, the net percentage of banks tightening standards has fluctuated around neutral for some time, while the net percent of banks reporting stronger demand also appears to be fluctuating around neutral. The availability of bank credit for private sector business lending appears to have stabilized at this point in the economic expansion.

The availability of bank credit for private sector business lending appears to have stabilized at this point in the economic expansion.

Figure 27

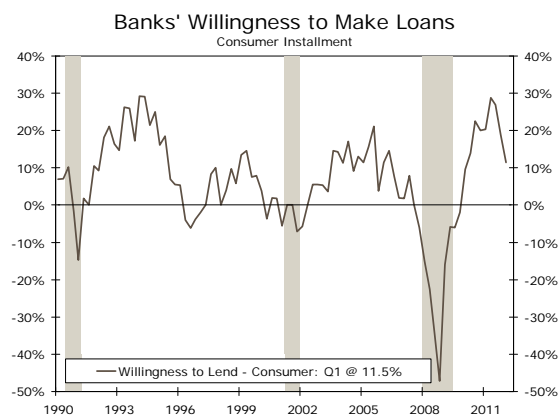
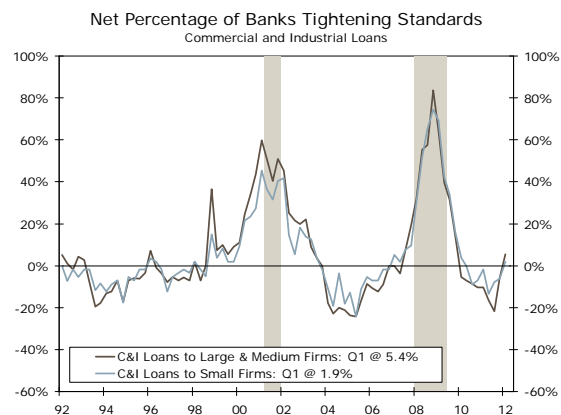


Figure 28



Source: Federal Reserve Board and Wells Fargo Securities, LLC

Further reassurance is offered by the pattern of commercial and industrial loans that appears to follow the pattern of inventory gains, as illustrated in Figure 29. This hints that business lending through banks is consistent with the economic forces of inventory finance, and little evidence exists of a credit crunch at banks at this time. Meanwhile, banks of all types—domestic and foreign—as well as size—small and large—appear to be participating in the growth of lending overall (Figure 30).

Figure 29

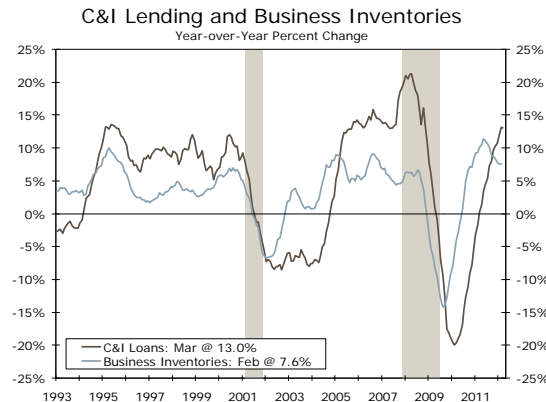
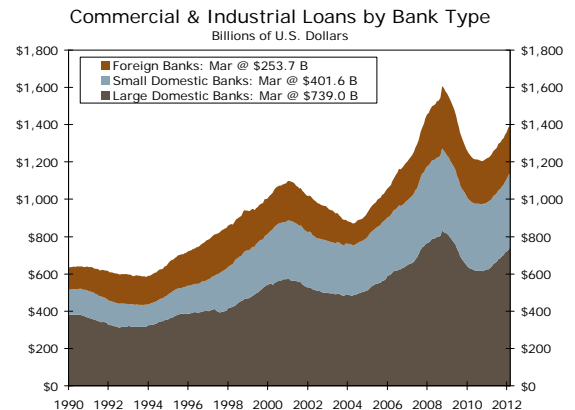


Figure 30



Source: Federal Reserve Board and Wells Fargo Securities, LLC

Structural Issues on the Credit Side: Whatever Happened to the Risk-Free Rate?

Yet, there are two credit issues on the bank lending side that represent structural challenges to the recovery. First, real estate lending, Figure 31, is clearly subpar compared to the growth of lending in prior expansions. From the borrower's perspective, the demand for real estate credit is derived from the demand for housing. With today's buyers uncertain about the current and future value of the home, the demand for mortgage credit is extremely limited. On the supply side, lenders have limited ability to see across a minefield of present and future regulations and economic conditions in order to estimate an expected rate of return on mortgage lending.

Meanwhile, the net interest margins in banking (Figure 32) have been declining since the early 1990s, thereby, raising the issue of how much bank lending can respond to economic growth and/or how much bank lending can be a force supporting economic growth in the future. The trend in Figure 31 indicates that real estate lending will not be as strong a supporter of growth as it has in the past.

The net interest margins in banking have been declining since the early 1990s, thereby, raising the issue of how much bank lending can respond to economic growth and/or how much bank lending can be a force supporting economic growth in the future.

Figure 31

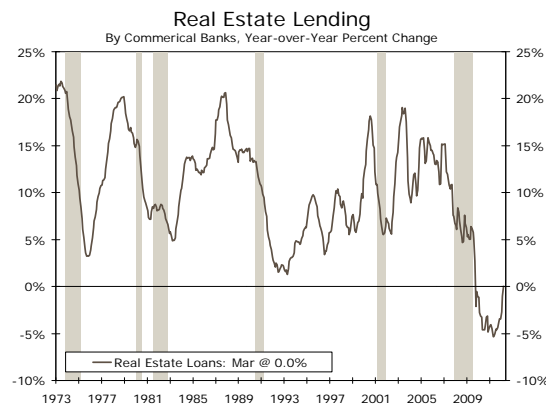
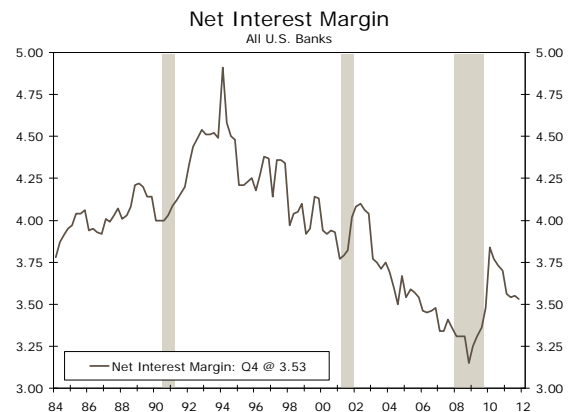


Figure 32



Source: Federal Reserve Board, Federal Financial Institutions Examination Council and Wells Fargo Securities, LLC

Capital Markets: Supporting Growth

Investment-grade issuance has been exceedingly strong in recent years (Figure 33). Spreads in the high-grade market have also stabilized at a level far below the flight-to-safety rates during the recession. Foreign demand continues to be focused on Treasury securities (Figure 34) in a

continued flight-to-safety trade and yet, the demand for agencies and equity continues to move along. Our suspicion is that the decline in the purchase of corporate debt represents a large downshift in the purchases of securitized products.

Figure 33

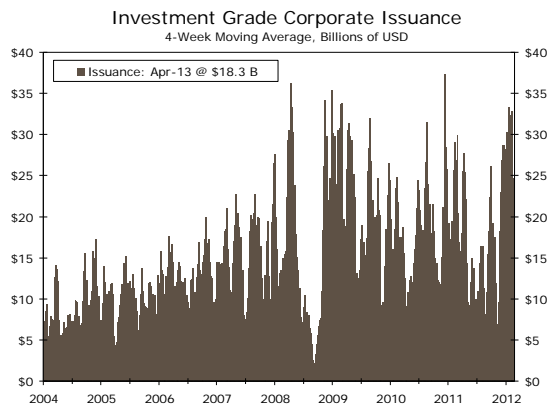
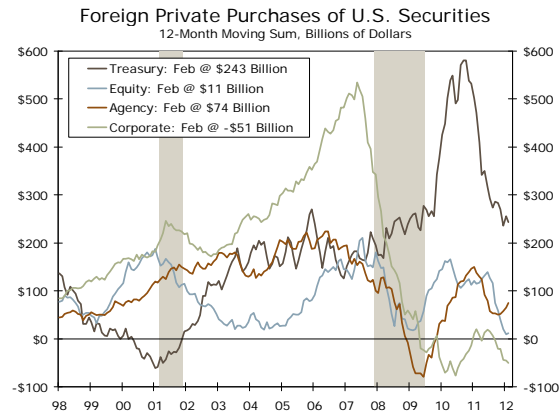


Figure 34



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

Banks, Business and the Political Outcomes of Crisis

Economics and finance are never without political risk. Periods of significant economic and financial change often herald sharp political reactions that can sometimes lead to significant military actions as illustrated in Figure 35. The challenge is for military decision makers to anticipate that economic change is often accompanied by rising military risk. The study of economic and finance prepares us to anticipate change and recognize the event risk that those changes will prompt significant shifts in a society's political risk.

Economics and finance are never without political risk.

Figure 35

Banking Crises and Popular Revolutions

- **U.S. Panic of 1819**
 - Collapse in cotton prices (post-War of 1812)
 - Bank credit, sectional animosity, rise of Andrew Jackson populism
- **France and the 1848 Revolution**
 - Pre-crisis boom in credit, then agricultural crop failure
 - Gold outflows, bank collapse
 - Orleans monarchy becomes French Second Republic
- **Germany and the Weimar Republic**
 - Reparations and hyperinflation
 - Default, French and Belgian occupation
 - Beer Hall Putsch, 1923

Source: Wells Fargo Securities, LLC

Wells Fargo Securities, LLC Economics Group

Diane Schumaker-Krieg	Global Head of Research & Economics	(704) 715-8437 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 374-7034	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 383-5635	mark.vitner@wellsfargo.com
Jay Bryson, Ph.D.	Global Economist	(704) 383-3518	jay.bryson@wellsfargo.com
Scott Anderson, Ph.D.	Senior Economist	(612) 667-9281	scott.a.anderson@wellsfargo.com
Eugenio Aleman, Ph.D.	Senior Economist	(704) 715-0314	eugenio.j.aleman@wellsfargo.com
Sam Bullard	Senior Economist	(704) 383-7372	sam.bullard@wellsfargo.com
Anika Khan	Senior Economist	(704) 715-0575	anika.khan@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 383-6805	azhar.iqbal@wellsfargo.com
Tim Quinlan	Economist	(704) 374-4407	tim.quinlan@wellsfargo.com
Ed Kashmarek	Economist	(612) 667-0479	ed.kashmarek@wellsfargo.com
Michael A. Brown	Economist	(704) 715-0569	michael.a.brown@wellsfargo.com
Joe Seydl	Economic Analyst	(704) 715-1488	joseph.seydl@wellsfargo.com
Sarah Watt	Economic Analyst	(704) 374-7142	sarah.watt@wellsfargo.com
Kaylyn Swankoski	Economic Analyst	(704) 715-0526	kaylyn.swankoski@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. 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 © 2012 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 Services Authority. The content of this report has been approved by WFSIL a regulated person under the Act. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FSA 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

