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ECONOMIC UPDATE AND FORECAST SUMMARY
APRIL 2015

Quick Looks:

- The economy slowed in the first quarter as lower oil prices and a strong dollar hit the energy sector, exports, and job creation.
- A key positive has been increases in labor earnings and household savings which we believe will eventually lead to stronger consumer spending.
- We expect the Fed to raise rates in the third quarter though the rate lift-off may be further delayed if the economy is slow to rebound from what we believe is a temporary lull. In any case, we expect fed funds rate increases to be slower and more modest than in the past.

The March employment report was a big disappointment with the economy adding only 126,000 jobs. Although job gains have averaged a respectable 200,000 per month during the first quarter of 2015, that was a far cry from the nearly 300,000 average monthly increases at the end of 2014. One must be careful not to overreact to a single employment report, but the recent weakness does make it more likely that the Federal Reserve will delay its first increase in the fed funds rate until the economy rebounds. Therefore, we now expect the Fed to raise rates in September, as opposed to our earlier projection of a June rate increase.

There was some good news in the March jobs report – wages rose and are up 2.1 percent compared to a year ago, and increased at a 4.0 percent annualized rate from three months earlier. Combined with flat prices, these wage gains are creating increases in real income for consumers. So far, consumers have mostly been saving this additional income. Whether that is a permanent or temporary development is the key to the economy's performance for the rest of this year.

We think consumer spending will pick up but have nonetheless reduced our projection for 2015 growth to 3.0 percent from the 3.4 percent rate we projected in our last report. Other contributors to GDP growth are facing substantial headwinds – the drop in oil prices has cut investment in the U.S. energy sector, the stronger dollar has slowed export growth, and government purchases will continue to gradually decline.

Slower growth means that interest rates are likely to remain close to their current levels until there is evidence of a rebound in economic activity. Inflation will probably begin to increase as energy prices stabilize; core inflation has been steady at just under 2.0 percent, indicating that the energy price drop has not spread elsewhere in the economy, allaying fears that a deflationary cycle could hit the economy.

We think the pace of Federal Reserve's monetary tightening will be slower than in the past and project that the fed funds rate will end the year at just below 1.00 percent. In fact, it is hard to describe a fed funds rate below 1.00 percent by year-end as "tightening." Our view is that super-low interest rates are no longer providing much stimulus to the economy and, consequently, modest increases in the fed

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funds rates are unlikely to do much harm. The constraint on the economy today is not the cost of financing but the willingness of businesses and households to take on more debt following years during which debt reduction has been the focus of their financial activities. Ironically, a modest increase in the fed funds rate might actually spur economic activity since it would indicate that the Fed believes the economy is on sound footing.

Economic Forecasts: RCF and Consensus
Actual Economic Data as of April 6, 2015

		What We Said	What We Saw	What We See	
		2015 1st Half	2015Q1	2015 1st Half	2015 2nd Half
Real GDP	**RCF**	**3.3%**	+0.2%	**2.0%**	**3.4%**
	Consensus	*3.0%*	(estimated)	*2.3%*	*2.9%*
Inflation	**RCF**	**1.0%**	-0.1%	**0.4%**	***1.6%***
	Consensus	*0.5%*		*0.3%*	*1.3%*
Core Inflation#	**RCF**	**1.6%**	1.7%	**1.7%**	***1.9%***
	Consensus	*1.9%*		*1.5%*	*1.8%*
Unemployment	**RCF**	**5.4%**	5.5%	**5.4%**	**5.2%**
	Consensus	*5.4%*		*5.4%*	*5.1%*
Fed Funds Rate	**RCF**	**0.25%**	0.125%	**0.125%**	***0.875%***
	Consensus	*0.25%*		*0.125%*	*0.75%*
2-year Treasury Rate	**RCF**	**0.85%**	0.56%	**0.65%**	**1.10%**
	Consensus	*n.a.*		*n.a.*	*n.a.*
10-year Treasury Rate	**RCF**	**2.35%**	1.94%	**2.20%**	***2.65%***
	Consensus	*2.49%*		*2.17%*	*2.57%*

RCF: RCF Economic & Financial Consulting, Inc.
Consensus (except for core inflation): Wall Street Journal April Survey of Economists
Core Inflation (excludes food and energy prices): consensus forecast from the Philadelphia Federal Reserve's Survey of Professional Forecasters

I. Interest Rate Overview

The Treasury Yield curve has not changed materially from the end of 2014, with interest rates generally lower across-the-board as a weak early start to 2015 has strengthened demand for government debt.

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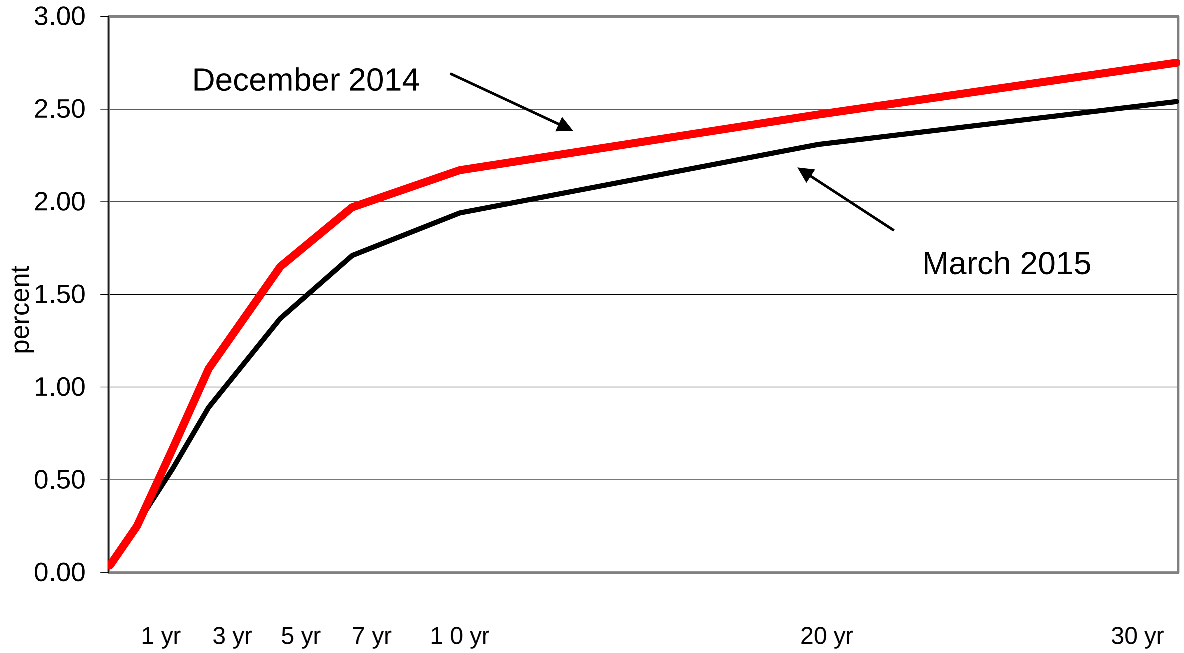
Chart 1: Treasury Yield Curve, March 2015 vs. December 2014



Source: Federal Reserve

Rates have remained low because the key drivers of low rates – low inflation, low growth, especially outside the U.S., and a zero fed funds rate – have all remained in place. Until one or more of these changes, it is likely that 10-year yields will stay close to their current levels. We discuss each of these in turn.

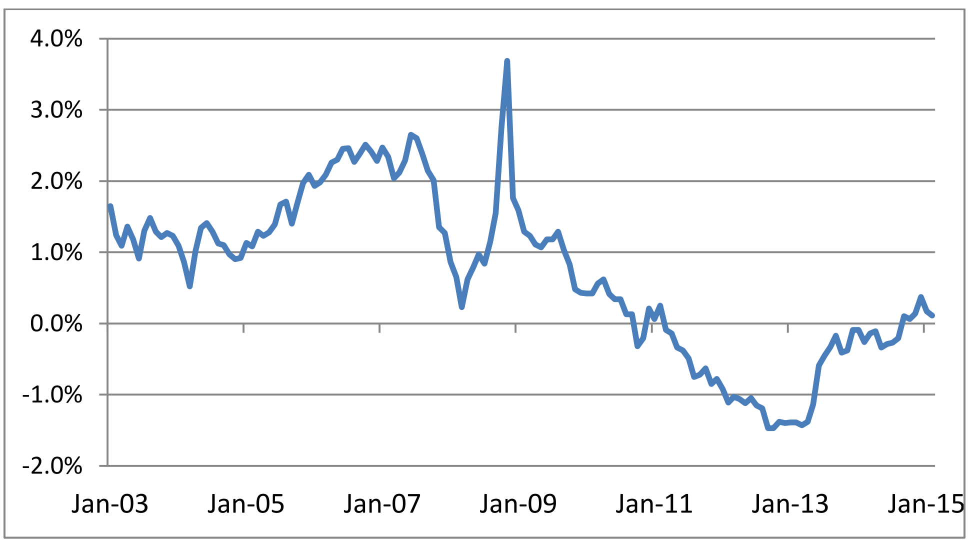
Inflation: The key takeaway here is that the decline in inflation is entirely due to lower energy prices. Core prices (excluding food and energy) are up 1.7 percent over the past year and up 1.9 percent if food but not energy is included. While both readings are slightly below the Fed's preference for 2.0 percent inflation, the bigger point is that the decline in energy prices does not appear to be establishing a broader deflationary trend in the economy. As such, the recent drop in expected inflation should reverse itself, which would send longer-term interest rates higher.

Economic Growth: Our expectation is that the U.S. economy will grow close to 3.0 percent in 2015 on the back of stronger consumer spending. Perhaps as important is the outlook for growth outside the U.S. because buyers of U.S. Treasuries are located all over the world. If there is any good news, it is that the news outside the U.S. is not as bad as it could be. Europe seems to be rebounding and Japan is growing, but China may be slowing more rapidly than people realize. Probably the more important international issue is the strength of the dollar which has given foreigners yet another reason to buy U.S. debt. All in all then, global economic conditions continue to support a low level of U.S. Treasury yields.

Federal Reserve Policy: Our expectation is that the Federal Reserve will raise rates in the third quarter of 2015. We think the rate increases will occur at a slow pace as the Fed will likely adopt a "wait-and-see" approach to assess the impact of the end of its near-seven year policy of a zero fed funds rate. The impact of any increase in the fed funds rate on long-term U.S. Treasury yields will depend less on the actual funds rate increase and more on the language the Fed uses when it does raise rates. If the Fed mentions concerns about inflation as a justification for higher rates, long-term yields will likely rise. If the Fed emphasizes a desire to "normalize interest rates," long-term rates will be less affected.

We would be remiss if we did not mention recent comments by former Fed Chairman Ben Bernanke on the continued presence of low long-term interest rates. Bernanke noted that while lower inflation has reduced the nominal (market) interest rate, real (inflation-adjusted) rates have also fallen. Chart 2 reprints Bernanke's measure of the real interest rate, equal to the yield on the 5-year inflation indexed government security. As you can see, the real rate is barely above zero and was in fact negative at one time. Bernanke attributes the low real rate to the "global savings glut" through which countries with high levels of savings (e.g., China) have been strong buyers of U.S. government debt, thereby pushing up bond prices and pushing down bond yields.

Chart 2: Interest Rate on Inflation-Indexed 5-Year Securities



Sources: Federal Reserve and Ben Bernanke's Blog

Corporate borrowers continue to take advantage of this period of low interest rates. According to data published by the International Financing Review, investment-grade and high-yield corporate debt issuances both hit records in the first quarter of 2015, with their combined total being 12 percent higher than the previous peak set in the first quarter of 2014. Much of these issuances have been for refinancing of existing debt, or to finance stockholder dividends and share buybacks. Only about half of the new corporate borrowing has been for increases in capital expenditures. Nonetheless, half of a very big number means that businesses are investing more than in the past, consistent with the view that the economy – and consumer spending – will continue to grow. How fast the economy will grow is another issue altogether.

II. Inside GDP

Final numbers for 2014 showed the economy grew 2.4 percent during the year. Growth was particularly uneven however, with the economy declining in the first quarter, growing well above 4.0 percent in the second and third quarters, and then slowing to a 2.2 percent gain over the final three months of the year.

While the quarterly numbers for 2014 were volatile, the year as a whole was very similar to 2012 and 2013. As shown in Chart 3, the last three years have been characterized by modest growth in consumer spending and international trade, and stronger gains in business investment being offset by drops in government purchases. In the aggregate, nominal GDP growth has not ventured far from 4 percent annually and, with inflation consistently running at just under 2.0 percent, real GDP has bumped along in a very narrow range from 2.2 – 2.4 percent each year.

Chart 3: Annual Change in GDP and its Components

	Nominal GDP	Real GDP	Consumer Spending	Business Investment	Government Purchases	Exports	Imports
2012	4.2%	2.3%	1.8%	9.2%	-1.5%	3.3%	2.3%
2013	3.7%	2.2%	2.4%	4.9%	-2.0%	3.0%	1.1%
2014	3.9%	2.4%	2.5%	5.8%	-0.2%	3.2%	4.0%
3-year Average	3.9%	2.3%	2.2%	6.6%	-1.2%	3.2%	2.5%

Source: U.S. Department of Commerce

Given the data in Chart 3, it is reasonable to question our forecast of close to 3.0 percent growth in 2015, especially since the first quarter of the year saw an increase of only 0.2 percent. Moreover, while we expect business investment to continue its relative strength, we see no reason why government or trade will be any more positive in 2015 than it was in 2014. The key driver of our stronger growth forecast is consumer spending, which has gradually been getting stronger and has the potential to grow even more rapidly. We are finally seeing meaningful gains in household incomes and, with lower gasoline prices keeping overall consumer prices in check, real after-tax income has been on an obvious upward trend.

The cumulative increase in real after-tax income and real consumer spending since early 2014 are presented in Chart 4. By February of 2015, household income had increased by more than $500 billion

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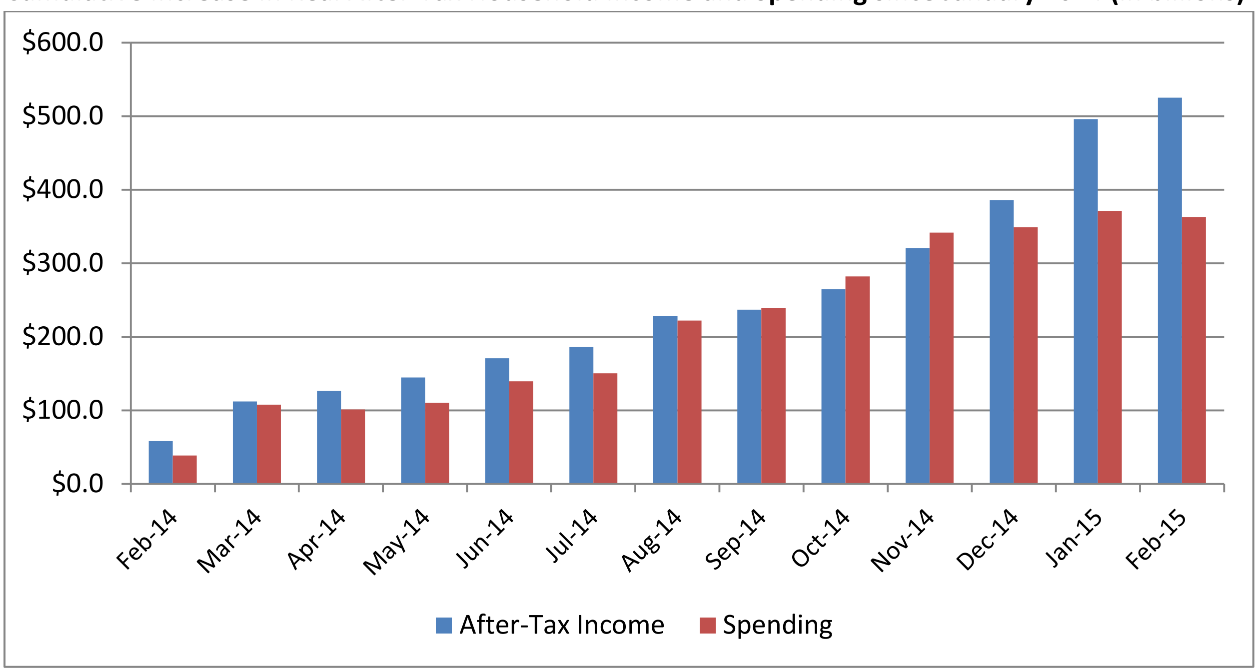
(compared with January 2014) but consumer spending only increase by about $350 billion. The gap between income growth and spending growth is particularly evident over the past few months which have seen a substantial boost in income and virtually no increase in spending. Instead, households have increased their savings which have risen by more than $150 billion (on an annualized basis) in just the past few months.

In part, this may be due to the impact of lower gasoline prices. When people pay $10 less to fill up their tank, they do not immediately spend that $10 on something else. However, we expect that before long the increases in income and increases in savings will turn into increases in consumer spending. Given that consumer spending is 70 percent of the economy even a modest pick-up in this area would allow the economy's overall growth rate to reach 3 percent.

Chart 4:
Cumulative Increase in Real After-Tax Household Income and Spending since January 2014 (in billions)



Source: U.S. Department of Commerce and RCF Calculations

Given that many households are still digging themselves out from high levels of debt, it is understandable that people might be focused more on saving than spending. Of course, there is a way for households to increase both their spending and their savings. All it takes is consistent increases in household income. Chart 4 shows the benefit of the recent decline in gasoline prices (which have increased real incomes) but sustainable increases in income and spending will require more than just cheap oil, it will require steady gains in jobs and wages.

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III. Jobs Picture

Despite the weak March employment report, the labor market has been one of the strong spots of the U.S. economy of late. The economy added about 600,000 jobs in the first quarter of 2015 and more than three million jobs over the past 12 months. The unemployment rate has fallen from 6.6 percent to 5.5 percent over the past 12 months and the broader measure of labor market underemployment (U-6) fell from 12.6 percent to 10.9 percent over the same period. Other positives are seen in the data on new claims for unemployment insurance, new hires, and worker quit rates, all of which are at levels not seen since before the Great Recession and, in some cases, since 2000.

Chart 5 presents a number of labor market indicators in March 2015 with their values in March of earlier years: 2010 (when the labor market bottomed out), 2007 (before the Great Recession), and 2000 (the peak before the 2001 recession). Clearly, there has been much improvement over the past five years. Some measures (job growth, initial claims, and new hires) are close to their 2000 levels.

Chart 5: Selected Labor Market Indicators

	March 2015	March 2010	March 2007	March 2000
12-month job growth (millions)	3.1	-2.6	1.7	3.4
Unemployment rate (U-3)	5.5%	9.9%	4.4%	4.0%
Underemployment rate (U-6)	10.9%	17.1%	8.0%	7.1%
Initial unemployment claims	285,250	479,875	314,900	279,625
New Hires (millions)	4.9	2.7	4.7	4.9
Quit Rate	1.9%	1.4%	2.2%	2.3%
Labor Force Participation Rate	62.9%	64.9%	66.2%	67.0%
Hourly earnings growth	2.1%	1.8%	3.6%	3.8%

Source: Bureau of Labor Statistics

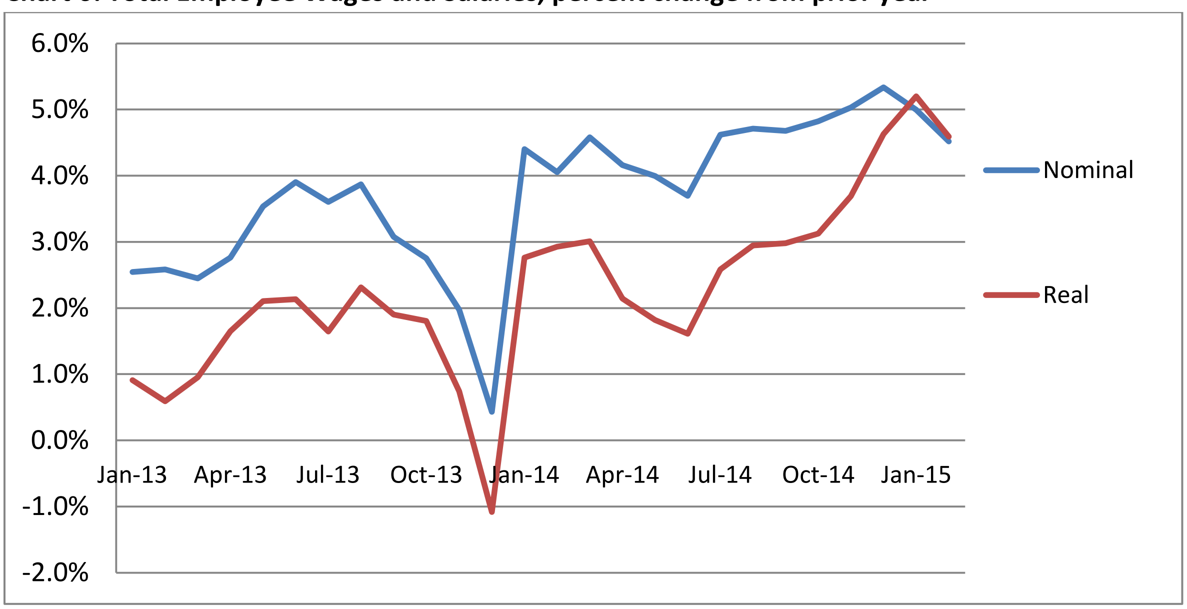
But Chart 5 also shows that labor markets are not fully recovered. Both measures of unemployment are higher than they were before the Great Recession, while the quit rate and the labor force participation rate are both lower. The decline in the participation rate is partly a long-term trend as well as a reflection of current labor market struggles.

Our focus here is on wage growth which has rebounded only modestly. One would think that the otherwise strong labor market numbers would lead to increases in workers' wages. Why has this not happened? One hypothesis is that the labor markets are still not tight enough as evidenced by the still high level of under-employment. Others have argued that the nature of employment has changed with many of the newly created jobs paying less than the old jobs that were lost during the recession. We present a third hypothesis that reverses the causality between job growth and wages. Instead of asking why stronger job numbers do not raise wages, we wonder if one reason why job growth has been strong is because wages have not grown much. It is a classic demand story – employers are more willing to hire people at relatively low wages than at higher wages and, as such, the absence of wage growth is one of the factors contributing to the large increases in employment.

Support for this hypothesis is found in the March employment report. Wages rose at a 4.0 percent annualized rate compared with December 2014, while employment growth averaged 197,000 per month. Contrast that with the final nine months of 2014 when wages rose at only a 1.5 percent rate while employment growth averaged 281,000 per month. Therefore, we should not be surprised to see slower increases in employment. In other words, we might see 3 million more jobs with a 1.5 percent increase in wages, or 2.5 million more jobs with a 3 percent increase in wages. This second scenario may in fact be better than the first – at this point wage growth might be more important than job growth. Our point is simply that trade-offs exist and this dynamic could develop further through the remainder of 2015.

For this reason, we are focusing on total employee earnings as a measure of overall labor market strength. It is a number that takes account of growth in hourly wages, growth in hours worked, and growth in total employment. And as shown in Chart 6, this very broad measure of labor market conditions is on an upward trend, especially when one factors in the current low rate of inflation.

Chart 6: Total Employee Wages and Salaries, percent change from prior year



Source: Bureau of Economic Analysis

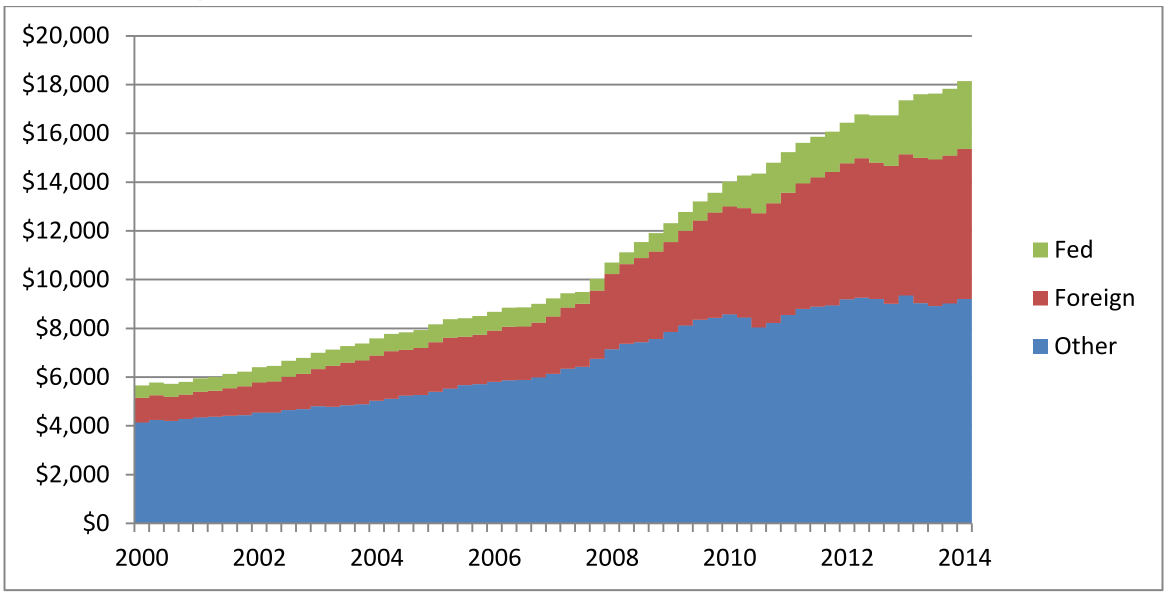
Therefore, our take on the labor market situation is that it is transitioning away from high growth in jobs and low growth in wages to a market with less employment growth but more wage growth. This view is supported by a recent Federal Reserve survey of businesses that found that 45 percent were increasing wages and 50 percent were expecting to increase wages in the future, the strongest such readings since 2007. Interestingly, it has been the lack of wage growth that has been a key reason why the Federal

Reserve has been reluctant to raise interest rates. Now that wages are starting to rise, will the Fed take action, or will the corresponding slowdown in employment give the Fed a reason to continue its zero interest rate policy?

IV. Fiscal and Monetary Policy

Before we turn to monetary policy we will, in honor of April 15 tax day, note that the budget deficit for 2014 fell to 2.8 percent of GDP, the lowest level since 2007 and a vast improvement from the trillion dollar deficits of a few years ago. Notably, the current level of federal spending (20 percent of GDP) and tax revenues (17 percent of GDP) are the same as the historical averages over the past 30+ years. Of course, having an average deficit of about 3 percent of GDP runs up a lot of debt over the course of a generation, but at least the fiscal position has moved from a crisis to a manageable problem.

Chart 7: Holdings of U.S. Government Debt (in billions)



Source: Council of Economic Advisors

The interaction of fiscal policy (budget deficits) and monetary policy (quantitative easing) is an interesting development that has generated little attention. The Federal Reserve's purchases of long-term government bonds was implemented to push down long-term interest rates and stimulate the economy. But it has also "monetized the debt" with the Fed now owning 15 percent of total U.S. government debt. Thus, quantitative easing has also allowed the government to finance its debt at low interest rates which has helped reduce the taxpayer's burden of debt interest payments. Of course, as we note in our section on interest rates, there are many factors explaining low interest rates beyond the Fed's actions. Nonetheless, the current low level of interest rates is one reason why some feel now would be a good time for the federal government to increase its spending (and borrowing) on new

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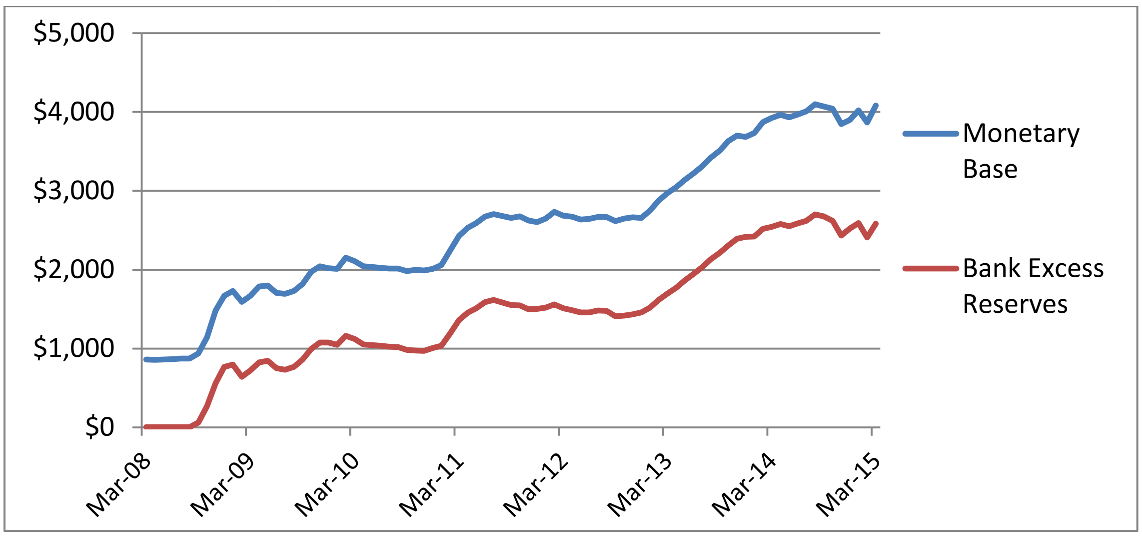
infrastructure projects. Politics may trump economics here, however, so we do not expect much fiscal action in the near-term.

As for monetary policy, the debate has focused on when the Fed will raise interest rates but another question is how the Fed will raise rates. Normally, the Fed raises the funds rate by draining reserves from the banking system. But with banks holding more than $2 trillion of excess reserves, it would be difficult for the Fed to drain enough reserves (barring a mass sale of its debt holdings) to create the shortage of funds that would push up the funds rate. Instead, the Fed is likely to raise the interest rate it pays to banks on reserves, which would create a higher opportunity cost for banks that issue loans, thereby raising the rate on these loans. However, that presumes that loan demand will be strong enough that banks will want to issue more loans. The bottom line is that it might be more difficult for the Fed to raise interest rates than people realize. In fact, one reason the Fed might be hesitant to raise rates is that it still has not figured out exactly how to do it.

Chart 8: The Monetary Base and Bank Excess Reserves (in billions)



Source: Federal Reserve

Another reason the Fed has kept rates low for so long is referred to as the "asymmetric impact" of higher rates. The asymmetry is driven by the notion that a premature rate increase could have a larger negative impact (if it substantially slowed the economy) than a longer delay in raising rates, where the risk is an eventual, but not immediate, increase in inflation.

However, we do not think a small increase in the fed funds rate would have much negative impact, partly because we believe the current zero interest rate policy is no longer having much of a positive impact. In our view, it is not the high cost of financing that is holding back business and household borrowing, it is uncertainty about the economy. In some ways, the Fed is itself contributing to that uncertainty by frequently indicating that rates will rise in the near-future, but never following through on its stated strategy.

Internal surveys of Fed members show a clear majority favoring a rate increase this year but then again, many at the Fed have been wanting to raise rates for some time now. Janet Yellen recently spoke of the need to see stronger wage gains before she would support a rate increase. Those wage gains are finally materializing. Inflation, excluding energy prices, is nearing the Fed's 2.0 percent target. The unemployment rate has fallen to 5.5 percent, another benchmark that the Fed stated would have to be reached before rates increase.

It is possible that the recent weakness in the economy is giving the Fed a good reason to delay any rate increases. But it is also possible that the Fed, unwilling to unload its massive holding of securities and unable to sufficiently reduce the large level of bank excess reserves, will find that raising rates is easier said than done.