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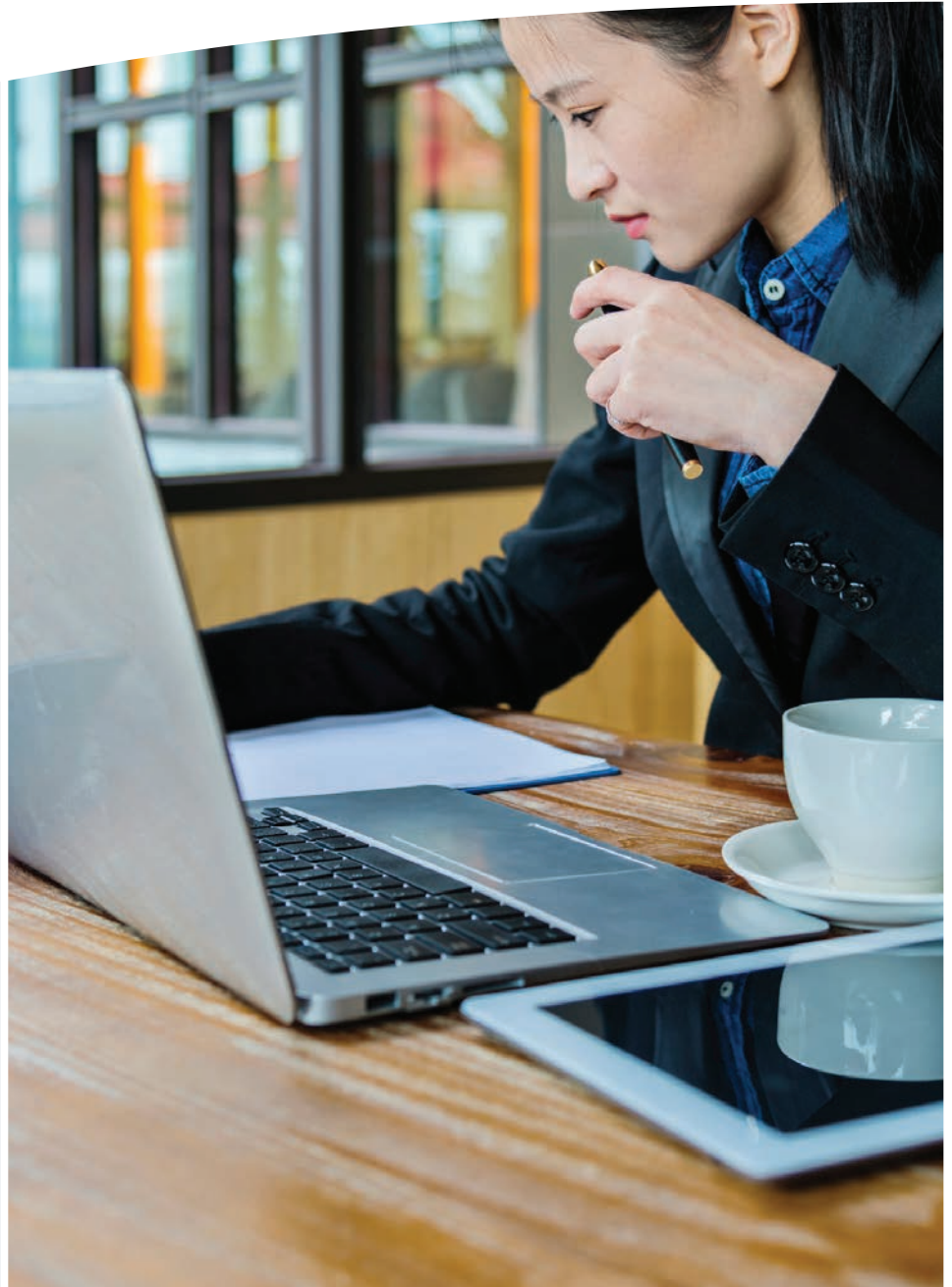
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## September 23, 2016

*The U.S. economy has recovered since the Great Recession, but the pace of the recovery has been disappointing. The current growth rate is notably below historical trends. This paper examines the characteristics of the ongoing moderate recovery, along with its discontents.*

**Key topics covered in the report include:**

- Household income remains weak
- Rising consumer spending
- Housing market recovery
- Business fixed investment
- Labor market performs well
- Low inflation
- Global perspective on the U.S. economy



# A MODERATE RECOVERY AND ITS DISCONTENTS

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## **Table of Contents**

<b>Abstract. . . . .</b>	<b>4</b>
<b>Summary . . . . .</b>	<b>4</b>
<b>Income Inequality. . . . .</b>	<b>5</b>
<b>Consumer Spending, Residential Investment and Housing . . . . .</b>	<b>6</b>
<b>Business Fixed Investment . . . . .</b>	<b>8</b>
<b>Tax Receipts and Import/Export Activity . . . . .</b>	<b>9</b>
<b>The U.S. Labor Market . . . . .</b>	<b>.10</b>
<b>Inflation and Interest Rates. . . . .</b>	<b>.11</b>
<b>The U.S. and the World . . . . .</b>	<b>.13</b>
<b>Conclusion . . . . .</b>	<b>.14</b>
<b>References . . . . .</b>	<b>.15</b>
<b>Author Biography . . . . .</b>	<b>.15</b>

## Abstract

*The U.S. economy has recovered since the Great Recession, but the pace of the recovery has been disappointing. The current growth rate is notably below historical trends. This paper examines the characteristics of the ongoing moderate recovery, along with its discontents.*

Keywords: U.S. economy, United States, business cycle, interest rates

JEL Classifications: E20, E40, E50, E60

## Summary

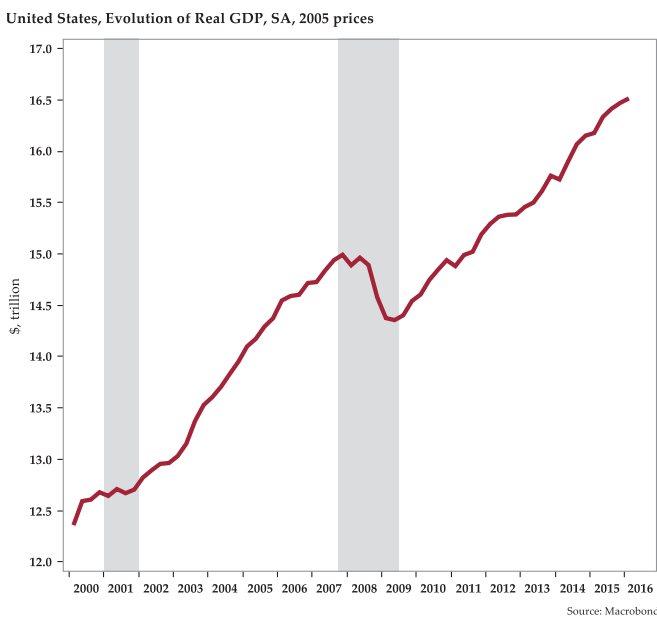
Since the end of the Great Recession, the U.S. economy has recovered. But to the vast majority of Americans, it hasn't seemed like much of a recovery. By most measures of economic growth, the recovery is noticeably below historical trends—particularly compared to recoveries the U.S. economy has enjoyed since World War II. While housing prices are generally strong, the stock market has boomed and consumer spending has come back moderately, wage growth is flat, income inequality has worsened and the shrinking unemployment rate masks some labor market weaknesses.

This paper will explore the reasons for the current lukewarm recovery, including demographics, global factors, business uncertainty and low productivity growth. It will also look at possible strategies for improvement.

The U.S. economy has recovered since the Great Recession. However, the pace of economic growth has been disappointing. This paper examines the characteristics of the moderate recovery and its discontents.

Real GDP declined noticeably during the Great Recession, falling more than 4%. As the recession ended, the U.S. economy picked up, with real GDP beginning to rise in late 2009 (see Figure 1). But the pace of growth has been much lower than the trend growth of the U.S. economy since the 1950s. U.S. economic growth has averaged just 2% on an annual basis since the recession, whereas the historical trend growth rate for the U.S. economy has been more than 3% (see Table 1).

**Figure 1: The U.S. economy has recovered since the Great Recession**



**Table 1: Trend growth rate of U.S. GDP, 1950-2015**

USA, Real GDP, Trend Growth Rates, 1950-2015, %	
<i>Trend growth rate by decades</i>	
1950-1959	3.1
1960-1969	4.9
1970-1979	3.4
1980-1989	3.8
1990-1999	3.6
2000-2009	1.9
2010-2015	2.0
<i>Trend growth rate by era</i>	
1950-2015	3.2
1950-2007	3.3
2000-2007	2.7
2008-2015	1.8
2009-2015	2.0

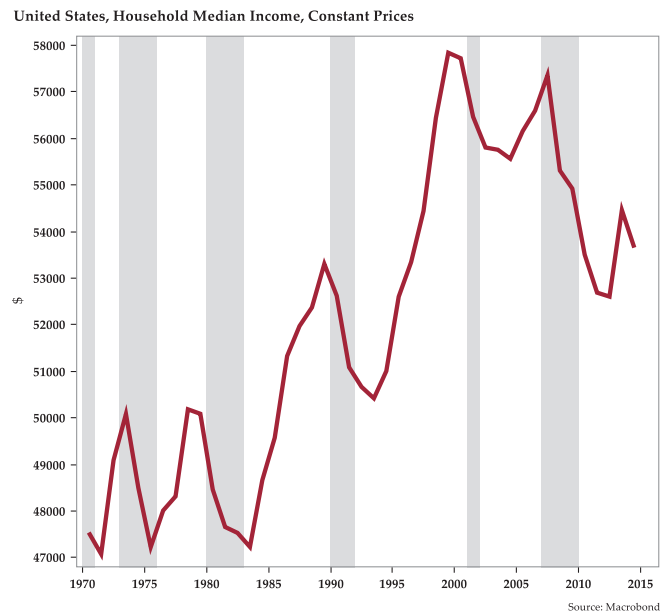
Source: Macrobond, author's calculation

In addition, household median real income has recovered weakly since the Great Recession (DeNavas-Walt and Proctor 2015). Household median real income typically tends to rise over time. It also rises as the economy recovers from a recession.

However, household median real income has remained weak since the turn of the century. It fell after the dot-com bubble in 2000, and it continued to decline until 2005, when it began recovering, albeit tepidly. It fell again sharply with the onset of the Great Recession in 2008 and continued to decline until 2012. Since then, it has started to slowly rise. Nevertheless, household median real income in 2016 is still 7% below its peak of nearly of \$58,000 in real terms in 1999 (see Figure 2).<sup>1</sup>

Real income is a crucial component of the standard of living for households. Its decline and subsequent stagnation have contributed to a widespread sense of malaise and disillusionment with the economic prospects and opportunities for the vast majority of people in the U.S.

**Figure 2: Household median real income has languished since the beginning of the century and remains well below its peak**



## Income Inequality

Income inequality has been rising steadily for many years. Table 2 provides various measures of household income and its dispersion in selected years between 1970 and 2004. It also gives the mean household incomes of different quintiles and the top 5% of U.S.

<sup>1</sup> In terms of 2014 CPI-U-RS adjusted dollars, as calibrated by the U.S. Census Bureau.

households. Since the beginning of the century, the mean real incomes of all five quintiles have declined.

However, since the Great Recession, the mean household real income of the fourth and highest quintiles and the top 5% of households has risen. But that of the lowest, second and third quintiles has declined. Table 2 also shows that income distribution, as exhibited by the income shares of the four lower quintiles, has been declining for several decades. Meanwhile, the income share of the highest quintile and the top 5% of households has been rising significantly.

The Gini coefficient, a summary measure of income inequality, has risen from nearly 0.4 in 1970 to nearly 0.5 in 2014. A Gini coefficient of 0 would indicate complete equality of income among households, while a coefficient of 1 indicates that income is concentrated in the hands of a single household. Since the Great Recession, income inequality, as measured by the Gini coefficient and other statistical metrics, has continued to rise.

## Consumer Spending, Residential Investment and Housing

Despite increased income inequality and the stagnation of median real income, consumer spending has risen at a moderate pace. Aggregate consumption has climbed because of higher aggregate real disposable income and because the private sector's aggregate real net worth has risen. Of course, even if the real median income declines, aggregate real disposable income may still rise—whether it's due to a rise in the mean real income, population increases or both. The growth in personal consumption expenditures has been less robust than in the past.

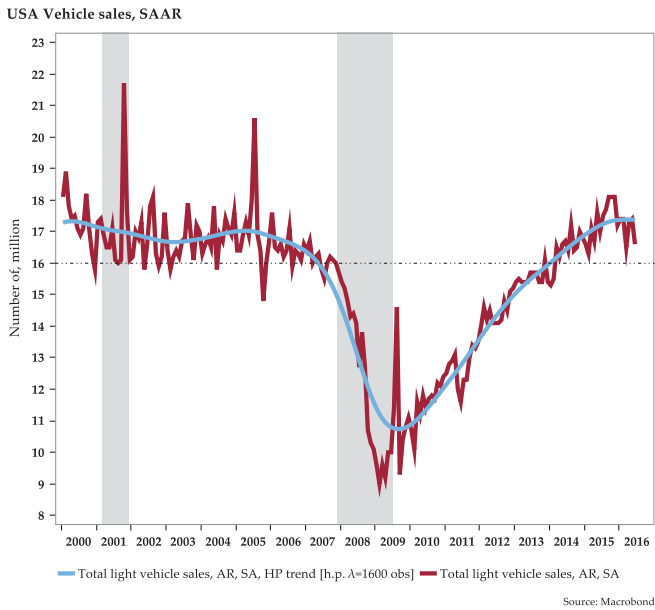
Real retail sales have been rising moderately. After languishing for several years, vehicle sales have rebounded since 2014 (see Figure 3). Their sales had declined sharply during the Great Recession, as households cut back on discretionary purchases and delayed replacing older cars due to uncertainty about income, jobs and tighter credit. Pent-up demand is one factor in the rebound, as sales had been below replacement rates for several years. Low interest rates, easier access to credit, and job growth also have helped restore vehicle sales. At the same time, automakers have been introducing new features and models, including electric cars and hybrids.

**Table 2: Household median real income has languished since the beginning of the century and remains well below its peak**

Selected Measures of Household Income Dispersion, 1970-2014							
Income in 2014 CPI-U-RS adjusted dollars							
	1970	1980	1990	2000	2008	2010	2014
<b>Household income</b>							
<i>Median</i>	\$47,524	\$48,448	\$52,581	\$57,730	\$53,314	\$53,508	\$53,657
<b>Mean household income of quintiles</b>							
<i>Lowest quintile</i>	\$10,906	\$11,791	\$12,584	\$13,964	\$12,818	\$11,938	\$11,676
<i>Second quintile</i>	\$29,361	\$29,346	\$31,661	\$34,867	\$32,457	\$30,982	\$31,087
<i>Third quintile</i>	\$47,280	\$48,424	\$52,297	\$58,064	\$55,126	\$53,390	\$54,041
<i>Fourth quintile</i>	\$66,437	\$71,341	\$78,849	\$90,263	\$87,705	\$85,651	\$87,834
<i>Highest quintile</i>	\$117,721	\$127,198	\$153,016	\$195,598	\$188,097	\$183,938	\$194,053
<i>Top 5 %</i>	\$181,093	\$190,084	\$243,662	\$347,010	\$324,066	\$311,865	\$332,347
<b>Share of household income of quintiles</b>							
<i>Lowest quintile</i>	4.1	4.2	3.8	3.6	3.4	3.3	3.1
<i>Second quintile</i>	10.8	10.2	9.6	8.9	8.6	8.5	8.2
<i>Third quintile</i>	17.4	16.8	15.9	14.8	14.7	14.6	14.3
<i>Fourth quintile</i>	24.5	24.7	24.0	23.0	23.3	23.4	23.2
<i>Highest quintile</i>	43.3	44.1	46.6	49.8	50.0	50.3	51.2
<i>Top 5 %</i>	16.6	16.5	18.5	22.1	21.5	21.3	21.9
<b>Summary measures</b>							
<b>Gini index of income inequality</b>	0.39	0.40	0.43	0.46	0.47	0.47	0.48

Source: U.S. Census, *Income and Poverty in the United States*, Current Population Reports (2014)

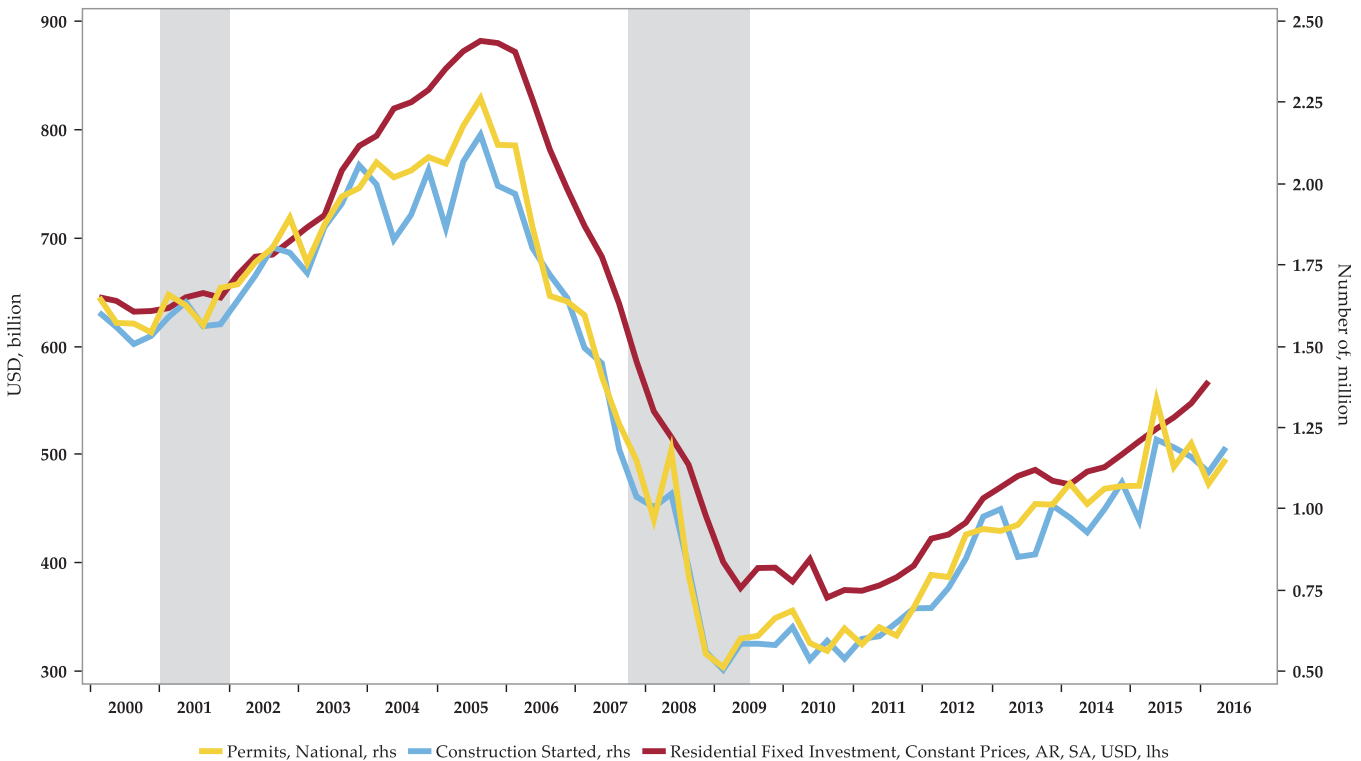
**Figure 3: Vehicle sales have been strong**



When it comes to consumption in general, real disposable income and real net worth are the key drivers. In the U.S., household real net worth has risen since 2011 due to the upswing in house prices and higher equity values. The increases in real disposable aggregate income and household aggregate real net worth (wealth) have supported the increase in consumer spending on durable goods, non-durable goods and services.

**Figure 4: A gradual recovery in residential investment**

Residential fixed investment, housing starts and permits



At the same time, household balance sheets have improved, with debt-to-income, debt-service and financial obligations ratios all declining. Even though household median real income has stagnated, aggregate real disposable income has risen, while interest payments have declined due to lower interest rates, restructuring of debt and less borrowing. And with households more cautious—and more careful about liquidity—since the Great Recession, the savings rate has also climbed. But it is unlikely to reach the rates exhibited in the mid-20th century years.

Since the end of the recession, there has been a gradual recovery in residential investment and house prices. Residential investment has picked up due to lower interest rates, household formation, relaxation of mortgage lending standards, and labor market improvements. As house prices began to fall in late 2006, residential investment also fell markedly, bottoming out in 2010. Since the recession's end, house prices have been rising quite strongly in most major metropolitan areas. Housing activity, including purchases of new and existing houses, has shown a gradual recovery.

Building permits and housing starts also have started to rise (see Figure 4). Builders have increased multifamily construction in response to the strong demand for rental units. Rents have also increased because of the strong demand for rental units, as many

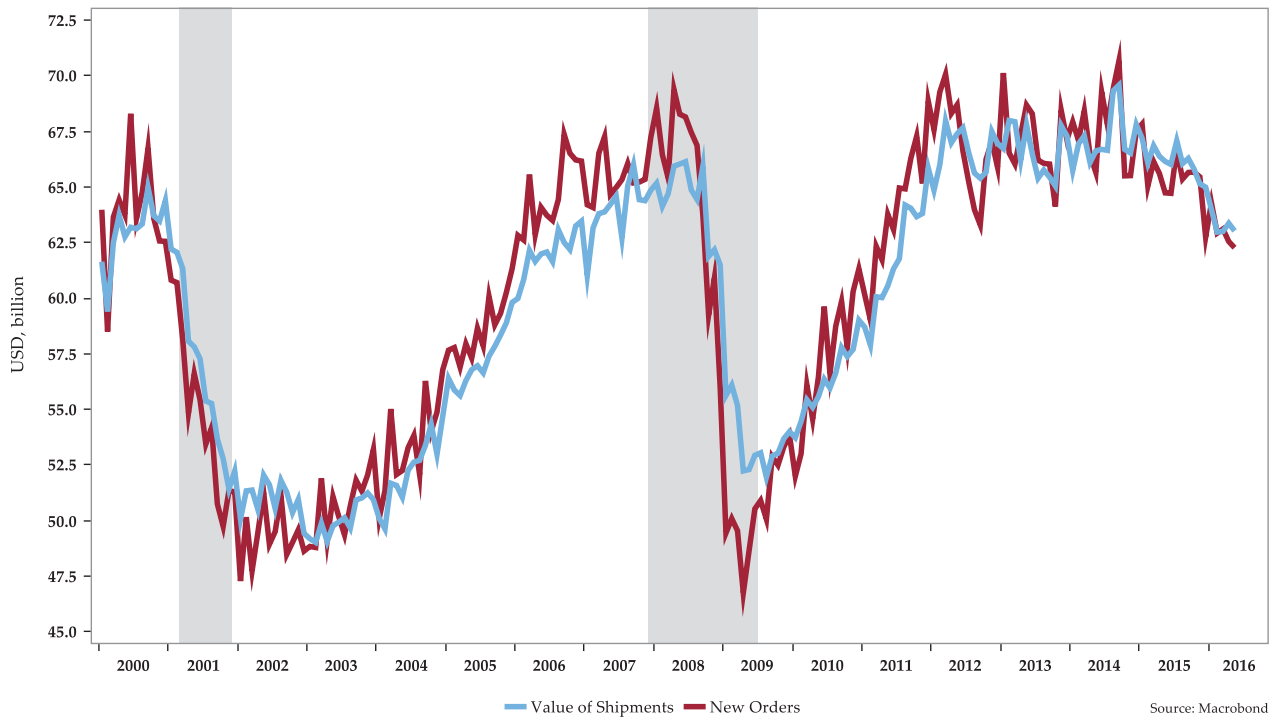
low- and medium-income households, along with young people new to the housing market, have sought to rent rather than buy. In some cases, these households prefer to rent. In others, demand for rental housing points to the inability of many households to qualify for mortgages. Access to credit has remained tighter than in the past, despite some recent reductions of lending standards.

## Business Fixed Investment

In contrast with residential investment, business fixed investment has remained stagnant. Indeed, investment in capital goods and equipment, intellectual property, and structures has declined in the past two years (see Figure 5). Business investment fell notably during the Great Recession, with some recovery from mid-2010 to late 2012. Since then, recovery has stalled.

**Figure 5: Business fixed investment is stagnant**

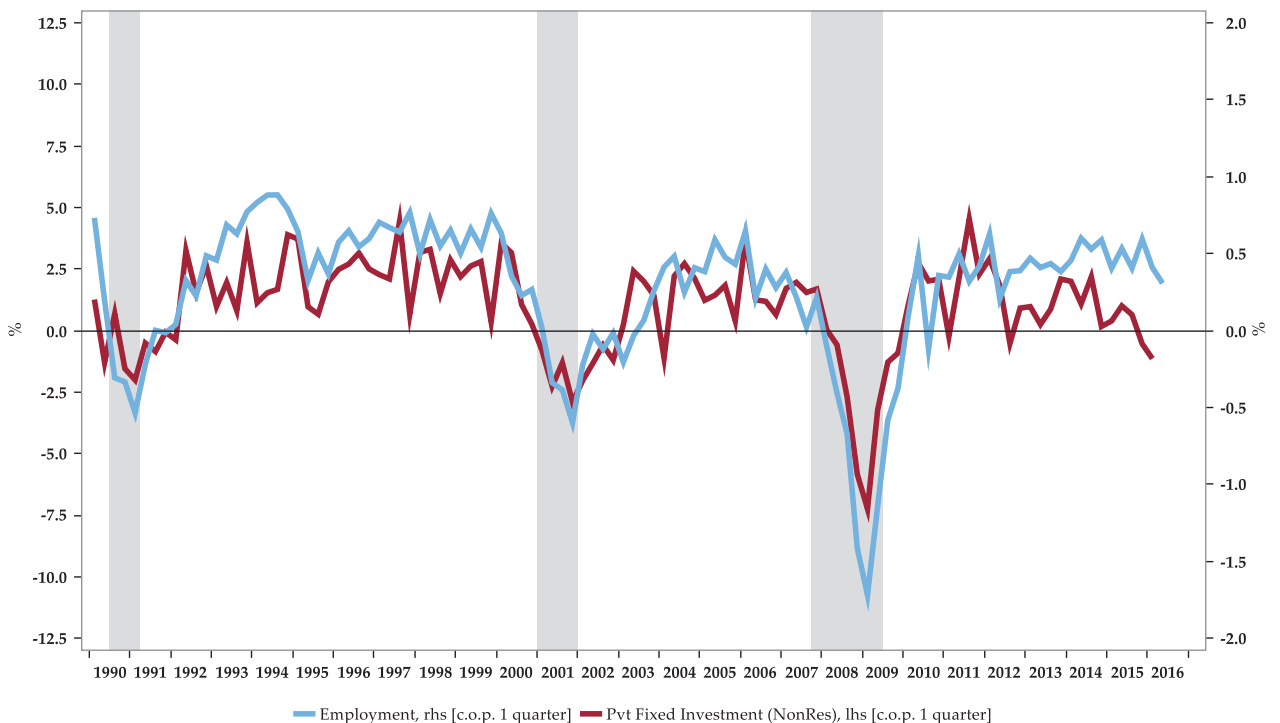
USA, Nondefense capital goods excluding aircraft, Current Prices, SA



Source: Macrobond

**Figure 6: It is unusual for businesses to hire while business fixed investment lingers**

Jobs Growth and Biz Fixed Investment, SA



Source: Macrobond



The sharp fall in commodity prices, particularly crude oil prices, is partly responsible for the decline in the past several quarters. Energy-related investment has declined markedly, as reflected in the drop in rig counts. But businesses of all kinds have delayed investing due to a general uncertainty about the recovery's scope and sustainability. They are waiting until they can feel certain that effective demand is stronger.

While businesses have been extremely cautious about expanding capacity and undertaking fixed investments, they have been expanding their payrolls and hiring people (see Figure 6). It is unusual for businesses to hire and not invest—and this anomalous situation may partly explain the sluggish growth in productivity. With the dearth of investment in capital, equipment and intellectual property, new workers have had to make do with the current stock of capital to produce additional goods and services. As a result, labor productivity gains have been meager.

## Tax Receipts and Import/Export Activity

As the unemployment rate rose and real disposable income fell during the Great Recession, tax receipts declined. Meanwhile, federal government outlays rose

sharply in response to the crisis, largely in the form of support through expanded unemployment benefits and other transfer programs. At the same time, discretionary spending also rose, thanks to the federal government trying to address the shortfall in aggregate demand. But immediately afterward, government spending on goods and services stopped rising as the political support for fiscal stimulus disappeared. Indeed, government contribution was a drag on growth for several years. More recently, government outlays have been rising modestly. And since early 2010, government receipts also have been rising. With more people employed and working more hours in total, aggregate labor compensation has slowly risen. This has benefited the U.S. Treasury Department's coffers.

Net exports are not yet contributing to growth. Weaker overseas growth affects demand for U.S. exports. Since late 2011, the dollar has been appreciating with respect to other currencies (see Figure 7). Its strength hurts exporters, makes imports cheaper, and exerts downward pressure on inflation. But that hasn't resulted in boom times for the countries supplying imports—many overseas economies have been weak. For example, economic performance in the Eurozone and Japan has been languishing. Economic growth in the UK, Canada and most of United States' other traditional trading partners has been disappointing. And while emerging markets were less severely affected by the Great

**Figure 7: A strong dollar hurts exporters**

U.S. Dollar: Trade Weighted Exchange Index



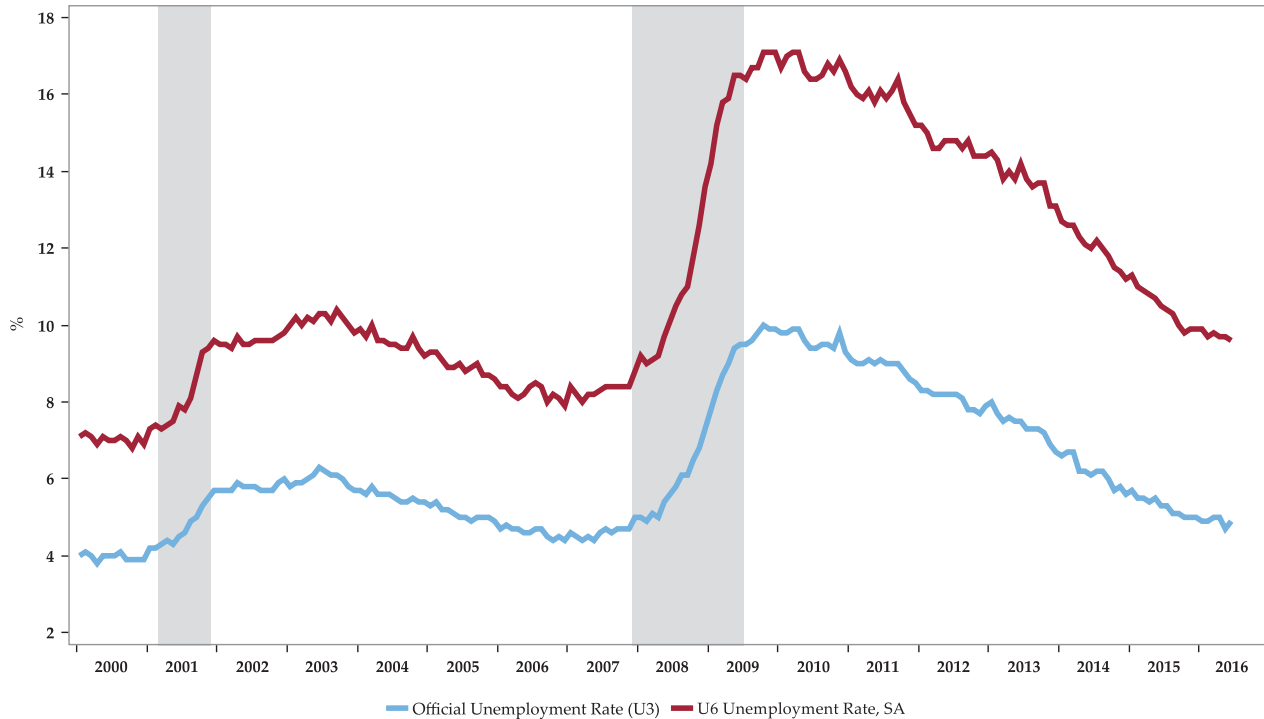
Recession, Russia and Brazil have recently experienced marked slowdowns. China's growth has also slowed in recent years from its earlier heady pace. The deficiency of effective demand overseas means that prospects for export growth in the U.S. are limited.

## The U.S. Labor Market

The labor market has performed quite well for the past several years. Since 2011, the U.S. economy has added an average of 200,000 jobs per month. That has exceeded the pace of labor force growth, leading to a steady decline in the unemployment rate. Employment had fallen quite dramatically during the Great Recession, when nearly 8 million jobs were lost.

**Figure 8: The official unemployment rate and the broader measures of slack have declined**

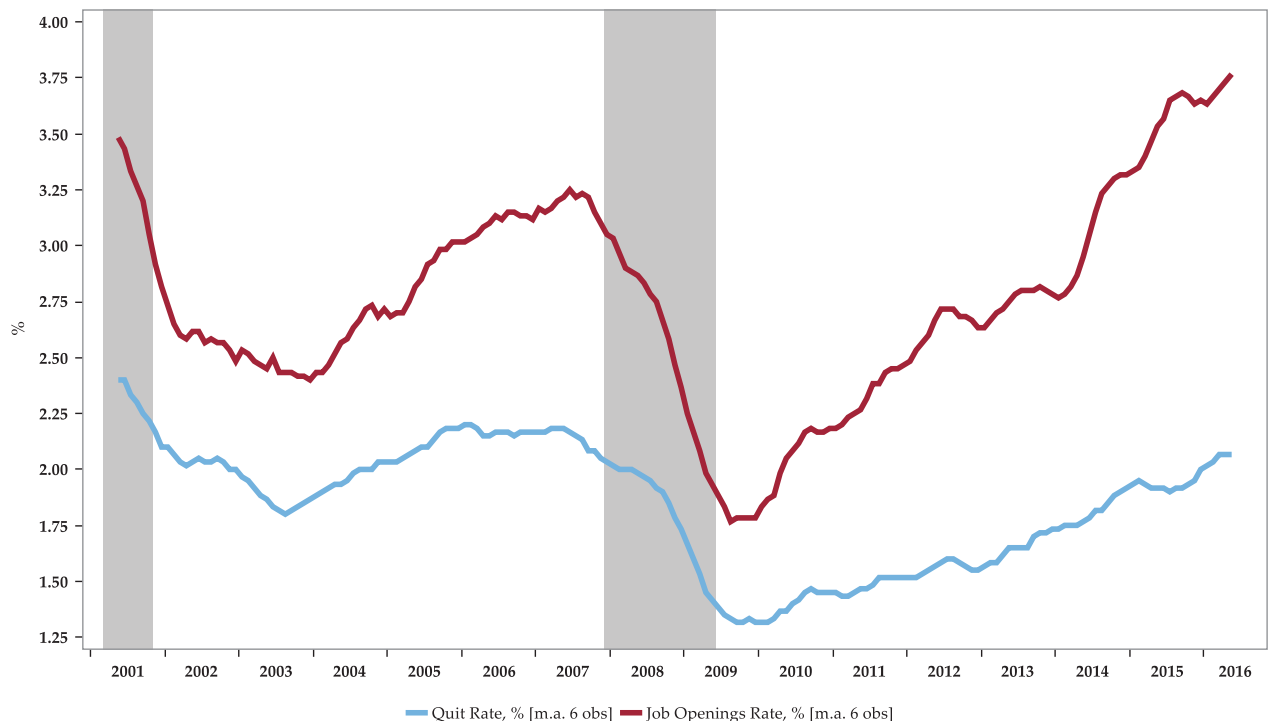
USA Official & U-6-measures of Unemployment rate, SA



Source: Macrobond

**Figure 9: Rising job openings rate and quits rate imply a tighter labor market**

USA Job Openings Rate and Quits Rate, SA



Source: Macrobond

Since late 2010, however, the U.S. economy has added 15 million jobs, resulting in a level of total employment higher than before the Great Recession. The official unemployment rate and the U-6 unemployment rate, a broader measure of slack, have declined (see Figure 8).

There are many others indications of labor market improvement (see Figure 9). The job openings rate has been steadily rising. The quits rate has also been on the rise, implying that employees' outside opportunities are improving. The layoffs rate has fallen. And various other labor market measures, such as initial and continuing jobless claims and business and jobseeker surveys, also point to the tightening of the labor market.

Despite the labor market's continuing improvement, some signs of weakness continue to linger. The employment-to-population ratio and the labor force participation rate are lower than before the Great Recession. Aaronson *et al.* (2014) find that the post-recession decline in the labor force participation rate is essentially structural in nature, due to the aging of the population and other demographic factors. But the sluggish growth in aggregate demand is undoubtedly also partially responsible for the declines in these ratios.

Meanwhile, nominal wage growth has been tepid (see Figure 10). Multiple factors are probably responsible for that, including the weakness of effective demand, de-unionization and the decline of manufacturing, globalization, and employees' weak bargaining positions. On top of those, a good number of workers are still working parttime, even though they would prefer full-time employment. The weakness of nominal wage growth does suggest that the labor market may not be as strong as the decline in the official unemployment rate would lead us to believe.

## Inflation and Interest Rates

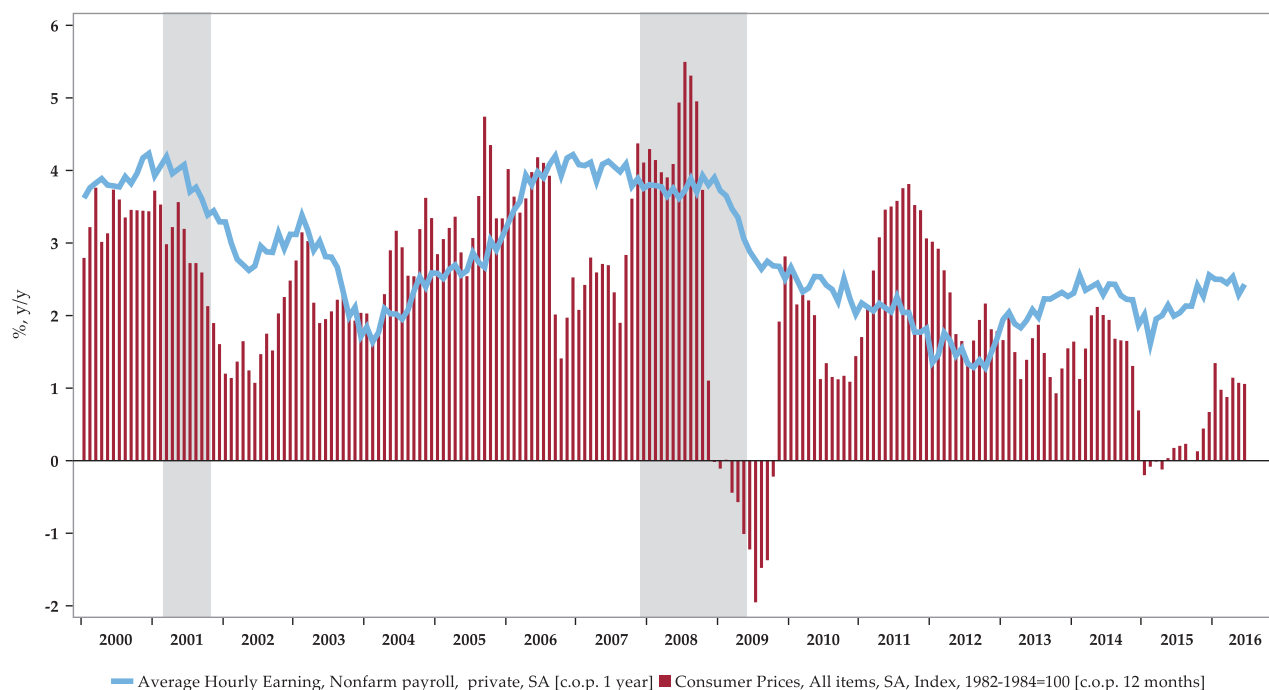
The U.S. Federal Reserve's goal is to keep personal consumer expenditures (PCE) inflation at 2% year over year in the long run. Headline inflation is low, thanks to low energy prices, but core inflation, as measured by both the core Consumer Price Index and the core PCE deflator, are also low. Sluggish wage growth is mainly responsible for the weakness of inflation, since prices are a function of wages, markups and labor productivity. If wage growth is restrained, then inflation is likely to be moderate, other factors held constant. Lower crude oil prices have resulted in lower gasoline and energy prices, further lowering inflationary pressures.

In addition, inflation expectations, as measured by market-based measures, have declined (see Figure 11). Other measures of inflation expectations, such as those obtained from consumer and purchasing managers surveys, are also soft.

**Figure 10: Nominal wage growth has been tepid**

USA, Wage Pressure and Core Inflation

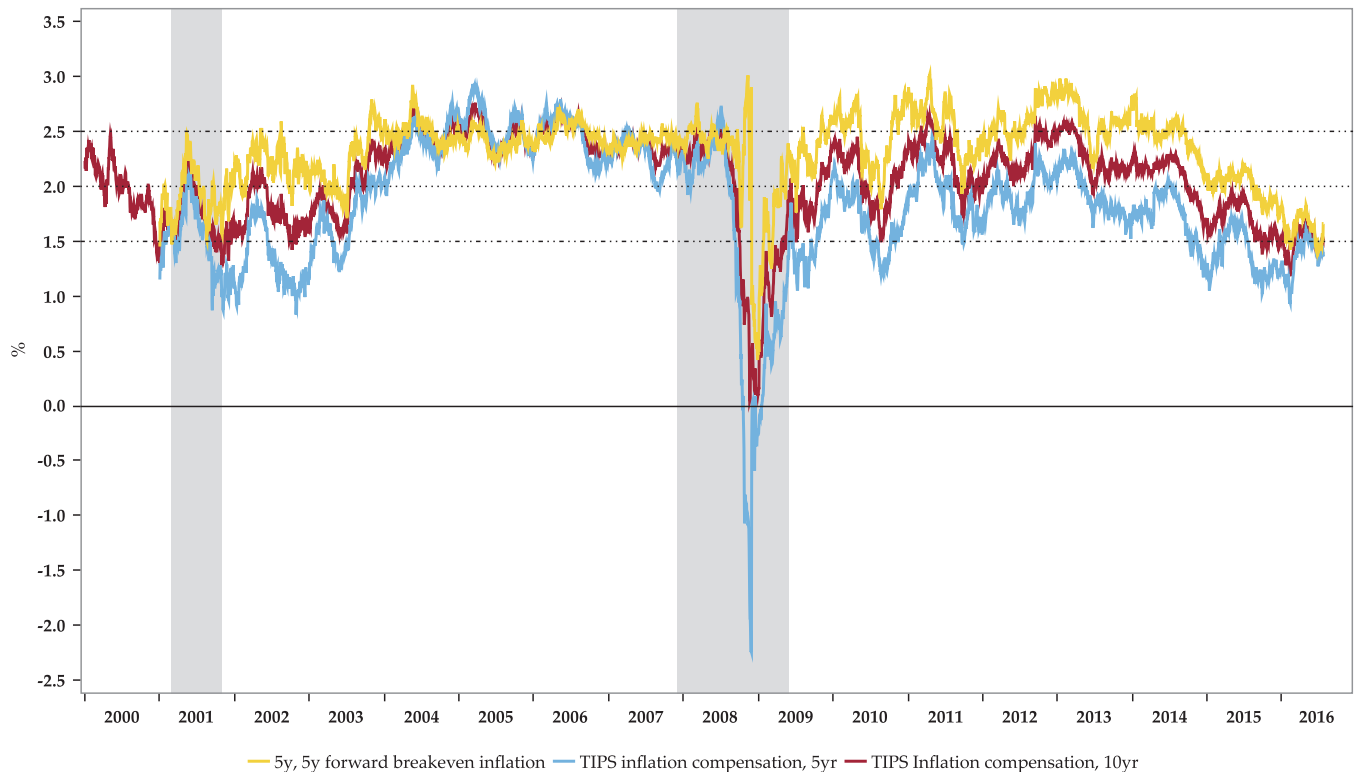
Average Hourly Earnings and CPI (y/y)



Source: Macrobond

**Figure 11: Market-based measures of inflation expectations have declined**

Various market-based measures of inflation expectations



Source: Macrobond

Like inflation, long-term interest rates are remarkably low. Indeed, the yield on 10-year Treasury notes has been at near-record lows (see Figure 12) as investors sought safety in U.S. Treasury securities following last June's UK Brexit referendum. Long-term interest rates are largely determined by short-term interest rates, the actions of the central bank, and inflationary pressures (Akram and Li 2016). The U.S. Federal Reserve's decision to keep a lid on the federal funds target rate, which is the key policy rate, has resulted in low short-term interest rates. The Fed's balance sheet remains quite large at nearly \$4.5 trillion. Inflationary pressures are in check. Investors expect the Fed to keep the fed funds target rate low for a long time, even if a hike occurs later in 2016. These factors have restrained long-term interest rates in the U.S.

International conditions have reinforced the domestic drivers of low long-term interest rates on government bonds. Long-term interest rates on government bonds in the major advanced countries are either negative (Germany, Switzerland, Japan) or quite low (UK, Canada). Key foreign central banks such as the European Central Bank and the Bank of Japan are conducting quantitative easing, driving their rates to record lows. As I've noted, there is a strong demand for safe assets, which is manifesting itself in foreign

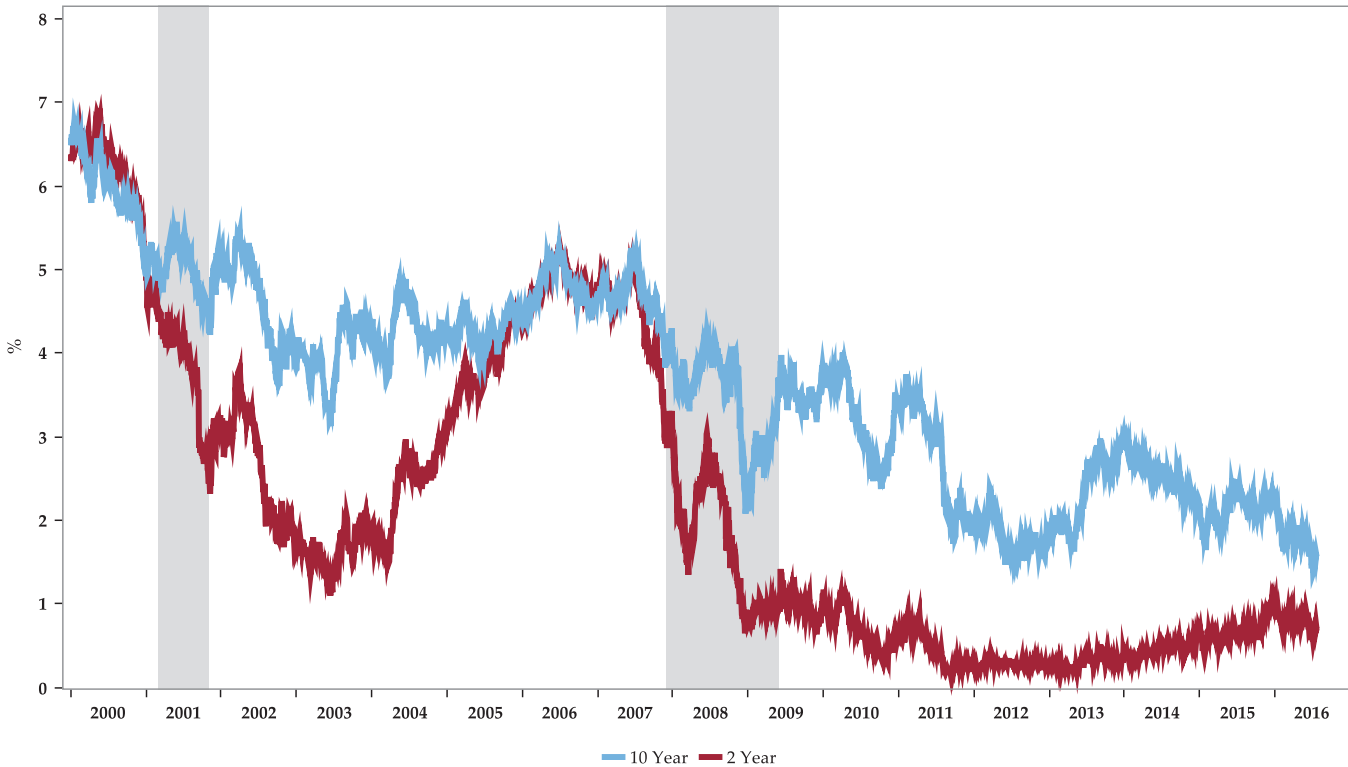
flows into U.S. Treasury securities and the government bonds of advanced countries, such as Germany and Switzerland. These international conditions contribute substantially in keeping interest rates in the U.S. and other major advanced economies low (Akram 2015).

Mortgage rates tend to move largely in tandem with the yields of long-term Treasury securities. With low yields on U.S. Treasury securities, it is no wonder that mortgage rates are also quite low. The Federal Reserve continues to hold a substantial amount of agency debt and agency mortgage-backed securities that it accumulated during the Great Recession. This keeps the spread between mortgage rates and long-term Treasury securities from widening.

While low mortgage rates have benefited the housing sector, they have not been able to revive business fixed interest or fuel strong growth. Low interest rates adversely affect net savers, pensioners, and senior citizens who depend on the earnings from fixed-income assets and bank deposits. Another important consequence of low interest rates is a decline in the private sector's net interest income. A protracted period of low rates can be harmful to the financial services industry. In a recent study, several Federal Reserve staff researchers argue that "banking systems

**Figure 12: Long-term interest rates are near historical lows**

USA, Government Securities Yield



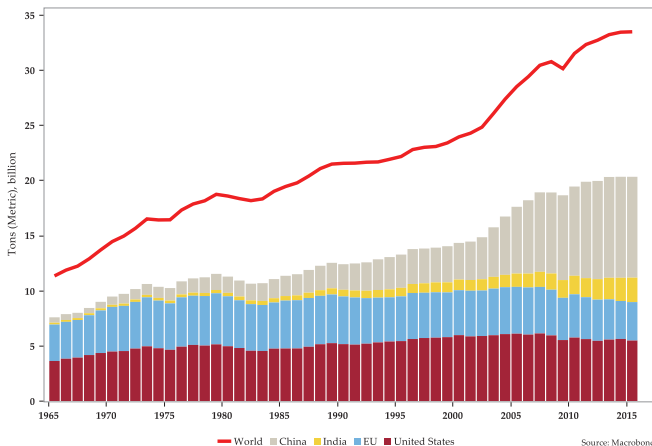
Source: Macrobond

in many low interest rate countries will face challenges. Until lost income can be offset through other actions, lower profitability will reduce financial institutions' ability to build and attract capital, increasing their vulnerability to shocks and declines in market confidence and undermining their ability to support the real economy." (Claessens, Coleman, and Donnelly 2016).

The same conclusion applies, *mutatis mutandis*, for insurance companies and various other financial institutions. If the majority of financial institutions perform poorly year in and year out, it could jeopardize financial stability and economic growth.

**Figure 13: Global CO<sub>2</sub> emissions continue to rise**

World, Carbon Dioxide (CO<sub>2</sub>) Emissions



Source: Macrobond

## The U.S. and the World

The U.S. economy has performed better than most other advanced economies, such as the Eurozone and Japan, since the end of the Great Recession. However, there are a number of downside risks and issues of concern.

For instance, productivity growth has slowed markedly in recent years. U.S. firms will need to be incentivized to invest in equipment, intellectual property and technology to raise productivity, rather than to merely hoard cash. Productivity growth is critical because the U.S. and other advanced economies face demographic transitions as their populations age, population growth slows (or even declines) and the fertility rate falls.

At the same time, the public sector needs to invest in infrastructure and support basic research and skill formation for the future workforce. Collaboration among private firms, research institutions and universities, and the public sector will be crucial to reap the benefits of a wide range of new and disruptive technologies. Those technologies include everything from cloud computing, advanced robotics and artificial intelligence to the Internet of Things, self-driving cars, new genomics, energy storage, 3-D printing, renewable energy, and oil and gas exploration and recovery

advances. Addressing energy technologies and climate change is particularly crucial. Global carbon dioxide emissions continue to rise as emerging markets, such as China and India, industrialize and develop their economies, use more energy, urbanize, and consume more goods and services.

All told, the risks to the U.S. economic outlook are tilted to the downside. There are several near-term risks:

- The Brexit is likely to cause a recession in the UK and a slowdown in the EU. That could dampen economic activity directly through lower net exports and indirectly through the effects on global financial markets.
- Eurozone financial stability may prove elusive. The economic performance of several of its countries has been quite poor. Unemployment rates remain elevated in Spain, Portugal, Greece and even France, particularly among the young.
- There is considerable uncertainty regarding the outlook of November's U.S. presidential election and what type of policies the next administration will pursue after Barack Obama's term ends.

There also are various medium-term risks. They include the ugly civil war in Syria, the influx of refugees from the Middle East, and worldwide terrorist incidents. Another issue is how Chinese authorities will manage the country's economic slowdown and implement the transition from investment-driven to more consumption-led growth. Another medium-term risk is the deteriorating relationship between Russia and the West, which is having adverse effects on global peace and security. The chances of conflict between Russia and the West have increased.

Finally, there are two major long-term downside risks to higher growth in the U.S. and elsewhere. First, climate change could have extremely serious and deleterious effects on the world economy and agricultural output, and it could also lead to the dislocation of millions of people. Global CO<sub>2</sub> emissions have been rising, particularly due to increased emissions from developing economies, such as China (see Figure 13). Second, demographic changes and the aging of the population will create many new challenges. These range from health issues and the composition of the workforce to changing consumption patterns, the creation of appropriate financial services for an aging population and the like.

## Conclusion

While the U.S. economy is recovering, the pace of recovery has been modest, particularly compared to historical growth trends after World War II. There has been a notably marked decline in trend growth rates since the Great Recession. Progress and recovery in some aspects are good but continue to languish in other aspects. Job growth has been decent for the past five years, and the official unemployment rate is remarkably low. Consumer spending has been rising moderately, with auto sales being a notable bright spot. Meanwhile, house prices have risen strongly, and residential construction activity has picked up.

But the recovery is not without its discontents. There has been a markedly slower pace of growth. Wage growth is soft, and household median real income is still lower than before the dot-com bubble and the Great Recession. Income inequality continues to rise, while the poverty rate has nudged higher. Business fixed investment in equipment and intellectual property is weak. Exports have been hampered by overseas weakness and a stronger dollar. Productivity growth has slowed markedly. Risks to the outlook for the U.S. economy are tilted to the downside—and those risks have increased since the Brexit. Uncertainties have risen and will most likely persist.

These challenges will require policymakers to be vigilant, decisive and creative. The tasks ahead are to foster economic conditions that lead to higher real incomes and raise the quality of life for the majority of people. Public investment in infrastructure, direct job creation and worker skill formation, along with stronger incentives for the private sector to innovate, raise productivity, hire and train workers, and invest in capital, equipment, and intellectual property would be appropriate policy responses. They would shift the U.S. economy away from the discontents of a moderate recovery and toward sustained progress and higher growth. ■

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## Author Biography



Dr. Tanweer Akram is director of global public policy and economics at Thrivent Financial. He develops the firm's global macroeconomic outlook and identifies the risks to the global economy. He is also responsible for developing the firm's views on international regulatory issues related to the financial services industry, particularly on topics that pertain to the mutual and cooperative insurance industry.

He received his Ph.D. in economics from Columbia University in New York City and his master's degree in economics from the London School of Economics in the UK. He obtained his B.A. in economics from Grinnell College, Grinnell, Iowa.



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