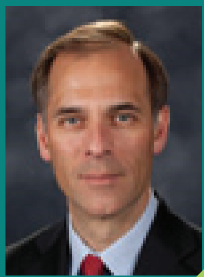
ANALYSIS & TRENDS



Mark Zandi

2018 Economic Forecast

Let the Good Times Roll; Third-Longest U.S. Economic Expansion Continues

By Mark Zandi

These are good economic times. The 8½-year expansion is already the third longest in economic history, and it is in full swing. The longest was the 10-year expansion of the 1990s, fueled by the dot-com boom and then bubble. There are no bubbles today.

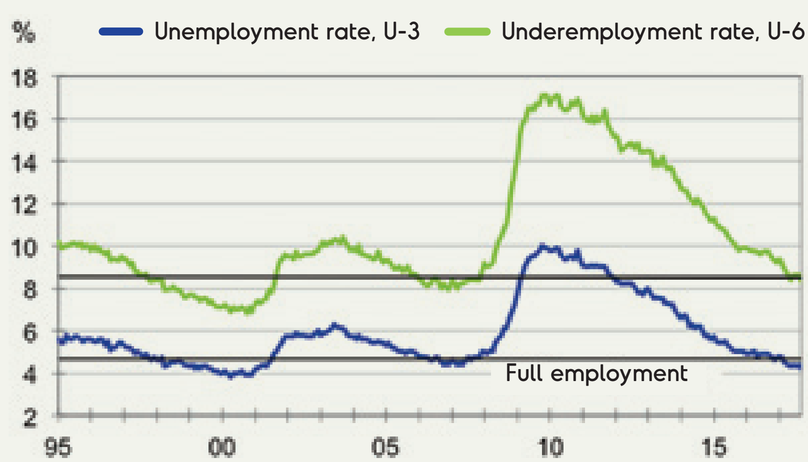
The clearest evidence of strength is in the job market. The economy is a job machine, creating an impressively consistent 2 million to 2.5 million jobs each year. Even the devastating hurricanes this summer could not disrupt the longest monthly string of job gains on record.

Nearly all industries, occupations, pay scales, and regions of the country are enjoying solid job growth. Only the energy and agriculture-related industries are struggling given the collapse in commodity prices a few years back, and online competition is weighing on employment at brick-and- mortar retailers and in print media.

The pace of job growth is approximately double the increase in the labor force, and unemployment and underemployment continue to steadily decline. **(See Chart 1.)** Sub-4% unemployment is likely in coming months, something the economy rarely experiences. Businesses' biggest problems will soon be finding qualified workers, as the number of open job positions is already at a record high, and holding on to their existing workers, who are quitting for better, higher-paying jobs in increasing numbers.

Wages are finally on the rise as workers come to realize they are in the driver's seat. It took a while, as it has been more than a decade since the last time the economy was at full

CHART 1 Full Employment at Last



Sources: BLS, Moody's Analytics

employment. Workers had been on their back heels, nervous about holding on to their jobs. No longer. Wage growth is closing in on a 3% pace, almost double what it was a few years back and well over the rate of inflation.

The millennials are benefiting the most as they take better jobs at higher pay, with the average pay increase for a millennial switching from one full-time job to another now in the double digits.

CONSUMER TAILWINDS

Lots of jobs, low unemployment, and stronger wage growth are powerful tailwinds behind the American consumer. Consumers are doing their part to power growth, and this should continue for the foreseeable future.

Other than vehicle purchases, which have recently come down from record highs, consumers are buying lots of everything. Since the U.S. runs a $500 billion trade deficit each year, this means American consumers are also buying lots of foreign goods, and as long as they do the global economy will get a lift.

Also fueling spending are record stock and housing values. The wealth effect—the impact on spending of rising household wealth—is in full force, evident from the decline in the personal saving rate. **(See Chart 2.)** Wealthier households are more confident and able to borrow more, and thus willing to spend a higher percentage of their income.

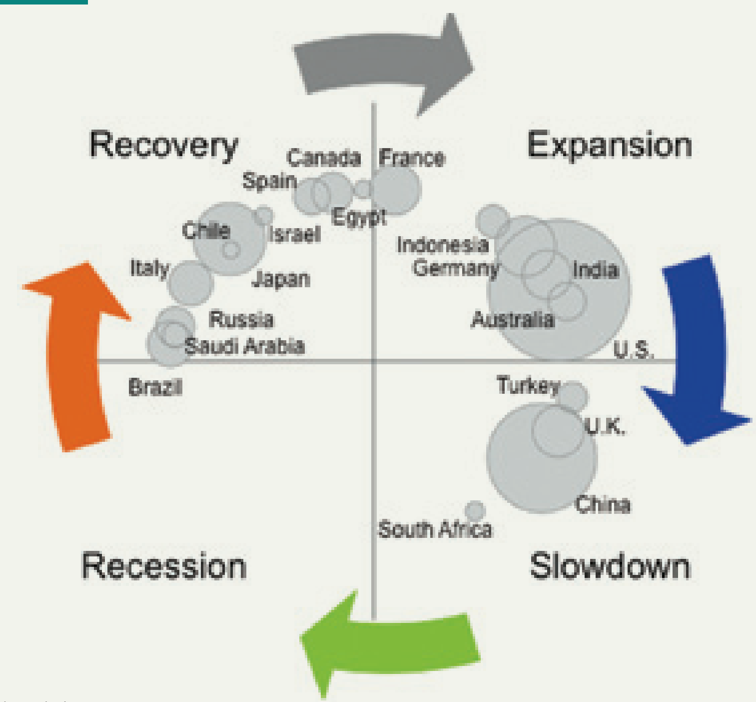
Borrowing has picked up but remains in line with income gains, at least in aggregate, and debt loads are light. The percentage of income that households must devote to making interest and principal payments to stay current on their liabilities is about as low as it has ever been. Households have also locked in low rates in the mortgage refinancing waves of recent years.

Most outstanding mortgages are 15- and 30-year fixed-rate loans with an average coupon of only 4%.

SYNCHRONIZED GLOBAL GROWTH

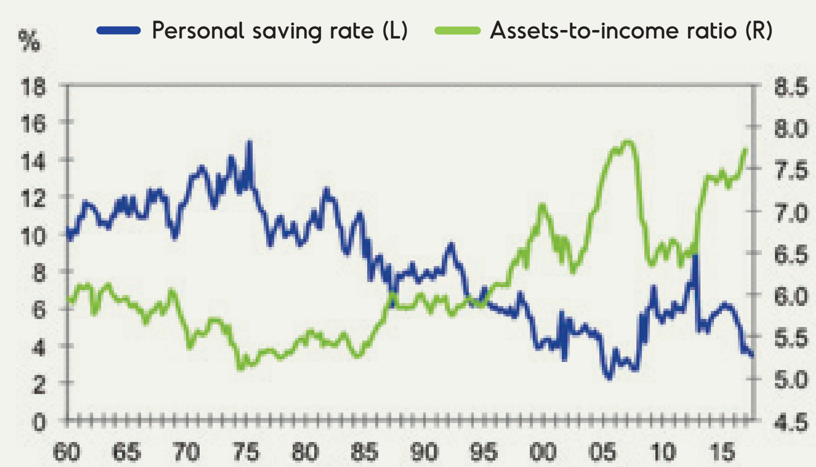
Another reason for optimism regarding the economy's near-term prospects is that the global economy has finally kicked into gear. For the first time since the Great Recession, not a single major country economy is in recession. **(See Chart 3.)**

CHART 3 Global Economy on Same Page



Source: Moody's Analytics

CHART 2 Wealth Up, Saving Down



Sources :Federal Reserve, BEA, Moody's Analytics

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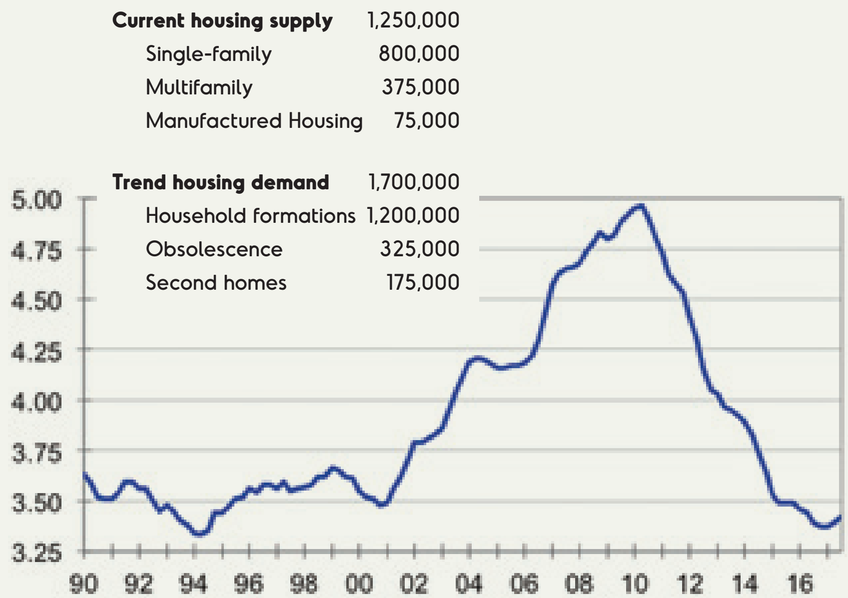
CHART 4 Tight Housing Market

Vacancy rate, homes for sale and rent, 4-qtr MA, %



Sources: Census Bureau, Moody's Analytics

Even long-troubled Europe and Japan are enjoying strong consistent growth, as the European Central Bank and Bank of Japan keep interest rates extraordinarily low. Brexit has put a pall over the U.K. economy, but the ill effects of that will play out over a long time.

China, which was struggling not too long ago with its cratering stock market and botched delinking of its currency with the U.S. dollar, has also found its footing. The Chinese have big economic problems, ranging from high and quickly rising debt to poorly managed state-owned businesses, but those challenges are unlikely to derail the economy any time soon, as Chinese officials have a tight rein on things. This is not a winning long-term strategy, and China will eventually stumble, but that is a ways off.

Nailed by the collapse in energy and commodity prices a few years ago, most emerging economies have finally adjusted to the lower prices. Even emerging economies with persistent governance problems, such as Brazil, Russia, Turkey and South Africa, are growing again.

A better-performing global economy combined with a more stable U.S. dollar means that global trade, which had been a significant impediment to growth, is no longer a drag. The healthier global economy is also showing up in better profits for U.S. multinational corporations, which is a key reason why the stock market has taken off.

PRESSURE BUILDING

The pace of growth remains firmly above the economy's potential, and any underutilized resources are being quickly absorbed. This is clearest in the job market, but it is also evident in other markets.

Manufacturing utilization rates have hit a cyclical high, and although they are not as high as in previous cycles, this has to do with the shifting makeup of the nation's manufacturing base and measurement issues. Aside from high-end multifamily properties, for which new construction has boomed, vacancy rates in real estate markets are also low. The overall housing vacancy rate, including both homeowner and rental vacancy, is as low as it has been in 30 years. **(See Chart 4.)**

Price pressures have been slow to build, despite the tightening markets, but this is changing. Wage growth is steadily accelerating, producer prices are rebounding, and single-family rental rates are up strongly. Consumer price inflation has yet to revive, but that seems only a matter of time. A string of what appear to be one-off factors such as a price war among smartphone carriers and a tough-to-explain plunge in physician prices have depressed measured consumer prices. As these factors come out of the data, consumer inflation will pick up.

Arguments that broader structural forces that are not going away soon are depressing inflation, such as the impact of online retailers such as Amazon on retail goods prices, are substantially overdone. E-tailers are wreaking havoc on retailers, but retail goods impacted by this competition make up no more than one-fourth of consumer prices.

Moreover, although e-tailers are a powerful force on retail pricing, they are no more powerful than Walmart and big box retailers before them.

SOMEONE IS WRONG

There are good reasons to be upbeat about the economy's near-term prospects, but there are also plenty of threats. Most concerning is the big, persistent disconnect between what policymakers at the Federal Reserve think the strong economy means for the path of future interest rates and what global investors think it means.

This disconnect is clear when com-

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paring the Fed's forecast of the federal funds rate—the key interest rate it controls—and what investors think as implied in futures markets for fed funds. **(See Chart 5.)** Fed policymakers expect the next 25-basis-point hike in the funds rate in December, three hikes in 2018, and another three in 2019. By early in the next decade, the fed funds rate will settle in at just less than 3%, where it should be in the long run in a well-functioning economy.

Investors are on board with a December 25-basis-point rate hike but expect only one hike next year and one more in 2019. In the long run, the fed funds rate will not even get to 2%.

Someone is wrong. The Fed appears on sounder ground given prospects for sub-4% unemployment; developing wage pressures, which will eventually translate into more inflation; easy financial conditions for example, record stock prices, thin credit spreads in the bond market, and narrow capitalization rates in the commercial real estate market); and a good global economy.

Nearly everything the Fed considers when setting monetary policy suggests that it needs to raise rates in a more consistent way. This gap in expectations should close in a reasonably gracefully way. This assumption underpins optimism regarding the outlook. The Fed will guide market expectations on higher rates slowly over time. There will likely be some volatility in financial markets in response as asset prices adjust, but this volatility will be manageable and any fallout on the economy modest.

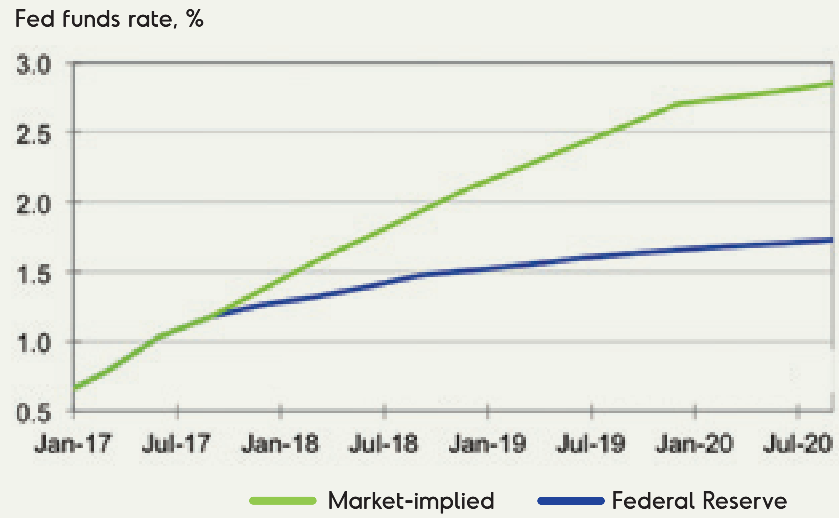
However, there is a significant risk that this does not go well. Financial markets have a penchant to overreact when things do not stick to investors' script. Adding to this worry is that asset prices are high, arguably overvalued, and perhaps even turning speculative.

Stock price-earnings multiples have rarely been as high as they are today, credit spreads in the bond market are thin, and capitalization rates in commercial real estate markets are low. **(See Chart 6.)** The coming repricing in asset markets could be ugly.

The damage this does to the economy may also be more serious than anticipated. The economy appears particularly sensitive to swings in stock prices via wealth effects, as the large baby-boom generation is much more heavily invested in stocks compared with previous generations at the same point in their life cycle. This may be because baby boomers are not prepared for their fast-approaching retirement, and the only asset class that has been generating any kind of positive return is the stock market.

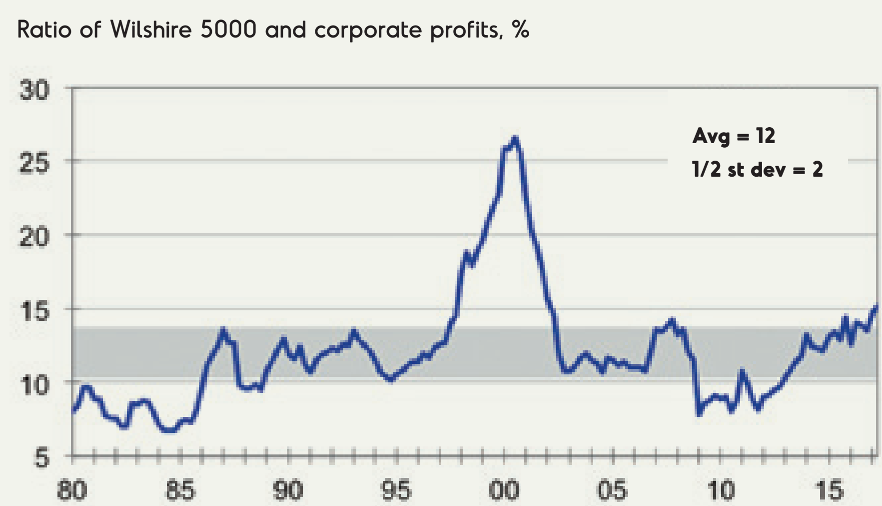
Moreover, it is one thing if stock prices are rising. Boomers feel better and spend a bit more freely, but they are still cautious, as they are building their retirement nest egg. It could be a different thing if stock prices decline, as panicked boomers will significantly pull back on their spending as their nest egg shrinks. This scenario would

CHART 5 Someone Is Wrong



Sources: Federal Reserve, Bloomberg, Moody's Analytics

CHART 6 Stock Prices Are Stretched



Sources: Wilshire, BEA, Moody's Analytics be a dagger in the heart of any economic optimism.

TAX REFORM IMPACT

Editor's Note: Mark Zandi's 2018 economic forecast, including the following section about the impact of tax reform, was written before the Republican Congress passed a sweeping $1.5-trillion tax-reform bill that slashes the corporate tax rate from 35% to 21% and doubles the standard deduction to $24,000 for married couples and the per-child tax credit to $2,000. The bill makes the corporate tax cut permanent, while the tax cuts for individuals expire in 2026. The bill caps at $10,000 the deduction used for state and local income, property and sales taxes. It also limits the mortgage interest deduction to loans up to $750,000, down from $1 million. Among other provisions, it imposes a one-time tax on companies' overseas earnings, lowers the top rate for individual and married filers from 39.6% to 37%, and sets a deduction for "pass-through" business income at 20%.

The economic outlook also depends in good measure on what happens, or does not happen, in Washington, D.C. Lawmakers have finally taken up tax reform in earnest. The debate and deliberations will rage over the next few weeks, and we should know by early this year if and how the tax code will change.

The Trump administration and Republican Congress want to go big on the tax overhaul. Businesses would be big beneficiaries, enjoying an estimated net tax cut of $1 trillion over 10 years on a static basis—ignoring the impact of the tax cuts on the economy and thus tax revenues. **(See Chart 7.)**

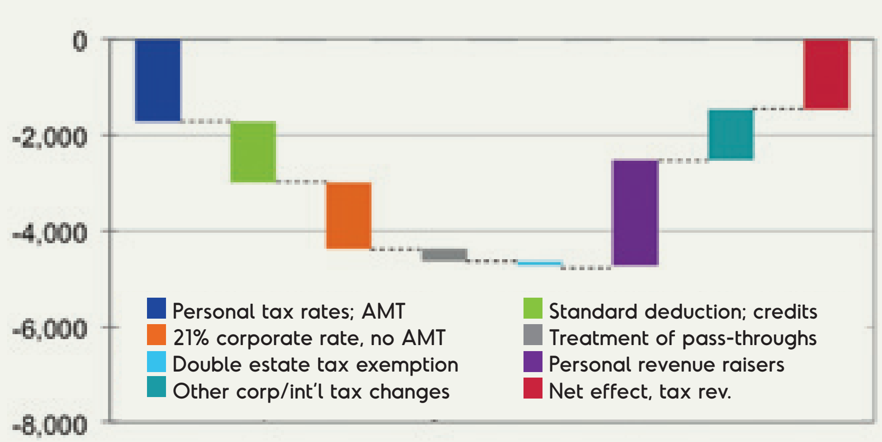
Large multinationals would benefit by a move from the current global taxation system to a territorial one, and by a onetime tax holiday on the trillions in earnings they are holding overseas to avoid the current high tax rate. Smaller pass- through entities—businesses whose owners pay personal income tax on their companies' earnings—would see their tax bill meaningfully decline.

Individuals get a tax cut of $600 billion under the Senate plan, although some do well under the plan and others are dinged. The big winners are taxpayers in the top 5%, with current incomes well over $300,000 per year, whose after-tax income increases by more than 2% in 2018 and near 1.5% by 2027. Low-income taxpayers in the bottom 60%, with current incomes of less than $86,000, get a 1% tax cut in 2018 and essentially no tax cut by 2027.

Middle-income taxpayers receive a tax cut of approximately 1.5% in 2018 and less than 0.5% by 2027.

CHART 7 Business Wins Big Under Tax Plan

Static change to tax revenue over 10 yrs,$ bil



Sources: JCT, Moody's Analytics

Boosters of the Republican tax proposal argue that it will significantly increase economic growth. They also argue that this additional growth will generate roughly enough additional tax revenue for the plan to pay for itself. That is, there would be large so-called supply-side effects from the tax cuts, so large that on a dynamic basis—after accounting for the bigger economy—the plan will not add to the nation's deficits and debt.

They are wrong on both counts. The tax plan will not meaningfully improve economic growth, at least not on a sustained basis. Growth would be stronger initially, since the deficit-financed tax cuts are fiscal stimulus. But given that the economy is operating at full employment, stronger inflation and higher interest rates will result. The economic benefit of the lower tax rates on business investment are washed out by the higher interest rates, and the economy ends up no bigger than it would have been without the tax cuts.

This is evident in simulations of the Moody's Analytics macro model, which is similar to models used by the Federal Reserve, Congressional Budget Office, and the Joint Committee on Taxation—the official budget scorer of tax legislation.

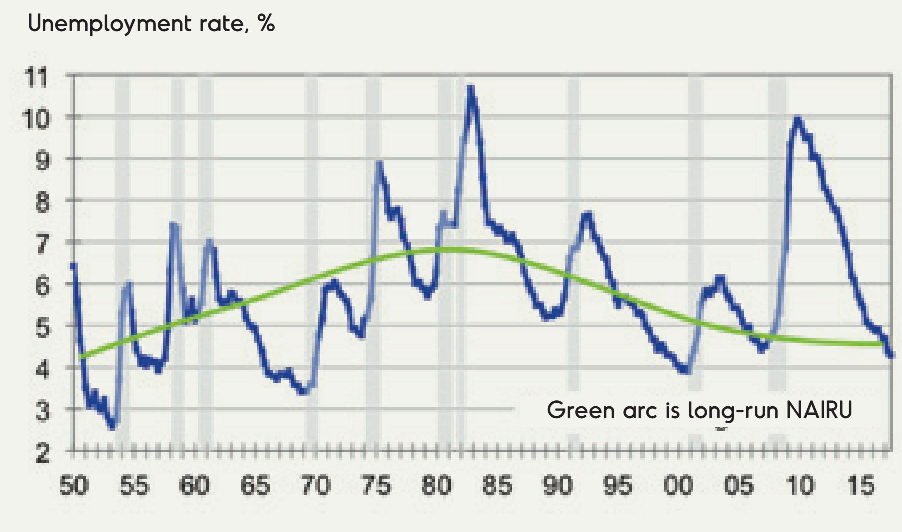
Under the plan, real GDP growth is higher in 2018 and 2019 and pushes unemployment well below 4%.

Since this is well below the full-employment unemployment rate, the Fed responds by tightening monetary policy more aggressively. Long-term interest rates also increase because of the monetary tightening and investor expectations of larger future budget deficits.

Although lower corporate tax rates by themselves would encourage more business investment thanks to the resulting lower after-tax cost of capital, the higher interest rates largely wash this out by increasing the cost of capital.

In the end, the economic lift from the tax cuts is small, adding an estimated 3 basis points per year to real GDP growth over the next decade.

CHART 8 When Is the Next Recession?



Sources: BLS, Moody's Analytics

The plan does not increase growth from 2% to 3%, as the proponents argue, but from 2% to 2.03%.

No harm, no foul. Right?

Unfortunately no, as the plan will also significantly exacerbate the nation's fiscal problems. The dynamic cost of the plan to taxpayers is not much different from its static cost. There are economic benefits on revenues from the lower marginal rates, but they are not sufficient to pay for the cuts.

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Government borrowing thus increases, causing interest payments on the accumulating debt to rise. The added interest payments offset the benefits on revenues, making the static and dynamic budget deficit and debt load about the same.

Handicapping where the tax debate will land is difficult. The views on the prospects for tax revision have been all over the place. For the moment, investors appear to believe odds are about even that the Trump administration and Congress will get something done. It is hard to see big deficit-financed tax cuts getting through the Republican Congress, but there are powerful political incentives, including the fast-approaching 2018 midterm elections, to pass something.

Wherever this debate ends up will have significant implications for the economy.

THE NEXT RECESSSION

Also tempering any optimism over the outlook is the understanding that there will ultimately be another recession. This expansion is on track to become the longest in the nation's history, but it too will end.

There are two preconditions for recession. First, the economy must overheat. That is, the expanding economy pushes unemployment and underemployment down so low that wage and inflation pressures develop. The Federal Reserve responds slowly at first, fearful of short-circuiting the recovery, but then needs to hit the monetary brakes hard to forestall rising inflation and inflation expectations.

This overheating dynamic has played out prior to each of the 10 recessions since World War II. Indeed, it takes about three years after the economy reaches full employment for it to overheat and recession to ensue. **(See Chart 8.)** Since the economy just recently surpassed full employment, this would suggest, if history is a good guide, that the next recession will hit in summer 2020.

The second precondition for recession is that there must be a serious imbalance in the economy reflected in the financial system. Thinking back to the Great Recession, the obvious imbalance was in the housing market and subprime mortgage lending. In the early-2000s recession, it was the dot- com boom and the bubble in technology stocks. At the heart of the 1990s downturn was overbuilding in the commercial real estate market and the savings-and-loan crisis.

It is not too difficult to identify the imbalances that did in past expansions, but it is hard to see what will do in this one. Nothing seems economically existential. There has been some handwringing over easy vehicle lending, but lenders have tightened recently, which is one reason why vehicle sales have softened. And only $1.3 trillion is outstanding in all vehicle loans and leases, compared with closer to $3 trillion in subprime mortgage debt prior to the financial crisis.

Worries over student lending are also likely misplaced. That is not to say that this is not a problem for those encumbered by this debt, but of the $1.2 trillion outstanding, more than $1 trillion is backed by the federal government. This is a taxpayer problem, not a problem for the financial system and broader economy.

The Federal Reserve and other regulators post-crisis have also been willing to weigh against developing imbalances. Regulators issued guidance to banks not too long ago about their aggressive lending to multifamily developers, and lending has cooled. A few years ago they issued guidance on leveraged lending by banks to non-financial corporations, and the banks pulled back.

The imbalance that does in this expansion is thus unlikely to come from the regulated part of the financial system. The nation's banks are highly capitalized and liquid, and their balance sheets are transparent. The imbalance is likely to emanate from the other much more opaque part of the financial system, the so-called shadow system that is composed of a mélange of financial players from finance, financial technology and insurance companies; asset managers; derivative exchanges; and credit bureaus.

The problem for the shadow system may not be too much leverage and a lack of capital, but a lack of liquidity. Many of the small institutions in the shadow system rely heavily on big banks and short-term funding markets to finance their operations. These sources of liquidity are fickle, likely even more so than in times past given the experience of the financial crisis.

Moreover, given regulatory changes post-crisis, the Federal Reserve will have more difficulty getting liquidity to this part of the financial system.

It is difficult to know how long it will take for this imbalance to develop to a point where it undermines this expansion. However, three years is a good guess. So when will the next recession hit? Let us pick a date: June 20, 2020.

Mark M. Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a co-founder of economy.com, which Moody's purchased in 2005. Zandi's recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy.

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