# A. Gary Shilling's INSIGHT

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**1 Heading Toward Deflation** The Fed has been tightening credit in anticipation of rising inflation, but now accepts "an environment of muted inflation pressures." Other central banks are also reconsidering their anti-inflation strategies. Still, the Fed wants higher interest rates to have room to cut them in the next recession and also curb yield-hungry investors' big appetite for risk.
Globalization, technology, Uber, Amazon, government pressure on drug costs and collapsing financial service fees are among the forces restraining wages and prices. So, too, is declining economic growth globally, falling commodity prices and the robust dollar.
Signs of an economic peak are multiplying and the World Bank, IMF, the Fed and the consensus of forecasters are inching toward our two-thirds probability of a global recession, to start this year, with lower inflation if not deflation.
That climate benefits those on fixed incomes, home buyers, Treasury bond prices and the U.S. dollar. Harmed would be highly-leveraged individuals and corporations, most developed countries' stocks as well as emerging-market equities, commodities and multinationals.

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**41 Bogle's Strategy Works If...** Jack Bogle, who died last month, pioneered low-cost, broad-based equity mutual funds, and admonished investors to buy and hold for the long run. This strategy has beat most active managers over the years, especially in the last decade when Fed largess lifted all equity boats.
Jack's theory is impregnable but a) in a more volatile stock market in the future, more stock-pickers may have the advantage; b) the rising share of trades by index funds and algorithm trading leave little to determine fundamental stock values; c) the gambling instinct makes broad indices boring to many; d) many investors are really market-timers, and poor ones since they sell at market bottoms and stay out of much of equity rallies; and e) many chase ephemeral hot stocks and hot asset managers.
Market-timing is tough, but if investors are absent, much less short in bear markets, they're better off, even if they miss exuberant bull markets, and more successful than if they buy and hold

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## Heading Toward Deflation

"Many participants expressed the view that, *especially in an environment of muted inflation pressures*, the committee could afford to be patient about further policy firming [emphasis added]." So said the minutes from the Federal Reserve's December 18-19 policy meeting. In response, futures markets indicate a 69% chance that the Fed's policy rate will be in the 2.25% to 2.5% range it is today at the end of this year, a reversal from early November when futures prices indicated a 90% likelihood of higher rates by the end of 2019.

Elsewhere, the Bank of Canada also signaled a pause in rate hikes in early December, pointing to a weaker-than-expected housing market and the rapid drop in oil prices. The eurozone's economic slowdown has taken the European Central bank by surprise, potentially disrupting its plans to raise short-term rates this year. Indeed, the ECB is ready to use all its policy tools to support Europe's softening economy, including restarting its recently discontinued bond-buying program, ECB President Mario Draghi said. With its policy rate already in negative territory, the ECB has few other options for more stimulative monetary policy. More QE, however, would no doubt depress the already-weak euro (*Chart 1, page 2*) and European bond prices.

Already, the world monetary base, which rise at a 4% annual rate in this cycle, first turned negative last June and has now declined 6.6% year over year. Much of this is caused by the drop in the U.S. monetary base (*Chart 2, page 2*) caused by the reduction in the Fed's Treasury holdings.

### Big Switch

What a switch! The central bank has been tightening credit since December 2015, fearing that low unemployment would spur serious inflation (*Chart 3, page 3*). It's also been reducing its huge pile of assets (*Chart 4, page 3*) accumulated during the financial crisis to bail out major banks and other financial institutions, and then later, in the form of quantitative easing, to attempt to stimulate economic growth. The 200 basis-point rise in the Fed's federal funds policy rate so far isn't huge by past standards (*left panel in Chart 5, page 3*), but the quantitative tightening has, in effect, added another 100 basis points to the central bank's restraint.

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Furthermore, as shown by the right panel in Chart 5, as a percentage increase for the starting point, 900%, the Fed interest rate action greatly exceeds that of past rate-hike campaigns. As we noted last month, this slow but long business expansion and the extended equity bull market that started in March 2009 (*Chart 6, page 4*), fueled by Fed largess, has spawned complacency and much more vulnerable financial leverage than is yet apparent.

It's easy to fight the last war by noting sluggish bank loan growth (*Chart 7, page 4*), in part due to post-financial crisis stringent regulation. But more attention should be paid to the leaps in lower-quality borrowing such as subprime auto loans, peer-to-peer lending, credit card borrowing, leveraged loans, junk bonds and BBB bonds, heavily issued by energy companies and only one notch away from junk status (*Chart 8, page 4*). If they get downgraded to junk status, many pension funds and other institutional investors are required to dump them, potentially setting off a downward spiral in credit instruments as lending dries up with severe consequences for the economy.

BBB-rated bonds have leaped to over $3 trillion outstanding, up from $600 billion a decade ago, especially due to heavy

**CHART 1**

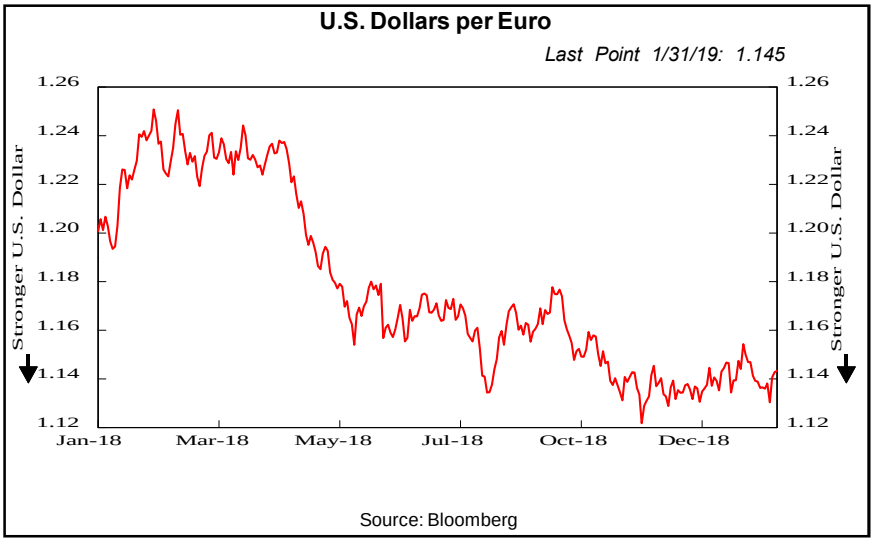
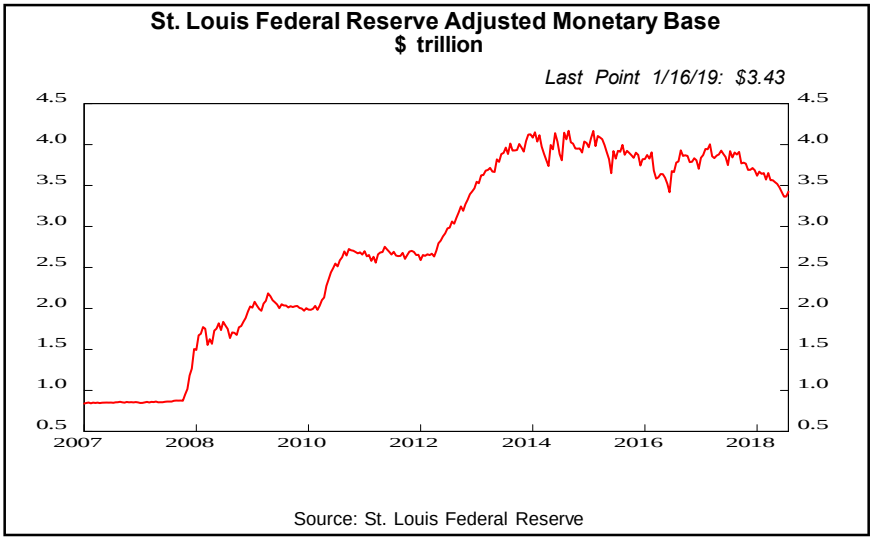



**CHART 2**



issues by frackers and other energy companies. Led by this issue, the total corporate debt-to-GDP ratio has reached all-time highs and resembles the mortgage debt explosion a decade ago.

### The Anatomy of Inflation and Deflation

In its basic form, inflation results when demand exceeds supply, and higher prices chase out marginal buyers to allocate available goods and services to those who are willing to pay higher prices. Conversely, deflation follows from an excess of supply over demand and price declines curb supply. In reality, of course, price increases and declines can be moderated and delayed by regulations, long-term contracts and other factors.

In recent years, robust supply of many products has been hyped by globalization that transferred Western technology to China and other low-cost Asian lands, with much of the resulting huge output increases exported to North America and Europe.

On top of the Fed's unprecedented credit ease, massive fiscal stimuli in 2009 and, more recently, the late 2017 tax cuts have exploded U.S. government debt (*Chart 9, page 5*). But all this monetary and fiscal stimuli did not propel rapid spending on goods and services, as shown

**CHART 3**

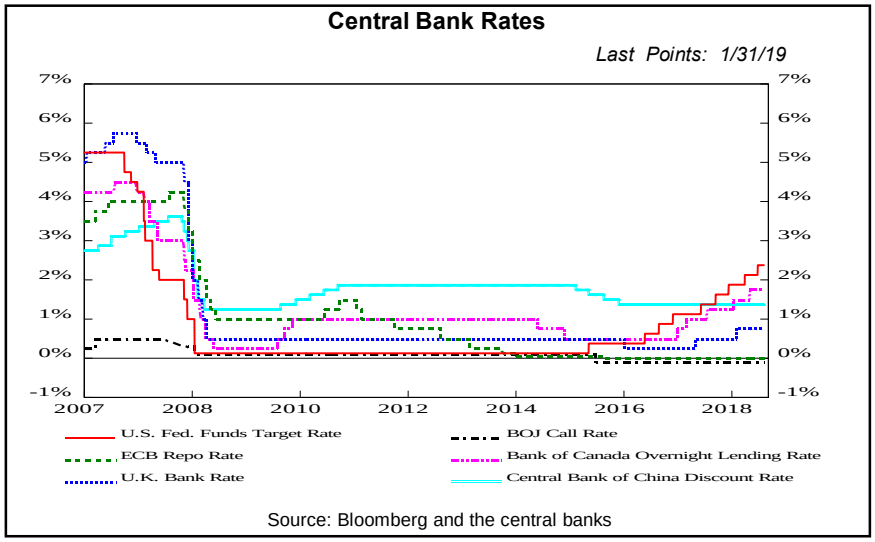



**CHART 4**

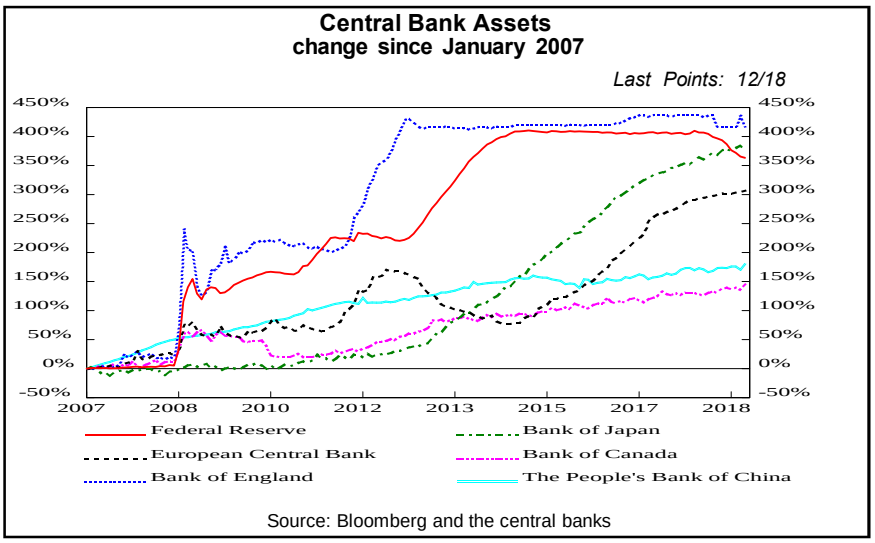
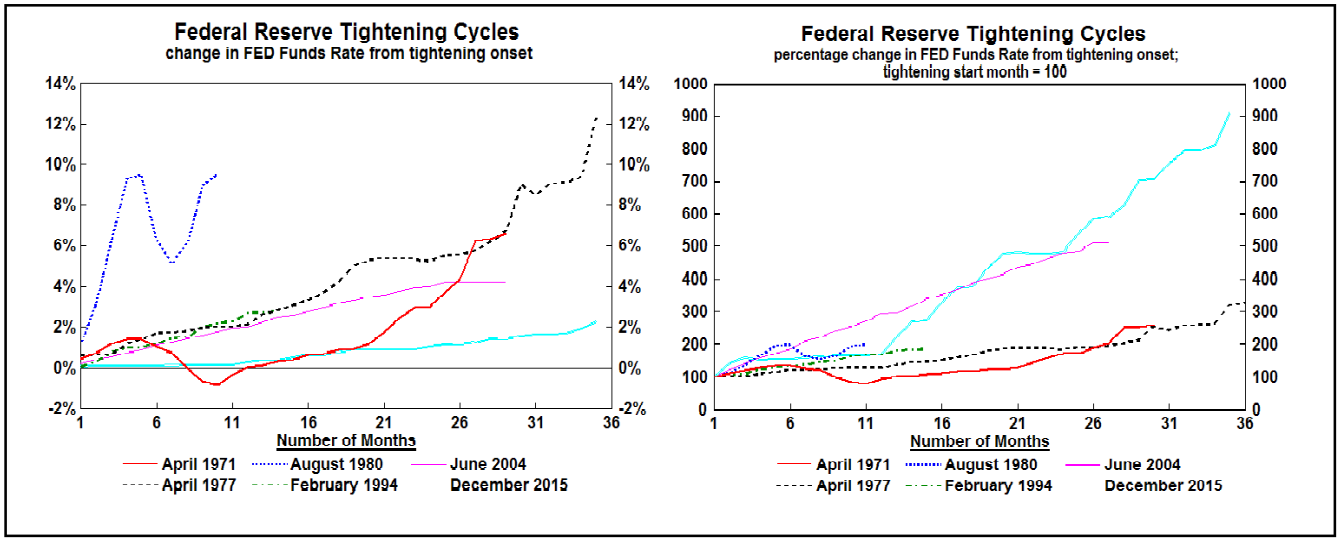



**CHART 5**



by the subpar 2.3% average real GDP growth in this expansion (*Chart 10, opposite page*). Instead, it went into equities (Chart 6) and other financial assets.

At the same time, overall supply has been so robust that all that stimuli did not generate meaningful inflation (*Chart 11, opposite page*), much to the surprise of many, including the Fed. Ditto for those who anticipated double-digit inflation rates by charging into gold. Since the yellow metal yields nothing and costs money to store, low interest rates (Chart 3) should also benefit it. Nevertheless, gold prices are down 30% since 2011 (*Chart 12, page 6*) and currently-rising short-term interest rates are making it even less attractive to own.

Normally, after a long expansion, resources are strained and inflation rates rise. Last year, however, the U.S. consumer price index rose 1.9%, less than the 2.1% rise in 2017 (Chart 11). It fell in December at a 1.2% annual rate after being flat in November. The producer price index dropped at a 2.5% annual rate in December and the decline was widespread. Excluding food and energy, even the inflation-prone services component fell 1.2%. The Fed's preferred measure of inflation, the personal consumption expenditures deflator, rose 1.8% in November from a year earlier, below the central bank's 2% target (*Chart 13, page 6*).

**Deflation Fears**

As long-time *Insight* readers know, we've perennially questioned the 2% inflation target rate of the Fed and all other major central banks—the European Central Bank, the Bank of Japan, the Bank of England and the Bank of Canada. The only rationale we can find is that the central bankers so fear deflation that they want an inflationary cushion.

They fret that deflation will be self-feeding as lower prices encourage potential buyers to delay purchases. Then inventories and excess capacity mount,

CHART 6

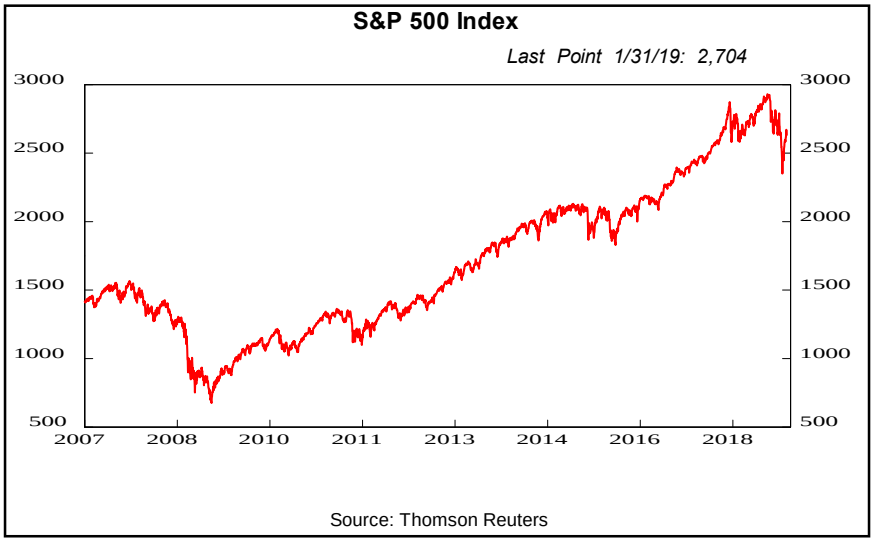



CHART 7

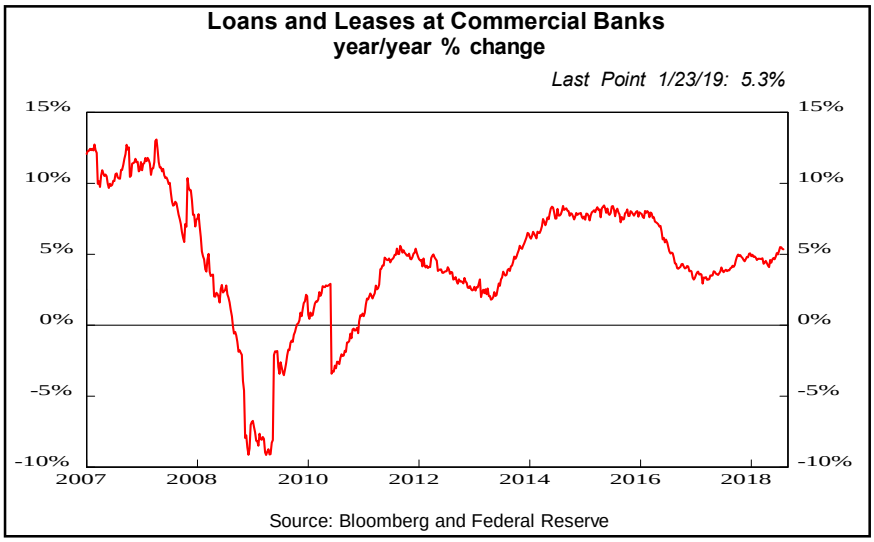
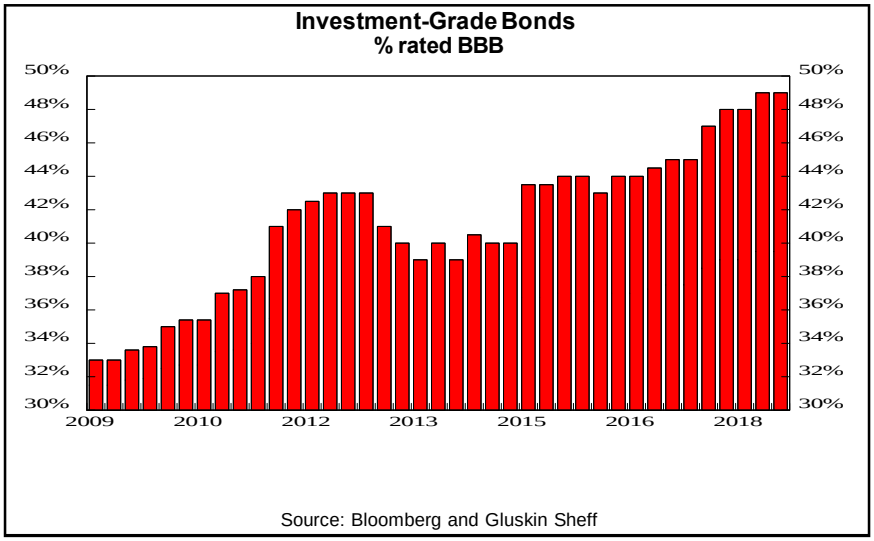



CHART 8



pushing prices lower. That then confirms expectations so households and businesses wait even further, generating a self-feeding downward deflationary spiral. The poster child for this phenomenon is Japan where prices since the early 1990s have fallen more years than not, and real GDP growth has averaged a tiny 1.1% (*Chart 14, page 6*).

Regardless, inflation expectations are dropping, the yield on 10-year inflation-indexed Treasurys has fallen recently and bond market expectations for the average inflation rate in the next decade dropped from 2.2% last spring to 1.7% at year's end. And signs of falling inflation are global. The European Union's consumer price inflation fell from 1.9% in November to 1.6% in December (*Chart 15, page 7*). The Bank of Japan has given up on hitting its 2.0% inflation target. Reflecting price deceleration, 10-year Chinese government bond yields have dropped to 3.1% from 4% a year ago.

## Fed Feeling

In this expansion, the Fed has consistently over-forecast economic growth, inflation and interest rates. *Chart 16 (page 7)* reveals that if their federal funds forecast in 2014 had materialized, the rate by 2016 would have been 4%, far above the actual 1.25% number. And note that is not a market-determined rate but one set solely by the Fed!

These forecast errors, no doubt, relate heavily to the Fed's belief in the Phillips Curve, the theory that lower unemployment leads to higher inflation (*Chart 17, page 7*). This sounds plausible, but hasn't worked in practice. The headline unemployment rate (U-3) dropped from a recessionary high of 10% to 4.0% in January, but inflation , measured by the Fed's preferred deflator for personal consumption expenditures, has been quite stable and generally below the central bank's 2% target (Chart 13).

**CHART 9**

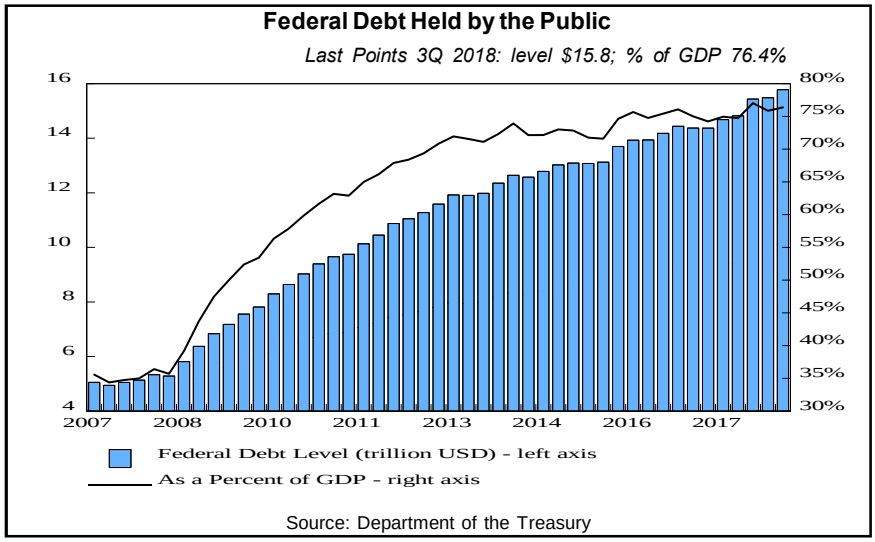



**CHART 10**

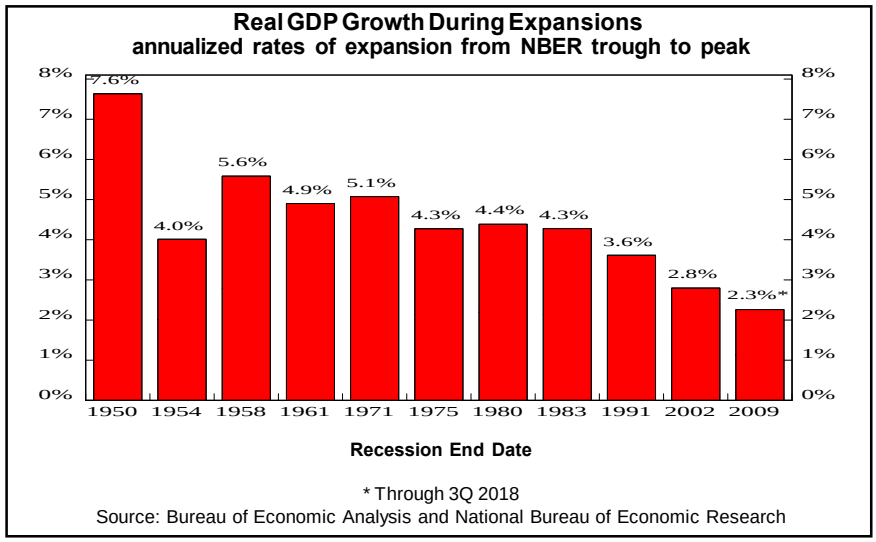
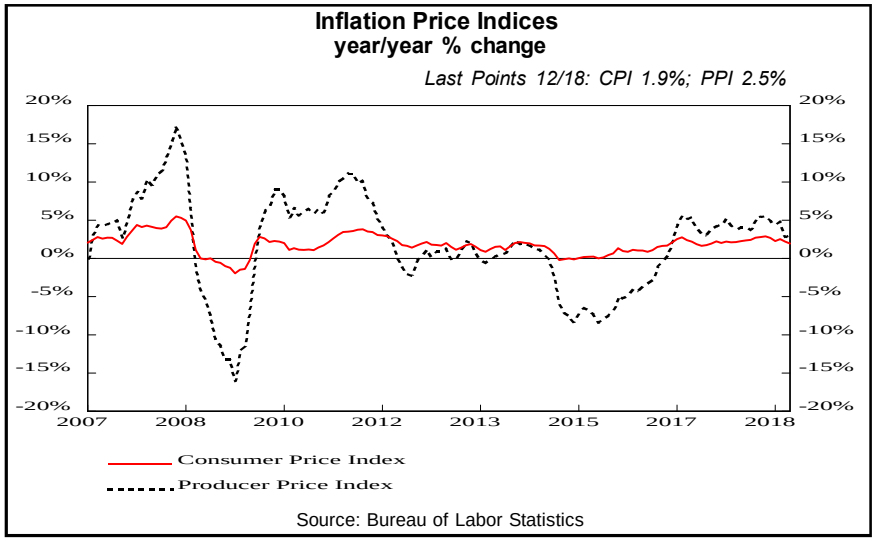



**CHART 11**



The two prior Fed Chairs, Janet Yellen and Ben Bernanke, are Ph.D. academic economists who stuck to the Phillips Curve theory and believed it was only a matter of time until low unemployment spawned serious inflation. But that didn't happen and as MacBeth said in Shakespeare's play: "Tomorrow, and tomorrow, and tomorrow, Creeps in this petty pace from day to day. To the last syllable of recorded time, And all our yesterdays have lighted fools. The way to dusty death."

**Pragmatism**

Now, I'm a Ph.D. economist myself, but much more impressed by the pragmatism of the non-trained economist currently heading the Fed, Jerome Powell, who apparently looked at income data and decided that serious inflation isn't looming. And with signs of a weakening economy, he—along with increasing numbers of his colleagues—has decided that the Fed can wait before raising rates further. Nevertheless, this doesn't mean that under Powell, the fed credit-tightening campaign is over.

The Fed releases a statement immediately after each policy meeting, indicating any changes in the fed funds rate and describing its views on the economy and financial markets. They are so stylized and esoteric that Fed followers note any word changes from the previous meeting's statement as a possible harbinger of a policy change. Then, about three weeks later come the meeting minutes and five years later, the transcript of the meeting, word by word.

The transcripts for 2013 meetings have just been released and in them, Powell, as a Fed governor but not yet Chairman, consistently warned of the risks of overstaying quantitative easing and opted for curtailing those immense asset purchases that ballooned the central bank's assets from $685 billion in 2007 to $4.5 trillion in 2014 (Chart 4). That was two years before the Fed began to taper its purchases of securities.

**CHART 12**

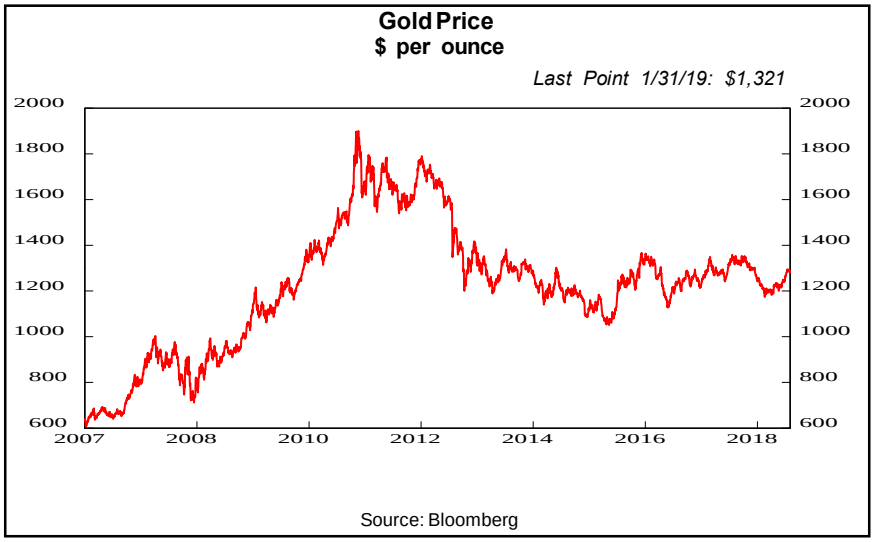



**CHART 13**

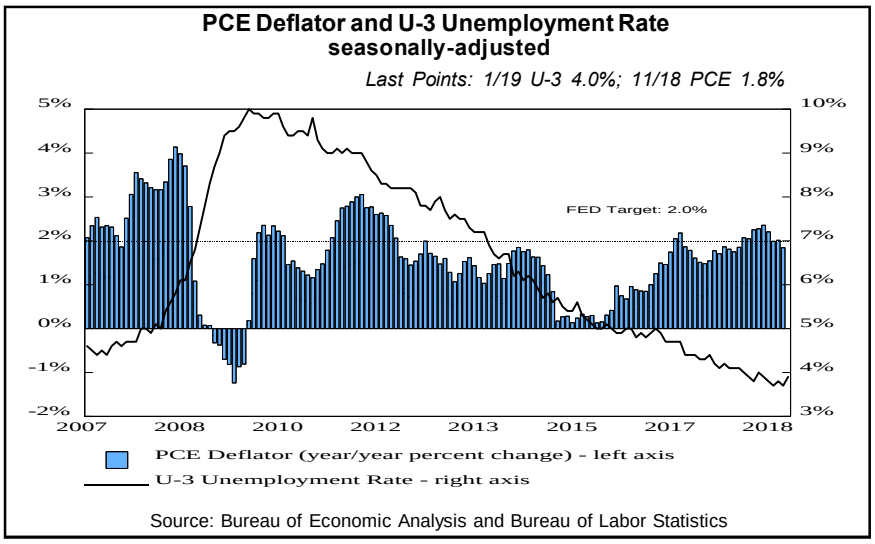
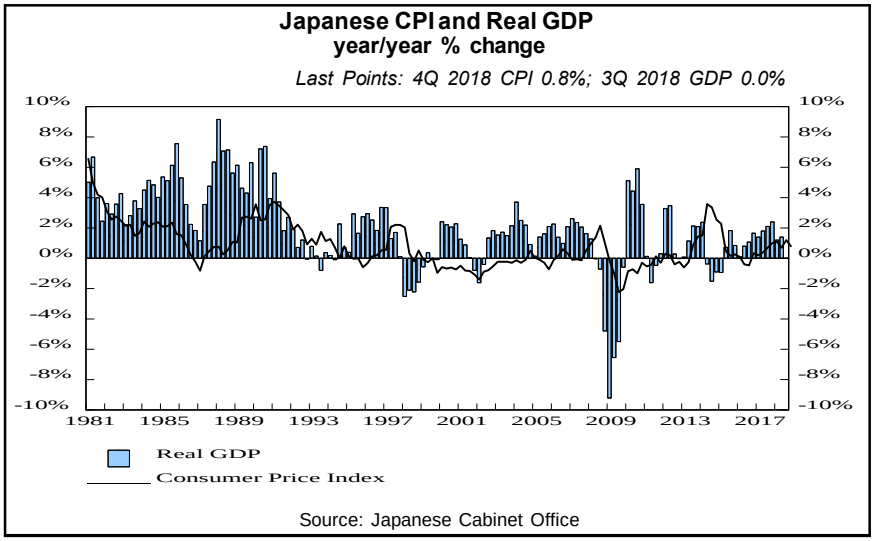



**CHART 14**



## Forward Guidance

In an interesting dichotomy, Powell is promoting openness by holding press conferences after every policy meeting, not just after policy changes are made, but is junking "forward guidance" at the same time. As we've noted in past reports, the 2008 financial crisis uncovered many opaque and lethal activities in the financial sector, so transparency became the new norm. Fed officials are mere mortals, and they, too, apparently caught the full disclosure bug and manifested it in the form of forward guidance. Their belief was that by telling banks and investors what they intended to do, financial markets would be calmer.

That approach made sense in the dark days of the financial crisis when assurance that the Fed would fulfill its role of lender of last resort was needed to contain panic. Nevertheless, the Fed's forward guidance depends on its forecasts of data, and the central bank has consistently forecast faster economic growth than occurred, more inflation and therefore higher interest rates, as noted earlier (Chart 16).

Fed Chairman Powell appears to be junking forward guidance, which hasn't been a success. As we reported in earlier *Insight*s, the Fed, out of the blue in 1994 in the pre-forward guidance era, hyped the fed funds rate from 3% to 6% in the short span of 12 months. Yet, the volatility in Treasury bonds was less than in the recent era when the Fed explained its policy ahead of time. Of course, other forces were at work in 1994 and today, but these results cast a doubtful eye on forward guidance.

Minneapolis Fed President Neel Kashkari said recently, "We shouldn't be offering guidance if there's this much uncertainty about the future path of interest rates." If that guidance "ends up being wrong, it hurts or undermines our credibility."

**CHART 15**

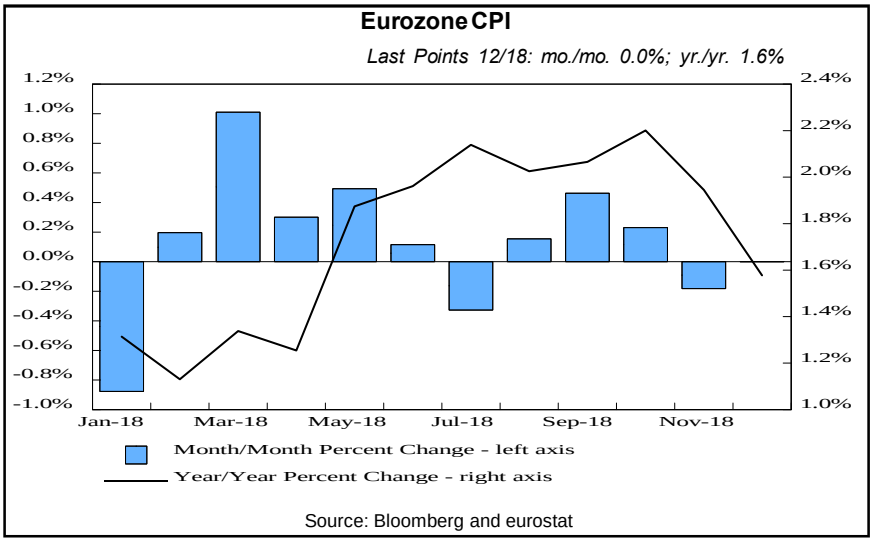



**CHART 16**

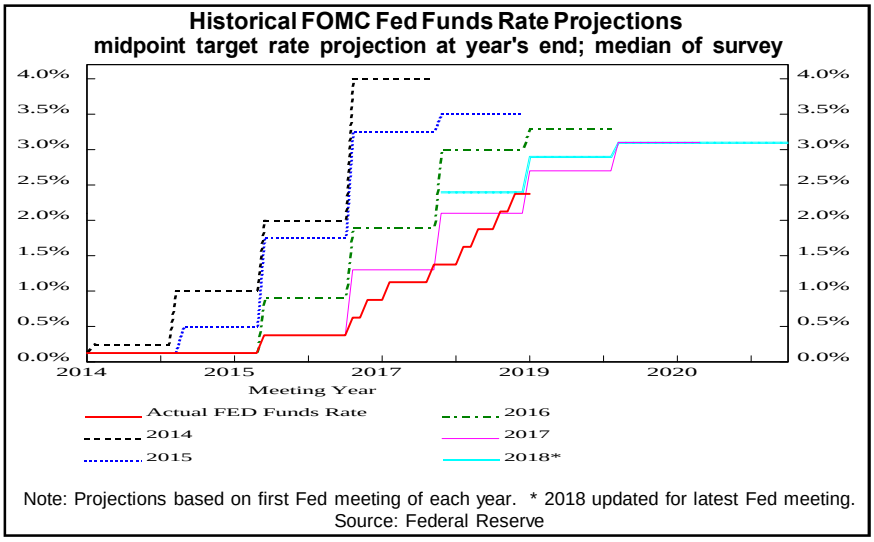
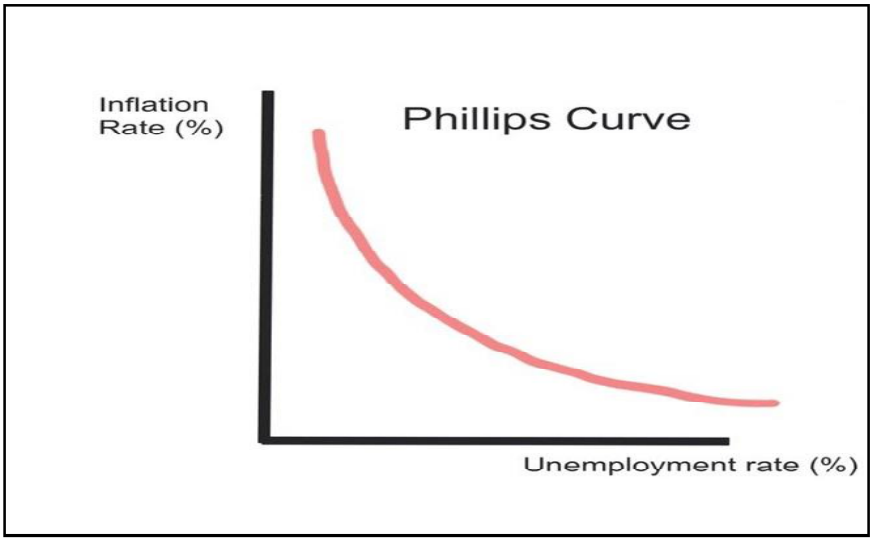



**CHART 17**



## Current Data Emphasis

The Fed is moving away from forecasts to set policy and toward more current data on inflation, economic growth, unemployment, etc. In a way, this increases uncertainty but in a way not since the central bankers have been such poor forecasters of the data on which forward guidance depended.

After the current pause, the Fed will probably resume credit-tightening, unless economic and financial conditions deteriorate swiftly. As usual, the central bank aims to keep the economy stable and doesn't intend to precipitate a recession, but in 12 of 13 instances in the post-World War II era, by our count, a business downturn followed. The only soft landing was in the mid-1990s, and we define a soft landing as occurring when the Fed reverses a credit tightening campaign with no following economic downturn. Until then, you don't know that their series of interest rate increases is over.

In the past, the Fed has relied on interest rates as its policy instrument, and the overnight federal funds rate historically peaks at or even before the recession starts (*Chart 18*). So when the Fed reduced that interest rate, you can be quite sure that the recessionary deed is done even if the economy continues to expand for a few months or quarters.

CHART 18

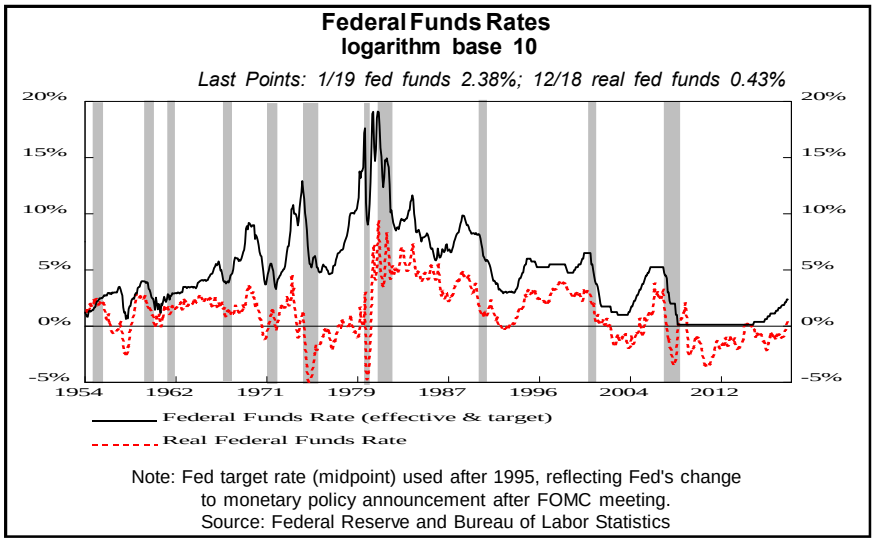
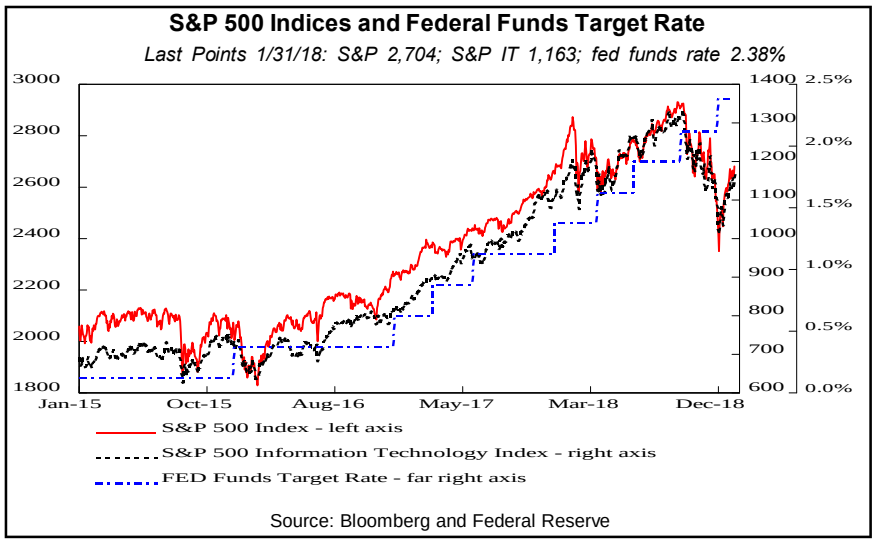


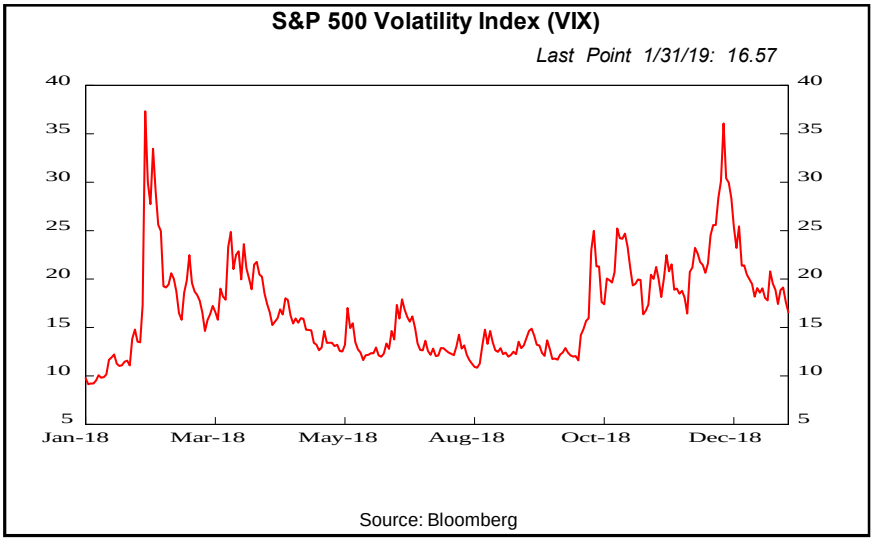

CHART 19




## Delayed Effects

That may well be the case this time since the previous monetary stimuli, created by essentially zero interest rates (Chart 3) and the massive central bank buying of assets—quantitative easing—seen in Chart 4 have created so much excess liquidity in the world that it may take an unusually long time to be sopped up and for a recession to be touched off. As shown in *Chart 19*, the Fed started to raise the fed funds rate in December 2015, but stocks continued to rise until 2018, and the economy is yet to fall. Even the leap in equity volatility early

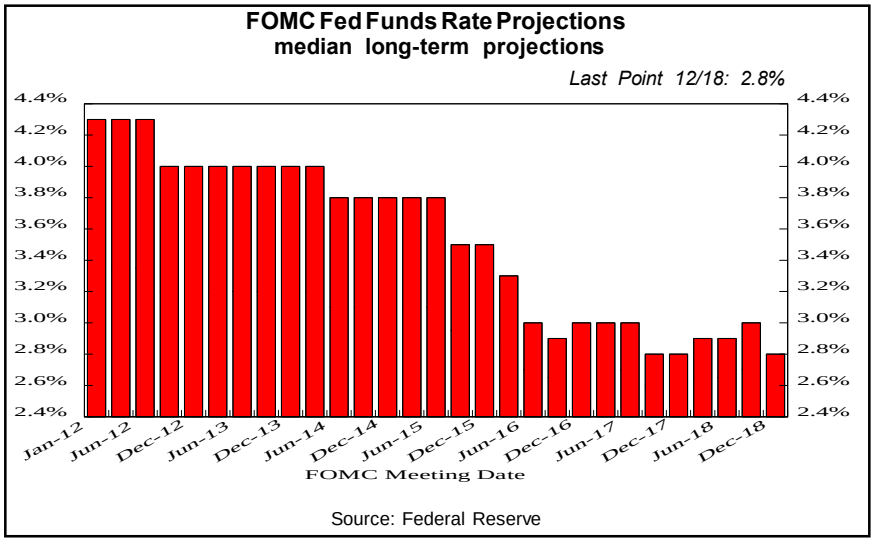
CHART 20



last year (*Chart 20, opposite page*) failed to end the equity bull market that commenced in March 2009.

Further, the central bank, even after resuming credit restraint, will probably move at a deliberate pace. Indeed, the Fed is taking a breather in its tightening campaign, no doubt in view of stock weakness, falling commodity prices and nervous investors, to say nothing of the escalating trade war with China. Futures markets now imply only a 25% chance of any rate rise this year and 5% odds of a cut. Nevertheless, the central bank wants interest rates to be higher for several reasons.

**CHART 21**




The Fed is faced with a negative real fed funds rate, which it doesn't want (Chart 18), and is raising nominal rates to force real borrowing costs into positive territory. It wants rates high enough that it can make meaningful cuts in the next recession. And the central bank is "zero bound," considering a zero federal funds rate as its lower limit. It's seen the ECB and Bank of Japan push their policy rates into negative territory with no stimulative effects even though borrowers are being paid to take the filthy lucre away. Indeed, in Japan, negative rates appear to have reduced borrowing and spending as consumers, seeing no return on their assets, save more for retirement and other purposes.

At the same time, Fed officials continue to crank down their forecasts of the fed funds rate (*Chart 21*) and view this as a global phenomenon. At their December meeting, Fed policymakers projected that, in the long run, the fed funds are would be in the 2.5% to 3.5% range, with the median forecast at 2.8%. In this environment, the U.S. central bank believes already-huge federal deficits and debt (Chart 9) would preclude massive fiscal stimuli in the next recession. Consequently, the central bank would need to resort to more quantitative easing.

Fed officials are close to deciding to maintain a larger portfolio of Treasurys than they expected when they began shrinking those assets two years ago. Back then, various Fed officials thought the total portfolio, then $4.5 trillion (Chart 4), could shrink to the $1.5 trillion-to-$3 trillion range over the next five years. They wanted to limit bank reserves so that interest rate hikes would be more effective.

Reserves, $2.4 trillion back then, were so ample that almost every bank had excess reserves. Consequently, the fed funds rate, the rate at which banks with deficient reserves borrow from those with surpluses, was of little practical value. The interest rate was just one indication of Fed policy. Consequently, the Fed has shifted to using the interest rate it pays on bank reserves—2.4% at present—as its policy instrument, as we've repeatedly forecast it logically should do. So the speed with which it liquidates its portfolio will depend on its policy intentions since cutting or adding to those assets directly affects the reserves of member banks held at the Fed. Bank reserves at the Fed are now $1.6 trillion and if they were reduced to $1 trillion,

the total Fed assets would shrink to $3.5 trillion, larger than the previous estimates of $1.5 trillion to $3 trillion.

The Fed also wants to shorten the maturities of Treasurys in its portfolio. Now it holds over $2 trillion in Treasury notes and bonds and no short-term bills. Central bankers believe that long-term holdings have pushed down long-term interest rates and drove households and businesses into riskier investments. A shorter maturity portfolio would reverse this tendency, they think.

The U.S. central bank also abhors the risk-taking spawned by low interest rates including zeal for leveraged loans, commodities and emerging-market stocks and bonds. Hedge funds continue to attract investor money despite their subpar performance (*Chart 22*). That's another reason it wants higher interest rates.

**Zeal For Yield**

Just to show how widespread the zeal for yield is, consider the plight of Lloyd's of London and other marine insurers. So much underwriting capital is flowing into the market that premiums have been pushed down to historically low levels, leaving insurers with money-losing portfolios. Premiums are as low as 0.1% of the vessel's value and need to double to make the business sustainable.

Of course, the most spectacular recent example of zeal for yield and rampant speculation is in bitcoin, which skyrocketed from $996 at the beginning of 2017 to a $19,188 peak in December of that year, a 1,927% leap, but has since collapsed to $3,400, an 82% plummet (*Chart 23*). The Fed has not yet expressed concern over bitcoin, but other government regulators have. Another example is bonds issued recently by the city of Detroit. Despite its bankruptcy in 2013, making the Motor City the biggest U.S. city to ever do so, yield-hungry investors accepted a yield of 4.95% on

**CHART 22**

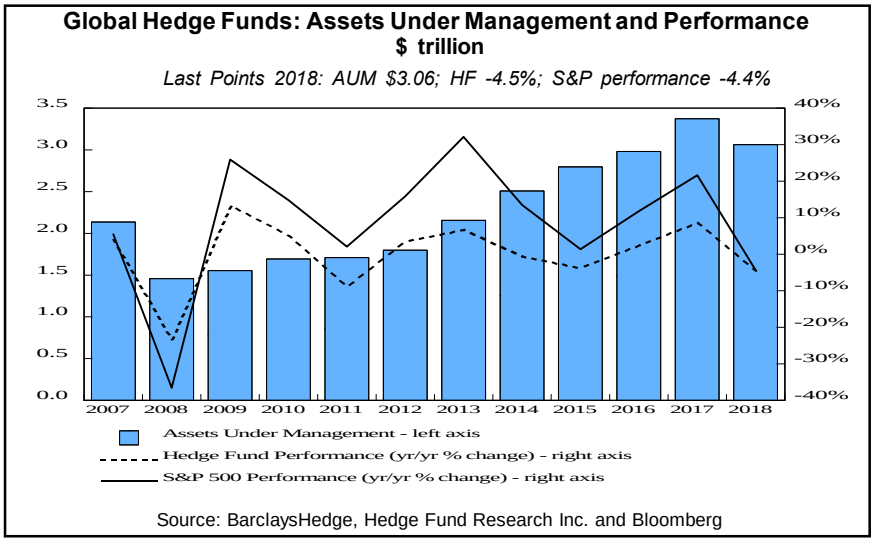
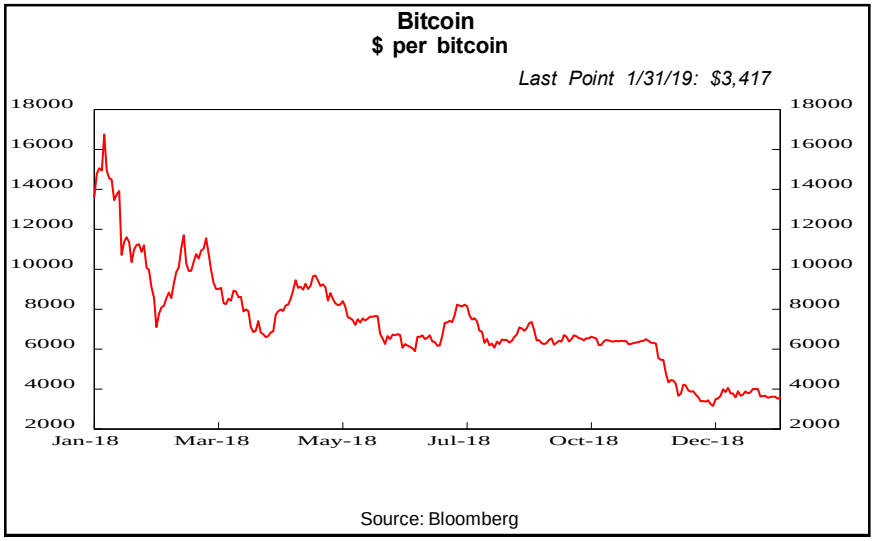



**CHART 23**



20-year bonds, only two percentage point above AAA-rated municipal debt.

As we've noted in past reports, the Fed has used interest rates as its policy instrument for over a century and still has had miserable luck in effecting soft landings. Now it's not only raising rates but also selling off its portfolio of Treasurys and mortgage-backed securities, $4.2 trillion at its peak, for the first time ever and plans to reduce its portfolio by $50 billion per month. This drastically reduces the already slim odds of avoiding a recession, sooner or later.

**Wages**

The Fed's assumption that low unemployment rates lead to high inflation (Chart 17) hasn't panned out (Chart 13) even though wages are rising at a faster rate (*Chart 24*). One reason is that consumers and business buyers have become accustomed to low inflation and refuse to accept cost pass-throughs, regardless of the cause.

Furthermore, globalization—probably the most significant worldwide economic development in the last three decades—continues to flood the West with cheap goods from China and other low-cost Asian lands. This pressure on prices will likely continue unless Trump builds a sky-high tariff wall all around America, which we doubt.

This phenomenon has decimated manufacturing employment (*Chart 25*), and high-paid union jobs in the private sector have shrunk from 25% of the workforce in the early 1970s to 6.4% in 2018 (*Chart 26*). As we've noted in past *Insights*, globalization is largely responsible for the lack of real wage growth in the G-7 countries for more than a decade (*Charts 27 and 28, page 12*).

This, in our view, is what's made many people mad as hell and spawned populism as voters dumped centrist politicians and turned to those on the extreme right

**CHART 24**

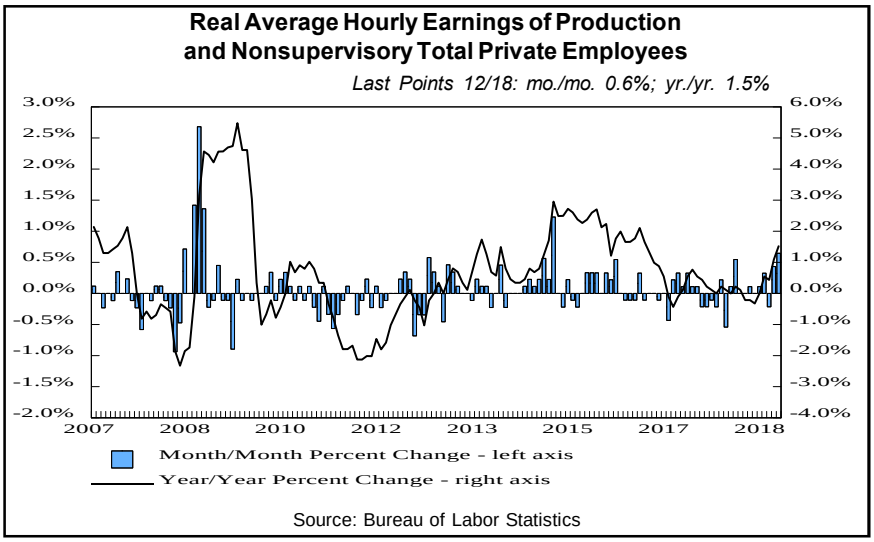



**CHART 25**

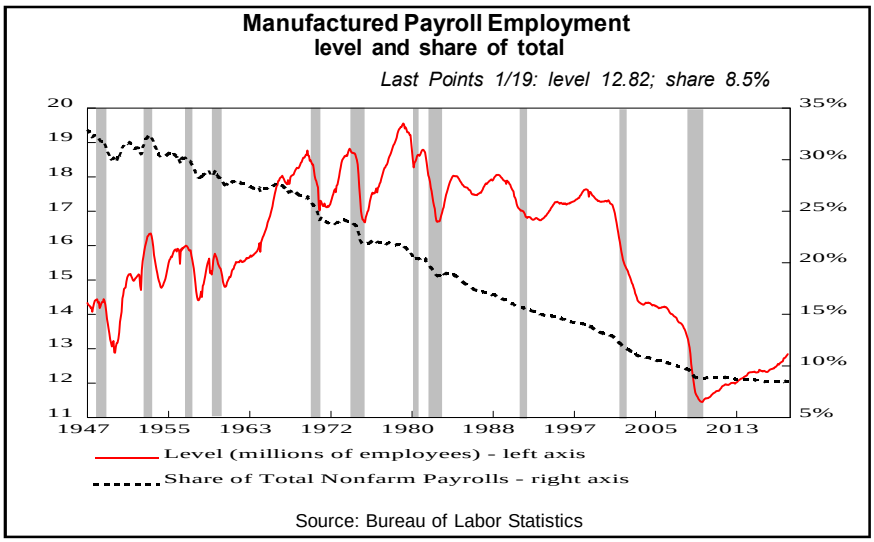
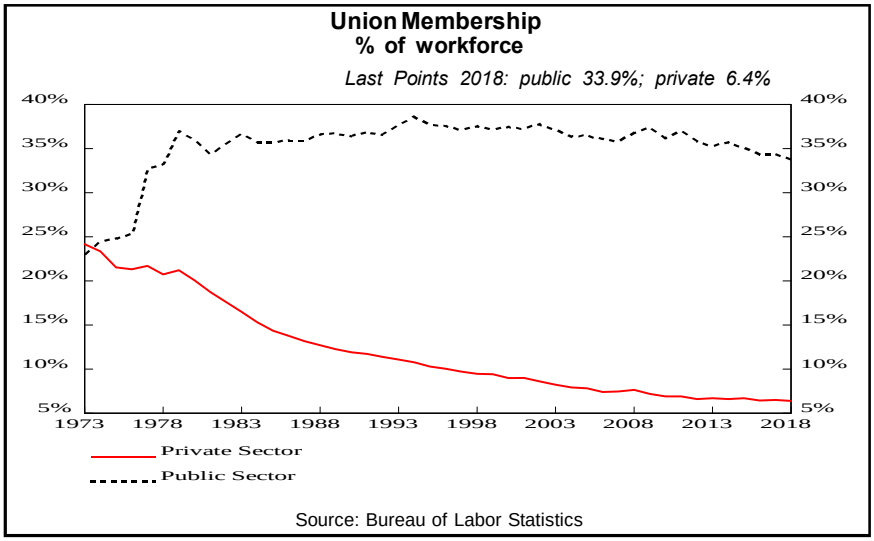



**CHART 26**



and far left. Brexit today and Trump's election in 2016 are obvious examples.

**Fewer Employees**

U.S. utility employees are among the highest paid, and as coal and nuclear power plants in the U.S. close due to carbon regulations and competitive pressures, the number of people employed in producing power shrinks. Natural gas-fired power plants as well as wind and solar farms are usually simpler to operate and require fewer employees.

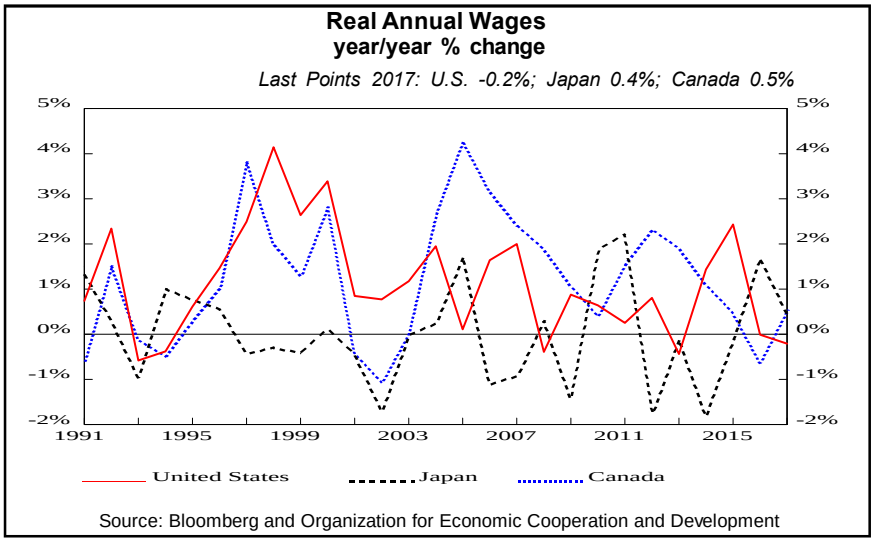
Total direct utility employment has dropped from 564,000 in 2009 to 554,000 despite the intervening rise in electricity generation. In 2016, the latest data, gas, solar and wind provided 40.7% of U.S. electricity, up from 27.7% five years ago. Meanwhile, coal and nuclear output dropped off from 62% to 50%.

It takes five times as many coal miners and coal power plant workers to produce a megawatt-hour of electricity as employees in the wind power sector, 50% more than gas and twice as many as solar. Safety issues with nuclear bumps up employee numbers, with 9,000 armed guards at the nation's 62 nuclear facilities.

Last month, Vistra Energy closed a power plant in Texas, along with a mine that supplied it with coal via a 15-mile long conveyor belt. In total, 450 positions were eliminated. Later this summer, Vistra plans to open one of the largest solar farms in the country in West Texas that will employ two people who might only work part-time.

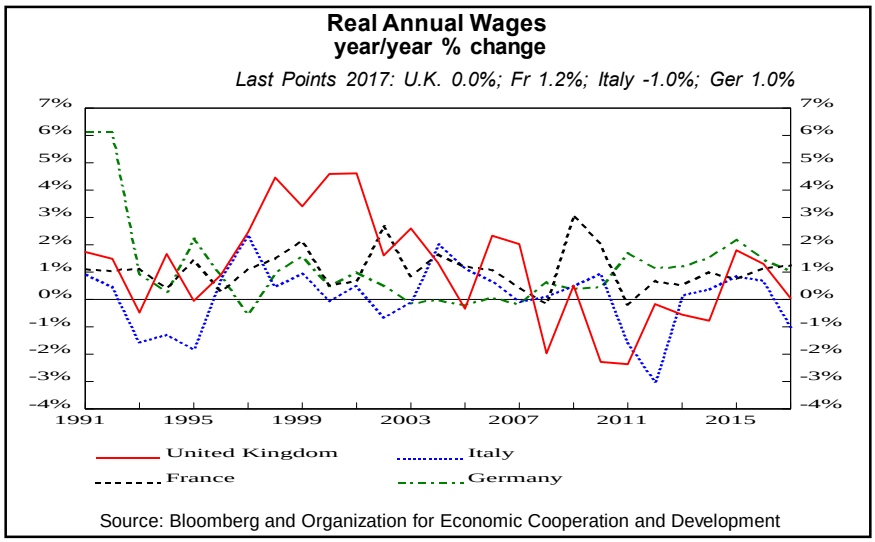
Technology is also eliminating six-figure blue collar oil and gas field jobs by almost 25%. In response to weak energy prices (*Chart 29*), operators are turning to cheap artificial intelligence, automation and other technologies. Nationwide, oil and gas employment is down 25% since 2014 even as output rises (*Chart 30, opposite page*).

**CHART 27**



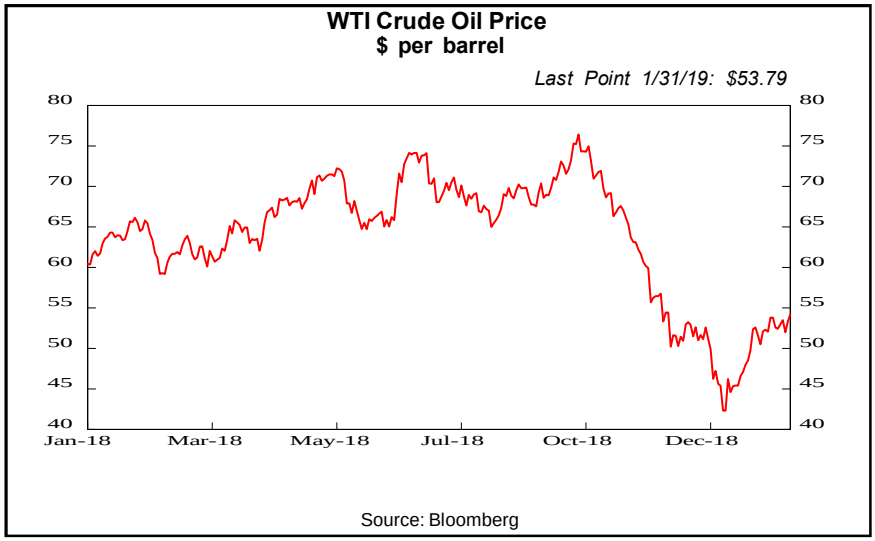

Source: Bloomberg and Organization for Economic Cooperation and Development

**CHART 28**




Source: Bloomberg and Organization for Economic Cooperation and Development

**CHART 29**

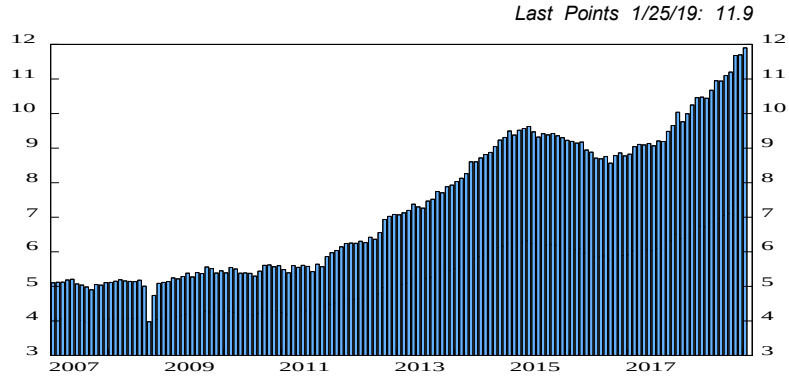



Source: Bloomberg

**Robots**

Meanwhile, not just Amazon, FedEx and UPS are turning to robots to reduce headcounts and save money but retailers are also doing so. Target uses "cash recyclers" to count coins and bills quickly and also to digitally bank the money and predict the cash needs for each cashier's shift. Services such as rapid home-delivery and buy online-pickup in the store are spurring retailers to use robots to track their store shelf inventory in real time. IA-powered robots are also invading warehouses and are now replacing human hands to perform nuanced tasks such as sorting apparel and picking up a range of objects. The $46 billion market for warehouse and logistics automation is expected to surpass $75 billion by 2022. "Cobots," robots that work with humans, are also mushrooming.

CHART 30




Source: Department of Energy

CHART 31

**Right-to-Work States**

| | | |
|---|---|---|
| Alabama | Kentucky | South Carolina |
| Arizona | Louisiana | South Dakota |
| Arkansas | Michigan | Tennessee |
| Florida | Mississippi | Texas |
| Georgia | Missouri | Utah |
| Idaho | Nebraska | Virginia |
| Indiana | Nevada | West Virginia |
| Iowa | North Carolina | Wisconsin |
| Kansas | North Dakota | Wyoming |
| | Oklahoma | |

Source: National Right to Work Legal Defense and Education Foundation

**Public Unions**

Public union membership is also slipping (Chart 26) as more states opt for right-to-work laws that don't require municipal employees to belong to unions. Now, 28 of the 50 states are in that category (*Chart 31*). The drop in public sector unionization will accelerate in the wake of the Supreme Court's ruling last June that state governments were not required to collect union dues. Previously, public employees in 22 state who didn't want to join unions were required to pay agency fees to cover collective-bargaining costs, which can equal 90% of union member dues.

That ruling will probably reduce public sector union political clout by forcing unions to shift funds from political activity to member-oriented activities. The 1.3-million strong American Federation of State, County and Municipal Employees spent $26.5 million on organizing and member representation. The American Federation of Teachers, with 1.6 million members, spent $40 billion out of $75.2 million collected from members on lobbying while the 3.0-million strong National Education Association spent $53.3 million on lobbying, more than the $43.7 million outlay for members.

**The Amazon Effect**

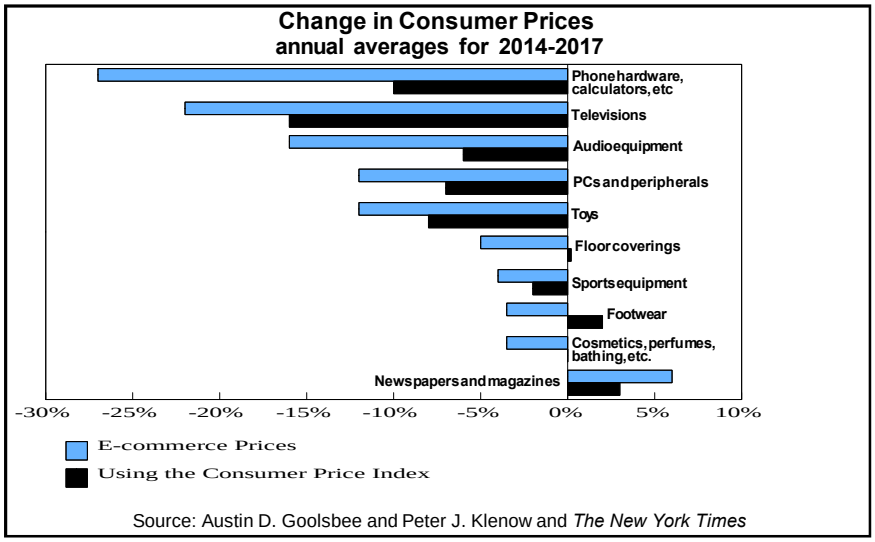
We don't need to tell you that online retailing is highly deflationary. A bricks-and-mortar store has to provide a lot of expensive services or other inducements to compete with consumers' ability, via their smartphones, to check quickly the prices of a given product in many locations. Also, the convenience and quick delivery of goods ordered online is hard to beat.

Amazon's sphere of activity continues to expand. Last year, it launched a delivery service to undercut FedEx and UPS on prices. In recent years, Amazon has expanded its ocean freight activities and leased 40 aircraft while establishing an air-cargo

hub. Amazon is recruiting small businesses to handle the last leg of package delivery. This lets entrepreneurs lease Amazon Prime-branded vans.

The firm also is rolling out its own delivery network to compete with UPS and FedEx, and promised to forgo many of their fees such as extra charges for home delivery during the peak holiday season or on weekends. These fees add up. The residential surcharge at FedEx and UPS equal more than 40% of the average ground delivery charge. FedEx and UPS also add on fuel surcharges of about 7% for domestic home delivery. Amazon also wants to reduce its dependence on the U.S. Postal Service.

CHART 32




Source: Austin D. Goolsbee and Peter J. Klenow and *The New York Times*

The firm's purchase of Whole Foods in 2017 for $13.5 billion has forced rival retailers and food wholesalers to reconfigure their businesses and accelerate online activities, including online pickups and delivery services. Kroger, the nation's largest grocer, last year launched a delivery service, Kroger Ship, which offers free delivery for orders over $35 and 5% discounts for subscription goods. It's also expanding its pickup locations for online grocery orders. Wal-Mart bought Jet.com in 2016 to expand its delivery capability while Target purchased a delivery service in 2017.

In another attempt to compete with Amazon, two of the world's biggest grocery chains, Tosco and Carrefour, are collaborating on how they buy supplies in order to cut costs. These two firms are also expanding their online delivery and technology. Lower costs are deflationary.

**Packaged Foods**

Major packaged-foods companies such as Procter & Gamble and Nestle have reduced prices more often than raised them in the past year due to a number of forces. Consumers are shifting toward fresh produce and meats and away from packaged foods heavy on carbohydrates, sugar and salt. Digital advertising and e-commerce are offering small brands to effectively reach large numbers of buyers as brand loyalty fades. Growing sales of prepared foods and meal kits are competing with packaged brands. Amazon is selling more and more household staples online, which prompts retailers like Wal-Mart to push their suppliers for steeper discounts. And there are aggressive new competitors in supermarkets, notably Amazon with its Whole Foods purchase but also German discounters Aldi and Lidl that offer low prices by focusing on a limited range of mainly private-label products.

Also, with e-commerce and smartphones making it easy for consumers to compare prices online, major grocers such as Kroger and Wal-Mart are not only cutting prices, expanding online and offering delivery services but also concentrating on private-label goods. Small, financially-weaker chains are suffering even more.

The combination of comparison shopping online, the ease with which online retailers can enter the market, regardless of their physical location and their often-lower operating costs make merchants leery of raising prices and is highly deflationary. Fed Chairman Powell has called it "the Amazon effect story."

**Inflation Overestimated**

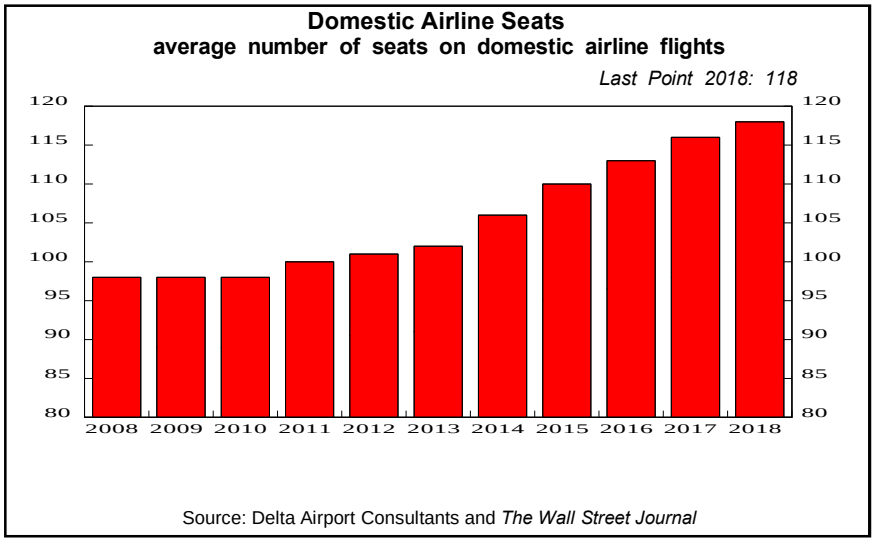
Furthermore, the price-depressing effect is much bigger than is indicated in government data, which often lags well behind marketplace reality. A study by economists at Stanford and the University of Chicago found that prices of goods sold on the Internet were much weaker in the 2014-2017 years than recorded in the official Consumer Price Index—as much as 2.5 percentage points. Online prices of personal computers dropped 12.3% but the CPI showed only a 6.9% decline (*Chart 32*). Toy prices online slumped 12% while the CPI component fell just 7.8%. prices of photography equipment and supplies online fell 9.2% compared to the 0.6% fall recorded in government numbers. And with phone hardware, the CPI's 10% drop was actually 28%.

A key reason for the difference is the slowness with which the Bureau of Labor Statistics updates the list of prices it samples. This is a major problem when new products explode and their prices fall rapidly. Cellphones were not

included in the CPI until 1996 even though 40 million Americans, or 15% of the population, were using them then. The plunging prices of computers, especially corrected for their leaping computing power, are not yet fully reflected in government numbers.

And these differences will persist as new technology continues to explode. The 5G evolution of cellular networking that promotes extremely fast Internet should speed communications while slashing costs. Some 44% of the products sold online didn't exist the previous year, and a quarter disappeared from one year to the next. Online spending accounts for more than 10% of all retail purchases and more than 50% in some categories.

CHART 33




**On Demand**

It's becoming increasingly clear that driverless vehicles won't soon dominate the highways and byways with all the potholes, double-parked cars, jaywalking pedestrians and country roads that are really glorified cow paths. Still, they look promising in some areas such as taxis in urban areas. Waymo, the self-driving tech unit of Google parent Alphabet, is expanding its robot taxi fleet with a deal to buy thousands of minivans from Fiat Chrysler. Waymo has equipped these vehicles with driverless technology in 25 U.S. cities and has opened a ride-hailing service to the general public in the Phoenix area. The weather there is usually sunny and Arizona is receptive to the technology.

Eliminating the cost of drivers is clearly deflationary, but so too has been the advent of Uber and Lyft. Drivers accept low pay, often less than minimum wage, in return for the freedom to work when they want to and where they like. The Average cost of an Uber ride is $39.55 compared to $61.07 in a taxi.

No wonder that Uber cars are wrecking the taxi business in New York Coty where a licensed taxi must have a city-issued medallion on its hood. Due to limits on their issuance to 13,600, they sold for $1 million in 2003. This was a prime example of what economists call "economic rent." The medallion owner had to pay or borrow that money, which meant he was forgoing paying interest on it. At, say 6%, that cost was $60,000. So the cab was generating $60,000 more in fares than required to keep taxis on the streets. In effect, taxis were an extremely profitable business, collecting this extra $60,000 in fares. So you can see what inspired Uber. With Uber, that $60,000 in economic rent has collapsed. Last year, New York City taxi medallions sold for an average $175,000. About a third of loans to finance medallion purchases were made by credit unions,, and three of them were placed in conservatorship because of their exposure to these loans. And now Uber plans a new service to ferry passengers to and from mass-transit systems like buses and trains. "Ultimately, what we're trying to do is replace personal car ownership," says CEO Dara Khosrowshahi.

**Airlines**

As we've explored in past *Insight*s, airlines are a high fixed-cost/low-marginal cost business. The costs of the planes, ground facilities and staff are high but the cost of flying an extra passenger from, say, New York to Los Angeles is only several gallons of jet fuel, a soft drink and a bag of pretzels. So airlines have tremendous incentives to fly full planes, which they have in recent years.

But they are also expanding the number of seats (*Chart 33*) and many may be vacant as a recession unfolds and cuts consumer and business travel. Also, profits resulting from the slump in fuel prices late last yea will probably encourage capacity additions. The result, in this continually-repeated cycle, will be lower airfares.

**College Tuition**

Higher education costs have been leaping for years, and earlier 4% to 6% annual bumps were common (*Chart 34, page 16*). Many youths and their parents were convinced that a college education was the route to riches and, indeed, the average college graduate earns $60,996 annually compared with $37,024 for those with only a high school diploma. Many entered college and universities during the

2007-2009 Great Recession, reasoning that they'd graduate into great jobs (*Chart 35*).

As we continually note, however, smart people with higher earnings potential go to college, but a college degree doesn't make them smart. Many who graduated from less-competitive schools ended up in jobs that only require a high school education, and only about 40% graduate in eight years. They've lost time out of the workforce and incurred huge student loan debts (*Chart 36*). Meanwhile, apprenticeship programs, sponsored by governments and private industry, are mushrooming. They build on the German model and combine a two-year junior college degree with on-the-job training, often leading to high five-figure and even six-figure incomes.

So although college enrollment has recovered after the slump that followed the Great Recession-inspired surge, it remains below the earlier peak (Chart 35). And colleges are trimming net costs to compete for fewer students. Costs, including tuition, fees and room and board at public institutions, actually fell 0.2% from $14,910 to $14,880 in the current 2018-2019 academic year, after scholarships and grants are subtracted from the published prices (*Chart 37, opposite page*).

Further cuts are likely since college expenses are still $3,400, or 30%, higher than a decade ago (*Chart 38, opposite page*) while real wages have increased just 4.8%. Many state governments, still stressed by the recessionary drop in tax revenues, cut back dramatically on public funding for higher education.

Private institution costs rose in 2018-2019 but by only 0.5%, on average. Meanwhile, the costs of college textbooks are falling, in part because students can rent them for several months at a fraction of the purchase price. These books constitute 90% of the educational books

**CHART 34**

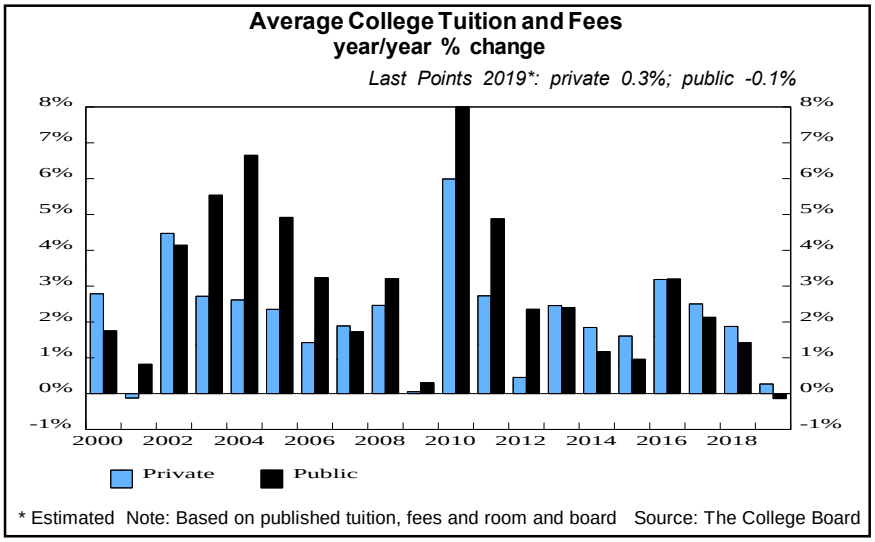



**CHART 35**

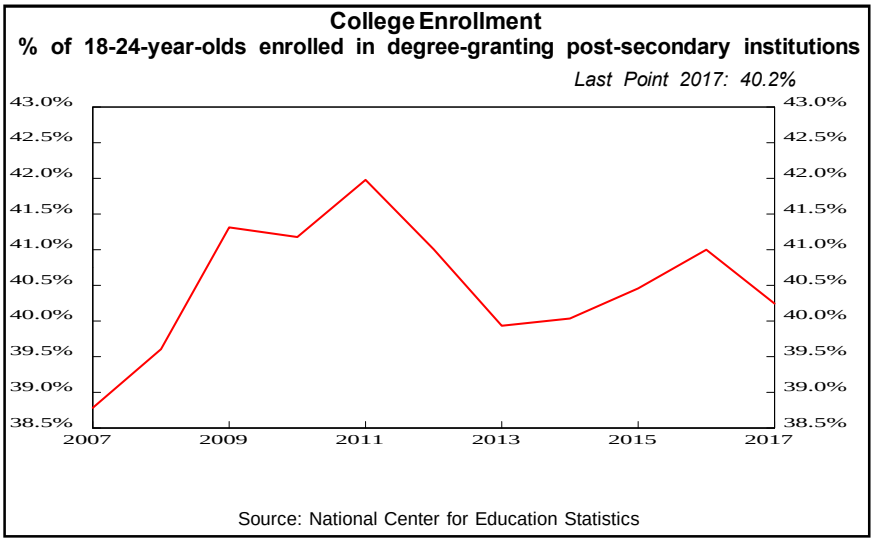
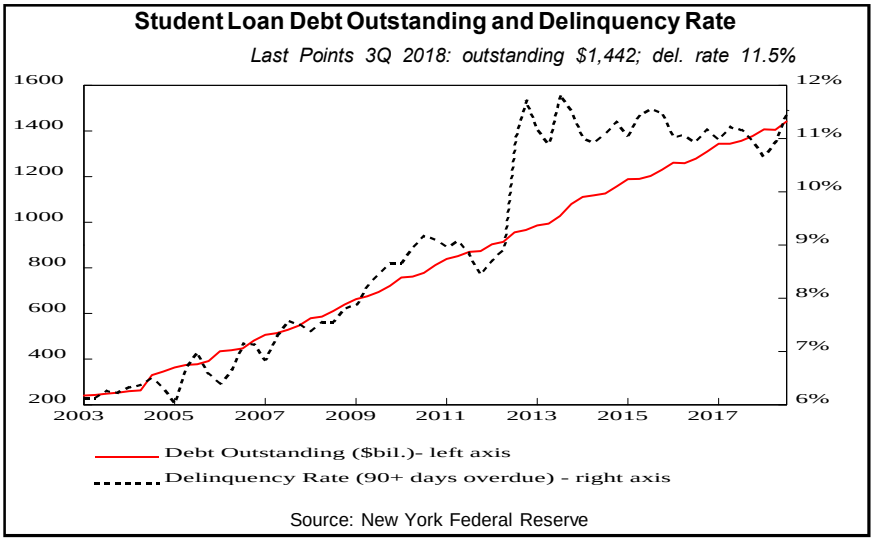



**CHART 36**



and supplies component of the CPI, and it was up just 1.0% vs. a year earlier in December (*Chart 39*).

**Drug Costs**

Medical costs in the U.S. have leaped for decades and last year equaled 18% of GDP (*Chart 40, page 18*). Aging postwar babies' increased use of medical services is a major factor. Still, costs per capita in this country are the highest in the world (*Chart 41, page 18*) while the health benefits are inferior to many other developed countries.

As we've discussed in past reports, the American health care system is designed to maximize cost for four distinct reasons. With all the new technologies and drugs, the best is none too good when your health or mine is at stake. Very few Americans pay a major part of the costs, which is largely financed by governments and employers. Even those paying meaningful health care insurance premiums want to maximize their care once they've made those outlays. Today, those with pre-existing conditions and heavy users usually don't pay more.

Also, pay per procedure is the norm for most medical service providers so they are encouraged to provide excess services. "You better come back in two weeks so I can see if your throat infection is cleared up," or variations of this directive by a physician are common. Finally, pharmaceutical companies are allowed to advertise prescription drugs on TV, encouraging consumers to bug their physicians to prescribe them, even with the continual legalistic admonition to "See your doctor." Many MDs find it easier to give in to these requests than to refuse, consuming more of their time and risking lawsuits. Consider the over-prescription of opioids as a prime example.

**Hands Off**

Despite Medicare, Medicaid, Obamacare and other government programs, Washington has taken a

CHART 37

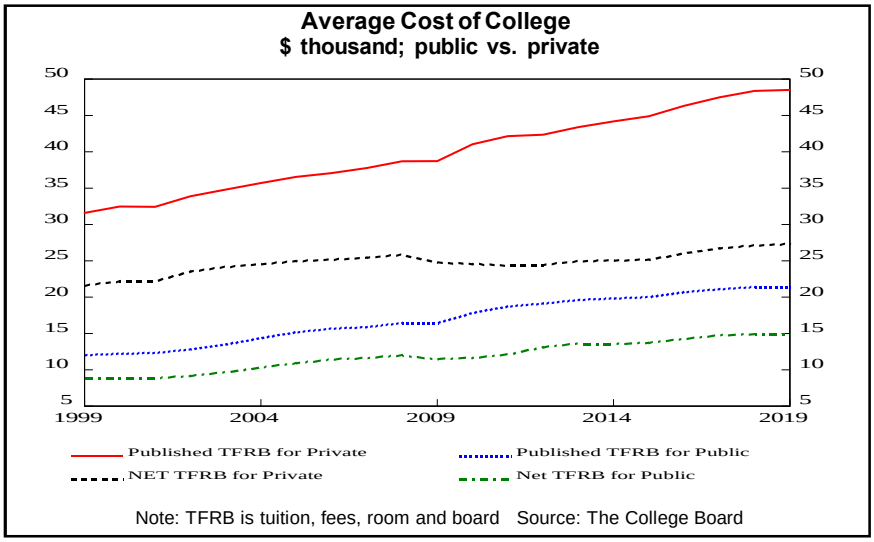



CHART 38

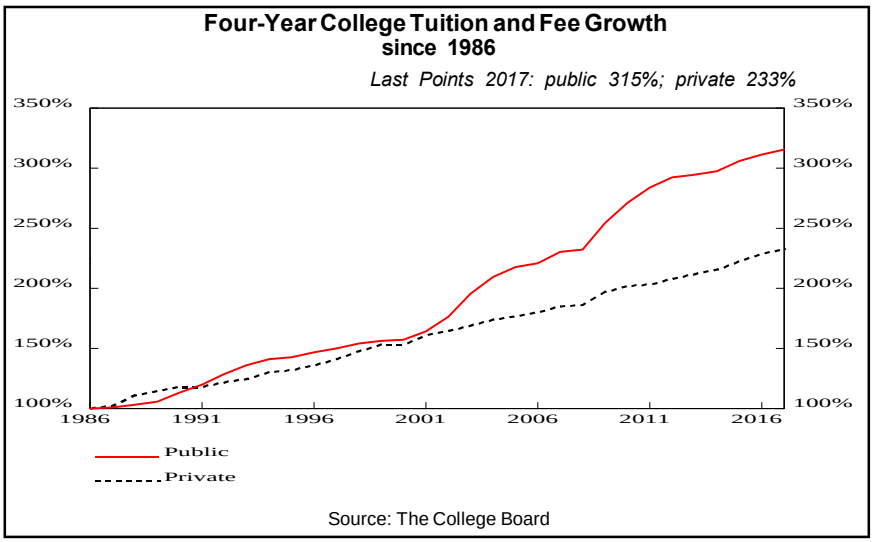
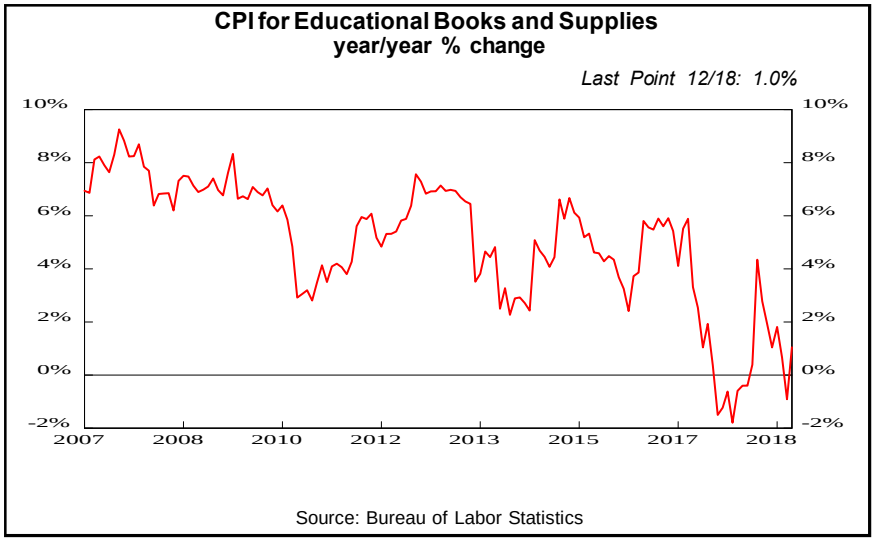


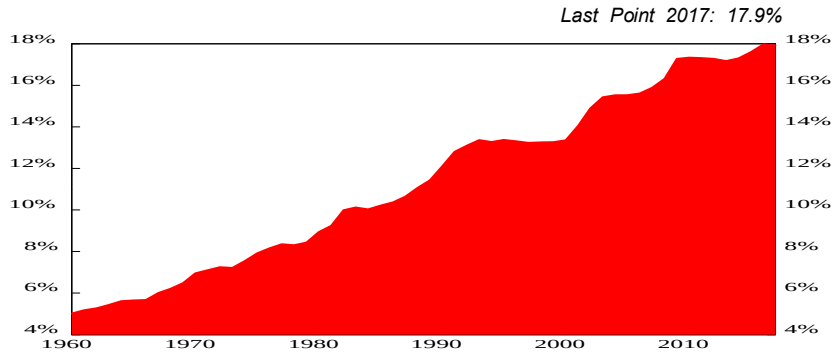

CHART 39



relatively hands-off position on medical costs in relation to that of other developed countries. State health services in countries such as the U.K. and Canada may be cheaper than in the U.S., but you may die before you reach the front of the queue for elective surgery. But that argument doesn't hold in the case of drugs, which are essentially the same formulation worldwide.

**CHART 40**

**National Healthcare Expenditures as a % of GDP**




Note: Includes spending by Medicare, Medicaid, private health insurance, out-of-pocket spending, state and local governments and other private entities.
Source: Centers for Medicare & Medicaid Services

Unlike foreign governments that set the prices for drugs they buy, that's not the case in the U.S. Medicare can buy cheaper generics but by law can't set the prices of drugs it purchases. So American drug companies essentially load their research and development costs on the U.S. government and corporations while other countries pay the much-lower marginal costs, once the pharmaceuticals are produced and approved.

**CHART 41**

**Healthcare Expenditures per Capita (US$)**

| | |
|---|---|
| U.S. | 10,209 |
| Switzerland | 8,009 |
| Luxembourg | 6,475 |
| Norway | 6,351 |
| Germany | 5,728 |
| Sweden | 5,511 |
| Ireland | 5,449 |
| Austria | 5,440 |
| Netherlands | 5,386 |
| Denmark | 5,183 |
| France | 4,902 |
| Canada | 4,826 |
| Belgium | 4,774 |
| Japan | 4,717 |
| Iceland | 4,581 |
| Australia | 4,543 |
| U.K. | 4,246 |
| Finland | 4,173 |
| New Zealand | 3,683 |
| Italy | 3,542 |
| Spain | 3,371 |
| Korea | 2,897 |
| Portugal | 2,888 |
| Czech Republic | 2,616 |
| Greece | 2,325 |
| Slovak Republic | 2,269 |
| Hungary | 2,045 |
| Poland | 1,955 |
| Turkey | 1,194 |
| Mexico | 1,034 |

Source: Organization for Economic Cooperation and Development

Drug prices fell 0.6% in December vs. a year earlier, reflecting growing public and political pressure. The Trump Administration has proposed that companies be required to include list prices in their TV ads. The Administration, with bipartisan support, also wants to cut the prices on some drugs Medicare buys, cutting them to the lower prices in other countries. Medicare spent $28 billion on drugs used in Part B of Medicare in 2016, up 59% from 2011. The agency believes changes in drug purchases can reduce spending by 30%.

**Private Sector Action**

Meanwhile, large private sector companies are moving to reduce drug and other medical costs. Amazon's potential entry into the pharmacy services industry is spurring defense mergers among existing participants. Through e-commerce, Amazon threatens to do for the pharmacy market what it did for books, clothes and many other products. When Amazon received approval for wholesale pharmacy licenses in several states last October, the shares of CVS and other drug store chains tanked. CVS is in talks to buy insurer Aetna for $69 billion.

Last year, Wal-Mart, the nation's largest private employer, entered talks with health insurer Humana. Wal-Mart has already expanded the pharmacy and health services it offers in its stores, adding cheaper generic drugs for sale, procedures like vaccinations and urgent-care facilities.

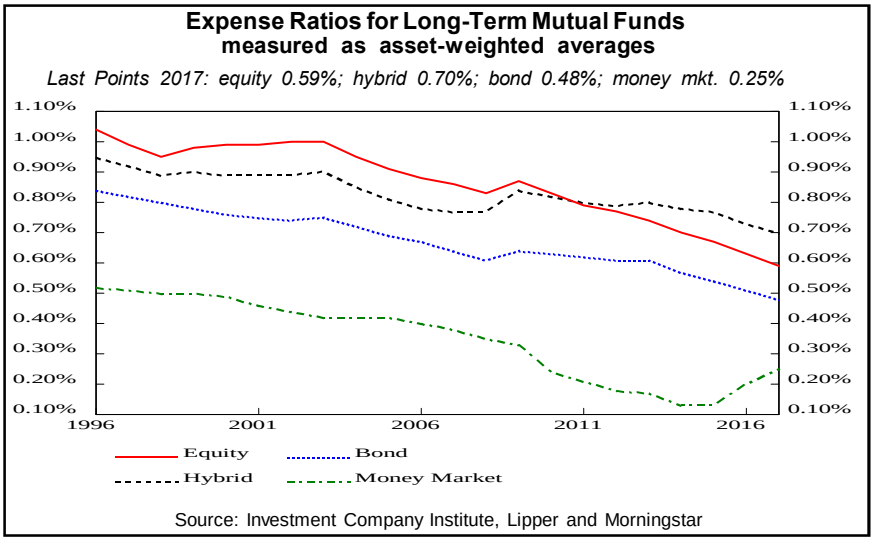
Furthermore, generics erode the pricing power of drug producers. Johnson & Johnson recently said that lower-priced copies of its prescription drugs will reduce its sales by $3 billion in 2019. It also expects continuing pressure on its average drug prices net of rebates and discounts. CEO Alex Gorsky said average net prices of J&J drugs in the U.S. declined between 6% and 8% in 2018, and expects this trend to continue

## Deflating Financial Services Costs

The recent death of our good friend Jack Bogle, the initiator of low-cost index mutual funds (see "Bogle's Strategy Works If...," page 41), highlighted the tremendous ongoing collapse in financial services fees.

The process started on May Day 1975 when lower trading fees from regional exchanges forced the New York Stock Exchange to end fixed commissions. That spurred competition, not only resulting in lower fees, although slowly, but also allowed investors to pick and choose among the "unbundled" services offered by brokers.

CHART 42

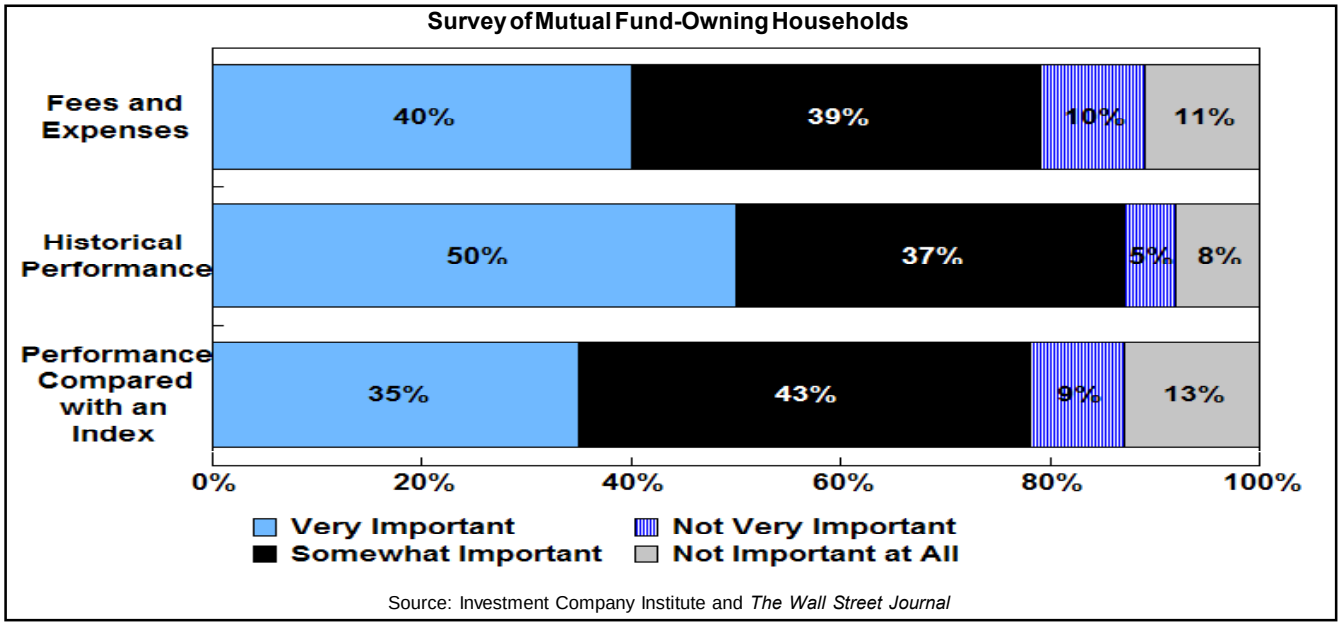



Back then, orders to buy and sell securities were often handwritten and transmitted by teletype, but subsequent electronic communications have reduced costs to essentially zero. Wall Street firms had no desire to slash their fees and incomes, but were ultimately forced to do so by discount brokers and online trading.

Further pressure arose from the fact that few active fund managers beat the broad stock market during its long climb from March 2009 until recently (Chart 6). On average, stock pickers underperformed the aggregate market by the extent of their fees, as you'd expect since, in aggregate, they represent the total stock universe.

The long and virtually uninterrupted bull market in stocks (Chart 6) convinced many that they should put their investments on auto-pilot with broad index mutual funds or exchange-traded funds. That era of stable, rapid equity advances is probably over, especially since its primary driver, the Fed, is now raising interest rates (Chart 3) and also tightening credit by selling off the huge portfolio it accumulated with quantitative easing (Chart 4). Also, with a recession looming, an equity bear market is probably in its infancy.

CHART 43



**Long-Lasting Changes**

So, active portfolio management may come back into favor. Meanwhile, however, in long overdue actions, investment fees have come into balance with costs, especially execution costs. In the future, higher fees will no doubt only be substantiated by superior performance. At present, fees for active equity management average around 0.6% (*Chart 42, page 19*) of assets compared to 0.1% for passive management.

Now, over 40% of assets in U.S. mutual funds and ETFs are indexed, up from 3% in 1995 and 14% in 2005. Also, 89% of mutual fund-owning households consider fees and expenses important when choosing investments compared to 87% who see higher performance as important (*Chart 43, page 19*).

In a competitive race to the bottom, major brokers Charles Schwab and Fidelity, among others, have slashed their fees per stock trade to $4.95. We can remember when the cost was $80 or more, but that was back before security brokerage became a commodity. As I began my August 9, 1999 *Forbes* magazine column, "The fact that Merrill Lynch will charge $29.95 for online stock trades is your clue to the future of the U.S. brokerage industry. Brokers have finally become a commodity, like gasoline at $1.259. Nothing with any exclusivity sells that way. Ever see a luxury hotel room listed at $299.95?"

**Asset Management Fees**

Now the deadly competition has moved on to asset management fees. Fidelity last August, in addition to slashing fees on its index funds, eliminated minimum account balances and offered funds with no fees to brokerage clients. That put the pressure on rivals such as Schwab and Vanguard.

A December 5 full-page *Wall Street Journal* ad compared Fidelity with Vanguard, the leader on low-cost funds and therefore the firm to challenge. It stated that Vanguard has none of Fidelity's zero-expense ratio index mutual funds, zero minimum investment in mutual funds, lower expense ratios on comparable stock and bond index mutual funds and 24/7 live customer service.

Vanguard isn't taking this challenge lying down, and last year eliminated online commissions on rival ETFs that it sells. For years, customers paid nothing to trade Vanguard's own funds, but the firm extended that no-fee service to 1,800 other ETFs offered by competitors such as BlackRock, Schwab and State Street Global Advisors. Obviously, Vanguard acted to attract more funds. Fidelity's brokerage unit allows clients to do the same thing with 95 ETFs run by Fidelity or BlackRock.

Even blue-blood JP Morgan is now offering free trades for online customers as the firm seeks to attract first-time investors, including millennials as well as customers of the bank who invest elsewhere. No account minimum balances are required. Earlier, the bank charged $24.95 per online trade.

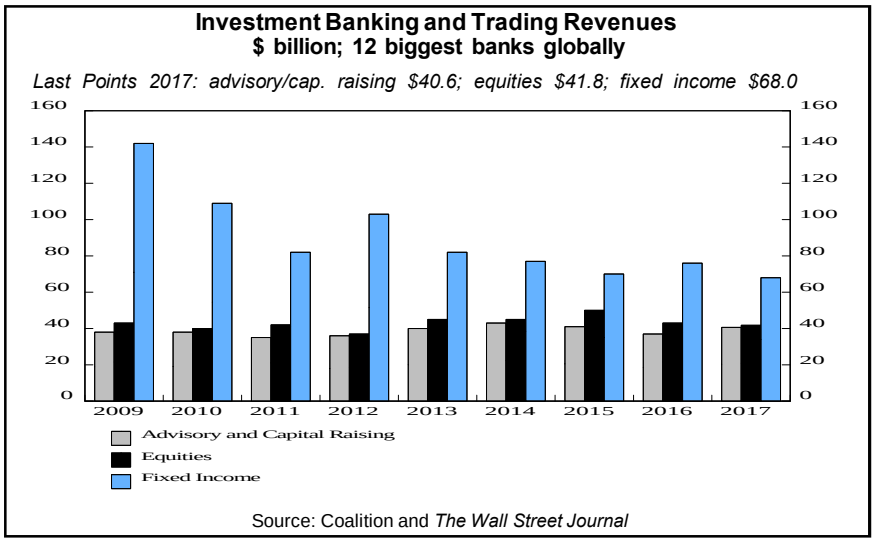
**Drawbacks**

Free online trades do have their drawbacks, however. The Robinhood Markets app has attracted young and inexperienced traders with free costs and the ability to win free shares for recruiting friends. Since launching in 2013, it has gained 6 million clients, one million alone since July. This encourages frequent trading in low-priced stocks. Like

most e-brokers, however, Robinhood does gain revenues by selling client orders to high-speed traders.

A price war has also emerged in the $3.5 trillion ETF industry since 2012 when BlackRock initiated its ultra-cheap iShares Core ETFs to combat the rapid gains made by Vanguard's low-cost funds. In 2014, Schwab reduced the fees on its Schwab US Broad Market ETFs to just 0.04%. State Street was forced to follow with fee cuts in 2017. Investors have forsaken pricier mutual funds for the cheapest ETFs as their fees fall, and now run 0.03%, or 3% per $10,000 in assets.

CHART 44




Source: Coalition and *The Wall Street Journal*

ETF management fees will probably fall further due to economies of scales as they attract more funds and become increasingly automated. Negative fees are even possible since ETF managers get paid for lending their securities to short-term borrowers who want to sell them short.

**Robot Advisors**

Furthermore, low-cost automated investment-advisory services, robo accounts sponsored by smaller firms like Wealthfront and Betterment, are being challenged. Since 2015, Vanguard, Schwab and Wells Fargo have entered the fray. Morgan Stanley in 2017 launched its robo advisor with a 0.35% annual fee that it hopes will attract a new generation of clients. Vanguard's robo advisor fee is 0.3% and Schwab's no-management fee accounts. Morgan Stanley also cut the maximum fee for human advisors from 2.5% to 2.0% but many advisors charge 1% annually on assets and less for larger accounts.

Taking the fee race to the bottom one step further, Aperture Investors last year started only charging fees higher than those on ETFs if they beat the market. Furthermore, its asset managers are paid based on how they perform against the market. Other firms, including AllianceBernstein, have "fulcrum funds" whose fees approach ETF levels when their results are poor.

**Pay-For-Performance**

Pay-for-performance is being spurred by the competitive fee plunge to the bottom, but isn't new. Portfolio managers' bonuses often are linked to their success. Some institutional investors such as pension funds increase fees for managers who outperform. Hedge funds collect performance fees, percentages of the gains in the accounts they oversee, in addition to basic management fees.

In their heyday, hedge funds typically charged "2 and 20," a 2% management fee and 20% of the profits, sometimes measured as the excess over a "hurdle rate" such as the return on Treasury bills. Investors didn't want to pay a performance fee to a hedge fund that rolled Treasury bills. But despite investors' zeal for return, reflected in the still-growing assets in hedge funds, they have consistently underperformed, on average, the broad U.S. stock market since the financial crisis (Chart 22). So the fees for laggards are under pressure, with many charging 1.5 and 15 or 1 and 10.

Fees linked to performance do align the interests of portfolio managers with that of their clients, but it also can lead to excessive risk-taking for managers who are behind. To combat this possibility, some firms link fund managers' pay to their performance over five years so only one year's bad results would be averaged out.

**Withdrawals**

Still, in the case of hedge funds, fickle investors are unlikely to still be aboard after a string of bad luck. David Einhorn's Greenlight hedge fund lost 34.3% last year compared to the 4.4% drop in the S&P 500 index. From 2009 through the end of last November, Greenlight gained 48%, just 17% of the S&P 500's 277% jump. So as investors gave Greenlight the red light and departed, its assets under management plunged from $12 billion in 2014 to $2.5 billion.

Underwriting fees for stock and bond issues have traditionally been a very lucrative $7 billion/trillion-a-year business for big Wall Street firms. Past attempts by outsiders to break the fee structure have been unsuccessful. It seems that CEOs of issuing companies want the assurance of a major and well-known underwriter. Besides, the

investment banking fees are paid out of the offering, not from that executive's own pocket. Also, those fees bundle advice on market conditions and the feasibility of issuance with the riskier business of underwriting the deals.

Now, however, delayed initial public offerings that generate big underwriting fees for banks and their competitors have slashed their revenue for U.S. stock offerings and related deals by 38% since 2000 (*Chart 44, page 21*).

And cheap computing power and reams of market data allow small shops, even sole bankers, to compete with the major firms. Vijay Culas, a former Goldman Sachs banker, set up shop in 2014 and last year helped Twitter negotiate with its banks and ultimately sell a hybrid bond for a 1% fee, one of the cheapest offerings in recent history.

**Work For Free**

Fierce competition to underwrite debt offerings in Asia's booming U.S. dollar bond market is forcing big global banks to work on deals for next to nothing. Three Indian companies paid one dollar in underwriting fees to each bank that handled the sales. State-owned Chinese companies also have large pools of underwriters to choose from and are stingy on fees.

The banks accept little or no fees due to fierce competition and in hopes of building relationships that will pay off in future deals. They also want to move up in the "league tables," which rank banks by deal volume. Higher rankings often make them more desirable to corporate clients.

Furthermore, a group of major financial firms including Fidelity, Citadel, Vitru, Schwab, UBS, Merrill Lynch, E*Trade and TD Ameritrade have initiated a low-fee stock exchange to challenge the New York Stock Exchange, Nasdaq and Cboe Global Markets fee-promoting cartel. These firms have for years been frustrated by the high fees charged by the NYSE and Nasdaq and, therefore, these nine banks, brokerages and high-frequency trading firms launched Members Exchange, or MEMX.

Brokers looking to save costs could be drawn to MEMX because of high and rising charges by the major exchanges for services such as the data feeds brokers use to monitor stock prices and connectivity. IEX estimates that the big three's charges are 10 to 19 times its own costs for market data and up to 41 times its costs for physical connectivity. A separate study found that in 2018, brokerage firms paid 10-to-30 times more than in 2010 to receive the same market information.

**SEC Action**

The SEC has finally challenged the rising prices of exchange-provided financial data prices as technological advances push down its cost. Earlier, the SEC routinely approved fee increases, some of which tripled between 2013 and 2018. Last October, however, it unanimously rejected two requests to raise fees for certain NYSE and Nasdaq data that puts into limbo over 400 other market-data fee increases.

Brokers that serve individual and institutional investors are essentially required by SEC rules to buy that data. With continual fee increases, exchange fees for data rival NYSE and Nasdaq revenues from executing trades, which has shrunk as low-cost competitors siphon off business. From 2014 to 2017, annual revenues from market-data services for the NYSE parent Intercontinental Exchange, Nasdaq and Cboe Global Markets leaped 45% to $2.3 billion.

Cheap and readily-available financial data is also squeezing bank revenues by squashing the differences between buying and selling prices. Price transparency is also destroying their power to generate and sell market information. These forces have been condensing equities revenue for years, but it's continuing and spreading to bonds and derivatives trading, research and merger-and-acquisition activity. Morgan Stanley foresees a $20 billion loss in global revenues from equity and debt trading over the next several years, continuing the recent trend (Chart 44).

**Fractions vs. Decimals**

A similar contraction of trading revenues occurred some years ago when the SEC mandated a switch in minimum trading spreads for fractions of a dollar per share to decimals. The minimum had been 1/8, or 12.5 cents, but collapsed to 1 cent. Over-the-counter traders who previously could buy 100 shares of a $10 per share stock and then immediately sell it at $10.125 per share realized a $12.50 profit. With the rule change, their spreads shrank to $1, and that drove away many traders into other areas, often involving much more risk.

At the time, I was oblivious to this shock to traders, despite their understandable uproar. I simply thought that switching from fractions to decimals made accounting easier and said so on a visit to my old friend Arthur Levitt in his office in Washington when he was Chairman of the SEC. You can imagine my embarrassment when Arthur explained the significance of the SEC move to cut unnecessary costs to investors.

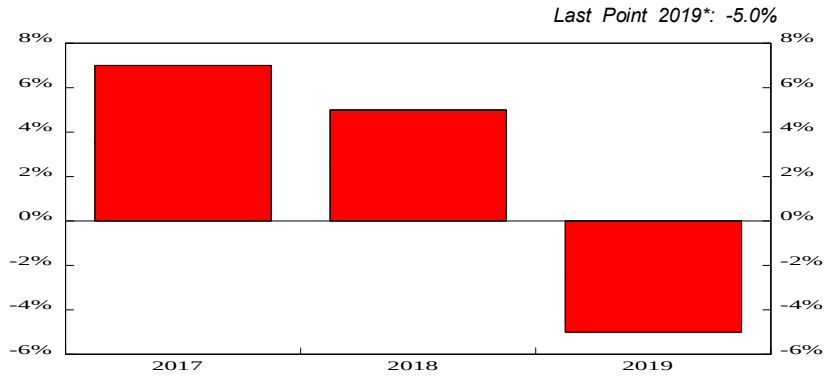
**Cost-Cutting**

With all these downward pressures on fees, it's not surprising that money managers and brokers are slashing their costs.

The decade-long rally in stocks (Chart 3) papered over some of those troubles, but with that rally turning to weakness if not a serious bear market, heat should intensify.

As Oppenheimer Funds and Invesco merge this year, they are expected to cut the combined workforce by 1,000. T. Rowe Price is planning to close its operations center in Tampa. BlackRock, the world's biggest money manager, is scrutinizing more closely costs involved with interval staff meetings. Asset management bonuses are estimated to be down 5% this year (*Chart 45*).

**CHART 45**




* Estimated Source: Johnson Associates and *The Wall Street Journal*

State Street, which provides bookkeeping and other back-office services to nearly 90% of the biggest investment firms, is stepping up its years-long cost-cutting efforts by automating parts of its operations. Some 100 senior management jobs are being eliminated.

Last year, Merrill Lynch began clawing back pay for about a third of its brokers who didn't meet minimum growth targets for net new assets growth and new costumer acquisition. Failure to meet targets would cut pay this year by 8%. Traditionally, Merrill Lynch and its competitors rewarded growth instead of penalizing the lack of it. Also, broker pay on existing business is being cut 3%. Furthermore, the firm is also pushing brokers to cross-sell other parent Bank of America's products like checking accounts, wealth management and new mortgages.

**CHART 46**

**Recession Forerunners**

1. Output exceeds capacity
2. Stocks fall
3. Central banks tighten
4. Yield curve inversion near
5. Junk bond-Treasury yield spread opens
6. Housing activity declines
7. Corporate profits growth falls
8. Consumers are optimistic
9. Global leading indicators drop
10. Commodity prices decline
11. Downward data revisions
12. Emerging-market troubles mount
13. U.S.-China trade war escalates

**Economic Weakness**

In addition to all the deflationary forces we've covered so far, the increasing likelihood of weak global economic growth if not recession adds to the list. Last month's *Insight* article, "2019 Outlook: Recession Ahead," made it clear that the usual precipitator of recessions—a severe credit squeeze by the Fed or a financial crisis such as the busting of the late 1990s dot com bubble or the financial meltdown touched off by the subprime mortgage collapse in the mid-2000s—are lacking. Still, a number of recession forerunners are present. That report covered 13 of them (*Chart 46*).

**CHART 47**

**World GDP Projections**

| | Current Projection | | Previous Projection | |
|---|---|---|---|---|
| | 2018 | 2019 | 2018 | 2019 |
| **IMF** | 3.7% | 3.7% | 3.9% | 3.9% |
| **World Bank** | 3.0% | 2.9% | 3.1% | 3.0% |

Since then, new data reinforce the case for a worldwide economic retrenchment, although much information is yet to be released because of the federal government shutdown—. The International Monetary Fund and World Bank have both cut their projection for world GDP growth for just-concluded 2018 as well as 2019 (*Chart 47*). The Organization for Economic Cooperation and Development's total index of leading indicators, covering almost all global output, continues to slip (*Chart 48, page 24*) and has fallen for 12 consecutive months. The Baltic Dry Index, which measures worldwide dry cargo shipping, is falling rapidly (*Chart 49, page 24*). Global debt, now over 300% of GDP (*Chart 50, page 24*), spurred spending as it exploded but is now a drag on growth as debt service costs mount.

A major constraint on economic growth is uncertainty over government policies, and the Economic Policy Uncertainty Index has been leaping (*Chart 51, opposite page*). The index relies on newspaper coverage of policy-related economic uncertainty, federal tax code provisions set to expire in future years and disagreements among economic forecasters. Since 2008, this index has average about twice its earlier norm even before the recent jump.

Japan's preliminary manufacturing purchasing managers index dropped from 52.6 in November to 50.0 in December, the lowest since August 2016. The 50 level is the dividing line between growth and decline. The eurozone composite PMI fell to a five-and-a-half-year low of 50.7 in January from 51.1 in December. That level is consistent with GDP growth of just 0.4% at annual rates. The new orders component, at 49.3, suggests further weakness ahead.

Forecasters surveyed by the ECB cut their forecast for eurozone growth this year from 1.8% to 1.5% and 1.6% next year. They cited "disappointing economic data at the end of 2018 and therefore less momentum going into 2019….and lower global activity weighing on trade."

France's economic growth last year fell significantly to 1.5% from 2.3% in 2017 and it may be lower in view of the fight between President Emmanuel Macron's attempt to modernize the economy and the yellow-vest street protesters. The German government cut its growth forecast for this year from 1.8% to 1%, citing mounting geopolitical and trade risks. Add in the likelihood of a messy Brexit and the eurozone's economic sentiment indicator—a measure of business and consumer optimism—falling to its lowest level in over two years. Meanwhile, with softening global economies and the multiplier effect on trade, U.S. import prices fell 1% in

**CHART 48**

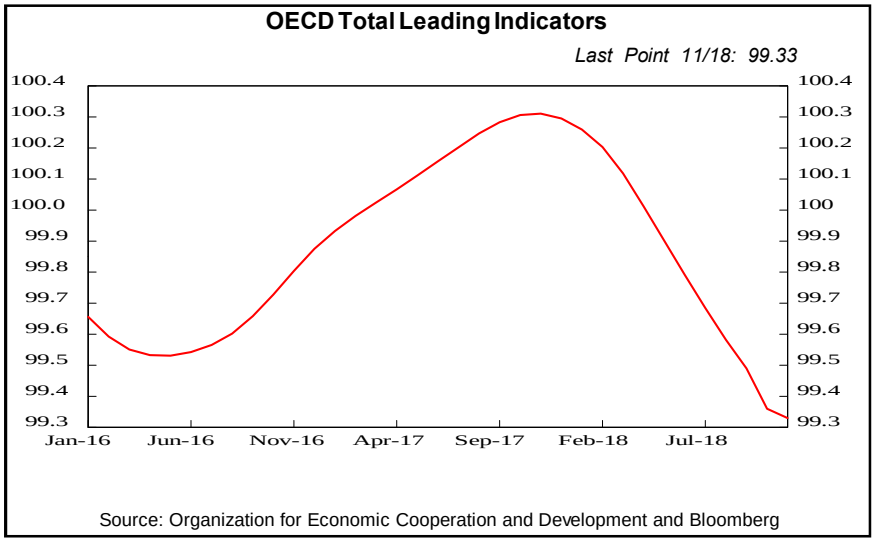



**CHART 49**

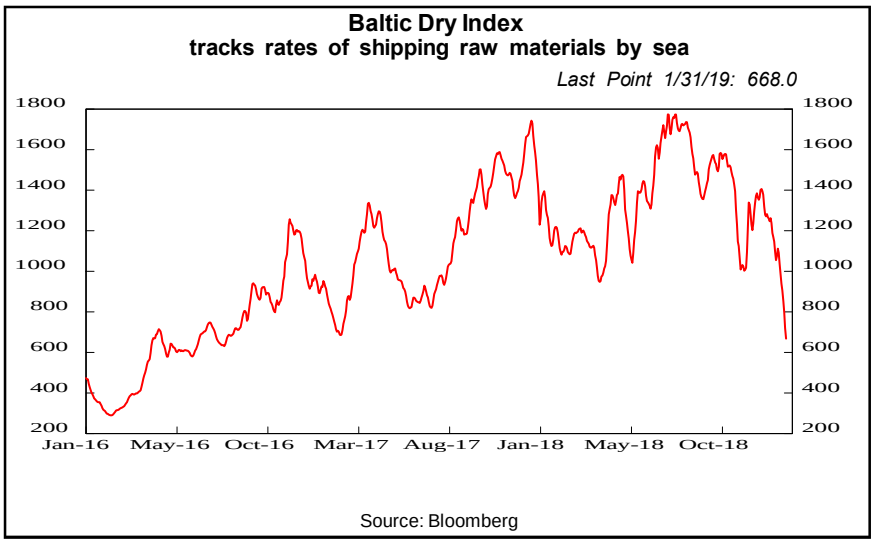
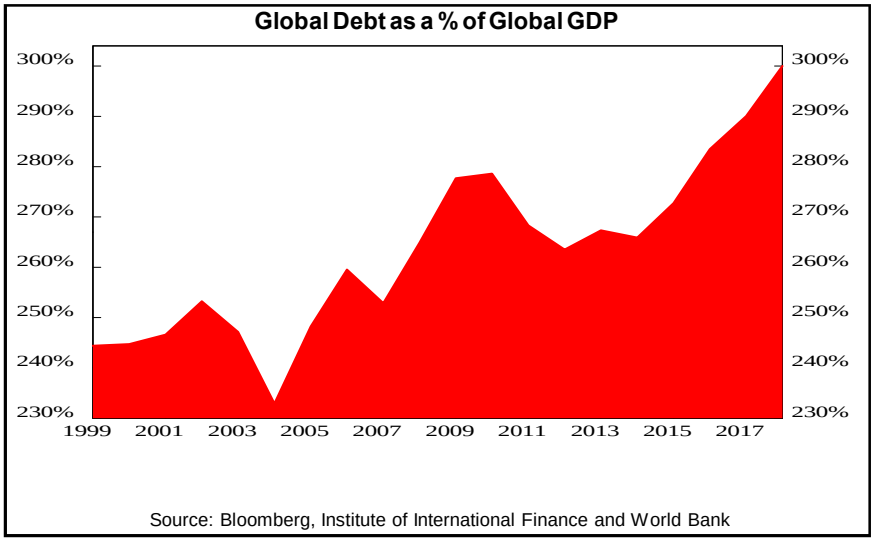



**CHART 50**



December after November's 1.9% plunge (*Chart 52*).

**Slowing China**

China's real GDP growth slowed to 6.6% last year, and even lower, 6.4%, in the fourth quarter vs. a year earlier (*Chart 53*), and we must caution once again that China's economic performance is overstated by her government. That's probably always been true as statisticians strive to please Chinese leaders with rosy numbers, but there must have been less pressure to do so when China's growth was much higher, before the Great Recession, than at present when even stated growth rates are about half as large. Note that China's official purchasing managers index in her export powerhouse Guandong mysteriously disappeared.

Last year's growth in China got a boost from exports by companies that wanted to get ahead of further increases in U.S. import tariffs. The reverse is now in progress, as shown by the 4.4% drop in December vs. a year earlier (*Chart 54, page 26*). Imports were also affected and dropped more, 7.6% in December, suggesting that domestic Chinese demand is falling.

In addition to the U.S.-China trade conflict, declining global demand growth is curbing China's exports. *The Wall Street Journal* estimates that overall weakening trade cut China's overall economic activity by 8.6%. In contrast, robust trade contributed 9% to China's economy in 2017.

Manufacturing, major capital investments by government and business, property sales and consumer spending are all regressing. China's manufacturing sector continued the decline that commenced in 2017 because of lower private-sector investment. In the fourth quarter, revenue growth slowed or stagnated in every sector of the economy, according to the central bank's survey.

**CHART 51**

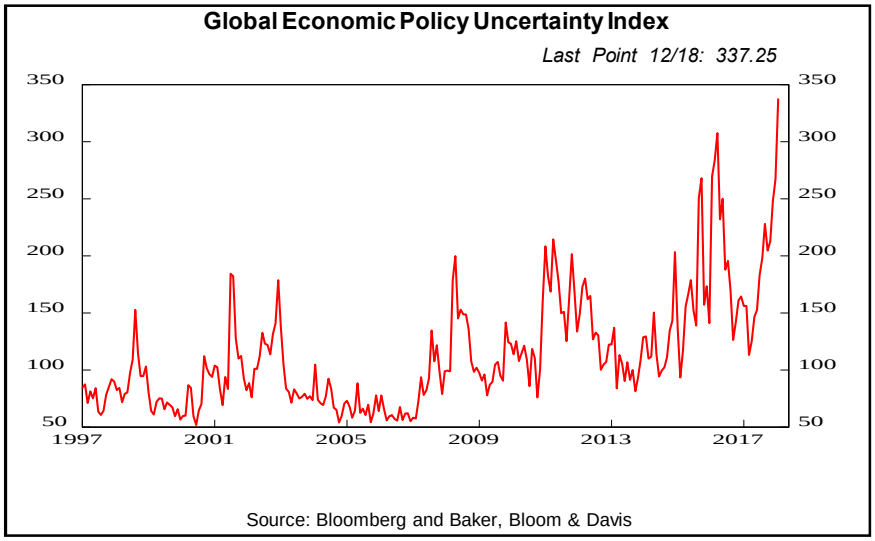



**CHART 52**

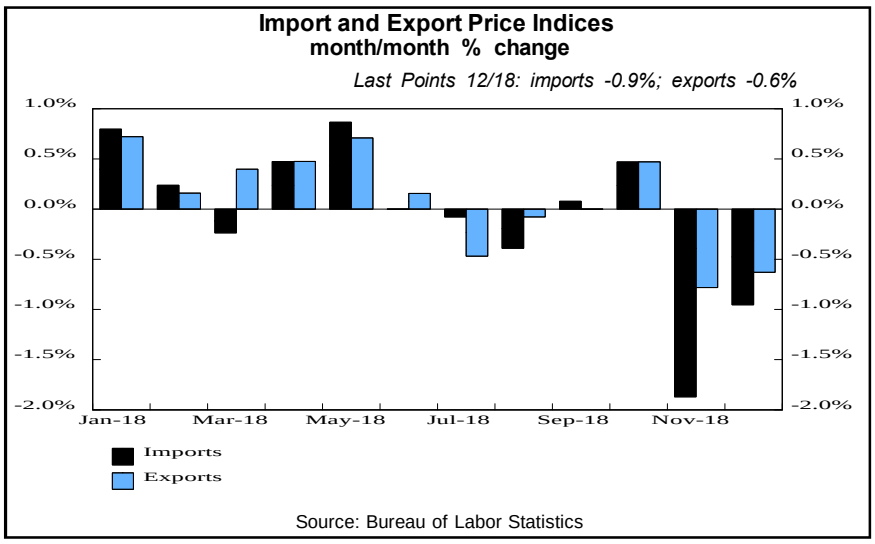
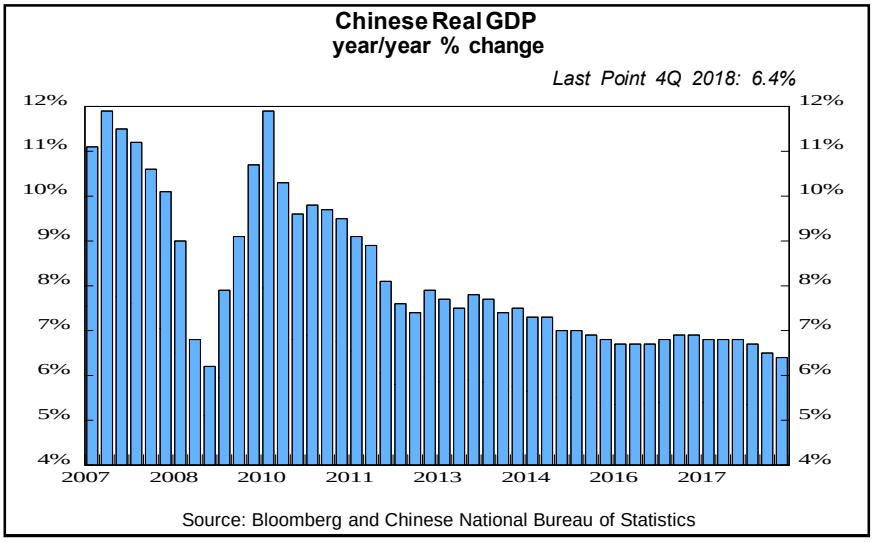



**CHART 53**



## Weak Car Sales

Chinese passenger vehicle sales fell last year for the first times since 1990, by 4.1% to 23.71 million despite the 62% surge in electric car sales to 1.26 million. Auto sales declined in each of the last six months of 2018 at an accelerating rate (*Chart 55*). Consumers in China are de-emphasizing luxury and big-ticket purchases in favor of basic items. Consumer sentiment has suffered from worries over looming U.S. tariffs, the slowing property market and the collapse of many peer-to-peer lenders. Softening wage growth and rising household debts are also causing Chinese consumers to retrench. Disposable income for urban residents rose 5.6% last year, down from 2017's climb of 6.5%. Chinese provincial governments are delaying tax changes that might discourage employment, suggesting the job market is beginning to weaken.

Easy credit supported economic growth in the past but is increasingly reaching its limits as debt levels continue to climb. Note in *Chart 56* that total Chinese debt leaped from 160% of GDP in 2008 to 266% in 2017, and will no doubt be higher when 2018 numbers are reported. For years, Beijing's policies have favored inefficient state-owned enterprises with lots of credit, but that constricted resources and battered confidence in the private sector, the source of growth, jobs and innovation.

## Starved For Credit

Chinese private companies are starved for credit especially since Beijing's crackdown on nonbank "shadow finance," which actually fell an unprecedented 10% last year. Since 2010, the government has favored government-controlled companies, so private enterprises, which account for two-thirds of the economy, receive only a third of net new lending. Despite recent cuts in China's central bank benchmark interest rate and lower reserve requirements for banks, the growth in

**CHART 54**

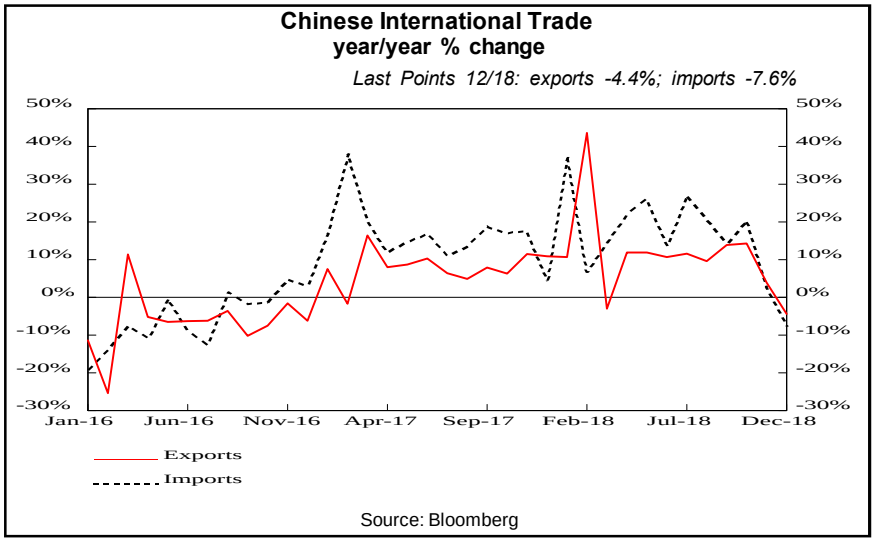



**CHART 55**

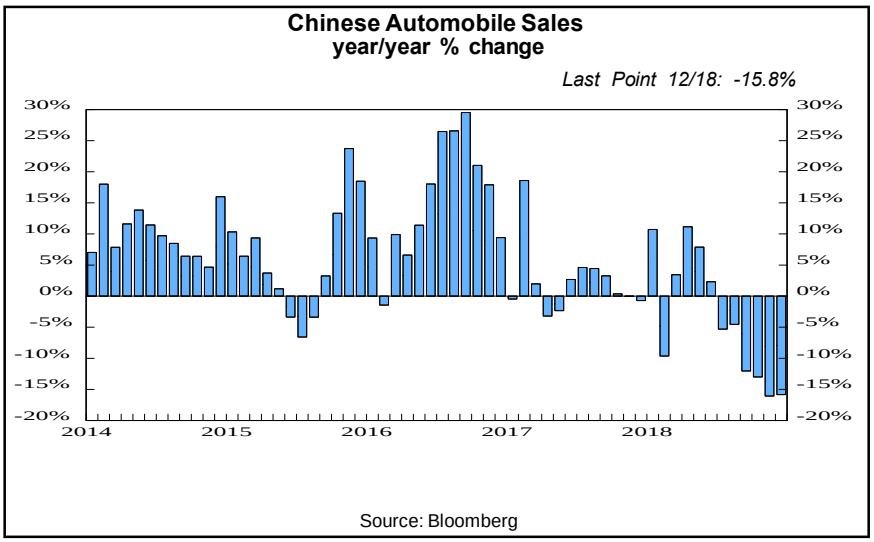
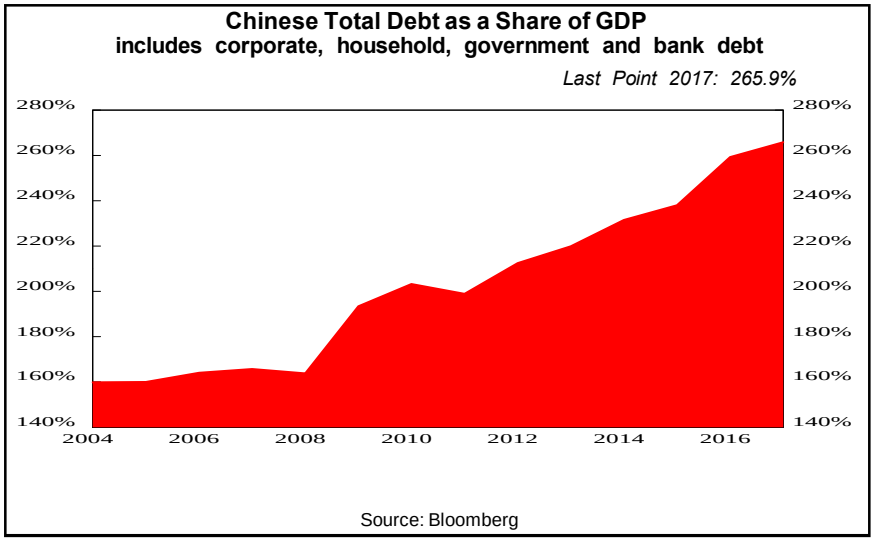



**CHART 56**



net nonfinancial fundraising fell in December to 9.8%, the lowest in more than a decade.

Not surprisingly, Chinese corporation have been issuing junk bonds to the extent that they exceeded U.S. junk issues in November and December. An index of Chinese corporate junk bonds has an effective yield of 10.5% compared to 7.1% in the U.S.

**Foreign Effects**

Receding growth in China, the world's second-largest economy, obviously has significant implications for other countries. Since the U.S. imports much more from China that she exports to that country (*Chart 57*), the economic slowdown in China has limited effects on America. In contrast, Germany not only depends more heavily on exports overall—goods exports account for 40% of German GDP vs. 10% for the U.S.—but especially to China (*Chart 58*), which is her biggest trading partner.

Germany almost alone among Western countries has cracked China as an export market for her high-end cars and capital goods. Not surprising, her export growth to China in November slowed to 4% year-over-year from double-digit levels earlier in 2018. Largely as a result, the German economy fell in the third quarter of last year and barely rose in the fourth quarter (*Chart 59*). Estimates are that, for the year, Germany's GDP rose 1.5%, down from 2.2% in 2017, and industrial production fell 1.9% in November from October.

Germany's IFO Business Climate Index fell from 101.0 in December to 99.1 in January, largely because of the drop in the business expectations component. The IMF cut its 2019 full-year growth estimate for Germany sharply from 1.9% to 1.3%. Australia's PMI dropped to 51.5 in January from 52.9 the month

*(continued on page 31)*

**CHART 57**

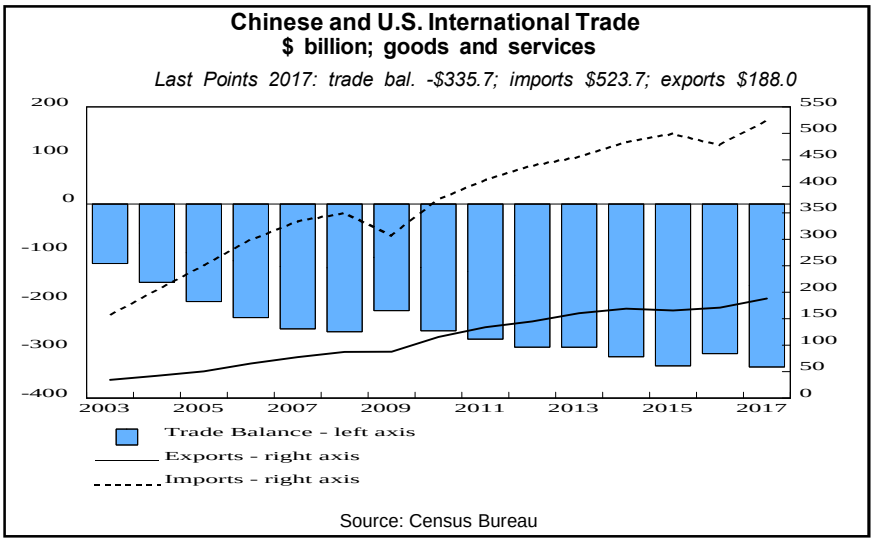



**CHART 58**

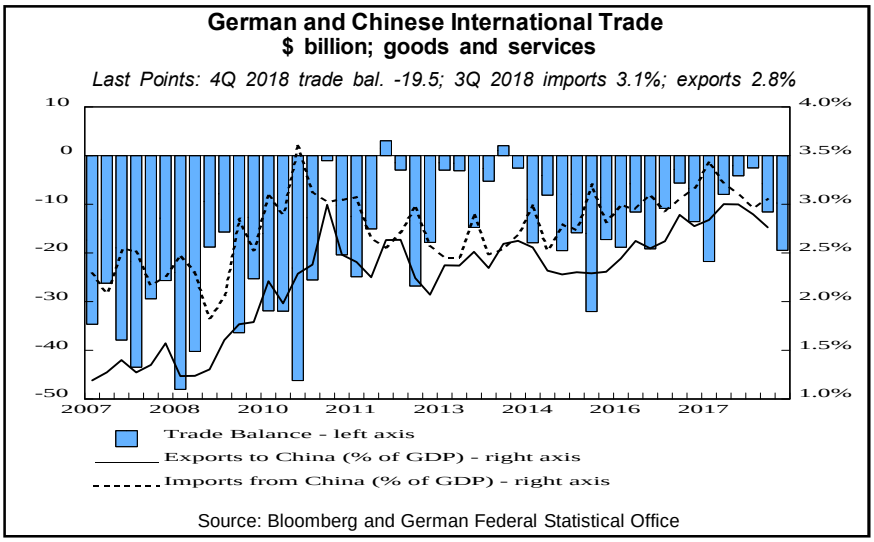
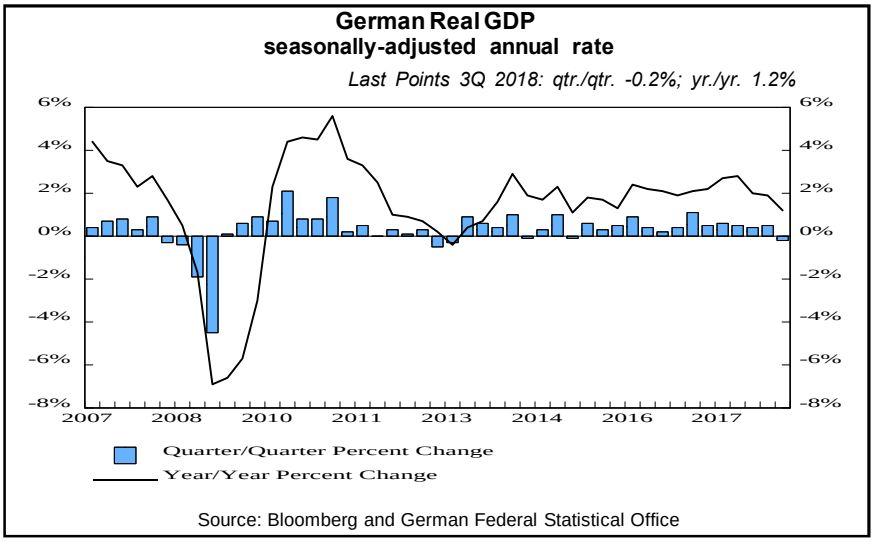



**CHART 59**



# INVESTMENT THEMES

**Our Investment Themes section reflects ideas that may serve as the basis for investment decisions within client portfolios. We actively manage client portfolios during the month, and any ideas underlying portfolio changes will not be shown in *Insight* until the following month's report.**

With the probability of a recession this year growing and subdued inflation, the Federal Reserve has moderated the credit-tightening campaign it commenced in December 2015. It's still reducing its portfolio and may well resume rate increases unless the economy tanks, however.

Investors' immediate reaction to the Fed decision at its January 29-30 policy meeting not to raise its policy rate was "All clear! Risk on!" without any concern that this pause may be because the central bank thinks it may have already overdone credit-tightening. The Fed often shifts from credit-tightening to ease even before business cycle peaks, once it realized it's done the recessionary deed.

This is a treacherous investment environment in which caution is a virtue and cash is king. In these conditions, our investment themes are essentially the same as last month.

Our Suggestions

1. Long the dollar, which is a global safe-haven and benefits from trade war uncertainties.

2. Sell U.S. overall market indices as it increasingly appears that the long bull market that commenced in March 2009 is over and a bear market is underway.

# INVESTMENT THEMES

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3. Short commodities such as copper as the dollar rises and demand weakens as the Chinese and other economies sag. Also, short crude oil with supply exceeding demand for the foreseeable future, but actions by OPEC, Venezuela and Washington can disrupt the fundamentals of petroleum.

4. Long Treasury bonds. They, like the dollar, are a safe-haven in a sea of global trouble. Still, spillover from Fed-led rises in short-term rates is a partial offset. In any event, investors are weighing pro Treasury bond forces such as deflationary pressures and Treasurys' safe-haven status more heavily than Fed tightening, as witnessed by the less-than-normal spillover from central bank rate increases to Treasury bond yields.

5. As an anchor to windward, we continue to suggest small long equity positions in defensive sectors such as health care, consumer staples and utilities.

6. Long small positions in aerospace and defense stocks in view of continuing saber-rattling by Russia, China and North Korea as well as never-ending Middle East turmoil.

7. Sell emerging-market stocks and bonds. We favor this theme in view of the dollar's strength, which depressed developing country currencies and their ability to service their huge dollar-denominated debts and pay for dollar-based commodity imports.

8. Short Bitcoin, which more and more looks like a giant Ponzi scheme and is only justified by illegal uses.

9. In the current uncertain investment atmosphere, we suggest a heavy cash position.

# Summing Up

Shaking off a December to forget, investors started off the new year looking on the bright side of life—namely that the U.S. economy may not be on the verge of tipping into recession, that the Federal Reserve isn't as hell bent on hiking interest rates much further and that a resolution of trade issues between the U.S. and China may be in the offing. So they mostly shook off concerns about the health of economies in the U.S., China and the eurozone, the ongoing Brexit woes in the U.K. and the negative effects of the 35-day federal government shutdown, which also prevented various economic data from being released.

In the wake of Trump's shutdown, some estimates showed the U.S. economy taking a hit of several billion dollars, leading several banks to cut their first quarter GDP forecasts, with Barclays cutting their estimate from 3% to 2.5, Bank of America from 2.2% to 2.0%, JP Morgan from 2% to 1.75% and Morgan Stanley from 2.5% to 1.7%. A survey by Bank of America of fund managers found that 52% expect global profits to deteriorate—the highest level since 2008—while 60% see global growth weakening in the next 12 months.

Yields on 10-year Treasury notes barely budged last month while the dollar was slightly weaker vs. the euro and the yen.

"Patience" is the Fed's new mantra—and investors were cheered by the repeating of that mantra last month. After its January 29-30 policy meeting when it left its fed funds rate unchanged, the Fed stated that "in light of global economic and financial developments and muted inflation pressures," it "will be patient as it determines what future adjustments to the target range for the federal funds rate may be appropriate." After the meeting, Chairman Powell said the Fed is "patiently awaiting greater clarity" on matters such as Brexit, the trade dispute with China, the impact of the partial government shutdown and the markets. "Over the past few months," he said, "we've seen some cross-currents and conflicting signals about the outlook." Emphasizing the new Fed-speak, Powell added that "we believe we can best support the economy by being patient before making any future adjustment to policy."

Earlier in January, Powell said low inflation would allow the central bank to be "patient" in deciding on future rate hikes. A few days later, he told an audience that the Fed "has the ability to be patient and watch patiently and carefully as we watch the economy evolve." He sure likes the word "patient"!

Falling fuel costs helped keep inflation in check in December, with consumer prices dipping 0.1% and rising just 1.9% for all of 2018. Core CPI was up 0.2% and up 2.2% for the year. Producer prices fell 0.2% in December and rose for all of 2018 by 2.5%. Core PPI was flat in December and up 2.8% for the year. Crude oil prices ticked back above the $50 per barrel mark last month as Saudi Arabia announced plans to cut exports in an effort to boost prices while Venezuela's woes deepened.

Monthly retail sales figures for December weren't released, but several private groups painted a rosy picture of the holiday shopping season. IHS Markit estimated a 5% increase in retail sales in November-December vs. a year earlier while Mastercard SpendingPulse saw a 5.1% increase in online and in-store sales between November 1 and December 24 vs. the year-earlier period. We'll be watching retail sales numbers to see if rising interest rates and the government shutdown will cut into further strong spending gains. Reports suggest that sales growth faltered late in the season.

Nonfarm payrolls rose by 304,000 in January while the national unemployment rate bumped up to 4.0% from 3.9%. Average hourly wages increased 3.2% year-over-year while the labor participation rate edged up to 63.2% from 63.1%.

The only housing data available last month was for existing home sales, which fell 6.4% in December vs. November. For all of last year, existing home sales fell 3.1%, their weakest showing since 2015. The median price of $253,600 was up 2.9% from a year earlier.

The S&P/Case-Shiller 20-city house price index rose 4.7% in November—the slowest rate of increase since early 2015. The National Association of Home Builders' confidence index edged up in January to a 58 reading from 56 in December.

The University of Michigan's consumer sentiment index dropped to 91.2 in January from 98.3 in December. The Conference Board's consumer confidence index dropped to 120.2 in January from 126.6 in December.

*Fred T. Rossi*
*Editor*

**THE NUMBERS**

| | Jan. 2019 % Change* | Year-to-Date % Change |
|---|---|---|
| Dow Jones Industrials | +7.2% | +7.2% |
| S&P 500 | +7.9% | +7.9% |
| Nasdaq Composite | +9.7% | +9.7% |
| Nikkei Average | +3.8% | +3.8% |
| STOXX Europe 600 | +6.2% | +6.2% |
| Shanghai Composite | +3.7% | +3.7% |
| FTSE 100 | +3.6% | +3.6% |
| | **1/31/19** | **12/31/18** |
| 10-yr. Treasury note | 2.63% | 2.69% |
| $=¥ | 108.83 | 109.62 |
| €=$ | 1.15 | 1.14 |
| West Texas Inter. | $54.02 | $45.41 |

**through Jan. 31*

# Deflation

*(continued from page 27)*

before, the lowest reading in its 35-year history and reflecting that nation's close ties to decelerating China.

American firms are also being depressed by the economic slowdown in China. Caterpillar, with 10% of its sales in China, expects sales of excavators and other construction-related equipment in China to be flat this year. Sales to Asia are already falling (*Chart 60*). PPG Industries reported that its castings for cars made in China fell 15% in the fourth quarter. 3M, with 10% of its sales in China, recently lowered its profit outlook for this year. Corning expects declines in demand from Chinese car and television makers. The strong dollar and higher costs resulting from tariffs on some foreign goods like steel and aluminum are also troubling U.S. multinationals.

### Growth Limits

We noted last month that China's longer-run growth is limited by the future declines in her working-age population as a result of her earlier one child-per-couple policy (*Chart 61*). Also, China's growth will also be limited in future years as she approaches middle-income status—the "middle income trap." From the supply side, she grew by putting unemployed and underemployed people to work, moving many from the hinterland to coastal cities. Furthermore, China promoted productivity by emulating Western technology as well as stealing it and forcing technology transfers as the gateway for Western firms doing business in China.

But China is catching up and Trump is insisting on less tech transfers and tech theft. China will rise to the point of South Korea, which also used Western technology to grow in earlier years but now has reached the level that rapid growth is no longer possible. Notice

**CHART 60**

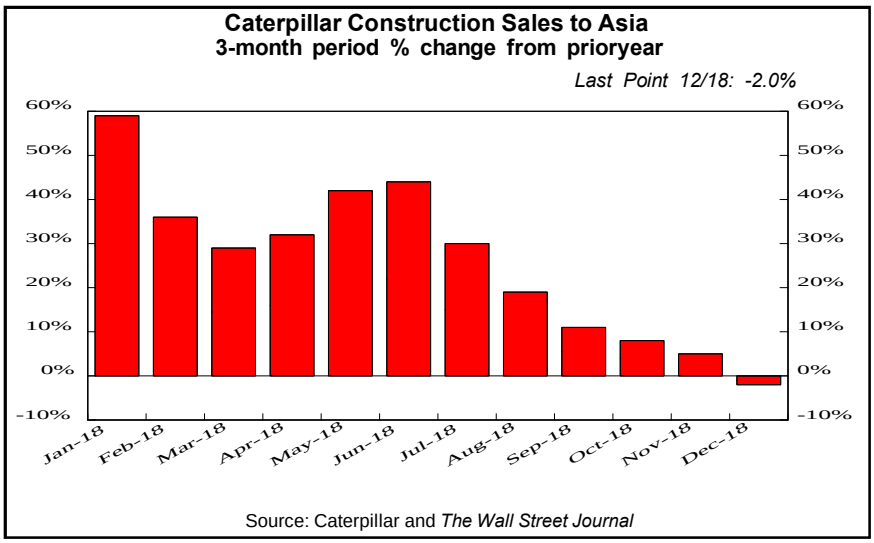



**CHART 61**

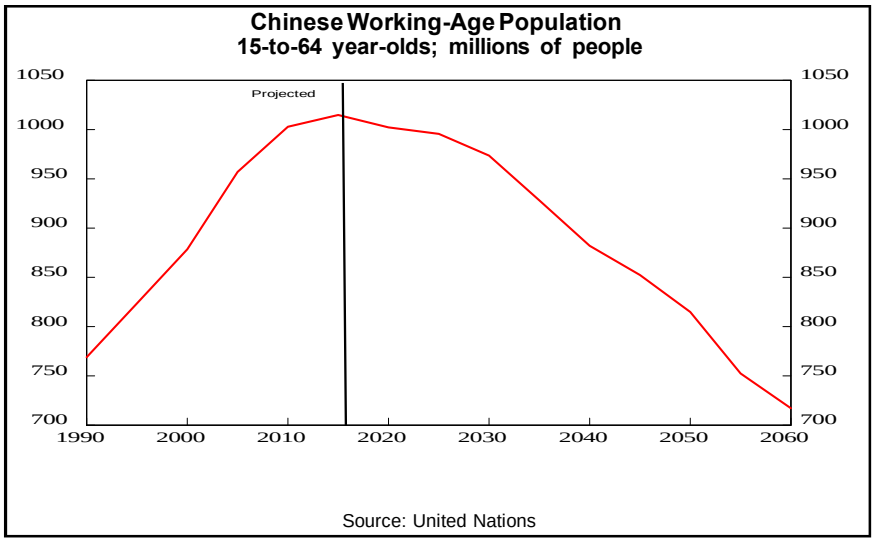
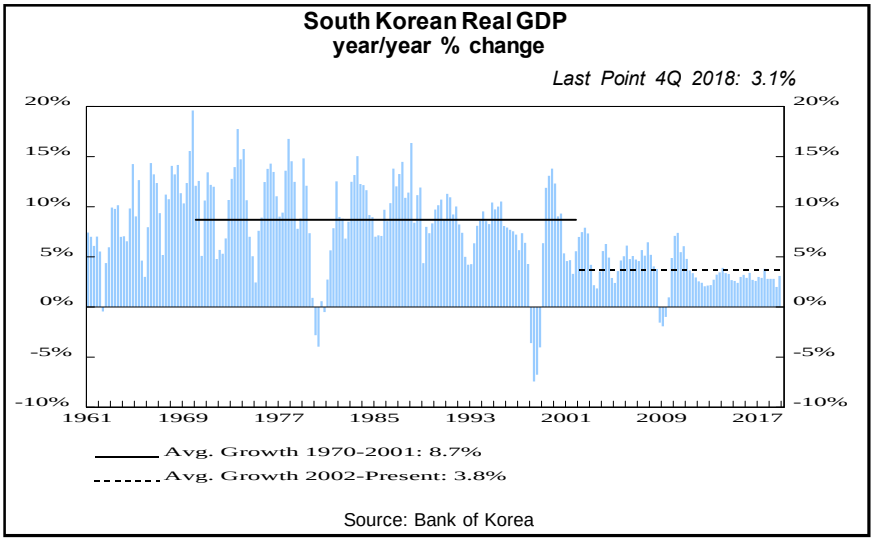



**CHART 62**



(*Chart 62, page 31*) that between 1970 and 2001, real GDP there rose an average 8.7% per year but has subsequently cooled to a 3.8% average and just 2% in the third quarter of last year.

**Shifting Supply Chains**

An additional threat to Chinese growth is the shifting of manufacturing supply chains to other Asian countries to avoid U.S. tariffs on Chinese exports. The longer the U.S.-China trade spat persists, the more intense the shift, which puts further pressure on China to settle with Trump.

Foxcomm, Apple's largest iPhone assembler, is considering producing that device in India, a move that would reduce Apple's dependence on China. That would also position Apple to better serve the Indian market where only about one-quarter of consumers own smartphones. Foxcomm has also been studying Vietnam as a production site.

**Commodity Weakness**

As discussed last month, weakening demand for commodities and the resulting drop in prices is a normal forerunner of recession. Copper is an excellent indicator of global goods production since it's used in everything from autos to machinery to computers to plumbing fixtures. Copper prices are almost entirely determined by supply and demand. Unlike crude oil, there is no cartel on the supply side that influences supply, and unlike sugar, there are no import quotas as in the U.S. that influence prices. Copper prices continue to fall (*Chart 63*).

CHART 63

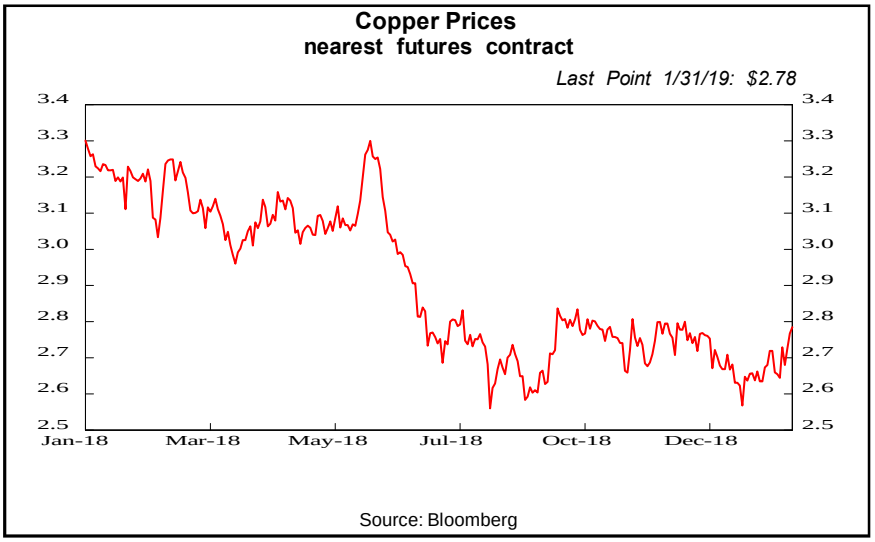
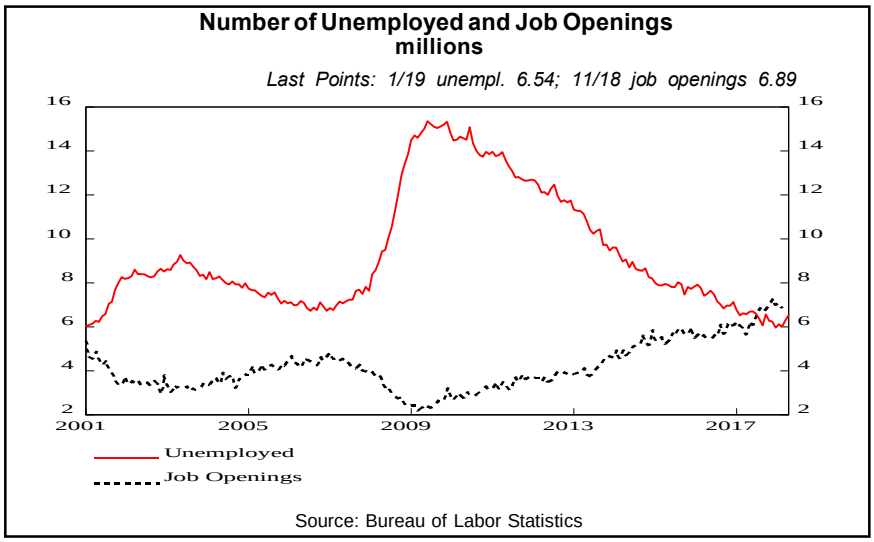



CHART 64




**U.S. Slowdown**

In the U.S., the Fed recently dropped its 2019 growth forecast from 2.5% to 2.3%, and it said, "The near term growth momentum is likely to be weaker than previously anticipated." Also, the widely-expected slow economic growth in the current quarter may evaporate due to consumer retrenchment in reaction to the government shutdown.

Also, economic activity probably speeded up in the fourth quarter in anticipation of American and Chinese tariff increases, with a relapse early this year. The fact that many federal employees turned to food stamps during the shutdown shows just how close to the edge many Americans live. Federal Reserve surveys show that 41% of adults would have to sell something, borrow or default if they faced an unexpected bill of $400.

Sure, most will get catch-up pay now that the shutdown has ended, but government contractors and others that directly or indirectly depend on federal funds may suffer lasting losses. Also, a weak first quarter may be the straw that breaks the camels' back. Note that recessions feed on themselves as consumers and business retrench, unemployment jumps and incomes suffer, leading to further retrenchment.

Job openings in the U.S. fell to a seasonally-adjusted 6.89 million in November, down from 7.08million in October and the peak of 7.29 million in August (*Chart 64, opposite page*). The headline unemployment rate rose from 3.7% in November to 4.0% in January, as the number of unemployed jumped by 517,000 to 6.5 million. As our great friend Dave Rosenberg of Toronto's Gluskin Sheff notes, whenever the headline unemployment rate has climbed by 0.4 percentage point, a recession always followed.

**Coincident Movements**

Vulnerability is also found in the coincident movement of the U.S. stock market, the 10-year Treasury note yield and crude oil prices recently. As we've noted for years, this indicates that traders are all on the *same* sides of the *same* trades at the *same* time. So if stocks resume their late 2018 drop, crude oil prices will probably follow and Treasury prices will rise as those who suffer losses from earlier equity speculation are forced to sell their long oil positions and cover their Treasury security shorts in order to preserve liquidity. The correlations between the S&P 500, the GSCI commodities index, the 10-year Treasury yield and the MSCI All Countries World ex U.S. stock index have all stayed at or over 0.8 in recent weeks for the first time since early 2018.

Perennially optimistic Wall Street analysts now look for S&P 500 earnings to rise 7.8% this year, way down from their September forecast of 10.1%, and their forecast for year-over-year earnings for the last quarter of 2018 dropped from a 19% increase made in September to 17% recently (*Chart 65*). If the economy is entering a recession, they'll be forced to slash their forecast to negative numbers, at least in some coming quarters (*Chart 66*).

Over the years, annual earnings growth estimates for the S&P 500 have been, on average, 5.5 percentage points lower at

CHART 65

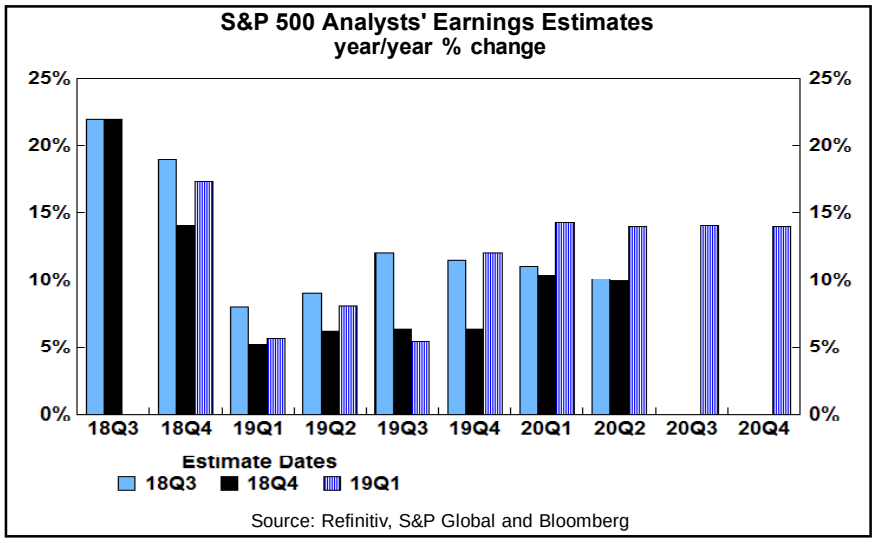



CHART 66

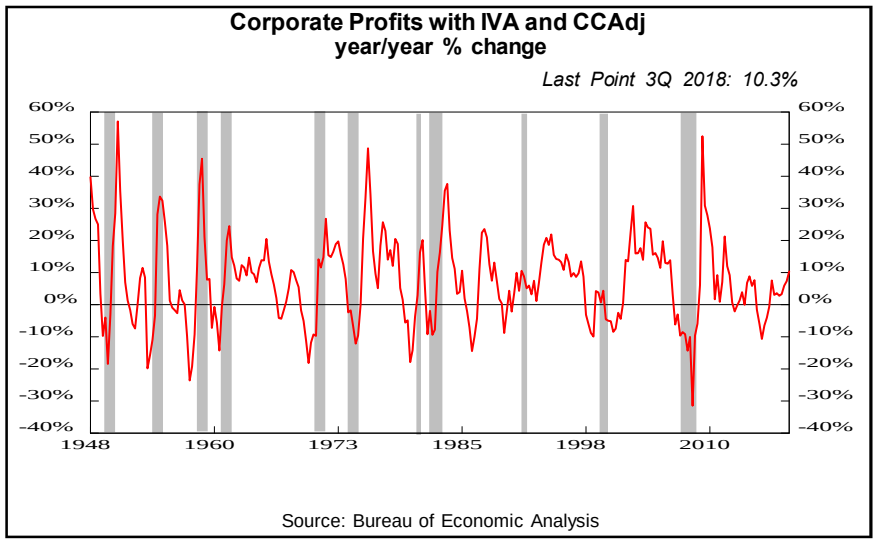
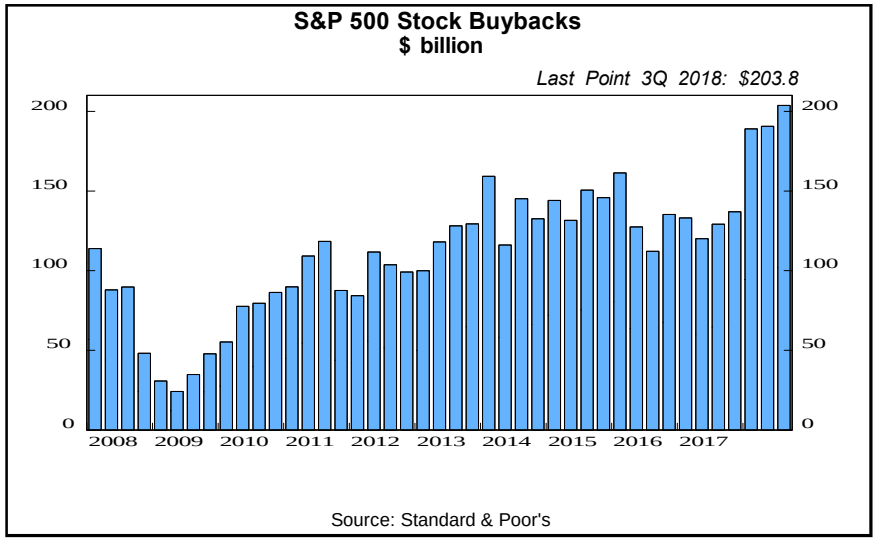



CHART 67



the end of the year than initially estimated in January, and most of the years in that average were in times of economic expansion. Furthermore, the prospect of weak corporate earnings is enhanced by the reality that S&P 500 companies get 34% of their revenues outside the U.S., on average. Also, the strength in earnings per share that has resulted from corporate stock buybacks (*Chart 67, page 33*) will no doubt be missing as firms are forced by weak profits to conserve cash.

Wall Street forecasts of corporate earnings historically have been at their peaks at stock market tops. A poll last year by S&P Global Market Intelligence found analysts forecasting S&P 500 earnings rising 13.4% annually over the next three to five years, or about twice the 7% annual rise over the last two decades. Any reasonable forecast of economic and corporate revenue growth would not support that forecast so profit margins and profits' share of national income would have to explode far above any past levels (*Chart 68*). The higher earnings expectations rise, the lower actual earnings growth tends to be.

Investors correctly accuse Wall Street analysts of "nickel and diming" them to death. In periods of falling corporate earnings, they reduce their estimates bit by bit so by the time they've cut them to realistic levels, the weakness has been long since reflected in stock market declines.

## Other Evidence

Other evidence of an economic peak in the U.S. includes the small-business optimism index, which stalled and then declined for the third month in a row after climbing rapidly in recent years (*Chart 69*). That index had a huge 10-point leap after the 2016 election.

The Conference Board's index of consumer confidence fell to 120.2 in January from December and 137.9 in October, the highest level since 2000.

**CHART 68**

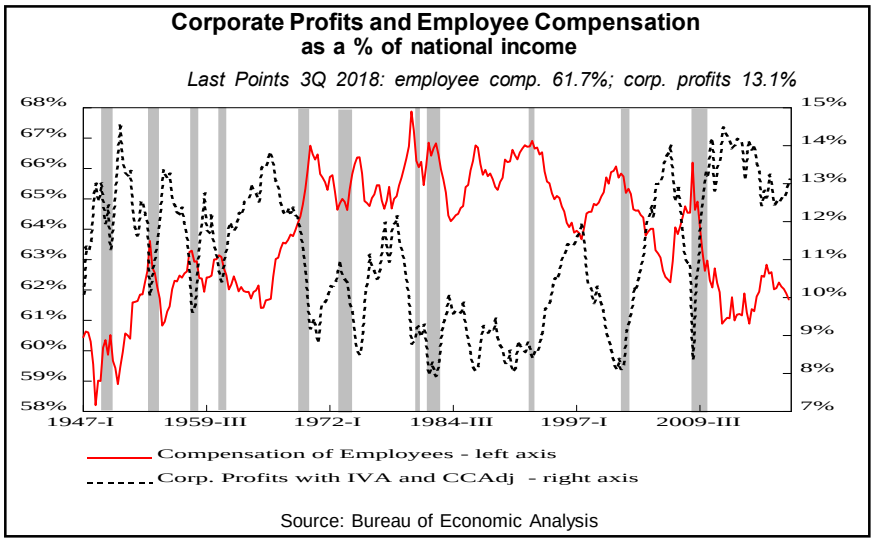



**CHART 69**

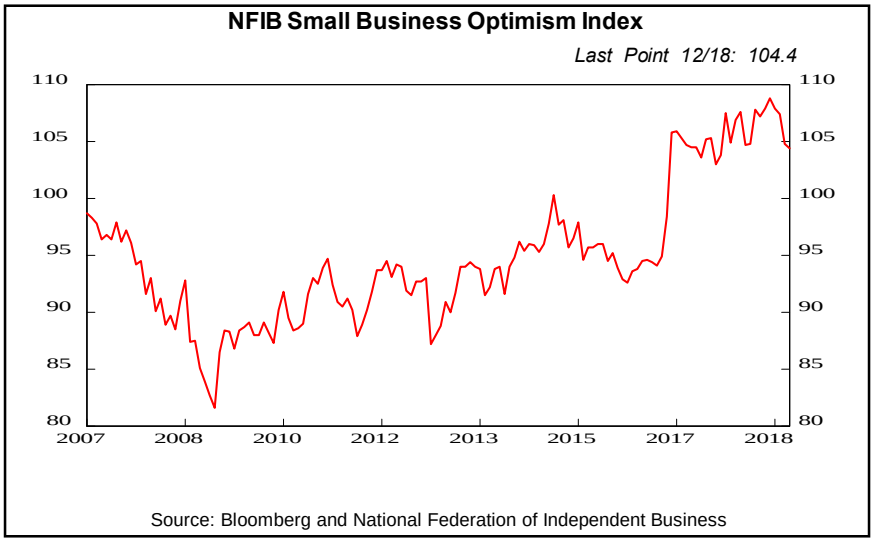
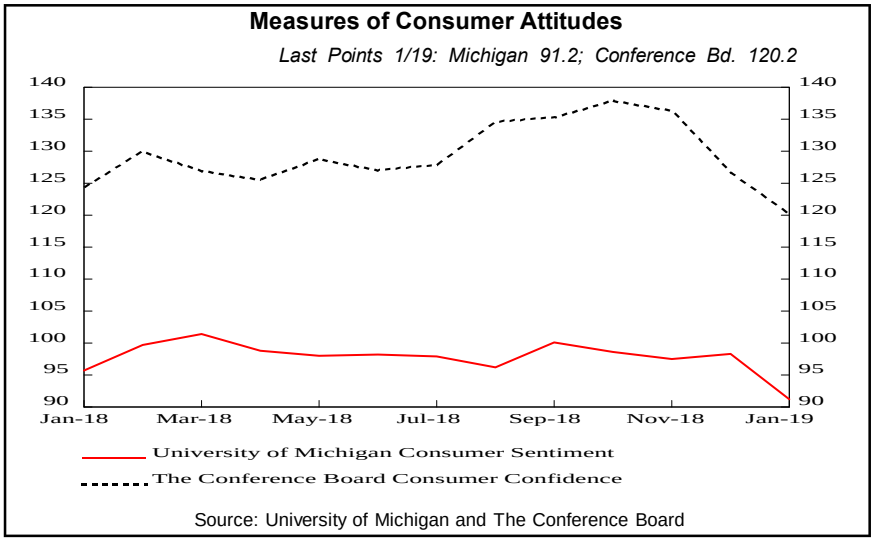



**CHART 70**



The Michigan survey of consumer sentiment plunged from 98.3 in December to January's 91.2, the lowest level since Trump's election (*Chart 70, opposite page*). Consumers cited concern over the partial shutdown of the federal government, the impact of tariffs, unstable financial markets, the global economic slowdown and the lack of clarity in monetary policy.

**Reduced Saving**

Consumer spending grew last year but only because households reduced their saving rate to make up for the slower growth in after-tax income (*Chart 71*). Obviously, this trend is unsustainable and, sooner or later, households will be forced to curtail spending. Sales at Macy's and other mall-based retailers petered out at the end of last year, and continuing strength in online buying did not account for all of the weakness. Physical traffic in stores fell 3% between November 18 and December 29, the crucial Christmas season.

The Institute for Supply Management's index of manufacturing fell to 54.1 in December from 59.3 in November. Previously, it's only fallen more than five percentage points in the recessionary climates of 2001 and 2008 (*Chart 72*). The normally more-stable services index also fell, from 69.7 to 57.6.

**Real Estate**

The weakness in housing activity, which stared early last year, is a normal reaction to Fed credit-tightening and a consistent harbinger of recessions. Nevertheless, further slumps will probably be limited.

As discussed last month, house-buying is extremely sensitive to interest rates since it is so heavily financed by mortgage loans. So although the Fed increase in its overnight federal funds policy rate (Chart 3) has spilled over somewhat to longer-term Treasury yields, especially the 10-year note yield to which the 30-year fixed-rate mortgage is linked (*Chart 73*), the effect has been muted.

CHART 71

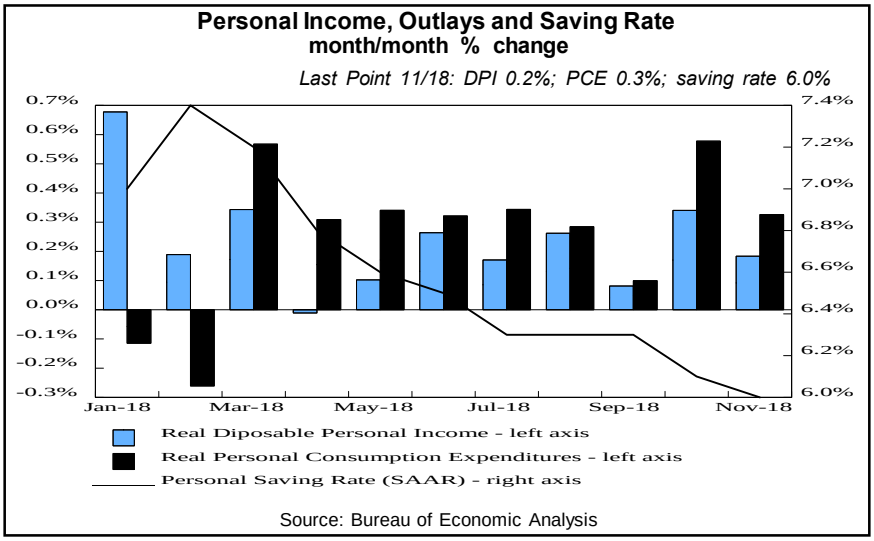



CHART 72

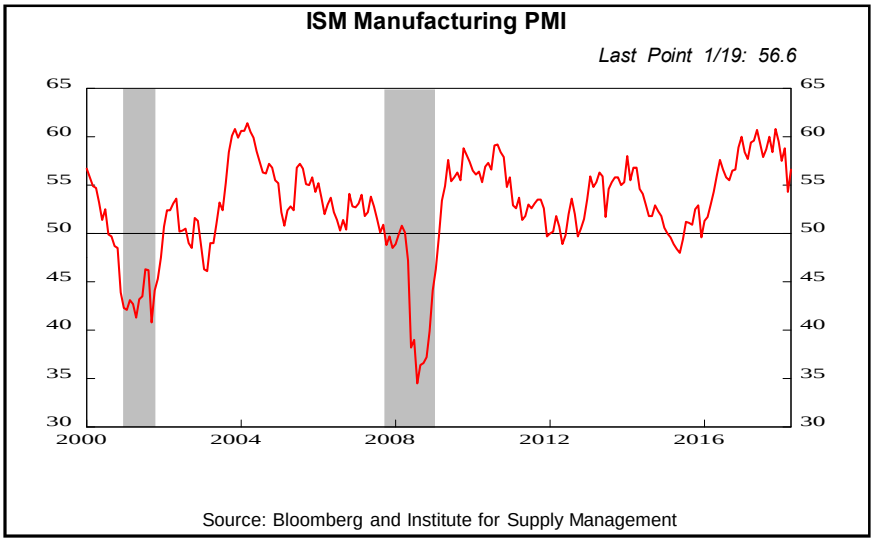
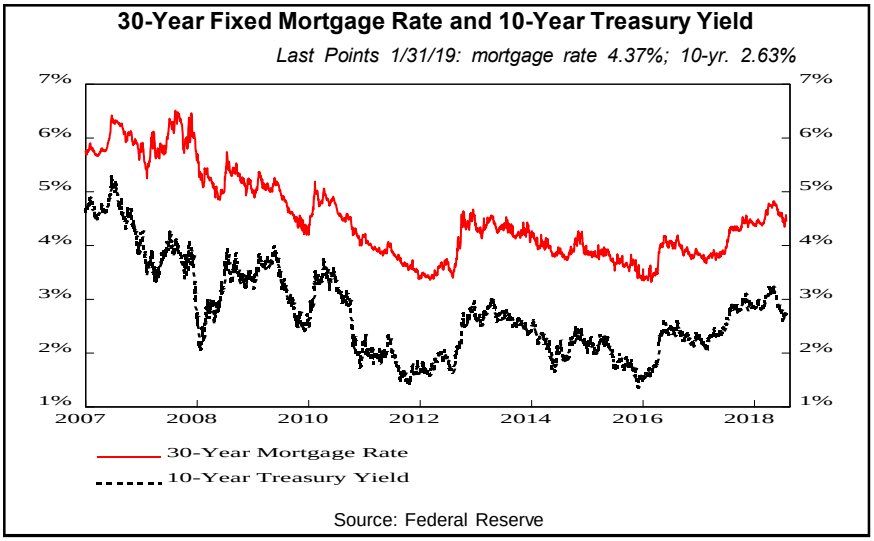



CHART 73



Our analysis over the entire post-World War II era reveals that, on average, a 100-basis point rise in the fed funds rate is associated with a 44-basis point climb in the 10-year Treasury note yield and a 24-basis point rise in the 30-year Treasury bond yield. The further away from the Fed, the more other factors determine Treasury yields. In the long run, the dominant force is inflation, as shown by the 60% correlation between Treasury bond yield and CPI inflation since World War II (*Chart 74*).

Based on the post-World War II average experience, the 225 basis point rise in the fed funds rate since December 2015 would imply a 99-basis point increase in the 10-year Treasury note yield and a 54-basis point rise in the 30-year Treasury bond yield. In fact, the increases were 44 basis points and five basis points, respectively, undershooting by 55 and 49 basis points. Clearly, deflationary and other downward pressures on long-term rates are robust. When you consider the increase in Treasury issues due to the climbing federal deficit (Chart 9) and the sales from the Fed as well as it condenses its portfolio, the recent drop in Treasury note and bond yields is remarkable. To us, it says that deflationary forces are very powerful.

## Mortgage Rates

Note that the 30-year mortgage rate has fallen lately, along with 10-year Treasury note yields to which it is closely linked (Chart 73). That mortgage rate reached almost 5% two months ago but subsequently dropped to 4.45%. And with the Fed's tightening policy on hold, at least temporarily, and a recession and downward pressure on inflation looming, long-term mortgage rates may be close to their peak. Indeed, homebuilder sentiment recently ticked up after a huge slide (*Chart 75*) as have homebuilding and home-improvement company stocks.

Weakness in housing is also likely to be limited because of its muted recovery

**CHART 74**

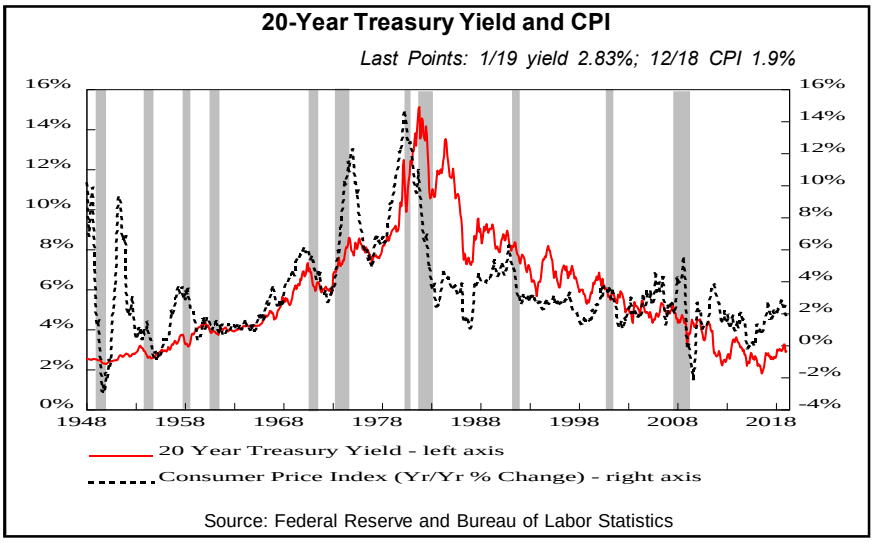



**CHART 75**

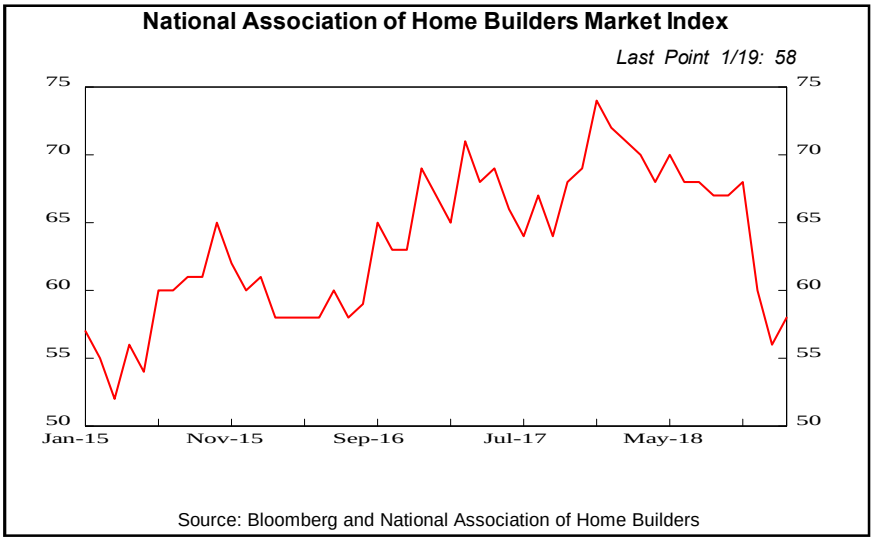
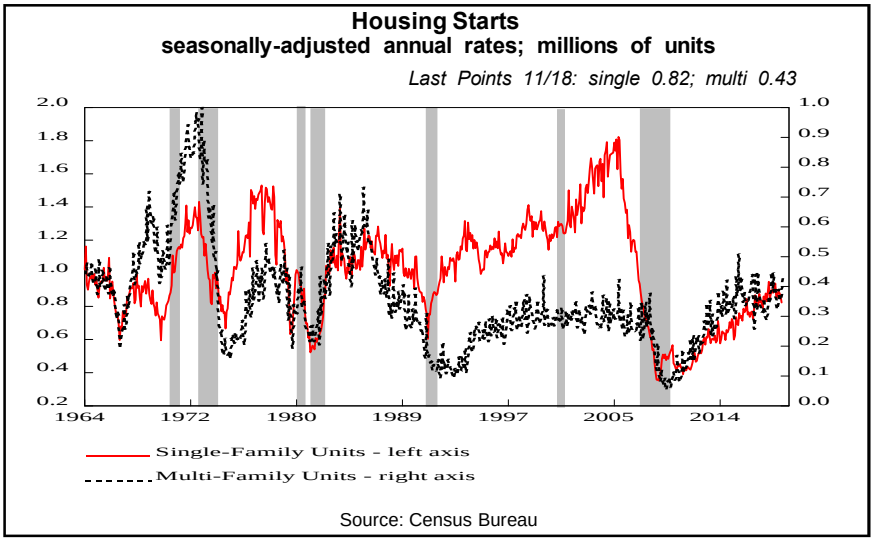
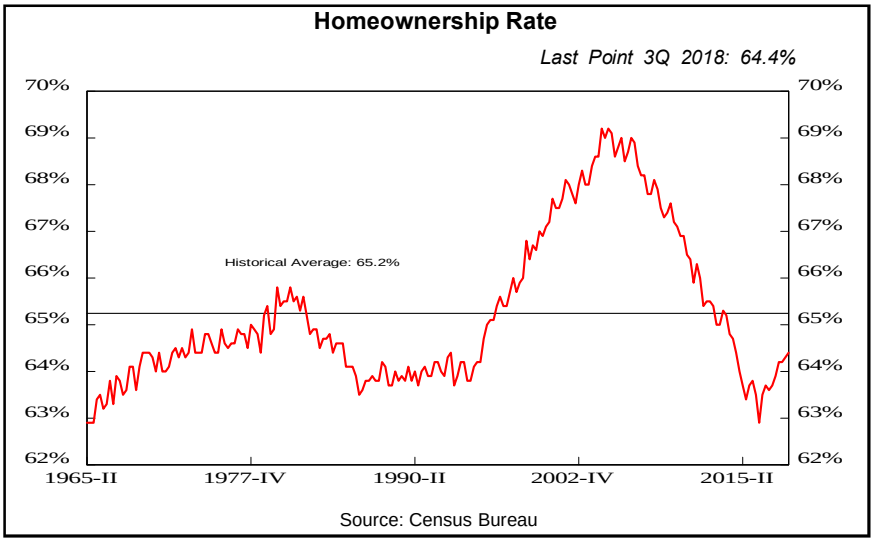



**CHART 76**



after the subprime mortgage-related collapse in the late 2000s. Since that bloodbath, single-family housing starts have only recovered from a 353,000 annual rate to 820,000, still far below the 1.8 million peak in 2006 (*Chart 76, opposite page*). As we've observed in many past *Insights*, many first-time homebuyers, especially younger people, lacked the tighter credit score requirements, high downpayment money and job security. Many also learned—the hard way—that house prices can and did fall significantly and nationwide for the first time since the 1930s. A lot of them became renters, and the homeownership rate collapsed and has only recovered modestly (*Chart 77*).

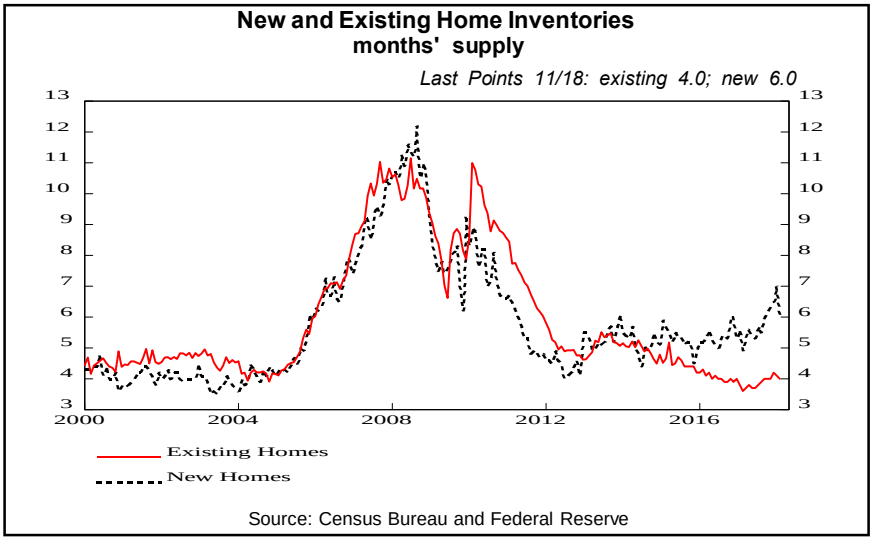
CHART 77




## Housing Subdued

Still, the housing market remains subdued. The earlier, widely-touted lack of for-sale inventories is being eliminated (*Chart 78*) and high inventories are the enemy of prices and the zeal to buy. In December, sales of existing houses fell rapidly, by 6.4% from November and were down 10.3% from a year earlier (*Chart 79*). The sales decline in December was broad, with Seattle, Portland, much of California, Denver, Maryland, Delaware and Philadelphia suffering double-digit drops.

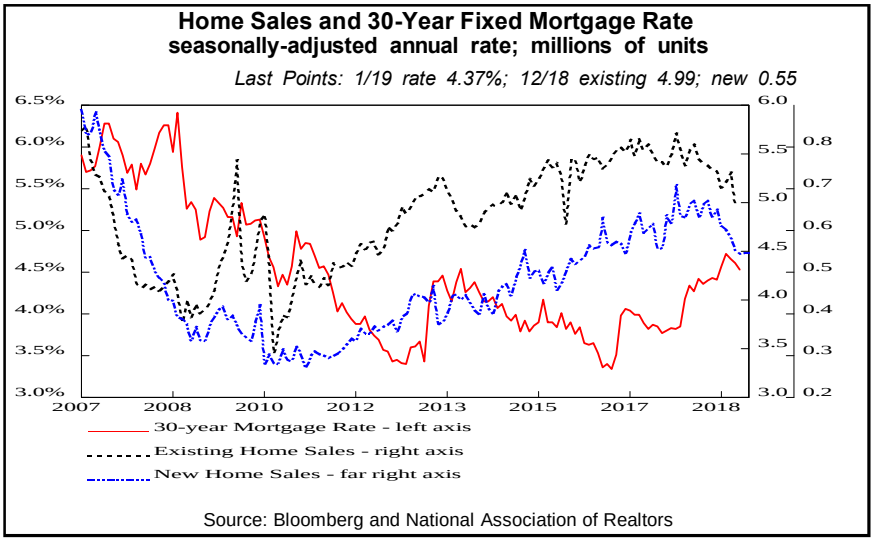
CHART 78




The partial government shutdown curtailed the Commerce Department's reporting of new home sales, but private firm tallies found a 10.3% drop in December in the South, 13.4% in the West and more than 16% in the Northeast. The Case-Shiller house price index, which adjusts for the reality that houses tend to get bigger and inherently more expensive over time, is still rising year over year, but at a declining rate (*Chart 80, page 38*). It fell 0.1% in November from October and is only back to its 2006 peak.

With mortgage demand falling, some lenders are reverting to the treacherous "no doc" loans that require no confirmation of income or assets that

CHART 79



had a lot to do with the earlier housing collapse. Lenders issued $34 billion of these unconventional mortgages in the first quarter of 2018, up 24% from a year earlier. These make up less than 3% of the $1.3 trillion mortgage originations over that period, but contrast with the decline in traditional mortgage originations of 1.2%.

These "liars" loans are now dignified with the "nonqualified" title, and half of lenders plan to get into that business, according to a survey by Inside Mortgage Finance. Yield-hungry investors are buying these mortgages after they're repackaged into bonds, with $12.3 billion in such securities sold last year, quadruple the 2017 amount (*Chart 81*)—shades of the subprime-backed securities that caused so much pain when they collapsed in the late 2000s!

Excess capacity is spawning downward pressure on apartment rental rates, with an additional 319,000 scheduled for completion this year, up from last year's aggressive 287,000. Similarly, developers are expected to add 68 million square feet of office space this year, the biggest addition to inventory since the 2008 peak. Adding pressure is the ongoing tendency of tenants to put employees in smaller spaces and the likely slowing in jobs growth. Rents rose 2.1%, about half the 2017 increase. Vacancies are rising and landlords are forced to offer more generous concession such as free rent periods and refunding tenants' money to build out their new space.

**Forecasts**

Although few others have joined us in forecasting a likely recession this year, with the exception of Dave Rosenberg, others are expressing concern. A Conference Board poll found that a global recession ranks at the top of 800 corporate CEOs' concerns. A year ago, it ranked 19th out of 28 issues. And that survey was conducted last fall before the late 2018 sharp fall in stock prices.

**CHART 80**

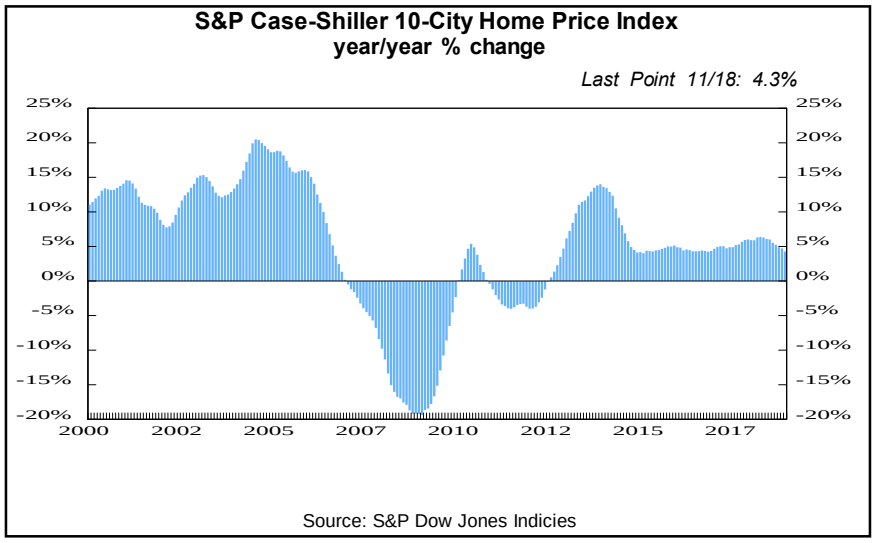



**CHART 81**

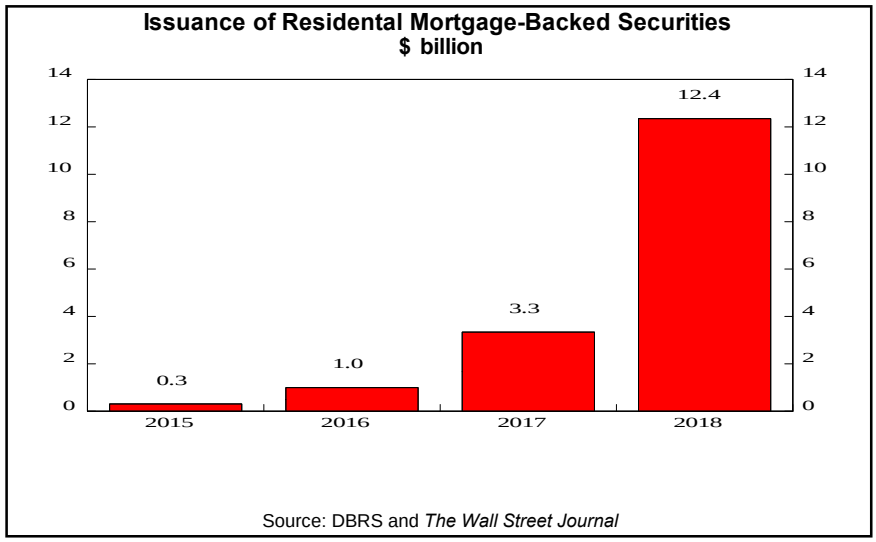
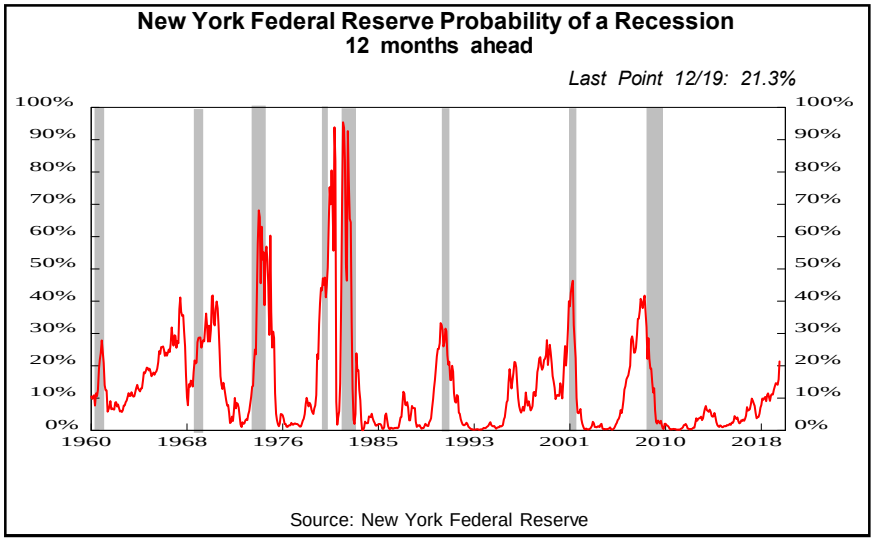



**CHART 82**



The New York Federal Reserve's probability of a recession index, based on 3-month and 10-year Treasury yields, reached 21.3% in December (*Chart 82, opposite page*). This may seem to still be low but when it's been at or slightly above that level in the past, recessions often followed. This model is essentially the Treasury yield curve that always inverts, with short-term yields above long-term yields, ahead of recessions (*Chart 83*).

A Duke University survey found that almost half of U.S. chief financial officers believe a recession will commence by the end of this year. Citi Economic Surprise index, which tracks whether economic reports are above or below expectations, have turned negative for the U.S., emerging markets and developed economies in total (*Chart 84*). Most business economists have lived through many recessions but never forecast them, at least until the collapse in the stock market and other evidence make their forecasts as helpful as a pocket in your underwear. Economists surveyed by the *Wall Street Journal* in early January (not including us) on average foresaw a 25% chance of a recession in the next year, up from 13% a year ago and the highest level since October 2011 (*Chart 85*).

## Losers And Winners

In the economic and financial environment we foresee, low inflation or even deflation will benefit retirees and others on fixed incomes. Wages, for those still employed, will gain in purchasing power terms, assuming their total nominal pay isn't cut. Further drops in Treasury yields and therefore mortgage rates will aid active homebuyers who will no doubt have ample inventory to choose from as overall housing demand weakens. Apartment landlords may see increased demand as fewer qualify for homeownership but, as after the earlier housing collapse, people may double up in housing units or live with their parents.

**CHART 83**

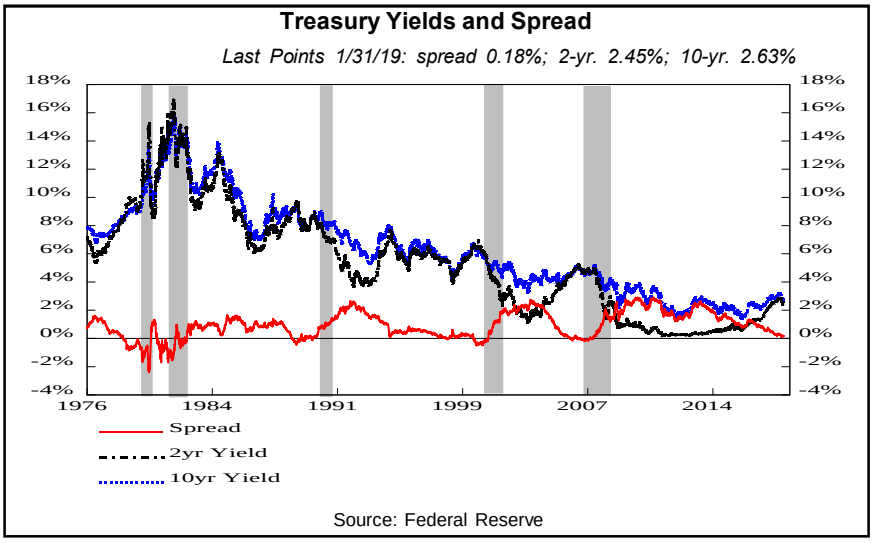



**CHART 84**

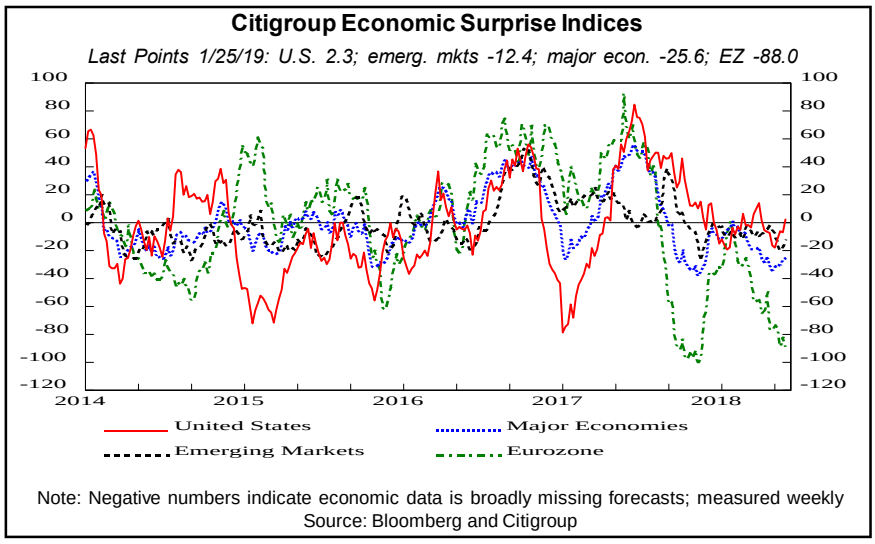
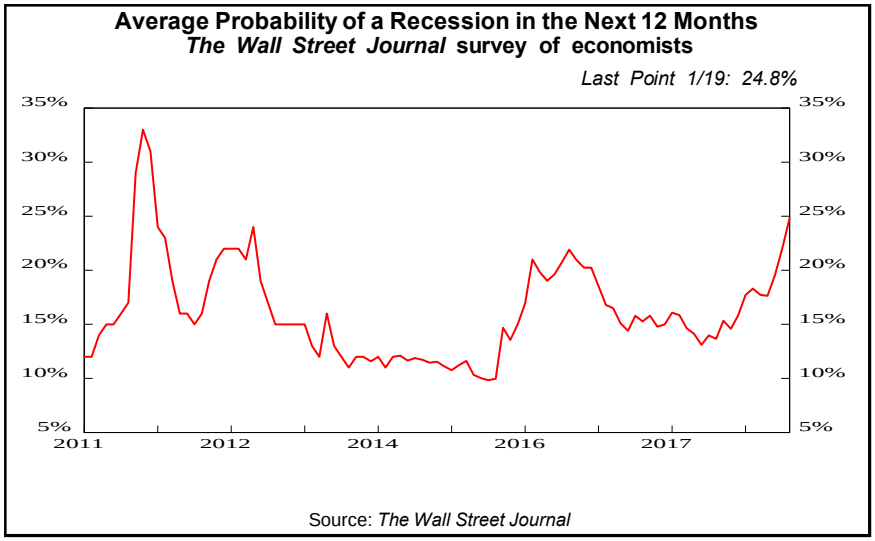



**CHART 85**



The Fed, as usual, will ease credit once it realizes that a recession is underway or about to begin by cutting its federal funds rate (Chart 18). The normal spillover to longer-term Treasurys will depress their yields as will declining inflation rates and weak private credit demand. Last year, global bond issuance, excluding sovereign debt, fell, and U.S. corporate bond issuance was the lowest in four years. Municipal issuance declined, in part because the new tax law eliminated the federal tax exemption for advanced refunding of bonds.

True, a recession will cut federal tax revenues and increase spending so the already-large federal deficit will increase (Chart 9). But this is normal in recessions and the shrinkage of private credit demand and the safe-haven appeal of Treasurys to domestic and foreign investors alike should push down Treasury bond yields and prices up.

In this climate, the yield on 10-year Treasury notes may drop from 2.7% at present to our long-held eventual target of 1% with 30-year bond yields declining to 2% from the current 3%. That would result in a total return on the Long Bond of about 20%, and confirm our belief that what we dubbed "the bond rally of a lifetime" back in 1981 when the yield on the 30-year Treasury was 14.7% is still intact (*Chart 86*). Since then, Treasury bonds have outperformed the S&P 500 by *five times* and that advantage would increase as Treasury bond prices rose and stocks fell.

**CHART 86**

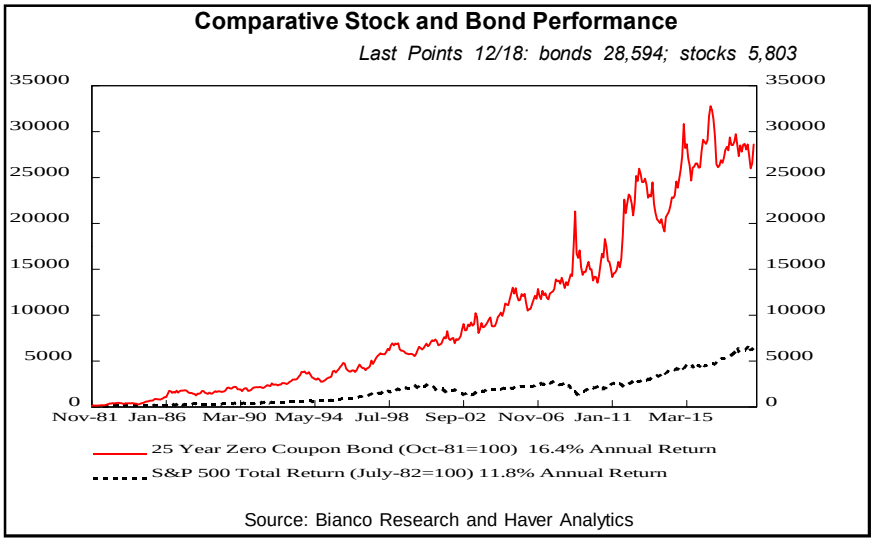
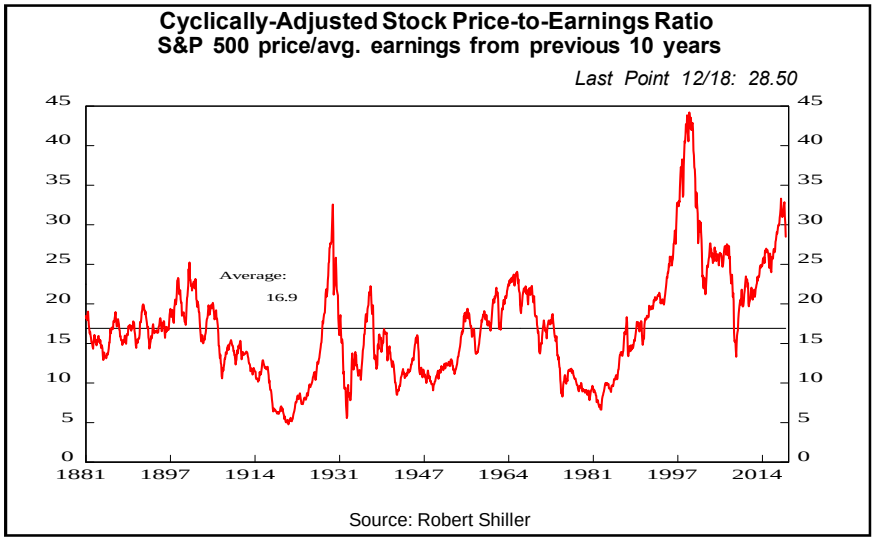



**CHART 87**




Further substantial declines in equities would occur in a recessionary atmosphere as corporate earnings dropped and price-earnings ratios nosedived. Prof. Robert Shiller's cyclically-adjusted P/E is still 69% above its long-term average (*Chart 87*) as, as usual in a recession, it would drop below that 16.9 figure. It probably would remain there for years to offset its above-average level since the early 1990s—assuming the 16.9 long-term average is still valid, and we see no reason why it isn't.

With slowing global growth, supplies of commodities will be even more ample, depressing prices further. In addition to Treasurys, the U.S. dollar has safe-haven appeal. And its recent climb is likely to persist for years, as we explained last month. That's bad news for U.S. exporters and multinationals that suffer currency translation losses as the greenback climbs. Ditto for emerging markets. Their huge dollar-denominated debts take more local currencies to service. Also, since almost all internationally-traded commodities are dollar-based, their import costs in local currency terms will continue to leap.

# Bogle's Strategy Works If...

By the year 2000, I'd known Jack Bogle for decades, met with him frequently and corresponded with him even more often. I'd send handwritten notes on blue-bordered cards with my name, and Jack would also send hand-written notecards with red borders and "John C. Bogle" at the top.

That year, I read a newspaper article about Jack's legendary frugality. He took late-night trains to avoid paying for hotel rooms, and he'd demand a senior citizen discount from a hotel desk clerk or the manager, if necessary.

Being similarly parsimonious, I felt justified in my thrifty ways. So I wrote him a note: "Dear Jack, After learning of your careful spending habits, I feel I can drive my 12-year-old 1988 Lincoln Town Car with pride." He wrote back, "Dear Gary, Thanks for your kind note. I, too, drive a 1988 Lincoln Town Car."

**Commitment To Investing**

Jack's zeal to save money went well beyond his personal spending to his fervent commitment to minimizing fees for individual investors. He famously said, "In investing, you get what you *don't* pay for." Of all the investment people I've known over many decades, Jack Bogle, who died last month at age 89, is the only one who truly put the interests of investors first and foremost.

Of course, we all say our mission is to serve clients, but we all figure that when we help them make money, we get our share. Proof: Anyone else who'd built the Vanguard Group from scratch into a giant mutual fund with $4.9 trillion in assets would easily be a billionaire. Jack's net worth last year was estimated to be $80 million, and he regularly gave half his salary to charities. "My only regret about money," he said in 2012, "is that I don't have more to give away."

**Like St. Paul**

Like St. Paul, Jack had a conversion that completely reversed his views. Recall that St. Paul, in the Book of Acts, was on his way from Jerusalem to Damascus with letters from the high priest to allow him to drag any followers of Jesus, men or women, back to Jerusalem. Then, on the road to Damascus, a blinding light from heaven flashed around him and Jesus' voice said, "Why do you persecute me?" Quickly, Paul became a zealous advocate for Christ, and some historians credited Paul, along with Christ, as the co-founder of Christianity.

Jack Bogle initially defended many of the mutual fund industry's practices. In a 1960s article he wrote for the *Financial Analysts Journal* under the pseudonym "John B. Armstrong," he belittled the idea of an index fund that would buy and hold all the stocks in the broad market. He said that the concept was so flawed, it would underperform by 0.75 percentage point annually. He agreed with a critic who said that "the relative inflexibility of these funds makes them undesirable for the average investor."

In a 1973 speech to the Investment Company Institute, a mutual fund trade group, he declared, "I do not see how the mutual-fund industry's long-term performance could be very much better" and that funds had delivered "demonstrated excellence" to their investors.

**Light From Heaven?**

I'm not aware that Jack Bogle saw a flash of light from heaven, but after he was fired in 1974 as CEO of Wellington Management Co., a large asset manager based in Philadelphia and Boston, he had a conversion. Jack decided he needed a new business model and founded Vanguard. Its mutual fund investors didn't just own shares in funds that were managed by a separate, for-profit company. They would own as well the investment management operations that would be run at cost.

Like a mutual insurance company, any surplus would be reinvested in the business or used to lower costs and increase the net returns of investors. In discussing his conversion, Bogle quoted the great British economist John Maynard Keynes: "when the facts change, I change my mind. What do you do, sir?"

Like St. Paul, whose Christianity zeal invoked the enmity of the Jewish leadership as well as Roman overlords, Jack was persona non grata in the mutual fund industry—and for good reason. Mutual fund management companies charged investors up to 2% of assets annually and most also added on "sales loads" that could cost 8.5% of the new money invested.

**Expense Ratio**

The expense ratio of the average equity fund jumped from 0.54% in 1960 to 0.86% in 2009, a 59% leap. Yet during that time, equity fund assets mushroomed from $10 billion to $5 trillion. Fund costs rose far faster, over 800-fold from $50 million to $42 billion. So the economies of scale were absorbed by fund managers rather than passed on to investors. In contrast, Vanguard's asset-weighted average fee has dropped from 0.27% of assets to 0.10% in the past 15 years. It went "no load" in 1977, eliminating sales commissions and middlemen by selling its funds directly to customers with no broker commissions.

In the early 2000s, Jack was being shunned by the mutual fund industry that thought his tirades on overblown fees

and shrunken services to investors reflected a holier-than-thou attitude. He got the derisive nickname "St. Jack" and two former associates who worked with competing mutual fund entities each gave him a clerical collar. I wrote to him in January 2004 warning him that as Jesus said, "A prophet is never welcome in his own country." He wrote back, "I take comfort in the New Testament warning because my initials are J.C."

### Businessman-Dominated

In a 2006 speech, Bogle said: "The mutual fund industry is now dominated by giant, publicly-held financial conglomerates run by businessmen hell-bent on earning a return on the firm's capital, not the return on the capital invested by the fund shareholders."

Jack noted, as many studies have shown, that active asset managers with fees averaging 1% of assets consistently underperform their benchmark by that same 1%. It almost has to be that way since, on average, they reflect aggregate markets. So his goal was to keep fees low and mimic the broad market. The Vanguard 500 Index Fund, the first retail index mutual fund, was launched in 1976 and is an unmanaged portfolio of stocks that represent the broad S&P 500 index.

Jack hoped the initial underwriting would bring in $150 million. The most underwriters could sell was $11 million, and the fund was ridiculed as "Bogle's folly," "guaranteed mediocrity" and even "un-American." It eventually grew and today has $441 billion in assets, with the related Vanguard Institutional Fund managing another $222 billion. In February 2004, Jack wrote to me, "I fell as if my Don Quixote role has become Nostradamus." Over the last 15 years, index funds have outperformed 90% of active funds.

### Jack's Legacy

Jack Bogle not only virtually invented index funds but also created tremendous pressure for low investment fees that

CHART 1

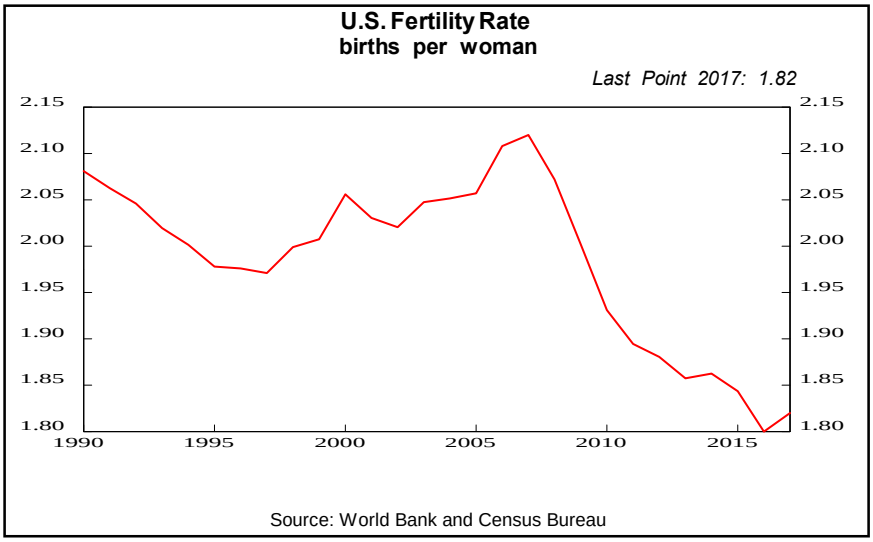



CHART 2

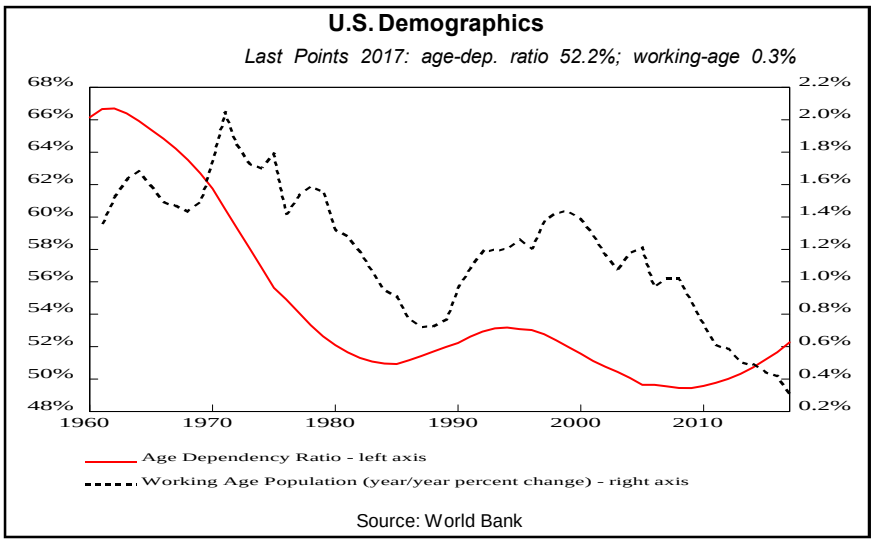
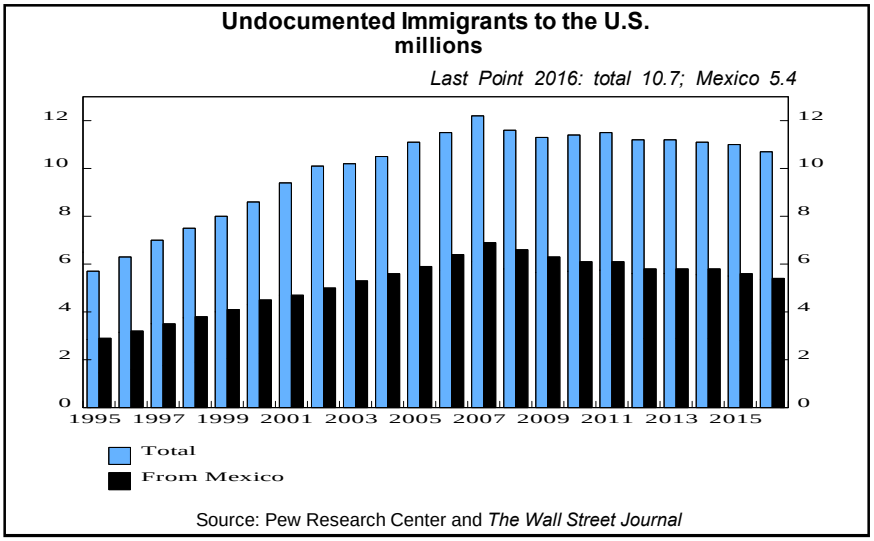



CHART 3



forced other mutual fund managers to follow. You can argue that with the electronic invasion of communications in recent decades, the resulting low costs of executing security trades and managing portfolios would be reflected in investment fees sooner or later. But one of the financial world's greatest strengths is in protecting its own fees. Note that brokerage commissions were deregulated on May Day 1975 but it took about 40 years for commission rates to be driven down to the level of costs.

Jack Bogle summed up his mission when he said, "Costs matter so intelligent investors will use low-cost index funds to build a diversified portfolio of stocks and bonds, and then will stay the course. And they won't be foolish enough to think that they can consistently outperform the market."

**Who Can Argue?**

Who can argue with his philosophy? Index funds with low costs provide superior returns on average over the long term. There are, however, some significant problems in the practical application of Jack's strategy.

Before examining them, consider why this approach works. In the long run, the economy grows. Sure, there can be some nasty setbacks such as the 2007-2009 Great Recession, but they are followed by recoveries and over periods of 20-to-30 years, economic activity rises at a fairly steady rate. In the postwar period, real GDP has averaged 3.1% growth per year and inflation, 3.2%, so the nominal economy has averaged a 6.4% average yearly gain. There is widespread belief today, in and out of the Fed, that future growth will be slower due to slower labor force growth resulting from low birth rates, limited immigration and the aging postwar babies (*Charts 1-3, opposite page*). Also, many believe that the recent slowdown in productivity growth is permanent (*Chart 4*).

As we've discussed at length in past reports, however, young people who stayed in school during the Great Recession are entering the workforce, and the labor participation rate of the postwar babies is rising (*Chart 5*). As for productivity, we

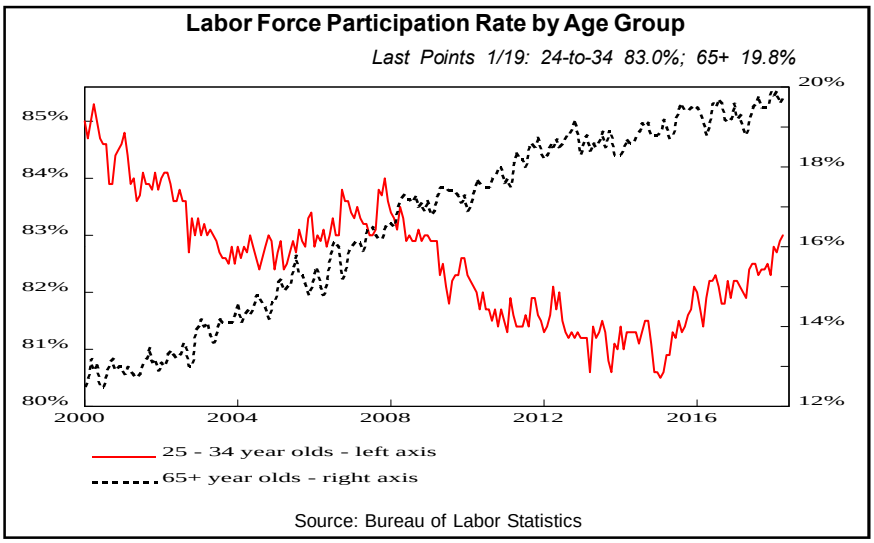
**CHART 4**

**Productivity in the U.S. Nonfarm Business Sector**
**average annual growth rate by decade**

| | NBER | BLS |
|---|---|---|
| 1901-1910 | 2.34% | na |
| 1911-1920 | 2.64% | na |
| 1921-1930 | 2.07% | na |
| 1931-1940 | 2.39% | na |
| 1941-1950 | 2.46% | na |
| 1951-1960 | 2.28% | 2.14% |
| 1961-1970 | 2.49% | 2.71% |
| 1971-1980 | na | 1.45% |
| 1981-1990 | na | 1.61% |
| 1991-2000 | na | 2.18% |
| 2001-2010 | na | 2.36% |
| 2011-3Q 2018 | na | 0.85% |

Source: National Bureau for Economic Research and Bureau of Labor Statistics

**CHART 5**




Source: Bureau of Labor Statistics

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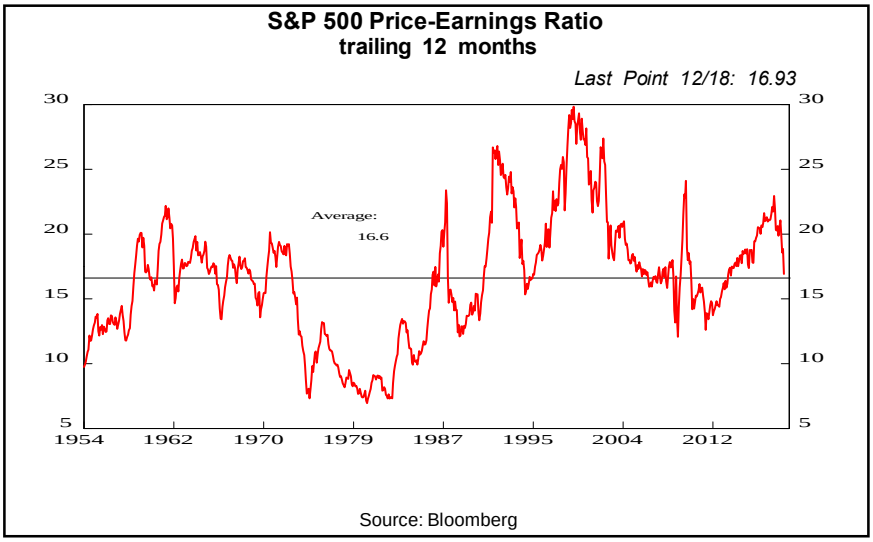
continue to believe that today's new technologies such as robotics, self-driving vehicles and biotechnology, as they gain considerable size, will revive productivity growth. So we foresee 2.5% to 3.0% real GDP growth in the decades ahead.

**Low Inflation**

We're happy to see that years of low inflation, despite immense monetary and fiscal stimuli, are finally bringing many around to our long-held view that future inflation will continue to be low and may turn to chronic deflation. If we assume real growth of 2.5% to 3.0% annually and 1% to 1.5% inflation, nominal GDP would average 4% per year.

CHART 6




In the long run, corporate profits grow in step with the total economy. If they chronically rose, profits' share of the economy would continually rise and labor compensation's share fall, and vice versa. That's not likely in a democracy and it hasn't been the case historically. Chart 68 (page 34) shows mirror image volatility in profits and compensation's shares of national income with no long-term up or down trends in shares.

With corporate profits growing in step with nominal GDP, the only difference between the long-term rise in the economy and the aggregate stock market is the trend in the price/earnings ratio. It rises in long cycles from under 10 for the S&P 500 to more than 20, and then retreats (*Chart 6*). Now, at 16.9 over the last 12 months of earnings, it's about average although will no doubt retreat if the recession we're forecasting unfolds.

Also, the price-earnings ratio is well above the cyclically-adjusted P/E of 28.5 (Chart 87, page 40). That implies that the S&P 500 would need to fall 41% to bring it back to the long-term trend. And, as we've noted in past reports, since the early 1990s, that ratio has almost always been above the long-term average, so if that number is still valid, the cyclically-adjusted P/E will, in the future, spending many years below 18.5.

This analysis explains why broad equity indexing works in the long run. The overall stock market is simply riding up with a secularly growing economy.

**Ideal Conditions**

History also suggests that the overall stock market and, therefore, mutual funds and ETFs linked to it are not likely to perform as well in future years as in the past. Furthermore, the last decade has been ideal for broad index funds as the rising tide of Fed money lifted all equity boats. That's what's been so frustrating for stock pickers and hedge funds which, despite their high fees, have consistently underperformed the S&P 500 index (Chart 22, page 10).

Nevertheless, the shift of the Fed from credit ease to tightening suggests that many more actively-managed portfolios will outperform the overall stock market in future years. Sure, to the extent that stock pickers in aggregate *are* the market, their average performance will still fall short by the extent of their fees. But many more than the 10% that bested the total stock market in past years are likely to excel.

**What Is The Market?**

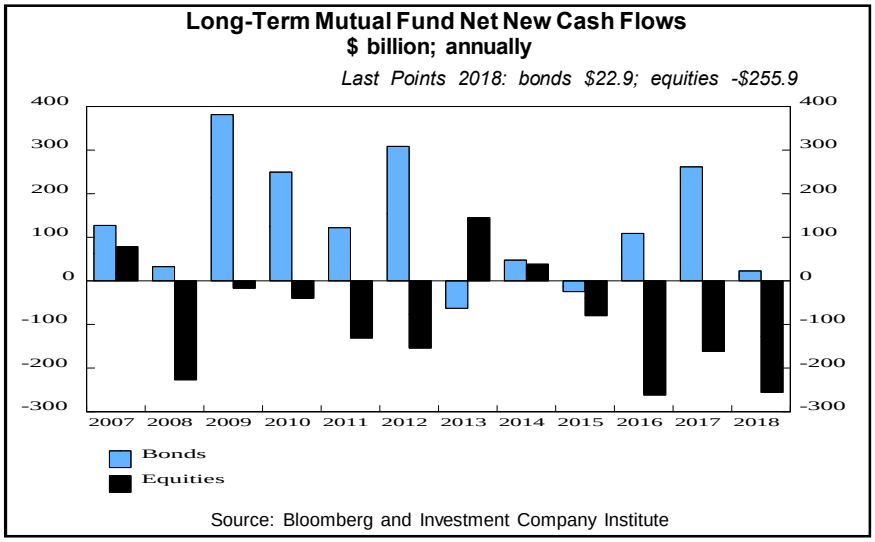
Another problem is that as index mutual funds are increasingly popular, the risk is that they overwhelm the stock market, leaving few investors to set the prices that they then mimic. Estimates are the index funds, which represent about half of all mutual funds, plus algorithm trading which also passively reacts to market-determined prices, constitute about 80% of all trading today, so passive investors are following.

Here's another concern: Regardless of the superior performance long-term of index mutual funds, many investors still feel they are boring and lack the action they crave. They love to make big hits and then go to cocktail parties and tell their friends about the small unknown stock they bought that went up 10 times—"a ten-bagger"—while neglecting, of course, to discuss or even admit to the poor performance of their portfolios overall.

It's this zeal that the financial media caters to. Think about *The Wall Street Journal* and financial TV ads that tout hot stocks and successful portfolio managers compared to the

few that feature S&P 500 index funds and fewer still that promote dull old Treasury bonds. With a stock, investors can ruminate over the outlook for its industry, the company's latest sales campaign, its exciting new technology, merger possibilities and even the sex life of the CEO. With Treasurys, there's not much to think about beyond Fed policy, federal deficits and inflation.

CHART 7




**Amateurs vs. Pros**

Furthermore, individual investors must or should know that their chances of success in picking individual stocks are slim since they, and amateurs, are competing with professionals who have much more information—acquired legitimately or otherwise—and that by the time they get a hot tip, it's completely reflected in the stock's price. Individual investors also should know that their fees make it possible for the average Merrill Lynch broker, a mere mortal, to make $400,000 per year without taking any capital risk on his own.

This risk-oriented urge of investors is the same that lures people into gambling casinos in hopes of winning, even though they know that the odds are stacked against them. Who do they think, besides themselves, pays for all those expensive surroundings in Las Vegas, complete with Olympic swimming pools, statues of Caesar and huge casino staffs?

**Buy High, Sell Low**

Probably the main reason that Jack Bogle's strategy of buying low-cost index funds and staying the course doesn't work in practice is that few investors have the long-term perspective to avoid over-investing when bull markets are raging and bailing out when the bear growls. Indeed, almost by definition, a market top is reached when the last buyer that can be sucked in enters, so there's nothing left but potential sellers. Conversely, bear market bottoms occur with the last investor who can be shaken out reaches the puke point, sells his last stock and leaves the market to nothing but potential buyers.

In past *Insight*s and books, we've admonished investors—especially in surging bull markets when they think the sky's the limit and they're determined to buy more stocks and never sell—to take themselves aside and ask themselves, will we still be willing to stay calm and focus on the long run if our portfolio values plunge by 50%? It's hard to put yourself mentally in such conditions, but we suggested that people try.

Numerous studies show that the performance of mutual fund investors undershoots that of the funds in which they invest. An earlier study by Boston research firm Dalbar found that between 1984 and 2002, mutual fund investors had an annualized return of 2.6% compared with 12.2% for the S&P 500. Bond investors did better with a 4.2% yearly increase but still trailed the no-risk 5.5% return on Treasury bills.

**Market Timers**

The problem, then, is that investors aren't really buyers and holders but market-timers. And their timing is terrible. They invest most heavily near market tops, then sell at bottoms and don't return until the next rally is well under way. The stock market rally started in March 2009, but mutual fund investors were so scared after the financial crisis and Great Recession that they continued to liquidate stock mutual funds for years and retreated to the safe haven of bonds (*Chart 7*). And they never returned on balance to stock funds. Many active managers also behaved like individual investors and stayed on the sidelines too long.

Another problem for investors is the tendency of active managers who are hot this year to be cold next year. So investors tend to give them money in response to great performance just as their luck is running out. Past performance is no indication of future results. Regulators require investment advisors to state this to investors, and academic studies substantiate it.

**Market-Timing Results**

So despite Jack Bogle's admonishments, most investors are really market-timers at heart. Unless they can resist investment thrills and have emotionless nerves of steel,

they might as well admit their human frailties and act accordingly, but more calmly time their ins and outs. And that's despite the difficulties in timing the ups and downs of the stock market.

Well-known Wall Street observer Charlie Ellis pointed out that from 1926 through 1996, almost all of the total gain on stocks occurred in only 60 months, or a mere 7% of the total. His conclusion: If you weren't aboard during that 7% of the time, you blew it, and because you don't know in advance when those luscious months will occur, you'd better be fully invested all the time.

**CHART 8**

**Stock Market Total Returns (S&P 500) Dec. 1946 - February 2010**

| | 50 Strongest Months | 50 Weakest Months | All Other Months | Appreciation (Times) | Average Annual Return |
|---|---|---|---|---|---|
| 1 | long | long | long | 213.3 | 8.7% |
| 2 | 0 | long | long | 6.6 | 3.0% |
| 3 | long | 0 | long | 10,190.7 | 15.5% |
| 4 | 0 | 0 | long | 315.2 | 9.4% |
| 5 | 0 | short | long | 10,897.1 | 15.6% |
| 6 | short | short | long | 255.9 | 9.1% |
| 7 | long | short | long | 352,309.7 | 22.1% |

We looked at this issue some years ago, and wrote an article for the March/April 1992 *Financial Analysts Journal* entitled, "Market Timing: Better than a Buy and Hold Strategy." Ironically, that's the same publication in which the pre-conversion Jack Bogle belittled the index fund concept." More recently, we update that study, as reported in our 2010 book, *The Age of Deleveraging: Investment strategies for a decade of slow growth and deflation*.

We found that if the investor missed the 50 strongest months in those 63 years from December 1946 to February 2010, his total annual return would have shrunk from the 8.7% annual growth shown in the first line of *Chart 8* to a shocking pittance of 3.0% annual gain and only 6.6 times appreciation (line 2) vs. 213.3 times for full investment (line 1).

**Bye-Bye To Bad Times**

Before you conclude that, like honesty, being fully invested is the best policy, let's consider several alternatives. Suppose, just suppose, that an investor had the clairvoyance to be fully invested in the S&P 500 except for the 50 weakest months in that era. We're using the 50 weakest simply for symmetry with the 50 strongest. Line 3 of Chart 8 indicates that this vastly improves investment results. This $1 invested in December 1946 would have grown at a 15.5% annual rate to $10,191—32.5 *times* the compound return of the fully-invested-at-all-times approach.

Why this vast improvement in return? It has a lot to do with the simple yet crucial face that, after a given percentage loss in a stock's price, a bigger percentage gain is necessary to return to the original price. If a stock drops 50% in price, it must then double to get back to its starting point. Despite its simplicity, and we call it grade school math, this reality is not well understood. By avoiding the 50 weakest months, the investor would have had much more money to invest the rest of the time.

**Miss Both Weak And Strong Months**

The benefit of being out of stocks during the periods of big market decline is even more powerfully shown in line 4. There we assume that the portfolio was out of stocks in both the 50 strongest and 50 weakest months of the December 1946 to February 2010 period. As shown, the average return of 9.4% was better than the 8.7% return in a portfolio that was fully invested all the time.

This is extraordinary—better performance even though the 50 months of greatest market advance are excluded. The 50 strongest months witnessed less gain than the declines experienced during the 50 weakest months. Being out of the market in the weakest months is very beneficial, even if the investor also misses the strongest months. Stocks fall in bear markets much faster than they rise in bull markets. This fact is extremely comforting to anyone trying to time the market since he can hardly expect to be in cash in the biggest down months of bear markets without also being absent during some of the frequent final blow-off months of the bull markets that precede them.

**The Final 500**

A shining example of the benefit of sitting out a bear market, even if the exit is early, can be found in 1987. In the spring of that year, some astute investors recognized the frothy, speculative nature of the U.S. stock market and liquidated their portfolios, only to see the Dow Jones Average spurt another 500 points, or 22.5%.

Nevertheless, at year's end, they were still ahead of those who had held stocks throughout the year and seen much more than that final 500 points removed by the Crash when the Dow Jones Industrial Average fell 23% in just one day, October 19. And those bears weren't scared by devastating losses and therefore were in much better psychological shape to assess analytically the 1988 investment outlook.

Investors could choose not only to own no stocks in the months of greatest stock market decline, but to sell them short while being on the sidelines in the 50 strongest months. Line 5 (Chart 8) shows the results when the portfolio was out of the market during the 50 strongest months of the 1947–2010 era and short the DJIA during the 50 weakest. Even if the 50 most robust months are missed entirely, the investor had far better performance by being short the 50 weakest months than if he were fully invested at all times. Line 5 indicates that $1 turned into $10,897—a 15.6% compound annual gain compared with the 8.7% annual gain from the buy-and-hold strategy with $1 growing to $213.3 (line 1).

The difference between an 8.7% compound annual gain and 15.6% may not seem great, but it makes for a difference in portfolio value of 51 *times* in the course of 63-plus years (10,897 compared to 213.3). Compounding is potent! This difference is huge, but it makes sense. If the investor sells short and the stock falls 50%, he has gained one-half on the value of the stock—again, grade school math. If he had been long instead, he would have lost 50%. Consequently, the bear, with 150% of his starting portfolio value, is three times better off than the bull, whose portfolio has dropped to 50% of its original value. Repeating and compounding this sort of gap over time results in a huge difference.

**The Perennial Bear**

Take it one step further and suppose the investor is a skeptic and shorted the S&P 500 not only in the 50 weakest months, but also in the 50 strongest months, and went long otherwise. Despite his error in taking exactly the wrong action in the strongest months, his short position in the 50 weakest proves to be so beneficial that he winds up with a 9.1% annual gain (line 6), more rewarding than the perpetual bull (line 1). This, to me, makes a very powerful statement. Being negative on stocks in the weakest times pays well even for the investor who is negative during the strongest months as well! He could make a lot of mistakes in being bearish and still have an excellent performance.

This reality has worked for us in portfolios we manage. We've missed being long in some strong stock rallies and sometimes have even been short, but our willingness to be short in bear markets has produced overall excellent returns. There's less competition in selling stocks short since many investors consider it unpatriotic. Nevertheless, timing is still critical since bear markets tend to be shorter and more intense than bull rallies.

**The Best Results**

The best results would obviously be achieved by the portfolio that was long in the 50 strongest months and short in the 50 weakest (line 7 in Chart 8). As usual, we assume the portfolio was long in all other months, whether the S&P 500 rose or fell. Any investor clairvoyant enough or lucky enough to own that portfolio would have seen each dollar invested in the S&P 500 at the end of December 1946 turn into $352,310 by February 2010—a 22.1% annualized gain, or 352,310 times the original investment. Super! The combined, compounded effect of being long the bull months and short the big bear months is spectacular.

The moral of this exercise is clear: It's profitable to be in stocks during bull markets, but it's even more profitable to be short stocks, or at least out of the market, during bear markets—even if many of the major bull market months are missed completely.

**Portfolio Balancing**

Furthermore, many investors engage in market timing whether they admit it or not. Portfolio rebalancing involves reducing holdings in sectors that have risen and adding to those that have fallen to reestablish set sector percentages. This amounts to market timing since the underlying assumption is that those stocks that jumped will fall in the next period while the fallen will rise. We, however, have never understood this strategy of selling your winners and buying more of your losers. We're stuck on the Wall Street adage, cut your losses and let your profits run. Or as our great friend Dennis Gartman puts it, do more of what's working and less of what isn't.

We also eschew the buy-and-hold strategy because of what's known in classical statistics as the *gamblers ruin paradox*. The odds may be in your favor in the long run—in this case, your stocks may provide great returns over, say, 10 years. But if you hit a streak of bad luck, your capital may be exhausted before that long run plays out.

Jack Bogle was a great pioneer and asset to investors. But unless you can stick to his strategy of buying the broad stock market and holding low-cost funds indefinitely, you're better off intelligently applying a market-timing approach.

## Commentary

# Double Liability

Years ago, my dad told me that his father owned stock in a small Ohio bank, and that if the bank failed, stockholders not only lost their investment but an additional equal amount that was used to pay off the bank's creditors. I asked my friend Jim Grant about this and he sent me an interesting 1991 legal study on the practice. Thanks Jim! What struck me was the similarity between double liability and the recovery of money from Bernard Madoff's gigantic Ponzi scheme.

Double liability disciplined bankers even in the wild cat banking days of the 19th century. Normally, if a corporation becomes insolvent, its shareholders have no personal responsibility for its debts, but banks were the exception. Over the life of the system, the recovery rate on national bank assessments was 51% and was not significantly lower during the 1930-1934 Depression years. That may seem small, but bank stocks were held by insiders who often suffered personal bankruptcy as well when their banks failed.

Double liability was ultimately phased out because in the wave of bank failures in the Great Depression, many shareholders were already in serious financial trouble and the 1920s economic boom had spread bank share ownership widely among the public. It also failed to maintain public confidence in the banking system.

Furthermore, FDIC bank deposit insurance, enacted in 1933, superseded double liability but it transferred responsibility from bank shareholders to the federal government. In contrast to the discipline of double liability, modern managements of troubled banks are often willing to take higher risks in the hopes of recovery, since they have little to lose personally.

I've written in past *Insight*s that big bank officials today won't settle for conventional banking, taking deposits and then lending them at higher interest rates to cover costs and make modest profits. Instead, they wanted to run growth stock companies as was shown by their speculation in subprime mortgages in the 2000s that required huge government bailouts. FDIC insurance was trivial to those guys, who had the government's too-big-to-fail back-up to rely on.

Of course, investors with Madoff didn't have double liability. All they could lose was their investment, but those who had withdrawn money before his fraud was revealed thought, falsely, that only their remaining investment was at risk. Still, there are many similarities with the earlier bank double liability recoveries.

In both cases, liability was individual and not collective. Under double liability, the receiver of a failed bank could assess shareholders up to the par value of their stock, but not more even if other shareholders were insolvent. Similarly, individual Madoff victims were not responsible for money others had given Bernie, even if those people were dead or broke.

Responsibility couldn't be transferred in either case. Attempts to transfer shares in failing banks to indigents to avoid double liability were routinely shot down by courts. Investors who had invested with Madoff through "feeder funds" were still on the hook.

Double liability obligations followed the heirs of deceased shareholders, and bankruptcy lawyers pursued them ruthlessly. Madoff's investors, even if they withdrew their money before his downfall, were still liable and their money was clawed back. In both cases, of course, the lawyers were the big winners. Irving Picard and his associates who handled the Madoff case have so far recovered $13.3 billion of $17.5 billion in investor money, or 76% of the total, but are being paid $1,000 per hour for their services.

Until the 1920s, bank double liability involved small numbers of bank insiders. Madoff's victims were a small number of mostly wealthy Jewish investors.

There are, however, significant differences. Bank stockholders were aware of risks, and that promoted prudent bank policies. In contrast, Madoff's investors truly believed that he could consistently produce superior returns with virtually no volatility. But they should not have believed in free lunch. One of his victims was my late friend Norman Kantor who explained Madoff's stated, but fictitious strategy to me early on. I knew enough about security trading to question it and told Norm so, but unconvincingly.

Another difference: Bank failures occurred one by one, at least until the early 1930s. Madoff's Ponzi scheme was a huge build-up to a spectacular collapse that no one foresaw, except Harry Markopolos, who had it figured out but got repeatedly brushed off by the SEC.

The collapse of the subprime mortgage boom generated the deepest recession since the 1930s, but it was contained by massive fiscal stimuli and big bank bailouts. Can the recent global debt explosion be controlled by similar government action if it suffers a similar fate?