A. Gary Shilling's INSIGHT

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In This Issue

"The Bond Rally of A Lifetime"

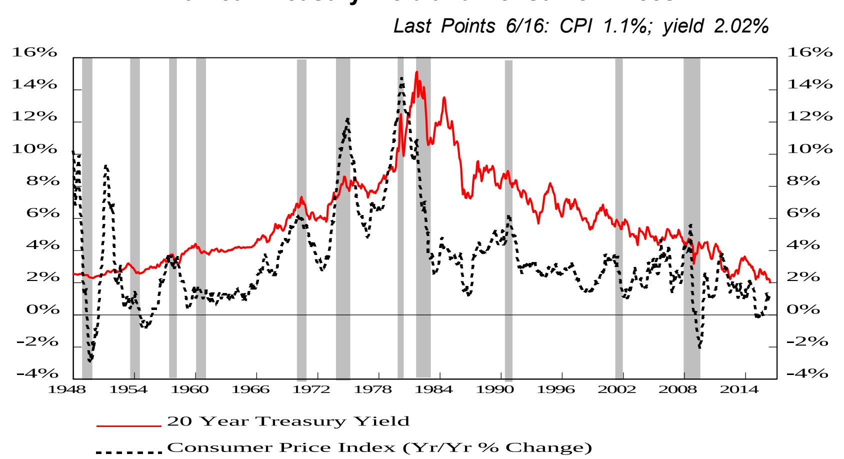
We've been bulls on 30-year Treasury bonds since 1981 when we stated, "We're entering the bond rally of a lifetime." It's still under way, in our opinion. Their yields back then were 15.2%, but our forecast called for huge declines in inflation and, with it, a gigantic fall in bond yields to our then-target of 3%.

The Cause of Inflation

In our early 1980s book, *Is Inflation Ending? Are You Ready?* (McGraw-Hill, 1983), we argued that the root of inflation is excess demand, and historically it's caused by huge government spending on top of a fully-employed economy. That happens during wars, and so inflation and wars always go together, going back to the French and Indian War, the Revolutionary War, the War of 1812, the Mexican War of 1846, the Civil War, the Spanish American War of 1898, World Wars I and II and the Korean War. In the late 1960s and 1970s, huge government spending, and the associated double-digit inflation (*Chart 1*), resulted from the Vietnam War on top's LBJ's War on Poverty.

CHART 1

20-Year Treasury Yield and Consumer Prices



Source: Federal Reserve and Bureau of Labor Statistics

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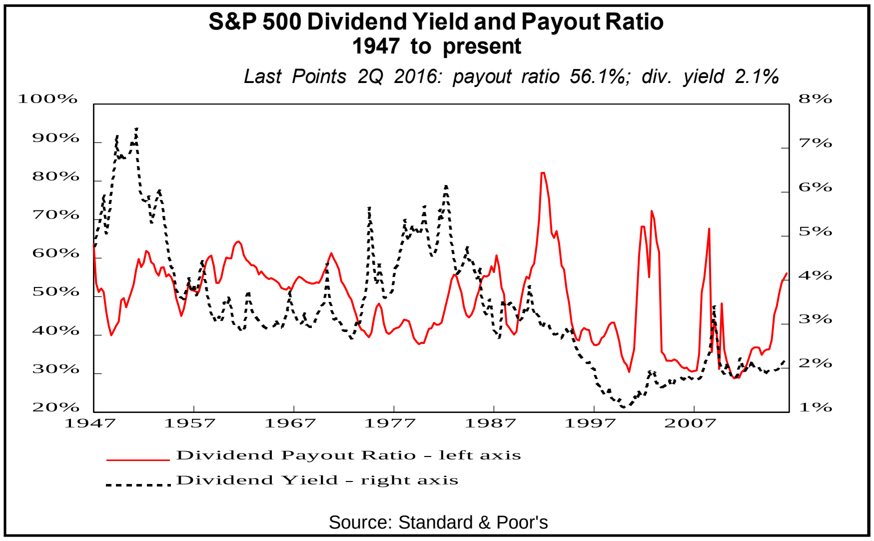
By the late 1970s, however, the frustrations over military stalemate and loss of American lives in Vietnam as well as the failures of the War on Poverty and Great Society programs to propel lower-income folks led to a rejection of voters' belief that government could aid Americans and solve major problems. The first clear manifestation of this switch in conviction was Proposition 13 in California, which limited residential real estate taxes. That was followed by the 1980 election of Ronald Reagan, who declared that government *was* the basic problem, not the solution to the nation's woes.

CHART 2



This belief convinced us that Washington's involvement in the economy would atrophy and so would inflation. Given the close correlation between inflation and Treasury bond yields (Chart 1), we then forecast the unwinding of inflation—disinflation—and a related breathtaking decline in Treasury bond yields to 3%, as noted earlier.

At that time, virtually no one believed our forecast since most thought that double-digit inflation would last indefinitely. So the sales of *Is Inflation Ending? Are You Ready?* were disappointing and McGraw-Hill literally gave us the remaining copies just to get rid of them. We did enjoy a pyrrhic victory, however, in 1986, long after the book was out of print. As our forecast unfolded, the business editors of the *Boston Globe* and the *Seattle Post-Intelligencer* independently reviewed the book and praised its accurate forecast—and that was still early in "the bond rally of a lifetime" since the Treasury bond yield had dropped to an average 8.25% but was still much higher than today's 2.21%.

Lock Up For Infinity?

Despite the high initial yields on "the long bond," as the most-recently issued 30-year Treasury is called, our focus has always been on price appreciation as yields drop, not on yields, per se. A vivid example of this strategy occurred in March 2006—before the 2007–2009 Great Recession promoted the nosedive in stocks and leap in Treasury bond prices. I was invited by Professor Jeremy Siegel of Wharton for a public debate on stocks versus bonds. He, of course, favored stocks and I advocated Treasury bonds.

At one point, he addressed the audience of about 500 and said, "I don't know why anyone in their right mind would tie up their money for 30 years for a 4.75% yield [the then-yield on the 30-year Treasury]." When it came my turn to reply, I asked the audience, "What's the maturity on stocks?" I got no answer, but pointed out that unless a company merges or goes bankrupt, the maturity on its stock is infinity—it has no maturity. My follow-up question was, "What is the yield on stocks?" to which someone correctly replied, "It's 2% on the S&P 500 Index." (*Chart 2*).

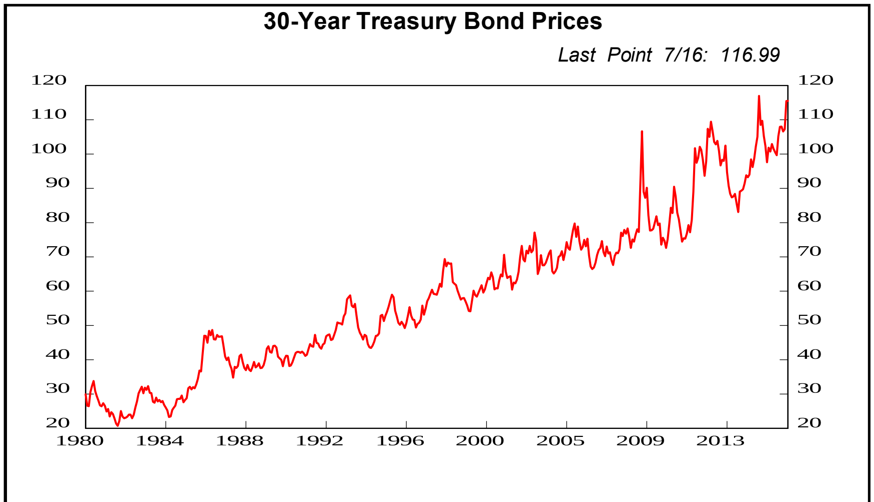
So I continued, "I don't know why anyone would tie up money for infinity for a 2% yield." I was putting the query, apples to apples, in the same framework as Professor Siegel's rhetorical question. "I've never, never, never bought Treasury bonds for yield, but for appreciation, the same reason that most people buy stocks. I couldn't care less what the yield is, as long as it's going down since, then, Treasury prices are rising."

Of course, Siegel isn't the only one who hates bonds in general and Treasuries in particular. And because of that, Treasurys, unlike stocks, are seldom the subject of irrational exuberance. Their leap in price in the dark days in late 2008 (*Chart 3, opposite page*) is a rare exception to a market that seldom gets giddy, despite the declining trend in yields and related decline in prices for almost three decades.

Treasury Haters

Stockholders inherently hate Treasurys. They say they don't understand them. But their quality is unquestioned, and Treasurys and the forces that move yields are well-defined—Fed policy and inflation or deflation (Chart 1) are among the few important factors. Stock prices, by contrast, depend on the business cycle, conditions in that particular industry, Congressional legislation, the quality of company management, merger and acquisition possibilities, corporate accounting, company pricing power, new and old product potentials, and myriad other variables.

CHART 3



Source: Bloomberg

Also, many others may see bonds, except for junk, which really are equities in disguise, as uniform and gray. It's a lot more interesting at a cocktail party to talk about the unlimited potential of a new online retailer that sells dog food to Alaskan dogsledders than to discuss the different trading characteristics of a Treasury of 20- compared to 30-year maturity. In addition, many brokers have traditionally refrained from recommending or even discussing bonds with clients. Commissions are much lower and turnover tends to be much slower than with stocks.

Stockholders also understand that Treasurys normally rally in weak economic conditions, which are negative for stock prices, so declining Treasury yields are a bad omen. It was only individual investors' extreme distaste for stocks in 2009 after their bloodbath collapse that precipitated the rush into bond mutual funds that year. They plowed $69 billion into long-term municipal bond funds alone in 2009, up from only $8 billion in 2008 and $11 billion in 2007.

Another reason is that most of those promoting stocks prefer them to bonds is because they compare equities with short duration fixed-income securities that did not have long enough maturities to appreciate much as interest rates declined since the early 1980s.

Investment strategists cite numbers like a 6.7% annual return for Treasury bond mutual funds for the decade of the 1990s while the S&P 500 total annual return, including dividends, was 18.1%. But those government bond funds have average maturities and durations far shorter than on 30-year coupon and zero-coupon Treasurys that we favor and which have way, way outperformed equities since the early 1980s, as we'll discuss later. In fact, in official parlance, any Treasury with a maturity between one and 10 years is a note, while bonds have maturities over 10 years. So when those strategists talk about "Treasury bonds," they're misusing the term and really referring to Treasury notes.

Those who worry more about inflation than deflation also hate bonds, which tend to fall in price as inflation rates rise (Chart 1). These worriers include individual and institutional investors. Wall Street denizens also despise Treasurys, as I learned that firsthand while at Merrill Lynch and then White, Weld. Investment bankers didn't want me along on client visits when I was forecasting lower interest rates. They wanted projections of higher rates that would encourage corporate clients to issue bonds immediately, not wait for lower rates and cheaper financing.

Professional managers of bond funds are a sober bunch who perennially fret about inflation, higher yields, and subsequent capital losses on their portfolio. And if yields fall, they don't rejoice over bond appreciation but worry about reinvesting their interest coupons at lower yields. Well, you can't have it both ways!

Media Bias

The media also hates Treasury bonds, as their extremely biased statements reveal. The June 10 edition of *The Wall Street Journal* stated: "The frenzy of buying has sparked warnings about the potential of large losses if interest rates rise. The longer the maturity, the more sharply a bond's price falls in response to a rise in rates. And with yields so low, buyers aren't getting much income to compensate for that risk." Since then, the 30-year Treasury yield has dropped from 2.48% to 2.21% as the price has risen by 8.3%.

Then, the July 1 *Journal* wrote: "Analysts have warned that piling into government debt, especially long-term securities at these slim yields, leaves bondholders vulnerable to the potential of large capital losses if yields march higher." Since then, the price of the 30-year Treasury has climbed 1.7%. While soft-pedaling the tremendous appreciation in long-term sovereigns this year, *Wall Street Journal* columnist James MacKintosh worries about the reverse. On July 28, he wrote, "Investors are taking a very big risk with these long-dated assets....Japan's 40-year bond would fall 15% in price if the yield rose by just half a percentage point, taking it back to where it stood in March. If yields merely rise back to where they started the year, it would be catastrophic for those who have chased longer duration. The 30-year Treasury would lose 14% of its value, while Japan's 40-year would lose a quarter of its value."

The July 11 edition of the *Journal* said, "Changes in monetary policy could also trigger potential losses across the sovereign bond world. Even a small increase in interest rates could inflict hefty losses on investors." But in response to Brexit, the Bank of England has already eased, not tightened, credit, with more likely to follow. The European Central Bank is also likely to pump out more money as is the Bank of Japan as part of a new $268 billion stimulus package. Meanwhile, even though Fed Chairwoman Yellen has talked about raising interest rates later this year, we continue to believe that the next Fed move will be to reduce them.

Major central banks have already driven their reference rates to essentially zero and now negative in Japan and Europe (*Chart 4*) while quantitative easing exploded their assets (*Chart 5*). The Bank of England immediately after Brexit moved to increase the funds available for lending by U.K. banks by $200 billion. Earlier, on June 30, BOE

Chart 4

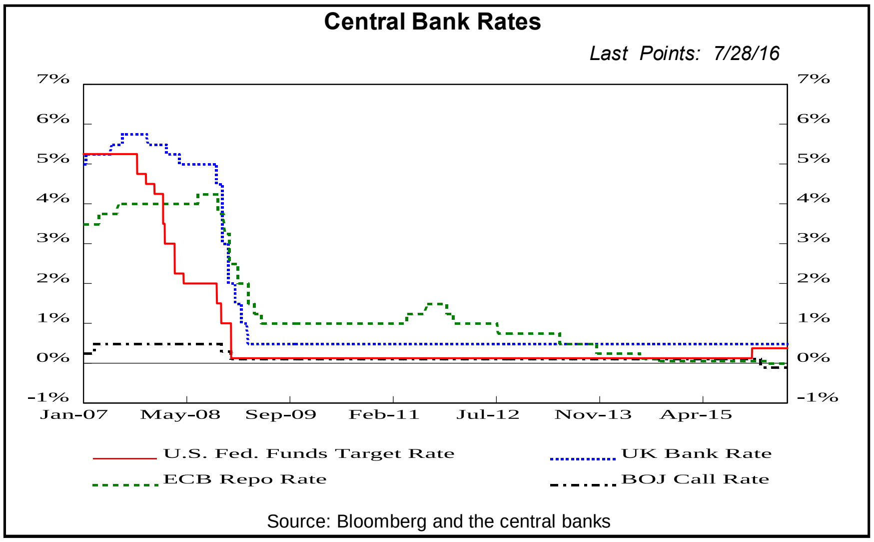


Chart 5

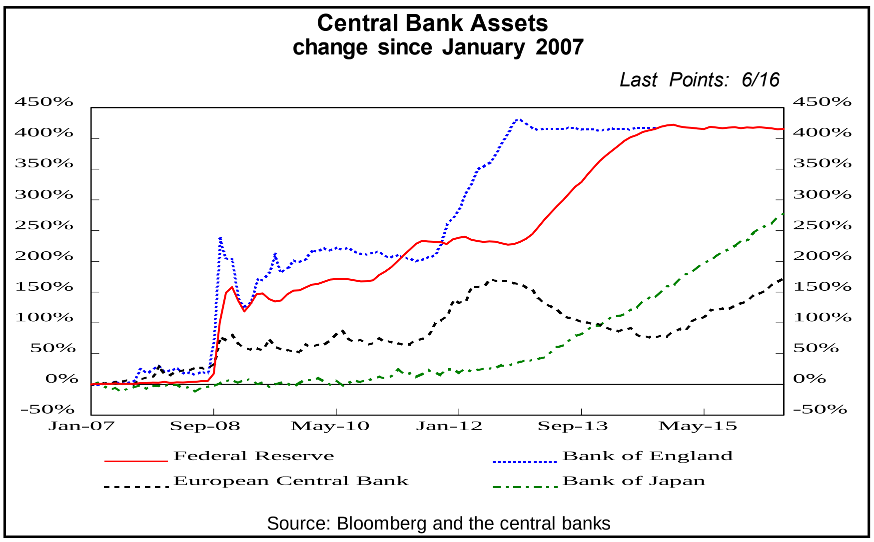
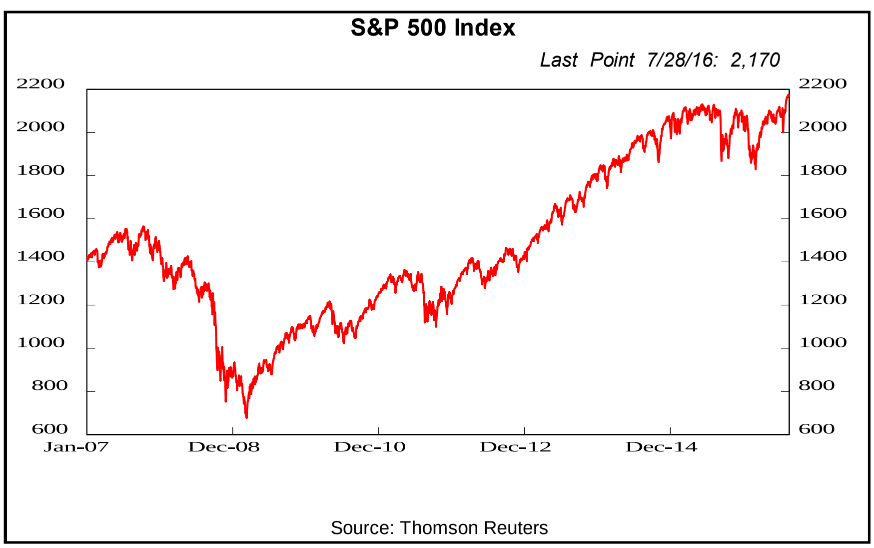


Chart 6



chief Mark Carney said that the central bank would need to cut rates "over the summer" and hinted at a revival of QE that the BOE ended in July 2012 (Chart 5).

Impotent Monetary Policy

We continue to believe that monetary policies are impotent. Zero interest rates did little to spur lending and borrowing, and negative rates appear to be creating more confusion than help. Quantitative easing also has not stimulated purchases of goods and services and, therefore, economic growth.

As discussed repeatedly in past *Insight*s, when central banks buy securities in the open market to execute their QE programs, the institutional and individual investors that sell those securities largely reinvested the proceeds in equities. This propelled stocks (*Chart 6, opposite page*). But financial institutions that benefit don't end up buying more goods and services, directly or indirectly.

As for individual stockholders, equities are primarily owned by households with high net worths and incomes who don't increase their spending on goods and services appreciably as their assets rise. Someone with four vehicles already in his driveway probably doesn't want or have room for a fifth. The top 10% in families by income had 47 times as much value in equities as the lowest 20% in 2013, the latest Federal Reserve data.

Furthermore, studies show that the effects of rising household net worth in consumer spending are falling over time. This isn't surprising since household income shares continue to shift to upper-income people (*Chart 7*). Also, U.S. households have moved from a two-decade-long borrowing and spending binge to a saving spree (*Chart 8*), so they want to hang on to their net worth increases. In past *Insight*s, we've discussed a number of reasons for this

CHART 7

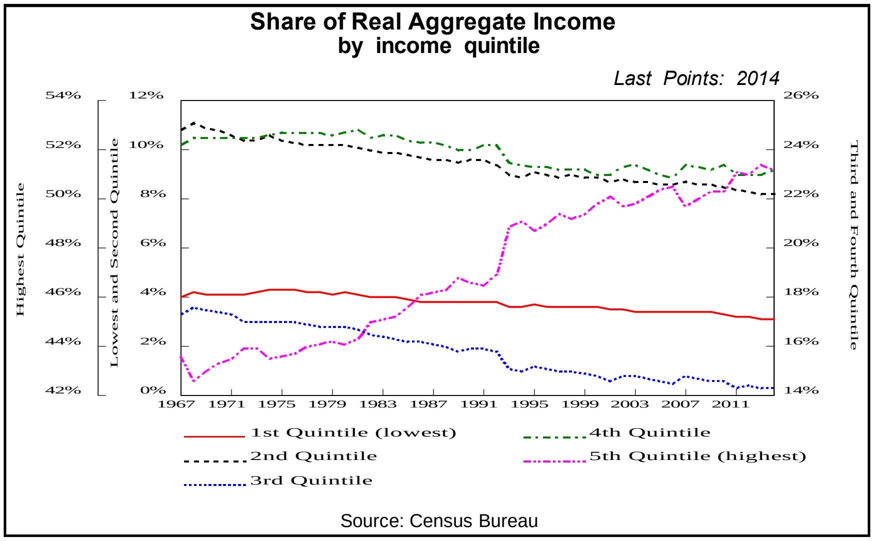


CHART 8

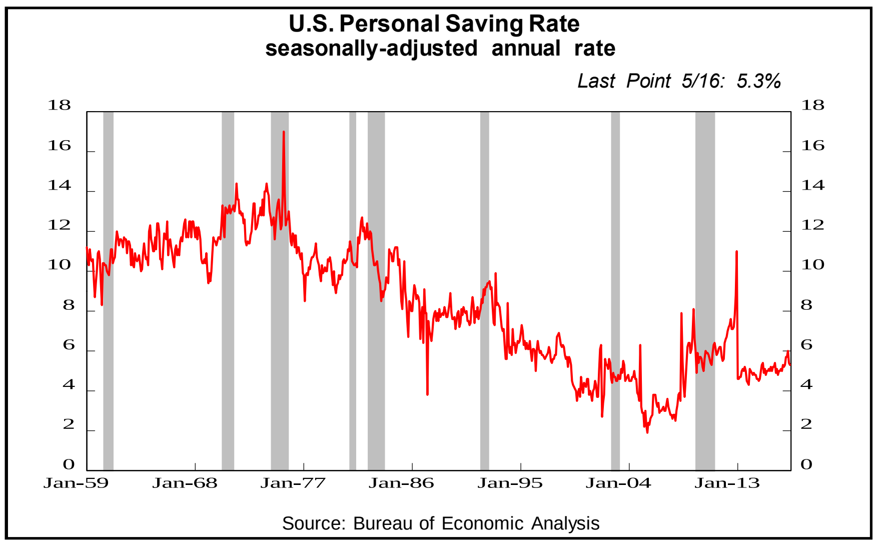
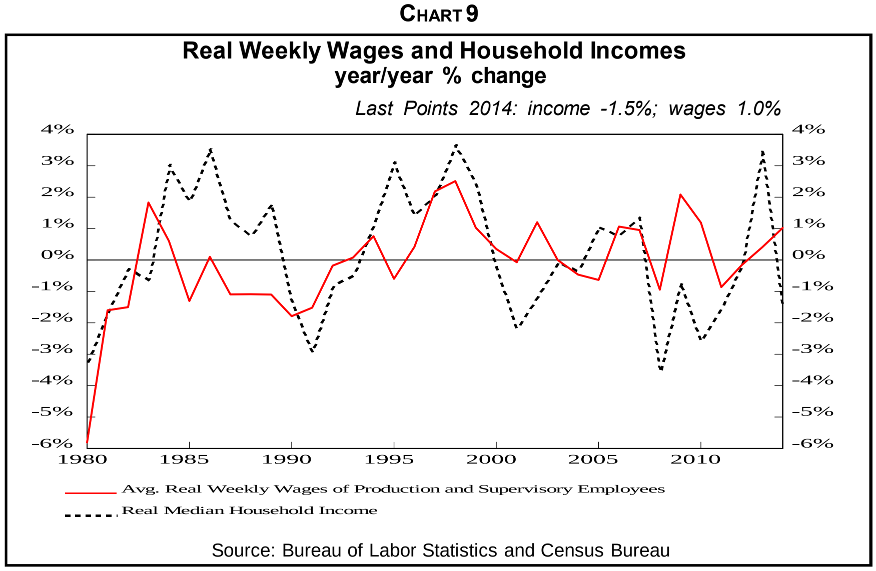


CHART 9



phenomenon, first and foremost the lack of earlier saving by the now-retiring postwar babies.

Household saving is also being encouraged by tough economic times for many with real income even lower than a decade ago (*Chart 9, page 5*). Households with squeezed incomes have less money to save even though economic uncertainty gives them the desire to save more. So which wins out, more saving or less? In past recessions, the same downward pressure on incomes that many have suffered in recent years was overcome by the desire to save for uncertain futures. So the household saving rate consistently rose.

ECB Rates "Lower"

ECB President Mario Draghi in April—before the June 23 Brexit vote—said that interest rates will remain at "present or lower levels for an extended period," leaving open the possibility of further cuts. He also looked for deflation in coming months. In contrast, the Fed has consistently overestimated inflation, economic growth (*Chart 10*) and, therefore, interest rate increases. Even in late May, Chairwoman Yellen suggested that the Fed would raise rates again within months, pointing to rising energy prices and a weaker dollar. And after Brexit, and more recently, Fed officials are suggesting an interest rate increase by year's end.

CHART 10

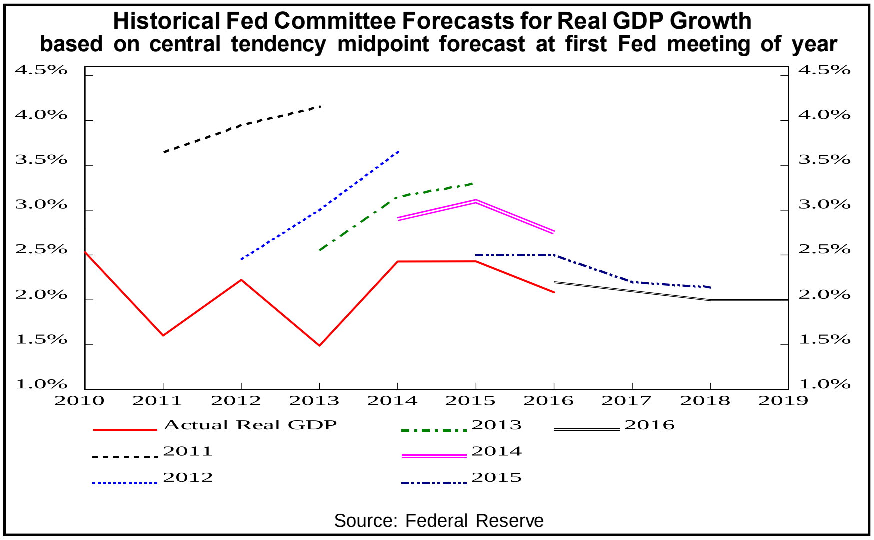
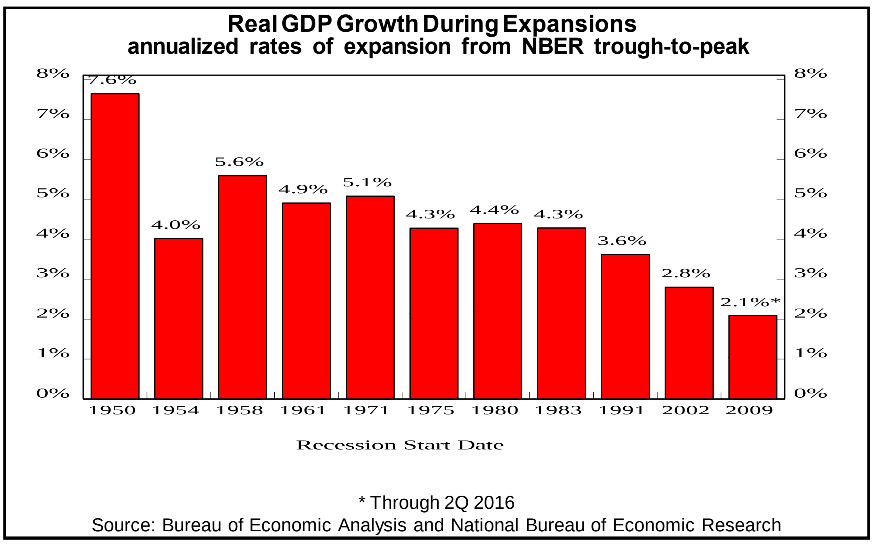


CHART 11



Nevertheless, the Fed at its late April policy meeting finally—finally—cranked its GDP forecast down to the 2% level (*Chart 11*) that has reigned since this recovery started in mid-2009 (Chart 11). And Yellen told Congress right before the Brexit vote that a Leave decision would "usher in a period of uncertainty" and fuel volatility in world markets "that would negatively affect financial conditions and the U.S. economy." With Brexit a reality, we believe it's highly unlikely that the Fed's federal funds rate will be raised any time soon. We're waiting for the central bank to once again admit that it was overly optimistic.

Crying "Wolf!"

Earlier this year, we said that the Fed only raised its reference rate in December by 0.25% because it has cried "Wolf!" so often and so loudly about doing so that if it did not act, its remaining credibility would disappear. Further, we wrote in our January *Insight*, well before Brexit: "The Fed in December raised it policy overnight rate by 0.25%, but no other major central bank has done so, with the Bank of Japan and European Central Bank taking the opposite stance with massive quantitative easing programs. In the likely atmosphere of slow global economic growth in coming years and deflation, we expect monetary policies to remain easy. Since the 2007-2009 financial crisis, the central banks of Sweden, Israel, Canada and South Korea have all raised rates and then were forced to cut them. *The Fed may be forced to join them.* (Emphasis added.)

"Along with private forecasters, the Fed has consistently overestimated inflation for five years and remains mystified by its lack of return despite the drop in the headline unemployment rate from 10% in the depths of the Great Recession to 5%. The policymakers keep saying the labor markets are strengthening to the point that rapid wage hikes are just around the corner and will rekindle overall inflation. In our judgment, they don't understand the profound effects of globalization in depressing wages in developed countries or the influence of ongoing deleveraging in keeping global economic growth slow."

The Fed doesn't seem to comprehend that the drop in the unemployment rate from its 10% peak to 4.9% (*Chart 12*) was not due to more jobs but to people dropping out of the labor force (*Chart 13*). Our analysis shows that retiring postwar babies and younger people staying in school longer account for 60% of the 4.6 percentage-point drop in the labor participation rate since February 2000. The other 40% is middle-age discouraged people who have given up looking for jobs. Without those dropouts, the headline unemployment rate would now be 11%.

"Speculative Capital Gains"

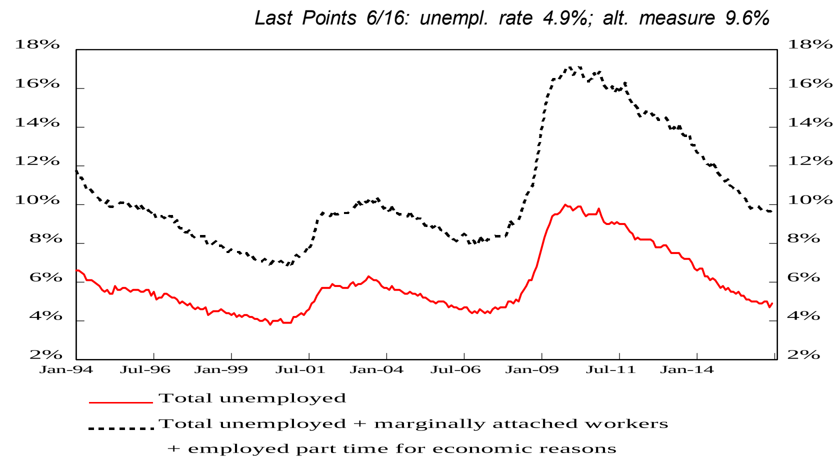
In any event, in the July 12 edition of the *Journal*, regular columnist Richard Barley wrote, "Buying bonds for speculative capital gains looks far more dangerous" than buying equities for income. But, as noted earlier, for 35 years, we've never, never, never owned Treasury bonds for their yield, but fore appreciation—and so far, it's worked beautifully.

Kudlow's Call

Larry Kudlow, earlier a CNBC TV anchor, was extremely doubtful of our 3% forecast for the yield on 30-year Treasurys and even lower rates for 10-year Treasury notes. So in late 2007, he told me on camera that if the 10-year note yield fell below 3.5%, he'd take me

CHART 12

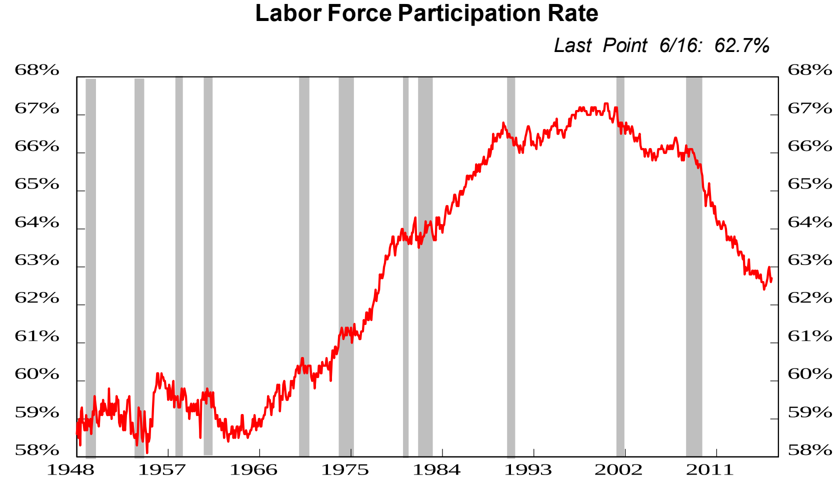
Alternative Measures of Unemployment



Source: Bureau of Labor Statistics

CHART 13

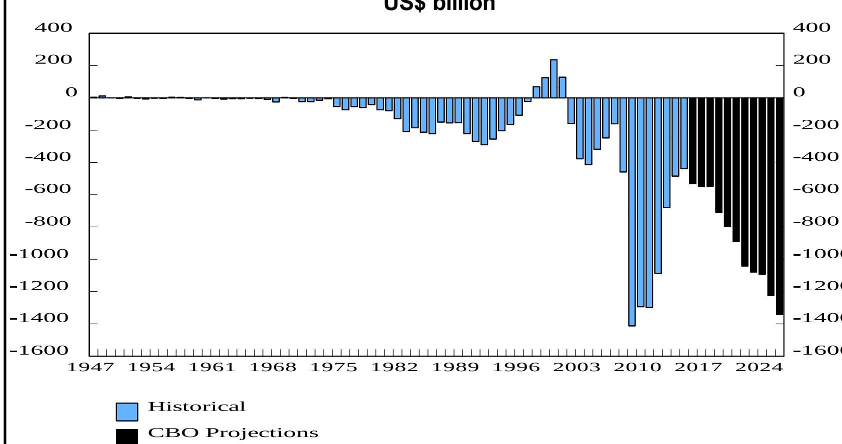
Labor Force Participation Rate



Source: Bureau of Labor Statistics

CHART 14

Federal Budget Balance
US$ billion



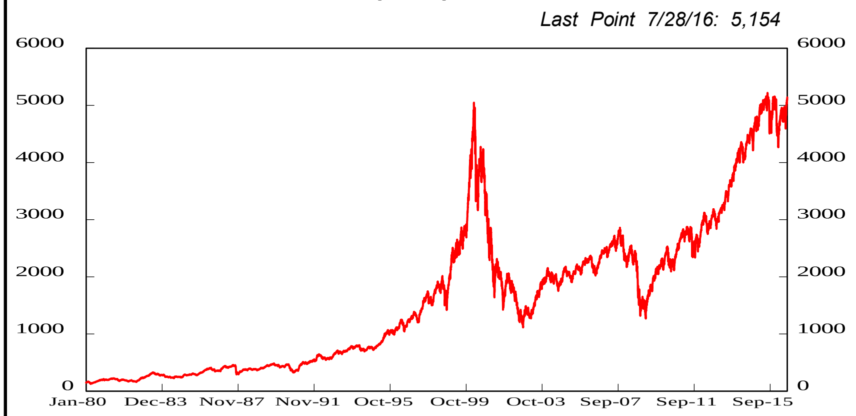
Source: Congressional Budget Office

to dinner at a fine New York City restaurant with our wives. On May 15, 2008, the Shillings were treated to a wonderful dinner by the Kudlows at upscale La Grenouille.

We've been pretty lonely as Treasury bond bulls for 35 years, but we're comfortable being in the minority and tend to make more money in that position than by running with the herd. Incidentally, we continue to favor the 30-year bond over the 10-year note, which became the benchmark after the Treasury in 2001 stopped issuing the "long bond." At that time, the Treasury was retiring debt because of the short-lived federal government surpluses (*Chart 14, page 7*) caused by the post–Cold War decline in defense spending and big capital gains and other tax collections associated with the Internet stock bubble (*Chart 15*).

But after the federal budget returned to deficits as usual, the Treasury resumed long bond issues in 2006. In addition, after stock losses in the 2000–2002 bear market, many pension funds wanted longer-maturity Treasurys to match against the pension benefit liability that stretched further into the future as people live longer, and they still do.

Chart 15



Source: Bloomberg

Chart 16

Coupon Treasurys: Return on 1 Percentage Point Decline in Interest

Yield	30 Yrs	25 Yrs	20 Yrs	15 Yrs	10 Yrs	5 Yrs
15%						
14%	7.0%	6.9%	6.7%	6.2%	5.3%	3.5%
13%	7.5%	7.4%	7.1%	6.6%	5.5%	3.6%
12%	8.1%	7.9%	7.5%	6.9%	5.7%	3.7%
11%	8.7%	8.5%	8.1%	7.4%	6.0%	3.7%
10%	9.5%	9.2%	8.6%	7.8%	6.2%	3.8%
9%	10.3%	10.0%	9.2%	8.3%	6.5%	3.9%
8%	11.3%	10.9%	9.9%	8.8%	6.8%	4.0%
7%	12.5%	11.9%	10.7%	9.3%	7.1%	4.2%
6%	13.8%	13.0%	11.6%	10.0%	7.5%	4.3%
5%	15.4%	14.3%	12.6%	10.6%	7.8%	4.4%
4%	17.4%	15.9%	13.7%	11.4%	8.2%	4.5%
3%	19.6%	17.7%	15.0%	12.2%	8.6%	4.6%
2%	22.0%	19.8%	16.4%	13.1%	9.0%	4.7%
1%	24.6%	22.0%	17.9%	13.5%	9.1%	4.7%

Source: A. Gary Shilling & Co.

Maturity Matters

We also prefer the long bond because maturity matters to appreciation when rates decline. Because of compound interest, a 30-year bond increases in value much more for each percentage point decline in interest rates than does a shorter maturity bond (*Chart 16*). Note (*Chart 17*) that at recent interest rates, a one percentage point fall in rates increases the price of a 5-year Treasury note by about 4.8%, a 10-year note by around 9.5%, but a 30-year bond by around 24.2%. Unfortunately, this works both ways, so if interest rates go up, you'll lose much more on the bond than the notes if rates rise the same for both.

If you really believe, as we have for 35 years, that interest rates are going down, you want to own the longest-maturity bond possible. This is true even if short-term rates were to fall twice as much as 30-year bond yields. Many investors don't understand this and want only to buy a longer-maturity bond if its yield is higher.

Others only buy fixed-income securities that mature when they need the money back. Or they will buy a ladder of bonds that mature in a series of future dates. This strikes us as odd, especially for Treasurys that trade hundreds of billions of dollars' worth each day and can be easily bought

Chart 17

Maturity Matters
appreciation for a 1 percentage point decline in yields from July 2016 levels

5 year	4.8%
10 year	9.5%
15 year	11.8%
20 year	17.2%
25 year	18.8%
30 year	24.2%

Source: A. Gary Shilling & Co.

and sold without disturbing the market price. Of course, when you need the cash, interest rates may have risen and you'll sell at a loss, whereas if you hold a bond until it matures, you'll get the full par value unless it defaults in the meanwhile. But what about stocks? They have no maturity so you're never sure you'll get back what you pay for them.

CHART 18

Zero-Coupon Treasurys: Return on 1 Percentage Point Decline in Interest

Yield	30 Yrs	25 Yrs	20 Yrs	15 Yrs	10 Yrs	5 Yrs
15%						
14%	30%	24%	19%	14%	9%	4.5%
13%	30%	25%	19%	14%	9%	4.5%
12%	31%	25%	19%	14%	9%	4.5%
11%	31%	25%	20%	14%	9%	4.6%
10%	31%	25%	20%	15%	9%	4.6%
9%	32%	26%	20%	15%	10%	4.7%
8%	32%	26%	20%	15%	10%	4.7%
7%	32%	26%	20%	15%	10%	4.8%
6%	33%	26%	21%	15%	10%	4.8%
5%	33%	27%	21%	15%	10%	4.9%
4%	33%	27%	21%	15%	10%	4.9%
3%	34%	27%	21%	16%	10%	4.9%
2%	34%	28%	22%	16%	10%	5.0%
1%	34%	28%	22%	16%	10%	5.0%

Source: A. Gary Shilling & Co.

Mom's Misunderstanding

I saw this common investor attitude firsthand in the mid-1980s when I took over the management of my parents' securities. I don't think it was that they trusted my investment prowess as much as the fact that their broker of some 30 years retired. Soon after we restructured the portfolio, I got a call from my mother. "Gary," she said, "I see that you put Treasury bonds in our account that won't mature for 30 years."

"That's right, Mom," I replied. "We think interest rates are going down and so they'll appreciate nicely."

"But Gary," she rejoined, "Dad and I won't be around in 30 years."

"Maybe, Mom," I noted, "but we won't necessarily still have them in your portfolio in 30 years even if you are still alive." Well, Dad died in 1999 at age 91 and Mom made it 100 in 2010.

How Bonds Work

You, no doubt, know how bonds function, but a short review may be helpful. A bond, whether it's issued by a municipality, corporation, the U.S. Treasury or a government agency, is referred to as a debt security, representing a loan by an investor (the buyer) to the issuer. In return, the issuer promises to repay the debt at a future date while paying a fixed amount of interest on the amount borrowed.

The term "fixed income" security is derived from the fact that the interest rate, or coupon rate, the investor receives is fixed at the time the bond is issued and remains unchanged. Bonds are usually issued in $1,000 denominations, but prices are quoted as percentages. A bond quoted at 100, or par, would sell at $1,000.

As most investors are aware, the prices of existing bonds rise as market yields fall because the interest they pay, their coupon, is fixed. Let's say that you buy a bond when market yields are 10%, so a newly-issued bond at par would cost $1,000 and return, usually in two semi-annual installments, $100 per year. Even if interest rates suddenly drop to 5%, you still get $100 annually for the life of the bond.

At the new, lower interest rate, how much would a buyer have to pay to get you to part with that bond? In this somewhat simplified example, it would take $2,000, double the original price, because that's what it would take for you to get the same $100 per year by reinvesting that $2,000 in a new 5% coupon bond.

Note one very important fact. In this example, when market returns dropped to 5%, you can look on your bond investment as having doubled in price, or you can view it as having locked-in a 10% yield. But you can't have it both ways. In other words, you can sell your bonds and take your 100% profit but then you've lost your 10% return and have to reinvest at 5%. If you keep the bond, you have a 10% return on your original investment but no realized profit.

Zero-Coupon Bonds

Bond interest payments are important in boosting total return because of the compounding effect. As bond yields fall, though, the reinvestment interest rates decline as well. When yields were 10%, the interest received could be reinvested at 10%. At a 5% interest rate, the reinvestment earns only half as much.

The problem can be eliminated with zero-coupon bonds—also known as stripped bonds, or strips, because the coupons often are separated, or stripped, from the bonds themselves. They pay no interest, only one final payment at maturity. They are bought at a discount to that fixed final price and, in effect, the current interest rate is locked in. At 5% yields, for example, a zero coupon Treasury that matures in 30 years at $1,000 would sell at $228.60 since $228.60 compounded at 5% for 30 years equals $1,000.

By eliminating this reinvestment risk, zero-coupon bonds deliver much more bang per buck as interest rates fall than do interest-paying bonds, as shown in *Chart 18 (page 9)*. On a 30-year zero-coupon bond, a decline in rates from 15% to 14% boosts the price by 30%, and a drop from 3% to 2% leads to 34% percent appreciation, about the same amount.

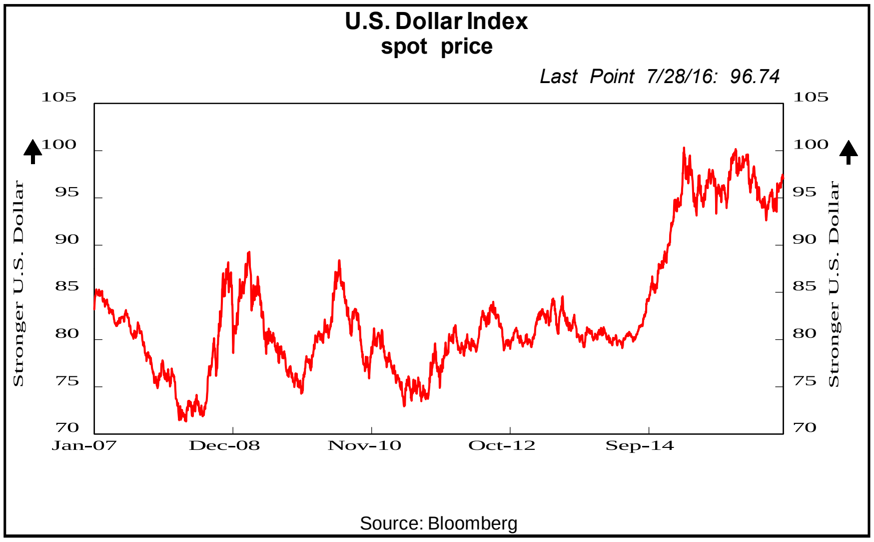
Zeros vs. Coupon Bonds

By comparing Charts 16 and 18, you're seeing two big differences between coupon and zero-coupon bonds. First, the price increases per decline in yields are much greater, especially for long-maturity bonds. Consequently, a yield drop from 6% to 3% boosts the 30-year zero price by 137% compared with 63% for the coupon bond, excluding coupon payments. Second, the appreciation for each percentage point decline in yield increases very slowly for zeros compared with coupon bonds, due to the absence of the coupon reinvestment risk.

While you make more money in zero-coupon bonds than with coupon Treasurys when interest rates fall, you lose more if they rise. No free lunch! And if zeros are too tame for you, there's even more leverage from Treasurys bought on margin. Federal Reserve regulations require stock buyers to put up 50%, but there's no limits on Treasurys, and 95% margin loans are common.

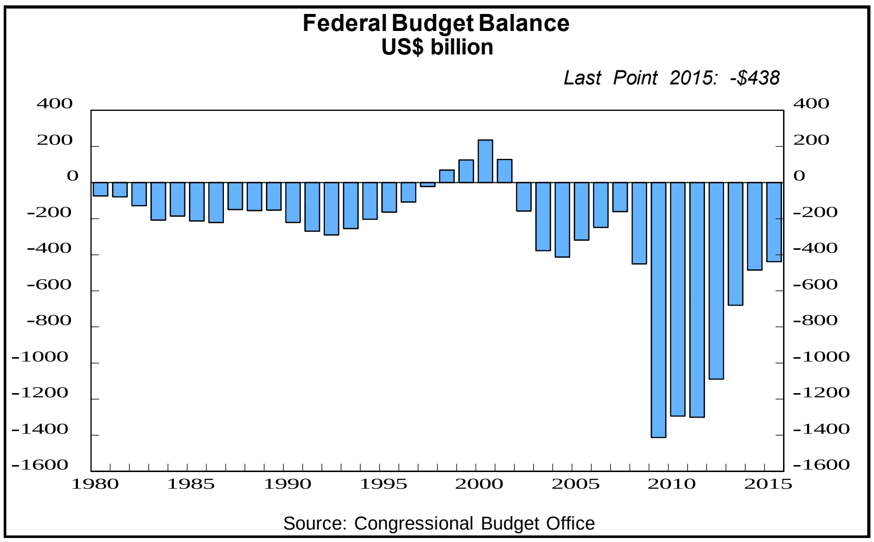
Then, for even more bang-per-buck, Treasury bond futures and options are available with even less money down. So don't believe that Treasury bonds are only for little old ladies and orphans!

CHART 19



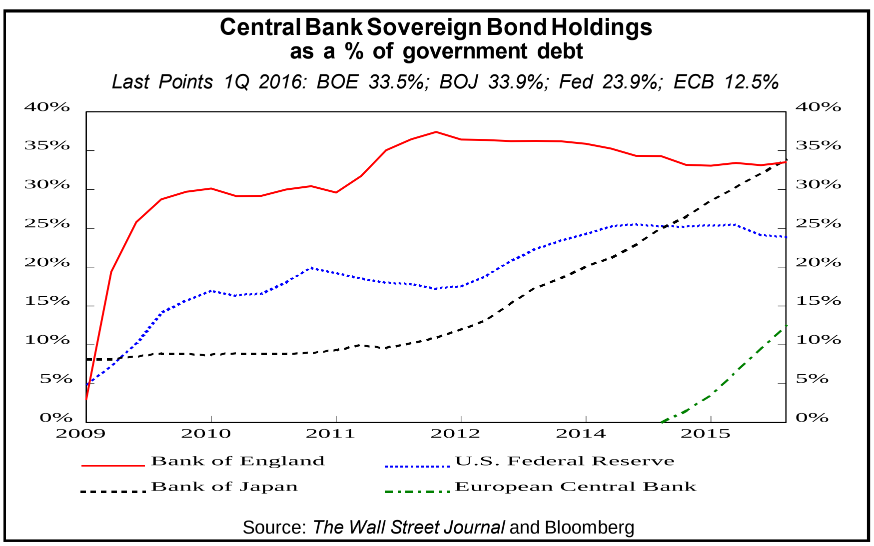
Source: Bloomberg

CHART 20



Source: Congressional Budget Office

CHART 21



Source: *The Wall Street Journal* and Bloomberg

Three Sterling Qualities

We've also always liked Treasury coupon and zero-coupon bonds because of their three sterling qualities. First, they have gigantic liquidity with hundreds of billions of dollars' worth trading each day, as noted earlier. So all but the few largest investors can buy or sell without disturbing the market. Second, in most cases, they can't be called before maturity.

This is an annoying feature of corporate and municipal bonds. When interest rates are declining and you'd like longer maturities to get more appreciation per given fall in yields, issuers can call the bonds at fixed prices, limiting your appreciation. Even if they aren't called, callable bonds don't often rise over the call price because of that threat. But when rates rise and you prefer shorter maturities, you're stuck with the bonds until maturity because issuers have no interest in calling them. It's a game of heads the issuer wins, tails the investor loses.

Third, Treasurys are generally considered the best-quality issues in the world. This was clear in 2008 when 30-year Treasurys returned 42%, but global corporate bonds fell 8%, emerging market bonds lost 10%, junk bonds dropped 27%, and even investment-grade municipal bonds fell 4% in price.

CHART 22

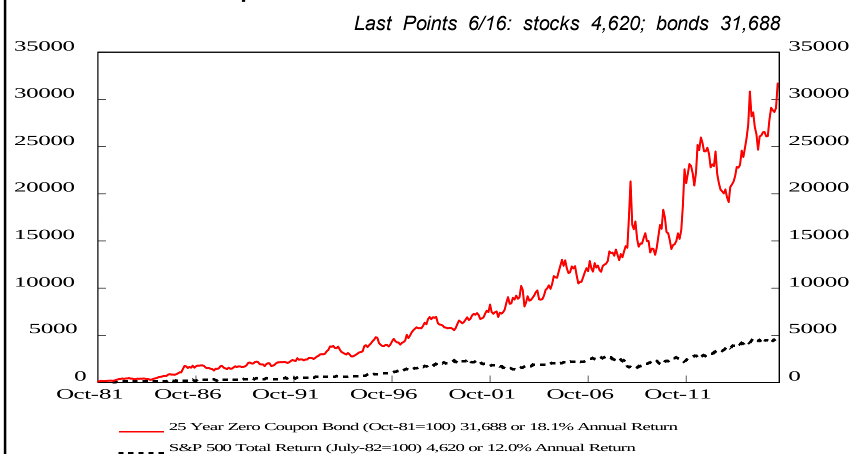
10-Year Sovereign Bond Yields
as of July 27, 2016

Country	Yield	Spread vs. Treasurys
Switzerland	-0.57	-2.07
Japan	-0.29	-1.78
Germany	-0.08	-1.58
Netherlands	0.03	-1.47
Finland	0.07	-1.43
Denmark	0.07	-1.43
Austria	0.10	-1.39
France	0.14	-1.36
Belgium	0.16	-1.34
Ireland	0.46	-1.04
United Kingdom	0.74	-0.76
Norway	0.97	-0.53
Canada	1.07	-0.42
Spain	1.10	-0.40
Italy	1.21	-0.29
United States	1.50	--
Australia	1.95	0.46
Portugal	2.98	1.48
Greece	7.98	6.49

Source: *Financial Times*

CHART 23

Comparative Stock and Bond Performances



Source: Bianco Research and Haver Analytics

Slowing global economic growth and the growing prospects of deflation are favorable for lower Treasury yields. So is the likelihood of further ease by central banks, including even a rate cut by the Fed, as noted earlier. Along with the dollar (*Chart 19, opposite page*), Treasurys are at the top of the list of investment safe havens as domestic and foreign investors, who own about half of outstanding Treasurys, clamor for them.

Sovereign Shortages

Furthermore, the recent drop in the federal deficit has reduced government funding needs (*Chart 20, opposite page*) so the Treasury has reduced the issuance of bonds in recent years. In addition, tighter regulators force U.S. financial institutions to hold more Treasurys.

Also, central bank QE has vacuumed up highly-rated sovereigns, creating shortages among private institutional and individual buyers (*Chart 21, opposite page*). The Fed stopped buying securities in late 2014, but the European Central Bank and the Bank of Japan, which already owns 34% of outstanding Japanese government securities, are plunging ahead. The resulting shortages of sovereigns abroad and the declining interest rates drive foreign investors to U.S. Treasurys.

Also, as we've pointed out repeatedly over the past two years, low as Treasury yields are, they're higher than almost all other developed country sovereigns, some of which are negative (*Chart 22*). So an overseas investor can get a better return in Treasurys than his own sovereigns. And if the dollar continues to rise against his home country currency, he gets a currency translation gain to boot (Chart 19).

"The Bond Rally of a Lifetime"

We believe, then, that what we dubbed "the bond rally of a lifetime" 35 years ago in 1981 when 30-year Treasurys yielded 15.2% is still intact. This rally has been tremendous, as shown in *Chart 23 (page 11)*, and we happily participated in it as forecasters, money managers and personal investors. As a result of our highly-leveraged position in the long bond, we achieved financial independence for the Shilling family by the mid-1980s.

CHART 24

Treasury Rally Returns

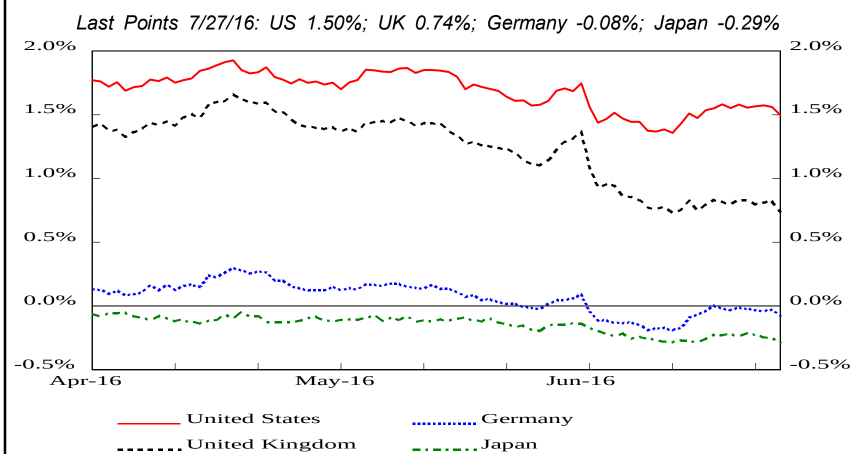
	Initial yield (as of 7/27/16)	Final yield (end of year)
30-yr.	2.21%	2.00%
10-yr.	1.50%	1.00%

	Total Return
30-yr. coupon	5.7%
30-yr. zero	6.4%
10-yr. coupon	5.6%
10-yr. zero	5.1%

Chart 23 uses 25-year zero-coupon bonds because of data availability but the returns on 30-year zeros were even greater. Even still, $100 invested in that 25-year zero-coupon Treasury in October 1981 at the height in yield and low in price and rolled over each year maintains its maturity or duration to avoid the declining interest rate sensitivity of a bond as its maturity shortens with the passing years. It was worth $31,688 in June of this year, for an 18.1% annual gain. In contrast, $100 invested in the S&P 500 index at its low in July 1982 is now worth $4,620 with reinvested dividends. So the Treasurys have outperformed stocks by 7.0 *times* since the early 1980s.

CHART 25

10-Year Government Bond Yields

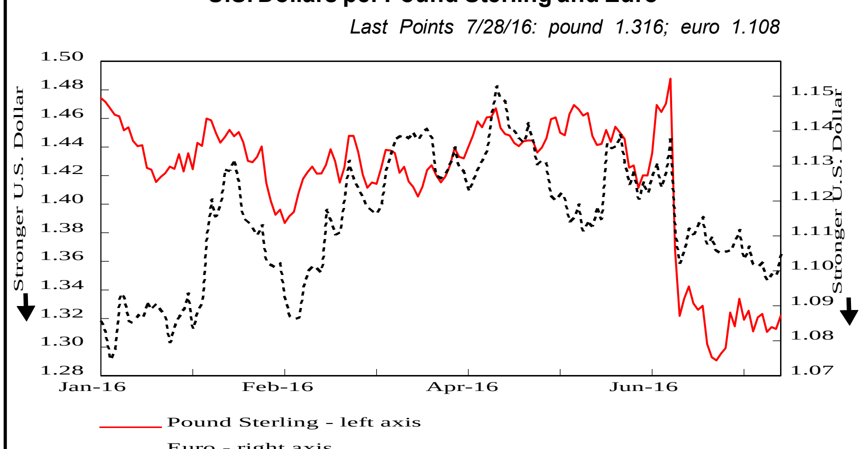


Source: Bloomberg

So far this year, 30-year zero-coupon Treasurys have returned 26% compared to 3.8% for the S&P 500. And we believe there's more to go. Over a year ago, we forecast a 2.0% yield for the 30-year bond and 1.0% for the 10-year note. If yields fall to those levels by the end of the year from the current 2.21% and 1.5%, respectively, the total return on the 30-year coupon bond will be 5.7% and 5.6% on the 10-year note. The returns on zero-coupon Treasurys with the same rate declines will be 6.4% and 5.1% (*Chart 24*).

CHART 26

U.S. Dollars per Pound Sterling and Euro

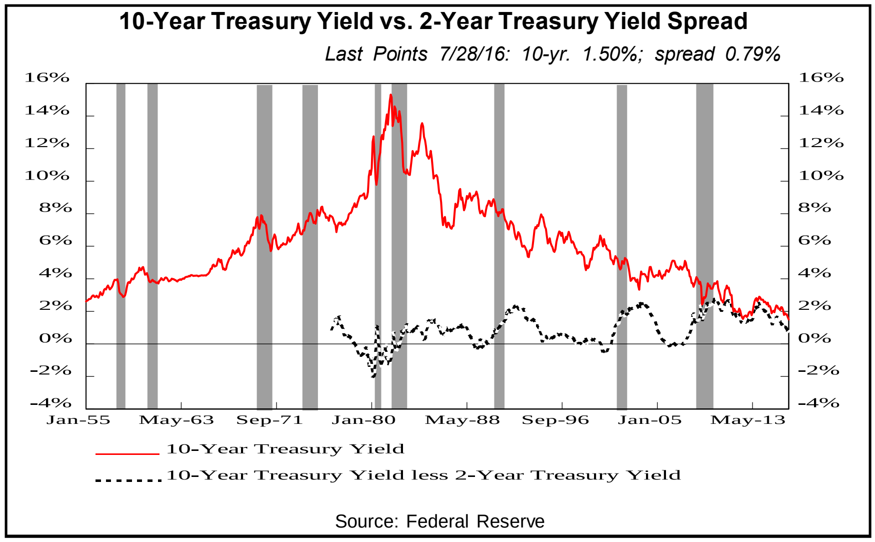


Source: Thomson Reuters

Besides Treasurys, sovereign bonds of other major countries have been rallying this year as yields fell (*Chart 25*) and investors have stampeded into safe corrals after Brexit. Even U.K. government bonds—called "gilts" because back when paper bonds existed, they had gold edges—have leaped in price despite the nosedive in sterling (*Chart 26*) and the downgrade in U.K. debt by Standard & Poor's and Fitch. By late July, 10-year gilts fell to 0.81%, their lowest level in modern history and below the 1.36% before the vote. Two-year British government obligations went minus in yield in late June for the first time ever.

The ECB expects Brexit to reduce economic growth in the eurozone by 0.5% over three years and many worry about a banking crisis in Italy. The average yield on an investment-grade 10-year government debt to 0.62% compares to 0.75% pre-vote.

CHART 27



Finally Facing Reality

Interestingly, some in the media are finally facing the reality of this superior performance of Treasury bonds and backpedaling on their 35-year assertions that it can't last. The July 12 *Wall Street Journal* stated: "Bonds are churning out returns many equity investors would envy. Remarkably, more than 80% of returns on U.S., German, Japanese and U.K. bonds are attributable to gains in price, Barclays index data show. Bondholders are no longer patient coupon-clippers accruing steady income."

CHART 28

S&P 500 Total Return by Sector

	2014	2015	2016 YTD
Telecom	3.0%	3.3%	24.8%
Utilities	28.9%	-4.8%	23.4%
Energy	-7.8%	-21.1%	16.1%
Consumer Staples	16.0%	6.6%	10.4%
Materials	6.9%	-8.4%	7.4%
Industrials	9.8%	-2.5%	6.4%
S&P 500	13.7%	1.4%	3.8%
Consumer Discretionary	9.7%	10.1%	0.7%
Health Care	25.3%	6.9%	0.4%
Information Technology	20.1%	5.9%	-0.3%
Financials	15.2%	-1.6%	-3.1%

Source: Bloomberg

The July 14 *Journal* said, "Ultra low interest rates are here to stay," and credited not only central bank buying of sovereigns but also slow global growth. Another *Journal* article from that same day noted that central banks can make interest rates even more negative and, if so, "even bonds bought at today's low rates could go up in price." And in the July 16 *Journal*, columnist Jason Zweig wrote, "The generation-long bull market in bonds is probably drawing to a close. But high quality bonds are still the safest way to counteract the risk of holding stocks, as this year's returns for both assets has shown. Even at today's emaciated yields, bonds still are worth owning." What a diametric change from earlier pessimism on bonds!

The July 11 *Journal* said, "Recently, the extra yield investors demand to hold the 10-year relative to the two-year Treasury note hit its lowest level since November 2007 (*Chart 27*). In the past, investors have taken this narrowing spread as a warning sign that growth momentum may soon slow because the Fed is about to raise interest rates—a move that would cause shorter-dated bond yields to rise faster than longer-dated ones. Now, like much else, it is largely being blamed on investors' quest for yield." Note (Chart 27) that when the spread went negative, with 2-year yields exceeding those on 10-year Treasury notes, a recession always followed. But that was because the Fed's attempts to cool off what it saw as an overheating economy with higher rates was overdone, precipitating a business downturn. That's not likely in today's continuing weak global economy.

Persistent Stock Bulls

Nevertheless, many stock bulls haven't given up their persistent love of equities compared to Treasurys. Their new argument is that Treasury bonds may be providing superior appreciation, but stocks should be owned for dividend yield. That, of course, is the exact opposite of the historical view, but in line with recent results. The 2.1% dividend yield on the S&P 500 (Chart 2) exceeds the 1.50% yield on the 10-year Treasury note and is close to the 2.21% yield on the 30-year bond (Chart 24). Recently, the stocks that have performed the best have included those with above average dividend yields such as telecom, utilities and consumer staples (*Chart 28, page 13*).

The utility sector, with its 3.3% dividend yield, is up 23% this year, driven by low interest rates. Not only are utility dividend yields attractive compared to those on most other stocks and Treasurys but high yields allow utilities to borrow heavily at now-low rates. They also are making large profits since the regulators that set utility rates are lagging behind their costs. Also, high-priced utility stocks allow them to raise equity capital cheaply.

And the interest in utilities and other traditionally high-yielding equities is spreading to tech stocks like IBM and Cisco. A decade ago, the tech sector contributed 6% to S&P 500 dividends, but in 2015, it was 15%.

Then there is the contention by stock bulls that low interest rates make stocks cheap even through the S&P 500 price-to-earnings ratio, averaged over the last 10 years to iron out cyclical fluctuations, now is 26 compared to the long-term average of 16.7(*Chart 29*). This makes stocks 36% overvalued, assuming that the long run P/E average is still valid. And note that since the P/E has run above the long-term average for over a decade, it will fall below it for a number of future years—if the statistical mean is still relevant.

Instead, stock bulls points to the high earnings yield, the inverse of the P/E, in

CHART 29

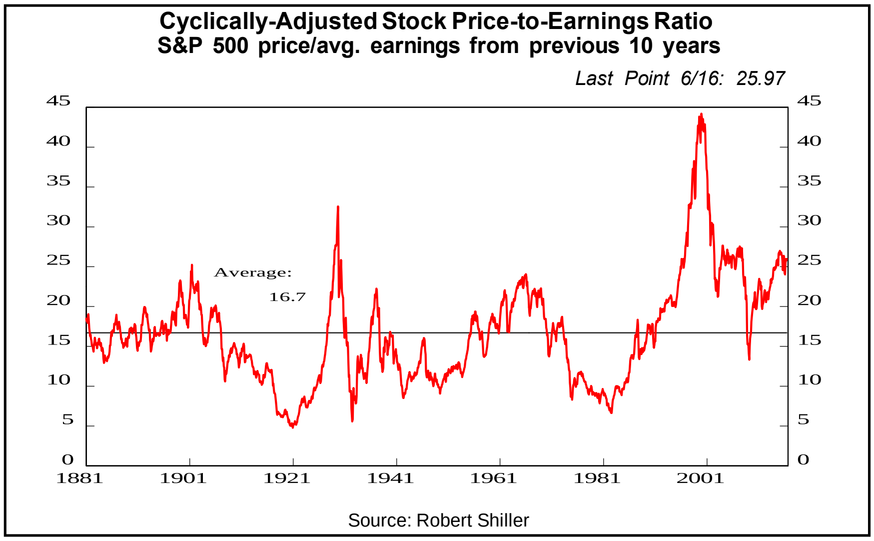


CHART 30

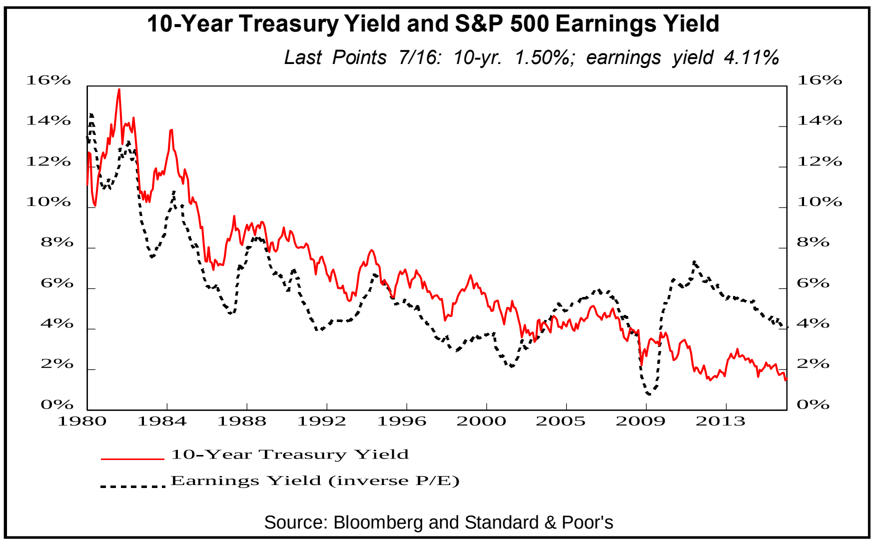
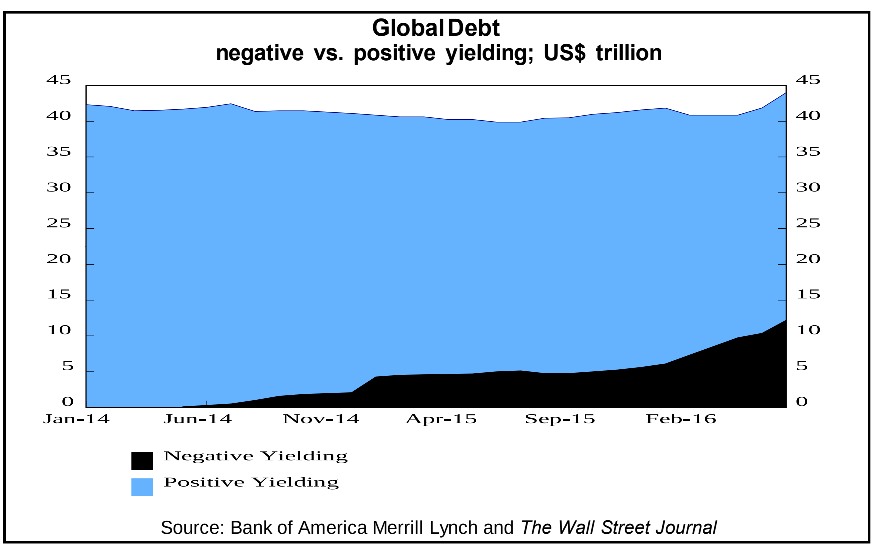


CHART 31



relation to the 10-year Treasury note yield (*Chart 30, opposite page*). They believe that low interest rates make stocks cheap. Maybe so, and we're not at all sure what low and negative nominal interest rates are telling us.

We'll know for sure in a year or two. It may turn out to be the result of aggressive central banks and investors hungry for yield with few alternatives. Or low rates may foretell global economic weakness, chronic deflation and even more aggressive central bank largess in response. We're guessing the latter is the more likely explanation.

Negative Interest Rates

There now is $13 trillion in negative-yielding debt globally, up from $11 trillion before Brexit and almost none in mid-2014 (*Chart 31, opposite page*). In Switzerland, government bonds through the longest maturity, almost 50 years, have yields below zero. Almost 80% of Japanese and German government bonds have negative yields, and even in Italy, which faces a banking crisis, $1.6 trillion in sovereign debt has below-zero yields. In mid-July, Germany sold 10-year debt at a negative yield, the first eurozone country to do so.

As investors scramble for yield—anything that's positive—they move to longer maturity sovereigns, pushing down those yields. That has flattened yield curves such that the normally meaningful spreads between short-term sovereigns and issues maturing in 30 years or more are now tiny (*Chart 32*).

The central banks that pushed interest rates negative appear to be acting in desperation because zero rates and QE haven't revived economic growth. Also, they hope that negative rates will discourage interest in their currencies and depress them. Then the resulting rises in import prices will revive inflation while lower prices of their exports for their trading partners will spur exports

CHART 32

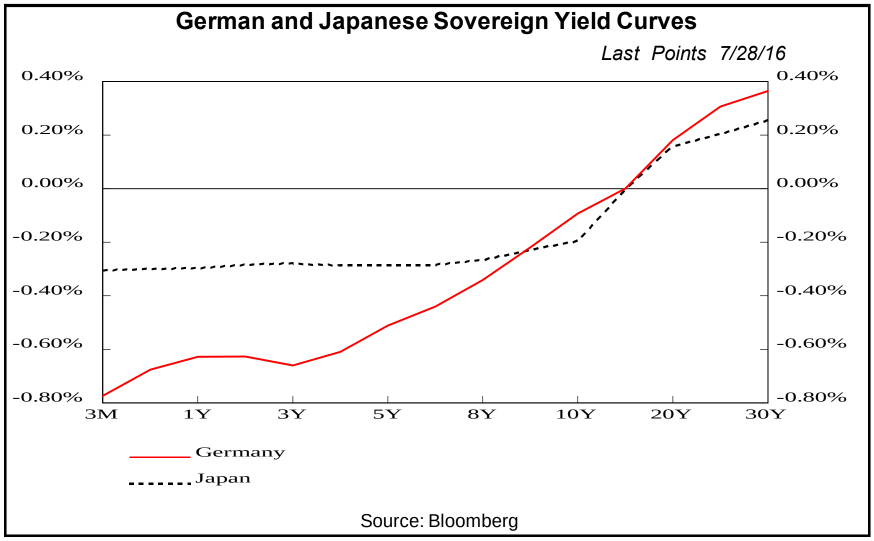


CHART 33

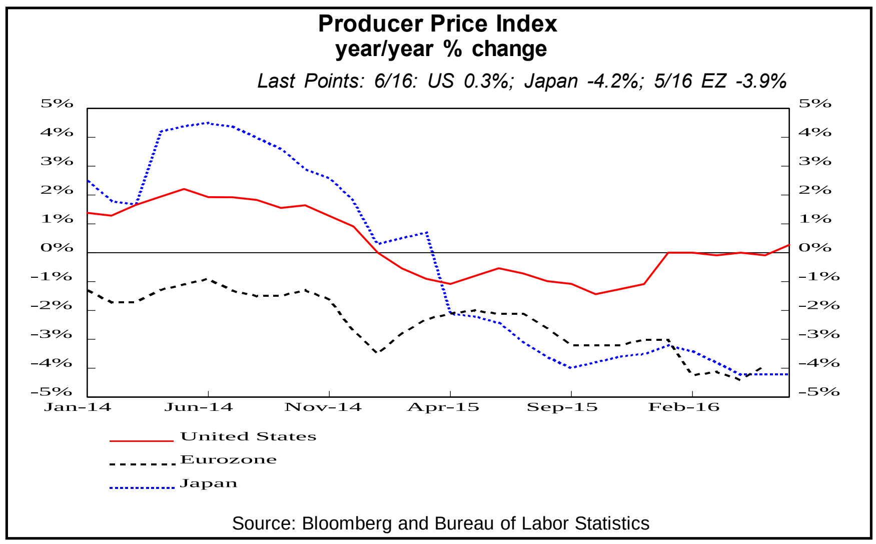
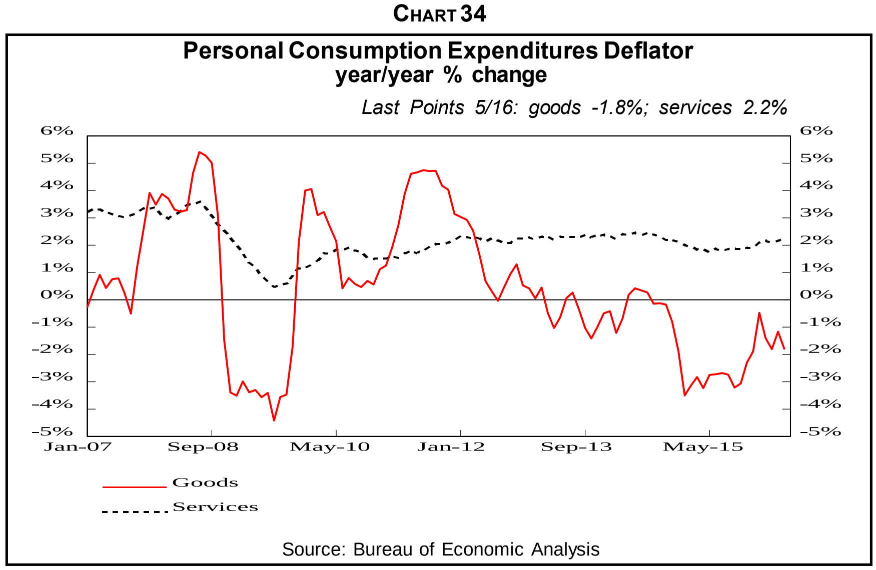


CHART 34



and domestic economic activity.

Central banks also hope negative rates will spur borrowing and lending, figuring that banks will lend out their reserves held at central banks rather than pay interest on them. But those reserves are simply transferred to other banks in which borrowers deposit their loan proceeds. Total reserves can only be reduced by central bank selling of assets. Nevertheless, negative rates in principle should encourage borrowing and investment into riskier assets, but haven't done so apparently.

Chronic Deflation

Chronic deflation is increasingly likely as commodity prices, including oil, fall in response to oversupply and slowing global growth. It's already present at the producer level in Japan, the eurozone and the U.S. (*Chart 33, page 15*) as well as China. At the consumer level, goods prices continue to fall, but overall indices are supported by services prices (*Chart 34, page 15*).

Still, the conditions that create weak goods prices spill over to services. Laid-off oil field workers don't spend as much in bars and restaurants, depressing demand for those services and their prices. Also, services inflation is overstated for a number of reasons, importantly the use of "owner's equivalent rent," which constituted about a quarter of the personal consumption expenditures deflator (Chart 34) and the CPI.

As discussed in past *Insight*s, rental rates have been soaring as vacancies fell (*Chart 35*), due to robust demand from the many new households that don't have the credit scores, job security and downpayments to buy their abodes. But the resulting gap between rental and mortgage costs (*Chart 36*) as well as impending overproduction of apartments (*Chart 37*) will put downward pressure on rents.

CHART 35

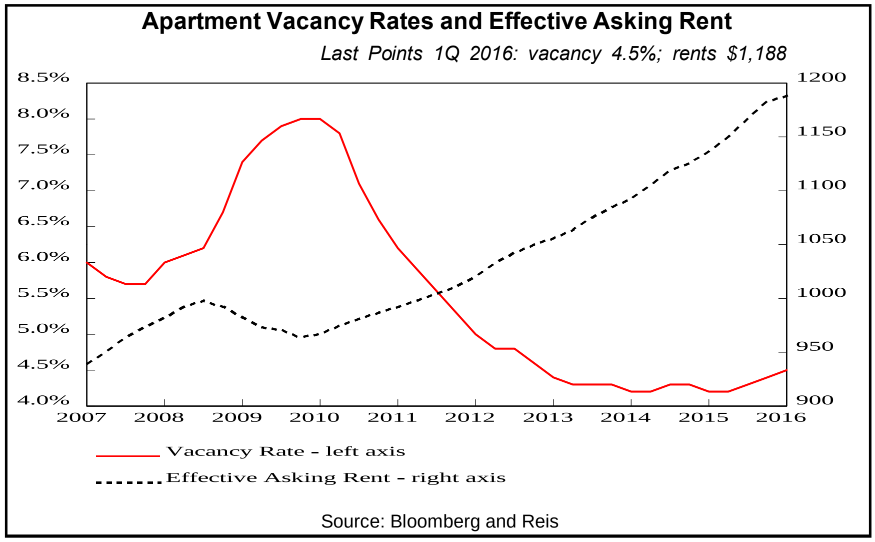


CHART 36

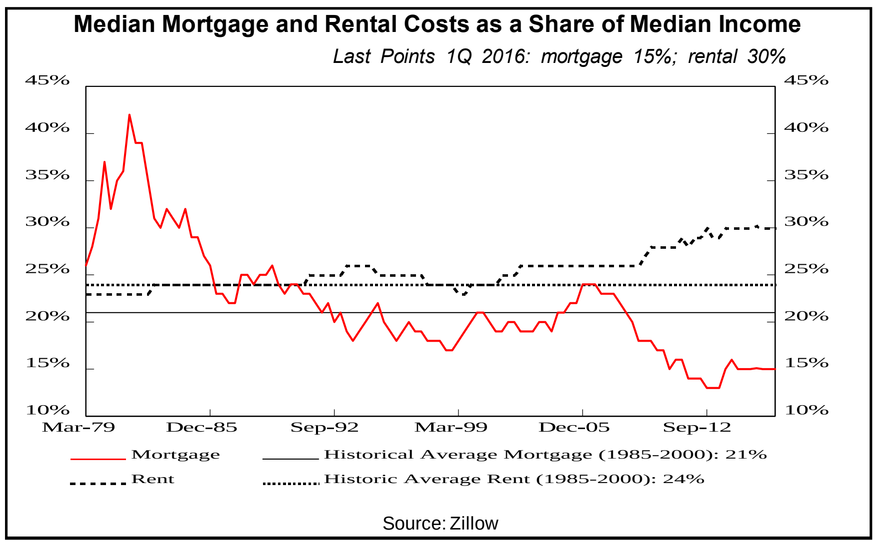
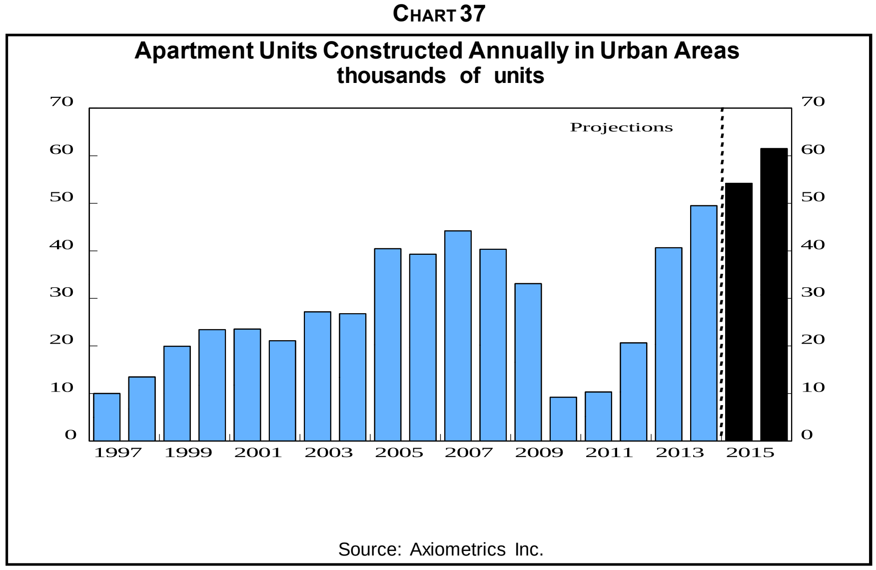


CHART 37



A moderation in rents will have a substantial impact on inflation. Owners' equivalent rent, a measure of rent inflation, assumes that homeowners rent their abodes from themselves at current market rates. It constitutes 24% of the CPI. With rental costs leaping, owners' equivalent rent jumped by a year-over-year rate of 3.2% in June (*Chart 38).* But do many homeowners know or care about the rental value of their homes? Does that affect their spending and saving behavior?

Excluding this fictitious number, the CPI inflation rate for June drops to 0.3% from 1.1%. As a major component of the total consumer price index, a decline in owners' equivalent rent could pave the way for deflation at the consumer level. Futures markets now forecast inflation of 1.4% five years from now, down from a 3% forecast in 2012.

Real Interest Rates

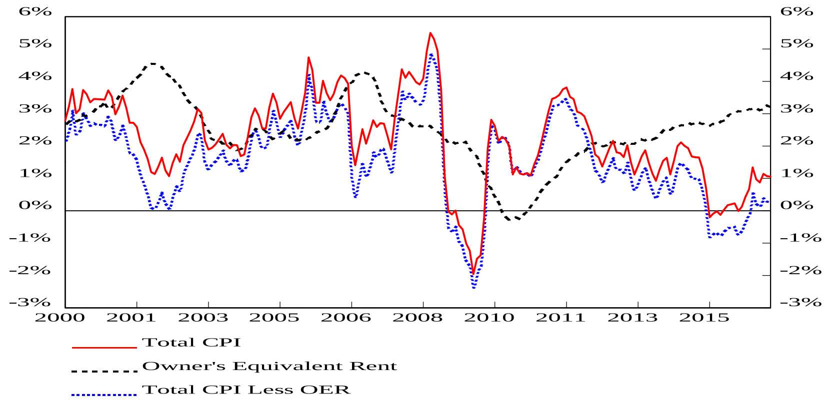
As we've noted repeatedly in past *Insights*, a primary goal of aggressive monetary policy is to get interest rates below inflation so that, in real terms, borrowers are paid to take the filthy lucre away. During inflation, real rates can be negative with nominal interest rates still positive as long as they are below the inflation rate. But during deflation, that's not possible unless nominal rates are negative. In Japan until recently, when the sales tax increased from 5% to 8% in April 2014 and temporarily spiked inflation, real rates were positive more times than not over the last two decades since the CPI was falling but the nominal Bank of Japan rate did not fall below zero (*Chart 39*).

In the U.S., nominal interest rates are still high enough and inflation not yet negative so real rates on 10-year Treasury notes are still positive, although in 2008 and again in 2011, real rates were negative as inflation exceeded nominal yields (*Chart 40*). In Japan, nominal rates are negative

CHART 38

CPI, Owner's Equivalent Rent and CPI Less Owner's Equivalent Rent year/year % change

Last Points 6/16: CPI 1.1%; OER 3.2%; less OER 0.3%

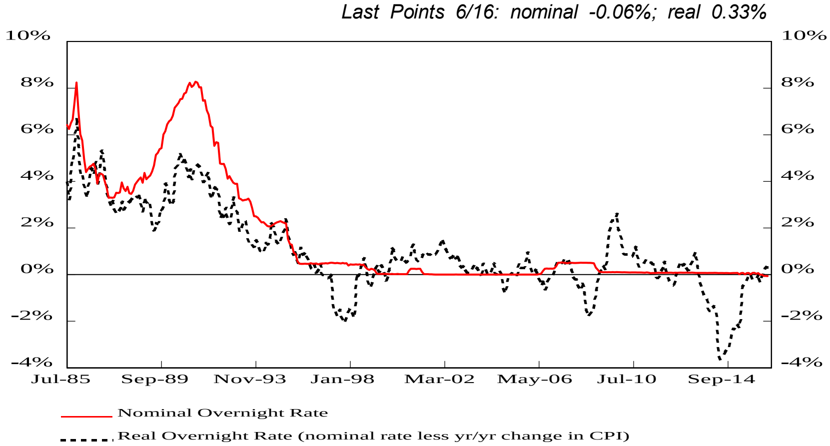


Source: Bureau of Labor Statistics

CHART 39

Japanese Real and Nominal Overnight Rates

Last Points 6/16: nominal -0.06%; real 0.33%

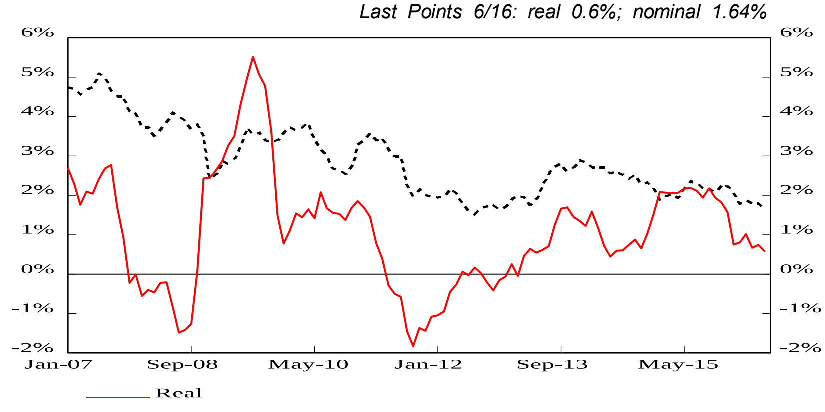


Source: Bank of Japan

CHART 40

Real and Nominal 10-Year Treasury Yields

Last Points 6/16: real 0.6%; nominal 1.64%



Note: real measured as 10-year Treasury yield less year/year change in CPI
Source: Federal Reserve and Bureau of Labor Statistics

but inflation even more negative so real rates are also positive (*Chart 41*). In Germany, however, nominal yields are more negative than inflation so real yields are negative, but not by much, -0.43% recently (*Chart 42*).

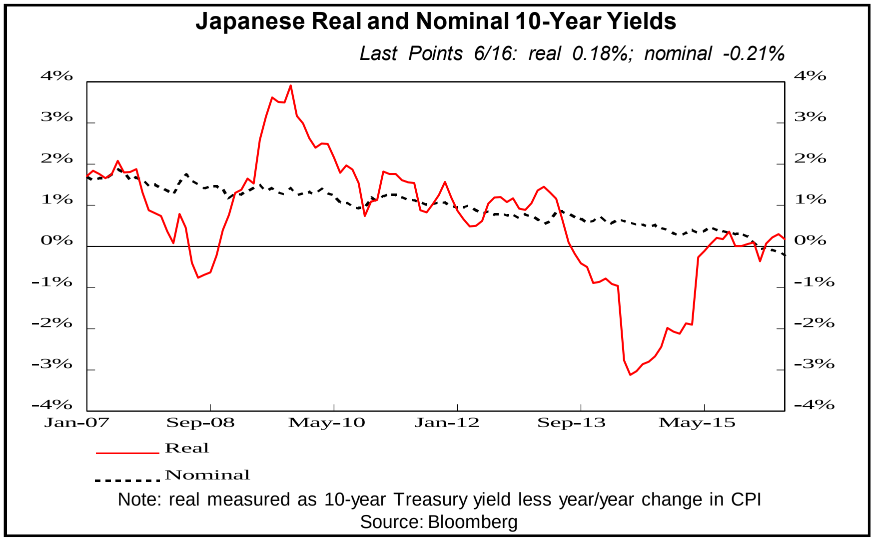
Unwanted Consequences

The moral of this story is that to achieve their goal of meaningful negative real interest rates, central banks have to slash nominal rates well below zero in the current state of very low inflation and deflation. But that introduces all the distortions of negative nominal rates. Indeed, negative rates have not had their intended effect but, instead, many bizarre consequences. Mortgage borrowers in Denmark have *negative* interest payments since they are linked to now-negative interest rates. Denmark has had a below-zero interest rate monetary policy for four years with a benchmark rate of -0.65%. Furthermore, with no interest paid on savings accounts, Danish investors are turning to property and speculative areas. Banks in Spain and Portugal are fighting proposed laws that would require them to pay borrowers if interest rates become negative.

Life insurers are being squeezed by negative rates on their portfolio investments. In Germany, regulators are forcing them to increase capital levels as offsets and said that they can only be sure that sector will be safe through 2018 as older, higher-yielding investments mature and must be replaced by lower-returning vehicles. Typical 5% guaranteed returns for policyholders add further pressure in Germany. In Switzerland, banks have raised mortgage rates to compensate for lower margins induced in part by negative central bank rates, the opposite of what the central bank desires.

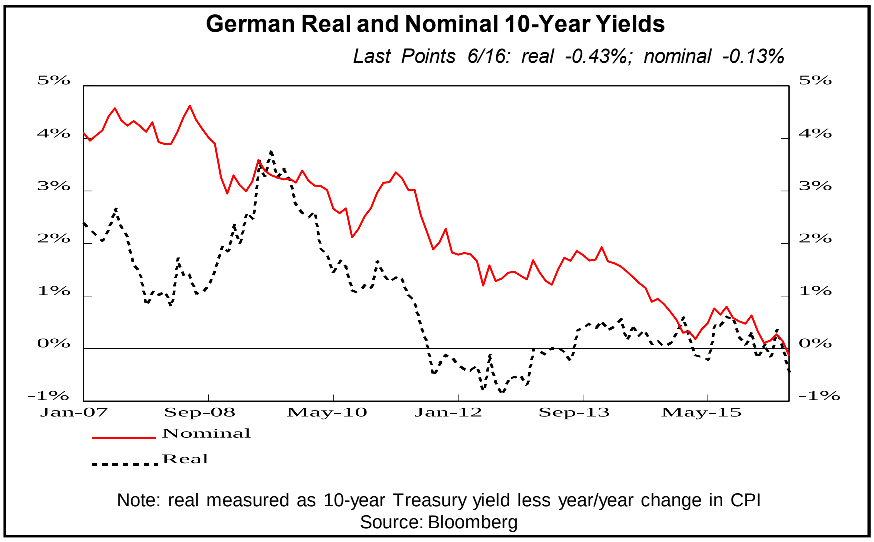
Early this year, the Bank of Japan introduced negative rates on certain deposits from commercial banks. That has driven down long-term rates (Chart

CHART 41



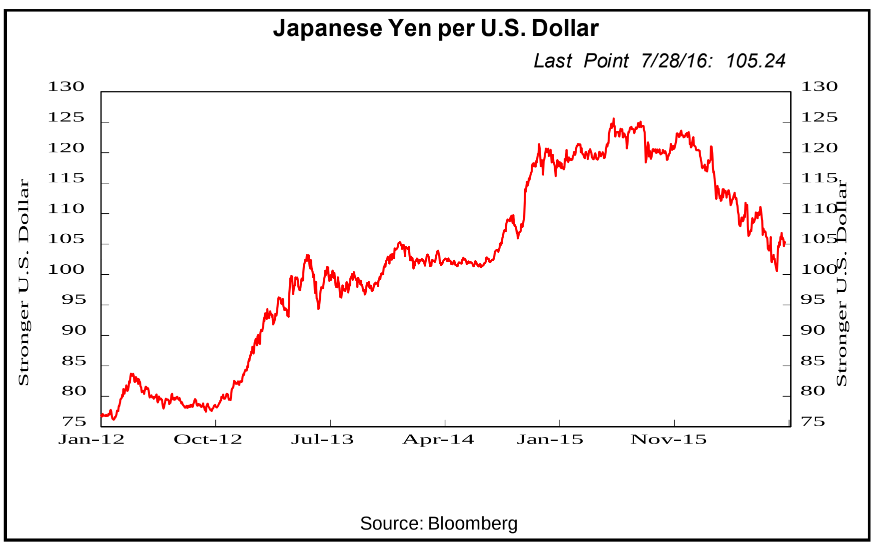
Note: real measured as 10-year Treasury yield less year/year change in CPI
Source: Bloomberg

CHART 42



Note: real measured as 10-year Treasury yield less year/year change in CPI
Source: Bloomberg

CHART 43



Source: Bloomberg

25), but not enough to encourage borrowing in the face of the strong yen (*Chart 43, opposite page*)and economic weakness (*Chart 44*). At the same time, negative rates have squeezed banks' margins because they have forced corporate lending rates below zero, but not the rates on depositors' accounts used to fund those loans.

Japan's biggest bank, Bank of Tokyo-Mitsubishi, recently said it may no longer be a primary dealer in Japanese government bonds. Japanese banks have been bailing out of JGBs. They also believe that negative rates have actually caused households and businesses to cut spending because of increased uncertainty over the future. The BOJ, after penalizing banks by charging them for deposits at the central bank, is considering helping them by offering negative rates on some loans to banks.

CHART 44

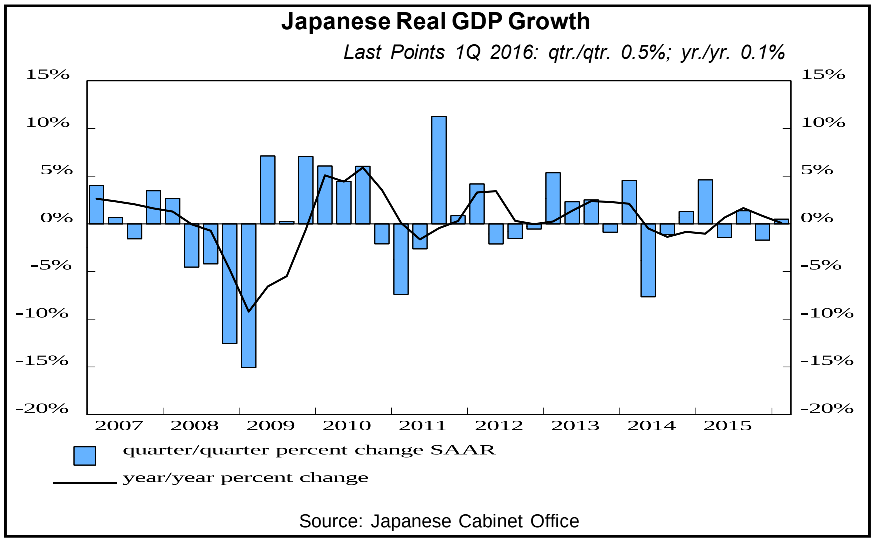
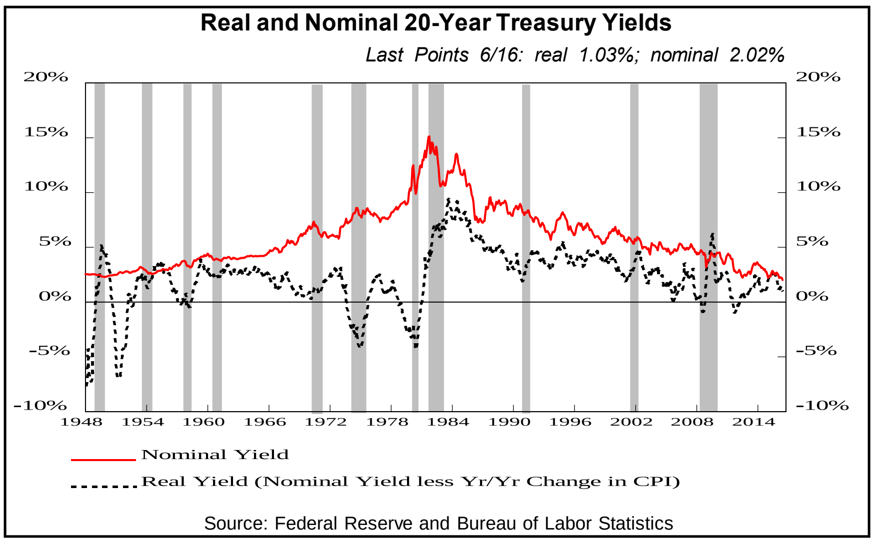


CHART 45



"Money Illusion"

Real Treasury bond yields have been negative almost one in six years since 1800 and were distinctly negative in the mid- and again in the late 1970s (*Chart 45),* but for an entirely different reason than today. Back then, inflation was raging and exceeded bond yields, so owners of Treasurys were getting killed in real terms. But in response, the Fed—led by Paul Volcker—jacked up its federal funds rate to 19% and real rates leaped. Then, as inflation dropped from double-digit levels to now close to zero, real Treasury bond yields fell along with nominal yields.

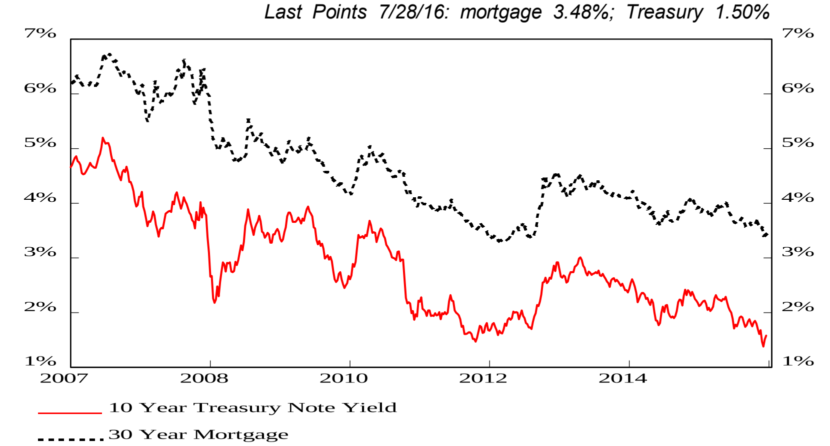
Still, many prefer negative real rates when nominal rates are distinctly positive than positive real returns when nominal interest rates are low. This is called "money illusion," people thinking in nominal terms, uncorrected for inflation. Similarly, they fret over flat pay levels in deflation even though their real incomes and purchasing power are rising.

Low Interest Rates: Losers— Low interest rates in developed countries have created difficulties for savers and investors. The rising saving rate in the U.S. (Chart 8) has no doubt been boosted by the need for households to save more in the face of limited portfolio investment returns.

CHART 46

30-Year Mortgage and Treasury Note Yields

Last Points 7/28/16: mortgage 3.48%; Treasury 1.50%



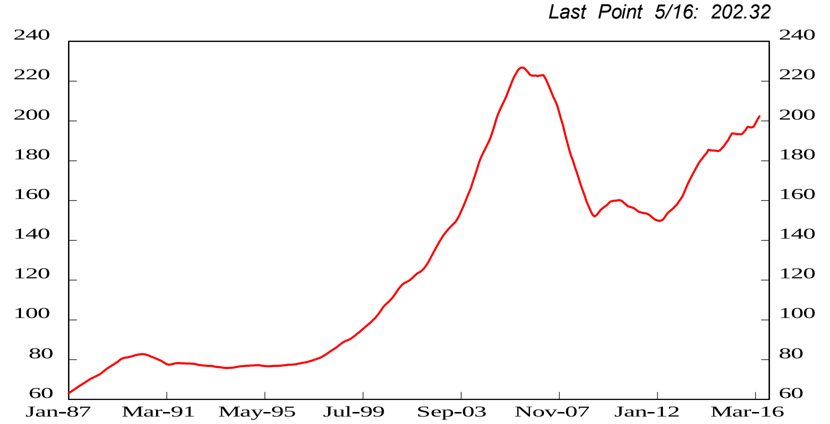
Source: Federal Reserve

Defined benefit pension funds are especially hard hit. The 20-year annualized return on U.S. public pensions fell to 7.5% for fiscal 2016 ended June 30, the lowest since statistics started 16 years ago. In contrast, at the height of the dot com boom, the 20-year median return was 12.3%. The huge $1 trillion gap between pension fund assets and liabilities has widened as two recessions in the last 15 years and the sustained era of low interest rates sapped returns. Every one percentage point drop in investment returns raised public pension fund liabilities by 12%. Lower interest rates do increase the value of pension fund bonds, but many funds end up net losers as higher-yielding bonds mature and are replaced by lower-yield investments.

CHART 47

Case-Shiller 10-City House Price Index
seasonally-adjusted

Last Point 5/16: 202.32



Source: Standard & Poor's

California Public Employees' Retirement System (Calpers), the nation's largest with $295 billion in assets, had a 20-year average return of 7%, below its 7.5% target. For fiscal 2016, Calpers earned only 0.6% on its investments. California State Teachers' Retirement System (CalSTRS), the second largest with $189 billion in assets, also fell below its 7.5% target with a 7.1% annual return over 20 years.

Many public pension funds have reduced their target from 8%, but are still unrealistically high. A number are switching to defined contribution plans for new and, in some cases, existing employees. Increased employee contributions, later retirements and benefit cuts are also being tried, but are extremely difficult and sometimes illegal in the politically-charged atmosphere of flat to declining real wages and incomes (Chart 9).

In the corporate world, the combined shortfall for S&P 500 companies jumped to $568 billion at the end of June, a $164 billion increase from a year earlier. In addition to curbing investment returns, lower interest rates reduce the rates by which future retiree benefits are discounted to determine their present value. This raises liabilities and widens the funding gap. Also, shortfalls require increased payments by corporations into the U.S. Pension Benefit Guaranty

CHART 48

Year-Over-Year House Price Gains
Canada, Australia and Sweden

Canada	
Vancouver	32.1%
Toronto	16%
Australia	
Sydney	11.3%
Melbourne	11.5%
Brisbane	5.3%
Sweden	
Stockholm	16%

Source: *The Wall Street Journal*

Corp., which backstops private sector defined benefit pensions that cover 40 million people.

So, companies are switching to defined contribution plans and tightened eligibility for defined benefit pensions. Some are transferring pensions off their books entirely by paying insurance companies to take over their obligations. Others are pumping money into pensions to close the funding gap, sometimes borrowing money in the bond market at low rates in order to do so.

—And Winners

Although low interest rates have failed to spur heavy borrowing and spending by businesses and consumers, in Europe and North America, they have benefited those who use other people's money. Mortgage rates have been near multi-decade lows for the past six years, driven down by declining Treasury yields and the mid-2000s collapse in housing (*Chart 46, opposite page*).

So, most borrowers who could refinance at lower rates have already done so. Still, rising house prices (*Chart 47, opposite page*) have made more homeowners eligible since the pool of those under water with their home values below their existing mortgages is down to 13% from a 2012 high of 31%.

Furthermore, banks are zealous to make mortgage loans and keep more of them on their books rather than sell them to government agencies Fannie Mae and Freddie Mac. The share of outstanding mortgage debt held by U.S. banks rose to 31.7% in October 2015, the latest data, from 30.9% a year earlier. Major banks are flush with deposits and looking for attractive investments.

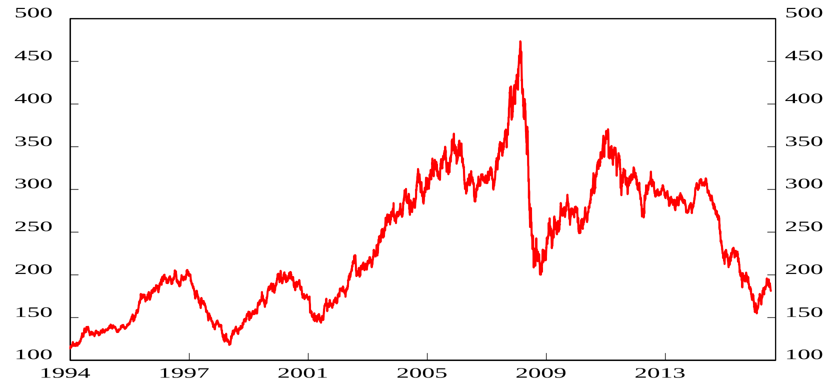
At the same time, low-cost mortgage money is fueling housing booms in hot U.S. cities like San Francisco and foreign metropolises ranging from Vancouver

(continued on page 24)

CHART 49

Reuters/Jefferies CRB Index

Last Point 7/28/16: 179.21

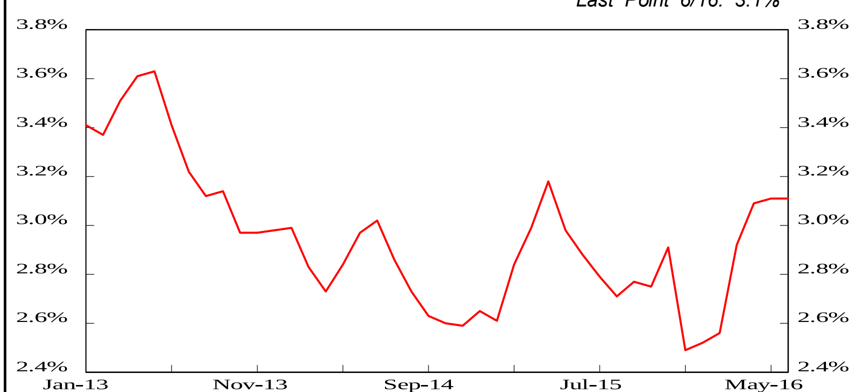


Source: Thomson Reuters

CHART 50

Credit Card Default Rates

Last Point 6/16: 3.1%

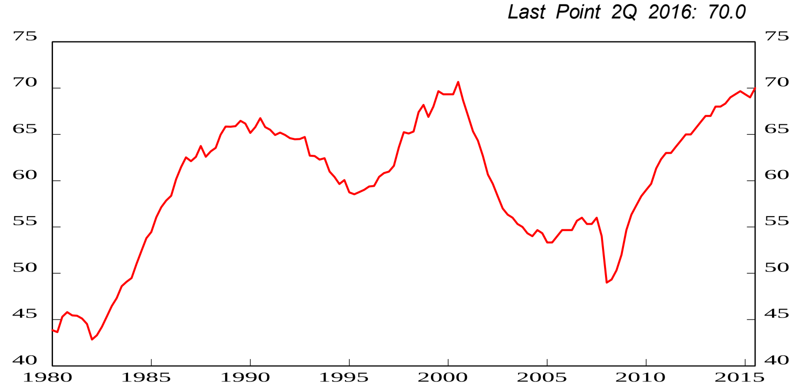


Source: Bloomberg and S&P/Experian

CHART 51

U.S. Average Maturity of Total Outstanding Marketable Debt
months; includes all government financial liabilities

Last Point 2Q 2016: 70.0



Source: U.S. Treasury Department

INVESTMENT THEMES

Our Investment Themes section reflects the positions that are in or being considered for our managed portfolios. We may add or delete portfolio positions in the course of the month, but those changes will not be show in *Insight* until the following report.

The aftermath of Brexit and renewed declines in oil prices portend even slower global economic growth, financial strains and a possible worldwide recession. Ultra-low and negative interest rates point in the same direction. Stocks are expensive even with low interest rates.

The safe-haven appeal of the dollar and yen as well as Treasurys and other major sovereigns reflects this uncertain atmosphere. Higher cash positions than normal are warranted as well as the defensive investment themes we held last month:

1. Short commodities
2. Short crude oil and related securities
3. Long the dollar vs. euro, commodity currencies and developing economy currencies
4. Short emerging-market stocks and bonds
5. Short junk bonds
6. Long 30-year Treasurys
7. Short U.S. stocks

Summing Up

Stock markets enjoyed a month of mostly solid gains as investors shrugged off post-Brexit concerns, the failed coup in Turkey and the terror killings in Nice and focused more on the perceived stabilization of financial markets, positive data about the U.S. economy and some decent earnings reports, especially from tech companies, which had its best earnings season in 15 years. The Dow Jones Industrials and the S&P 500 both hit all-time highs last month while the Nasdaq hit its high for the year.

One indicator of July's calmness: the VIX index that measures volatility was in the mid-20s range in the days following the June 23 Brexit vote but plunged back to its mid- and lower teens norm in July.

The dollar was flat in July against the yen and the euro. Yields on 10-year Treasury notes were flat while yields on the 30-year Long Bond moved up slightly.

At its late July policy meeting, the Fed kept short-term interest rates unchanged but left open the possibility of a September rate hike because risks to the U.S. economy have subsided and the labor market is getting tighter.

Data since the Fed's June policy meeting show "that the labor market strengthened and that economic activity has been expanding at a moderate rate," the Fed said in its post-meeting statement. "Near-term risks to the economic outlook have diminished." Job gains were "strong" in June and indicators "point to some increase in labor utilization in recent months." Household spending was described as "growing strongly," and economic activity is expanding at "a moderate rate."

Fed Chair Yellen speaks on August 26 at the annual Jackson Hole, Wyoming gathering of central bankers, and we'll be listening for any further hints of the Fed's interest rate plans.

The first estimate of second quarter GDP was a disappointment—+1.2%—as a robust 4.2% increase in consumer expenditures was outweighed by business inventory-liquidating. The weak advance followed the even-weaker 0.8% gain in first quarter GDP, meaning that the first half's 1.1% increase (pending revisions in August and September) is the weakest since 2011.

THE NUMBERS

	July 2016 % Change*	Year-to-Date % Change
Dow Jones Industrials	+2.8%	+5.8%
S&P 500	+3.6%	+6.4%
Nasdaq Composite	+6.6%	+3.1%
Nikkei Average	+6.4%	-12.9%
STOXX Europe 600	+3.6%	-7.1%
Shanghai Composite	+1.7%	-15.8%
FTSE 100	+3.4%	+7.7%
	7/29/16	6/30/16
10-yr. Treasury note	1.46%	1.48%
$=¥	102.09	103.26
€=$	1.12	1.11
West Texas Inter.	$41.46	$48.29

through July 29

Consumer prices rose 0.2% in June—the fourth straight increase—as housing, gasoline and health care costs increased. Year-over-year CPI rose 1.0%. The core rate was up 0.2% and the 12-month core CPI increased 2.3%. Thanks to higher energy costs, producer prices rose 0.5% in June while the 12-month rate was up 0.3%. Core PPI fell 0.1% in June and the 12-month core rate was up 0.9%. Crude oil prices drifted down throughout July from near $50 per barrel to the low $40s as gasoline glut concerns resurfaced. Meanwhile, the number of U.S. oil-rigs, which plunged as crude oil prices plummeted, rose last month.

Retail sales rose a better-than-expected 0.6% in June vs. May and were up 2.7% from a year earlier. Ex autos, retail sales were up 0.7%. First-half retail sales advanced 3.1% vs. a year earlier. June's gains were led by a 3.9% increase in sales at building-supply stores.

Strength in nonfarm payrolls was renewed in June, with 287,000 jobs created after a very weak May (+11,000) and a so-so April (+144,000). Healthcare saw its biggest gains since last October while leisure & hospitality hiring was the biggest since February 2015. After a 16,000 decline in May, manufacturing employment rose by 14,000 in June. The unemployment rate rose from 4.7% to 4.9% while the labor participation rate bumped up to 62.7% from 62.6%. Hourly wages were up 2.6% from a year earlier.

Housing starts rose 4.8% in June vs. May. Single-family starts rose 4.4% while groundbreakings for multi-family units were up 1.6%. Building permit issuance increased 1.5%. New home sales rose 3.5% in June from May. The median price of $306,700 was 6.1% higher than a year earlier. Existing home sales rose 1.1% in June vs. May and 3% from a year earlier. The median price of $247,700 was 4.8% higher than a year earlier.

Led yet again by gains in Portland, Seattle and Denver, the S&P/Case-Shiller index of home values in 20 cities rose 5.2% in May from a year earlier. The National Association of Home Builders' confidence index dipped in July to 59 from 60 in June.

The Conference Board's consumer confidence index stood at 97.3 in July vs. a downwardly-revised 97.4 in June. The University of Michigan's consumer sentiment index fell to 90 in July from 93.5 in June.

Fred T. Rossi
Editor

Bond Rally

(continued from page 21)

to Melbourne to Stockholm (*Chart 48, page 20*). And these bubbles in Canada and Australia came despite the collapse in the prices of commodities that are key to those economies (*Chart 49, page 21*).

Housing Bubbles

Central banks are worried but their hands are tied. The Bank of Canada would like to reduce its interest rates to combat commodity weakness, but the house price surge, driven importantly by Chinese buyers, gives it pause. Since mid-2008, Canada has tightened housing financing regulations five times. After the Reserve Bank of Australia cut rates in May, house prices leaped, making Sydney, Australia's largest city, among the most expensive in the world. But with inflation below the RBA's target, it wants to reduce rates further. So the central bank has tightened guidelines on property loans in the past year.

With 17 months of negative interest rates in Sweden, Stockholm has become one of Europe's most exuberant housing markets. Measures aimed at limiting risky loans haven't offset the effects from mortgagors being paid to borrow through negative rates.

Banks have also been chasing consumer loans by lowering credit standards to make more loans at higher yields. As a result, defaults on credit card loans jumped to 3.11% in June from 2.88% a year earlier and have risen in each of the first five months of 2016 after mostly falling since 2010 (*Chart 50, page 21*). Subprime auto loans, a fast-growing category, look especially shaky. Some 13.3% of households expected to miss minimum debt payments in the third quarter, the highest since 2014 and up from 11.5% in the first quarter.

In response, banks are setting aside more

Chart 52

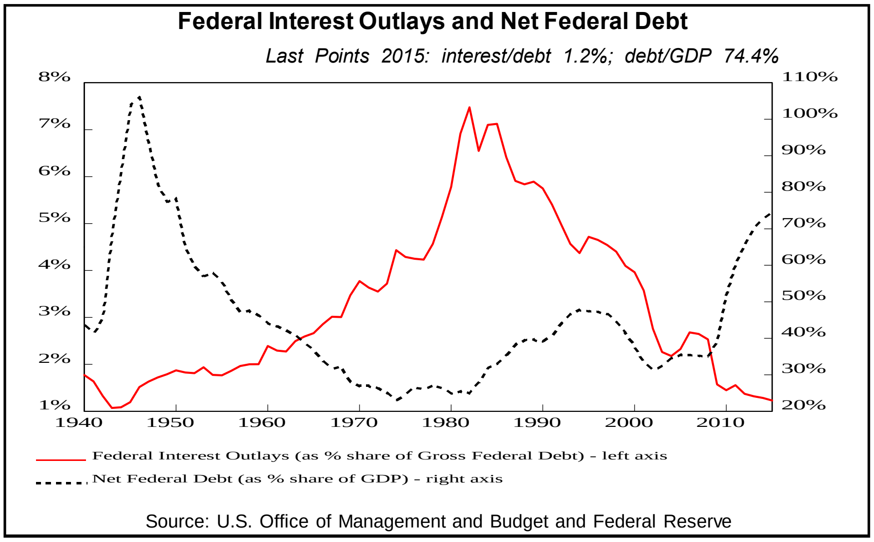


Chart 53

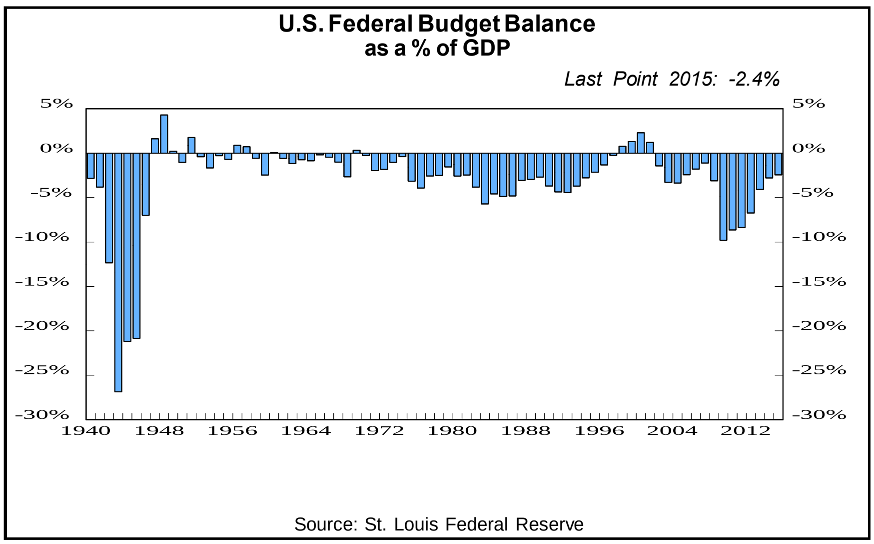
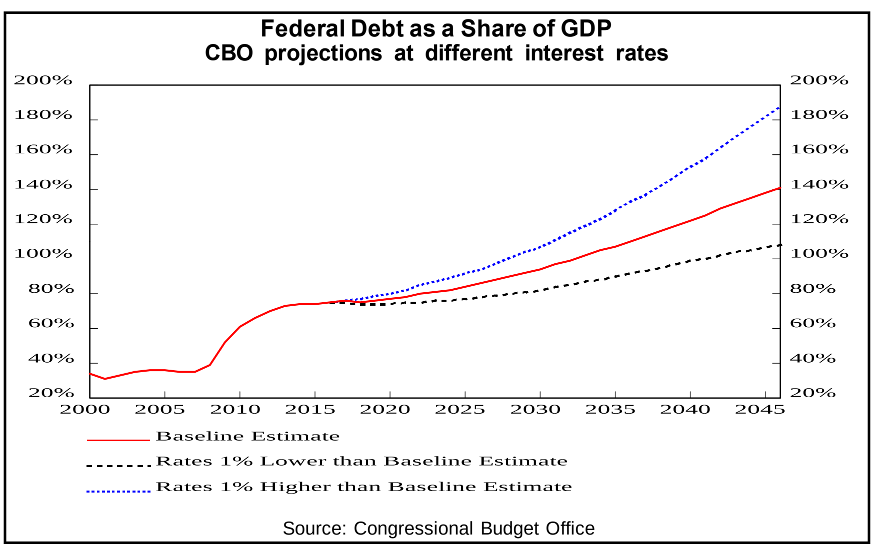


Chart 54



reserves to cover bad consumer loans. Still, their strategy is that this is just a cost of doing business. They apparently believe that the increasing volume and yields on low-quality consumer loans offset prospective default costs.

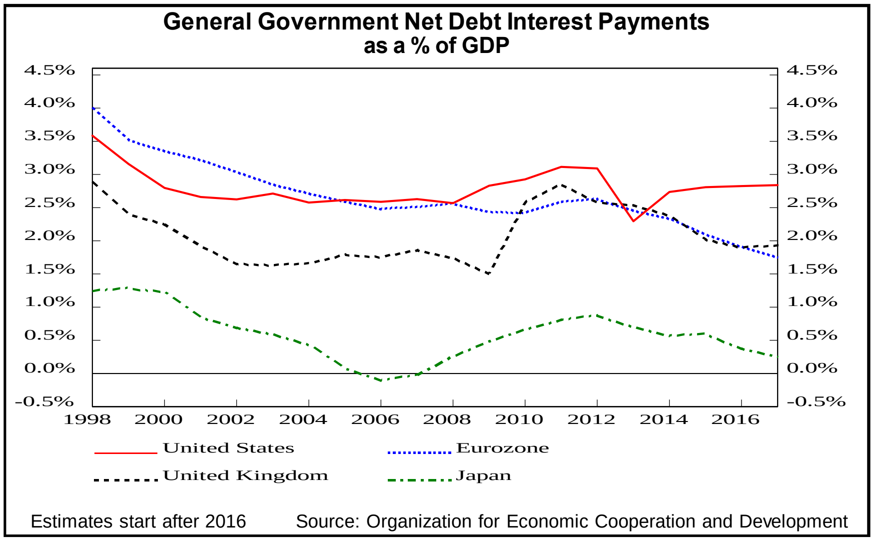
Government Beneficiaries

Governments have also benefited from falling and now low interest rates as the cost of financing their debts falls. The average maturity of U.S. Treasury debt is only 70 months (*Chart 51, page 21*) so the drop in interest rates in recent years has reduced the interest costs even as federal debt in relation to the economy has leaped (*Chart 52, opposite page*). Net federal interest costs were 1.2% of GDP last year, the lowest since the 1940s, even as net debt has doubled since 2007 to 74% of GDP. This, along with the end of the 2009 federal fiscal stimuli, higher taxes, the end of sequester and economic recovery, has pushed the federal deficit to 2.4% of GDP last year from its 10% peak in 2009 (*Chart 53, opposite page*).

The sensitivity of the federal debt to interest costs is shown by recent Congressional Budget Office projections (*Chart 54, opposite page*). The CBO assumes that borrowing rates rise from 1.7% in 2015 to 4.4% in 2046. If so, they project federal debt-to-GDP to reach 141% in 2046. But if borrowing costs are one percentage point lower, the ratio is expected to rise only to 108% despite the increasing federal outlays and deficits caused by postwar baby Social Security and Medicare benefits. With an interest rate one percentage point higher than the 4.4% base case assumption for 30 years hence, the government debt jumps to 188% of GDP (Chart 54).

The U.S. government is not alone in enjoying the benefits of cheap debt financing. It's estimated that 40% of the reduction in budget deficits by eurozone governments between 2012 and 2015 was due to lower borrowing costs. The U.K. government's interest payments last year were 35% lower than in 2013 even as its debt rose 8% (*Chart 55*).

Chart 55



Ponzi Schemes?

Central banks have slashed interest rates, even below zero, as discussed earlier (Charts 41 and 42), and bought huge quantities of securities (Chart5) in order to stimulate their economies. The Fed ended QE in October 2014, but the Bank of Japan is still buying $85 billion in assets each month while the ECB purchases $93 billion. But their actions help their government finances in ways that smell like Ponzi schemes.

As just discussed, low interest rates reduce government borrowing costs. Also, after deducting their operating costs, central banks send the interest they receive on their portfolios of securities back to their governments. Since the beginning of their QE programs, the Fed has returned $596 billion and the BOE, $47 billion. So, governments are essentially paying interest to themselves.

Helicopter Money

These cozy relationships between central banks and their governments also resembles "helicopter money," the latest hope by many that central banks can spur economic growth by combining monetary and fiscal stimuli. It's called "helicopter money" because of the illusion of dumping currency out of helicopters to people who will rapidly spend it, thereby creating demand, jobs and economic growth.

Central banks can raise and lower interest rates and buy and sell securities, but that's it. They can thereby make credit cheap and readily-available as QE piles up excess bank reserves—but they can't force banks to lend and consumers and businesses to borrow and then spend and invest. It's the proverbial case of leading a horse to water but not being able to make him drink.

Furthermore, developed country central banks purchase government securities on open markets, not from governments directly. Now, you may as, what's the difference if the Treasury issues debt in the market and then the Fed buys it, rather than the Fed buying sovereigns directly from the Treasury? The difference is that the open market determines the prices of the Treasurys, not the government or central bank. That's what keeps the government from shoving huge quantities of debt directly into the central bank without an open market-intervening test.

Direct sales to central banks, of course, are the most normal course of government finance in the Zimbabwes and Argentinas of the world and normally lead to hyperinflation and financial disaster.

Zimbabwe and Argentina

I keep a 100-trillion Zimbabwe dollar bank note, issued in 2008, which was worth only a few U.S. cents as inflation rates there were in the hundreds of million percent range. Now, however, it sells for several U.S. dollars as a collector's item after that long-entrenched and corrupt government switched to U.S. dollars and stopped issuing its own currency.

Another example is Argentina, which was excluded from borrowing abroad after defaulting in 2001. With little domestic funding available and unwilling to cut her deficit by reduced government spending, the Argentine government turned to the central bank. It made

CHART 56

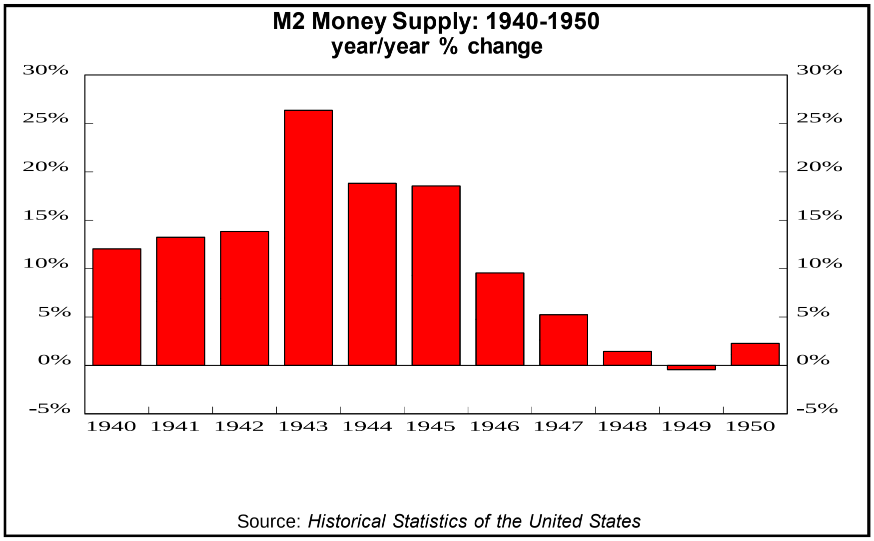
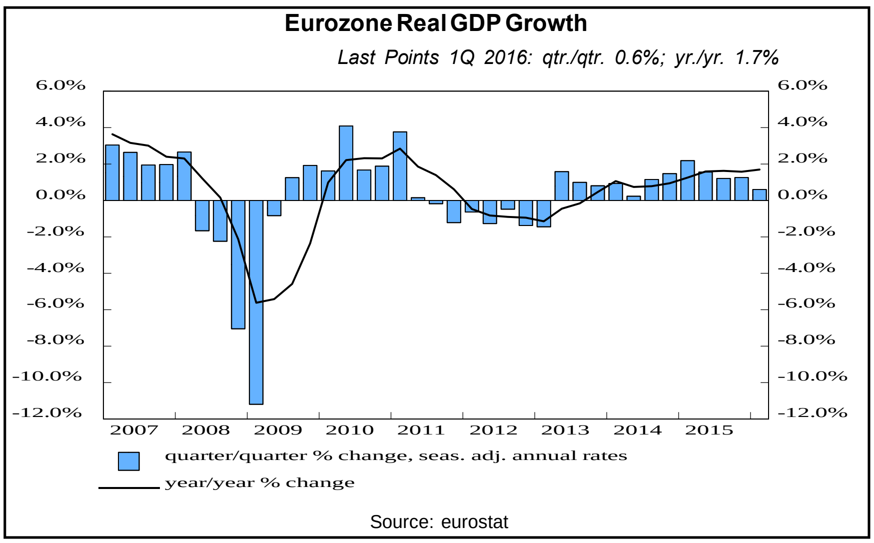


CHART 57



advances and transfers of profits to the treasury, and this money-printing scheme leaped from, 4 billion pesos in 2007 to 159 billion in 2015, equal to 3% of GDP. Not surprisingly, inflation skyrocketed to about a 25% rate last year, up from 6% in 2009.

To be sure, the independence of central banks from their governments is not completely clear-cut. It's the norm in peacetime, but not in wars when financing the resulting huge government debts requires considerable central bank assistance. That was certainly true in World War II and resulted in huge increases in the U.S. money supply of 25% per year (*Chart 56, opposite page*). The Federal Reserve was simply the handmaiden of the federal government in financing the leap in government spending that far exceeded revenue collections (Chart 53).

War On Slow Growth

Today, developed countries are engaged in wars—not shooting wars but wars against chronic slow economic growth. So the belief in close coordination between governments and central banks in spurring economic growth is back in vogue. The helicopter money proposals are a bit more subtle than dumping dollar bills, euros, pounds and yen out of aircraft, but are, in essence, what we first suggested in March 2015 (see "The Next Big Thing").

Brexit may well precipitate a recession in the U.K. and EU as slow growth (*Chart 57, opposite page*) turns negative, and it could spread globally if financial disruptions are severe. This would no doubt ensure a drop in crude oil prices to the $10 to $20 per barrel level that we first forecast in early 2015. This, too, would generate considerable financial distress, given the highly-leveraged condition of the energy industry.

Such a recession would no doubt spawn robust fiscal policy responses, especially since monetary policies are impotent, as discussed earlier. Indeed, "mad as hell" voters in Europe and North America and their populist reactions have probably already paved the way for massive government spending programs. As we've been stressing since early last year, globalization and the resulting flat or declining real incomes for many for over a decade (Chart 9) have spurred voters to reject mainstream politicians as inadequate to the job and turned them to the protectionist, anti-immigration fringes on the left and right. Consider the far right, nativist National Front in France as well as avid socialist Bernie Sanders and protectionist and anti-immigration Donald Trump in this country.

Austerity is Over

The shrinking federal deficit (Charts 14 and 53) is fading memories and fears of the earlier trillion-dollar shortfalls. This is true even as Congress and the Administration continue to ignore the coming leap in red ink in future years as the postwar babies retire and draw Social Security and Medicare benefits (Chart 14).

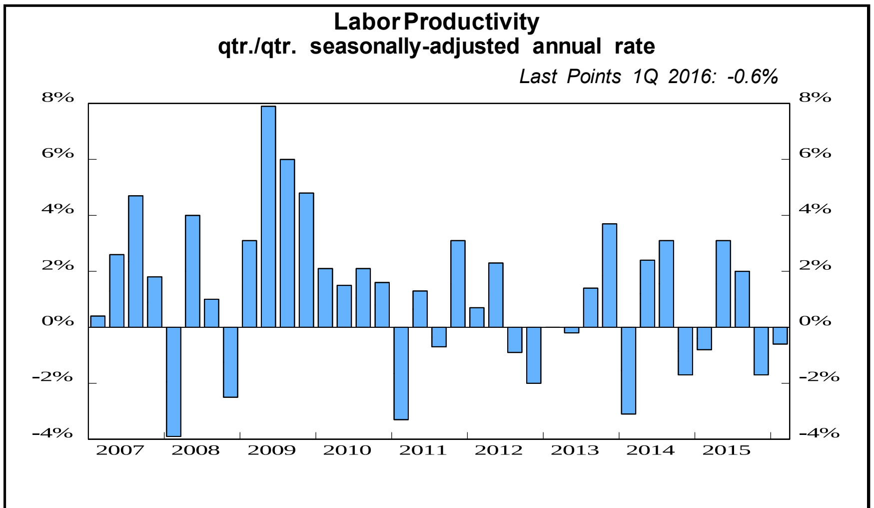
The $1.15 trillion multi-year federal government spending bill passed by Congress and signed by the President early this year signals that the earlier zeal for austerity has largely evaporated. It also ended a Medicare funding cliff and made permanent tax credits that will add over $800 billion to deficits over the coming decade. Republicans got more money for defense spending but accepted Democrats' demands for more domestic outlays in classic give-and-take fashion.

This is a far cry from the budget resolutions passed by Republicans at the start of 2015, which promised to end deficits over the next decade by cutting $5 trillion in spending. But fears of rampant inflation caused by huge deficits proved false and cut the urge to reduce spending further. So did the return of deficits to their long-run averages in relation to GDP (Chart 53). Furthermore, the growth in health care costs, a major driver of projected deficits, has slowed. And, of course, borrowing costs have not only plummeted but are likely to be lower for longer with chronically-low interest rates as slow global economic growth persists.

Fiscal Stimulus

What form could big fiscal stimulus take? Tax cuts won't fly with Democrats or the current Administration since many of their constituents in the lower half of the income spectrum pay little income tax—only 2% of the total—and won't benefit much. And Democrats would oppose tax cuts for the upper half who do pay the vast majority of taxes. Besides, more after-tax income probably wouldn't increase their spending any more than have stock market-driven increases in net worth. On the other end of the spectrum, negative income taxes to get money into the hands of lower-income folks who would spend it quickly are anathema to Republicans—literal helicopter money.

CHART 58



Source: Bureau of Labor Statistics and Bureau of Economic Analysis

So we suggested in our earlier reports that infrastructure spending might be a feasible middle ground, and the U.S. certainly needs major refurbishing and expansion of roads, bridges, public transportation and other infrastructure. The most recent Global Competitiveness Ranking from the World Economic Forum rates the U.S. third overall in competitiveness but 13th for infrastructure quality as a whole, 14th for roads, 15th for railroads and 16th for electricity supply system. It's estimated that aging roads and bridges are costing an extra $377 annually per driver. Infrastructure spending would not only create jobs and economic activity but also enhance lagging productivity (*Chart 58*).

Congress late last year approved $305 billion in spending for highways and mass transit for five years, the longest in two decades, in an unusual show of bipartisanship. Funding, however, is a problem since with more efficient cars, gasoline consumption growth has been muted and the 18.4-cent per gallon federal tax—the same since 1993—can't generate adequate funds for the Highway Trust Fund. So Congress turned to temporary stop-gaps, selling oil from the national emergency reserve—obviously now at lower prices—and using money the Fed generates on its huge portfolio of $4.5 trillion and sends to the Treasury, after central bank expenses, as noted earlier.

Nevertheless, as we learned in 2009 when fiscal stimuli were earmarked to fund shovel-ready projects, they hadn't even made the shovels yet—and they probably would be manufactured in China! The lack of planning and coordination between the federal government and state and local governments that actually carried out the construction work was staggering, and probably still is.

Infrastructure Proposals

Hillary Clinton is proposing infrastructure investment of $500 billion over five years with direct public investment, subsidies to cut borrowing costs on taxable infrastructure bonds and a national infrastructure bank that would leverage $25 billion in public seed money to support an additional $225 billion in loans and project guarantees.

The National Association of Manufacturers calls for major infrastructure spending of $100 billion per year for each of the next three years. It noted that outlays grew 2.2% per year in the 1956-2003 years, but fell 1.2% annually from 2003 through 2012. Total spending for roads and streets fell 19% between 2003 and 2012.

Elsewhere, a regional transportation board recently approved a $1.5 billion public-private toll-road outside Chicago after a series of private toll-road investments ended in bankruptcy. Other partnerships include road projects in Florida and Indiana and a new bridge between Elizabeth, N.J. and Staten Island, N.Y. to replace the aging and narrow Goethals Bridge.

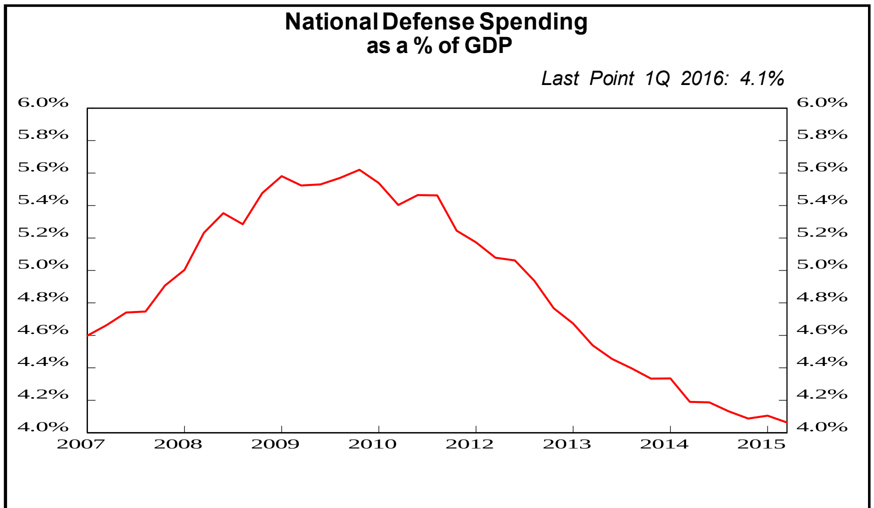
So there may be hope for major infrastructure spending in reaction to dire need and voter pressure. Furthermore, those outlays will create jobs and improved facilities that will boost productivity for years. Also, unlike government income-support programs, infrastructure projects are less likely to create political constituencies that keep them alive long beyond their usefulness. When the bridge is built, they cut the ribbon and construction workers can move on to the next projects, not to demonstrations demanding even more public support.

Defense Spending

It would take a tremendous federal government push—over the course of several years—to get meaningful infrastructure spending and the related job creation underway, an effort like the Eisenhower-backed Interstate Highway System in the 1950s. An alternative is defense spending, which can be spurred much more quickly since it essentially only needs federal approval. Military outlays would be attractive in Washington if Republicans retain control of Congress and win the White House.

Defense spending hawks would be quick to point out that U.S. outlays have fallen from 5.6% of GDP in the third quarter of 2009 to 4.1% in the first quarter of this year (*Chart 59, opposite page*). Meanwhile, Russia has invaded Ukraine and annexed Crimea while China is grabbing territory in the South China Sea and building artificial island military bases. At the same time, North Korea is increasing her long-run nuclear missile capability and Iran's agreement to discontinue nuclear weapons development is highly doubted. And Britain's exit from the EU could precipitate its demise and undermine NATO and the Western Alliance's collective security. Meanwhile, Japan is shedding her post-World War II anti-military policy.

Chart 59



Source: Bureau of Economic Analysis

Lately, some other observers have joined us in suggesting the possibility of major fiscal stimuli to spur economic growth. Substantial infrastructure, defense and other programs could end the slow growth resulting from the now 10-year-old Age of Deleveraging that started with the Great Recession, as we've been noting for years.

Some believe that helicopter money, a combined fiscal and monetary effort is needed, with the deficits resulting from fiscal stimuli financed by new Federal Reserve money to avoid strains on credit availability. The Fed would no doubt cooperate if needed, but given the huge quantities of liquidity sloshing around the world and the global appeal of safe-haven Treasurys, additional QE may not be needed.

Hillary, Trump And Investment Strategies

In terms of political mudslinging, this election, believe it or not, doesn't equal past melees, especially the 1828 slugfest. Followers of the incumbent, Boston patrician and Harvard-educated John Quincy Adams, the son of austere President John Adams, said Andrew Jackson's wife was a "whore" and an "adulteress" while his mother was "a common prostitute." Not to be outdone, Jacksonian newspapers said Adams had premarital relations with his wife and called him "The Pimp" who procured young girls for Czar Alexander I when he was minister to Russia. But aside from titillating election fun and games this year, what are the portfolio implications of the outcome?

Rise To The Occasion?

You'd hope that whoever is the next president will rise to the responsibilities of the world's most powerful office. Still, the baggage of the campaign and, more importantly, the wishes of the voters will propel either Hillary or Trump to win in November and will influence her or his actions as president. And don't forget the influence of the runners up, Democrat and once again Independent Bernie Sanders, and conservative Ted Cruz.

After more than a decade of declining real incomes for all but the top households in Europe and North America, voters are "mad as hell, and not willing to take to it anymore," in the words of Howard Beale in the old movie, "Network." So they've rejected mainstream politicians for not delivering purchasing power growth, and turned to the fringes. Voters are intrigued by their wild, illogical and inconsistent accusations and promises to limit immigration and imports that demagogues say have robbed middle-class Westerners of jobs and decent incomes.

In France, the far right and anti-immigration National Front is led by Marine Le Pen, who may be the next president of France, given the fragmented political system there. The head of Britain's Labor Party, Jeremy Corbyn, is way to the left of his predecessors, who looked like Thatcherites by comparison. And Corbyn, elected just last year, has been rejected by other Labour leaders for not opposing Brexit firmly enough.

Spain, Italy and even Germany have meaningful extreme left and right parties. In Austria, the candidates of the two centrist parties that have dominated since World War II didn't even make it out of the recent runoff for president.

In Canada, leftist Justin Trudeau replaced conservative Stephen Harper as Prime Minister last year. And in America, avowed socialist Bernie Sanders calls for free college tuition, Medicare for all and other massive income transfers that vastly exceed his proposals to tax the rich. He gave Hillary a tough run and pulled her even further to the left, while some of his delegates to the Democratic National Convention stomped out over his endorsement of Clinton.

Trump's Takes

Trump is anti-immigration, anti-Muslim and inconsistently anti almost everything else but appeals to those who want to take the country back from the forces that have dominated in recent decades: political correctness, suppression of free speech by far left college students and administrators, disgruntled blacks playing the victim card, especially when it concerns dealings with police officers, multiculturalism and a government that is so obsessed with human rights that likely terrorists can't be locked up before they commit mass murder. The Muslim terrorist attacks in Europe only add to Trump's appeal to American voters, especially lower-income white males, as does the mass killing in Orlando by a Muslim terrorist on June 12.

A Trump win would confirm that that take-back-America sentiment is dominant, and give him license, as Chief Executive, to pursue vigorous protectionist and anti-immigration policies.

Trump's loose cannon reputation would no doubt be negative for stocks, at least initially. Markets hate uncertainty, which he epitomizes. Commodities would tank in anticipation of trade wars that would curtail imports of raw materials and lead to a possible global recession.

Ironically, however, Treasury bonds and the dollar, the globe's prime safe-havens, would no doubt rally as foreigners as well as Americans piled in.

Feared, Not Loved

Machiavelli wrote, "It's better to be feared than loved," and ironically Trump's plans to build a wall on the Mexican border and bar Muslims along with other outrageous protectionist threats could create widespread fear and drive global investors to these safe-haven refuges. Also, as worldwide retaliation and trade wars unfolded, it's the U.S.—the net buyer of the globe's surplus goods and services—that wins, not the sellers.

Congress follows the presidential election returns and would back Trump, especially since his coattails would insure continued, and perhaps enhanced, control by Republicans.

Clinton Implications

If Clinton wins, stocks might initially rally in relief because it wasn't Trump, the unpredictable. But then equities would probably continue the flatness that commenced with the end of Fed QE in late 2014 and continuing slow economic growth. She would push for more income redistribution and regulation in response to her own instincts and Sanders' pressure from the left, but would be stymied by gridlock with Congress, assuming it's still Republican-controlled, at least enough to block her proposals.

The dollar and Treasurys would still be safe havens under Hillary, but less so than with Trump. Commodity price weakness would no doubt persist as slow global economic growth continues, the result of working off the massive excess debt accumulated in the 1980s and 1990s, increased regulation, heightened consumer and business uncertainty, etc.

Portfolio Suggestions

Until the election is settled, and its aftermath clearer, we suggest lots of cash in your portfolio. Still, look for huge fiscal stimuli later, regardless of the election outcome, as the new Congress and president react to the pressure to promote middle-class income growth. As discussed in "The Bond Rally of a Lifetime" on page 1, and in past *Insight*s, infrastructure spending and military outlays are likely targets.

Commentary

Labor Supply vs. Free Trade

Globalization has led to many surpluses around the world, especially of labor. It resulted in vast increases in productive people as Western technology and manufacturing were transferred from the West to developing lands. These new workers have been focused on exports, not on products for domestic consumption, and they labor for much less than those they replaced in the West. So the purchasing power of all but the top tier in Europe and North America has been falling or flat at best for over a decade.

The frustration of the many afflicted is being vented on mainstream politicians as voters turn to the far right and extreme left. The popularity of socialist Bernie Sanders and anti-immigration and protectionist Donald Trump epitomizes this phenomenon, as we've discussed in *Insight*s since early 2015.

To redress these imbalances, more demand is needed or a reduction in labor supply. Given the low living standards in underdeveloped economies, it's unlikely that their demand will rise enough to fill the gap in the foreseeable future. China is the world's second-biggest economy only because she has so many people, 1.3 billion vs. 319 million in the U.S. But GDP per capita in China is just 16% of that in America, despite tremendous growth in recent decades.

So if global imbalances are to be reduced, it will be by the wages in developing and advanced economies coming closer together. But with the vast remaining numbers of unemployed and underemployed people in emerging economies and their low wages, it's improbable for decades that their pay will rise to equal labor compensation in the West. Consequently, barring extreme protectionism in Western countries that seals them from imports or a reduction in the labor supply or leaps in productivity, real wages in advanced countries will continue to be depressed.

The labor supply will shrink in many rich countries due to aging populations and low fertility rates. In the U.S., retiring postwar babies and younger people staying in school longer account for 60% of the 4.6 percentage-point drop in the labor participation rate since February 2000. The other 40% is middle-age discouraged people who have given up looking for jobs.

In Japan, the lethal combination of the longest life expectancy among G-7 countries, the lowest fertility rate, no legal immigration and low female labor participation rates is already cutting the population and curbing her labor force. European countries are not far behind, but sizable immigration in the U.S., Canada and Australia provides meaningful offsets.

Productivity gains do offset some of the lack of labor force growth, and I expect rapid productivity advances in future years as biotech, robotics and other new technologies grow big enough to have major economic impacts.

Wars and plagues that slash populations have historically led to higher wages for the survivors. The Black Death in 1348-1349, which wiped out 30% to 50% of the European population, led to real wage gains in the 15th century. But as populations grew from the 16th century onward, real wages fell.

The English economist David Ricardo (1772-1823) argued for the comparative advantage of free trade and industrial specialization. Even if one country is more competitive in every area than its trading partners, that nation should concentrate on the areas in which it has a competitive advantage, leading to mutual benefits accruing to all economies involved.

Subsequently, however, economists noted that Ricardo's simple trade model requires economies in static equilibrium with full employment and neither trade surpluses nor deficits. These aren't true in the real world. Also, Ricardo didn't consider countries at different stages of economic development or exchange rate manipulations and competitive devaluations since gold was universal money in his day.

This reality was vividly demonstrated in the two hours I spent one-on-one with Milton Friedman in his San Francisco apartment in May 1987. I argued that cost differences, especially labor cost gaps, made production expenses much cheaper outside the U.S., particularly in Mexico, at the time the big supplier of low-cost imports. So, the almost inexhaustible supply of cheap foreign labor was a key reason for global surpluses.

I tried repeatedly to argue this point but Friedman constantly and aggressively interrupted, often in mid-sentence, with "Excuse me" and then proceeded to tell me that any such cost differences were only temporary since markets would eliminate them.

I screwed up my courage when he interrupted one too many times. "Excuse me, professor. I'd like to finish my sentence. In a theoretical world of completely free markets, costs between the U.S. and Mexico may equalize as Mexican wages rise from $1 per hour to $5 while American workers' pay drops from $20 to$5. But in the real world where American labor has union and voter power, that simply won't happen." Hillary and Trump obviously agree.

Gary