Hey, Janet, How’s That Interest Rate Increase Working Out?

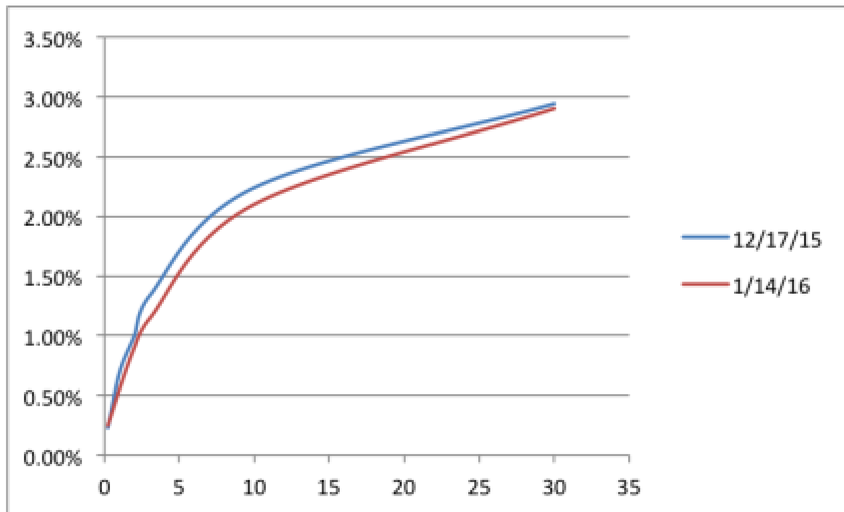
I finally understand the thinking behind the Fed’s activities trying to raise interest rates. Prof. Ray Fair (Yale) was kind enough to explain this in words of one syllable. The Fed believes that raising interest rates paid on reserves will induce banks to sell Treasury securities so they will have more reserves. Treasury security prices fall, interest rates rise, voila.

Utter nonsense. I once respected the Fed’s economists. No more. Here’s why.

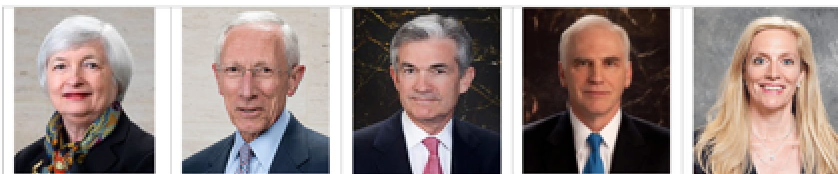
The Fed is assuming the banks will sell Treasury securities. Why? There are many other assets banks can sell if they want to increase their reserve deposits. In principle, those asset sales should push up interest rates. While I could draw a link between CDO prices and market interest rates, that seems kind of pointless.

But the real problem is that the Fed has not understood why banks are holding all those reserves. There are two reasons. First, there is incredible risk aversion caused by the random, frequent regulations and lawsuits emanating from the Obama administration. Second, there is the small matter of loan demand. Banks are holding reserves because they don’t see demand for loans whose return is worth the risk. The only way loan demand will increase is for the economy to ascend to a decent growth rate. Until that happens, the Fed should just give up.

For those looking for evidence, I offer the Treasury yield curve between December 17, 2015 and January 14, 2016. Sure doesn’t look like interest rates are rising.



Let’s See If The Fed Can Make It Stick



The Board Of Governors: Chair Janet Yellen, Vice-Chairman Stanley Fischer, Jerome H. Powell, Daniel K. Tarullo, Lael Brainard

The Fed has spoken. The new target rate for the Federal Funds rate will gradually rise to between 0.25 and 0.50 percent. I wrote extensively about this yesterday. It will be interesting to see whether the folks at the Board of Governors can make this rate increase stick.

The Forever ZIRP

ZIRP is the acronym for zero-interest rate policy, currently being followed by many central banks. For better or worse, the central bankers have backed themselves into a corner. **My forecast is the forever ZIRP**. Read on.

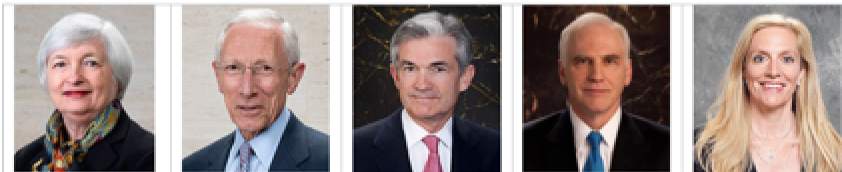
Background

On June 4 the IMF urged the Fed to postpone raising interest rates until 2016. I'll have more to say about that later in this article. **The thrust of this article, however, is a forecast: The Fed's Board of Governors has backed itself into a corner. They will be forced to keep interest rates at zero virtually forever. This also applies to other major central banks**, including the European Central Bank whose gurus recently announced **a negative interest rate policy**. (**Japan** has a head start, having **implemented ZIRP years before the Fed and ECB** caught up.)

IMF Director-General Christine Lagarde

Who Owns the Bank?

There's an old saying among bankers: **If you have a small loan the bank owns you. But if you have a really, really big loan, you own the bank.** Apparently this no longer applies to your friendly local banker. **Central banks are now owned by their biggest borrowers: national governments.**



The Board Of Governors: Chair Janet Yellen, Vice-Chairman Stanley Fischer, Jerome H. Powell, Daniel K. Tarullo, Lael Brainard

Let's look at **the latest data for the U.S**.[1] At the end of 2014 the **gross federal government debt was $17.8 trillion**. **Net interest** paid on this debt was **$0.23 trillion**. **The implied interest rate was a whopping 1.29%**.

Suppose the Fed raises interest rates by, say, 200 basis points. **Assume that increase is passed through to the interest rate paid by the government**.[2] **The interest rate will be 3.29%. And interest payments on the government debt will become $0.58 trillion.**

"So what?" you ask. To put this in perspective **the total government budget deficit in 2014 was $0.48 trillion**. In other words, **a two percentage point increase in the interest rate would double the federal government budget deficit**.

And now we can see **the real danger of the persistent, large deficits the government has run under the Obama administration**. That new debt does not vanish at the end of each year. It accumulates. **Effectively, the federal government owns the Federal Reserve.**

As always, my methods are transparent. Click here to download the Excel workbook and play with your assumptions.

Why Did the IMF Caution the Fed?

The U.S. government is not alone. There are many other governments with government debt to GDP ratios over 100 percent. Each and every one of those governments is holding their central bank hostage. The lone exception is the ECB which does not technically have a single government to which it reports. Until recently, the ECB has shown little sympathy to the plights of Greece, Spain, Italy, and Portugal. But a negative interest rate policy is a subsidy to every government that is part of the eurozone. The IMF is simply trying to postpone the inevitable.

Conclusion

Decades ago I was privileged to learn monetary theory from Dr. Karen Johnson. She warned us of **the dangers of running federal government budget deficits when the economy was reasonably healthy**. **Her main concern was what the government would do if the deficit was already large and the economy slipped into recession. Even with her intelligence, I doubt she forecasted how badly various governments have messed up their budgets.**

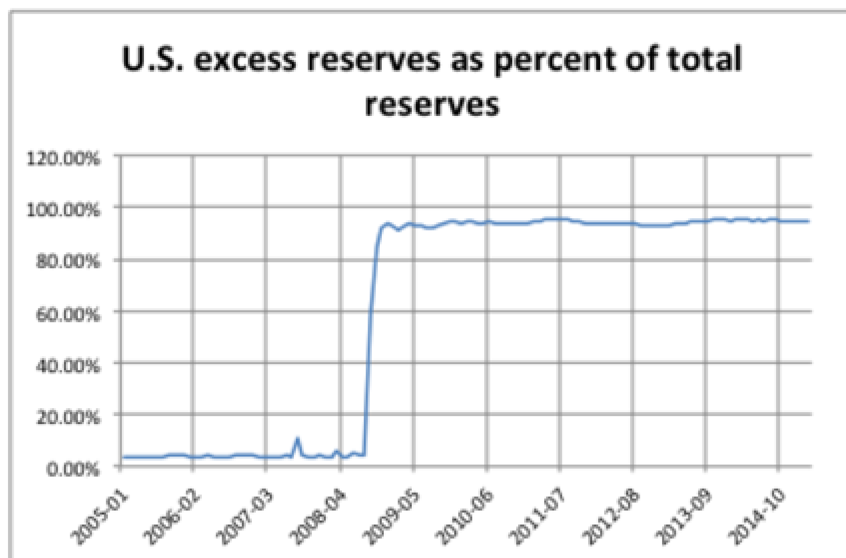
[1] Economic Report of the President, 2015, Table B-22. Excel file can be downloaded from this link XLS. Accessed June 5, 2015.

[2] In practice, this will take some time due to the term structure of the U.S. government debt. T-bills will be affected almost immediately. But T-bonds will take quite a bit longer to be refinanced. As an economist, of course, I know this is irrelevant because the true cost of borrowing is the opportunity cost.

Watch for Interest Rates to Rise Soon

I missed **this story on the Wall Street Journal website yesterday**. Thanks to my lovely wife for pointing it out. **"Overheard: Banks Shift From Treasurys to Loans" says that banks are chasing yields by starting to make loans again. Watch for interest rates to rise soon.**

There's one comment on this article by Frank Anderson: "This is scary." I don't know who Mr. Anderson is, but he's absolutely correct. Banks have stashed about $2.5 *trillion* in excess reserves. When I last wrote about this, excess reserves were fairly stable at about 95% of total reserves.



But **over the last 15 months that percentage has begun to fall slightly**.

If we look at the year-over-year change in excess reserves, the pattern becomes clear. (I used year-over-year changes because the data is not seasonally adjusted.)

What's It Mean?

What can cause excess reserves to decrease? The standard textbook answer is **the Fed engaging in open market sales. But that would cause interest rates to rise** (at least in principle – we're in uncharted territory here). Although deciphering the Fed's Table H.4.1[1] bears a close resemblance to reading tea leaves, **it doesn't look like the Fed has materially reduced its holdings of U.S. government securities.**

That leaves us with the Wall Street Journal's idea. **Bank lending is picking up. There's just a hint right now. But if this trend continues you can expect one (or possibly both) of**

these events:

1. **inflation will rise rapidly,**
2. **interest rates will rise rapidly.**

I’ve been writing about this for at least five years. **The Fed’s attempt to rescue the economy using monetary policy alone has been a fool’s errand. Now they face a Sophie’s choice:**

1. **The FOMC can do nothing,** allowing those banks to continue to increase lending. This will increase the growth rate of M1, M2, and (eventually) lead to inflation. **Right now M1 is about $3 trillion and M2 around $12 trillion**. Even a relatively small value for the money supply multiplier (say 2.0), $2.5 trillion in excess reserves translates to a **$5 trillion increase in M1**.
2. **The FOMC can engage in open-market sales** and take other actions to **eliminate the excess reserves**. T**he FOMC will have to act quickly. And this will cause interest rates to rise once the growth rate of M1 begins to slow. Among other effects will be a sharp increase in the Federal government budget deficit as interest payments on the $16 trillion debt begin to rise. (A 10 basis point increase in the average interest rate on the government debt will increase interest payments on the debt by a cool $16 billion. Even by government standards that’s not just spare change.**

Note that **either way interest rates rise**. **If the Fed does nothing, inflation expectations will increase nominal interest rates. If the Fed tightens, the reduced growth rate of the money supply will increase nominal (and perhaps real) interest rates.**

Unsolicited Advice

My highly unprofessional advice: head for TIPS[2] funds. But remember: you get what you pay for. How much did you pay for this advice?

(Disclaimer: my wife and I own shares in TIPS funds. However, this is irrelevant because (a) we are not buying or selling, therefore we don't affect the market price; and (b) I'm pretty sure our holdings are a miniscule percentage of total TIPS securities held by the public.)

Transparency note: click here to download the usual Excel workbook.

[1] "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks" current release available at http://www.federalreserve.gov/releases/h41/Current/

[2] Treasury Inflation Protected Securities.

Yellen Decries Wealth Inequality, Fails to Mention Fed's Role

Dr. Janet Yellen

[Revised October 22 to correct the misimpression that the Fed is wholly responsible for the increase in inequality. Thanks to Mark Dow @Mark_Dow for pointing out this issue.]

On October 17, **Fed Chair Janet Yellen gave the keynote address at the Federal Reserve Bank of Boston's 58th Conference on Inequality of Economic Opportunity**. The keynote was at 8:30 am, perhaps indicating that **Dr. Yellen would rather not have had many attendees. Indeed, given the content of her talk, such fears appear justified. Dr. Yellen decries wealth inequality, fails to mention Fed's role. I hasten to add that the Fed's policies over the past six years are just one factor causing inequality to increase. Technological change, specifically the improvements in the speed of information transmission, are at least as important and probably a bigger factor. That's certainly the case in the long run.**

A Maine farmer went to church one Sunday morning. Upon departure he met a friend who asked him what the sermon had been about. "Sin," he replied. "Well," said the friend, "what did the preacher have to say about it?" The farmer replied, "He were agin' it."

Dr. Yellen's idea is **analogous to an old joke →**

Exactly. **Dr. Yellen thinks there is too much income and wealth inequality in the U.S. today.** First, I have to note that **this falls into "normative economics," statements made by economists based at least partly on their opinions.** Now my opinions about, say, the minimum wage are likely to be more informed than years. I get paid to keep up with the research. **But when it comes to opinion, yours is as good as mine – and both are as good as Dr. Yellen's.**

Second, what in the world is the Fed supposed to do about inequality? At the moment, they can't even perform one of their two main tasks: stimulating employment. Oh, well, at least inflation is under control.

Until the Fed has solved the problem of the "zero lower bound" on interest rates, perhaps they should concentrate on their core mission and leave inequality debates to others.

Here are some excerpts from the Wall Street Journal coverage:

> ***BOSTON—Federal Reserve Chairwoman Janet Yellen said rising inequality of wealth and income in the U.S. was impeding the economic mobility at the heart of American values.***
>
> ***"The extent and continuing increase in inequality in the United States greatly concern me," Ms. Yellen said to a conference on economic opportunity and inequality sponsored by the Federal Reserve Bank of Boston. "I think it is appropriate to ask whether this trend is compatible with values rooted in our nation's history, among them the high value Americans have traditionally placed on equality of opportunity."***
>
> ***…***
>
> ***Ms. Yellen didn't address Fed critics' arguments that the central banks' bond buys and zero-interest-rate policies have contributed to inequality by bolstering prices of assets such as stocks, which are primarily held by wealthier Americans.***

> *The Fed counters its policies are aimed at boosting the overall economy, and thus helps lower-income Americans who are more likely to have high levels of debt.*

It happens that **the Fed critics are exactly right. While interest rates on debt held by those in the bottom 80% may be slightly cheaper, much of that debt is probably credit cards. Those interest rates are still way, way above 1%.** Mind you, I have no problems with those rates. These are unsecured loans to borrowers, with no collateral at all. The high interest rates reflect the risk of those loans. Thus banks are able to borrow at low rates and lend to the poor and middle class at fairly high rates. Again, I must add that these low interest rates are a contributing factor, not the sole reason for the growth of inequality.

Theory and a Hypothesis

Decades ago I studied monetary theory with Prof. Karen Johnson.[1] I learned this lesson over and over:

All assets are substitutes for each other. But some are better substitutes than others.

Central banks around the world have kept interest rates very low. The Fed, via their "quantitative easing" program has kept short-term U.S. rates near zero and longer-term rates in the 2% – 3% range. But **portfolio managers need to turn a profit. They seek yield. If they can't find it in U.S. government securities, they look elsewhere. Junk bonds, high-yield foreign bonds (and don't forget Puerto Rico), and, yes, stocks. Probably real estate, too. Junk bond yields are in the 5% to 9% range. High-yield foreign bonds are around 4.5% – 6%. Where, oh where can they go?**

Stocks, naturally. The stock market has boomed. There is widespread agreement among those with a clue that even a hint

at higher interest rates would cause a selloff in the U.S. stock market and probably some other countries, too.

While U.S. stocks are more broadly owned than is generally believed (mutual funds, retirement accounts, etc.), it remains true that **wealthier households own more shares of more stocks than less wealthy folks. And their wealth has risen accordingly.**

Hence **my hypothesis: the Fed's policies have caused, at least in part, the increase in wealth inequality. I will not discuss the many, many other government programs that have the same effect. But I will note that the residents of the zip code 94027 are the largest purchasers of Tesla automobiles (price: $60,000 up). That zip code is for Atherton, CA, one of the wealthiest suburbs of San Francisco. I'm certain Atherton's proud Tesla owners are also enjoying the tax benefits of their purchases.**

Testing the Hypothesis

Using data from the Census I developed **six measures of inequality**.[2] They were:

1. Percentage of U.S. households in the **top 20 percent of income**.
2. Percentage of U.S. households in the **top 5 percent of income**.
3. Median net worth (in dollars) of the **wealthiest 20 percent of households**.
4. **Percentage of households with a net worth of $500,000 or more**.
5. The **ratio of mean to median net worth of the wealthiest 20 percent of households.**
6. The **Gini coefficient** for the U.S.

For the i**ndependent variable I used the yield on ten-year U.S. government notes. All data is annual**. The independent variable

and the Gini data are from the FRED database at the Federal Reserve Bank of St. Louis. All other data is from the Bureau of Census. For the ten-year note, I have data from 1980 through 2013. Other series vary both in length and continuity as noted in the following table.

Independent Variable	Constant	Coeff.	t-stat	Adj. R^2	Data coverage
Percentage of U.S. households in the top 20 percent of income (PctHHtopQuint)	52.815	−0.671	−14.438	−0.877	1980-2009
Percentage of U.S. households in the top 5 percent of income. (PctHHtopFivePct)	24.557	−0.640	−11.651	−0.823	1980-2009
Median net worth (in dollars) of the wealthiest 20 percent of households. (MedianHHnet WorthTopQuintile)	862,980.3	−70,323.3	−2.597	0.488	2000, 2002, 2004, 2005, 2009 - 2011
Percentage of households with a net worth of $500,000 or more. (PctHHNetWorth Over500k)	21.788	−2.548	−5.463	0.743	1991, 1993, 1995, 1998, 2000, 2002, 2004, 2005, 2009-2011
The ratio of mean to median net worth of the wealthiest 20 percent of households (HHmeanTo MedianRatioTop Quintile)	238.497	−11.564	−1.610	0.210	2000, 2002, 2004, 2005, 2009 - 2011
Gini Coefficient (GiniCoeff)	0.4947	−0.00705	−16.17	0.894	1980 - 2011

All coefficients of the interest rate are negative, indicating that lower interest rates increase inequality. Four of the five are statistically significant. (The lone exception is my constructed variable, the ratio of mean to median net worth.) Goodness-of-fit varies widely, but is generally better for the series with higher n's.

Conclusion

Decades ago, Prof. Mike Hurd drummed another valuable lesson into my brain. Without some extensive and very difficult work, you cannot calculate the power of a statistical test. Unfortunately, that's what you need to do to "confirm" a null hypothesis. As things stand, all I can say is that I failed to reject my null hypothesis.

For those interested, I have put my Excel workbook and the SPSS files into a zip file. Click here to download it.

[1] Dr. Johnson has now retired after a successful career at the Federal Reserve. Naturally she is not responsible for any of my errors – here or elsewhere!

[2] In some cases, my "development" consisted simply of copying the Census data into a format consistent with my original dataset.

This is How a Financial Meltdown Might Be Starting

Treasury Put Prices (volume added by Zerohedge. Published here with permission of Tyler Durden and Zerohedge.com)

Yesterday, according to CME data, Treasury futures put volume hit 758,020 contracts (second only to that 2007 high) as 74% of the entire options trading volume was in puts (and 88% of 5Y futures options were puts!). With the FOMC tomorrow and everyone seemingly convinced that the 'great rotation' is in place, it would appear the **crowded trade** is being bearish bonds.

This is how a financial meltdown might be starting. Buyers suddenly decide U.S. Treasury securities may not be risk-free any more. They start to hedge against possible price decreases. An easy way to do that and limit risk is by purchasing put contracts on Treasuries. (A put contract gives the owner the right to sell a specified quantity of the underlying security at a specified price on or before a specified date. Buying a put means the buyer is betting the price will fall, but still limiting risk to the price paid for the put.)

Today Zerohedge.com (@zerohedge aka Mr. Tyler Durden who will henceforth be called MR. Durden) pointed out that on January

28, the volume of puts on Treasury securities reached the second-highest level in history. From their story →

The Zerohedge analysis is that markets are anticipating the outcome of the FOMC meeting that begins today. According to this analysis, the markets are anticipating that the Fed will announce they are beginning to unwind their balance sheet. That would cause interest rates to rise and Treasury security prices to fall. (If you don't understand why that happens, either post a comment or e-mail me and I'll put together an explanation.)

That analysis focuses exclusively on the supply side of the market. Economists get paid to also consider demand side explanations. The demand based explanation is far more frightening. The prospect of investors avoiding Treasury securities because of an increase in perceived default risk should scare everyone, not just us paranoid economists.