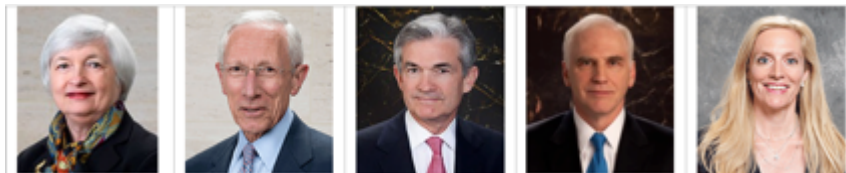


Monetary Policy as a Confidence Game



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

Tomorrow the Federal Reserve (Fed) is expected to announce that they will raise interest rates for the first time in eight years. Dr. Janet Yellen, the Chair of the Board of Governors, studied at Yale under Prof. James Tobin, one of the most outstanding monetary theorists in history. She has had it drummed into her head that **raising interest rates is contractionary and lowering rates is expansionary.** The only explanation I can think of is signaling. **By raising interest rates the Fed believes they can send a signal to markets about the Fed's confidence in the economic recovery. In other words, the Fed is playing monetary policy as a confidence game.**

Will it work? I'm skeptical that the Fed can even manage to raise the Federal Funds rate. For my reasoning, read on.

M1, M2, Reserves, Oh My

[A few months back I wrote about the arcane topic of the relationship between monetary aggregates \(M1, M2\) and bank reserves.](#) At the end of December 2014, excess reserves were about 95 percent of total reserves. The Federal Reserve (Fed) was holding \$2.66 trillion in total reserves, but required reserves were \$142 billion.

Most Fed-watchers believe the Fed will announce an interest

rate increase at the conclusion of the current Federal Open Market Committee (FOMC) meeting tomorrow. The question I want to explore is how they will manage to accomplish that goal.

Background: Federal Funds, Reserves, and the Fed

Since about 1975 the Fed's monetary policy target variable has been the Federal Funds rate.[\[1\]](#) There's nothing mysterious about this interest rate. It is the rate banks charge each other for 24 hour lending and borrowing of bank reserves. The historic reason for these activities has been reserve requirements. Banks are required to hold a minimum percentage of their deposits as reserves. Reserves include vault cash and deposits at the Fed.[\[2\]](#) Vault cash is just currency held by the bank.[\[3\]](#) Deposits at the Fed are called bank reserves.

Again historically, when the Fed has wanted to raise the Federal Funds rate they engaged in an open-market sale of government securities. The result of this transaction is that the private sector ends up holding more securities and the Fed holds more deposits. Deposits held by the banking system have decreased. So have required reserves.[\[4\]](#) Banks will reduce their reserve holdings. And a lower quantity of reserves reduces supply in the Federal Funds market, pushing up interest rates. When the Fed wants to lower interest rates they engage in an open market purchase of government securities, increasing bank reserves.

The point of all this is that the Fed actually relies on the market mechanism – supply of and demand for reserves – to hit interest rate targets.

Brave New Monetary World

Today banks have \$2.5 trillion in excess reserves. I sometimes marvel at the fact that there is any demand in the Federal

Funds market at all. But there apparently is. The Fed will raise their target for the Federal Funds rate. That will induce ... what? Banks will want to lend more of their excess reserves to other banks, but the higher interest rate will reduce quantity demanded. The outcome is unpredictable. But I will hazard a guess that the Fed will discover they can't actually raise the Fed Funds rate.

I know there are some smart people on the Board of Governors. I have the highest respect for Dr. Stan Fischer. Some of his work was the inspiration for my Ph.D. dissertation. But honestly I am not sure they have thought this through.

There is one other possibility: they might raise the discount rate, the interest rate the Fed charges banks for borrowing from the Fed. That would be consistent with the hypothesis that all this is mainly propaganda.

Global Markets Matter

One factor overlooked by many people is the large disparity between U.S. interest rates and similar rates in other countries. [I wrote about this recently](#) and won't repeat the story here. But I will say that markets expect a serious U.S. dollar depreciation over the next ten years. If that happens, the effect may well be to put downward pressure on U.S. interest rates. There is considerable uncertainty about this because of the role of expected future exchange rates in uncovered interest parity. I may do some research and add another note later this week.

The Fed as Proselytizer[\[5\]](#)

Any objective look at the U.S. economy will tell you that the best word to describe the current recovery is "troubled." People continue to flee the labor force. That decrease in the number of people either employed or looking for work has

mainly been caused by a decrease in the labor force, the sum of those two totals. **The percentage of people with part-time jobs who would like a full-time job is reaching all-time highs. Inflation remains barely detectable.** Indeed, just this morning I heard a not-very-bright observer comment that inflation has been low because of declining oil prices. You may recall that decades ago the Fed created the “core CPI” which excluded the “volatile” prices of food and energy. Apparently now that energy prices are falling, they have begun watching the overall CPI again. Which is, of course, nothing more than **cherry-picking the economic indicator that most justifies what you plan to do anyway.**

So why raise interest rates? Dr. Janet Yellen studied at Yale under Prof. James Tobin, one of the most outstanding monetary theorists in history. She has had it drummed into her head that raising interest rates is contractionary and lowering rates is expansionary. The only explanation I can think of is signaling. By raising interest rates the Fed believes they can send a signal to markets about the Fed’s confidence in the economic recovery. The Fed is playing a monetary policy confidence game.

Will it work? Tell you what – **first let’s see what the FOMC actually announces. If they just raise the discount rate it’s pure public relations. If they announce a higher target for the Fed Funds rate, then we get to see if they can actually pull it off. Either way, the next week or so should be entertaining.**

Update on M1, M2, and Bank Reserves

I know that **both my faithful readers would be disappointed if I didn’t include some numbers in this treatise.** But it doesn’t matter because **nothing much has changed.** At the end of **November, 2015, total bank reserves were \$2.66 trillion. Of that, \$0.15 trillion are required reserves, leaving \$2.15**

trillion in excess reserves, 94.44% of the total. The only glimmer of good news is that totals have not changed much since the beginning of 2014. As always my methods are transparent. [Click here](#) to download the Excel workbook with the underlying figures and my calculations.

Conclusion

“May you live in interesting times.” When I was studying monetary theory in graduate school I never imagined this old Chinese curse would apply to the mundane field of monetary policy.

[\[1\]](#) The best-known exception to this general rule is from 1979-1981 when Paul Volcker changed the focus to the growth rate of the money supply. Mr. Volcker retains his hero status to many of us for knowing how to kill off inflation.

[\[2\]](#) Yes, I know it's more complicated than this. For current purposes I only need a simple model.

[\[3\]](#) I have long believed that it's called “vault cash” as a constant reminder to bankers about where they should keep currency. Put it in the vault. Don't leave piles of Federal Reserve notes lying around on the counters. Sound banking practices are sometimes very simple.

[\[4\]](#) If you don't like this story, try the case where the Fed sells securities directly to banks. The banks pay for those securities with reserves, reducing the quantity of reserves directly.

[\[5\]](#) Look it up.

I Was Wrong About ZIRP



Slim Pickens’ finest cinematic moment (click for larger image)

A few months ago, I argued that [the Fed’s zero-interest-rate policy \(ZIRP\) would last forever](#). Today I admit I was wrong about ZIRP.

Although negative rates have a “Dr. Strangelove” feel, pushing rates into negative territory works in many ways just like a regular decline in interest rates that we’re all used to, said Miles Kimball, an economics professor at the University of Michigan and an advocate of negative rates.

Not, mind you, because the Fed will raise interest rates any time soon. No, the geniuses at the Federal Open Market Committee and the Board of Governors seem to be leaning in a different direction: **NIRP**.

Better get used to seeing those initials. They stand for **negative-interest-rate policy**. That’s right. The Fed thinks they can drive nominal short-term interest rates below zero.

For a good discussion of the Fed’s likely direction and its implications, see [Greg Robb’s piece on Marketwatch.com](#). Greg gets it right here →→→→→→→→→→→→→→→→→↑

We've Seen Negative Yields Before

Now it happens that there is a Treasury security that has paid negative interest rates off and on over the last couple of years: TIPS. That's Treasury inflation-protected securities. These securities pay a real interest rate. So when their yield is negative it simply means markets expect future inflation to be higher than current nominal interest rates.

(Remember the Fisher equation: $r = i - p^e$ where r is the real rate of return on a security, i is the nominal return as usually quoted, and p^e is expected future inflation over the life of the security.)

But negative nominal yields are a different kettle of fish. Positive nominal yields mean borrowers are paying lenders to lend them money. **Negative nominal yields mean lenders are being asked to pay borrowers for the privilege of lending them money. Most of the time that is insane.**

Would NIRP Work? No.

And it would not make any difference. The Fed has been flooding markets with liquidity for five years. Virtually the entire tsunami has ended up being held as bank excess reserves at the Fed. Why will more liquidity lead to a different result? As I've argued in the past, [monetary policy has done all it can to solve this crisis](#). Things will not improve until (if?) a new president takes office and [begins to undo some of the regulatory mayhem that the current administration has wreaked on the U.S. economy](#).

My guess is that the Fed thinks they can do this because there has been a global flight to safety. And **safety is still good old U.S. government Treasury securities**. Whether global markets want safety so much that they are willing to pay a premium to get it remains to be seen. I, for one, am skeptical. **New Zealand, Australia, South Africa, Chile, the**

U.K., Norway, and Canada all have pretty safe government securities. I predict the Fed will soon discover another result of globalization.

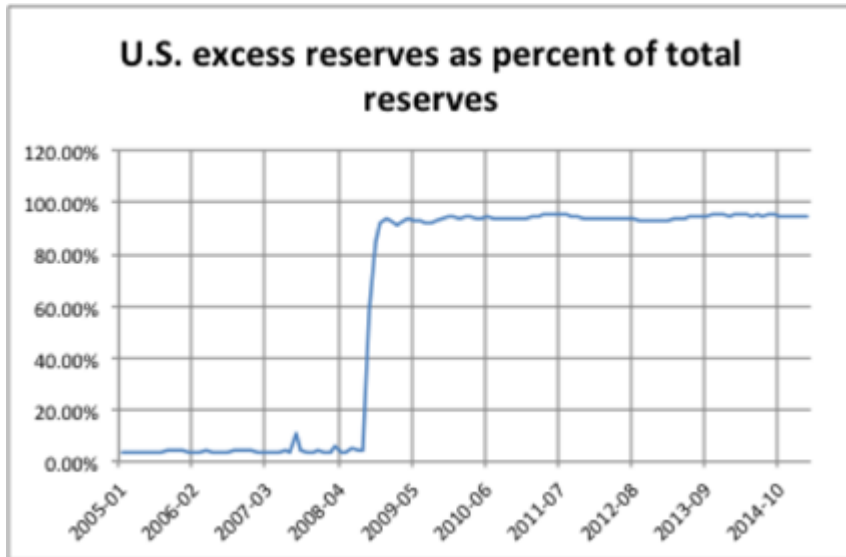
Conclusion

I learned a lot of what I write when I took monetary theory in graduate school. Prof. Karen Johnson (later my dissertation adviser), fresh out of M.I.T., inspired much of my thinking. (I hardly have to add that Dr. Johnson is in no way responsible for my ramblings here.) **She understood both the theory (complete with heavy-duty math) and the practical aspects of monetary policy. Sadly, I fear that institutional knowledge that I took for granted has been lost.**

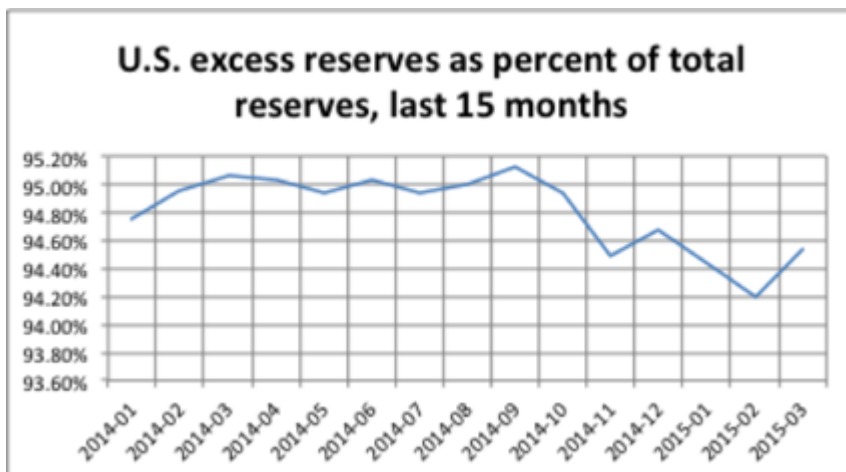
Watch for Interest Rates to Rise Soon

I missed [this story on the Wall Street Journal website yesterday](#). Thanks to my lovely wife for pointing it out. **“Overheard: Banks Shift From Treasuries 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.** The 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.

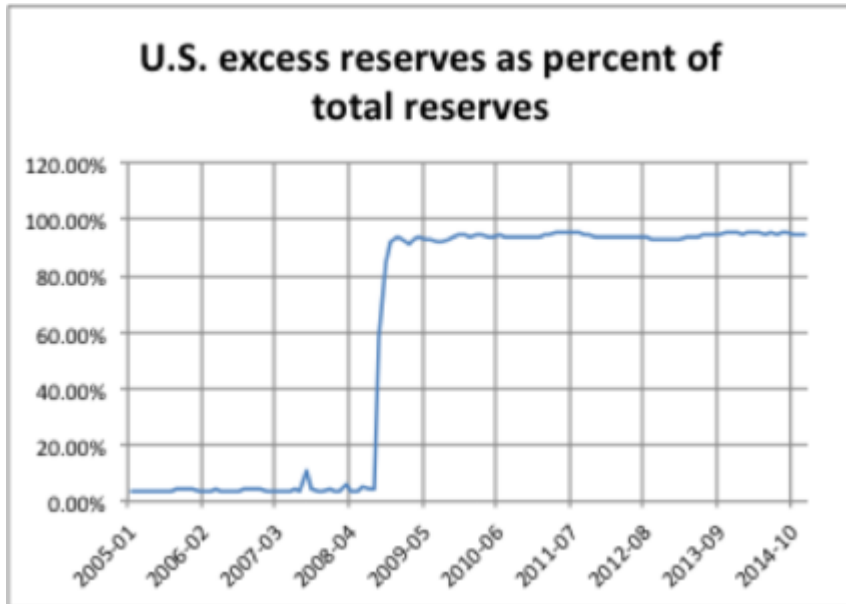
Monetary Policy is Like Pushing on a String

People seem to have forgotten this lesson. Central banks can only directly affect the quantity of bank reserves. That is the “push.” The money supply, however, only grows when banks lend those reserves. And that has been the source of the Fed’s problem since 2008.

The Fed has been buying securities at a furious rate. In 2013 our central bank bought around 70% of the net new issues of U.S. debt. And it has done almost no good. Banks are experiencing a quadruple whammy:

1. The 2008 mortgage meltdown has made them more risk-averse,
2. A hostile administration in Washington, D.C., seems ready to levy fines and file lawsuits whenever the U.S. Treasury needs funds,
3. Huge regulatory uncertainty about how the Dodd-Frank Act will be implemented, and
4. A fundamental lack of loan demand from their usual market: small businesses.

And they are not lending. They are sitting on huge piles of excess reserves.



But what about the money supply? Here's the unhappy picture:

Year	M1 growth	M2 growth	Reserve growth
2005	1.03%	4.75%	-6.52%
2006	-0.48%	5.85%	-5.39%
2007	0.50%	5.78%	0.64%
2008	14.90%	10.38%	1816.27%
2009	5.90%	2.29%	29.31%
2010	10.84%	4.54%	-0.18%
2011	19.06%	10.29%	45.83%
2012	12.19%	7.63%	1.10%
2013	8.72%	5.61%	56.17%
Averages	8.07%	6.35%	215.25%

Average annual growth rates of M1 and M2 are in the 6% – 8% range. Reserves have averaged 215.25% per year. Reserves are not being loaned. And until lending picks up the Fed might as well close up shop.

As always, my methods are transparent. [Click here](#) to download the usual Excel workbook.

History

While I don't ordinarily use [Wikipedia, the site can be helpful when trying to track down the origin of a phrase.](#)

(Footnotes are also copied from that source.) Forthwith,

According to Roger G. Sandilans[1] and John Harold Wood[2] the phrase was introduced by Congressman T. Alan Goldsborough in 1935, supporting Federal Reserve chairman Marriner Eccles in Congressional hearings on the Banking Act of 1935:

Governor Eccles: Under present circumstances, there is very little, if any, that can be done.

Congressman Goldsborough: You mean you cannot push on a string.

Governor Eccles: That is a very good way to put it, one cannot push on a string. We are in the depths of a depression and... beyond creating an easy money situation through reduction of discount rates, there is very little, if anything, that the reserve organization can do to bring about recovery.[3]

The phrase is, however, often attributed to John Maynard Keynes: "As Keynes pointed out, it's like pushing on a string...", "This is what Keynes meant by the phrase 'Pushing on a string.'"[4]

Conclusion

Loan demand will not pick up until after the 2016 election at the earliest. Until then, we'll just have to try to hang on.

[1] Sandilans, Roger G. (2001), "The New Deal and 'domesticated' Keynesianism in America, in John Kenneth Galbraith and Michael Keaney (2001). *Economist with a Public*

Purpose: Essays in Honour of John Kenneth Galbraith.
Routledge. ISBN 978-0-415-21292-2., p. 231

[2] John Harold Wood (2006). *A History of Central Banking in Great Britain and the United States.* Cambridge University Press. ISBN 978-0-521-85013-1., p. 231; it cites U. S. Congress House Banking Currency Committee, Hearings, Hearings, Banking Act of 1935, March 18, 1935, p. 377.

[3] *Ibid.*,

[4] Joseph Stiglitz (April 8, 2008). "A deficit of leadership". *The Guardian* (London). Archived from the original on May 13, 2008. Retrieved April 27, 2008.

QE2

Today's [Wall Street Journal](#) includes yet another [confused article](#) about U.S. monetary policy. Let's briefly review what's under discussion before dealing with the Journal's issues.

[Fed](#) chairman [Ben Bernanke](#) and the [FOMC](#) announced a new round of "quantitative easing" on November 3. Some of us are old enough to remember when QE2 was the abbreviation for a luxury ocean liner (the [Queen Elizabeth II](#), still owned and operated by Cunard). Today those initials have been co-opted by the Fed to stand for the second round of quantitative easing.

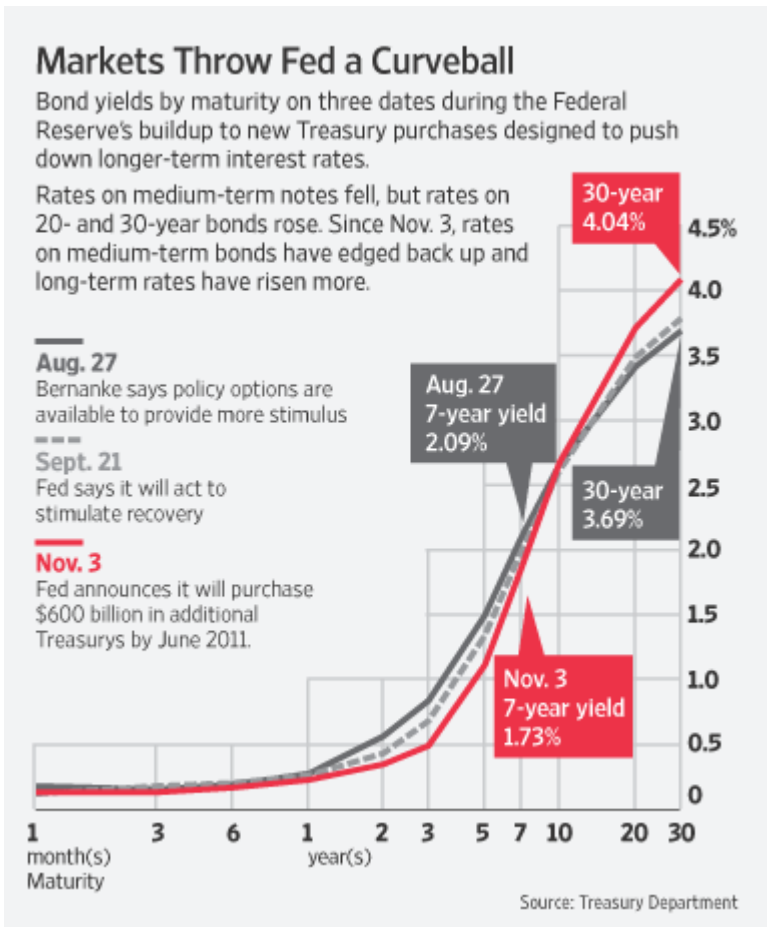
The idea here is simple enough. Banks are not lending their excess reserves. In fact, the Fed's latest [H3](#) report includes the following information:

Excess reserves:	\$973,504,000,000
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Required reserves:	\$66,749,000,000
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So instead of just buying more short-term Treasury securities (and expanding the excess reserve base even more), the Fed has decided to make purchases of longer-term Treasury notes and bonds. In fact, \$600 billion in new purchases, at a rate of \$75 billion per month for eight months. The Fed has repeatedly stated that their concern is deflation. They are deliberately trying to create inflation. Here's an excerpt from their [November 3 press release](#): "Longer-term inflation expectations have remained stable, but measures of underlying inflation have trended lower in recent quarters."

So what's the problem? Apparently some folks don't understand the yield curve. This is straight out of the Wall Street Journal article:



Yield curves before, during, after

Since August 27, yields on T-notes (maturities between 1 and

10 years) have fallen. However, T-bond yields have risen. It seems clear to me that the Fed has pretty much succeeded. Long-term yields are higher because the Fed has managed to increase inflation expectations. Note, however, that inflation expectations have only risen beyond the 10 year horizon. Up to 10 years, yields have fallen, indicating that the market pretty much agrees with the Fed: inflation expectations are lower. (Of course, it's possible that adding \$600 billion in liquidity to this market has lowered relatively short-term yields simply because of expectations of more liquidity.)

What we don't need is stuff like this:

"... David Ader, head of government-bond strategy at CRT Capital LLC, said ... 'I think the bulk of the move is a position unwind exacerbated by the timing of the year' ..." "Position unwind?" Great.