Equities US Interest Rates Central Banks Markets

Will Treasury yields soar if China sells?

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AUGUST 31, 2015 10:24 AM
By: **Matthew C Klein**

China, you may have noticed, has switched rather abruptly from being a massive buyer of foreign currencies to a major seller (http://www.bloomberg.com/news/articles/2015-08-27/china-said-to-sell-treasuries-as-dollars-needed-for-yuan-support). Some people — including some relatively influential policymakers — are worried that this switch from suck to blow, as it were, could cause Treasury yields to spike. That fear may be animating some of those who think the Fed should adjust its schedule of rate hikes, or even engage in additional large-scale asset purchases.

We're sceptical.

Back when the People's Bank of China was buying Treasury bonds, it was really just selling yuan for dollars it could hold as foreign

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currency reserves, some of which were then invested in USTs. It's possible those reserves were accumulated as insurance against a repeat of the Asian Financial Crisis, but it's more likely the government just wanted to subsidise Chinese companies by suppressing the exchange rate. (A weaker currency raises the cost of foreign products and makes exports more competitive in global markets.)

The PBoC could just as easily have bought other dollar-denominated assets to accomplish this objective, and it did. The important thing was that the PBoC was selling yuan for dollars to offset the unusual combination of a big current account surplus *and* big net inflows of private capital. Had the PBoC refrained from buying dollar-denominated assets, the value of the yuan would have had to increase to balance the flows of money going in and out. Instead, it pursued policies that propped up the value of the dollar.

All else equal, an overvalued currency reduces nominal income by hitting both trade and foreign earnings. The central bank can offset at least some of the impact on aggregate growth by lowering interest rates, which makes investment and consumption relatively more attractive. The net effect would be a change in the composition of growth away from tradeable goods and services in favour of construction, healthcare, government, and education. That's exactly what happened in the US in the 2000s.

(An overvalued currency can also lead to a deterioration of the fiscal balance, which explains both why the federal budget went from a big surplus to a big deficit and why economists found that the parts of America most sensitive to trade competition with China saw a big decline in employment and a big uptick in government transfer payments (http://economics.mit.edu/files/6613).)

It's therefore entirely reasonable to think Chinese and other foreign purchases of Treasury bonds lowered domestic US interest rates — but that's because those purchases lowered the outlook for American inflation and real growth, not because there was something special about buying bonds compared to other dollar assets. If the whole process went into reverse it would be a *good* thing for the US.

Besides, we have no reason to think China's total dollar holdings are actually shrinking. China hasn't decided to undo its old policy of suppressing the exchange rate to support domestic producers — the trade surplus is near its all-time high and the yuan is falling. Rather, the PBoC is simply trying to preserve its existing exchange rate regime by offsetting massive outflows of private capital, most of which are probably headed straight for the US. (The same can be said for any other case of reserve liquidation.)

Suppose the private capital flight and official reserve liquidation perfectly balance out and there's no net change in total Chinese holdings of dollar assets. UST yields would still spike if both of the following statements were true:

- Private Chinese investors and the Chinese government have radically different asset allocation preferences

- Foreign buying and selling of US government bonds affects US borrowing costs in ways *other* than the straightforward currency channel

We're willing to believe the first proposition. Anecdotally, Chinese subjects (rightly) want to invest in foreign real estate that gives them residency rights in places with respect for human rights and the rule of law. Why would they want to hold lots of low-yielding fixed-income claims in a currency that doesn't match their own liabilities?

Our disagreement with the fear-mongers comes down to the second point. US Treasury debt is the most liquid market in the world. Arbitrageurs can offset much, if not all, of the buying and selling by price-insensitive reserve managers. The burden of proof should be on those who think otherwise.

Imagine there were some significant impact of foreign bond-buying on US rates *separate* from the consequences of having an overvalued currency. If so, the effect should show up as a distortion in the shape of the yield curve, since the portfolios of reserve managers don't perfectly line up with the Treasury's issuance.

People worried about a yield spike due to Chinese reserve liquidation must necessarily believe that Chinese reserve accumulation was at least partly equivalent to the Fed's large-scale asset purchases. Those supposedly distort the yield curve by pushing down longer-term interest rates relative to what you would expect from adding up expected future short rates (http://www.federalreserve.gov/newsevents/speech/stein20121011a.htm), although the way this is calculated is subject to debate and the net effect isn't exactly obvious. Remember this (http://www.thestreet.com/story/11029348/1/bill-gross-bond-yields-poised-to-spike.html)?

Anyhow, it just so happens some people thought foreign bond-buying messed with the US yield curve during the 2004-6 rate hike cycle. Recall, more than ten years ago now, Greenspan's confusion over the "conundrum (http://www.federalreserve.gov/boarddocs/hh/2005/february/testimony.htm)" that short rates and long rates weren't moving in the same direction:

> Long-term interest rates have trended lower in recent months even as the Federal Reserve has raised the level of the target federal funds rate by 150 basis points. This development contrasts with most experience, which suggests that, other things being equal, increasing short-term interest rates are normally accompanied by a rise in longer-term yields...Heavy purchases of longer-term Treasury securities by foreign central banks have often been cited as a factor boosting bond prices and pulling down longer-term yields.

Put aside, for this post, how weird it was that Greenspan claimed to be confused by something he had seen (https://research.stlouisfed.org/fred2/graph/?g=1IGM) so many times (

https://research.stlouisfed.org/fred2/graph/?g=1IGR) during his tenure (https://research.stlouisfed.org/fred2/graph/?g=1IGN) as Fed chairman (https://research.stlouisfed.org/fred2/graph/?g=1IGS). (Don't worry, we'll get to it in a subsequent post.)

Focus instead on the hypothesis that foreign official purchases of US bonds made the yield curve flatter than it otherwise would have been, specifically by pushing down longer-term interest rates — a claim distinct from the idea that reserve accumulation pushed up the value of the dollar and worsened the outlook for nominal income growth. If this claim were correct, we could imagine reserve liquidation having the opposite effect.

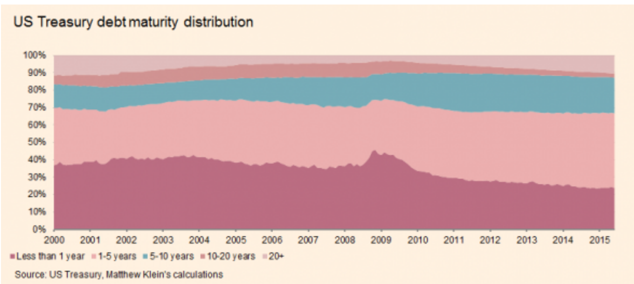
The problem with the theory is that the Chinese and others concentrated their purchases at the front end of the curve. According to the US Treasury, about three-quarters of the foreign official holdings of USTs had a maturity of 5 years or less, as of June 30, 2006 (http://www.treasury.gov/ticdata/Publish/shl2006r.pdf). By contrast, only about 3 per cent was invested in USTs maturing in 10 years or more. As of June 30, 2014 (http://www.treasury.gov/ticdata/Publish/shl2014r.pdf), the latest available data, the distribution is almost identical:

Table 17b. Maturity structure of foreign official holdings of U.S. long-term debt securities, as of June 30, 2014
Percentages

Remaining years to maturity	Total debt	U.S. Treasury	U.S. agency	Corporate
Up to 1 year	15.3	16.8	5.4	5.7
1 to 2 years	18.5	20.6	4.3	7.5
2 to 3 years	17.1	18.7	5.9	10.2
3 to 4 years	9.2	9.8	3.9	10.9
4 to 5 years	7.3	7.8	1.0	10.0
5 to 6 years	6.4	7.1	0.9	5.1
6 to 7 years	5.7	6.2	0.4	6.6
7 to 8 years	2.8	2.9	0.3	5.9
8 to 9 years	2.9	3.0	0.4	7.1
9 to 10 years	3.1	3.2	0.3	7.0
10 to 15 years	1.4	1.3	1.5	3.0
15 to 20 years	0.4	0.1	1.2	3.1
20 to 25 years	1.8	0.3	13.3	6.2
25 to 30 years	8.1	2.1	60.8	7.5
More than 30 years	0.2	0.0	0.4	4.2
Total	**100.0**	**100.0**	**100.0**	**100.0**

When Greenspan wondered about the "conundrum" back in 2005 (http://www.treasury.gov/ticdata/Publish/shl2005r.pdf), the concentration at the short end of the curve was slightly higher, at around 78 per cent.

You might counter that what really matters is the difference between the maturity distribution of USTs owned by foreign governments and the maturity distribution of all USTs outstanding, which looks like this:



It turns out that reserve managers are downright allergic to long-dated Treasury bonds, and disproportionately invest at the front end. That was true in 2005-6 and it's even truer now. (All the data on US debt maturity is in the downloadable spreadsheet here (http://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/Latest.aspx).)

As we noted above, foreign governments, in the aggregate, only keep around 3 per cent of their US Treasury holdings in bonds that take 10 years or more to mature, even though these instruments have consistently constituted about 13 per cent of the total over the past decade. Foreign reserve managers are also underweight the long end even if we focus on the narrower category of bonds in the 10-20 year sector: 1.4 per cent of their portfolio in 2014 vs 3 per cent of the total outstanding.

This means that if foreign purchases of Treasury bonds had any effect on US interest rates *separate* from the currency channel, it would have shown up in the form of a *steeper* yield curve caused by relatively lower rates at the short end and the belly compared to the back end of the curve — the exact opposite of what everyone was complaining about!

To put this in today's context, if US interest rates will be affected by foreign reserve managers liquidating their holdings in some way separate from the currency impact, we should expect rates to *rise* at the short end and stay flat at the long end. Yet the worrywarts focus on the prospect of a steepening curve driven by rising rates further out. Go figure.

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Greenspan's conundrum and the Fed's ability to affect long-term yields (https://research.stlouisfed.org/wp/2012/2012-036.pdf) — Daniel Thornton
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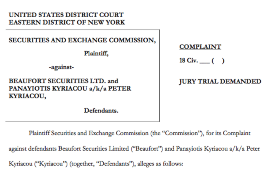
UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

SECURITIES AND EXCHANGE COMMISSION,
Plaintiff,
-against-
BEAUFORT SECURITIES LTD. and PANAYIOTIS KYRIACOU a/k/a PETER KYRIACOU,
Defendants.

COMPLAINT
18 Civ. ___ ( )
JURY TRIAL DEMANDED

Plaintiff Securities and Exchange Commission (the "Commission"), for its Complaint against defendants Beaufort Securities Limited ("Beaufort") and Panayiotis Kyriacou a/k/a Peter Kyriacou ("Kyriacou") (together, "Defendants"), alleges as follows:

SEC Charges U.K. Brokerage Firm, Investment Manager, CEO, and Others for Manipulative Trading in U.S. Microcap Stocks

6 HOURS AGO By: Paul Murphy 6

COMMENTS (15)

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CreditRider Sep 1, 2015

It seems to me that you center your arguement around the fact that foreign reserve managers mainly buy short term US treasuries.

Thus, you claim, we do not need to fear yield spikes from outright selling of US treasuries by the PBOC as there should be no effect on the long end of the US yield curve.

I think this is misguided. The yield curve is a coherent structure, and heavy buying at a particular point on the curve strongly affects other maturities. There is a strong connect between 2 year and 10 year maturities due to arbitrageurs using forwards, for instance.

Arbitrageurs do not allow the yield curve to look odd, i.e. bending strongly at a particular maturity point.

The Greenspan conundrum you are refering to is between overnight rates (FED Funds) and long term maturities but not between short and long term treasuries.

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philipmax Sep 1, 2015

During the period 2005-2008, China purchased $Billions in USTs, thus returning excess trade surplus $$$ to the US, and possibly contributing to the RE bubble. Now they are selling more USTs than they are buying, and thus, may be largely responsible for deflation in the US, as cash is transferred to China. This action may frustrate the Fed in that that the

Chinese are creating and absorbing US Dollars to counter the actions of the Fed. Will these activities increase interest rates in the US?

I tend to agree with the authors that it would not. It will, though, task the Fed with the job of injecting more money into the US economy than would otherwise be required. If the Fed fails, than we may see a major recession here in the USA.

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Huangjin Sep 2, 2015

@philipmax The deflation isn't in the U.S. China is selling treasuries to obtain USD to buy CNY (or CNH), while debtors sell CNY for USD in order to pay offshore USD debts. The deflation is taking place in the offshore credit markets, which qualifies as deflationary credit contraction, but does not affect the U.S. economy except indirectly via rising currency. Ultimately, the dollars either flow into new credits (but borrowing is weak now) or into existing credits, aka treasuries or corporate bonds.

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philipmax Sep 3, 2015

@Huangjin @philipmax Thank you for the clarification. You are certainly correct in most circumstances where nations hold and trade $Billion in US Treasury securities. It is my contention that in view of the $Trillions involved in the US Treasury holdings by China, and the frantic financial maneuvers that China is engaging to shore up its economy from a free-fall, that it is unloading an inordinate amount of UST securities in a very short time. And, although, the Treasury market is huge, the $T are forcing the Fed to intervene and purchase them. This, in turn, drains funds from the entire system. I believe that this is a unique situation. I otherwise agree with your comment.

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Tom Warner Sep 1, 2015

Even if China was selling mainly long T-bills I don't think their price would fall. These are a deeply liquid close cash substitute, not baseball cards.

The effect is on the dollar, and nearly all on its value vs the yuan. Selling dollar assets to buy yuan lowers the value of the dollar against the yuan, it's that simple. But at the same time the PBOC is injecting liquidity and cutting RRR, so a bit of a wash.

The main thing to understand is this is happening after dollar strengthening against everything else. The PBOC sleep-walked the yuan upward alongside the dollar last year, and that and the collapse of commodity exporter economies has stopped China export growth. And now China can't devalue without a panic.

It's not the stocks of foreign-owned dollar assets that matter most to the dollar's FX value, it's the flows of net purchases. I think China's overall public and private contribution to those is way down since 2013, but if there weren't bigger factors in the opposite direction such as the massive drop of US net oil imports, the dollar wouldn't have strengthened.

You could probably better look at it as the Chinese public sector selling into the strong dollar bid, coming only partly from its own private sector.

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Drago Aug 31, 2015

A current account surplus implies an overvalued currency. A current account deficit implies an undervalued currency. That's Keynesian economics 101 for ya.

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Financial Market Vigilante Aug 31, 2015

Not a fear-monger, but I do have increasing concerns over the change in direction of the China build-up in UST reserves. It is an inflection point that must be digested by other markets. To the extent the dollars created by the sale of UST and converted into Yuan just flowed into other dollar denominated capital assets as suggested in the article, then riskier market price levels should reflect the increased demand and stabilize.

However, dollar denominated risk asset markets in many sectors are presently not backing up this possibility, unless last week's U.S. stock market reversal can be found to be influenced by an inflow of foreign purchases. The unsettled U.S. stock market appears to reflect that dollar asset demand is disappearing. Maybe it is just a delayed reaction, or something else is going on.

It was reported by Bloomberg that the sale was arranged through Belgium, which seems to function as an indirect excess international reserve account for the U.S.. Is it possible that no dollar reserves were actually created in the recent sale because they were extinguished by the transaction in the way excess reserves on Fed bank balance sheets in the U.S. do not create new dollar liquidity until a loan is made against the reserves? (which in the past year, the lending has been strong, and reserve balances have declined, but very recently this trend has slowed) I don't have an answer, only a clear view of how the risk asset markets priced in USD are responding to present circumstances. Barring a major rally on Monday afternoon in the U.S., year over year the U.S. stock market is about to close the month of August in negative territory. This rarely happens unless the U.S. is about ready to undergo a recession within the next 6-9 months, meaning that stocks have much further to fall.

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John1025 Aug 31, 2015

The buying and selling of a nation's debt is a function of they trade position. If a country like China has a trade surplus with the United State, it has excess dollars which is held in Treasuries. If trade is down, the excess dollars are down. China cannot see it's Treasuries unless it finds a buyer. So, why would interest rates soar. If the T-bonds are not held by China, they are held by another country so the net balance of treasures is exactly the same.

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LeveragedTiger Aug 31, 2015

@John1025 Hear hear!

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TechyNT Sep 1, 2015

@John1025 China cannot sell it's Treasuries unless it finds a buyer. So, why would interest rates soar.]**@John1025** Supply and demand 101?

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Every bubble looks great until it pops Aug 31, 2015

You are making this WAY too complicated and focusing on the wrong things. If China keeps liquidating UST's the result is most likely to be increased OVERALL marginal demand for UST's as other 'investors' increase their buying of UST's, as follows:

Step 1 - China liquidates UST's due to continuing Capital flight, which exacerbates its domestic problems and eventually forces a much bigger RMB deval, and declining global risk appetite.

Step 2 - RMB deval is very deflationary. Increased deflationary pressure = more demand for UST's. At the same time, Global equity markets and commodities continue to sag (or worse) on China's problems, causing a shift in asset allocation away from equities, commodities and corporate bonds, to 'risk-free' (ha!) Govt Bonds. USD continues its bull market on 'flight to safety', which adds to UST buying pressure. This buying pressure far outweighs the selling pressure coming from China's UST liquidation.

How long that phase will last, and what will come afterwards is a great unknown and depends to some degree on the policy response of CB's and governments, but the initial phases are likely to look similar to 2008 - a crash in risk asset prices combined with a huge rally in USD and UST's.

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Sensual Aug 31, 2015

@Every bubble looks great until it pops

Bubble? No such thing. Your not a American eh? Interest rates are talkers, not deciders. They aren't a assets. If US "bonds" sell off recklessly, something has caused that to happen where domestic demand caused a contraction like during the 68-81 period. Not because they are some "bubble". Were they a bubble in 1890 as well?

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sadfsdf Aug 31, 2015

"Besides, we have no reason to think China's total dollar holdings are actually shrinking."

What???

Go back to journalist school and start with the facts. You might not then write an entire article of drivel.

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ShaunyP26 Aug 31, 2015

@sadfsdf Do you have counter-factual information? If so, then share it. Otherwise, you should probably heed your own advice and go back to school as well.

Report Share 9 Recommend | Reply

sadfsdf Sep 1, 2015

@ShaunyP26 @sadfsdf

http://www.tradingeconomics.com/china/foreign-exchange-reserves

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