



Western Hemlocks and Your Ectomycorrhizal Associations

This week we will take a journey to a Pacific forest and learn from a symbiotic relationship between a coniferous tree and fungus. The Western hemlock is a conifer from the west coast of North America that runs from Alaska to Northern California. The evergreen grows to as high as 270 feet and a trunk diameter of up to 9 feet. The hemlock grows from sea level all the way up to nearly 6,000 feet. Like the Pacific redcedar, the western hemlock is very shade tolerant. They often grow under the canopy of Douglas firs, a Pinecone Macro favorite. Interestingly, hemlocks often wait for decades to replace the shade intolerant trees they grow beneath. They also use storms and wildfires as a catalyst to grow into openings.

Western hemlocks are known for their ectomycorrhizal associations. They form a symbiotic relationship with fungi. The fungi supplies the young roots of the evergreen with water and nutrient uptake and the tree gives back access to vital carbohydrates. The two actually create an intercellular interface which is an organic latticework of cooperation. This cooperation has been going on for over 100 million years.



Unlike the Joshua tree and the yucca moth the western hemlock does not depend on fungi for its survival, it is only a force multiplier.

This begs the question of us as investors - what are our ectomycorrhizal associations? What symbiotic relationships have we cultivated that add to our intellectual and financial returns?



For me this is writing. I love the process of writing and as much as I enjoy knowing that people appreciate reading my thoughts, the truth is I write largely in order to clarify my own thinking. I find that my mind refuses to go past first or second order thinking or dig deeply unless I deliberately read, think, and write.

There are times I have a vague mental framework for a topic and only cement my thoughts during the process of writing. Sometimes it may not be possible to clarify the thoughts and conclusions constantly flying through my mind without taking time to sit and write. This is why journaling helps us so much as a practice in our personal lives – our minds just do not want to move deeper than the surface level thinking we evolved to engage in most of the time. I think of writing as saddling the mind.

When it comes to writing about markets, I both give and get in a hemlock-fungi like symbiotic relationship. My writing has allowed me to connect with great thinkers and observers of markets and has helped me build a network of minds that are an asset to my investment framework. I have received feedback from readers that my writing has made a difference in their thinking, which is enormously gratifying. Contributing to the community that has done so much for me and knowing that my work is appreciated is a great side effect of an exercise to clarify my own thoughts. If you are a macro investor, you are required to think deeply about an unknowable future and think about it so deeply that it becomes real in your mind. This requires a level of focus and an awareness of many moving parts within an adaptive system. Thinking about this complex world demands that you do more than ponder in your office for a few minutes. If you do not regularly write, I would urge you to start. Do not worry about writing for others, if anything it may dilute your thinking. This could be as simple as setting aside time to think deeply and take some notes or write down bullet points.

Setting writing aside, what ectomycorrhizal associations do you have in your investing life that you can depend on? Could you get more from your symbiotic relationships if you gave more? Nature is more instructive than we appreciate and this is an example of a human virtue beautifully illustrated by trees and fungi. *If you cannot think of a symbiotic relationship that applies, go and build one and do your best to give more than you receive.*



THE TREASURY'S ADJUSTABLE RATE MORTGAGE

The US treasury has rolled over about \$6T this year. This is clearly public information but is rarely discussed in markets or in D.C. Let's explore.

Sources of Privately-Held Financing in Fiscal Year FY18 Q3*

April - June 2018		April - June 2018 Bill Issuance			Fiscal Year-to-Date Bill Issuance			
		Security	Gross	Maturing	Net	Gross	Maturing	Net
Net Bill Issuance	(131)	4-Week	550	670	(120)	1,770	1,755	15
Net Coupon Issuance	203	13-Week	624	642	(18)	1,821	1,710	111
Subtotal: Net Marketable Borrowing	72	26-Week	546	477	69	1,587	1,341	246
Ending Cash Balance	333	52-Week	78	60	18	224	200	24
Beginning Cash Balance	290	CMBs	0	80	(80)	139	179	(40)
Subtotal: Change in Cash Balance	43	Bill Subtotal	1,798	1,929	(131)	5,541	5,185	356
Net Implied Funding for FY18 Q3**	29							

	April - June 2018 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
Security	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	64	41	23	135	123	12
2-Year	95	78	17	253	156	97
3-Year	93	72	21	243	222	21
5-Year	106	90	16	311	345	(34)
7-Year	88	37	51	257	155	102
10-Year	68	12	56	196	52	144
30-Year	44	3	41	124	3	121
5-Year TIPS	16	53	(37)	30	53	(23)
10-Year TIPS	11	0	11	46	16	30
30-Year TIPS	5	0	5	17	0	17
Coupon Subtotal	590	387	203	1,612	1,125	487
Total	2,388	2,316	72	7,153	6,310	843

This chart from the most recent quarterly “Treasury Presentation to TBAC” and it shows us that YTD, the treasury has rolled over \$6.3T. Yeah, that is a lot of money subject to rolling over at higher interest rates which will certainly impact the budget.

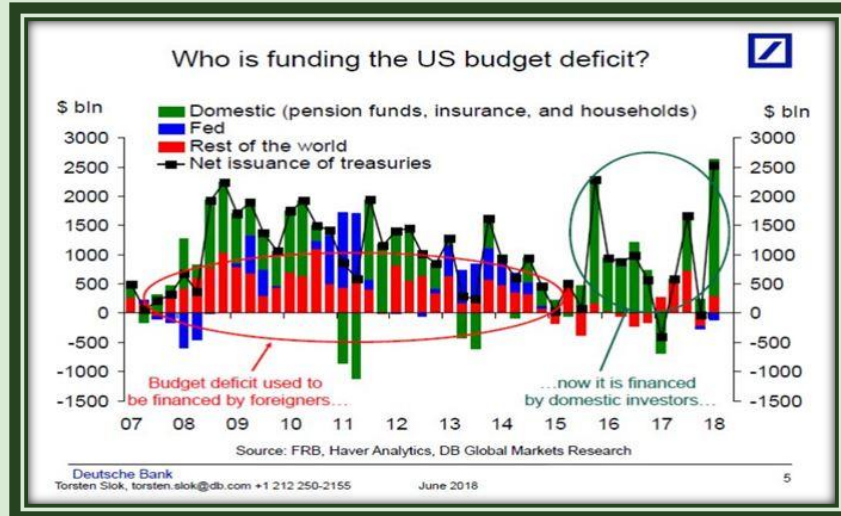
In testimony before the Senate Finance Committee in October 2013, Treasury Secretary Lew explained why he wanted the Congress to agree to increase the federal debt limit—and why the Treasury has no choice but to constantly issue new debt.

“Every week we roll over approximately \$100 billion in U.S. bills,” Lew told the committee. “If U.S. bondholders decided that they wanted to be repaid rather than continuing to roll over their investments, we could unexpectedly dissipate our entire cash balance.”



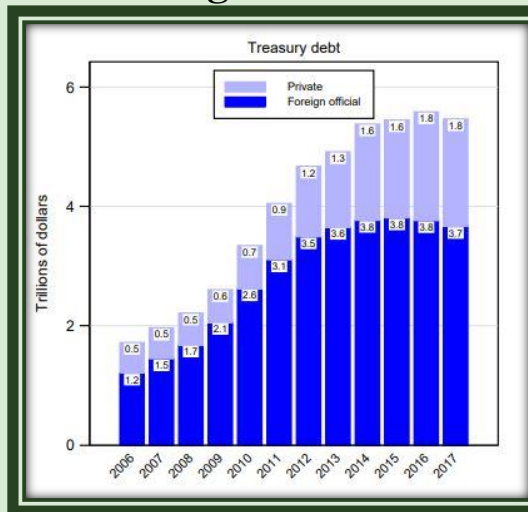
Again, this is all public information, but I am an active investor and if you quizzed me on the dollar amount rolled over each year (not to mention how fast that number is growing) I would have lowballed it by quite a bit.

So what does this mean for the bond market and the government? Before I answer, let me make it clear that I have no idea what it will mean and minus some big picture abstracts, none of us do. But, I will take a stab at walking through what it currently means to me and I will lay out how I think this could possibly play out. I will be watching closely to alter my framework for how this will affect markets as we move forward. First up, who is funding this? Us.

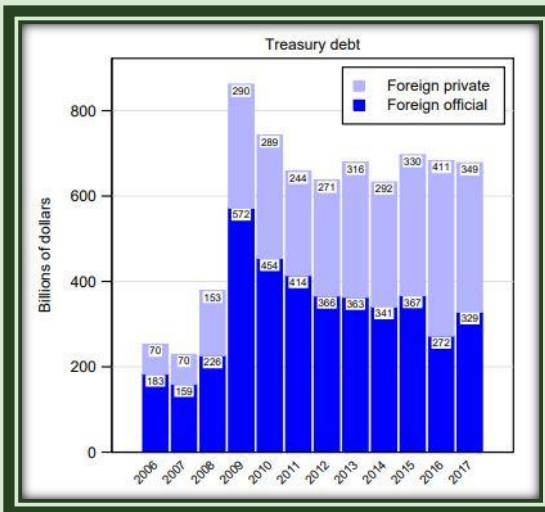


I dug into the TIC data to get a feel for foreign appetite for US debt:

Long Term Debt

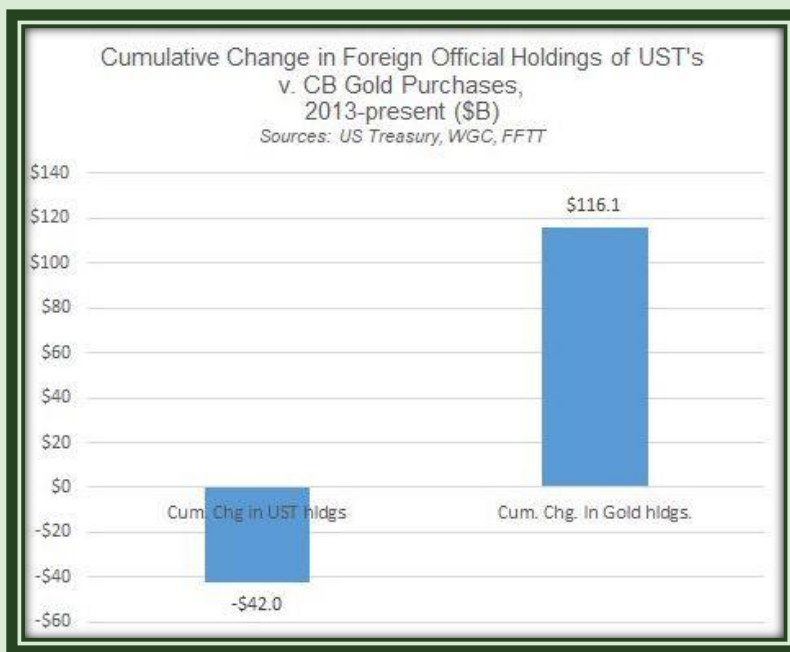


Short Term Debt





Another way to look at this is the cumulative change in foreign official holdings of USTs – Chart via [Luke Gromen of FFTT](#).



We can see that the US has to roll around \$7T per year and counting of treasuries, we know that rates are currently rising, and we know that the rest of the world is backing away from treasuries. Treasury is issuing record amounts of debt and the Fed, China, and the rest of the world simply is not buying right now. So supply is high, foreign demand is low, and the price is falling in a manner that is more and more painful for the US government’s budget as interest costs are surging as a line item on the United States’ budget.

To put interest costs into perspective as the US rolls over \$7T this year – we are approximately at the interest cost of the national debt today – where we were for all of 2017 and just starting the second half of the year. The US government will spend more on interest than Medicaid (\$565B) in about two years. It will spend more on interest than defense (\$640B) in as little as about four years. This is all assuming rates do not really spike and growth stays strong.

The maturity profile of the United States’ debt is pretty short and the short end is where rates are really spiking. The long end for now is pinned by the ECB, BOJ, and the fact that most of the supply that is being sold is on the short end. As I write this the 30yr yield is still below the generational channel and the 10yr yield is right at a head and shoulders neckline. Yet the 2yr is 4 bps from the



highs. I have been an inflation believer and a bond bear for over a year and for that reason, I expect dramatic steepening at some point – but for now it is hard to argue with a flat curve given the supply and demand structure of the market and the influence of Europe and Japan.

At some point, higher rates and higher interest costs become somewhat reflexive. Higher rates feed a higher deficit via higher interest costs which feeds more issuance which demands higher rates for domestic buyers. This can feed on itself and eventually real consequences emerge. We all know that higher rates (especially when rates move higher quickly) reset asset prices as the discount rate changes. We also know that if higher rates start to crack equity markets, everyone knows that everyone knows the Fed will step in and crush rates to save markets and the economy.

What if they don't?

What if higher rates bail out pensions and insurers and the populist wave being felt in the US demands they keep getting a return on their cash at the expense of Wall St.? What if inflation is still pushing 3%+ and the Fed does not have the cover to suppress rates via bond purchases and rate cuts?

What if rates are higher and stocks crack but the real economy stays relatively robust?

I am not saying this is how any of this will play out, but I am saying that we should consider alternative scenarios. *We should think about the effects of rates cracking stocks in a manner that freezes up the firefighting equipment of the Fed.* The Fed and Washington in general have been able to ignore politics for a generation or more, but that may not be the case the next time there is trouble in financial paradise. Labor's share of the pie has flyover country wondering where their bailout is – good luck printing money again with profit margins at record highs.

Keep an eye on interest rates and interest costs of the US government, especially considering that the treasury rolls over more money than you can properly conceive of each year and the number is growing at a clip that is difficult to grasp in a 2% growth structure.



BONDS AND THE DOLLAR

I have been a bond bear and a dollar bull for over a year but this past couple of weeks I got technically bullish on the 10yr and went long with a small position. I had little conviction because my macro analysis suggests higher rates. Rates on the 10yr are now above the head and shoulders neckline and they have moved above a falling wedge – all in significant horizontal support and just above the 200d. I just flipped back to being short and with more size than the long as it matches my macro framework. The head and shoulders looked formidable but rates bounced around the neckline only a couple bps below it the past week, showing no real desire to break. Failed moves can become formidable moves and considering my thoughts on inflation – I could imagine an impressive move higher in rates as the stock market breaks out impressively to new highs. I know what you are thinking...but Chase...record shorts!! [Please read this great thread from Adam at Movement Capital](#). He outlines exactly why that narrative is not well informed. Don't get me wrong there are enough leveraged players short to cause a squeeze, just not like bond bulls like to dream in my opinion.

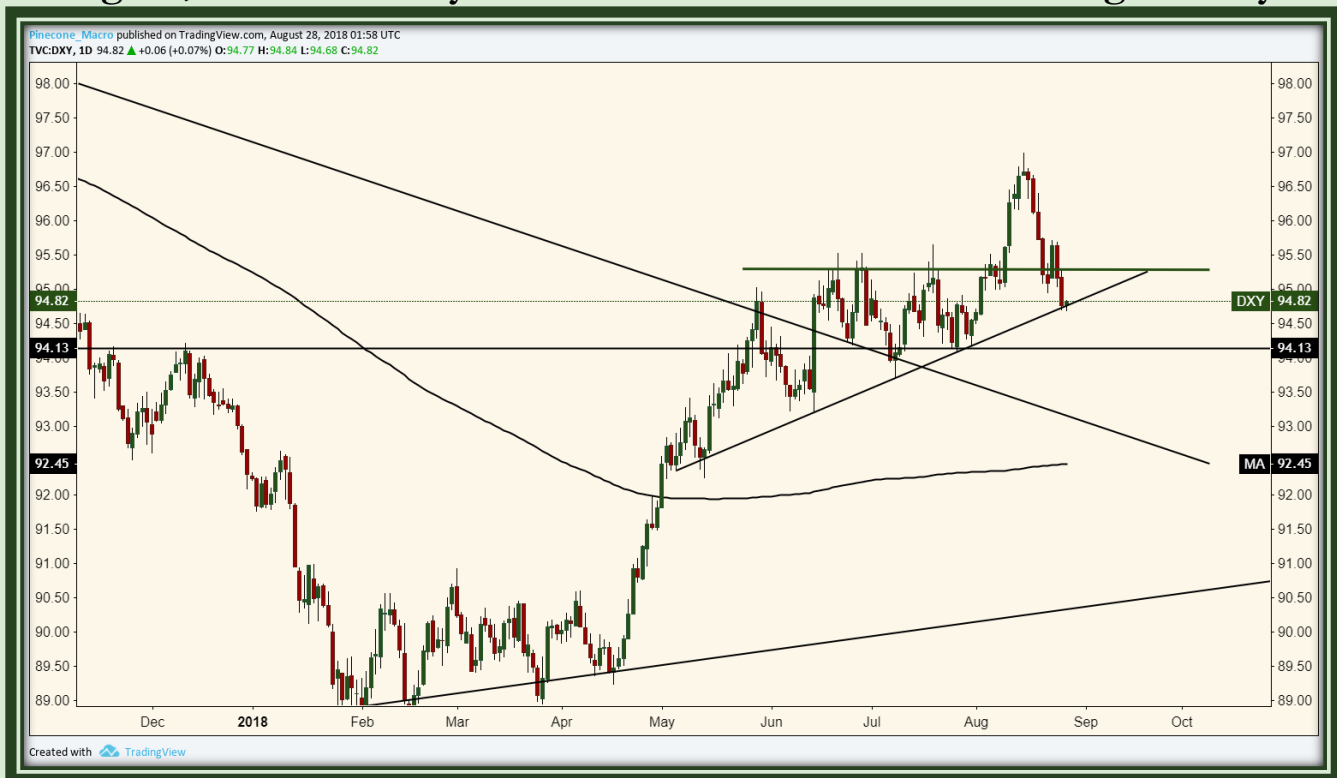




Before I get to the dollar, check out the chart of 5yr yields. Seems like a great place to get short to me...

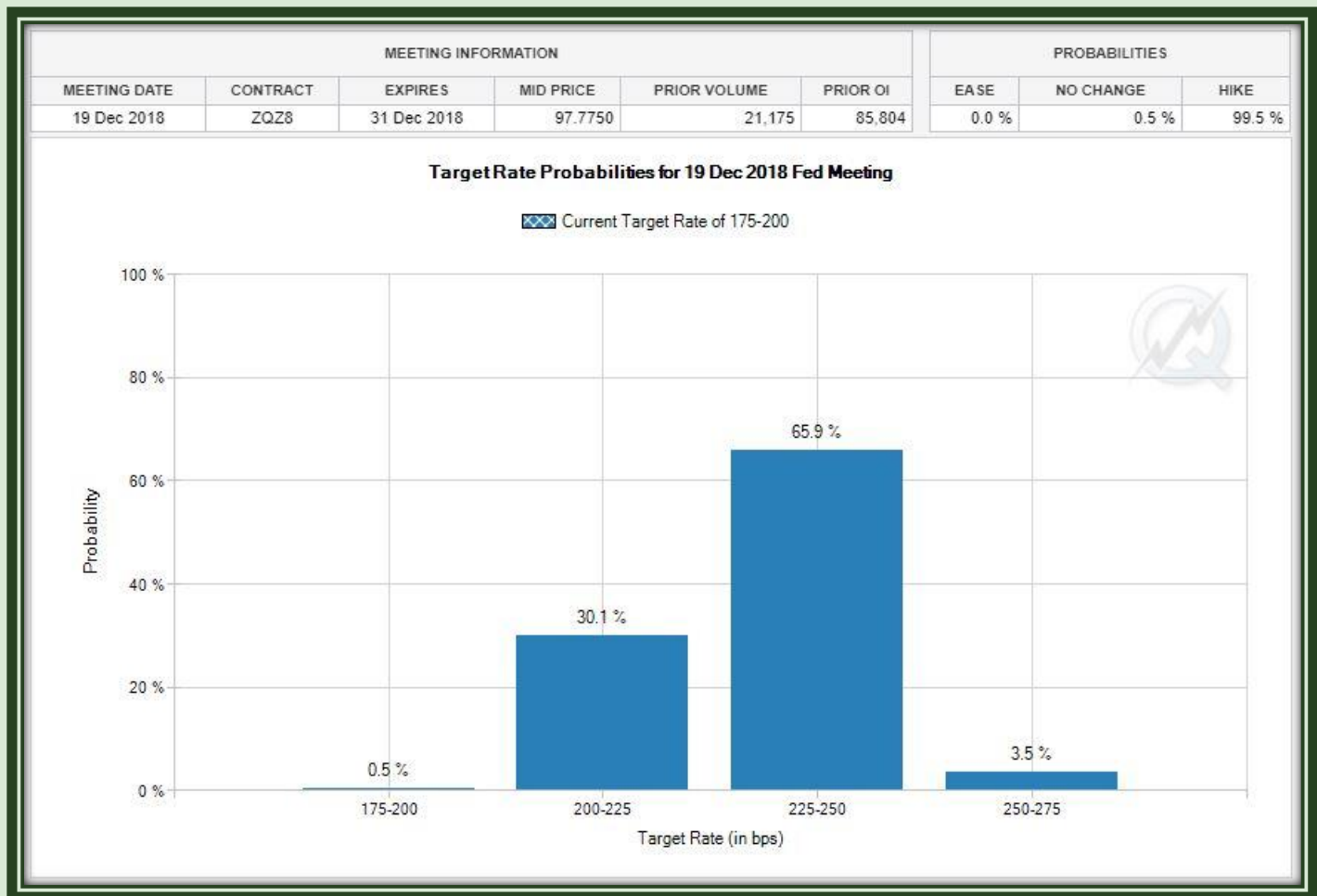


What about the dollar? The dollar is at a critical level that will determine how things play out in the days and weeks ahead. My guess is the dollar is about to break higher, but I am ready to make a tactical shift if this level gives way.





If you find yourself wondering what the catalyst would be for rates and the dollar heading higher – to me this is it (CME rate hike odds chart below). In my opinion the Fed will absolutely hike two more times this year and the market only has that at 65% with big names suggesting it will only be one. Recent consensus is the Fed is starting to back down and I do not buy that at all. Sorry but inflation pressures are real. Labor is getting tight, tariffs are pressuring prices, wages are moving higher, and I do not see these pressures easing yet. There is clear confidence to pass on higher prices. When the second hike gets fully priced (and more next year), rates and the dollar will both see new highs. Something tells me rates (Fed funds) at negative 1% is not where the Fed stops.



That is all for this week.



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