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How the Bond Market Really Works

By Richard Morey

Last month I happened to speak with an unusually well-informed investor. He is not a professional, but he has extensive knowledge of the world economy and (stock) markets. In fact, his knowledge seems to exceed most of the so-called experts I hear when I get bored or need a little humor and turn on the stock channels such as CNBC or Bloomberg. I was therefore more than a little surprised when he shared he actually had no idea whatsoever how the bond market functions, or even what bonds really are. I suppose this shouldn't have been surprising, as every day I hear or read professional investors who also quite obviously do not know the first thing about the bond markets.

In this report we are going to attempt to correct this lack of understanding. While the bond markets are in many respects more complicated than the stock market, it definitely isn't rocket science, and I'm sure every one of our readers will be able to understand everything needed to grasp all the key points.

It was tempting to simply send you Dr. Lacy Hunt's most recent quarterly report. Dr. Hunt is the manager of the Wasatch-Hoisington U.S. Treasury Fund, which is our largest holding at Secure Retirement. Previously, he was Chief U.S. Economist for the HSBC Group, one of the world's largest banks. He also served as Senior Economist for the Federal Reserve Bank of Dallas.

I consider Dr. Hunt to be the foremost expert on bonds in the United States and likely the world. In fact, whenever I myself begin to have any short-term concerns about our bond holdings I usually reread one of his previous reports to get re-established in the fundamental realities that determine long-term success in the bond market. While Dr. Hunt writes quite clearly, sometimes his analysis includes references to mathematical models some of our clients would not understand (even though many of our clients could easily understand the math, without an extensive background in bond theory you would not have the context to grasp the meaning behind it). Therefore, instead of simply sending you his report, I am going to "translate it." The original can be found at www.Hoisington.com, entitled *Characteristics of Extremely Over-Indebted Economies.*

Before looking at Dr. Hunt's report, let's first look quickly at the basics of bonds. If you already understand why bond prices go down when interest rates go up, feel free to skip ahead to the next section of this report.

A bond is simply a loan. There are many types of loans, based on who is doing the borrowing. The largest bond market in the U.S. is the government, as they have borrowed the most money, and when they borrow money they issue bonds called Treasuries. The other two largest types of bonds or loans are mortgage bonds and corporate bonds. Mortgage bonds are typically sold by combining hundreds or thousands of similar mortgages into packages. Most mortgage bonds these days are backed by the government through Fannie Mae, Freddie Mac or the FHA. Corporate bonds are all individual, i.e. one company borrows money by selling bonds to investors, i.e. lenders. There are two basic types of corporate bonds, which are called investment grade and high-yield or junk bonds. The difference between them is simply that the rating agencies have determined investment grade bonds are being issued by companies with solid finances, while junk bonds are issued by companies who might be expected to run into financial problems in the future. In the last few years two other types of loans have exploded in growth in the U.S., student loans and auto loans. However, regular investors do not typically make these types of loans. There are also foreign bonds, most of which are either government or corporate bonds.

Bonds have two types of risk, namely credit risk and interest rate risk. Credit risk is the risk the borrower may not pay the lenders back the interest and/or principal. This risk exists primarily in junk bonds. During severe recessions, up to 20% of companies end up defaulting on their bonds, meaning they either pay back none of what they owe or only a portion. Credit risk in government bonds is fairly rare, particularly when the bonds are issued by governments who can print their own currency. For example, U.S. government bonds or Treasuries have no credit risk, as the Treasury Department can print any amount of money to pay back the principal. This definitely does not mean government bonds are risk-free, as if the government prints too much money to cover its debts, the value of its currency can go down. So while in this case the lender who bought the bonds does get all the dollars (or yen or euros, etc.) they loaned to the government back, if the currency has gone down substantially in value those dollars (or yen or euros, etc.) will not buy as much as they would have previously. Government-backed mortgage bonds are also supposed to be immune to credit risk.

The other and, in most cases larger, risk in bonds is interest rate risk. This is where many people get confused, but it's actually fairly simple to understand. When interest rates go up, bond prices go down. This is easiest to understand using examples. Let's say you purchase a 10-Year Treasury bond paying 2% in annual interest. But then the interest or yield on new 10-Year Treasuries immediately jumps up to 4%. If this happened, the price of the one only paying 2% would go down, as the new ones would be paying twice as much interest for the next 10 years. Since the one you bought would be paying so much less in interest for so many years, it would obviously be worth less than one of the new ones paying twice as much. You could actually calculate how much the price of your bond would need to drop so that it would be of comparable value. Yes, if you held the bond for 10 years you would get your entire principal back, but for 10 years you would have received only half as much income as you could have gotten from the other bond.

This example highlights the other factor that determines bond risk related to rising interest rates. The longer the bond, the more the risk. This also makes common sense. If your bond was only, for example, a 5-Year Treasury instead of 10, you would receive the lower interest payments of 2% versus the new ones paying 4% for 5 fewer years. As a result, at the end of 5 years you would have the opportunity to reinvest the money into a new bond paying higher interest rates for the following 5 years.

I hope this makes sense. That's really all there is to understanding why bond prices go down when interest rates go up. When rates rise, the price simply goes down enough to make it of equal value to the new bonds available paying higher interest. The bonds we own for our clients at Secure Retirement have almost no credit risk, which means the borrower is going to pay us back the principal. Therefore, the only real risk is interest rate risk.

Dr. Lacy Hunt on Bonds

Now we'll look at Dr. Lacy Hunt's latest quarterly report in which he shows why interest rate risk is not a concern for high-quality bonds in today's economy. In fact, he explains why interest rates actually continue to be not a risk but offer an opportunity to make price gains going forward. Throughout this discussion keep in mind this really is a fairly simple topic. When the economy grows slowly or contracts, interest rates stay low and bond prices go up. That one sentence encapsulates pretty much everything a person needs to know about bond prices at this time. Interest rates stay low or fall further in a weak economy primarily because fewer companies and consumers are interested in borrowing money. Companies borrow less because there are fewer opportunities to expand. Consumers borrow less because in a troubled economy their income grows slowly, if at all. As a result, they cannot continue to borrow aggressively and still make the payments. With less demand or competition for loans, the interest lenders can charge stays depressed. There are also mathematical models that incorporate inflation rates, which are subdued in a weak economy, which further explain why interest rates are low when economic growth is low or absent.

Dr. Hunt's basic thesis is that when countries have too much debt their economies grow more slowly and the interest paid on their government bonds is very low for a very long time. He looks at the four times in U.S. history in which our nation had too much debt (the 1830-40s, the 1860-70s, the 1920-30, and the past two decades continuing today). The definition of "too much debt" is not a precise number, but in general it is defined as government debt to GDP of 100% or more and total debt to GDP (which includes government debt, corporate debt and consumer debt) of 250% or more. At this time our government debt to GDP is 103% while our total debt to GDP is 331%. In each of the previous instances in which we became over-indebted, our economy experienced several common features.

It should be mentioned that the common features given below also apply to many dozens of other examples throughout the entire world over the last 700 years. As we have reported in several previous updates, nations who have a debt crisis like we had in 2008-2009 and do not correct their over-indebtedness but instead add on more debt find their economies growing at only around 1% a year ***for the next 22 years***. And 22 years after their financial crisis, the interest paid on their long-term government bonds remains historically low, averaging only approximately 2%. So all those who believe "interest rates obviously have to go up" are completely missing out on the lesson from history. I suppose they will turn out to be correct, but it may take a good 20-30 years for their prediction to come true!

Here are some common characteristics of over-indebted economies:

1) Whenever economic growth, inflation and bond yields start to turn up, those increases always end up being temporary. Debt is a drag on economic growth because all the interest payments take away money from the economy that could otherwise be used to expand a company or expand how much consumers spend. It's pretty simple, and there is no way to get around it. We know our nation now has historically high debt levels, and we know the borrowers have to pay interest on all the loans. Every penny of that interest is money that could have otherwise gone towards economic growth.

   Please keep in mind this does not mean economic growth and interest rates never go up at all until the debt is sufficiently reduced. Some quarters and even years it may look as if the economy is finally going to reach "escape velocity" and get back to normal, only to fall back down. But the U.S. hit true over-indebtedness around 2000, and since that time period the real growth rate of our economy has barely averaged more than 1%.

   Last year, along with every other year since 2009, the Fed and most mainstream economists were again sure the next year, i.e. 2015, would be the year for take-off. However, on April 29 the Fed announced the economy grew by .2% in the first quarter, i.e. one-fifth of one percent. Not only have nearly all the economic results been negative so far this year, but many are back to where they were in the fall of 2009 or early 2010. Many measures of the economy have fallen to a level that has only occurred throughout history when we were either already in a recession or soon to be.

   Specifically, we have recently had large drops in manufacturing orders, wholesale spending and consumer discretionary spending. Combined these factors are now falling faster than they were in mid-2008. Of course, the Fed and mainstream media continue to say the recent economic weakness will be short-lived and the economy will be firing on all cylinders later in the year. But I read a report the Fed released in late 2007 and it is almost word for word identical to the report they released about the economy last week. They were certain the economy would be strengthening throughout 2008, just as they are certain it will be rebounding later this year.

   So bond yields go up (and prices down) occasionally when a nation is over-indebted, but the yields always end up going back down. They tend to rise based on psychology, as investors get confident the economy is finally ready to grow sustainably. But it doesn't, so rates come back down (and therefore prices back up). Since 2000 there have been eight episodes in which the yield on 10-Year Treasuries has gained .84% or more, only to come back down at or near all-time lows when investor enthusiasm again wanes.

2) Monetary policy is either ineffectual or causes more problems than it solves. Monetary policy is what the Federal Reserve Board does. The main monetary tool is to lower short-term interest rates, but when they have already been lowered to 0%, the Fed's primary tool can no longer work. The reason

the Fed lowers rates is to entice consumers and businesses to borrow more money to invest or spend, thereby increasing economic growth – *short-term*. But when businesses and/or consumers already have too much debt, at some point they can no longer borrow more. As a result, when the over-indebtedness becomes too extreme – as it is today in our country – even ultra-low interest rates no longer lead to increased borrowing and economic activity.

Astute readers may spot a serious flaw in attempting to induce businesses and consumers to borrow more money to increase economic growth when the economy is slow because there is too much debt! Yet this is exactly what the Fed has been attempting to do. Obviously, if your problem is too much debt, anything done to increase debt will only make that problem worse.

In recent years the Fed has attempted to get around the fact their primary tool of lowering short-term interest rates can no longer work when they are already at 0% by printing money, i.e. "quantitative easing." The theory is that with more money in the hands of the banks, they would surely lend more of it out. Unfortunately, this is not what has occurred. Again, consumers who begin over-indebted and who are not seeing their incomes rise are sometimes (intelligently) reluctant to borrow more money. And businesses do not want to borrow more money to expand their businesses when they don't see enough new customers with money to pay for their goods or services. Of course, even if printing money did lead to increased lending, adding more debt when the problem is too much debt would be self-defeating.

This does not mean businesses have not increased their borrowing, but they have not used the proceeds to improve or expand their businesses. Instead, they have used much of the proceeds for "financial engineering" which includes buying back their own stock or purchasing other companies. Buying back stock does nothing for the economy, while the economy overall suffers when companies buy each other, as the first thing they do after a merger is usually to fire large numbers of their workers. Plus, mergers reduce competition which is needed for economic growth.

In short, there is nothing the Fed can productively do when over-indebtedness is the problem, as all the Fed's activities are ultimately designed to try to get people to borrow more money. This is why the best economists have been so severely disappointed in the Fed in recent years (actually the last 15+ years). When the Fed actually achieves its goal of increasing lending, this makes our biggest problem even worse. But since 2010 the only substantial result of Fed actions has been to supply money for financial engineering which does nothing at all positive for the economy. It has, however, helped create another bubble in stocks and other risky assets. This is the third time since 2000 they have managed to inflate an asset bubble, and there is no reason to expect the results to be any less destructive this time than in 2000-2002 or 2008-2009.

3) Inflation falls so much that deflation risk rises. Deflation or falling prices is considered the worst possible economic state, as it typically only occurs during depressions. Indeed, the economy has to be unusually weak for businesses to have to lower prices to try to make sales. One reason deflation is considered such a difficult scenario is that, once it begins, it tends to spiral downwards. Once prices start to go down, consumers and businesses begin to make purchases more slowly. Why buy today when prices might actually be lower next week or next month? This weakens the economy further, which leads prices to fall further, which leads consumers and businesses to spend even more slowly.

   To quote Dr. Hunt, "During and after the mild recessions of 1990-91 and 2000-01, the rate of inflation in Europe and the United States fell by an average of 2.5%. With inflation near zero in both economies today, even a mild recession would put both in deflation."

   I am not saying I believe the U.S. (and entire world) is going to go into a bona fide depression. But I am saying we are presently in a situation where all the "ingredients" for a depression are present, and they are present more than at any time since 1929. One of those "ingredients" is a currency war, another thing we have only seen during depressions. And we definitely have a currency war going on at this time. The instigators are Japan and the Eurozone who are doing anything and everything to try to drive the value of their currencies below that of the U.S. (and therefore China).

When it comes to deflation risk, China is the key. In recent years they have created a mind-boggling amount of industrial and manufacturing (over)capacity. At this time they still have their currency pegged or linked to the price of the U.S. dollar. This means their currency goes up whenever the yen or euro falls versus the dollar. This makes Chinese exports more expensive in those regions. Now China remains massively dependent on exports, and they are falling fast. In fact, in March Chinese exports fell a whopping 15% compared to March of last year. Analysts were expecting a rise of 12%, so they missed by a stunning 27%! (And yes, Chinese stocks did go up on this news, another clear example the investing world has been turned upside down.) To combat this, they will likely need to break the tie to the dollar at some point. If or when this occurs, the massive amounts of industrial and manufactured goods they can produce will wash onto our shores at dramatically reduced prices. In order to compete, our companies will therefore be forced to lower their prices. Should all this occur, the U.S. will be in a serious state of deflation.

Our current problems caused by over-indebtedness are being exacerbated by the fact ***<u>all</u>*** the major economies have the same problem. Japan's debts far surpass ours, the Eurozone's are worse than ours, and China's debt has literally exploded in recent years. As a result, none of the other major economies can be the world's engine for growth. To again quote Dr. Hunt directly, "This condition is just as much present today as it was in the 1920-30s."

Bond Summary

Everything discussed in this report thus far is great for the prices of high-quality U.S. bonds – particularly longer-term Treasury prices. Again, bond prices go up when the economy is weak, and they flat-out roar when deflation begins in earnest. So while the markets have been quite concerned about the possibility the Fed may raise interest rates in either June or September, long-term rates simply cannot and will not rise, and stay higher, unless or until the economy starts to grow much faster than we have seen at any time since 2009. Keep in mind the economy grew 2.4% in 2014 but basically stopped expanding at all in the first quarter of this year.

The Fed may indeed raise short-term rates later this year, but most likely only to have some "dry powder" when the economy weakens even further. They know that if we go into the next recession with interest rates at 0%, their only real tool to goose the economy won't exist. So they desperately want to raise rates now so they can lower them in the next recession. At the same time, they are concerned the economy remains so weak that even a very small one quarter of one percent increase in short-term rates might be enough to drop the economy right back into recession. I predict this is precisely what would occur if they do raise rates. They are between the proverbial "rock and a hard place." Therefore, even if they do raise rates this year, and even if bond prices therefore go down (most likely modestly) as this occurs, the only way those rates stay above their current position is if the economy truly turns around. But as this article has been attempting to explain, over-indebted economies never get back to "normal" growth rates. The only way out is to resolve the over-indebtedness, something we have not yet even begun to do. While consumer debt has gone down somewhat, government and corporate debt has risen substantially.

Finally, I'll quote from Dr. Hunt's conclusion: **"Many factors can cause intermittent increases in Treasury yields, but economic and inflation fundamentals are too weak for yields to remain elevated. Therefore, the environment for holding long-term Treasury bond positions should be most favorable**

in 2015." In other words, despite any short-term drops in prices, your account at Secure Retirement should have a very good year.

The Stock Market

As I have shared in previous reports, stocks in the U.S. (and almost all international markets) are in a dangerous bubble. This month I'm not going to again go over the proof, but anyone interested in the details may want to read Dr. John Hussman's Weekly Market Comment for April 27 entitled *Fair Value on the S&P 500 Has Three Digits* (which you can find at www.hussmanfunds.com). In that article Dr. Hussman explains why the fair value of the S&P 500 at this time is 940. It ended the month of April at 2085. This means stocks will end up dropping a gut-wrenching 55% *just to get back to a reasonable value*. A 55% drop would not make stocks cheap by any means, only reasonably priced. This is going to happen, with the only questions being whether stocks will fall more than 55% and, of course, when the losses will begin in earnest.

Instead of going into the details proving stocks are in a dangerous bubble, I thought it would be useful to consider the following anecdote from Stanley Druckenmiller. Mr. Druckenmiller is one of the best stock market investors in the history of the country. He was one of the managers of the legendary hedge fund, the Quantum Fund, from 1988 to 2000. During his tenure, the Quantum Fund returned over 30% a year.

In a recent speech Mr. Druckenmiller explained how and why he left (i.e. got fired from) the Quantum Fund. In January of 2000 he became increasingly upset because two young employees of his company who were investing in technology stocks were making up to 3% a day!, but Mr. Druckenmiller had refused to invest in tech stocks he knew were severely overpriced. This continued to bother him until the following happened:

"So like around March (of 2000) I could feel it coming. I just – I had to play. I couldn't help myself. And three times during the same week I pick up a – don't do it. Don't do it. Anyway, I pick up the phone finally. I think I missed the top by an hour. I bought $6 billion worth of tech stocks, and in six weeks I had left and I had lost $3 billion in that one play. You ask me what I learned. I didn't learn anything. I already knew I wasn't supposed to do that. I was just an emotional basket case and couldn't help myself. So maybe I learned not to do it again, but I already knew that."

I shared this because it highlights just how hard it can be emotionally for even the best investors to do what they know is right when a bubble forms. This year it's probably easier for those who know stocks are severely overpriced, as the U.S. stock market only rose approximately 1.5% through the first one-third of the year. Still, it is remarkable that nearly all of our clients at Secure Retirement have understood why we do not own stocks at this time. Most of our clients not only understand this intellectually but are able to keep their emotions in check – far better than a true legend like Stanley Druckenmiller. This is truly superior investing, and at Secure Retirement we are very fortunate to have so many such clients.

At the end of this economic cycle, when stock investors have lost the vast majority of their gains over the last 5 ½ years while our accounts are rising, we will look at the situation and think it's obvious we are doing the right thing with your retirement money. But to be able to do the right thing for you and your family when those with no concern for risk are often making more money is both rare and admirable. Therefore, to all our clients we say a hearty "Thank you for being such good investors!"