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Last resort for the FRB as it faces imminent reverse yield

Only choice remaining is a stealth Reverse Operation Twist

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Summary

- In late March the long-term interest rate on US Treasuries fell momentarily below the short-term rate (in other words reverse yield occurred). Directly related to this phenomenon was the FRB's turning dovish, announcing that it would bring an early halt to its asset reduction policy. However, considering the business cycle, as well as the structural problems in the labor market where there is a negative hysteresis effect, it would seem rather difficult to sit back and expect a significant increase in the long-term interest rate to simply naturally occur for some time to come. If the yield curve continues extremely flat, the possibility that the credit expansion cycle could reverse increases, in which case a recession could occur.

- Even with imminent reverse yield, the FRB will likely plan additional monetary tightening with the purpose of reigning in the debt leveraging activities of American corporations. However, due to the factors already mentioned above, it will be difficult to raise the policy interest rate for some time to come. And they have also abandoned quantitative policy. The only thing they have left is qualitative policy – that is, steepening the yield curve by shortening the maturity of the average term of its assets (US Treasuries). It is only for the time this mode of market adjustment is functioning that the reverse yield to recession scenario can be avoided.

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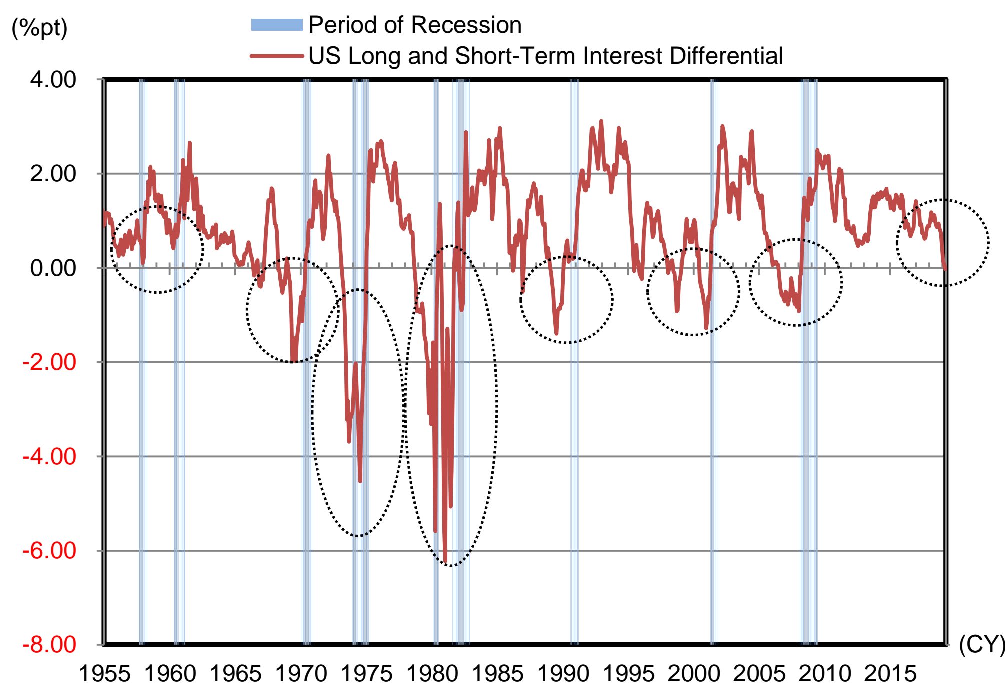
Economic Research

Concerns surface regarding reverse yield

Looking at the current condition of the global economy based on the capital stock cycle suggests that we are about to enter a maturation phase[1]. Working behind the scenes is the credit cycle, which is in agreement with this conclusion. It is highly possible that expansion and growth are nearing an end. And as the expansion cycle approaches its demise or collapse, there is concern that the reversal of US long and short-term interest rates could trigger a recession. As is shown in Chart 1, in the past, almost without exception, the phenomenon of reversal of long and short-term interest rates[2] occurs at the end of an economic expansion phase immediately before entering a recession in the US whose economy tends to determine trends in the global economy.

US Long and Short-Term Interest Differential and the Business Cycle **Chart 1**



Source: NBER, Haver Analytics; compiled by DIR.
Note: The long and short-term interest differential is yield on the US 5-yr bond minus the FF rate.

[1] For details see the following DIR report dated 25 January 2019. *Japan's Economy: Monthly Outlook (January 2019), What will bring an end to global economic growth?,* by Shunsuke Kobayashi & Yota Hirono.

[2] There is room for doubt as to whether in calculating the interest differential between the short and long-term interest rate, one needs to know what kind of interest each of them is using. However, based on the arguments discussed up to this point, it is best for each one to become the proxy variable of the lending rate and the procurement rate. Properly speaking, the differential between the lending rate and the procurement rate is the sum of the period risk premium (the required rate of return in relation to period risk) and the risk premium (the required rate of return in relation to default risk). The latter depends on the credit worthiness of the borrower and the risk tolerance of the credit institution. It is therefore difficult to immediately determine a standard which would become the dividing line between the good and the bad. On the other hand, the former would clearly be a loss for the credit institution, and therefore clearly represents adversity. Therefore, the most reliable method of choosing a risk free rate is to take the differential between the yield on the government bond on fixed term (2 and 5 years) lending, and the short-term interest rate (FF rate etc.) for the procurement rate. This is a bit of a digression, but the media has recently taken up the problem of negative spreads on 5 and 10 year loans, and 3 and 5 year loans. Our opinion is that the fact of negative spreads on these loans does not provide a very reliable index for understanding what is going on. There are also arguments for looking at the differential between the nominal potential growth rate and the FF rate, but this is clearly too imprecise to use as a judgment criterion. The nominal potential growth rate normally exceeds the lending rate. Otherwise, it would be impossible to gain excess earnings on assets having a higher risk than securities such as financing and bonds. The differential between the nominal potential growth rate and the FF rate is the sum of all of these three factors – the excess return rate, the period risk premium, and the enterprise risk premium. It is self-evident that if this figure moves into the negative numbers, it means that the situation is hopeless and the economy has already fallen into a recession. However, the reverse is not necessarily true. In other words, there is no logic to the statement that "as long as a reversal of the nominal potential growth rate and the FF rate relationship does not occur, a recession will not occur."

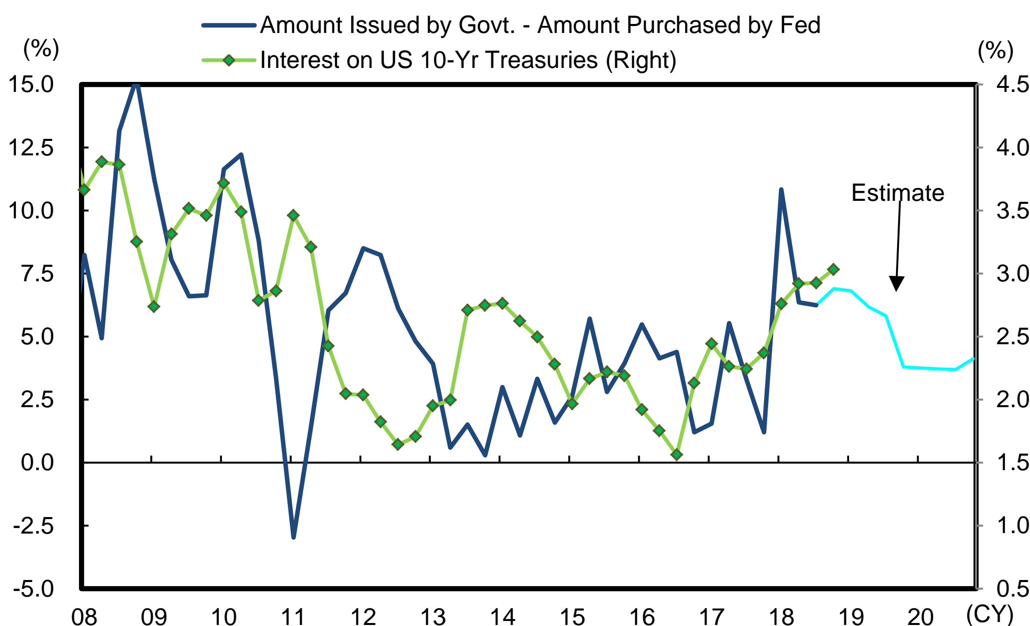
However, this finding tells us nothing new. It's a chicken or the egg question, but looking at the reversal of short and long-term interest rates from the viewpoint of the bond market, it is a sign that an economic slowdown (or recession) will occur in the future. Speaking in even more fundamental terms, from the viewpoint of credit institutions, the reversal of short and long-term interest rates means that the more one increases lending the more losses one incurs. As a result, a credit crunch occurs, including withdrawal of credit, and as was previously explained, expansion equilibrium collapses. In this way we end up falling into recession as a result of self-fulfilling prophecy.

Is there anything to the argument that the FRB's turning dovish means we're in a risk-on phase, so we have nothing to worry about?

The instance of reverse yield referred to in this report occurred in late March, and caused temporary turmoil on the global financial markets. However, market turmoil was brought quickly under control. As of the writing of this report, it appears that investors have already recovered their risk appetite. The argument behind this claim is based on a view point held by many. That is (1) the recent reverse yield situation occurred merely as a result of the FRB having changed its monetary policy to one of easing, and is a transient phenomenon, (2) if the main reason for the reverse yield is uncertainty regarding the future of the economy, then the stock and bond markets should be in decline, yet they are in fact on the way up, and (3) the risk-on trend will eventually push the long-term interest rate up, so there is no reason for concern.

Of the statements listed above, we might possibly be able to agree with (1). As is shown in Chart 2, the supply of US Treasuries on the financial markets worsened continually from the end of 2017 to the end of 2018 due to two factors: supply grew when taxes were cut, then demand declined when the FRB accelerated its asset reduction process. Few would question the fact that there was excessive upward pressure on the long-term interest rate. After this point the FRB made major corrections to its March 2019 FOMC and announced an early suspension of its asset reduction policy. As a result, the supply of US Treasuries is tightening accordingly for some time to come. It is therefore probably safe to say that the recent decline in the long-term interest rate reflects the change in the FRB's policy.

Net Issuance of US Treasuries (as a Portion of GDP), and Trends in Interest on 10-Yr Bond — Chart 2



Source: FRB, CBO, Haver Analytics; compiled by DIR.
Note: Figures after 2018 calculated by DIR based on FRB and CBO estimates.

Stock prices highs after reverse yield unsurprising – doesn't mean we can relax

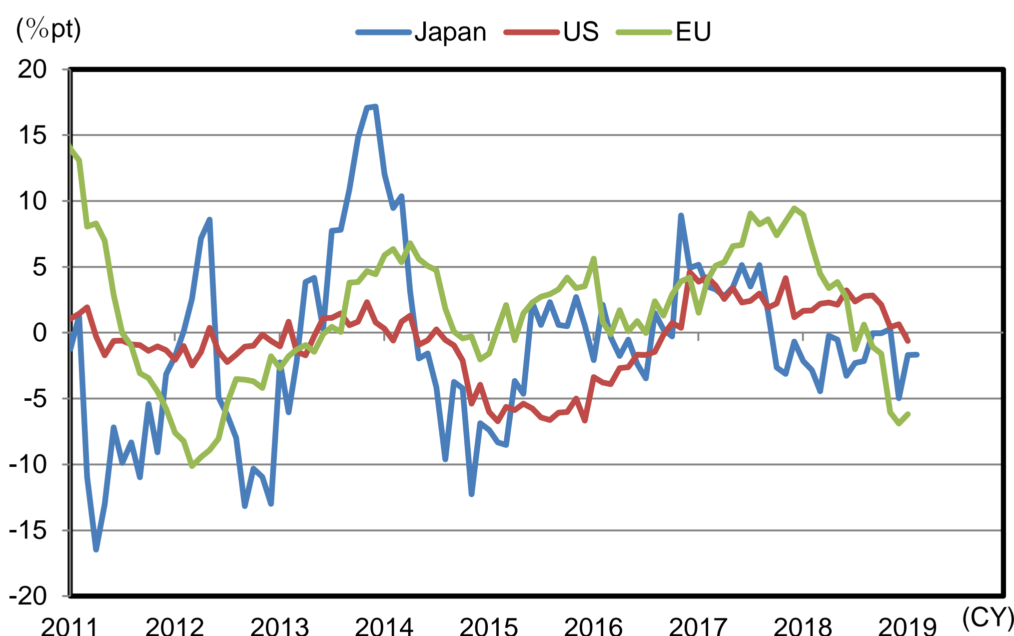
As for arguments (2) and (3) listed in the previous section, there is something that is important to keep in mind – that is no matter what was behind the situation, both a reduction in the differential between long and short-term interest rates and a reverse yield will do harm to the earnings of credit institutions.

Moreover, growth in stock and bond prices in a reverse yield environment is a common pattern. It goes without saying that in an environment where the yield curve is flat due to a change in the FRB's policy, banks and investors in bonds will willingly take on a credit risk to protect their yield. Commonly called "search for yield", it is a policy of last resort, and this tends to temporarily push up stock and bond prices. But then later, profit & loss statements deteriorate and investors begin to feel the consequences of excessive risk-taking. Ultimately, deleveraging occurs followed by the slip into recession – it's a familiar pattern. Bond prices and a rise in the stock market cannot be considered reassuring factors.

In fact, bond prices and a rise in the stock market only make it even more difficult for the long-term interest rate to achieve an increase. When long-term bonds are sold in order to purchase other assets, it is then that the interest rate begins to rise. If the prices of other risk assets are already high (≒ low yield), the flow of funds would be limited. Ultimately, the future of the long-term interest rate will be determined by a combination of factors: the extent to which the demand for financing in the real economy recovers, in other words the question of how strong the real economy is, and whether or not, in response to these questions, the FRB makes another change in its policy. Finally, there are two reasons why it is impossible to sit back and expect the real economy to overheat on its own.

One of these is a short-term issue. That is the effect of the tax reduction in the US, which is gradually dissipating. This will very likely cause a slowdown in the US economy for some time. Meanwhile, as is shown in Chart 3, due to the growth in demand associated with the tax reduction, the US economy in 2018 was spared the pressure of inventory adjustment in contrast to Japan and Europe. However, as the effect of the tax reduction gradually disappears, it is highly possible that production adjustment for the purpose of reducing inventory will begin in the US in 2019.

US, Japan, and Europe: Balance of Inventory and Shipments **Chart 3**



Source: Major statistics from each of the above mentioned countries; compiled by DIR.
Notes: 1) Shipment and inventory balance = shipments (y/y) – inventory (y/y).
2) Due to natural disasters in Japan in 2018, data is averaged for the months of September and October.
3) Europe data from EU28. Difference between production index (y/y) – inventory DI (y/y) used for Europe only.

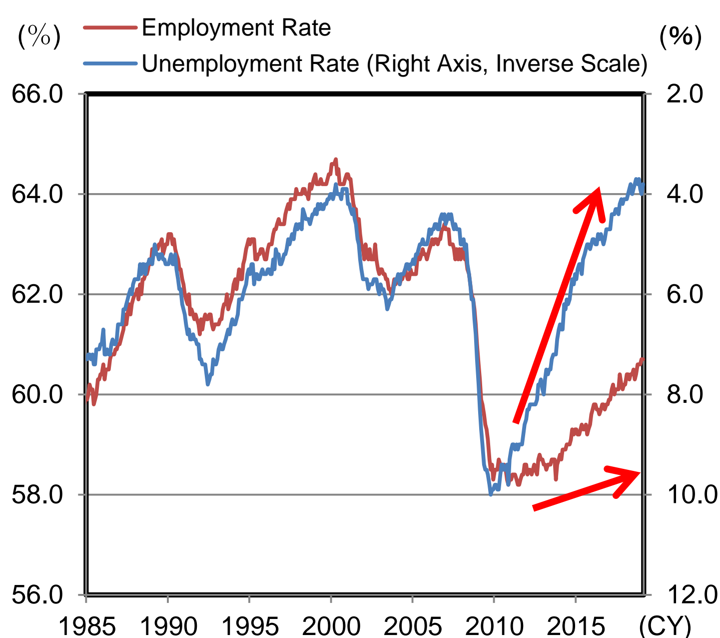
The US economy is expected to most likely experience a slowdown in the future, moving toward a level below the potential growth rate. (This is assuming that there are no external shocks, such as the expansionary fiscal policy as represented by President Trump's infrastructure expansion plan, one of the few decisions he leaves behind as his public legacy.)

Pitfalls of a hopeful theory: Declining unemployment rate and growth in wages

There is one more problem that is even more fundamental as well as structural. The US labor market is still seriously slack due to insufficient demand, and it will take some time for growth in wages, as well as growth in prices, to begin rising. The fact that growth in wages has not sped up despite the US unemployment rate being at a historic low, has been debated until recently as if that were a fathomless mystery. However, looking at Chart 4 we can see that the cause is actually quite clear. The unemployment rate is no longer significant.

The US unemployment rate is at a historic low, but at the same time, the employment rate is also at a historic low. This means that a serious change to non-labor is occurring[3]. This trend has progressed since the global financial crisis of 2008. It is remarkably similar to a phenomenon that appeared in Japan since the end of the 1990s. In other words, people who could not find jobs during the "employment ice age" which occurred after the global financial crisis of 2008 became part of the non-labor population, and have been "on standby" outside the labor market. This is the reason that there is a huge slack in the US labor market[4].

Changes in Unemployment Rate and Employment Rate in the US **Chart 4**



Source: BLS; compiled by DIR.

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[3] By definition, all members of the population are classified as either working population, unemployed population, or non-labor population. Although the ratio of unemployed population is on the decline, so is the ratio of the working population. This means that the ratio of the non-labor population is growing.

[4] The growth of non-labor following a financial crisis can lead to a long-term decline in the potential growth rate and a disinflation trend. Awareness has been recently growing regarding this phenomenon, which is considered to be a kind of "hysteresis effect". Once a part of the non-labor population, the longer people remain in this situation without education and training, including OJT, the more macro labor productivity declines due to the deterioration of the quality of labor. Even seen from the micro viewpoint this has consequences – cases where workers without special skills are forced to accept negative terms of employment, beginning with lower wages, increase. As a result, a disinflation trend in wages can occur.

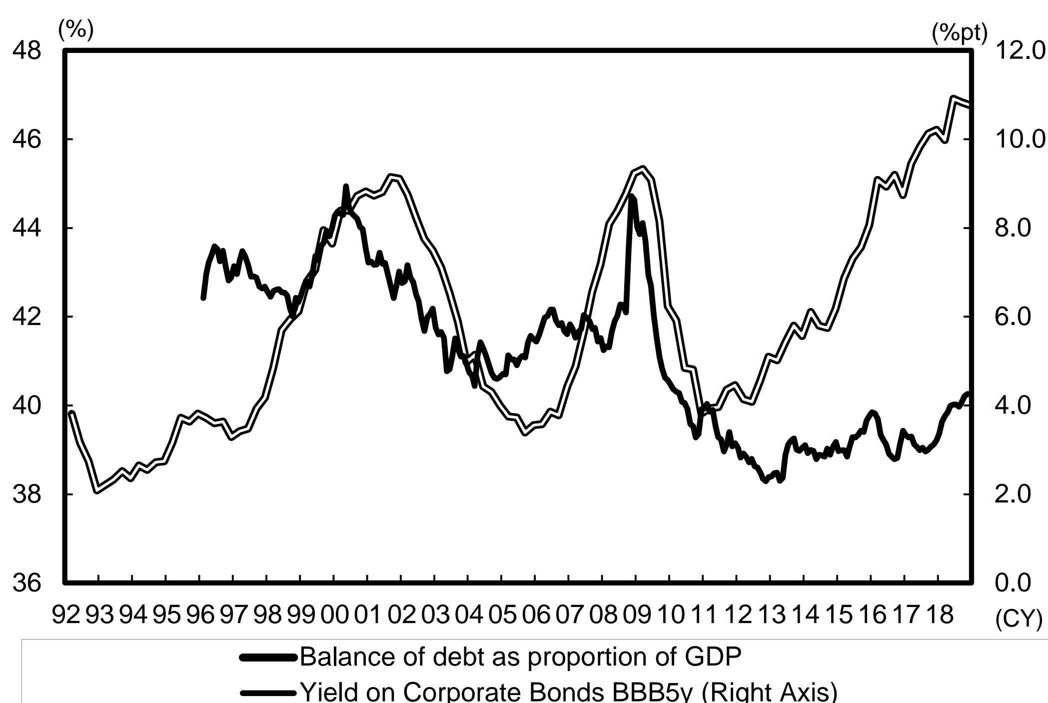
As a result, the situation in the US economy is such that the growth rate of wages is moving at a sluggish pace. Meanwhile, the inflation rate has not reached the level of 2% even for an instant. Still, there is nothing unusual about doubts arising regarding the fact that the policy interest rate has been increased a total of nine times. This explains why top officials of the FRB have made repeated statements since early in 2019 regarding concepts such as the average inflation rate target, the inflation target being subject to ups and downs, and the high pressure economy. It will likely take some time before another policy interest rate hike takes place, or growth occurs in the long-term interest rate.

The real purpose of the FRB is to release some pressure from the economic bubble

But another question arises here. To begin with, improvement is slow in coming for both the employment rate and wages, and the inflation rate has never reached its target of 2%, but even so, the FRB has carried out hasty interest hikes nine times. Why is this? The FRB itself has given an answer in its Financial Stability Report, which is to tackle the problem of corporate financial leveraging. As is shown in Chart 5, outstanding debt of US corporations as a proportion of GDP now exceeds a level comparable to that of the eve of the collapse of past bubble economies.

The outstanding debt of US corporations has grown as a result of the FRB's monetary easing policy which has continued since the global financial crisis of 2008. This policy has kept the cost of corporate borrowing at an extremely low level. Of course, encouraging an increase in corporate borrowing was exactly the FRB's intent, so this is not a problem in and of itself. The problem is how funds that were borrowed were used. The purpose of the FRB decreasing the cost of borrowing for corporations was to encourage them to increase capital expenditure and hiring. However, growth in capital expenditure and hiring has been moderate at best. This is not unrelated to the decline in the potential growth rate as a result of the hysteresis effect associated with the last economic crisis. In other words, neither capital investment nor hiring is as necessary as had once been predicted. This is the result of declining growth outlooks for the US market on the part of corporations.

Outstanding Debt of US Corporations as a Proportion of GDP, and Yield on Corporate Bonds Chart 5



Source: FRB, BEA, Haver Analytics; compiled by DIR.

So now the question is where did all the capital go if increased borrowing on the part of US corporations did not go into capex or hiring. The answer is the stock market. Issuing stocks is a cost for corporations. So if the cost of borrowing is relatively lower than the cost of capital through the issuance of stock shares, an increasing number of corporations borrow money for a share buyback. The outstanding debt of US corporations grew as a result. At the same time, net worth should also have been eroded, but in fact, it has grown as a result of growth on the stock market and the use of market-value accounting. This allows corporations to maintain the appearance of financial soundness. But in the end this has led to low credit spreads which are highly leveraged. This further boosted leverage circulation in which debt continued to balloon followed by more share buybacks.

Former FRB Chairman Yellen implemented monetary tightening as a means of releasing pressure from this process of ballooning debt and bubble formation[5]. Moreover, it is understood that former Chairman Yellen felt that financial regulation was necessary in order to keep overly easy risk-taking under control, but under the Trump administration financial regulations have been continually eased. The purpose of monetary tightening was simply to release pressure from the process of ballooning debt and bubble formation.

Only choice remaining is stealth Reverse Operation Twist

Monetary tightening was almost too effective in 2018, ultimately leading to the turmoil on the financial markets that year. But as they say, *once bitten, twice shy* – the FRB chose to go dovish on policy in March 2019. However, going dovish on policy contradicts the FRB's original purpose of releasing pressure from the economic bubble. In addition to the decline in interest on US Treasuries, the search for yield phenomenon explained earlier in this report holds down yield on corporate bonds. This increases the possibility that US corporations will further expand their credit leveraging activities. The FRB is not left with many options in dealing with this problem. As was indicated earlier, it would be difficult to raise the policy interest rate any higher at this point. Moreover, the FOMC abandoned quantitative policy in March 2019.

The only thing they have left is qualitative policy – that is, changing the maturity of the average term of its assets (US Treasuries). They have already carried out a twist operation in which the average term of asset holdings was lengthened as a means of flattening the yield curve. Next is to perform the opposite, in which the average term of assets is shortened as a means of steepening the yield curve. It is the only choice remaining for the FRB, and it tends to be an effective measure.

At this point in time the FRB has yet to set a policy target for in regard to average term of its assets. Moreover, this question had not been discussed until very recently, but that goes without saying. This is the only method of adjusting the market that the FRB has left to it, and the only one that allows discretion. Hence the FBR will likely maintain the yield curve of US Treasuries in the future by using a stealth Reverse Operation Twist. It is only for the time this mode of market adjustment is functioning that the reverse yield to recession scenario can be avoided.

[5] Former FRB Chairman Yellen implemented monetary tightening as a means of releasing pressure from this process of ballooning debt and bubble formation. However, the understanding was that she was always ready to stop at the last minute in order to avoid this pressure release method causing stock price lows and growth in bond yields to the degree that it would lead to a reversal of the credit cycle. Looking at current FRB Chairman Powell's performance during his first year after taking office, he has continued to make inconsistent remarks, hence there are doubts as to the degree to which he has actually continued his predecessor's policy.