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Japan's Economy: Monthly Outlook (Jan. 2019)

What will bring an end to global economic growth?

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Summary

- Outlooks for the global economy are being revised downwards one after the other. Some have begun to conclude that the more than ten-year growth period following the global financial crisis of 2008 is finally coming to an end and that the global economy will move into a slowdown by 2019 at the earliest. In this report we consider the sustainability of economic growth, and then closely analyze the situation from both the viewpoint of both the short and long-term cycles as a means of identifying what might become the catalyst in triggering the demise of global economic growth.
- First we look at the short-term factors. The global economy began slowing down in 2018 due to the falling away of special factors which helped to accelerate the economy in 2017, and there is no need for overly much pessimism regarding this point. There is a very good possibility that the slowdown will continue in 2019. However, the disappearance of special factors and inventory adjustment are not strong enough factors to cause a global recession. In fact, there is a good possibility that before long in 2019 the factors causing the economic slowdown will fade away and the global economy will bottom out.
- However, the long-term structural argument throws cold water on the optimistic outlook. Frankly speaking, the major factors of concern are the capital stock cycle, which has a significant influence on the global economy over the long-term, and the credit cycle, which works in the same way. The global economy's capital stock cycle is now entering a maturation phase. Hence adjustment could start at any time, and if it does, this could become the catalyst triggering the demise of global economic growth.
- It is difficult to predict exactly what might become the catalyst triggering a recession. However, as far as we can see, there is not much room for doubt that the FRB's monetary policy is first on the list of risk factors. We are now nearing the point of a reversal in short and long-term interest rates, which is a sign of approaching recession. The hasty raising of interest rates has been a cause of recessions in the past. The FRB has been reducing its asset holdings as a means of keeping the leveraging of debt by US corporations under control. The level of debt leveraging in the US now exceeds the level of past bubble periods. The FRB's policy is likely to continue unchanged. The risk that the credit cycle could experience a reversal due to the increasing cost of issuing corporate bonds is beginning to look like it could become a reality.

Global economic outlooks becoming pessimistic

As was pointed out in last month's report, *Outlook for Japan's Economy in 2019*¹, the reasons behind Japan's recent economic slowdown are simple. The two major factors behind positive growth in 2017 have disappeared. The first positive factor was the inventory cycle, but the cycle is now moving from the inventory accumulation phase to the stock pile up phase (Chart 1). In either case, it is now highly possible that an inventory adjustment phase will now ensue. The other major positive factor for 2017 was growth in exports, but now they appear to have peaked out, reflecting the slowdown in the global economy (Chart 2).

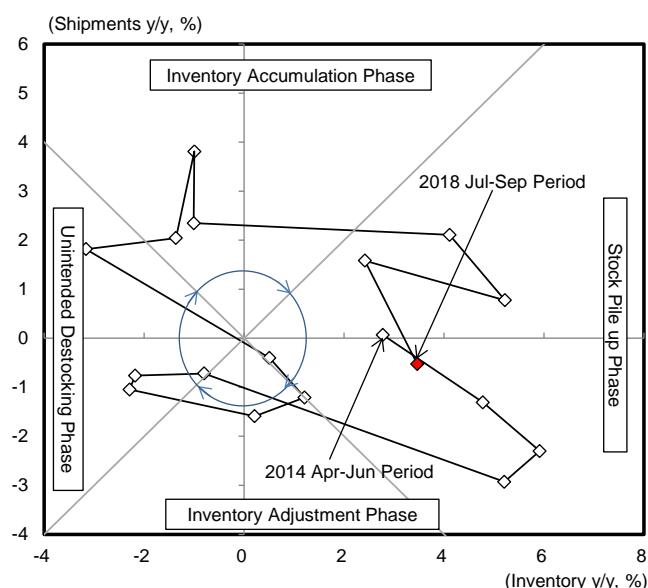
Meanwhile, the outlook for the global economy continues to be revised downwards. The IMF outlook issued on January 21 sees the global economic growth rate at +3.7% in 2018, +3.5% in 2019, and +3.6% in 2020. All of these figures have been revised downwards, falling below the +3.8% growth rate experienced in 2017. One year ago the IMF saw growth at +3.9% in 2018 and +3.9% in 2019. Hence the more recent outlook has been revised downwards by -0.2%pt and -0.4%pt respectively, or a cumulative -0.6%pt.

The downward revision is not limited to the IMF. Both government and private sector economic outlooks of all kinds have continued to be revised downwards reflecting the turmoil in the financial markets which has been experienced since October 2018. Some have begun to conclude that the more than ten-year-long growth period following the global financial crisis of 2008 is finally coming to an end and that the global economy will move into a slowdown by 2019 at the earliest.

In this report we consider the sustainability of economic growth, and then closely analyze the situation from both the short and long-term points of view as a means of identifying what might become the catalyst in triggering the demise of global economic growth.

The Inventory Cycle

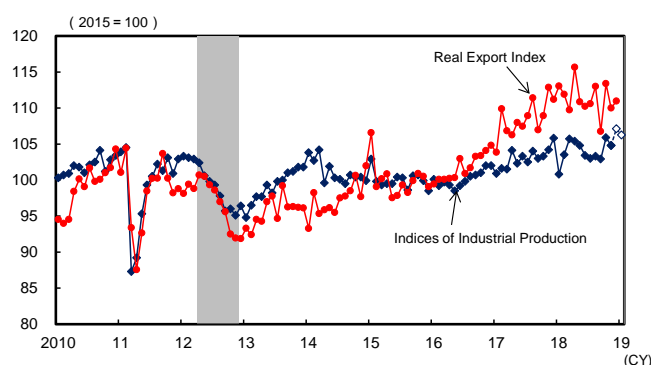
Chart 1



Source: Ministry of Economy, Trade, and Industry; compiled by DIR.

Japan's Real Exports and Industrial Production

Chart 2



Source: Bank of Japan, Ministry of Economy, Trade, and Industry, Cabinet Office; compiled by DIR.

Notes: 1) Shaded areas represent periods of economic recession.
2) Most recent two months of data on industrial production from the METI production forecast survey.

¹ DIR Report dated 25 December 2018, *Outlook for Japan's Economy in 2019: Slowing down due to stagnant overseas demand and inventory adjustment. The key to growth in domestic demand is the price of crude oil and consumption tax hike countermeasures*, by Shunsuke Kobayashi & Yota Hirono.

2018 global economic slowdown caused by reactionary decline and cyclical adjustment

First of all, looked at from the short-term point of view, the above mentioned downward revisions are merely adjustments for errors in the outlook. The rosy picture painted in the global economic outlook one year ago was, to put it in simple terms, merely 2017 performance values with the effects of the US tax cut thrown in. However, as was pointed out in our October 2017 monthly report², there were three special factors behind raising the growth rate in 2017. These were (1) an upturn in the inventory cycle centering on the US, (2) acceleration of China's economy in anticipation of the meeting of the National Congress of the Communist Party of China, and (3) recovery of the European economy accompanying the shift to expansion, moving away from austerity measures.

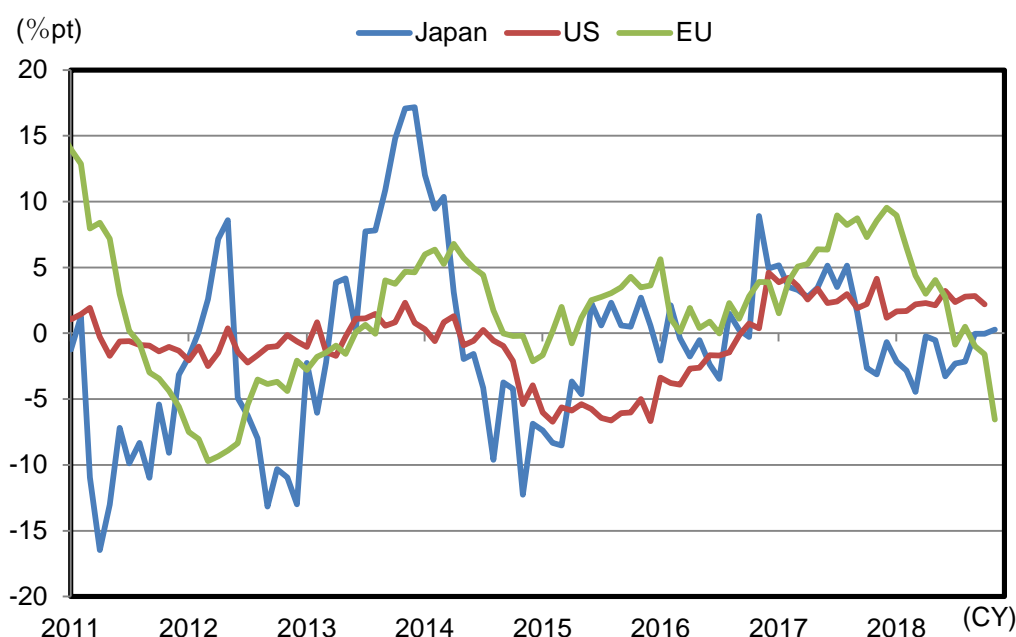
Considering the fact that the effect of these factors gradually disappeared, the outlook for 2018 should naturally have seen a slowdown in 2018. The downward revisions of outlooks for the global economy which started coming in since fall of 2018 were actually corrections made to outlooks which were overly optimistic to begin with. It has merely been a process of gradually moving toward normal values.

The 2019 Slowdown: Considering cyclical factors, the economy should bottom out in 2020

In view of the arguments presented up to this point, the outlook for 2019 sees the global economy most likely continuing to mark time. This viewpoint was covered in a fair amount of detail in our monthly report of November 2018³. First of all, the effects of the US tax cut will eventually disappear. Then, global inventory adjustment will continue for some time. There is a good chance that the increase in dollar interest rates will cease, but there is also a good chance that the same phenomenon will occur in the Eurozone since the ECB has ended its monetary policy of quantitative easing.

Shipment and Inventory Balance in Japan, US, and EU

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) Average values were calculated for Japan's data in September and October 2018 as a means of producing an average for the factor of natural disasters.

3) For EU only: production index y/y difference – inventory DI y/y difference.

² DIR Report dated 20 October 2017, *Japan's Economy: Monthly Outlook (Oct 2017): Pointers to guide through this political season; Light and shadow of the "cherry-picking" economy*, by Shunsuke Kobayashi.

³ DIR Report dated 27 November 2018, *Japan's Economy: Monthly Outlook (Nov. 2018): True nature of slowdown in Japanese and global economies, with US remaining strong, and outlook for 2019*, by Shunsuke Kobayashi & Yota Hirono.

On the other hand, the collapse in the price of crude oil is good news for the global economy, especially for industrialized countries. There is a good chance it could offset the negative impact of the US-China tariffs as long as tariffs do not expand beyond the levels publicly announced up to this point.

Therefore, the slowdown is expected to be a moderate one. As long as we look at it from the viewpoint of the short-term cycle, there does not appear to be the kind of macro-environment to support the arguments of those who have been muttering “recession” under their breaths. Looking at Chart 3, we see that during the long period of economic expansion occurring after the global economic crisis of 2008, the inventory cycle completed one full rotation once every three or four years, with the global economy accelerating or slowing down depending on which point in the cycle it had reached. However, the inventory adjustment factor does not create effects serious enough to cause an economic recession. Moreover, as should be self-evident, inventory adjustment is a process that does not last forever. During the course of the year 2020, the factors causing economic slowdown in 2019 will again be extinguished, and there is a very good chance that the global economy will then head toward bottoming out. This scenario makes sense from a short-term cyclical viewpoint.

The economic growth cycle which has continued for a period of ten years after the global economic crisis of 2008 appears to be maturing

However, the long-term structural argument throws cold water on the optimistic outlook. Frankly speaking, the major factors of concern are the capital stock cycle, which has a significant influence on the global economy over the long-term, and the credit cycle, which works in the same way.

The global economy’s capital stock cycle is now entering a maturation phase. The details of this process were covered in our monthly report of September 2017⁴. (The extent to which this is occurring in various countries and regions differs. Data on the phenomenon is shown in Charts 5-7.) Hence adjustment could start at any time, and if it does, this could become the catalyst triggering the demise of global economic growth.

According to the prevailing view, the capex and credit cycles are repeated once every ten years or so. However, in actual fact, the capital stock cycle, as shown in Chart 4, also lasts for a period of ten years give or take three years. (The extent of adjustment depends on how long the entire cycle lasts.) Hence we can predict that an adjustment will occur before long, but the reality is that we can’t say exactly when that will be.

What will most likely bring an end to global economic growth?

The big question is what will the catalyst be that finally brings an end to global economic growth?

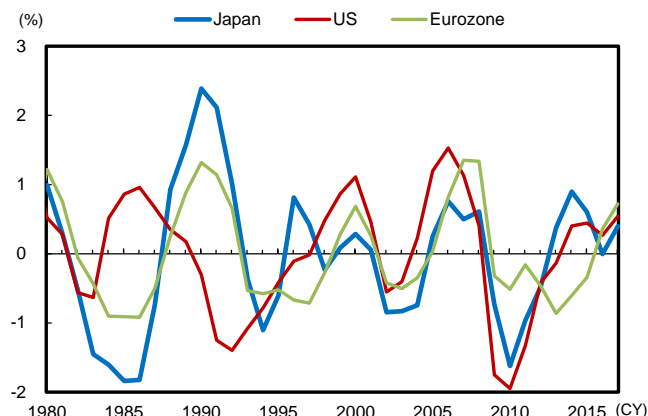
Balanced economic expansion can be maintained as long as robust capital investment and accommodative credit can be upheld. However, if a shock occurs in the form of the accumulation of excessive investment or excessive debt, an adjustment will occur all at once. The freezing of capital investment and the withdrawal of credit causes the economy to lose its momentum. The global economy has repeated this process many times in the past.

Looking back in recent history, the last time that bloated capital stock and excessive credit caused something as extreme as the reversal of the credit cycle was the global financial crises of 2008, and before that, the Enron scandal, the Asian currency crisis, the Russian debt crisis, and Black Monday (the stock market crash of 1987). Each one of these was an iconic incident of its time.

⁴ DIR Report dated 22 September 2017, *Japan’s Economy: Monthly Outlook (Sep 2017): Japan’s economy expected to grow by +1.7% in FY2017 and +1.3% in FY2018. How far has global economic expansion come?* by Shunsuke Kobayashi.

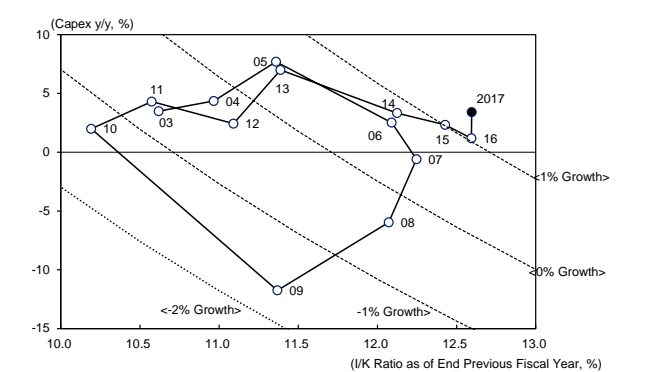
It is extremely difficult to predict the sudden occurrence of economic crises in advance. However, we can keep an eye out for the conditions which lead to the collapse of equilibrium seen in the simultaneous occurrence of robust capital investment and accommodative credit occurring along with economic expansion. There are several “canaries in the coal mine” to watch out for.

Rates of Investment in Japan, US, and Europe (Divergence from the Trend) Chart 4



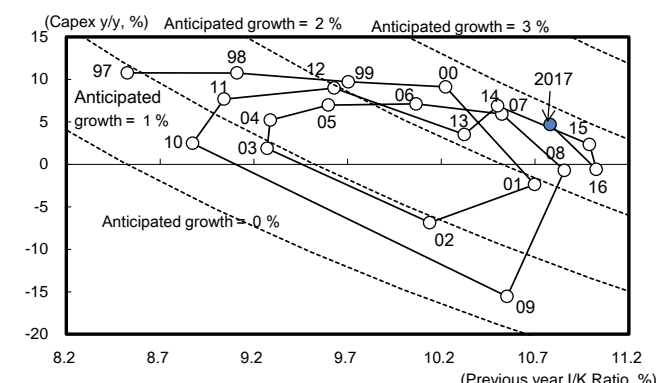
Source: World Bank, Statistics of Each Country; compiled by DIR.
Note: Cycle factors extracted with an HP filter.

Japan’s Capital Stock Cycle Chart 5



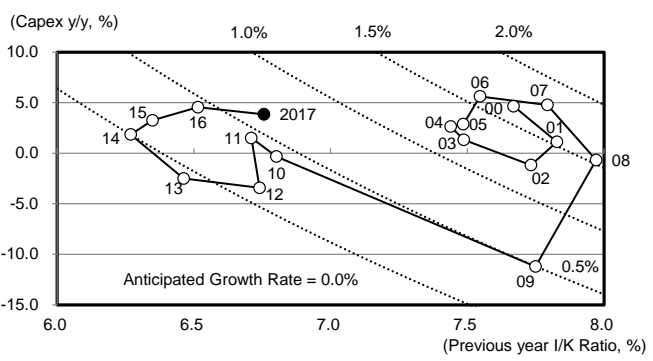
Source: Cabinet Office and Bank of Japan.
Note: Dotted lines are hyperbolic curves corresponding to anticipated growth rates as currently predicted.

US Capital Stock Cycle Chart 6



Source: BEA, Haver Analytics; compiled by DIR.
Note: Dotted lines represent the anticipated growth rate.

Eurozone’s Capital Stock Cycle Chart 7



Source: Haver Analytics, European Commission; compiled by DIR.
Note: Dotted lines represent the anticipated growth rate.

The problem of reverse yield, prompting the reversal of the lending attitude

The most typical amongst problems is reverse yield. As is shown in Chart 8, long and short-term interest rate reversal has been identified as a phenomenon occurring historically in the US (the trend-setter in the world economy) almost without exception when an expansionary phase ends, just before the economy moves into a recessionary phase.

This is not a new discovery. It becomes a kind of chicken or the egg question, but in any case, when long and short-term interest rate reversal occurs, it is a signal to the bond market that an economic slowdown (or recession) will occur in the near future. Even more essentially, from the viewpoint of credit institutions, interest rate reversal means that the more one increases lending the more one takes on losses. As a result, reluctance to lend and withdrawal of loan credit occur, and as was explained previously, expansionary equilibrium breaks down. Then lapsing into a recession becomes a self-fulfilling prophecy.

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 (2-5 years) lending, and the short-term interest rate (FF rate etc.) for the procurement rate.

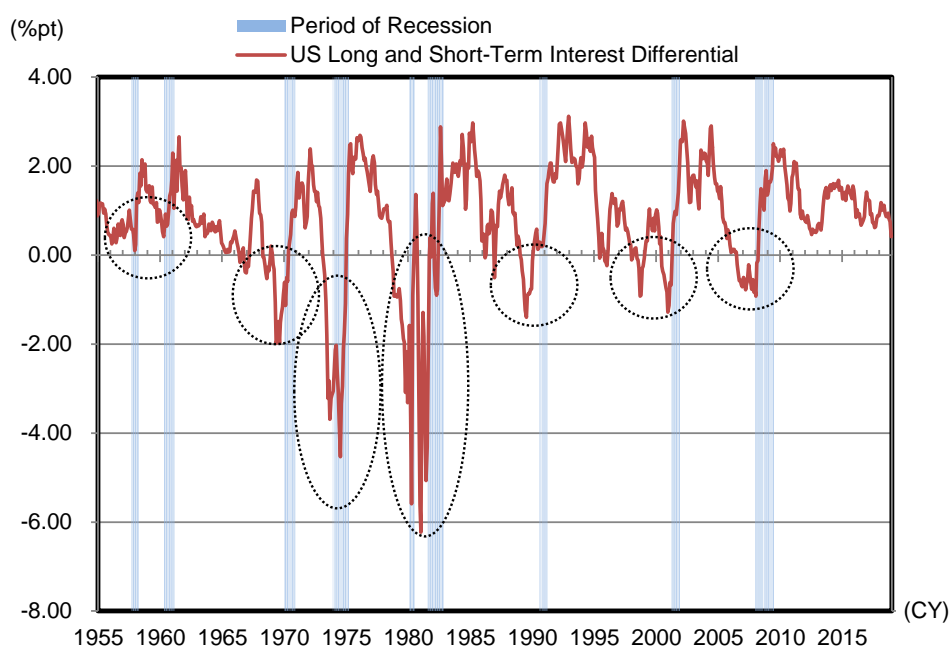
This is a bit of a digression, but the media has recently taken up the problem of negative spreads on 5 and 10 year loans, and 3 and 5 year loans. Our opinion is that the fact of negative spreads on these loans does not provide a very reliable index for understanding what is going on.

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.”

With these arguments in mind, we take another look at Chart 8. As of the writing of this report, the long and short-term interest differential had barely 10-20bps left. Put in another way, this is the margin or adjustment limit remaining for the FRB monetary policy to work with. The question is how long it will take the FRB to use up the rest of this margin. The answer will probably tell us how much longer the global economic expansion will last. Of course, in an extreme case such as being forced to raise the interest rate in order to head off inflation due to supply shock, thereby sacrificing the economy’s future, the FRB could become the trigger bringing an end to global economic expansion. However, a situation of this sort could not occur at this time due to the fortuitous collapse in the price of crude oil.

US Long and Short-Term Interest Differential and the Business Cycle

Chart 8



Source: NBER, Haver Analytics; compiled by DIR.

Note: The long and short-term interest differential is the US 5-year Treasury yield – the FF rate.

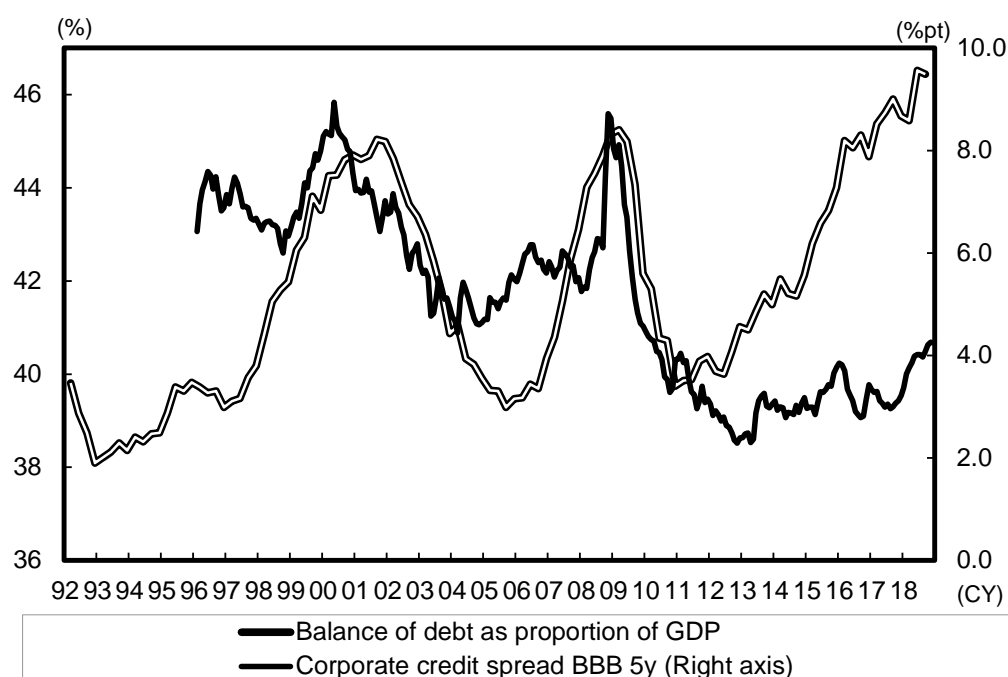
Bursting of the financial market's self-actualized bubble

Despite the above argument, the FRB remains a favorite candidate for the organization that would most likely become the trigger for bringing an end to global economic expansion. This opinion is backed up by the data shown in Chart 9, which indicates that outstanding debt of US corporations has reached a level comparable to that of the eve of the collapse of past bubble economies. This fact is not insignificant.

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.

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 buy-back. 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.

Outstanding Debt of US Corporations as a Proportion of GDP, and Spread on Corporate Bonds Chart 9



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

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.

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 original purpose of monetary tightening was simply to release pressure from the process of ballooning debt and bubble formation. Hence, as of this point, it is possible to say that it has unnecessarily caused downward pressure on the real economy.

Largely speaking the FRB uses two procedures for implementing monetary tightening. These are (1) raising the FF rate, and (2) reducing its asset holdings. The influence of method (2) is unclear and can become something very major. The former chairman of the FRB continually used method (1), while remaining cautious regarding method (2), engaging in lengthy discussions on the question. This approach had become fixed before she passed the baton to the current chairman, who has mechanically carried out method (2) with no public discussion of the break, and then also mechanically applies method (1). This double tightening is expected to cause an economic slowdown once the effects of the tax cut have disappeared. This is also something that led to the turmoil on the financial markets in 2018.

The current FRB leadership is doing little to prevent an economic slowdown or turmoil in the financial markets. If both methods (1) and (2) are relaxed overly much, the problem of ballooning debt and bubble formation will be reignited. If method (2) is eased while method (1) is continued, reverse yield could occur. The most realistic approach to take would be to ease off on method (1) and continue with method (2). However, the influence of method (2) will cause credit spreads to deteriorate, and the question is how long US corporations, as well as the rest of the world, especially those countries and corporations holding debt linked to US interest rates will be able to endure. The risk that the credit cycle could experience a reversal due to the increasing cost of issuing corporate bonds is beginning to look like it could become a reality.

Japan's Economic Outlook No.199 Update

	FY17	FY18 (Estimate)	FY19 (Estimate)	CY17	CY18 (Estimate)	CY19 (Estimate)
Main economic indicators						
Nominal GDP (y/y %)	2.0	0.9	1.9	1.7	0.9	2.0
Real GDP (chained [2011]; y/y %)	1.9	0.9	0.8	1.9	0.8	1.1
Domestic demand (contribution, % pt)	1.4	0.9	0.7	1.3	0.7	1.1
Foreign demand (contribution, % pt)	0.4	-0.0	0.2	0.6	0.1	-0.0
GDP deflator (y/y %)	0.1	0.0	1.1	-0.2	0.1	0.9
Index of All-industry Activity (y/y %)*	1.8	0.8	1.1	1.6	0.8	1.2
Index of Industrial Production (y/y %)	2.9	0.8	1.8	3.1	0.8	1.9
Index of Tertiary Industry Activity (y/y %)	1.0	0.9	0.9	0.7	0.9	1.1
Corporate Goods Price Index (y/y %)	2.7	2.2	2.5	2.3	2.4	1.8
Consumer Price Index (excl. fresh food; y/y %)	0.7	0.9	1.0	0.5	0.9	0.9
Unemployment rate (%)	2.7	2.4	2.5	2.8	2.4	2.4
Government bond yield (10 year; %)	0.05	0.08	0.10	0.05	0.07	0.10
Balance of payments						
Trade balance (Y tril)	4.6	2.6	4.7	5.0	2.3	3.9
Current balance (\$100 mil)	1,968	1,780	1,953	1,957	1,745	1,871
Current balance (Y tril)	21.8	20.3	22.5	22.0	19.3	21.1
(% of nominal GDP)	3.9	3.7	4.0	4.0	3.5	3.8
Real GDP components (Chained [2011]; y/y %; figures in parentheses: contribution, % pt)						
Private final consumption	1.0 (0.6)	0.6 (0.4)	0.4 (0.2)	1.1 (0.6)	0.4 (0.2)	0.9 (0.5)
Private housing investment	-0.7 (-0.0)	-4.3 (-0.1)	1.5 (0.0)	2.1 (0.1)	-5.8 (-0.2)	2.8 (0.1)
Private fixed investment	4.6 (0.7)	3.5 (0.6)	1.5 (0.2)	3.9 (0.6)	3.7 (0.6)	2.2 (0.4)
Government final consumption	0.4 (0.1)	0.6 (0.1)	0.7 (0.1)	0.3 (0.1)	0.6 (0.1)	0.7 (0.1)
Public fixed investment	0.5 (0.0)	-2.4 (-0.1)	1.5 (0.1)	0.7 (0.0)	-2.2 (-0.1)	0.6 (0.0)
Exports of goods and services	6.4 (1.1)	2.4 (0.4)	2.5 (0.4)	6.8 (1.1)	3.3 (0.6)	2.4 (0.4)
Imports of goods and services	4.1 (-0.6)	2.4 (-0.4)	1.5 (-0.3)	3.4 (-0.5)	2.8 (-0.5)	2.5 (-0.4)
Major assumptions:						
1. World economy						
Economic growth of major trading partners	4.2	3.8	3.6	4.1	4.0	3.6
Crude oil price (WTI futures; \$/bbl)	53.6	63.3	55.0	50.9	65.3	55.0
2. US economy						
US real GDP (chained [2012]; y/y %)	2.4	3.0	2.2	2.2	2.9	2.5
US Consumer Price Index (y/y %)	2.1	2.4	2.3	2.1	2.5	2.2
3. Japanese economy						
Nominal public fixed investment (y/y %)	2.3	-0.7	3.0	2.4	-0.6	2.1
Exchange rate (Y/\$)	110.8	111.6	113.0	112.2	110.4	113.0
(Y/€)	130.3	129.1	128.0	127.2	130.2	128.0

Source: Compiled by DIR.

Note: Due to rounding, actual figures may differ from those released by the government.

* Excl. agriculture, forestry, and fisheries.

Estimate: DIR estimate.