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Japan's Economy: Monthly Review

Japan's Economic Outlook for 2016

Japan heading toward gradual recovery, but caution required regarding five risks facing economy

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Summary

- **Economic outlook revised:** In light of the 2nd preliminary Jul-Sep 2015 GDP release (Cabinet Office), we have revised our economic growth outlook. We now forecast real GDP growth of +1.0% in comparison with the previous year for FY15 (+0.8% in the previous forecast) and +1.5% in comparison with the previous year for FY16 (+1.5% in the previous forecast). Japan's economy entered a temporary lull in 2015, but we expect it to move toward a gradual recovery during the year 2016 due to the following factors: (1) Continuation of the virtuous circle brought on by Abenomics, and (2) A gradual comeback in exports centering on the US. (For details see *Japan's Economic Outlook No. 187 Update (Summary)*, December 11, 2015, by Mitsumaru Kumagai.)

- **Japan's main economic scenario:** Judging from the performance of major demand components in the GDP statistics, there is a possibility that Japan's economy has officially fallen into a recession. However, examination of three major judgment criteria ("merkmal") suggests that Japan's economy is still in a temporary lull. In either case, the adjustment phase in Japan's economy is expected to be both short-term and fairly minor. We see Japan moving toward a moderate recovery during the year 2016.

- **Risk factors facing Japan's economy:** (1) The downward swing of China's economy, (2) Tumult in the economies of emerging nations in response to the US exit strategy, (3) A worldwide decline in stock values due to geopolitical risk, (4) The worsening of the Eurozone economy, and (5) The *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market due to loss of fiscal discipline. Our outlook for China's economy is optimistic in the short-term and pessimistic in the mid to long-term. Looking at China's economic situation in a somewhat reductive way, the fact is that China's government holds treasury funds totaling between 600 to 800 tril yen with which it is standing up to over 1 quadrillion yen in excessive lending and over 400 tril yen in excess capital stock. China is expected to be able to avoid the bottom falling out of its economy for a little while, but in the mid to long-term, there is risk of a massive capital stock adjustment.

1. Economic Outlook Revised

Japan's economy to move toward a gradual recovery

In light of the 2nd preliminary Jul-Sep 2015 GDP release (Cabinet Office), we have revised our economic growth outlook. We now forecast real GDP growth of +1.0% in comparison with the previous year for FY15 (+0.8% in the previous forecast) and +1.5% in comparison with the previous year for FY16 (+1.5% in the previous forecast). Japan's economy entered a temporary lull in 2015, but we expect it to move toward a gradual recovery during the year 2016 due to the following factors: (1) Continuation of the virtuous circle brought on by Abenomics, and (2) A gradual comeback in exports centering on the US. (For details see Japan's Economic Outlook No. 187 Update (Summary), December 11, 2015, by Mitsumaru Kumagai.)

Real GDP growth rate for Jul-Sep 2015 up +1.0% q/q annualized (+0.3% q/q)

The real GDP growth rate for Jul-Sep 2015 (2nd preliminary est) has been revised considerably upwards to +1.0% q/q annualized (+0.3% q/q) from the 1st preliminary results (-0.8% q/q annualized and -0.2% q/q). Results also exceeded market consensus due to the upward revision of inventory investment, which was expected to mark time according to the 1st preliminary report. When averaged with the Apr-Jun period results, the Jul-Sep period 2nd preliminary estimate reconfirms our previous opinion that Japan's economy is in a temporary lull. An especially positive factor in these results is the major upward revision in capex.

Japan's economy expected to gradually make a comeback

There is no change in our basic economic scenario. We see Japan's economy gradually making a comeback from its temporary lull as the effects of the overseas economic slowdown ease up and personal consumption recovers backed by a good employment environment and improving incomes.

Personal consumption is expected to continue its recovery due to the above factors, and move toward a comeback despite occasional ups and downs. Nominal wages according to the monthly labor survey continue to be weak due to a changeover in sampling. However, considering the trend in this year's pay scale increase after the annual spring labor offensive, as well as trends in bonuses according to survey findings (data from summer), the real situation with wages appears to be maintaining a stronger undertone than it appears when looking at the statistics. In addition, wages of part-time workers are also continuing to grow due to the positive employment environment and the increase in minimum wage. Meanwhile, disposable income of pensioners is growing somewhat, due to the increase in the pension revision rate. A number of factors are expected to provide support for personal consumption, including the upward pressure real wages are getting from the decline in the growth rate of the consumer price index and the continued increase in the number of employees.

Housing investment is expected to maintain a firm undertone with improvements in the employment and income environment and low interest on housing loans. In addition, households considering purchase of a new house should gradually increase as we move into the year 2016 in anticipation of a second consumption tax hike. However, considering the sluggishness in housing starts, a leading indicator, the tempo of growth is expected to be gradual. A note of caution is required in regard to the recent scandal regarding the falsification of condominium construction data and where this might lead. If the problem persists for the long-term, suspicions regarding the safety of newly built condominiums could become acute, and consumers could delay purchasing. Looking back to the year 2005 when it was found that seismic strength of buildings had been falsified, a situation which led to the revision of the Building Standards Law in 2007, steep declines in housing investment due to this kind of problem remain fresh in memory.

Public investment is gradually shedding the effects of economic policy which provided support in the past, and is expected to continue to decline. Contracts and orders received, which provide the leading indicators for this area, are already showing signs of peaking out. The general tone in this area is expected to continue in that vein.

Meanwhile, exports are expected to continue a moderate recovery while experiencing both strong and weak points as the effects of the slowdown in overseas economies eases up. A firm undertone continues in US economic expansion centering on the household sector, bringing expectations for a recovery in Japanese exports centering on durables. As for the EU, the economy is expected to move gradually toward a comeback due to the effects of the collapse of crude oil prices and additional monetary easing on the part of the ECB. Exports to the EU, which had been weak during summer, are expected to gradually recover to a growth trend. As for the Asian economy, China's real economy has hit bottom due to the lowering of the reserve deposit rate and interest cuts, and effects are gradually being seen in personal consumption. There is a good possibility that declines in consumption can be avoided with positive effects in purchasing of consumer goods.

As for capex, a gradual recovery is seen despite ups and downs due to record-setting corporate earnings. According to surveys measuring capex investment plans such as the BOJ Tankan, there is a forward-looking stance in regard to capex spending. Replacement investment, labor saving, and energy saving appear to be promising. However, statistics seem to see current business sentiment as being stronger than it actually is, and caution is urged regarding risk of a downtrend in the future. The possibility that corporations delaying capex spending, especially in manufacturing, may increase in the future due to the slowdown in emerging nation economies centering on China, weakness in the corporate sectors of overseas economies leading to stagnation for exports, and the slow pace of recovery in personal consumption. In addition, machinery orders, one of the leading indicators, have been weak. Hence we suggest vigilance in this area.

Risk factors facing Japan's economy: Focus on Chinese Economy

Risk factors for the Japanese economy are: (1) The downward swing of China's economy, (2) Tumult in the economies of emerging nations in response to the US exit strategy, (3) A worldwide decline in stock values due to geopolitical risk, (4) The worsening of the Eurozone economy, and (5) The Triple Weaknesses – a weak bond market, weak yen, and weak stock market due to loss of fiscal discipline.

This report focuses especially on the risk which China's economy presents for Japan, and we look closely at the trends in that economy, presenting a close analysis. Our outlook for China's economy is optimistic in the short-term and pessimistic in the mid to long-term. Looking at China's economic situation in a somewhat reductive way, the fact is that China's government holds treasury funds totaling between 600 to 800 tril yen with which it is standing up to over 1 quadrillion yen in excessive lending and over 400 tril yen in excess capital stock. China is expected to be able to avoid the bottom falling out of its economy for a little while, but in the mid to long-term, there is risk of a massive capital stock adjustment.

BOJ's monetary policy

We expect additional monetary easing measures by the BOJ to be shelved until spring 2016 or later. The BOJ is expected to choose the timing for additional monetary easing measures carefully, keeping a close watch on world economic trends and Japan's political calendar.

2. Japan’s Main Economic Scenario – Moving toward Moderate Recovery in 2016

2.1 Japan’s Economy Enters a Temporary Lull

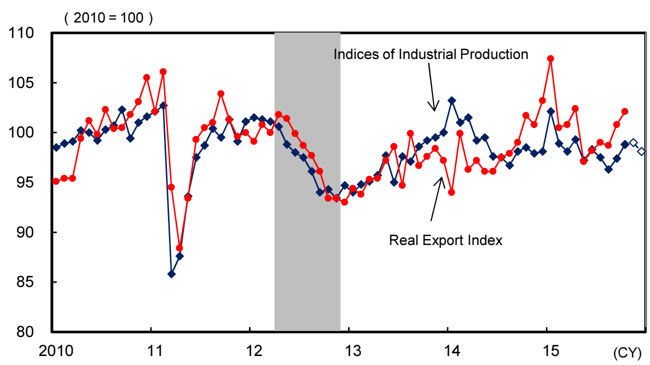
Japan’s economy is in a temporary lull, but is expected to move toward recovery in 2016

Japan’s economy has recently experienced a major slowdown in growth rate and has since entered a temporary lull. However, according to our main scenario, we expect it to move toward a gradual recovery during the year 2016 due to the following factors: (1) Continuation of the virtuous circle brought on by Abenomics, and (2) A gradual comeback in exports centering on the US.

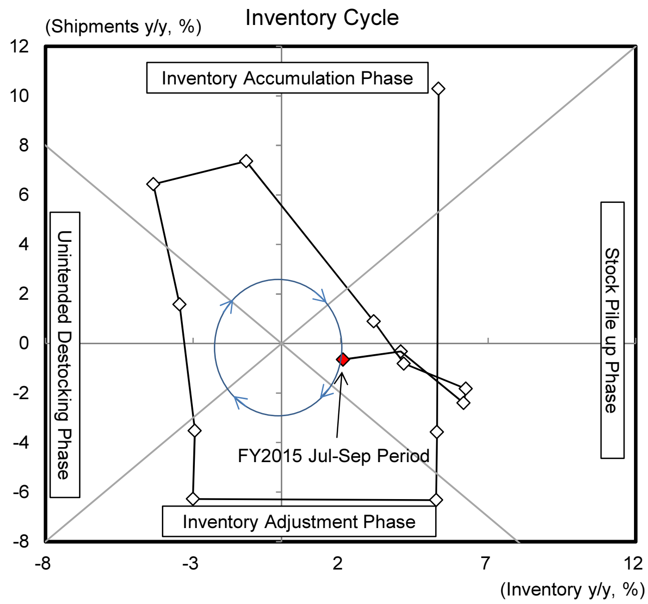
In this chapter, we examine the possibility that Japan’s economy, now in a technical recession, may have officially entered a recession phase.[1] We also discuss the economic trends moving beyond this point. Our conclusion is that judging from the performance of major demand components in the GDP statistics, there is a possibility that Japan’s economy has officially fallen into a recession. However, examination of three major judgment criteria (“merkmal”) suggests that Japan’s economy is still in a temporary lull. In either case, the adjustment phase in Japan’s economy is expected to be both short-term and fairly minor. We see Japan moving toward a moderate recovery during the year 2016. Overseas economies present a major risk factor, but exports to the US are beginning to make a comeback, hence we expect exports to avoid falling further than previous lows. At the same time, the utmost care is still required in regard to lingering fears that China’s economy will move further into a downturn.

Chart 1 shows Japan’s real exports along with industrial production and inventory cycle. There are signs that real exports may be moving toward a comeback, and production, which has recently been stagnant, promises a recovery in the future. In addition, the fact that inventory adjustment has steadily progressed is also worthy of note.

Japan’s Real Exports, Industrial Production, and Inventory Cycle **Chart 1**



Source: Cabinet Office, Bank of Japan, and Ministry of Economy, Trade and Industry; compiled by DIR
Notes: 1) The shaded areas represent periods of economic slowdown.
2) Data for the latest two months of industrial production make use of values from METI’s production forecast survey.



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

[1] Japan’s periods of economic expansion and recession discussed in the Diffusion Index Study Group and officially determined by the Economic and Social Research Institute.

Growth in real wages provides underlying support for personal consumption

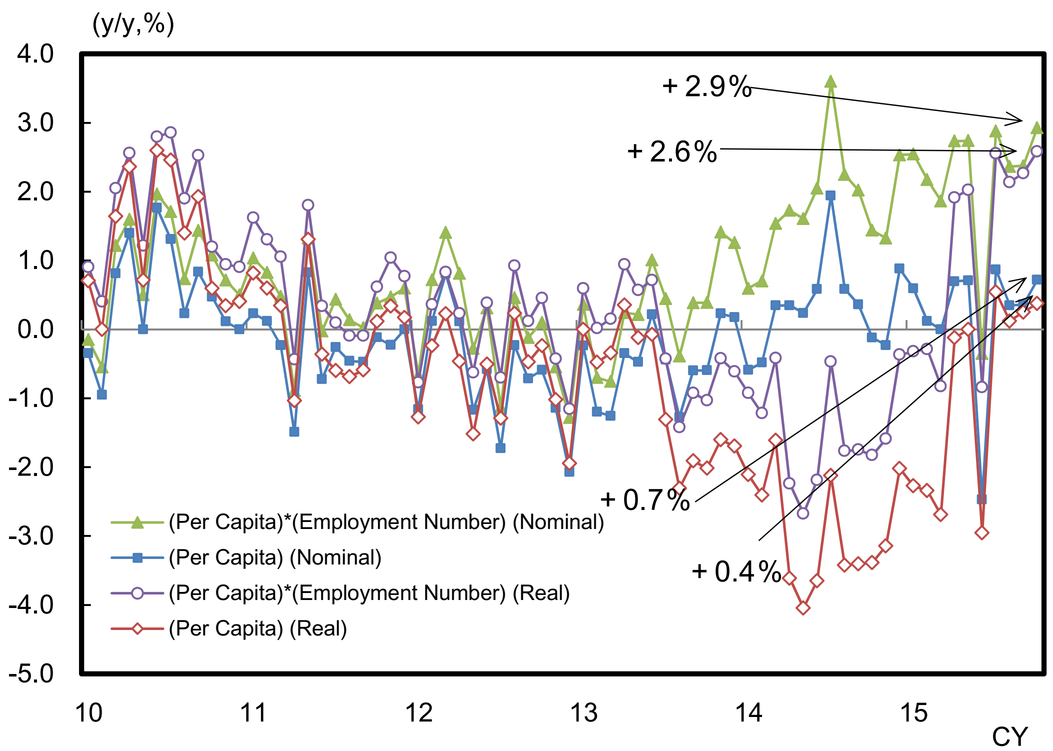
Growth in real wages is expected to provide underlying support for Japan's economy through the revitalization of personal consumption.

Chart 2 indicates that real wages per capita have recently been continuing to exceed the previous year's levels. Major declines in real wages continued in FY2014 due to the effects of the increase in consumption tax, but the tax hike's effect of pushing up prices has now dissipated, while in addition, the collapse of the price of crude oil has had the effect of keeping prices down, thereby contributing significantly to bringing the level of real wages back up. In addition to the effect prices have had on pushing up real wages, supply and demand of labor has become increasingly tight, while the recent increase in pay scale has brought on a continued upward trend in nominal wages. This has caused the income environment to maintain a positive tone.

Looking at macro wages (wages per capita x number of employees), y/y growth well above the 2% level has become the norm. The number of employees has continued to grow, and macro wages have grown as a result.

When we evaluate historical data, we see that growth in regular wages has a significant effect on expenditure, especially that going toward durable goods and services. Meanwhile, growth in number of employees tends to spur consumption of services. Considering the estimated results of these factors, future personal consumption promises increasingly to encourage more consumption of services. Moreover, recovery to a growth trend in consumption of durable goods, which continued at a low after the increase in consumption tax, is promising.

Wages Per Capita and Macro Wages **Chart 2**



Source: Ministry of Health, Labour and Welfare; compiled by DIR.

2.2 Is Japan's Lapse into Recession Official?

2.2.1 In light of historic GDP statistics, the possibility that Japan has entered a recession phase cannot be denied

GDP statistics by source of demand suggest that a recession is possible

A major focus in arguments surrounding the future of Japan's economy is whether the temporary lull that Japan's economy recently entered can be determined to have officially become a recession.

Chart 3 provides a comparison between average real GDP figures during periods of temporary lull and periods of recession experienced since the 1980s. There are two major points we would like to make here.

First, there is the question of what drives the economy during these periods. In the case of a temporary lull, the largest factor often seems to be a temporary adjustment in personal consumption sparked by worsening consumer confidence. Meanwhile, exports also tend to slow down during a temporary lull, though it is important to note that they still maintain a basically positive tone. In contrast, during a full-blown recession, exports tend toward negative growth.

Secondly, private sector inventory also behaves differently during periods of temporary lull and periods of recession. Looking at past averages, we see that one quarter before entering a temporary lull, private sector inventory provides a negative contribution to GDP, but then turns in the positive direction after entering a lull. Conversely, one quarter before entering a recession, private sector inventory provides a major positive contribution to GDP, but then its contribution becomes small once the economy has entered recession.

Judging from these two characteristics seen in GDP statistics by source of demand, there is some risk that Japan's economy could lapse into recession.

First, looking at GDP statistics by source of demand during the Apr-Jun 2015 period, we see that exports to Asia and the US fell sharply, bringing major downward pressure on the economy. As was mentioned earlier, a large part of this has to do with the maturation of the world economy, causing global trade volume to become sluggish.

Secondly, taking a look now at inventory trends, we see that private sector inventory contributed considerably to positive GDP statistics during the Jan-Mar period when the economy recorded high growth, but then the extent to which it contributed was much smaller during the Apr-Jun period.

Judging from these two tendencies, it is possible that Japan's economy could be judged to have now officially entered a recessionary phase. The rapid decline in exports mentioned above is especially important to consider here.

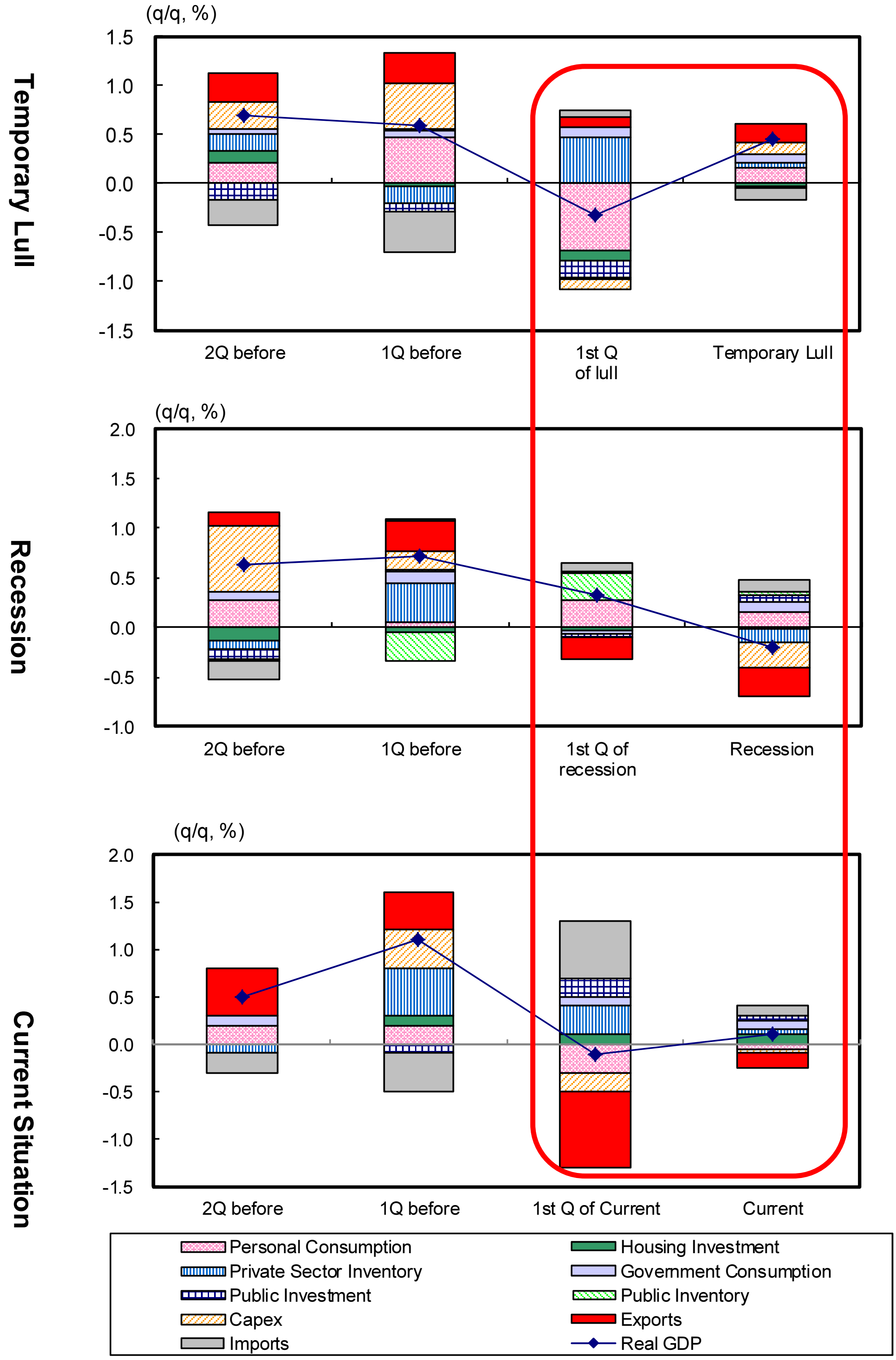
Overseas economic trends a major key

Another factor which can be observed in Chart 3 and which helps give us an idea of what the future holds for Japan's economy is change in average GDP during periods of temporary lull and periods of recession. The deciding difference between the two resides in the behavior of three sources of demand – (1) exports, (2) capex, and (3) private sector inventory. During a recession, all three of these factors tend to decline, while during a temporary lull, they perform slightly on the positive side.

Considering these factors, when we observe the current averages, the most important factors are (1) the decline in exports and (2) the decline in capex. The current situation is such that it is quite possible Japan's economy can now be determined to have entered a recession.

Comparison of Historic Temporary Lulls and Recessions with Recent Situation (Quarterly Basis)

Chart 3



Source: Cabinet Office; compiled by DIR.

Notes: 1) Average period of temporary lull since 1980s. Periods set by DIR.

2) Jan-Mar period of 1980 to Apr-Jun period of 1994 uses year 2000 as reference. Jul-Sep period of 1994 uses year 2005 as reference.

3) First quarter this time is Apr-Jun period of 2015. Average this time is the average of the Apr-Jun period and Jul-Sep period of 2015.

2.2.2 Japan's Economic Adjustment Should be Short-Term and Mild

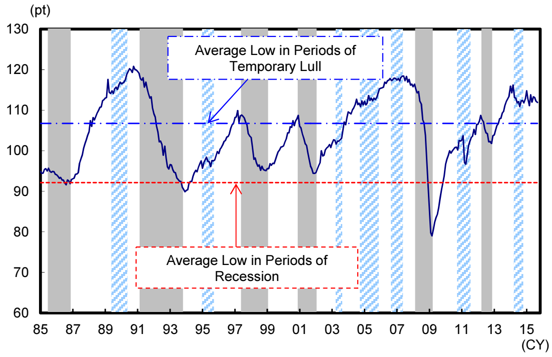
Three major merkmal (judgment criteria) differentiating periods of temporary lull from periods of recession suggest that Japan is still in a temporary lull

Next we examine the current condition of Japan's economy as seen in monthly statistics in order to get a better grasp of the recent economic trend. As a result of studying and comparing a broad range of economic indices and financial data occurring within Japan's historic periods of temporary lull and recession, we have identified three indices which act as merkmal (judgment criteria), and which provide a means of differentiating between these two types of periods. These are (1) The coincident index, (2) The ISM manufacturing index, and (3) The shipment-inventory balance.

Chart 4 (top) shows changes in the coincident index. Recently the index has been maintaining a higher level than its average low during past periods of temporary lull. This tells us that there is no need for pessimism in regard to the recent economic situation. The lower left portion of Chart 4 shows changes in the ISM manufacturing index (an index used in the US to measure business confidence in the manufacturing industry). Here too we have reached similar conclusions. In other words, trends in overseas economies, which have great influence on Japan's economy, do not show the kind of weakness that would be required to push the Japanese economy into recession. In addition, looking at the bottom right portion of Chart 4, which shows the shipment-inventory balance, a leading indicator of production, we see that this index also has been maintaining a higher level than its average low during past periods of temporary lull. We can also see that industrial inventories have been trending upwards of late, but this is due largely to special factors, mainly the revision of the ministerial ordinance and notification regarding the off-road law, which has led to the tendency to keep a certain portion of machinery in storage after its production. As a result, inventory levels have increased, though most of it is not "unintentional", in other words it is not due to slow business. Inventory other than that falling under the above category is actually beginning to decline. Hence there is no need for undue anxiety as regards inventory adjustment.

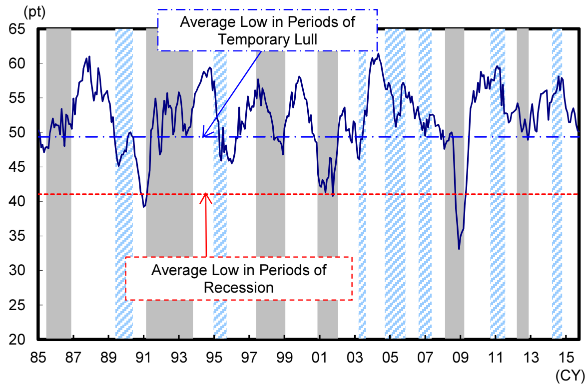
Three Merkmal (Judgment Criteria) Differentiate Periods of Temporary Lull from Periods of Recession
Chart 4

Coincident Index



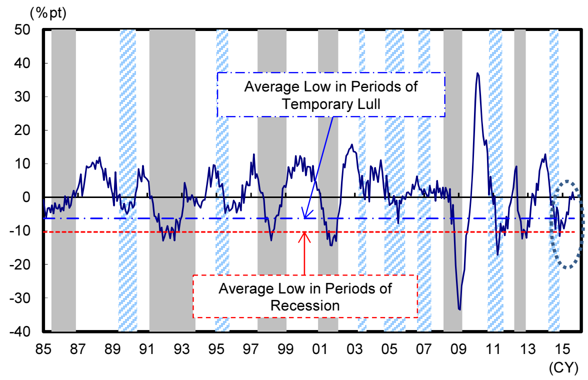
Source: Cabinet Office; compiled by DIR.
Note: Shaded areas represent periods of recession in Japan, while those with diagonal stripes represent periods of temporary lull.

ISM Manufacturing Index



Source: Cabinet Office, Haver Analytics; compiled by DIR.
Note: Shaded areas represent periods of recession in Japan, while those with diagonal stripes represent periods of temporary lull.

Shipment-Inventory Index (Less Construction Machinery)



Source: Cabinet Office, Ministry of Economy, Trade and Industry; compiled by DIR.
Notes: 1) Shaded areas represent periods of recession in Japan, while those with diagonal stripes represent periods of temporary lull.
2) Shipment-Inventory Balance = Y/y Comparison of Shipments – Previous Year's Inventory Level.

Conclusion: Even if Japan's economy is judged to be officially in recession, adjustment should be short-term and mild

To sum up our argument, though Japan's economy may be judged to be officially in recession based on trends in the major demand components in GDP statistics, three important merkmal suggest that it is still in a temporary lull, leaving us with mixed results. Furthermore, even if Japan's economy is judged to be officially in recession, we believe that adjustment will be short-term and mild based on the following positive factors. (1) Real exports are heading toward a comeback, (2) Production is bottoming out, (3) Inventory adjustment has progressed, and (4) Real wages have grown. Our main scenario expects that the Japanese economy will gradually head toward recovery during the year 2016.

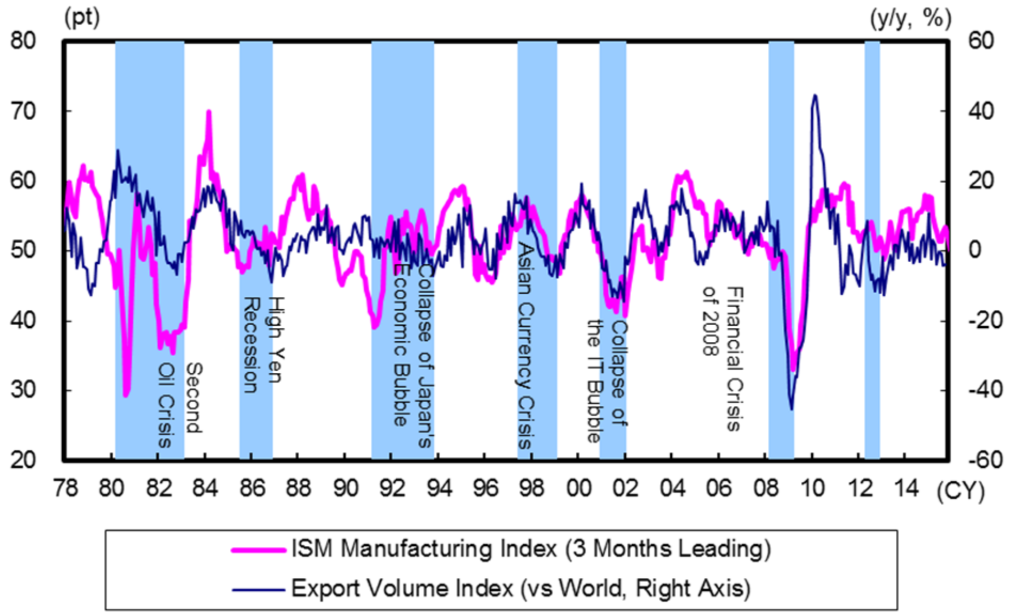
US economic trends are an important factor

Lastly, we would like to again emphasize the importance of US economic trends in forecasting the future of Japan's economy. Japan's exports are closely linked to business sentiment in the US corporate sector.

Chart 5 shows changes in the ISM manufacturing index (an index used in the US to measure business confidence in the manufacturing industry) and Japan's export volume index. Both reveal a high rate of linkage, and the chart confirms that US manufacturing getting back on its feet is what holds the key to the future of Japan's exports. The US has been Japan's biggest trading partner for a long time now, and it goes without saying that the US economy continues to have great influence on the Japanese economy through export business. But US influence doesn't stop there. It also comes in the form of exports of intermediate goods to countries other than the US. This is why Japan's export volume to the rest of the world tends to follow behind business sentiment in the US.

The ISM manufacturing index declined rapidly toward the end of 2014, then lagging somewhat behind this index, Japan's exports declined sharply. However, the ISM manufacturing index has recently managed a slight rebound. It is still just the beginning, but in light of the historic relationship of this index with Japan's economic performance, prospects are good that Japan's export volume will gradually return to a growth trend in the future.

Relationship Between the ISM Manufacturing Index and Japan's Export Volume Index **Chart 5**



Source: ISM, Ministry of Finance, Bank of Japan, Cabinet Office; compiled by DIR.
Notes: 1) Figures prior to 1987 represent year-to-year difference in real exports (export value/export price).
2) The shaded areas represent periods of recession.

3. Risk Factors Facing Japan's Economy: Focus on Chinese Economy

Five risks facing Japan's economy

Risk factors for the Japanese economy are: (1) The downward swing of China's economy, (2) Tumult in the economies of emerging nations in response to the US exit strategy, (3) A worldwide decline in stock values due to geopolitical risk, (4) Trends in the Eurozone economy, and (5) The *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market due to loss of fiscal discipline.

In this chapter we place focus on the risk factor which is of the utmost concern for those involved in the financial markets, and we provide an in-depth analysis of the situation. Our outlook for China's economy is optimistic in the short-term and pessimistic in the mid to long-term. Looking at China's economic situation in a somewhat reductive way, the fact is that China's government holds treasury funds totaling between 600 to 800 tril yen with which it is standing up to over 1 quadrillion yen in excessive lending and over 400 tril yen in excess capital stock. China is expected to be able to avoid the bottom falling out of its economy for a little while, but in the mid to long-term, there is risk of a massive capital stock adjustment.

3.1 Overview of Problems that China's Economy Faces

Optimistic in the short-term and pessimistic in the mid to long-term

Since the summer of 2015 fears have grown rapidly regarding the imminent collapse of China's economic bubble. China's sudden step towards devaluation of the renminbi triggered a seismic event in the global financial markets. How are we to understand the risks now facing the Chinese economy? (More detail on this subject can be found in *Japan's Economic Outlook No. 186 Update (Summary)*, September 8, 2015, by Mitsumaru Kumagai.)

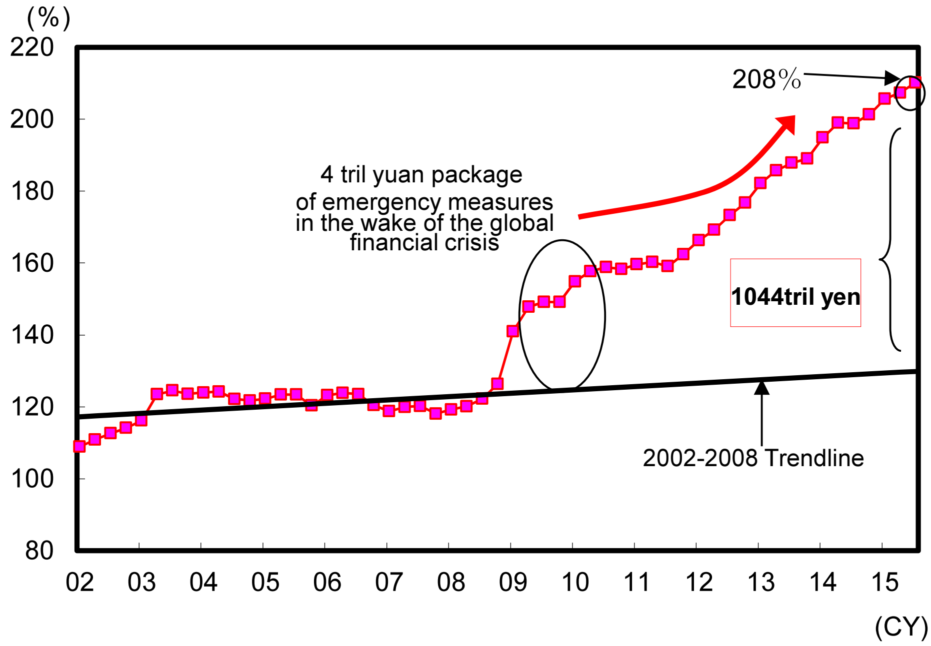
In a word, our view of China's economy is optimistic in the short-term but pessimistic in the mid to long-term. Since China is a Socialist country, it can give its economy a shot in the arm mostly in the form of public investment, thereby delaying the inevitable for another year or two. But in another three to five years the risk of China's economic bubble bursting will again come to the fore.

China's excesses: (1) Excessive lending of over 1,000 tril yen

In this section we discuss China's two huge excesses. The first financial excess is excessive lending. Excessive lending in China is estimated at a total of 1,000 tril yen (see Chart 6). If a certain percentage of this amount becomes irrecoverable, it would mean hundreds of trillions of yen in non-performing loans. When Japan's economic bubble burst it carried non-performing loans totaling 100 tril yen. Considering this fact, it is not an overstatement to call this the biggest economic bubble in history.

The global financial markets are increasingly nervous about the possible risk scenarios, including (1) China drawing down its foreign currency reserves (around $3.5 tril as of end October 2015) to deal with non-performing debt, causing long-term interest rates to surge in the US, and (2) the yen appreciating from a global flight to quality.

China's Total Social Financing (% of GDP) **Chart 6**



Source: People's Bank of China, National Bureau of Statistics of China; compiled by DIR.
Note: Outstanding balance of total social financing as of end-Dec 2001 to be 1.1 times bank lending

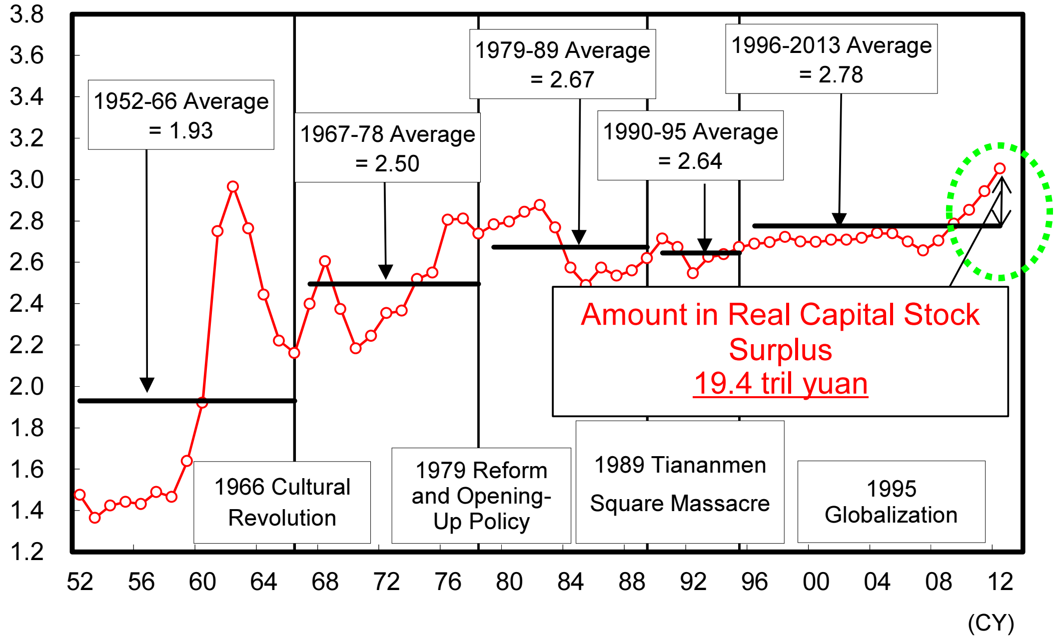
China's excesses: (2) Excess capital stock totaling over 400 tril yen

China's second excess is in the area of surplus factories and machinery, in other words excess capital stock. The gross amount in capital stock is estimated at over 400 tril yen. China now stands at a major crossroads in its economic growth model, which until now was a hand-to-mouth approach to managing an economy, focusing on attracting foreign investment and using that to increase capital stock which would stimulate growth.

Chart 7 shows long-term change in China's capital coefficient (= real capital stock / real GDP). This chart indicates that China's policies for handling the aftermath of the financial crisis of 2008 led to the carrying out of large-scale capital investment, and we see that in recent years, the capital coefficient has been on the rise. Recently, the coefficient has moved further upwards on the chart, diverging markedly from the trend of the past twenty years. It appears that the sense of overcapacity is increasing.

Using the rate of divergence from past trends in the capital coefficient, we can calculate the amount of surplus in real capital stock. This shows us that as of the year 2013, China held a surplus of 19.4 trillion yuan in capital stock (about 12% of real capital stock).

Changes in China's Capital Coefficient Chart 7



Source: National Bureau of Statistics of China, CEIC, Haver Analytics, World Bank; compiled by DIR.
Notes: 1) Capital coefficient = real capital stock / real GDP
2) Figures from the year 2010 are used for both real capital stock and real GDP.

Room for around 600-800 tril yen in public spending

How much fiscal expenditure is China able to come up with in order to deal with this problem? Assuming that like other countries this would mean expanding the balance of debt on a stock basis, we estimate that there is room for around 600-800 tril yen in public spending.

According to data from the IMF on general government debt-to-GDP ratio in 2014, the G5 nations (except for Japan) had an average value of 90%, while the GIIPS nations (except for Greece) had an average value of 118%. In comparison to these figures, China's is relatively low 41% (see Chart 8). Moreover, in comparison to Japan, whose fiscal condition is the worst amongst the major industrialized nations at 246%, China weighs in at only one sixth that amount.

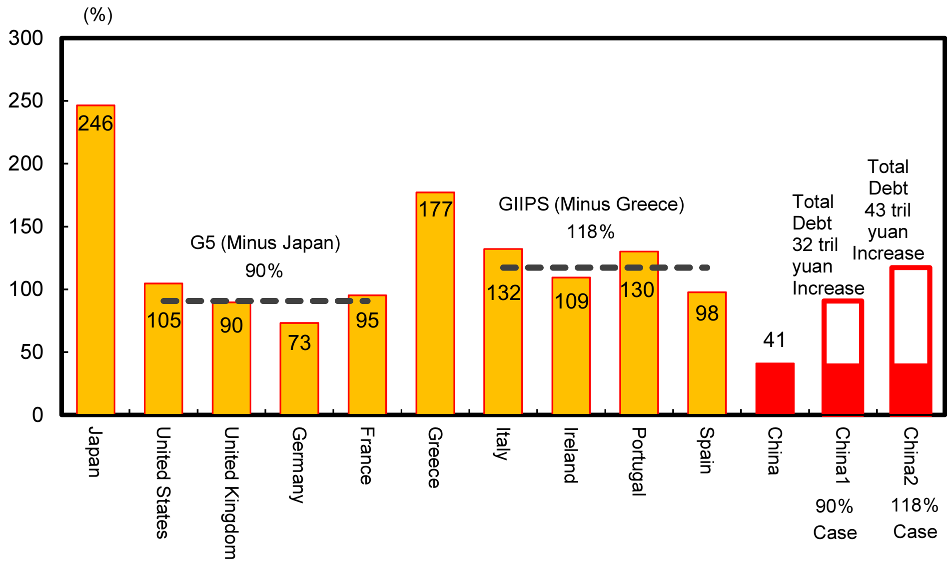
Presuming that China's general government debt-to-GDP ratio has room to grow to 90%, or around the same amount as the G5 nations (except for Japan) we can estimate the margin China has for public spending at around 32 trillion yuan. This means that in an international comparison, China has a large margin for mid to long-term public spending.

Problems facing China's economy: the big picture

To explain the situation which China's economy now faces in as simple terms as possible, it holds over 1,000 tril yen in excessive lending and over 400 tril yen in excess capital stock in relation to which the Chinese government has funds of around 600-800 tril yen in its treasury.

It is simply not possible to take an optimistic view of China's economy in the mid to long-term view. Even if the Chinese government carries out major public spending it cannot solve the intrinsic structural problems the economy has. As long as China does not handle the many fundamental problems facing state-owned enterprises, attempting to apply a quick cure such as public spending will merely put off the problems for another few years. The worst case scenario, in which an even more colossal bubble bursts in the future, may be unavoidable.

General Government Debt-to-GDP Ratio (2014) **Chart 8**



Source: IMF; compiled by DIR.

3.2 Potential Magnitude of the Collapse of China's Economic Bubble

If China's economic bubble bursts, what would be the magnitude?

Here we take a quantitative look at the potential magnitude of the collapse of China's economic bubble assuming it occurs. According to our simulation, a meltdown scenario caused by surplus capital stock adjustment would cause China's potential growth to fall to 1.6%, while the real economic growth rate would be in the negative numbers (See Chart 9).

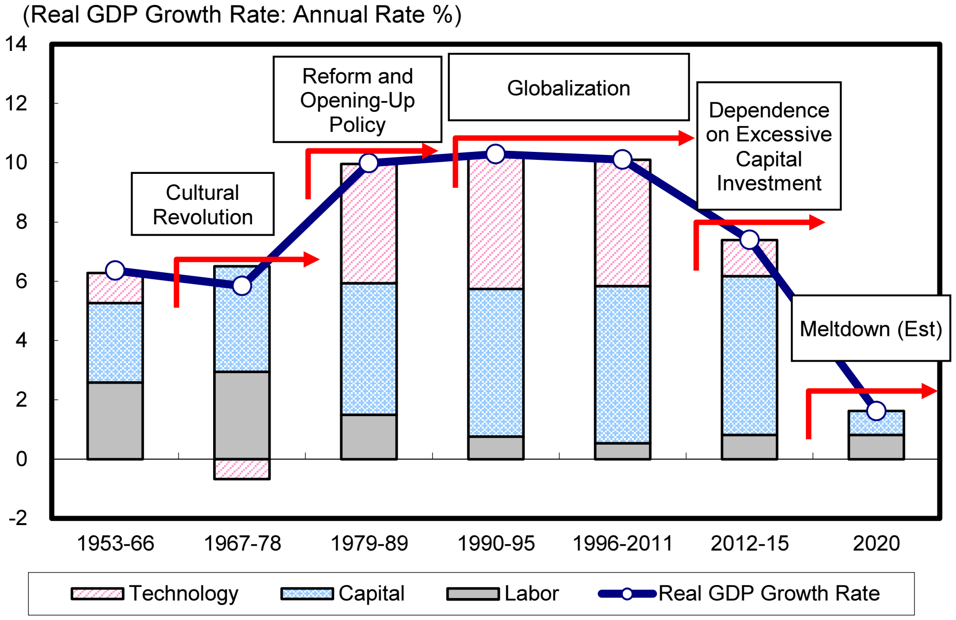
In terms of the effect on Japan's economy, there is still of course the general argument that it is the US which drives the world economy, not China, and hence even if China's economy slows down somewhat, the effect on Japan would be only slight.

However, if China's economy were to experience a meltdown, it would be an entirely different story. The impact of such an event would more than likely send the world economy into a tailspin.

It is hoped that China's policymakers will recognize the situation they are in and implement mid to long-term structural reforms, while using short-term measures to stimulate the economy. With the right balance it may be possible to guide China's economy to a soft landing.

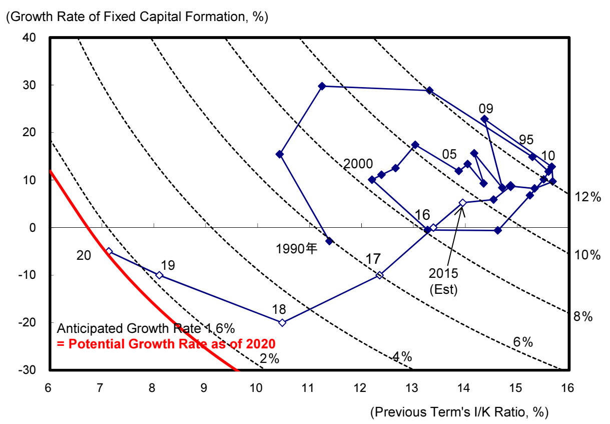
Simulation: China's Economy (Meltdown Scenario) **Chart9**

Factor Analysis of Potential Growth Rate



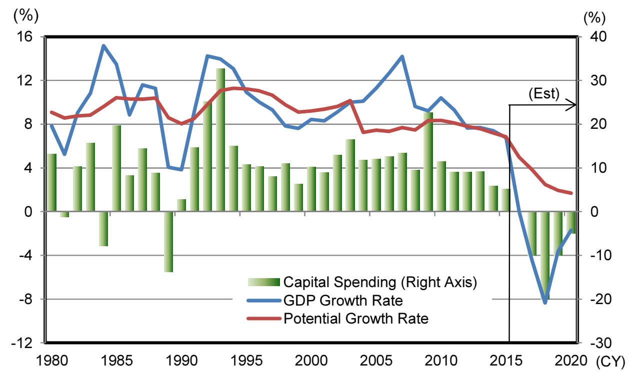
Source: CEIC, World Bank; compiled by DIR.
Note: Major events: 1966 – The Cultural Revolution, 1978 - Reform and Opening-Up Policy, 1989 – Tiananmen Square Massacre

Capital Stock Circulation



Source: National Bureau of Statistics of China, Haver Analytics, World Bank; compiled by DIR.

Economic Growth Rate



Source: CEIC, World Bank; compiled by DIR.

3.3 Policy Measures Seen Holding up China's Economy for the Time Being

China's business cycle signal index sees economy bottoming out

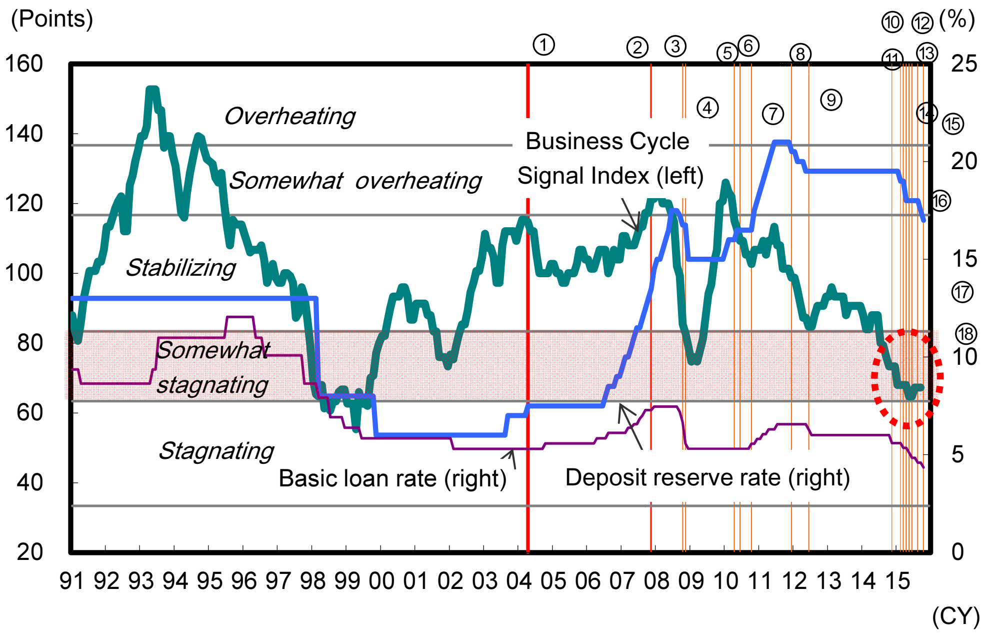
Despite what we have stated in the previous section, looking at a time span of 1-2 years, China's economy is expected to be propped up by policy measures.

Looking at China's business cycle signal index (see Chart 10), we see that the economy began strengthening its downward trend after the beginning of 2014, and is now in the zone indicating the economy is stagnating somewhat (63.33-83.33). However, with the help of recent fiscal and monetary measures, the index now shows that China's economy is bottoming out.

Key words: Socialist market economy, collective leadership, and gradualism

China does not have a truly Capitalist system, but what is called a socialist market economy, and this fact may provide underlying support for the time being. Since economic problems could cause political instability, China's political leaders would of course prefer to avoid the bottom falling out of the economy as much as possible. Since China is not a truly capitalist society, they could delay having to deal directly with the problems for 1-2 years, and would likely do everything they can to delay the problems for as long as possible. Since political decision-making is by a collective leadership working under a philosophy of gradualism, the Chinese economy can probably avoid seeing the bottom fall out in the short-term.

China's Business Cycle Signal Index **Chart 10**



1. Apr 2004: Restrictions on aggregate loans strengthened
2. Oct 2007: Restrictions on aggregate loans strengthened
3. Oct 2008: Restrictions on aggregate loans eased
4. Nov 2008: Stimulus package of 4 tril yuan announced
5. Apr 2010: Real estate regulations strengthened
6. Jun 2010: More flexible regime for control of yuan exchange rate
7. Oct 2010-Jul 2011: Period of loan rate hikes
8. From Dec 2011: A series of deposit reserve rate lowering moves began
9. From Jun 2012: A series of loan rate cuts began
10. Nov 2014: Loan rate cuts
11. Feb 2015: A series of deposit reserve rate lowering moves began
12. Mar 2015: Loan rate cuts
13. Apr 2015: A series of deposit reserve rate lowering moves began
14. May 2015: Loan rate cuts
15. Jun 2015: Loan rate cuts
A series of deposit reserve rate lowering moves began
16. Jul 2015: Price keeping operation
17. Aug 2015: Reserve deposit rate cut, interest rates lowered
18. Oct 2015: Reserve deposit rate cut, interest rates lowered

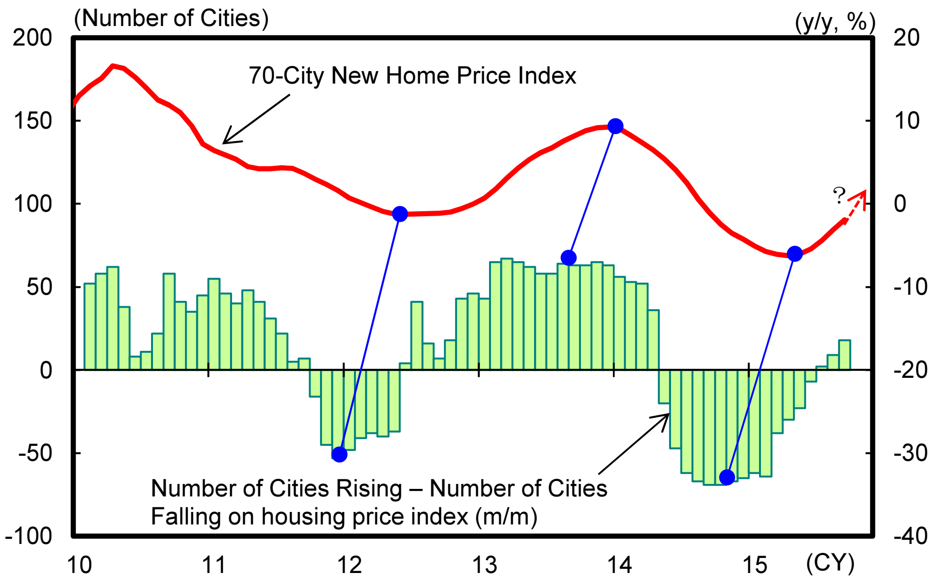
Source: National Bureau of Statistics of China, People's Bank of China, CEIC; compiled by DIR

Real estate prices in China linked to personal consumption seen bottoming out

We should also note here that the leading index of the 70-City New Home Price Index (y/y change) is now moving upward (Chart 11). The "number of cities rising – number of cities falling" category under the Respective City Price Index (m/m change) of China's 70-City New Home Price Index tends to lead the 70-City New Home Price Index by six months. Taking a look at changes in the "number of cities rising – number of cities falling" category, we see that it has been gradually rising after having hit bottom in September of 2014, and has picked up the pace of growth since March 2015. For this reason, signs of the decline coming to an end have been seen since the beginning of 2015 in the 70-City New Home Price Index, and possibilities are now good that the index may begin to gradually move upward in the future.

According to DIR quantitative analysis, China's personal consumption is determined by real estate prices rather than stock prices. Considering this fact, it is likely that real estate prices will continue in a growth trend for some time. This is an extremely positive factor for China's economy overall.

China's 70-City New Home Price Index **Chart 11**



Source: National Bureau of Statistics of China; compiled by DIR.

Note: The 70-City New Home Price Index is the simple average value of home prices in 70 cities.

Economic Indicators and Interest Rates — Chart 12

Indicator	2014 Oct-Dec	2015 Jan-Mar	2015 Apr-Jun	2015 Jul-Sep	2015 Oct-Dec	2016 Jan-Mar	FY13	FY14	FY15	FY16
	Actual				DIR estimates		Actual		DIR estimates	
Real GDP										
Q/q %, annualized	1.8	4.4	-0.5	1.0	0.3	1.2				
Y/y %	-1.0	-1.1	0.7	1.6	1.3	0.5	2.0	-1.0	1.0	1.5
Current account balance SAAR (Y tril)	10.7	15.5	16.9	17.6	17.9	18.0	1.5	7.9	17.8	18.4
Unemployment rate (%)	3.5	3.5	3.3	3.4	3.3	3.3	3.9	3.6	3.3	3.2
CPI (excl. fresh foods; 2010 prices; y/y %)	2.7	2.1	0.1	-0.1	0.1	0.6	0.8	2.8	0.2	1.0
Unsecured overnight call rate (period end; %)	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
10-year JGB yield (period average; %)	0.40	0.34	0.40	0.38	0.35	0.40	0.46	0.37	0.38	0.55

Source: compiled by DIR.
Note: Estimates taken from DIR's *Japan's Economic Outlook No.187 Update*.