Daiwa Institute of Research

21 October 2015 (No. of pages: 11)

Japanese report: 21 Oct 2015

Japan's Economy: Monthly Review

Risk of Economic Downturn Grows Stronger

Risk factors facing Japan's economy should be closely watched

Economic Intelligence Team
Mitsumaru Kumagai
Satoshi Osanai
Keisuke Okamoto
Shunsuke Kobayashi
Shotaro Kugo
Hiroyuki Nagai
Akira Yamaguchi

Summary

- **Risk of Economic Downturn Grows Stronger:** The government revised its monthly economic outlook downwards for the first time in one year in its October report (issued Oct. 14). If the 2015 Jul-Sep period GDP growth rate falls into negative numbers, this would represent the second quarter in a row of negative GDP growth. It is therefore possible that Japan's economy may be declared to be officially in recession.

- **Five risk factors 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) 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 places emphasis on China's business cycle, a question of the greatest concern at this time for those involved in the financial markets, and we provide an in-depth analysis of the situation. We believe that the bottom falling out of China's economy can be avoided for some time. China does not have a truly Capitalist system. Hence the problem can probably be delayed for the next year or two. Moreover, personal consumption in China is determined by real estate prices rather than stock prices, and real estate prices appear to have bottomed out. The other factor here is that the main driver of the world's economy remains the US, so even if China's economy slows down a bit, the negative influence on Japan's economy is fairly limited.

1. Risk of Economic Downturn Grows Stronger

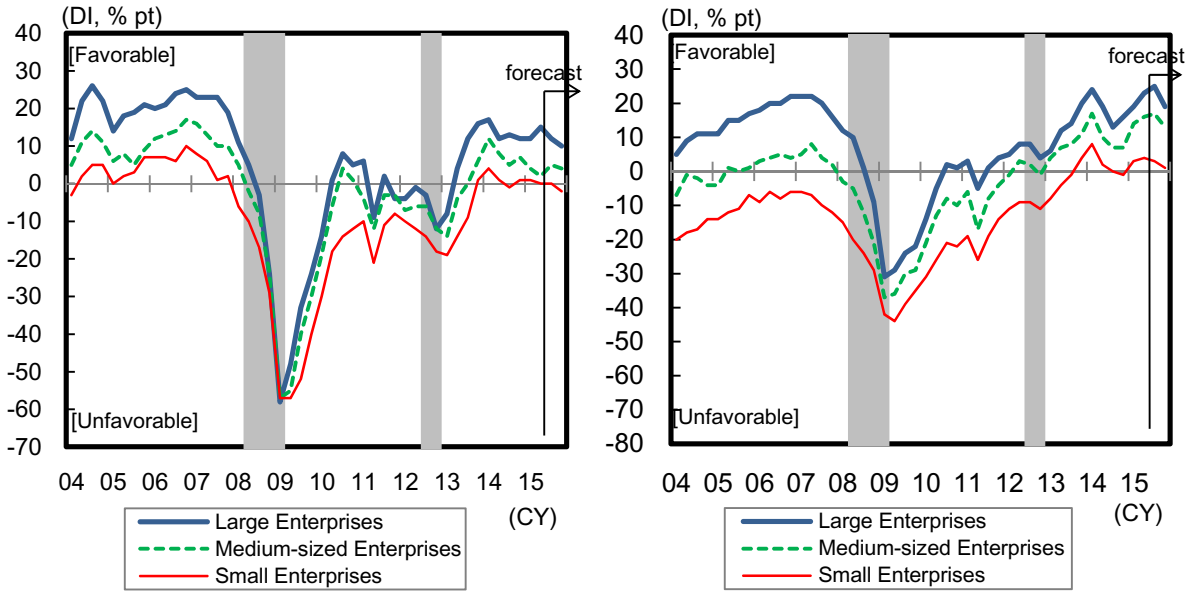
Risk of Japan's economy falling into a downturn grows stronger

The government revised its monthly economic outlook downwards for the first time in one year in its October report (issued Oct. 14). If the 2015 Jul-Sep period GDP growth rate falls into negative numbers, this would represent the second quarter in a row of negative GDP growth. It is therefore possible that Japan's economy may be declared to be officially in recession.

Business sentiment according to the BOJ Tankan worsens amongst major corporations due to fears of worldwide economic slowdown

In the BOJ September Tankan survey of corporate sentiment, the current trend in business sentiment has worsened, especially amongst large corporations in manufacturing. Corporations have clearly become more cautious regarding the future. Fears of worldwide economic slowdown are behind this development, centering especially on China, as well as worries regarding stagnant exports and production, as well as sluggish personal consumption in addition to yen appreciation and falling stock prices. As for business sentiment amongst large non-manufacturers, results were firm due to favorable inbound tourist consumption. However, almost all industries expect business to worsen in the future. Our current assessment of the Japanese economy is that it has entered a temporary lull, and the BOJ September Tankan seems to bear us out, indicating that the domestic economy is indeed reflecting conditions of a temporary lull. On the other hand, corporations centering on the non-manufacturing industries still show a willingness to invest in capex and are forward looking in this sense, with plans for corporate capex investment in FY2015 being revised upwards more than the average year.

Business Conditions DI **Chart 1**



Source: Bank of Japan; compiled by DIR.
Note: 1. Shaded areas denote economic down turns.
2. Due to changes in samples used in the forecast, there is some discontinuity between the December 2014 and March 2015 results.

2. Risk Factors Facing Japan's Economy: Focus on China's Business Cycle

Five risk factors 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) 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 places emphasis on China's business cycle, a question of the greatest concern at this time for those involved in the financial markets, and we provide an in-depth analysis of the situation. We believe that the bottom falling out of China's economy can be avoided for some time. China does not have a truly Capitalist system. Hence the problem can probably be delayed for the next year or two. Moreover, personal consumption in China is determined by real estate prices rather than stock prices, and real estate prices have recently begun to show signs of bottoming out. The other factor here is that the main driver of the world's economy remains the US, so even if China's economy slows down a bit, the negative influence on Japan's economy is fairly limited.

2.1 China's Economy Expected to See Downward Pressure Due to Policy

China's economic background

There seems to be no end in sight for China's economic slowdown. Looking at China's business cycle signal index, we see that the economy began strengthening its downward trend after the beginning of 2014, then entered the zone indicating economic decline (33.33-63.33) in June 2015 when it hit 60.7 on the scale (see Chart 2). The Li Keqiang index is also continuing its overall downward trend.[1] The central bank (The People's Bank) has initiated policies to shore up the economy as in past incidents of economic decline. This includes strengthening monetary easing measures. However, there are no signs of China's economy attaining any degree of levity (Chart 3).

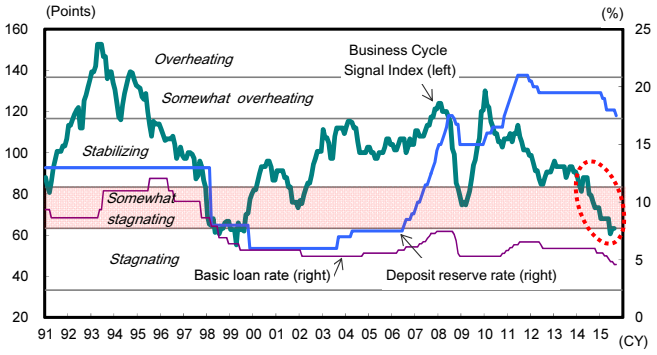
Now let us examine China's economic slowdown by breaking down the two indices mentioned above (see Chart 4-7). First of all, corporate activity is notably weak in both indices. Considering factors which have caused fluctuations in the business cycle signal index since the financial crisis of 2008, one risk that we should be aware of is the possibility that wages may be suppressed due to the weakness of corporate activity. Meanwhile, the charts indicate that during China's economic comeback after the global financial crisis, the financial area (business cycle signal index) and medium to long-term loans (Li Keqiang index) both contributed considerably in the positive direction. This is thought to be due to bold monetary easing measures on the part of The People's Bank and large scale economic stimulus measures initiated by the Chinese government. Based on the above, the most essential key to grasping the future of China's economy is the degree to which policies meant to shore up the economy are set in motion.

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.

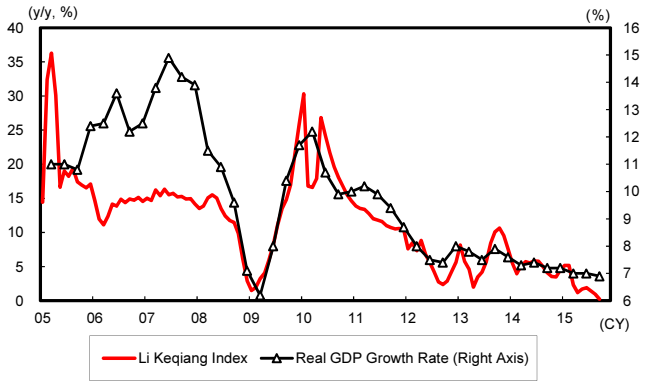
[1] The Li Keqiang index was created by Premier Li Keqiang when he was Party Committee Secretary. It focuses on three indicators – electrical power consumption, railway cargo volume, and medium to long-term bank loans. When using this index to view China's overall economy, it is necessary to take the information with a certain grain of salt. One thing to be aware of is that the index does not include any indicators measuring the corporate sector.

China's Business Cycle Signal Index
Chart 2



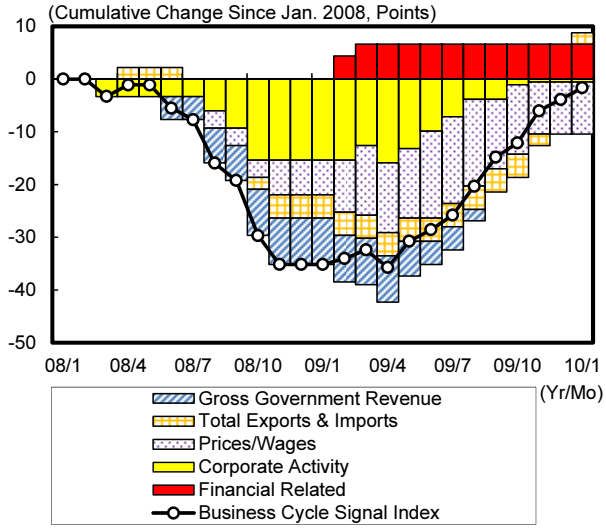
Source: National Bureau of Statistics of China, People's Bank of China, CEIC; compiled by DIR

The Li Keqiang Index and Real GDP Growth Rate
Chart 3



Source: CEIC, Haver Analytics; compiled by DIR

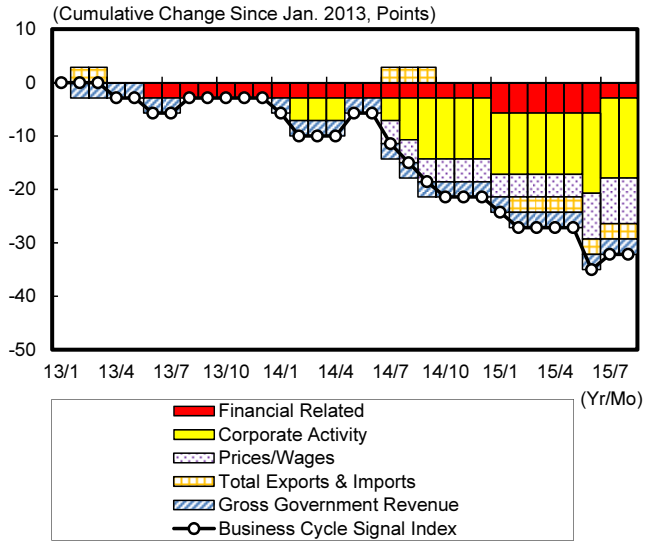
Business Cycle Signal Index Contribution Breakdown after the Global Financial Crisis
Chart 4



Source: China Economic Monitoring and Analysis Center; compiled by DIR

Note: Financial related includes loans by financial institutions and M2. Corporate activity includes industrial production, fixed asset investment, total retail sales, and gross profit of manufacturing industry. Prices & wages includes CPI and disposable income per capita.

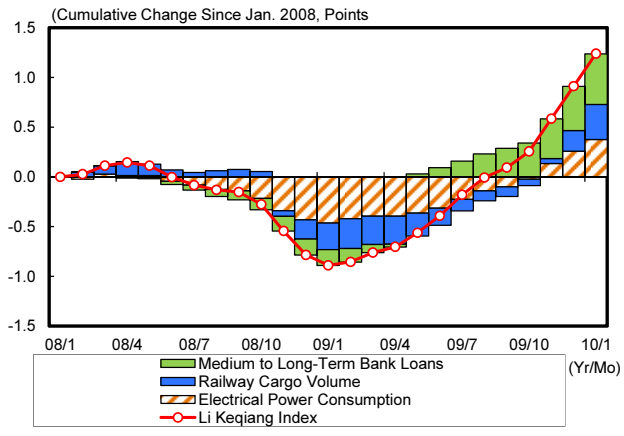
Business Cycle Signal Index Contribution Breakdown During Current Economic Slowdown
Chart 5



Source: China Economic Monitoring and Analysis Center; compiled by DIR

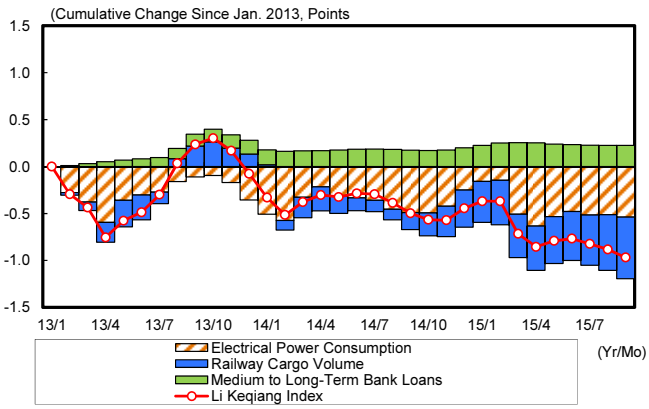
Note: Financial related includes loans by financial institutions and M2. Corporate activity includes industrial production, fixed asset investment, total retail sales, and gross profit of manufacturing industry. Prices & wages includes CPI and disposable income per capita.

Li Keqiang Index Contribution Breakdown after the Global Financial Crisis
Chart 6



Source: CEIC; compiled by DIR

Li Keqiang Index Contribution Breakdown During Current Economic Slowdown
Chart 7



Source: CEIC; compiled by DIR

2.2 How to Interpret Fluctuations in Chinese Stock and Real Estate Prices

Chinese tourist buying sprees vs Japanese exports to China

The Japanese government has set a target of attracting 20 million foreign tourists to Japan by the year 2020, and the number of foreign tourists travelling to Japan annually has indeed been on the increase in recent years. The number of tourists arriving in Japan totaled 4,760,000 in the year 2000 and rose considerably to 13,410,000 in 2014. Between January and August 2015 the number of tourists arriving in Japan reached a cumulative total of 12,880,000, an increase of +49.1% in comparison with the same period of the previous year, bringing the government's 2020 target within range with the possibility of reaching that target ahead of schedule.

The main reason for the rapid increase in the number of foreign tourists is the surge in visitors from China. The number of tourists visiting Japan from China during the first half of the current year has more than doubled the number visiting during the same period of the previous year – up 2.2x to 2,180,000. Chinese tourists account for 24% of the total number of foreign tourists coming to Japan. Moreover, consumer spending per capita greatly exceeds that of tourists from other countries. This vigorous consumption phenomenon has attracted the attention of the media, which has referred to it as a buying spree. On the other hand, the recent plunge in stock prices on the Chinese mainland, coupled with the devaluation of the renminbi, has fanned fears of a decline in Chinese tourists. In light of these developments, we consider the degree of economic influence carried by the buying spree of Chinese tourists by comparing the phenomenon with Japanese exports to China.

Chart 8 shows Japan's export value and tourist expenditure by foreign tourists. During the Apr-Jun period of 2015, tourist expenditure by foreign tourists was 888.7 billion yen, and of this, Chinese tourists accounted for 358.1 billion yen, or 40% of the total. During the same period, Japan's exports to China totaled 3.3 trillion yen, or 9.3 times the amount of tourist expenditure. In other words, if Japan's exports to China were to decline by 10%, it would immediately wipe out whatever gains might have been made from the buying spree. It is quite clear that the influence of exports to China is overwhelmingly more influential on Japan's economy than tourist expenditure by Chinese tourists.

Chart 9 shows a quantitative analysis of the effects of China's economic slowdown on Japan's economy assuming declines occurring in the following areas: (1) Exports to China, (2) Tourists from China, and (3) Sales of Japanese subsidiaries in China.[2] If Japan's exports to China were to decline for a period of six months (a decline of 10%), Japan's nominal GDP would decline by 522 billion yen. On the other hand, if the number of tourists from China were to decline by 30% for a period of a year (tourism actually did decline by 26% in comparison with the previous year in 2011 after the Great East Japan Earthquake), Japan's nominal GDP would decline by 66.3 billion yen. This is fairly minor compared to the kind of influence a decline in exports would have. The above analysis suggests that the influence of exports to China on Japan's economy is much larger than that of Chinese tourists.

[2] Results are influenced by the assumptions, hence should be taken with a certain grain of salt.

Japan's Export Value and Tourist Expenditure of Foreign Tourists Visiting Japan
Chart 8

Japan's Export Value	2015 Apr-Jun Period		2014 Calendar Year	
	World	China	World	China
A	18,796,233	3,341,520	73,093,028	13,381,487
Tourist Expenditure by Tourists Visiting Japan	**2015 Apr-Jun Period**		**2014 Calendar Year**	
	Overall	China	Overall	China
B	888,682	358,125	2,027,788	558,339
A/B (X)	21.2	9.3	36.0	24.0

Source: Ministry of Finance, Japan Tourism Agency; compiled by DIR.
Note: Export value and tourist expenditure expressed in units of one million yen.

Influence of China's Economic Slowdown on Japan's Economy
Chart 9

Exports to China		Chinese Tourists Visiting Japan		Japanese Subsidiaries in China	
Annual Export Value Approx. 13 Tril Yen		Number of Visitors Annually Approx. 1,410,000		Annual Sales Approx. 44 Tril Yen	
→ 6-Month Decline	Domestic Production -1.5 Tril Yen GDP -522 Bil Yen	→ 1 Yr 30% Decline	Domestic Production -130 Bil Yen GDP -66.3 Bil Yen	→ 1 Yr 10% Decrease	Sales -4.4 Tril Yen Recurring Profits -213.7 Bil Yen

Source: Ministry of Finance, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, Japan National Tourist Organization; compiled by DIR.
Note: Influence of exports assumes exports to China decline by 10% for a period of six months starting in July 2015. Japanese subsidiaries in China uses March 2014 term industry total. Includes sales other than local.

Do stock prices determine China's personal consumption, or do home prices?

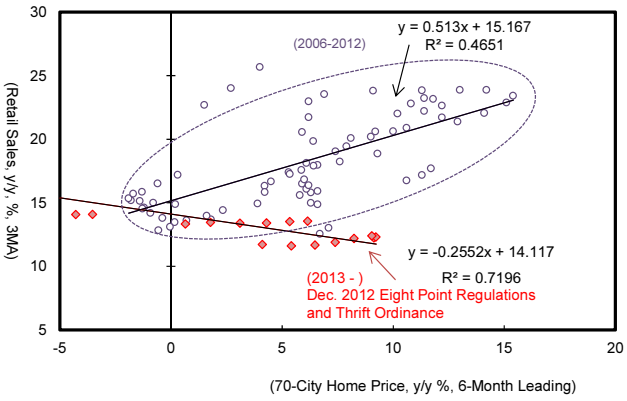
In the first place, just how much do fluctuations in stock prices and real estate prices in China influence the real economy? Generally speaking, when asset prices of stocks and real estate held by households increase, we normally expect the asset or wealth effect to occur in the form of more active personal consumption. However, looking at recent movements on the Shanghai Composite Index, after hitting its high of the year in June 2015, in only a month's time it had plunged by 35%. This has led to the spread of fears that the collapse of China's stock prices will bring on a negative wealth effect and in turn cause personal consumption in China to decline. The memory remains fresh of the major turbulence on the world financial markets that this caused. The ratio of personal consumption as a part of China's nominal GDP was just under 40% in 2014. While this is lower than the US at approximately 70% and Japan at around 60%, it is still the second largest demand category in China's GDP after gross fixed capital formation, and has a major impact on the economy overall. For this reason it is likely that China's economy would slow further if household consumer expenditure were to decline.

So can a significant correlation actually be observed between China's stock prices, real estate prices, and personal consumption? Charts 10 and 11 show the housing price index in 70 major Chinese cities and the Shanghai Composite Index, as well as year-to-year change in retail sales in the form of scatter diagrams. At the end of the year 2012, the Chinese government announced its Eight Point Regulations and Thrift Ordinance. Then, beginning in 2013 personal consumption went into a major downward swing. Hence, our analysis is divided into two different periods: (1) 2006-2012 and (2) 2013 and beyond.

As for home prices, during the 2006-2012 period before the Thrift Ordinance went into effect, there was a positive correlation with retail sales. In other words, when home prices rose or fell, retail sales also grew or declined. In contrast, no clear correlation between stock prices and retail prices can be confirmed. This analysis demonstrates that in China, personal consumption is more than likely regulated by home prices, not by stock prices.

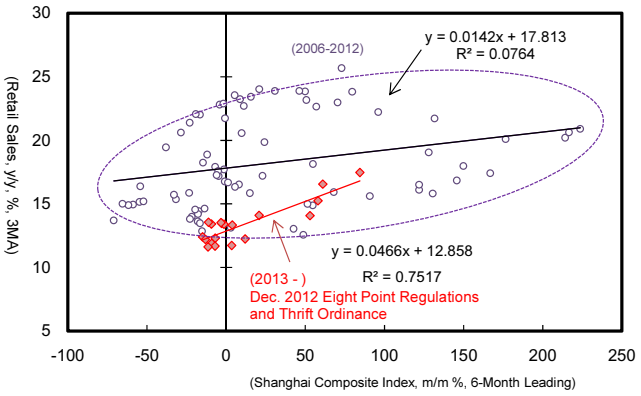
Of course, some attention must also be paid to the question of whether the sudden plunge in Chinese stock prices causes the deterioration of consumer confidence, thereby influencing a negative trend in China's personal consumption. However, if China's stock prices do not drop further and home prices remain strong, the negative influence on the real economy is expected to be limited.

Housing Price Index in 70 Chinese Cities and Retail Sales
Chart 10



Source: Compiled by DIR from various sources.

China's Shanghai Composite Index and Retail Sales
Chart 11



Source: Compiled by DIR from various sources.

China's home prices have begun growing again. However, there is still room for considerable adjustment in the mid to long-term

As we have seen up to now, the collapse of home prices has the effect of pushing down China's personal consumption more than does the sharp decline in stock prices, and should therefore be paid close attention to, as it is a risk factor in depressing the overall economy. In regard to China's representative housing price index, the Sales Prices of Residential Buildings in 70 Medium and Large-Sized Cities Index, this allows us to confirm the rise and fall (in m/m terms) of housing price indices in various cities in China. Here we can see that the number of cities showing declines in the housing price index were on the increase after the beginning of 2014. Then in September of that same year, 69 of the total 70 cities on the index were experiencing declines in home prices (Chart 12). However, the Chinese government, fearing a downturn in the real estate market, decided to loosen lending standards for housing loans in September and October of 2014. Then in November, the government instigated an interest rate reduction for the first time in two years and four months, continuing its stimulation measures aimed at housing demand. As a result, China's housing price index appears to have hit bottom in early spring this year.

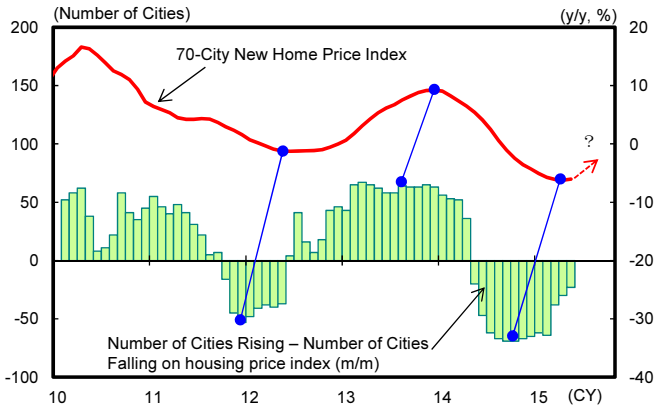
We should also note here that the leading index of the 70-City New Home Price Index (y/y change) is now moving upward. The "number of cities rising – number of cities falling" category under the Respective City Price Index (m/m change) of China's 70-City New Home Price Index tends to lead the 70-City 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, there is a very good possibility that the 70-City New Home Price Index, which hit bottom in early spring, may be heading into a growth trend which should last for some time.

On the other hand, China's home prices still retain the sense of being somewhat on the high side in contrast to the annual income of the average household. Hence there is a risk that housing prices could still experience a major adjustment in the mid to long-term. Chart 13 shows a comparison of the Home Price to Income Ratio in Japan and China. This chart tells us two things: (1) China's Home Price to Income Ratio is higher than Japan's, and at this time is on the high side, and (2) The adjustment in housing prices in China is still insufficient and is continuing on a high level.

To summarize the above, China's personal consumption is regulated by real estate prices rather than stock prices, and there are signs that real estate prices have begun to recover. However, though it seems promising that China's real estate prices may be making a comeback due to the effects of short-

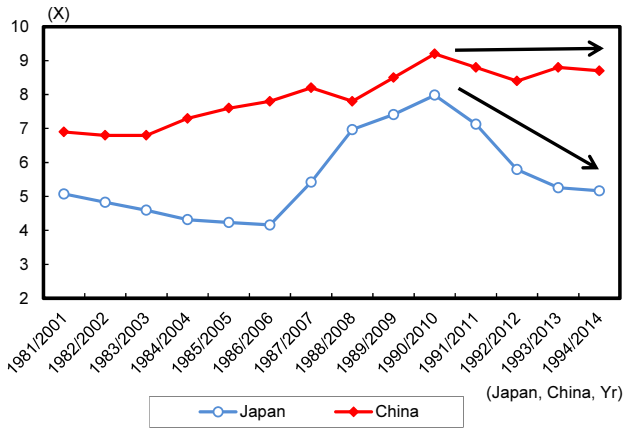
term policy measures, housing prices are still on the high side in the mid to long-term view, and with accumulating inventory, there is still risk of an unavoidable, major adjustment.

China's 70-City New Home Price Index
Chart 12



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.

Home Price to Income Ratio in Japan and China
Chart 13



Source: Ministry of Land, Infrastructure, Transport and Tourism, Shanghai E-House Real Estate Institute; compiled by DIR.
Notes: 1) Home Price to Income Ratio = home price/annual income.
2) Price used for Japan's home price is the price of condominiums in the Tokyo Metropolitan Area. Price used for China is the home price in an urban area.

2.3 How Is China's Slowdown Influencing Japan's Economy?

US still leading world economy

Lastly, we examine the influence that the Chinese economy's slowdown might have on Japan's economy. The question of how one country's economy influences another's is most easily understood through a consideration of trade. If one country's imports increase, this means that another country's exports increase. In other words, the extent to which one country's real economy influences the world economy can be said to be determined by imports.

Another important point is the question of what determines imports. Are imported goods used as is through domestic demand (consumption, investment), or are they in turn exported? On the other hand, said imported goods may be made use of as a factor in production, in other words as intermediate input. Meanwhile, the question of how much demand there will be for said imported goods as a factor in production depends ultimately on how much demand there is for finished products. The simple way to express this relationship is that imports are determined by domestic demand and exports.

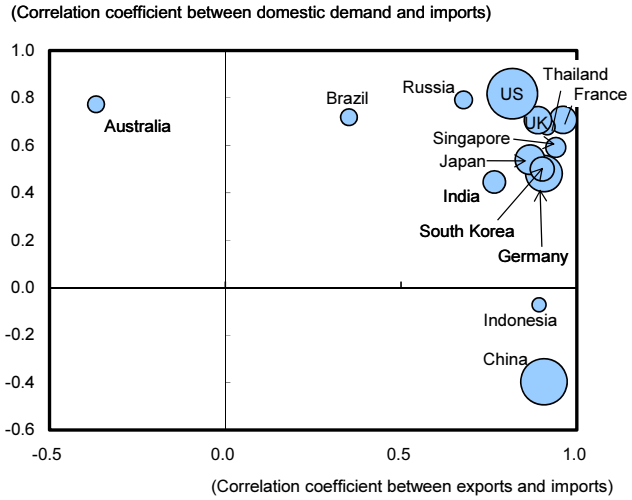
Chart 14 shows the relationship between imports and domestic demand in the world's major industrialized nations, as well as the relationship between imports and exports. The horizontal axis represents the correlation coefficient of exports and imports. The further one progresses to the right on this axis, the stronger the linkage is between exports and imports. The vertical axis represents the correlation coefficient of domestic demand and imports. The higher one moves on the vertical axis the stronger the linkage is between domestic demand and imports. Meanwhile, the size of the circles plotted on the diagram indicates the share of the world's entire imports held by a particular country. Most of the world's major industrialized nations appear in the upper right hand corner of the chart, indicating that there is a considerable degree of linkage between imports and exports, as well as between imports and domestic demand. The one exception here is China, which appears in the lower right hand corner of the chart. What this suggests is that although there is a linkage between imports and exports in China, there seems to be little relation at all between domestic demand and imports.

Fears regarding the worsening economic situation in China are currently on the rise, but even if China's economy worsens a bit more, assuming that the cause of said worsening is a decline in personal consumption and investment (in other words domestic demand) then the extent to which this would influence China's imports – in other words the extent to which it would influence the world economy is thought to be minimal.

The other factor here is that the main driver of the world's economy remains the US, not China. Chart 15 indicates that US retail sales moderately lead world industrial production. In other words, the US occupies the leading role in the world's regions of final demand.

The Relationship Between Domestic Demand, Exports and Imports in the World's Major Industrialized Nations

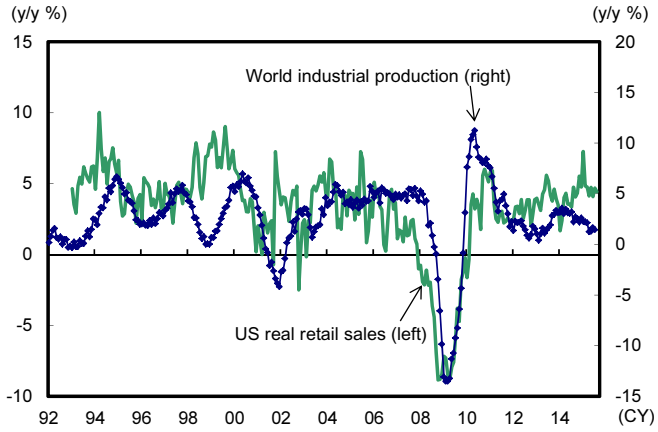
Chart 14



Source: United Nations, IMF; compiled by DIR
Notes: 1) The size of the circles appearing in the diagram indicates share of world imports.
2) Correlation coefficients are from years 2000 to 2013. Figures for share of imports are from the year 2014.

World Industrial Production and US Retail Sales

Chart 15



Source: Dutch Bureau for Economic Policy, BEA; compiled by DIR

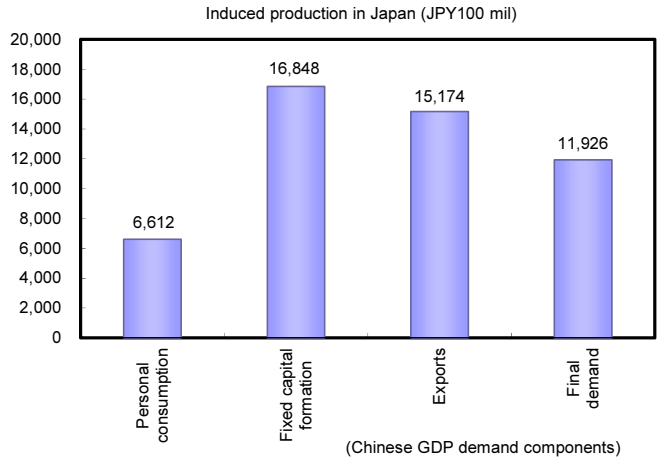
How will China's economic slowdown influence Japan's economy and international trade?

As China's economic slowdown continues, the sense of anticipation increases in regard to the exercise of economic stimulus measures. Here we examine the influence of China's fiscal actions (public spending) and consumption stimulus measures on Japan's domestic production based on METI's Japan-China Input-Output Table.[3] Charts 16 and 17 show the expansion of China's public investment and consumption stimulus measures, and the amount Japan's production would grow if China's fixed capital formation and private sector consumer expenditure were to grow by one trillion yuan. Our main conclusions are as follows: (1) If China's fixed capital formation and private sector consumer expenditure were to grow by one trillion yuan, Japan's domestic production would grow by 661.2 billion yen in reaction to the former, and 1 trillion, 684.8 billion yen in response to the latter, (2) If China's fixed capital formation were to grow, this would lead primarily to growth in production of general machinery, iron & steel, non-ferrous metals, fabricated metals, and chemicals, and (3) Most of Japan's industries are located in the lower right of the above mentioned chart rather than at the 45 degree line. Hence China's increased public investment should be more influential than consumption stimulus measures.

[3] The latest Japan-China Input-Output Table covers data as of the year 2007. Hence a certain grain of salt should be taken regarding to results of this analysis.

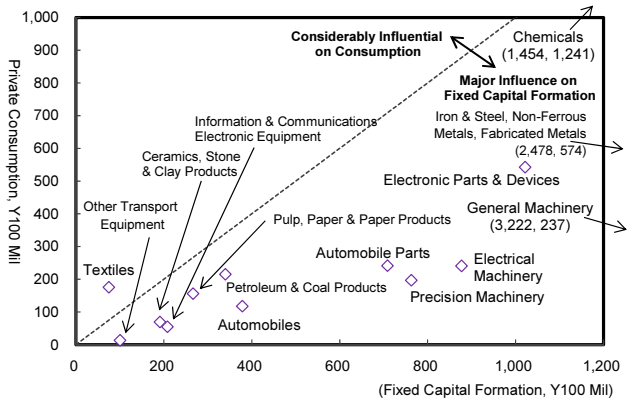
But before this we should pay attention to the fact that China's dependence on Japan's exports of final goods is on the rise, and the influence of China's private consumption may be increasing in turn. Charts 18 and 19 show changes in the export ratio of Japan's intermediate goods and final goods to the US and China. It is already well-known that exports of intermediate goods to China, the world's factory, are becoming more important. However, in viewing these charts we should be aware that the ratio of exports of final goods to China is also growing.

Influence on Japan's Production if Each of China's Demand Categories were to Grow by 1 Trillion Yuan Chart 16



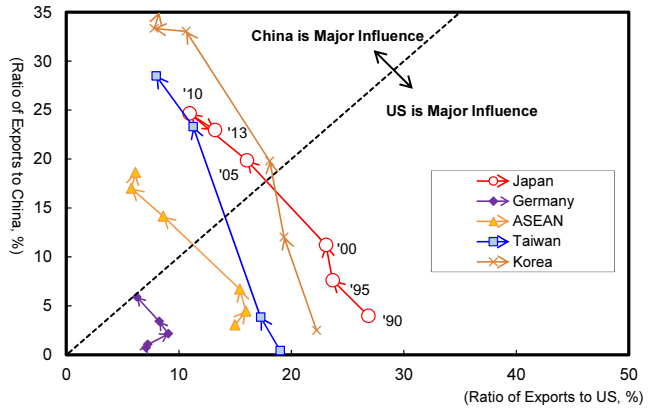
Source: Ministry of Economy, Trade and Industry (2007 Japan-China Input-Output Table) covering 30 industrial sectors; compiled by DIR.
Note: 1 renminbi = 20 yen.

Influence on Japan's Production by Industry if Each of China's Demand Categories were to Grow by 1 Trillion Yuan Chart 17



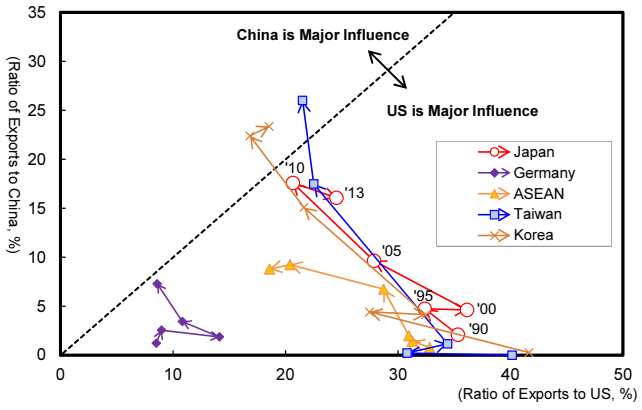
Source: Ministry of Economy, Trade and Industry (2007 Japan-China Input-Output Table) covering 30 industrial sectors; compiled by DIR.
Note: 1 renminbi = 20 yen.

Change in Ratio of Export Value of Intermediate Goods from Various Countries to US and China Chart 18



Source: RIETI-TID; compiled by DIR.

Change in Ratio of Export Value of Final Goods from Various Countries to US and China Chart 19



Source: RIETI-TID; compiled by DIR.

Economic Indicators and Interest Rates — Chart 20

Indicator	2014	2015				2016	FY13	FY14	FY15	FY16
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar				
	Actual			DIR estimates			Actual		DIR estimates	
Real GDP										
Q/q %, annualized	1.3	4.5	-1.2	0.4	1.2	1.7				
Y/y %	-1.0	-0.8	0.8	1.3	1.3	0.5	2.1	-0.9	1.0	1.7
Current account balance SAAR (Y tril)	10.7	15.5	16.8	17.1	17.4	17.9	1.5	7.8	17.3	18.1
Unemployment rate (%)	3.5	3.5	3.3	3.3	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	-0.2	-0.1	0.4	0.8	2.8	0.0	0.8
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.186 Update*.