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Japan's Economy: Monthly Review

Signs of Economic Recovery Strengthen

Downward trend in China's economy requires continued caution

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Summary

- **Signs of economic recovery strengthen:** Japan's economy shows stronger signs of recovery. The government's monthly economic report issued on January 17 used the expression "recovering at a moderate pace" for the first time in eight years. We also see continued expansion for the Japanese economy for the following reasons: (1) increases in exports based on the US economic recovery, (2) ongoing depreciation of the yen and the rise in stock prices supported by the BOJ's monetary easing, and (3) economic stimulus measures to offset the effects of the consumption tax hike. The growth rate of real GDP will be +2.5% y/y for FY 2013 and +1.0% for FY 2014. (For further detail see "Japan's Economic Outlook No. 179 (Updated), by Mitsumaru Kumagai et al, 10 Dec 2013).
- **Four risks facing Japan's economy:** Risks that will need to be kept in mind regarding the Japanese economy are: (1) turbulence in emerging economies, (2) China's shadow banking problem, (3) a reigniting of the European sovereign debt crisis, and (4) a surge in crude oil prices stemming from geopolitical risk. It is worth noting that the first is closely related to the second and third. In the past, advanced economies led by the US drove emerging economies. However, a decoupling is currently occurring—advanced economies are performing well but emerging economies are stagnating. We believe that this decoupling is occurring for three reasons: (1) the dwindling amount of loans from European financial institutions to emerging economies in light of the European debt crisis, (2) the sluggishness of the Chinese economy, and (3) concerns that money will be taken out of emerging economies based on worries that the Fed will adopt a hasty exit from quantitative easing. We anticipate that a further deterioration of emerging economies will be avoided as the US economy continues to expand. Nevertheless, we think the state and the future direction of the Chinese economy will continue to require close monitoring.

1. Main Scenario for Japan's Economy

Abenomics represents an appropriate set of economic policies in accord with global standards

After hitting bottom in November 2012, Japan's economy has entered a recovery phase. We believe it will continue to expand steadily. Economic policies of the Abe administration (so-called "Abenomics") represent an appropriate set of policies with the potential of jump-starting the revival of the Japanese economy, and monetary policies in particular are yielding marked results. We anticipate that the economy will continue to expand, supported by (1) increases in exports based on the recovery of the US economy, (2) the ongoing depreciation of the yen and the ascent of stock prices

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accompanying the BOJ's monetary easing, and (3) the effect of economic stimulus measures accompanying the increase of the consumption tax.

Corporate sector rebounds

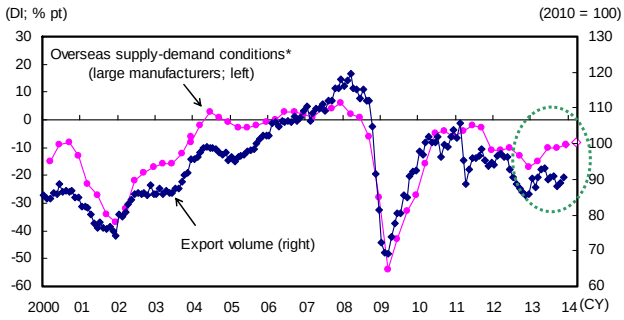
Supported in part by Abenomics, Japan's economy is on a path toward recovery. An examination of the current economic environment reveals that major economic indicators of the corporate sector have clearly turned upward.

First, as indicated in Chart 1, the diffusion index for overseas supply and demand conditions for products (large manufacturers) in the BOJ Tankan survey of corporate sentiment, which displays a close relationship with Japan's export volume index, is improving.

Second, Japan's economy has rebounded sharply in terms of the inventory cycle. As shown in Chart 2, where the y/y change in shipments is plotted along the vertical axis and inventories along the horizontal axis, the y/y change in shipments has turned positive.

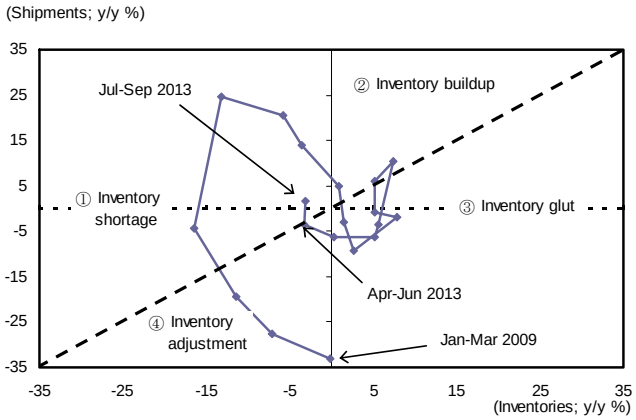
In view of such data, it is reasonable to conclude that the environment for Japan's corporate sector is steadily improving.

Overseas Supply and Demand Conditions vs. Export Volume **Chart 1**



Source: Bank of Japan, Cabinet Office; compiled by DIR.
*BOJ Tankan survey of corporate sentiment; "excess demand" minus "excess supply"; latest quarter=forecast.

Inventory-shipment Cycle **Chart 2**



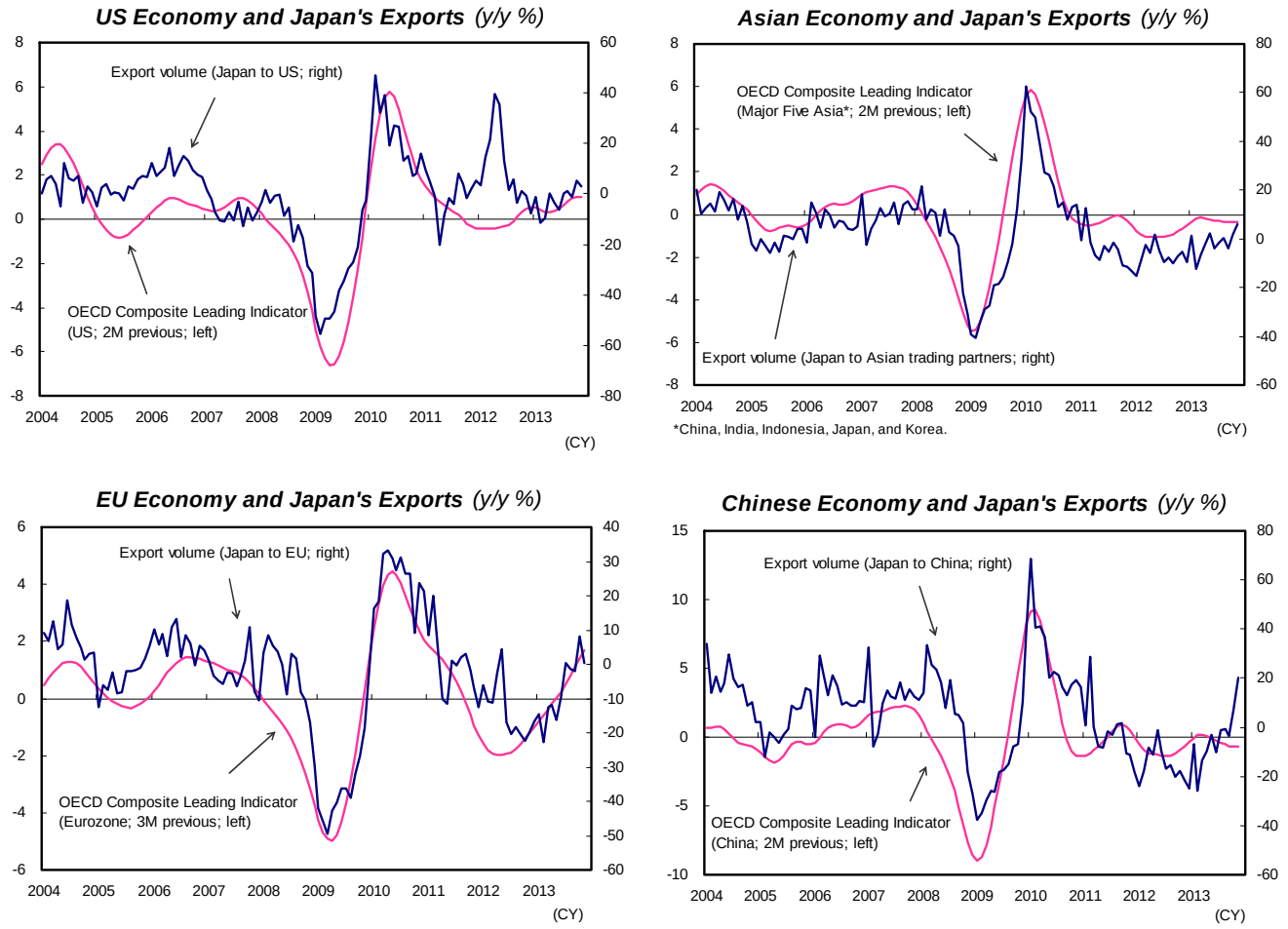
Source: Ministry of Economy, Trade, and Industry; compiled by DIR.

Foreign economies to recover centering on the US

The greatest factor that will support Japan's economy going forward is the prospect that foreign economies will recover centering on the US. Chart 3 portrays the trend of Japanese exports by trading partner. OECD Composite Leading Indicators (CLIs) for respective partners tend to lead the volume of Japanese exports to the corresponding region by two to three months. OECD CLIs of the US and Europe are currently bottoming out, a positive development for Japan.

Regarding the direction of the world economy, which forms the premise of our current forecast, we assume that (1) the US economy will steadily recover and drive the growth of the world economy, (2) Eurozone economies will stagnate from the sovereign debt crisis while having put the worst behind, and (3) China's economy will avoid a bottom deepening, supported for the time being by the effects of fiscal and monetary measures.

Japan's Exports by Trading Partner — Chart 3



Source: OECD, Ministry of Finance; compiled by DIR.

Personal consumption, while slowing, will trend firmly overall

Next, we turn to the personal sector. Real personal consumption (GDP basis) grew 0.2% q/q in Jul-Sep 2013, marking a fourth consecutive quarterly gain.

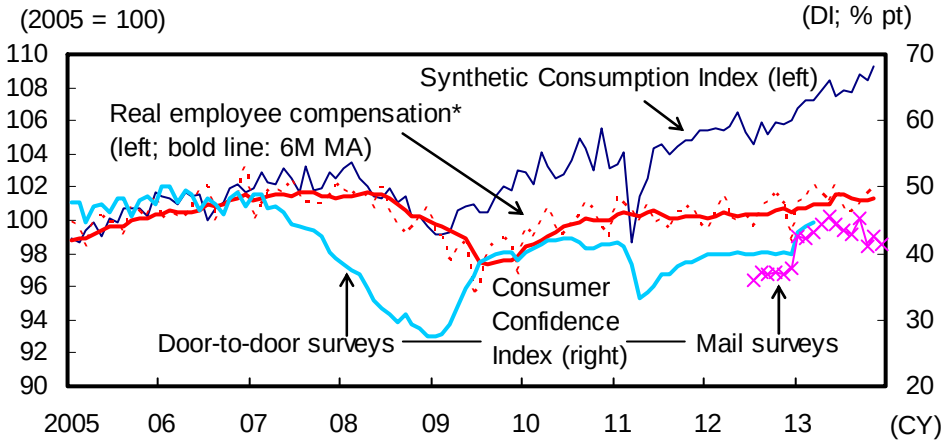
Examining consumption expenditures more closely, while expenditures on durable goods and semi-durable goods increased, those on non-durable goods and services fell. As a whole, personal consumption grew gently. Meanwhile, consumer confidence has weakened after boosting the personal consumption to date, but personal consumption maintained positive growth. Thus, it is reasonable to say that personal consumption was firm for the most part.

Currently, automobile sales are trending firmly and are supporting personal consumption. Since automobiles have long service lives and high unit prices, related sales are likely to accelerate toward end-FY13 in advance of the consumption tax hike. With the ascent of stock market in abeyance, it appears that personal spending on financial services has declined.

Higher income will support consumption going forward

Real employee compensation (GDP basis) fell 0.6% q/q in Jul-Sep 2013, declining for the first time in three quarters. While the increase in number of employees made a positive contribution, the decrease in per-employee wages made a negative contribution. The number of employees is predicted to continue rising as the economy recovers. Also, with the tightening of the supply-demand balance for labor, per-employee wages are anticipated to turn gradually upward. Thus, it is reasonable to think that personal consumption will be supported by the improvement of the income environment. Moreover, the probability is high that personal consumption will gain momentum toward end-FY13 and greatly boost the economic growth rate as demand escalates in advance of the consumption tax hike to occur in April 2014.

Personal Consumption Recovering **Chart 4**



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
*No. of employees (excl. agriculture, forestry) x total cash earnings / personal consumption deflator; personal consumption deflator estimated based on CPI (excl. imputed rents).

Accurate appraisal of the impact of higher consumption tax is essential

In ascertaining the future direction of Japan's economy, an accurate appraisal of the impact of a higher consumption tax will be extremely important. We have factored in the consumption tax hike to 8% in April 2014 and to 10% in October 2015 as scheduled.

Impact on consumption

Higher consumption tax rate will impact personal consumption in two ways: (1) a surge in demand followed by a reactionary plunge and (2) a decrease in real income. While there is no way to avoid the worsening of personal consumption due to the decline in real income, the likelihood is high that the adoption of measures alleviating impacts of the consumption tax hike will restrain the demand surge and the subsequent plunge accompanying the consumption tax hike to some extent.

In relation to automobiles, (1) a new round of eco-car subsidies starting in April 2014 with higher refunds and the reduction of the automobile acquisition tax are being considered, and (2) a considerable portion of potential demand has already been satisfied through automobile purchases in the previous round of eco-car subsidies. Hence, the demand surge in advance of the consumption tax hike should be small compared to the past occasion.

Impact on housing investment

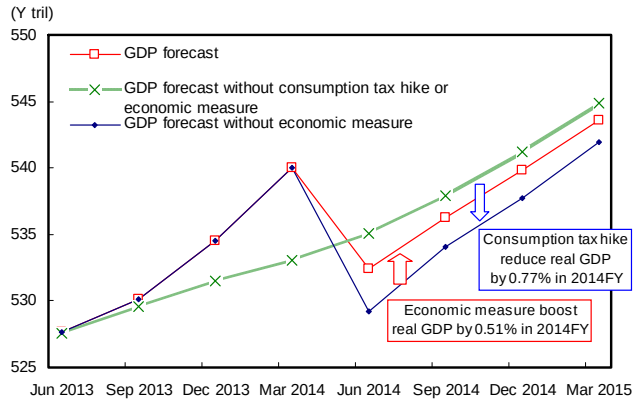
When the consumption tax rate was raised in April 1997, housing investment saw an excessive acceleration of demand and a sharp downward reaction. To curtail such sharp fluctuations, measures are expected to be taken to mitigate similar fluctuations in relation to the tax hike scheduled in April 2014, such as increasing tax deductions for home loans and creating new subsidies for home purchases. Such mitigation efforts should help to greatly reduce the demand surge compared to the tax hike in 1997. These mitigation measures, however, will not affect the construction of housing for rent, and some demand acceleration is thought to be occurring.

Higher consumption tax will push Fiscal 2014 GDP down by 0.77%. However, economic policy is expected to mitigate its effects

The ripple effect from increased consumption tax as discussed above is expected to push Fiscal 2014 GDP down by 0.77%. However, we believe that the "Economic Measures for Realization of Virtuous Cycles" endorsed by the Abe cabinet in December of 2013 will have the effect of pushing GDP up by 0.51%, while the effects of the higher consumption tax will be mitigated somewhat by this same policy. As a result, Fiscal 2014 GDP should contract by only 0.26%.

Impact of Consumption Tax Hike on the Economy **Chart 5**

GDP level: Consumption tax hiked vs. not hiked



Source: Compiled by DIR.
*Simulation results based on DIR short-term macroeconomic model, which does not necessarily conform to standard figures in *Japan's Economic Outlook* No. 179.

Change in level and growth due to consumption tax hike

	Change in level (%)			
	FY13	FY14	FY15	FY16
Real GDP	0.51	-0.77	-0.76	-0.98
Real personal consumption	0.54	-1.41	-1.28	-1.38
Real housing investment	5.03	1.77	-5.88	-9.12
	Change in growth rate (% pt)			
	FY13	FY14	FY15	FY16
Real GDP	0.55	-1.29	0.01	-0.22
Real personal consumption	0.55	-1.95	0.13	-0.10
Real housing investment	5.25	-3.19	-7.54	-3.47

Source: Compiled by DIR.
*DIR estimates based on DIR short-term macroeconomic model.

2. Four risk factors facing Japan's economy

Four risk factors facing Japan's economy

In this section, we examine four risks facing Japan's economy. Risks that will need to be kept in mind regarding the Japanese economy are: (1) turbulence in emerging economies, (2) China's shadow banking problem, (3) a recognition of the European sovereign debt crisis, and (4) a surge in crude oil prices stemming from geopolitical risk. It is worth noting that the first is closely related to the second and third. Of these four risks, it is worth underscoring that the first and the second are of crucial importance, and we will analyze them more closely in the paragraphs below.

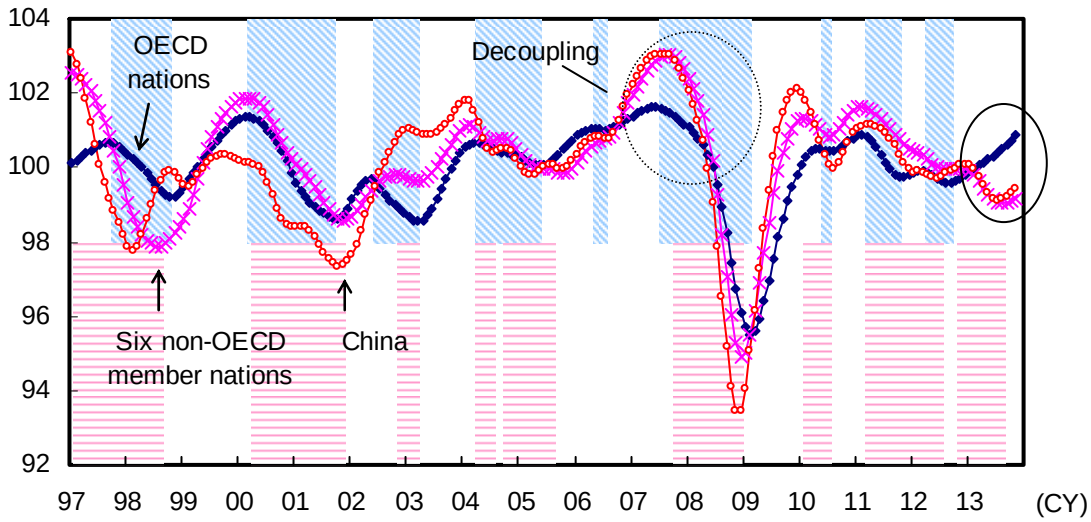
2.1 Risk 1: Turbulence in emerging economies

First, to examine turbulence in emerging economies, we analyze the world economic cycle. In the past, advanced economies led by the US drove emerging economies. However, a decoupling is currently occurring—advanced economies are performing well but emerging economies are stagnating. We believe that this decoupling is occurring for three reasons: (1) the dwindling amount of loans from European financial institutions to emerging economies in light of the European debt crisis, (2) the sluggishness of the Chinese economy, and (3) concerns that money will be taken out of emerging economies based on worries that the Fed will adopt a hasty exit from quantitative easing. We anticipate that a further deterioration of emerging economies will be avoided as the US economy continues to expand. Nevertheless, we think the state and the future direction of the Chinese economy will continue to require close monitoring.

Current situation of the world economy: Is a new decoupling occurring?

Chart 6 illustrates the trend of the composite leading indicator (CLI) for OECD member nations and for six non-OECD nations (Brazil, China, India, Indonesia, Russia, and South Africa). The former represents the business cycle of advanced economies and the latter of emerging economies.

Composite Leading Indicator (CLI): OECD vs. Non-OECD Member Economies **Chart 6**



Source: OECD; compiled by DIR.
Notes: 1) Non-OECD member economies: Brazil, China, India, Indonesia, Russia, and South Africa.
2) Blue shaded areas in upper half of graph denote periods when CLI declined m/m for OECD nations; pink shaded areas in lower half denote periods when CLI declined m/m for six non-OECD economies.

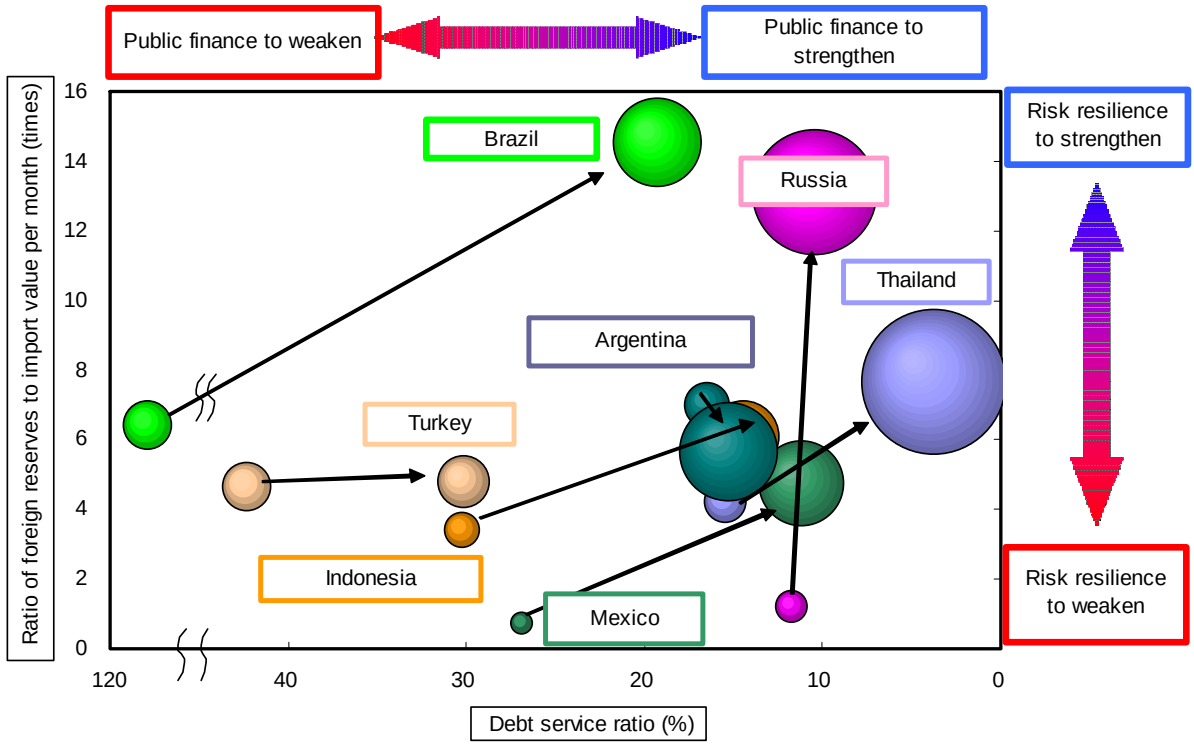
The chart tells us that the business cycles of advanced economies and emerging economies have more or less been in sync. The upper portions of shaded areas are periods when the CLI of OECD member nations declined m/m, and the lower portions are periods when the CLI of non-OECD nations declined. The chart reveals that there are hardly any periods when only advanced economies or emerging economies deteriorated. However, if we look at the current situation, the CLI of advanced economies has turned upward, but emerging economies' CLI has continued to decline since the start of 2011. In the mid-2000s, a decoupling theory came to prominence in the midst of a boom in emerging economies. It argued that emerging economies would continue to expand even if advanced economies stagnate. Currently, a decoupling in the opposite direction of that of the 2000s is occurring, where advanced economies expand as emerging economies contract.

In this context, we should not overlook the clear deceleration of the Chinese economy. After peaking in 2009, China's CLI has continued to slow. Since China's economy is quite large compared to other emerging economies, it is reasonable to think that the slowing of Chinese economy is responsible for a considerable portion of the slowing of emerging economies as measured by CLI.

Possibility of a serious crisis in emerging economies is limited

We believe there is a limited possibility that emerging economies will experience a serious crisis similar to the Asian currency crisis in 1997. Chart 7 depicts changes in risk resilience of emerging market nations from the year each nation experienced a financial crisis. Learning from past financial crises, these nations have amassed huge foreign currency reserves. Not only has the absolute size of such reserves increased, but the size of foreign currency reserves relative to good and service imports (vertical axis) and that relative to short-term foreign debt (the sizes of circles) have also improved for most nations. Moreover, the debt service ratio, defined as debt service payments for external debt as a percentage share of good and service exports, a leading indicator used to determine country risk, has fallen for the most part (conditions have improved) since the financial crisis.

Risk Resilience of Emerging Market Economies **Chart 7**



Source: Haver Analytics; compiled by DIR.
Notes: 1) Arrows denote shift of positions at critical moments to 2012.
2) Year of crises defined as 1994 for Mexico, 1997 for Thailand and Indonesia, 1998 for Russia, 1999 for Brazil, 2001 for Turkey, and 2002 for Argentina.
3) Size of circles shows ratio of foreign reserves to foreign debt with less than one-year maturity. The larger the circle, the greater the resilience.

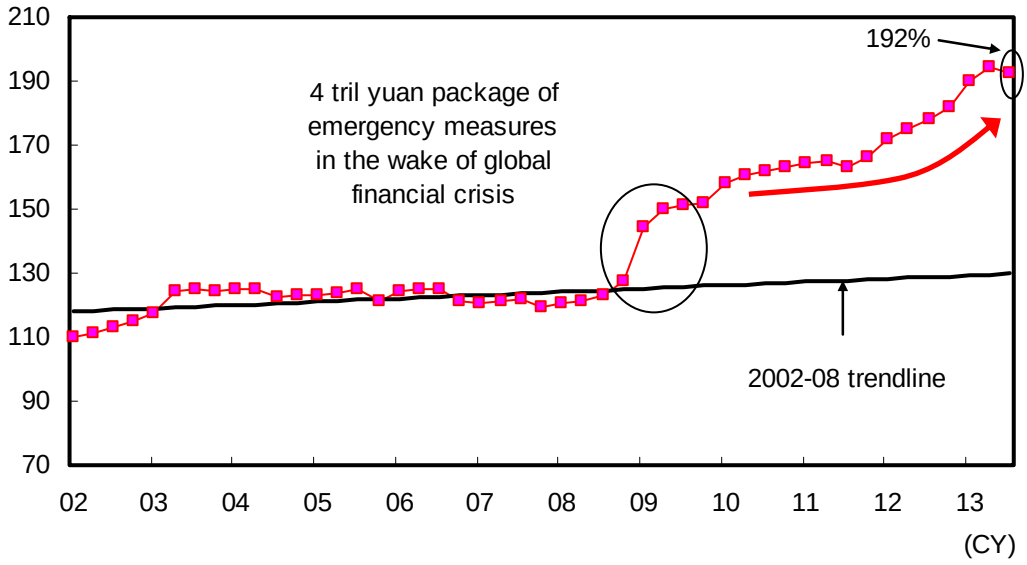
2.2 Risk 2: China's shadow banking problem

2.2.1 China's shadow banking problem extremely serious

Excessive lending has become a problem in China in the wake of its response to the global financial crisis in 2008. Chart 8 provides an estimate of total social financing in China as a proportion of

China's GDP. Such financing jumped from its long-term trend in 2009 and has continued to expand, reaching 192% of nominal GDP at end-September 2013. Comparing current levels to the long-term trend, we estimate excessive lending in China to be around Y580 trillion. Should part of these assets become non-performing, this could cause major turbulence in China and global financial markets. Risk scenarios that should be kept in mind include (1) China drawing down its foreign currency reserves (around $3.5 tril) 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 8**



Source: People's Bank of China, National Bureau of Statistics of China; compiled by DIR.
Assumption: Outstanding balance of total social financing as of end-Mar 2002 to be 1.1 times bank lending.

2.2.2 Impact on the world economy of the collapse of China's debt bubble should not be overstated

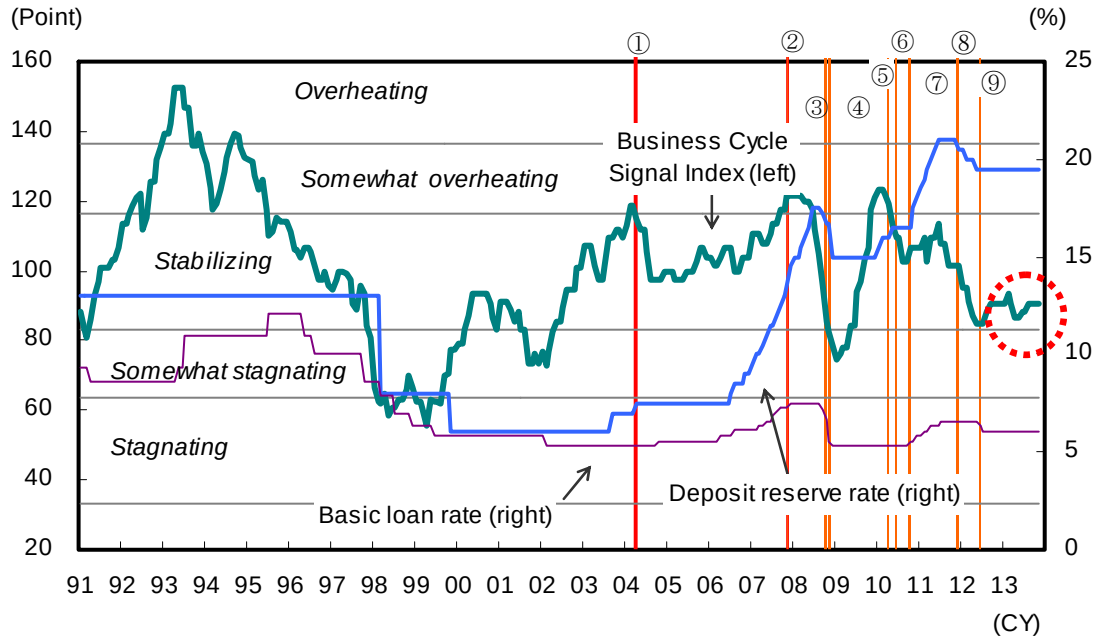
How will the world economy be affected by the collapse of China's debt bubble?

We believe that the impact on the world economy of the collapse of China's debt bubble should not be excessively overstated. Chart 9 presents the Business Cycle Signal Index for China. According to this index, we can confirm that China's economy has slowed significantly. After peaking at 123.3 in February 2010, the index has fallen to the lower bound of the zone signaling stability, between 83.33 and 116.66. Similar to previous instances when the economy has slowed to this extent, the likelihood is high that authorities will respond with some form of a stimulus measure and that the collapse of China's economy will be avoided one way or another.

Key phrases are "socialist market economy," "collective leadership," and "gradualism"

China being a socialist market economy rather than a pure capitalist economy may also be a factor supporting the economy for the time being. During the change in political leadership that occurs once a decade, it is natural for leaders to want to circumvent a rapid deceleration of the economy as much as possible. Politically speaking, collective leadership and a policy of gradualism could also be factors that preclude a short-term relapse of the Chinese economy. In fact, there are growing views that the lower limit for the growth rate of real GDP in China is currently around 7% based on comments such as those recently made by Premier Li Keqiang.

China: Business Cycle Signal Index **Chart 9**



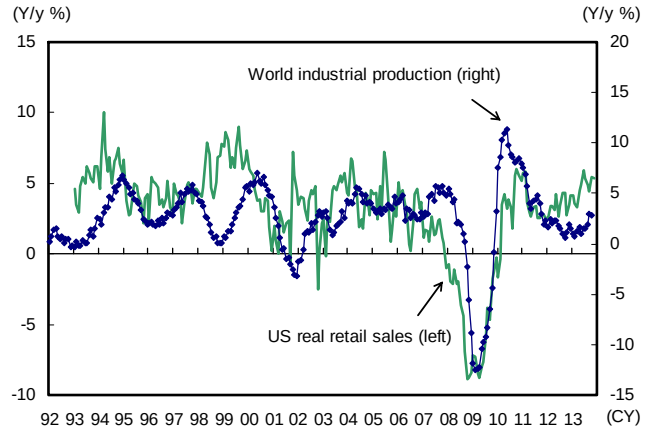
Source: National Bureau of Statistics of China, People's Bank of China, CEIC Data; compiled by DIR.

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

No change to the importance of the US for the world economy

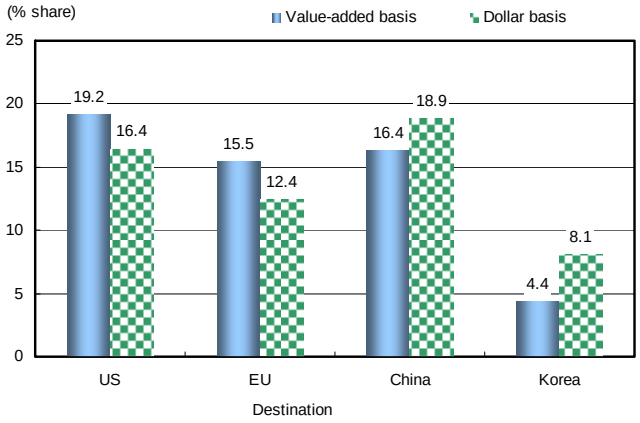
We believe that the US will remain the main engine of the world economy, a point that is worth mentioning. As indicated in Chart 10, US retail sales slightly lead global industrial production. In other words, of the sources for final demand, the US still plays the largest role. Chart 11 compares the shares of exports from Japan by trading partner on a value-added basis and on a dollar basis. Comparing the US and China, the share of exports shipped to China is larger on a dollar basis than that to the US, but exports to the US is larger on a value-added basis. This is extremely interesting since it suggests that there exists a trade structure where intermediate goods are exported from Japan to China and other Asian trading partners, assembled into finished goods and re-exported to European nations and the US, the sources of final demand.

World Industrial Production and US Retail Sales
Chart 10



Source: Netherlands Bureau for Economic Policy Analysis, US Bureau of Economic Analysis; compiled by DIR.

Export of Goods from Japan by Destination
Chart 11



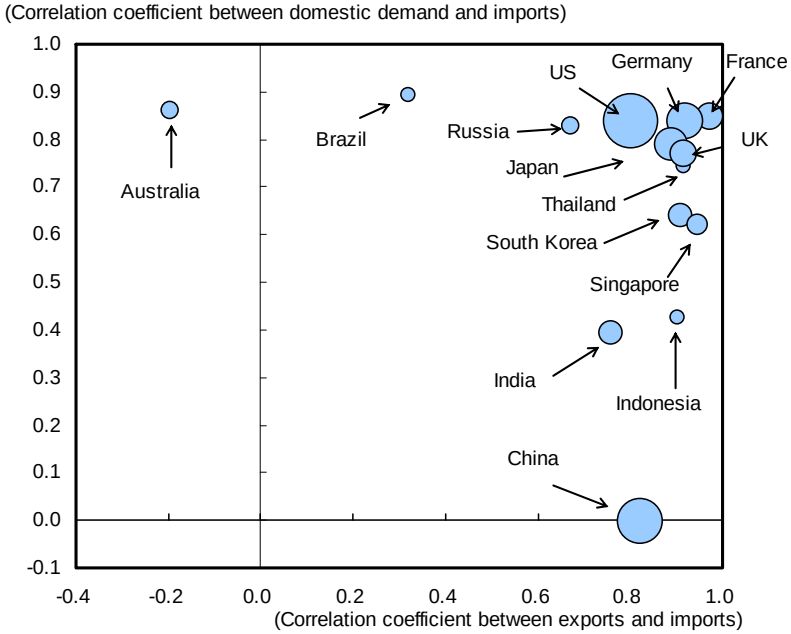
Source: OECD, Haver Analytics; compiled by DIR.
Note: Export of goods in 2009.

Slowing of China's economy will have only a limited impact on the world economy

Of the routes through which the economy of one nation influences that of another, the route through trade is the easiest to understand. If one nation's imports increase, this means that there is an equal amount of increase in the exports of others. In other words, imports determine the degree to which the real economy of a nation influences the world economy. What then determines imports? Imports can go towards satisfying domestic demand (consumption and investment), can be re-exported, or can become intermediate goods as a factor of production. The demand for intermediate goods will in the end depend on the demand for the final goods that are produced. Thus, imports are determined by domestic demand and exports.

Given the argument above, Chart 12 illustrates the relationship between imports and domestic demand and that between imports and exports for major nations. The horizontal axis shows the correlation coefficient between exports and imports, with the right-hand side indicating a higher correlation between exports and imports. The vertical axis shows the correlation coefficient between domestic demand and imports, with the upper-hand-side indicating a higher correlation between domestic demand and imports. The sizes of the circles indicate the percentage share of a nation's imports against imports as a whole. The chart reveals that a majority of major nations are positioned to the upper right, confirming that imports are correlated to a certain degree with both exports and domestic demand. China, however, is different. It is in the lower right-hand, suggesting that while its imports and exports are correlated, the correlation between domestic demand and imports is minimal. Recently, the problem of shadow banking in China has raised concerns that its economy will falter. If the Chinese economy rapidly deteriorate, as long as the deterioration comes from the contraction of domestic demand such as personal consumption and investments, the impact on Chinese imports and in turn the world economy should be minimal.

Domestic Demand vs. Exports and Imports — Chart 12



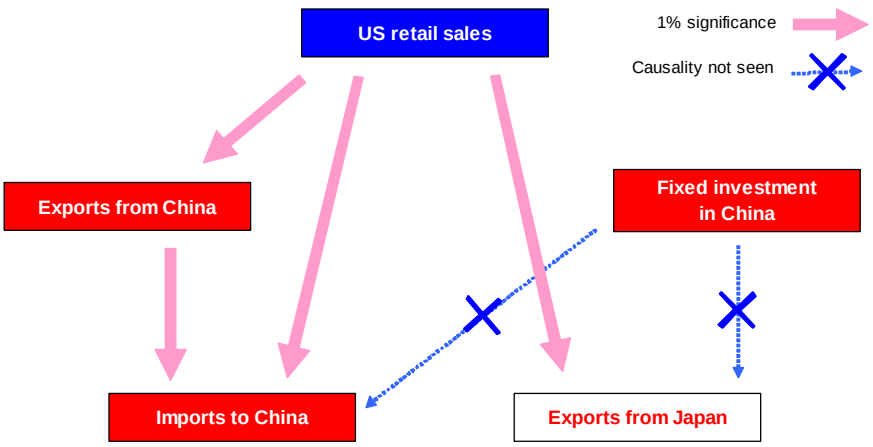
Source: UN, IMF; compiled by DIR.
Notes: 1) Size of circles denotes world import share.
2) Correlation coefficients and import shares are for 2000-11 and 2012, respectively.

US retail sales found to have causality in relation to Chinese exports, Chinese imports, and Japanese exports

To supplement the discussion above, Chart 13 illustrates a Granger causality test using a five-variable vector autoregression model with the variables being (1) US retail sales, (2) Chinese exports, (3) Chinese imports, (4) Chinese fixed investments, and (5) Japanese exports. Granger causality is set to be established when variable X is viewed as Granger-causing Y while past information about variable X is useful in improving the prediction of variable Y.

As indicated in Chart 13, when the global economy is viewed in broad terms, US retail sales are found to have causality in relation to Chinese exports, Chinese imports, and Japanese exports. In contrast, Chinese fixed investments were not found to have any significant causality in relation to Chinese imports or Japanese exports in statistical terms.

Granger Causality Test on Economic Activity in the US, China, and Japan — Chart 13



Source: Haver Analytics, Ministry of Finance; compiled by DIR.
Estimation period: Jul 2001 to May 2013.

Outlook for Japanese Economy, Interest Rates — Chart 14

Indicator	2012	2013				2014	FY11	FY12	FY13	FY14
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar				
	Actual				DIR estimates		Actual		DIR estimates	
Real GDP										
Q/q %, annualized	0.6	4.5	3.6	1.1	3.6	4.2				
Y/y %	-0.3	0.1	1.2	2.4	3.1	3.0	0.3	0.7	2.5	1.0
Current account balance SAAR (Y tril)	4.3	3.1	8.9	2.2	2.6	3.1	7.6	4.4	4.2	8.0
Unemployment rate (%)	4.2	4.2	4.0	4.0	4.0	3.9	4.5	4.3	4.0	3.8
CPI (excl. fresh foods; 2010 prices; y/y %)	-0.1	-0.3	0.0	0.7	0.8	0.9	-0.0	-0.2	0.6	2.9
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; %)	0.76	0.66	0.77	0.73	0.70	0.75	1.05	0.76	0.74	0.85

Source: Compiled by DIR based on various statistics.
Note: Estimates taken from DIR's *Japan's Economic Outlook No. 179 Update*.