

19 December 2014 (No. of pages: 17)

Japanese report: 19 Dec 2014

# Japan's Economy: Monthly Review

Japan's economy expected to move toward recovery, but care should be taken regarding four risk factors

Economic Intelligence Team  
**Mitsumaru Kumagai**  
**Satoshi Osanai**  
**Masahiko Hashimoto**  
**Shotaro Kugo**  
**Hiroyuki Nagai**

## Summary

- **Economic outlook revised:** In light of the 2<sup>nd</sup> preliminary Jul-Sep GDP release, we have revised our economic growth outlook. We now forecast real GDP growth of -0.5% in comparison with the previous year for FY14 (-0.5% in the previous forecast) and +1.8% in comparison with the previous year for FY15 (+1.8% in the previous forecast). (For further detail see "Japan's Economic Outlook No. 183 Update (Summary)" by Mitsumaru Kumagai, Dec. 12, 2014). Prime Minister Shinzo Abe's announcement of the postponement of the additional consumption tax hike is expected to push the FY2015 GDP growth rate up an additional +0.53%pt. However, for the time being extreme care will have to be taken regarding risks associated with the postponement of the consumption tax hike. We call these the *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market.
- **Main economic scenario for Japan:** Japan's economy is now seen as having entered a period of decline since having peaked in January 2014. However, there is a good possibility that this will have been short-term. We expect Japan's economy to gradually recover due to the following factors: (1) Continuation of the virtuous circle brought on by Abenomics, and (2) The gradual firming up of exports centering on the US.
- **Four risk factors facing Japan's economy:** Risk factors for the Japanese economy are: (1) The *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market stemming from the postponement of the additional consumption tax hike, (2) China's shadow banking problem, (3) tumult in the economies of emerging nations in response to the US exit strategy, and (4) a worldwide decline in stock values due to geopolitical risk.

# 1. Japan's Economic Scenario

## *PM Abe announces postponement of additional consumption tax hike and plans to dissolve lower house of the Diet*

On November 18, 2014 Japan's prime minister Shinzo Abe announced the postponement of the additional consumption tax hike, as well as plans to dissolve the lower house of the Diet and hold a general election. In light of these developments, as well as the 2<sup>nd</sup> preliminary Jul-Sep GDP release, we have revised our economic growth outlook. (For further detail see "Japan's Economic Outlook No. 183 Update (Summary)" by Mitsumaru Kumagai, Dec. 12, 2014). We now forecast real GDP growth of -0.5% in comparison with the previous year for FY14 (-0.5% in the previous forecast) and +1.8% in comparison with the previous year for FY15 (+1.8% in the previous forecast). The postponement of the additional consumption tax hike is expected to push the FY2015 GDP growth rate up an additional +0.53%pt. However, for the time being extreme care will have to be taken regarding risks associated with the postponement of the consumption tax hike. We call these the *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market.

## *Main economic scenario for Japan*

In this report we examine Japan's future economic scenario in light of recent economic trends. We expect Japan's economy to gradually recover due to the following factors: (1) Continuation of the virtuous circle brought on by Abenomics, and (2) The gradual firming up of exports centering on the US.

## *Is the short-term economic downturn finished?*

Japan's economy is now seen as having entered a period of decline since peaking in January 2014. However, there is a good possibility that this will have been short-term.

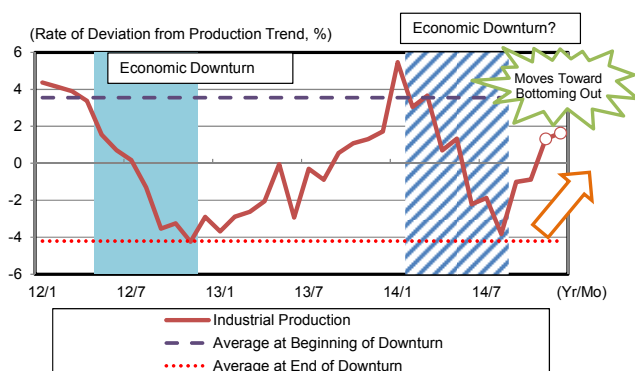
Chart 1 illustrates fluctuations in the deviation rate in comparison to trends in the industrial production index. When we examine the past relationship between the industrial production index and economic downturns we see that when the deviation rate in the industrial production index reaches +4%, the economy enters a downturn, and when it drops to -4% it breaks out of the downturn. When we take into consideration the fact that the rate of deviation from the industrial production index which was in a downturn since its peak in January 2014 was at a considerable high at that time, we can deduce that January 2014 was most likely the peak of the business cycle. However, the industrial production index rebounded in September, and according to METI's production forecast survey, production plans are moving toward a gradual comeback. Though care must be taken regarding the fact that there was a strong tendency for production plans to be revised downwards recently, production overall is expected to gradually expand in the future. It is already possible as of this point to come to the conclusion that the economic downturn has ended.

## *Build-up in inventories need not be viewed pessimistically*

Next we consider the effects of inventory investment on production in consideration of the build-up in inventories as shown in the Apr-Jun 2014 period GDP statistics. Chart 2 illustrates the relationship between the inventory rate and production. Demand was especially weak for durables after the increase in the consumption tax rate. The inventory rate for transport equipment rose dramatically during this time (see the horizontal axis in Chart 2) and was in danger of causing major downward pressure on production. However, the negative correlation between the inventory rate for transport equipment and production is not an especially large one (see the vertical axis in Chart 2). For this reason, the downward pressure of inventory increase on production need not be viewed with excessive pessimism.

## Rate of Deviation from Industrial Production Trend

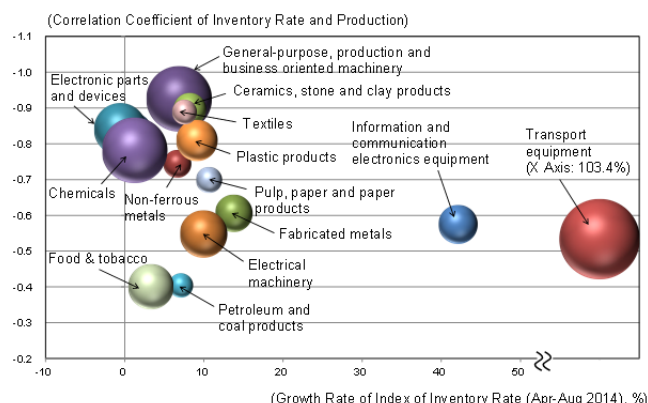
Chart 1



Source: Ministry of Economy, Trade and Industry; compiled by DIR.  
 Notes: 1) Trends calculated using HP filter.  
 2) Blank (uncolored) areas represent outlook according to METI's production forecast survey.  
 3) Averages at beginning and end of downturns taken from samples since 1980.

## Correlation Between Inventory Rate and Production

Chart 2



Source: Ministry of Economy, Trade and Industry; compiled by DIR.  
 Notes: 1) Correlation coefficient calculated after removing trend found using HP filter. Period is from 2008 on.  
 2) Size of circles illustrates production weight.

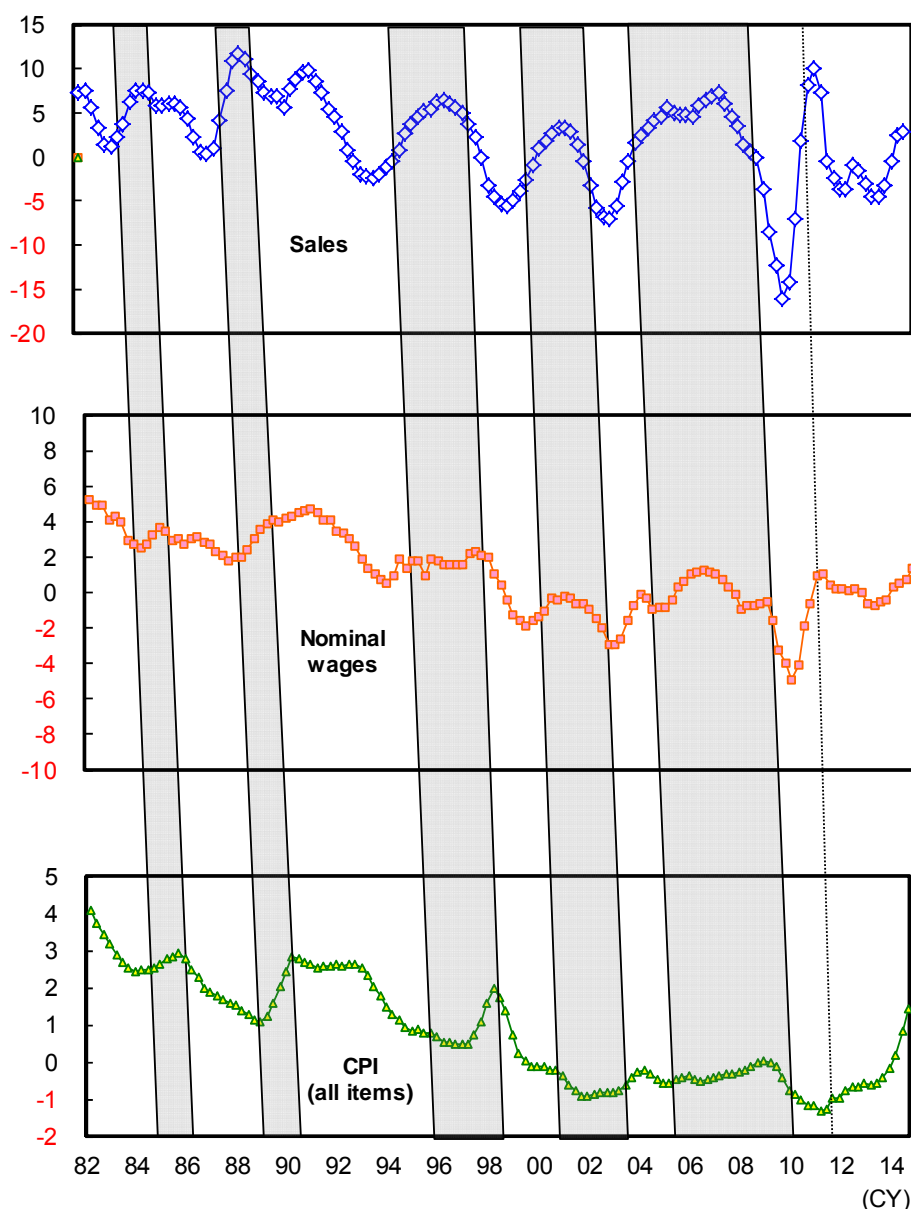
### *Employment and income environments improving*

Japan's economy is expected to be supported by the virtuous circle brought on by Abenomics.

Criticisms have been voiced by the opposition parties and the mass media claiming that employee compensation has failed to increase despite the progress of inflation, and that Abenomics will only cause the people more pain. However, as is shown in Chart 3, historical data reveals that there is a recurring economic cycle in Japan moving from sales growth to wage growth and then to price increases. In other words, wage hikes in Japan tend to occur six months to a year after growth in sales, and then another six months later the consumer price index tends to rise.

With this in mind we can see that the BOJ's monetary easing policy and the government's pro-business policy have been designed to encourage growth in sales. In this sense, the basic thinking behind Abenomics is right on target in understanding that the starting point for shaking off deflation is to induce sales growth.

In actual fact, the corporate sector has been favorable recently, and as the employment and income environment improves, the personal sector is gradually improving also. The wage increase rate after the 2014 annual spring labor offensive was 2.1%, the highest it has been for the past fifteen years. Hence, looking at the big picture, we can see that the first buds of the virtuous circle as envisioned by Abenomics (production → income → consumption) have already sprouted.



Source: Ministry of Finance, Ministry of Health, Labour and Welfare, Ministry of Internal Affairs and Communications; compiled by DIR.

Notes: 1) Y/y comparison of four-quarter moving average.

2) Shaded bars denote periods when sales were on uptrend. Bars tilted in order to show roughly 6-month lag from sales graph to nominal wages graph and from there to CPI graph, respectively.

### ***Investment in capacity increase determines trend in capex***

Finally, we end this chapter with an examination of the trend in capex.

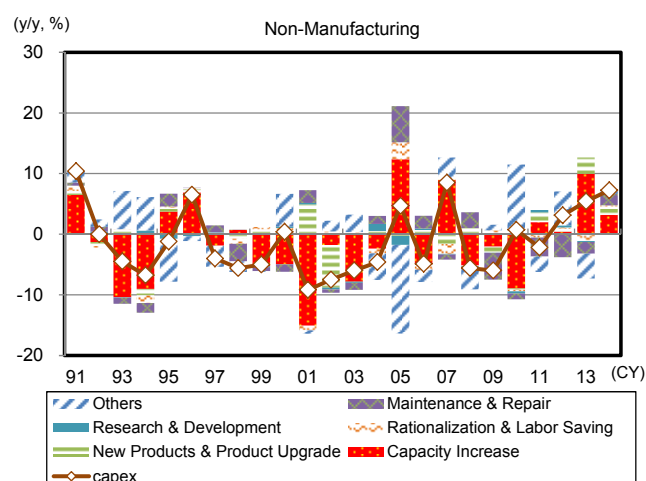
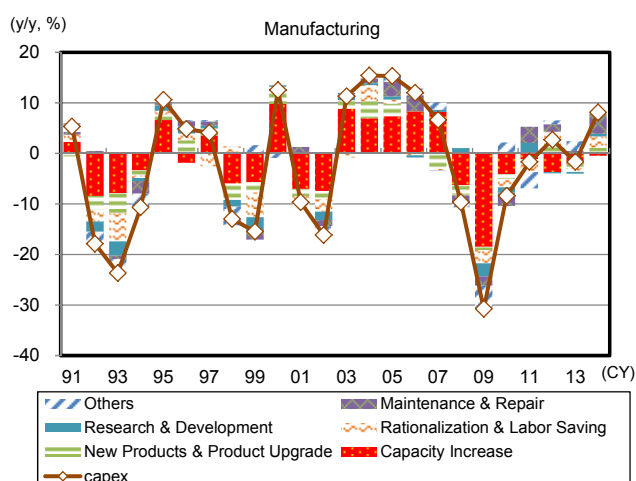
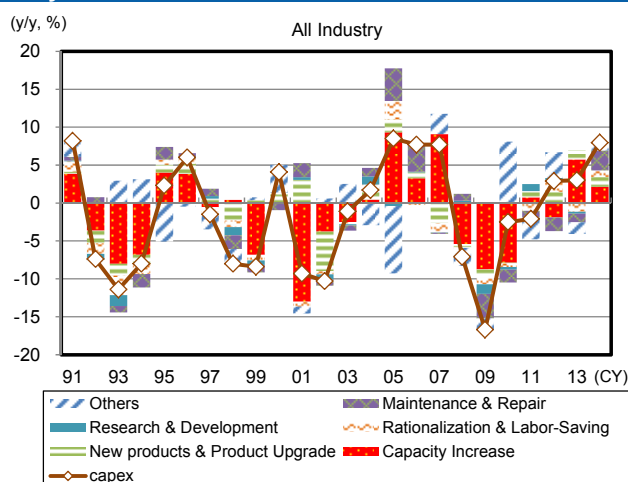
Chart 4 shows the trend in capex by motive of investment. Capex has great influence on the business cycle and the data exhibited in this chart indicates that, of the various motives for investment, it is investment in capacity increase that determines the trend in capex. Both FY2013 performance and the FY2014 outlook show that growth in investment in capacity increase was the major factor in pushing up overall capex figures. Whether or not investment in capacity increase continues to grow in the future is a major question that will determine whether capex will continue its growth trend.

As for performance by industry, FY2013 and FY2014 saw growth in investment in capacity increase in the non-manufacturing industries, while decline in investment in capacity continued in the manufacturing industries. Investment in capacity increase has been in a downward trend for the

manufacturing industries ever since the US financial crisis and has been causing a drag on capex spending overall. The key to the future of capex is therefore in the capacity increase trend in the manufacturing industry.

Capex Breakdown by Industry and Motive of Investment

Chart 4



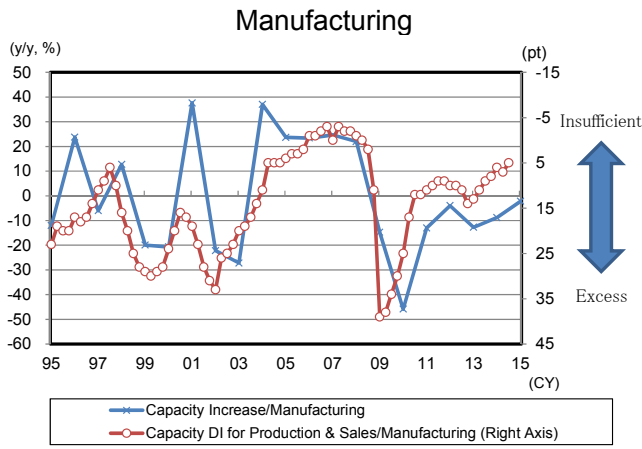
### *Sense of overcapacity gradually dissipating; modest growth seen for investment in capacity increase*

Chart 5 shows capacity DI for production and sales according to the BOJ Tankan, as well as the trend in investment in capacity increase. Capacity DI and investment in capacity are basically linked in both the manufacturing and non-manufacturing industries, and data confirms that there is now a trend toward a stronger sense that capex is deficient, and this should encourage more investment in capacity increase.

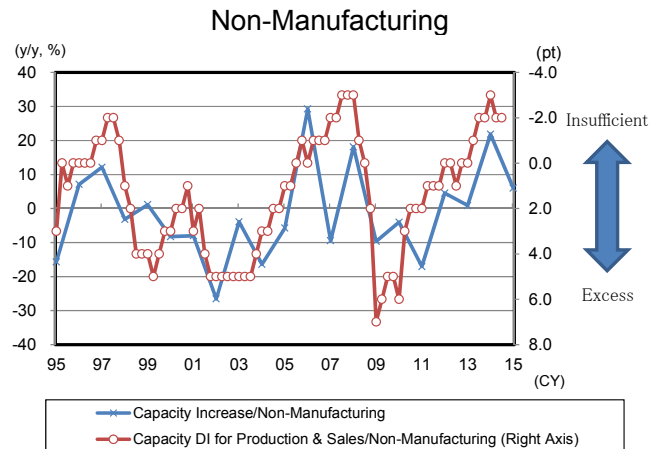
As for the manufacturing industry, there is still a lingering sense of excess capex, but this is gradually moving toward resolution. Capex is seen as being at a temporary standstill due to sluggish operating rates in response to the recent downturn in the economy. However, chances are good that capacity increase investment will move into a growth phase in the future supported by the dissipating sense of excess capex. The weak domestic demand which occurred after the raising of the consumption tax in April has pushed down business performance in the non-manufacturing industries this year, so there is still a possibility that this area may be bit on the passive side, but even in the non-manufacturing industries the sense of deficient capex is gaining strength, and this is expected to provide support for investment in capacity increase.

In conclusion, the outlook is for both the manufacturing and non-manufacturing industries to move toward a growth trend in capex in the future, supported by growth in investment in capacity increase.

**Investment in Capacity Increase and Capacity DI** **Chart 5**



Source: Development Bank of Japan, BOJ; compiled by DIR.



Source: Development Bank of Japan, BOJ; compiled by DIR.



## 2. Four Risk Factors Facing Japan's Economy

### *Four risk factors facing Japan's economy*

In this section we examine the four risk factors facing Japan's economy.

Risk factors for the Japanese economy are: (1) The *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market stemming from the postponement of the additional consumption tax hike, (2) China's shadow banking problem, (3) tumult in the economies of emerging nations in response to the US exit strategy, and (4) a worldwide decline in stock values due to geopolitical risk.

### **2.1 Risk (1): The *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market stemming from the postponement of the additional consumption tax hike**

#### *Postponement of the additional consumption tax hike triggers a host of new problems*

The first risk we examine here is the *Triple Weaknesses* – a weak bond market, weak yen, and weak stock market stemming from the postponement of the additional consumption tax hike.

Implementing monetary easing measures while at the same time forfeiting fiscal discipline is indeed an action tinged with monetization. If the bond market were to suddenly drop (which means a major increase in the long-term interest rate), there would be danger of a situation occurring where a malignantly weak yen and rising import prices would go unchecked, and which would in turn run into stagflation.

#### *Five structural changes in Japan's economy*

The Japanese government must steadily work toward fiscal reconstruction, keeping in mind the dramatic changes in the environment Japan will find itself in further up the road. As shown in Chart 6, the economic environment influencing Japan will likely see the following five structural changes: (1) an expanding fiscal deficit, (2) a dwindling current account surplus, (3) the shift from a strong yen to a weak yen, (4) the move from deflation to inflation, or stagflation, and (5) a change in the declining long-term interest rate to rising interest rates. The danger is that these five factors could suddenly occur all at once, upsetting Japan's entire economy. These structural changes would cause a huge shock to the system.

Japan's population is now aging faster than any other country in the world and this brings greater risk of a major increase in the fiscal deficit.

Then the increase in fiscal deficit would bring with it a decline in current account surplus as the public sector's condition worsens, causing the investment-savings balance to crumble, meaning the public sector would lose the capital surplus it needs. (In macro-economics the desirable equation to achieve is current account balance (excess savings in international trade) = fiscal balance (excess savings in the public sector) + excess savings in the private sector.

Meanwhile, the yen would continue to weaken on the foreign exchange markets if the following were to occur: (1) the timing of the BOJ's shift to monetary restraint is seen as being too far behind similar actions of central banks in other countries and (2) Japan's current account surplus shrinks.

As a result of the BOJ's qualitative and quantitative monetary easing measures, Japan is now moving quickly to the point where it will experience a shift from deflation to inflation. The danger here is that if fiscal discipline is lost, the yen rate could diverge from Japan's economic fundamentals and fall

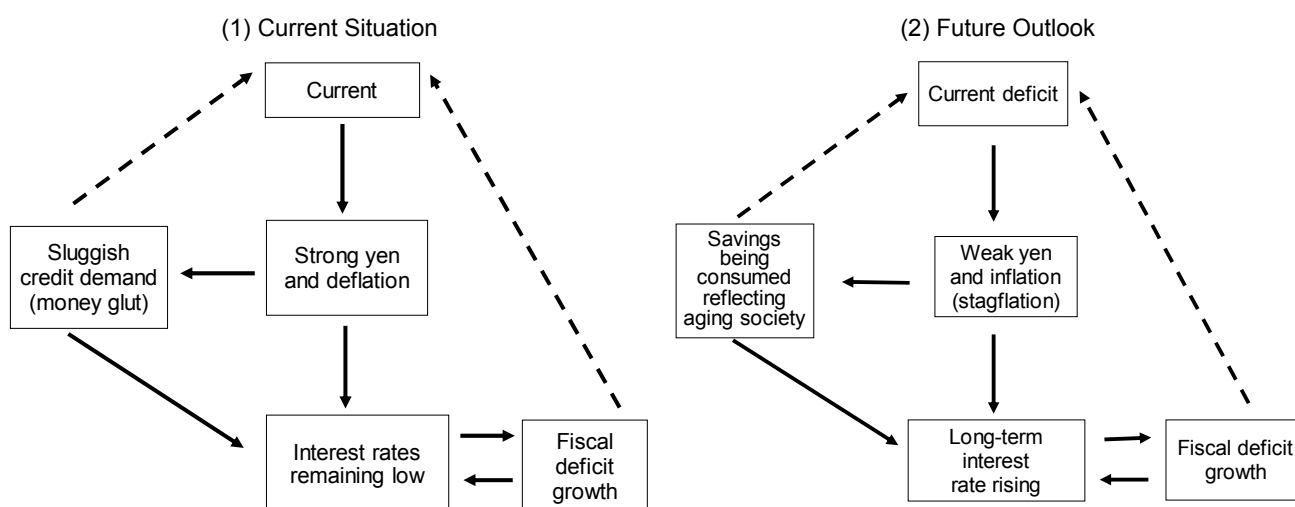
considerably against other currencies, aggravating imported inflation pressure and putting the squeeze on Japanese pocketbooks.

Additionally, the situation in the Middle East has become increasingly tense due to religious wars. Over 80% of Japan's oil imports travel through the Strait of Hormuz. If oil prices were to rise due to geopolitical risk causing a supply crisis, positive inflation in Japan would quickly turn into a more negative stagflation.

Finally, there would be an increasing risk of Japan's government bond bubble bursting if the above issues all came to a head at once. In this environment, the collapse of the government bond market is always there, hovering nearby.

### Changes in Japan's Economic Environment

Chart 6



Source: Compiled by DIR

### *Spread between short and long-term interest rates widens when current account balance worsens*

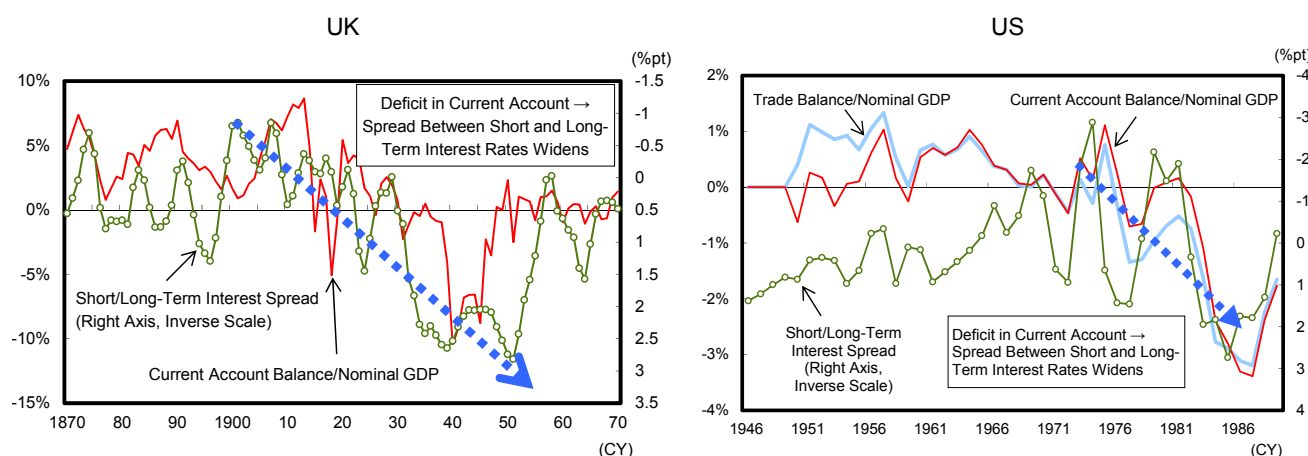
Historical data tells us that when the current account balance worsens, the spread between short and long-term interest rates tends to widen.

Chart 7 shows changes in the spread between short and long-term interest rates during periods when there were deficits in current account in the UK and the US (UK: 1920-1940, US: 1970-1980). In both cases, the spread between short and long-term interest rates rapidly widened. Considering the cumulative increases Japan has already experienced in its fiscal deficit, we should remain on the lookout religiously for the possibility of a rapid increase in the spread between short and long-term interest rates as soon as signs develop of a deficit in current account in the future.



## Current Account Balance and Spread Between Short and Long-Term Interest Rates (UK &amp; US)

Chart 7



Source: International Historic Statistics, by Brian R. Mitchell (Palgrave Macmillan), *A History of Interest Rates*; compiled by DIR.

Note: Long-term interest rate expressed in terms of 3-qtr moving average.

### ***Be on guard for rapid increase in long-term interest rate during exit from bold monetary easing***

The long-term interest rate has currently stabilized at a low level due to the effects of the BOJ's aggressive purchase of government bonds. However, we need to be on guard for a rapid increase in the long-term interest rate once exit begins from the BOJ's qualitative and quantitative monetary easing measures.

Chart 8 is a simulation of movement in the long-term interest rate once BOJ comes out with its exit strategy.

Scenario (1) approximates the BOJ's own assumptions, while Scenario (2) is closer to what the market would presume. Meanwhile, Scenario (3) is a simulation of what would happen if prices were to rise above the BOJ's inflation target. While qualitative and quantitative monetary easing measures are still ongoing, downward pressure remains on the long-term interest rate since the BOJ's purchase of large volumes of government bonds keeps supply and demand tight. The one point all of these simulations have in common is that they all conclude that the long-term interest rate will increase rapidly as of the point the BOJ stops purchasing long-term government bonds.

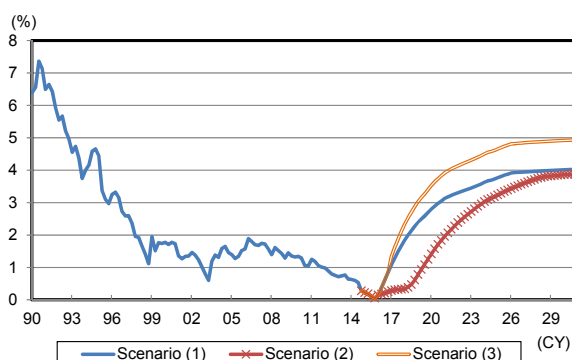
During the recent additional monetary easing measures announced on October 31, not only was the amount in long-term government bonds purchased increased, but the average duration was also lengthened. The assumption here is that the intent was, from a supply and demand point of view, to force interest rates in the long-term zone further downwards. However, this type of policy can also foster the malfunctioning of the bond market, causing it to lose its function of demanding an appropriate risk premium. And when the bond market recovers its normal functioning as of the point when an exit strategy is implemented and the market suddenly becomes aware of the necessity of coming up with an appropriate risk premium, with the additional factor of a relaxation of supply and demand, it could end up overshooting the appropriate level for the long-term interest rate. Hence when the BOJ begins moving toward exit from its qualitative and quantitative monetary easing measures, credibility of the budgetary policy will be extremely important.

On November 18, 2014 Japan's Prime minister Shinzo Abe announced the postponement of the additional consumption tax hike. While this decision may prevent the risk of the economy from moving into a downward swing, it may also bring about pessimism regarding Japan's ability to

maintain its fiscal integrity on into the future, and this could cause tumult in the bond market. The other risk is that this decision may be assessed as having been a major turning point in Japan's handling of its fiscal situation.

## Simulation of Long-Term Interest Rate

Chart 8



Source: Bloomberg; Compiled by DIR.

### Shared Assumptions

#### Forecasting Formula

- Long-Term Interest Rate =  $0.89 + 0.47 \cdot \text{Call Rate} + 0.2 \cdot \text{Core core CPI} - 3.57 \cdot (\text{BOJ Long-Term Bond Holdings/Nominal GDP}) + 0.24 \cdot \text{US Long-Term Interest Rate}$
- Call Rate =  $0.89 \cdot \text{Call Rate (t-1)} + 0.11 \cdot ((\text{Potential Growth Rate} + 2) + 0.8 \cdot \text{GDP Gap} + 1.53 \cdot (\text{Core CPI}-2))$

#### Macro Assumptions

- Real GDP uses annual rate + 2.0%, Nominal GDP uses annual rate + 3.0%, Potential Growth Rate uses annual rate + 0.64%, Assumed GDP Gap will not increase more than 1.5%.
- While Core core CPI is 2% or less, Call Rate assumed to be 0.1%.
- Bank of Japan long-term bond purchase and duration based on October 31, 2014 announcement.

### Scenario Assumptions

#### Scenario (1)

- Purchase of long-term government bonds stops after March 2016.
- Core core CPI growth rate reaches 2% during the 2016 Jan-Mar Period, and maintains 2% level after that point.

#### Scenario (2)

- Tapering begins in March 2018, and long-term government bond purchases stop after March 2019.
- Core core CPI growth rate reaches 2% during the 2016 Jan-Mar Period, and maintains 2% level after that point.

#### Scenario (3)

- Purchase of long-term government bonds stops after March 2016.
- Core core CPI growth rate reaches 3% during the 2016 Jan-Mar Period, and maintains 3% level after that point.

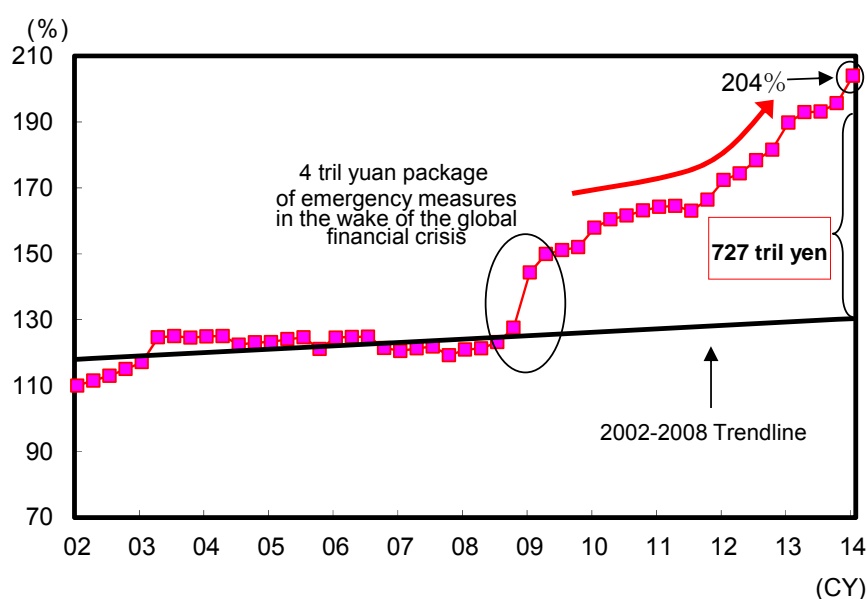
Note: Core core CPI = All items, less food (less alcoholic beverages) and energy

## 2.2 Risk (2): China's shadow banking problem

The second major risk facing Japan's economy is China's shadow banking problem

Excessive lending has become a problem in China in the wake of its response to the global financial crisis in 2008. Chart 9 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 204% of nominal GDP at the end of March 2014. Comparing current levels to the long-term trend, we estimate excessive lending in China to be around Y727 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 9



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.

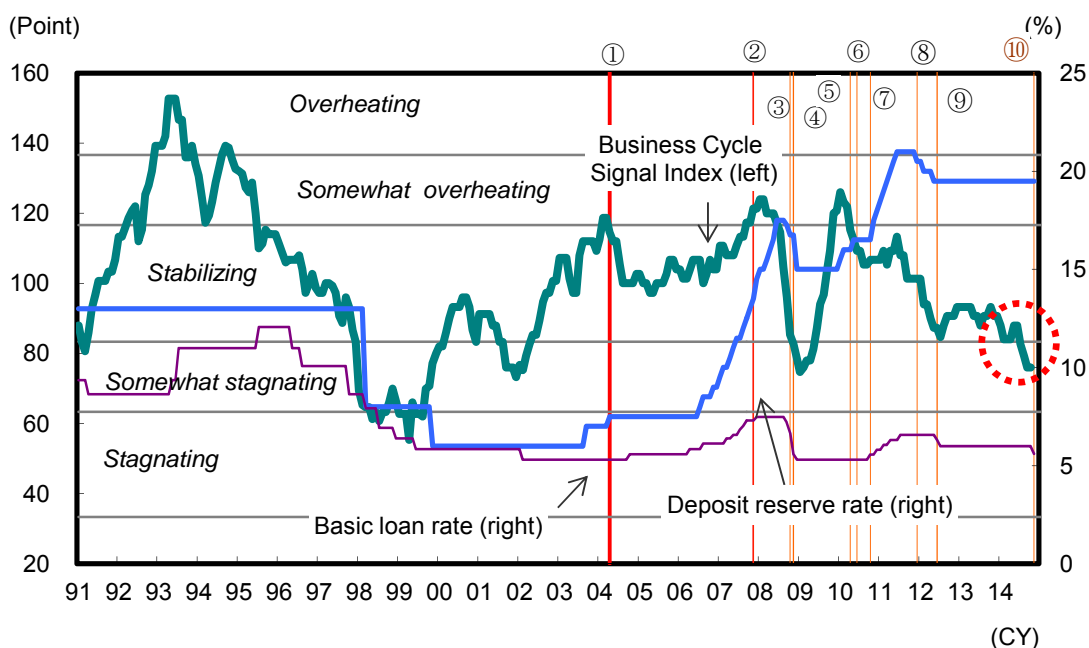
### *How will the world economy be affected by the collapse of China's debt bubble?*

We believe that the impact on the world economy of the collapse of China's debt bubble should not be excessively overstated. Chart 10 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 10



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
10. Nov 2014: Loan rate cut.

## 2.3 Risk (3): Tumult in emerging markets in response to the US exit strategy

### *The US exit strategy will be a plus for the Japanese economy*

The third risk factor facing Japan's economy is the question of whether or not the US exit strategy will cause tumult in the emerging markets.

In this section we contemplate how the global financial markets have been evaluating the US exit strategy since 2013.

We believe that the US exit strategy will hold many beneficial points for the Japanese economy. Possibilities are good that the US long-term interest rate will rise gradually in a mirroring of the recovery in the actual economy. Chart 11 shows changes in the US long-term interest rate and TOPIX. Movements of these two indices have fairly close linkage.

The question is why are the US long-term interest rate and Japanese stocks so closely linked?

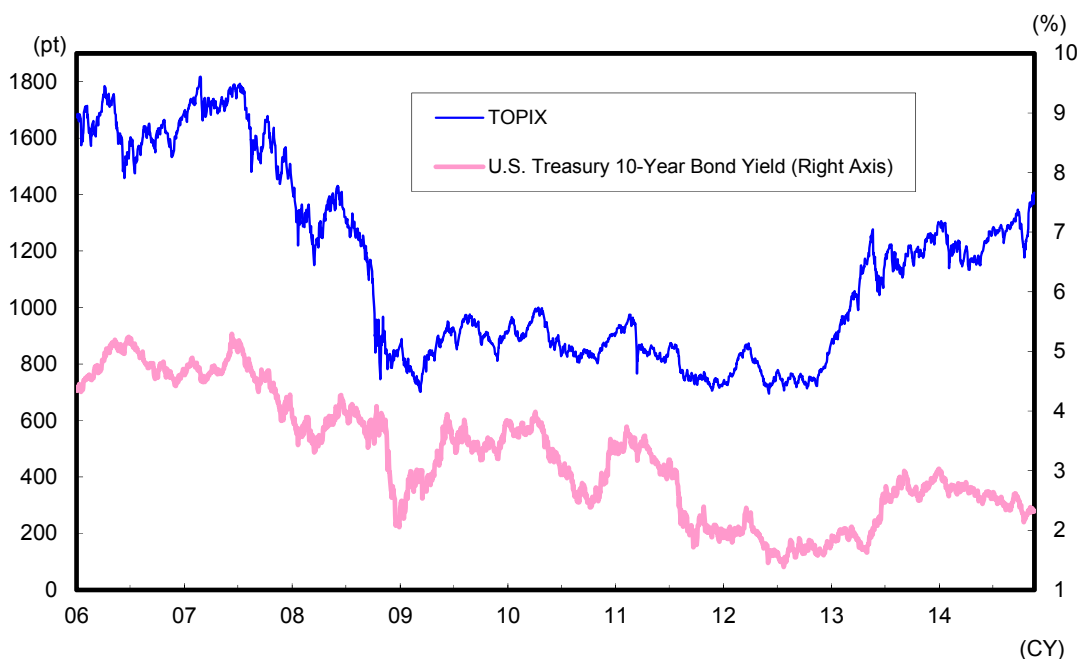
The first reason is that the difference between US and Japan interest rates widens the more the US long-term interest rate rises, and this becomes a factor in the current weak yen/strong dollar relationship. As yen depreciation progresses, the amount of exports that Japan's corporations can achieve grows.

The second reason is that when the US long-term interest rate is tending upwards, it is usually because the US economy is strong. A favorable US economy provides fundamental support for Japan's overall exports.

Finally, if the FRB gives its official stamp to the recovery of the actual US economy, allowing for the moving ahead of a serious exit strategy, this will provide more confidence in the economy. FRB chair Janet Yellen recently announced that she would gradually move forward with an exit strategy while carefully observing the recovery in the actual economy. In conclusion, we believe that any risk of the FRB's exit strategy being too fast, hence leading to major confusion in the international markets, especially emerging nations, is extremely limited.

TOPIX and U.S. Treasury 10-Year Bond Yield

Chart 11

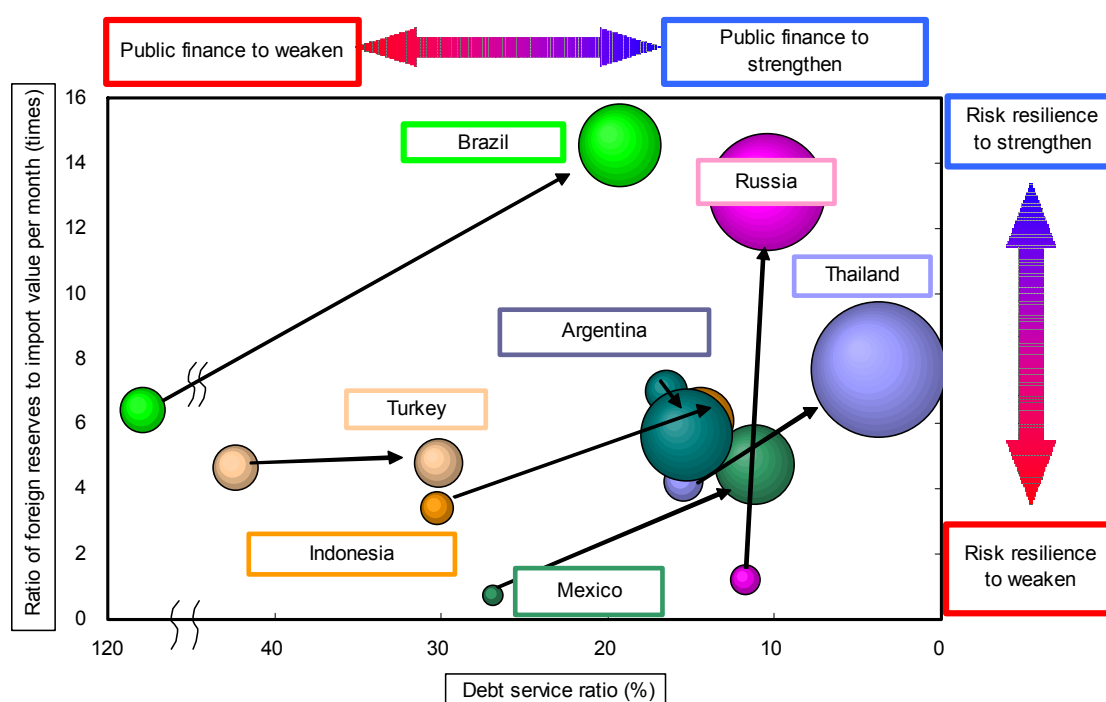


Source: Tokyo Stock Exchange and FRB; compiled by DIR.

### *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 12 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 goods and services 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.

As far as we can see from this chart, the possibilities of turmoil occurring in the world financial markets after January 2014 are rather slim. The ignition point for the last crisis was Argentina, but it seems to be an exception. Looking at the emerging nations overall, we see steady improvement in the fundamentals.

**Risk Resilience of Emerging Market Economies**
**Chart 12**


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.

## 2.4 Risk (4): A worldwide decline in stock values due to geopolitical risk.

### *Will investors switch from risk-on to risk-off?*

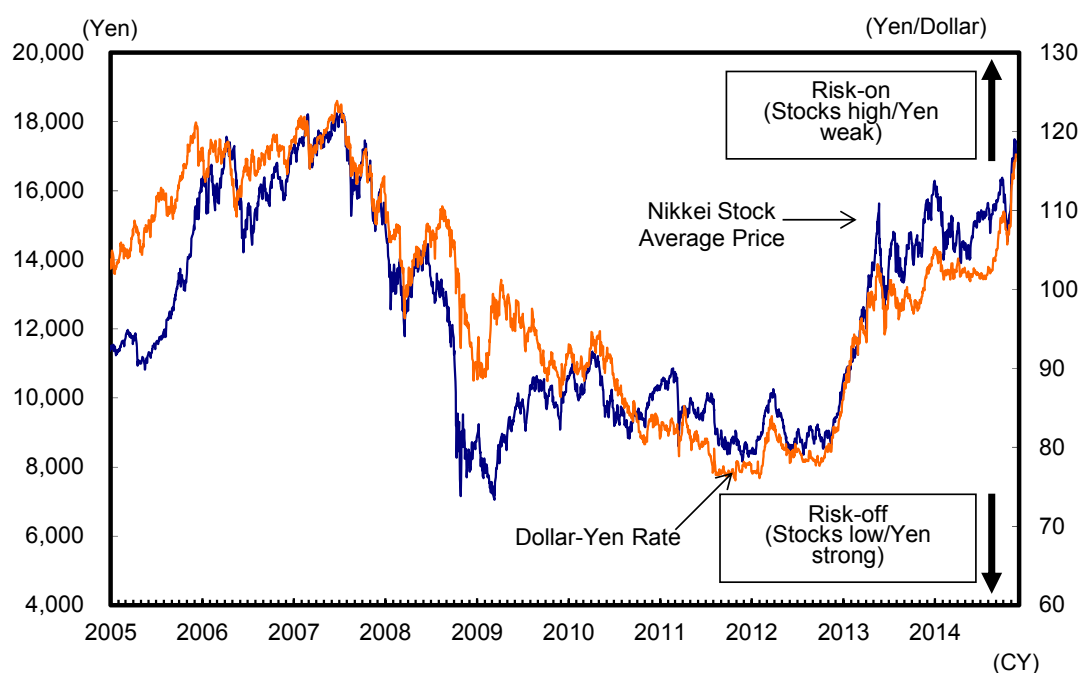
The fourth risk factor which the Japanese economy faces is geopolitical.

When the sense of caution increases in the business world due to geopolitical risk, the global financial markets tend to move away from risk-on to risk-off investment behavior. Chart 13 shows changes in the yen/dollar rate and the Nikkei stock average price over the last several years. In recent years, the yen exchange rate and the Nikkei average have exhibited a close linkage. As the global economy has begun to recover, investors have shown more willingness to take risks in their investments. This is called “risk-on” behavior. The Bank of Japan’s bold monetary easing measures have also had an effect on investor behavior, and ever since the last part of 2012, investors have acted with a positive, risk-on behavior. The weak yen and rising stock prices have been moving in tandem since that time. In the future, caution in regard to geopolitical risk may encourage investors to switch to a risk-off approach, and the yen could strengthen again, influencing Japan’s export business negatively. If this occurs, caution will also be necessary in regard to downward pressure on personal consumption due to falling stock prices.

In addition to a strong yen and falling stock prices, if a greater sense of urgency regarding the situation in the Middle East develops, there will also be the risk of surging oil prices. Over 80% of Japan’s oil imports are shipped through the Strait of Hormuz. According to calculations performed using the DIR macro model, if crude oil prices rise by \$50/bbl above our standard scenario, real GDP level is forecast to shrink by 0.2% in FY2015.

Dollar-Yen Rate and Nikkei Stock Average

Chart 13



Source: Bloomberg, Nikkei; compiled by DIR.

### *Which countries are most susceptible to geopolitical risk?*

Next we examine how the economies of various countries might be affected by geopolitical risk if the Russia-Ukraine situation, as well as developments in Iraq, get any worse (see Chart 14).

First we take a look at geopolitical risk in Russia. Considering Russia’s trade relations, we see that the greater share of Russia’s exports are to the Netherlands, Italy, and Germany. Russia is closely linked



with the EU via energy exports. The balance of credit to Russia is also significant for members of the EU such as France and Italy. As far as we can see by the above data, if geopolitical risk associated with Russia were to worsen in the near future, it is quite possible that Europe would be most susceptible to negative influence in both the financial area and in the real economy.

In contrast, if geopolitical risk in Iraq worsens, direct influence on the EU would be limited, as trade levels and credit balance are rather low. However, there is some collateral risk such as the possibility of a surge in the price of crude oil. Countries with an especially high dependence on imported oil could see economic conditions deteriorate rapidly. Hence geopolitical risk in these areas should be continually monitored.

Lastly, we would like to emphasize the close-knit nature of China’s economic relationship with Russia and Iraq. If geopolitical risk rises to the surface in Russia or Iraq in the future, the sense of uncertainty as regards China’s economy could deepen further. This is another area which requires close monitoring on into the future.

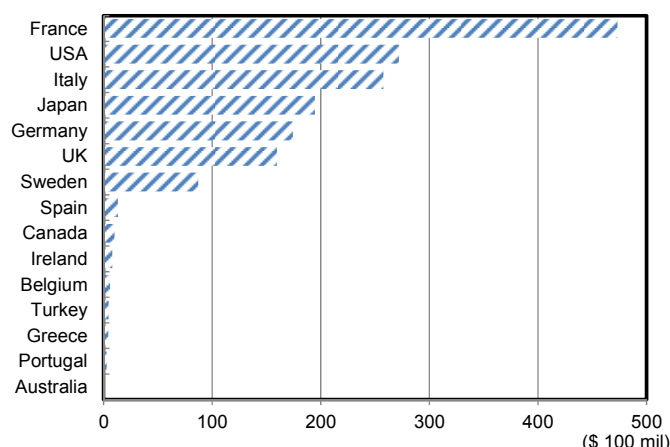
**Trade Relations with Russia and Iraq** **Chart 14**

Russian Imports & Exports (2013)

Exports		Imports	
Country	Share (%)	Country	Share (%)
EU	39.4	EU	31.2
Netherlands	13.3	China	16.9
Italy	7.5	Germany	12.0
Germany	7.0	USA	5.3
China	6.8	Ukraine	5.0
Turkey	4.8	Italy	4.6
Ukraine	4.5	Belarus	4.4
Belarus	3.8	Japan	4.3
Japan	3.7	France	4.1
Poland	3.7	Korea	3.3

Source: Statistics from IMF; compiled by DIR.

Claims Held Against Russia (2014, Q1)



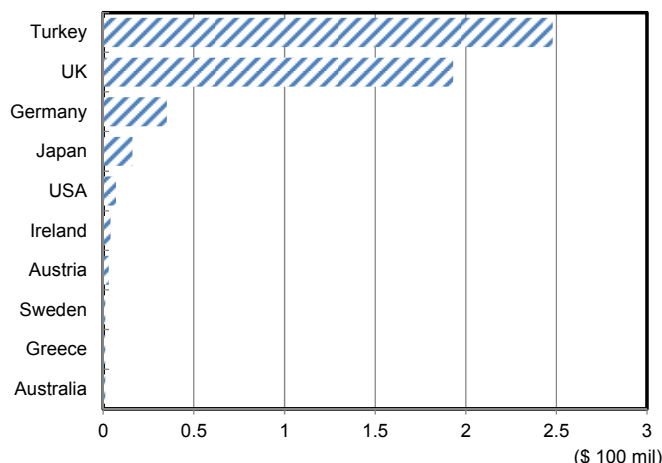
Source: Statistics from BIS; compiled by DIR.

Iraq Imports & Exports (2013)

Exports		Imports	
Country	Share (%)	Country	Share (%)
India	21.6	Turkey	25.4
China	19.8	Syria	18.1
EU	15.1	China	14.7
USA	14.6	EU	11.2
Korea	10.2	USA	4.3
Greece	5.3	Korea	4.2
Italy	4.3	Germany	3.5
Canada	3.8	Italy	3.5
Singapore	3.3	Jordan	2.6
Japan	2.9	India	2.0

Source: Statistics from IMF; compiled by DIR.

Claims Held Against Iraq (2014, Q1)



Source: Statistics from BIS; compiled by DIR.

## Economic Indicators and Interest Rates

## Chart 15

Indicator	2013	2014				2015		FY12	FY13	FY14	FY15
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar					
	Actual				DIR estimates		Actual		DIR estimates		
<b>Real GDP</b>											
Q/q %, annualized	-1.5	5.8	-6.7	-1.9	3.8	3.0					
Y/y %	2.3	2.5	-0.3	-1.3	0.1	-0.7	1.0	2.1	-0.5	1.8	
<b>Current account balance</b>											
SAAR (Y tril)	0.0	-5.5	2.8	2.6	6.6	6.7	4.2	0.8	4.7	7.9	
<b>Unemployment rate (%)</b>											
	3.9	3.6	3.6	3.6	3.6	3.5	4.3	3.9	3.6	3.5	
<b>CPI (excl. fresh foods; 2010 prices; y/y %)</b>											
	1.1	1.3	3.3	3.2	2.8	2.9	-0.2	0.8	3.1	1.1	
<b>Unsecured overnight call rate</b>											
(period end; %)	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	
<b>10-year JGB yield</b>											
(period average; %)	0.61	0.61	0.59	0.52	0.35	0.40	0.75	0.63	0.46	0.60	

Source: Compiled by DIR.

Note: Estimates taken from DIR's *Japan's Economic Outlook No. 183 Update*.