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Japan’s Economy: Monthly Review

Impact of Anti-Japan Protests in China

Economy on the verge of recession; five downside risks

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Summary

- **Economy on the verge of recession:** The slowing tempo of Japan’s economy has intensified. Major economic indicators released in September and since suggest that the economy is on the verge of recession. As our main scenario we believe that Japan’s economy will stagnate through end-2012 but return to a moderate recovery trend in 2013 and after, supported by (1) reconstruction demand related to the Great East Japan Earthquake, (2) the US and Chinese economies steering away from bottom deepening, and (3) further monetary easing by BOJ. Risks facing Japan’s economy and which warrant monitoring are (1) any deterioration in Japan-China relations, (2) deepening of the European sovereign debt crisis, (3) a surge in crude oil prices stemming from geopolitical risk, (4) further appreciation of the yen, and (5) the current account balance turning negative.

- **How should the impact of anti-Japan protests in China be understood?:** In this report, we have made a quantitative analysis of the impact of anti-Japan protests in China. It should be borne in mind that if Japan-China relations worsened rapidly, Japan’s economy would be seriously impacted.

- **Policy responses required of the government and BOJ:** Amidst persistent deflation, the policy authorities will need to firmly pursue economic policies to restore the economy centering on four points: (1) there should be consistent policies based on a firm vision (national vision and philosophy) of the top leaders, (2) instead of focusing only on domestic demand and the demand side, economic policies should be implemented that are well balanced and that embrace foreign demand and the supply side, (3) government finances should be rebuilt by raising the consumption tax and reducing expenditures centering on social security costs, and (4) the government and BOJ should work together more closely. Regarding the last, based on an analysis using the Granger causality test, a weaker yen and higher stock prices ensuing from further monetary easing by BOJ would be effective in ending deflation.

1. Economy on the Verge of Recession

Slowing tempo of Japan's economy intensifies

The slowing tempo of Japan's economy has intensified. Major economic indicators released in September and since suggest that the economy is on the verge of recession. As our main scenario we believe that Japan's economy will stagnate through end-2012 but return to a moderate recovery trend in 2013 and after, supported by (1) reconstruction demand related to the Great East Japan Earthquake, (2) the US and Chinese economies steering away from bottom deepening, and (3) further monetary easing by BOJ.

Risks facing Japan's economy

Risks facing Japan's economy and which warrant monitoring are (1) any deterioration in Japan-China relations, (2) deepening of the European sovereign debt crisis, (3) a surge in crude oil prices stemming from geopolitical risk, (4) further appreciation of the yen, and (5) the current account balance turning negative.

2. How Should the Impact of Anti-Japan Protests in China be Understood?

Impact on Japan's economy of deterioration in Japan-China relations

In this report, we have made a quantitative analysis of the impact of anti-Japan protests in China. As shown in Chart 1, any deterioration in Japan-China relations would have adverse effects on Japan's economy through three channels. It should be borne in mind that if relations worsened rapidly, Japan's economy would be seriously impacted.

Impact on Japan's Economy of Deterioration in Japan-China Relations **Chart 1**

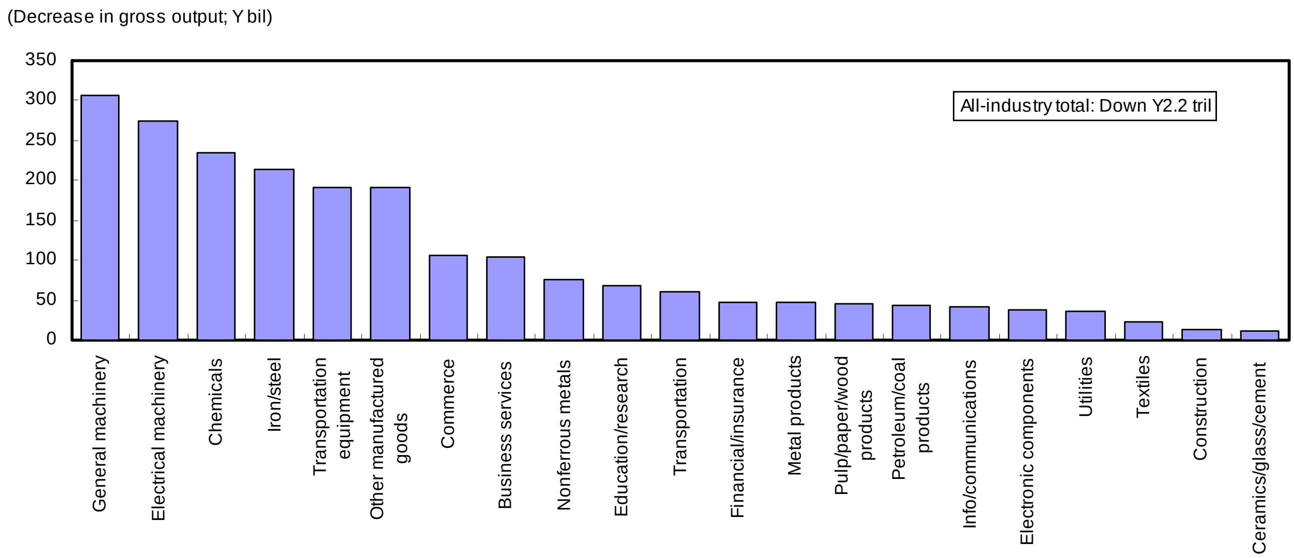
(1) Exports from Japan to China	(2) Sales of Japanese companies incorporated in China	(3) No. of Chinese tourists visiting Japan
Y12 tril/year (19% of Japan's exports)	Y20 tril/year (5% of Japanese corporate sales)	1.41 mil tourists/year (16% of tourists visiting Japan)
If exports to China suspended for one month	**If business in China suspended for one month**	**If Chinese tourists declined by half**
Domestic production would decline by Y2.2 tril GDP would shrink by Y820 bil	Japanese corporate sales would decline by Y1.7 tril Recurring profit would decline by Y120 bil	Domestic production would decline by Y220 bil GDP would shrink by Y110 bil

Source: Ministry of Finance, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry; compiled by DIR.

Impact on industries if exports to China suspended for one month

We have estimated the impact on domestic production of exports to China being suspended for one month based on *2005 Input-Output Tables for Japan* (Ministry of Internal Affairs and Communications). As shown in Chart 2, if exports to China vanished for a month, domestic production (strictly speaking, "gross output") would shrink by Y2.2 trillion on an all-industry basis and a wide range of industries would be impacted, including general machinery, electrical machinery, chemicals, iron/steel, and transportation equipment.

Impact on Industries if Exports to China Suspended (Remaining Zero) for One Month **Chart 2**



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

Capital stock adjustments likely in China

It should be borne in mind that there is a possibility of capital stock adjustments sometime in the future in China.

Chart 3 shows the capital stock cycle in China, which rotates clockwise. The vertical axis represents "y/y growth of fixed capital formation (flow data)" and the horizontal one the "ratio of capital investment (flow data) to capital stock at the end of the previous calendar year." Hyperbolic curves represent expected growth rates for the economy. The relationship between the capital stock cycle and hyperbolic curves suggests the environment surrounding capital investment.

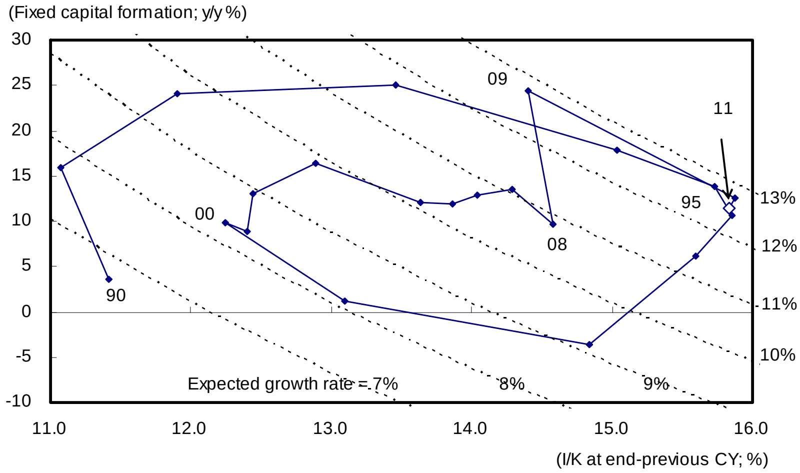
The chart shows that when investment was made in 2011, the expected growth rate was approaching +13% y/y, suggesting the birth of a capital stock bubble. Meanwhile, going forward the expected growth rate is projected to decelerate to around +7%. Thus, there is risk of substantial adjustments in capital stock (the capital stock cycle graph will move toward the lower left).

Indeed, in 2015 automobile production capacity in China is expected to be in excess by around 40% and it is said applications for new production facilities are not being approved easily.

China is a socialist market economy, and thus it could put the problem off for one to two years through monetary and fiscal policies. However, it should be borne in mind that China could see the adjustment of excess capital stock over a three- to five-year time span.

The Chinese economy will likely be a source of concern for the Japanese economy over the medium to long term.

China: Capital Stock Cycle **Chart 3**



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

3 Policy Responses Required of the Government and BOJ

3.1 Four policies Japan should espouse

Prescriptions for rehabilitating Japan's economy

Japan's policy authorities should firmly implement economic policies to restore the economy centering on four points: (1) consistent policies based on a firm vision (national vision and philosophy) of top leaders, (2) instead of focusing only on domestic demand and the demand side, economic policies should be implemented that are well balanced and that embrace foreign demand and the supply side, (3) government finances should be rebuilt by raising the consumption tax and reducing expenditures centering on social security costs, and (4) the government and BOJ should work together more closely. Regarding (4), based on an analysis using the Granger causality test, a weaker yen and higher stock prices ensuing from further monetary easing by BOJ would be effective in ending deflation.

Prescription 1: Consistent policies based on firm vision of top leaders

First, it will be of utmost importance to implement consistent policies backed by a firm vision (national vision and philosophy).

The reasoning process can take either a deductive or inductive approach. In the deductive method, logical reasoning is used to derive individual conclusions from general and universal principles. Contrasting with this, the inductive approach begins with individual cases to develop general and universal principles. It goes without saying that a nation's policies should be developed through deductive reasoning. A sound approach is to start from the general principles of a firm national vision to develop individual policies to put into practice. Based on such thinking, the Japanese government would be well advised to specify a work schedule of new policies backed by a clear vision.

Prescription 2: Well-balanced economic policies that also embrace foreign demand and the supply side

Second, the key to rehabilitating Japan's economy is implementing well-balanced economic policies that not only focus on domestic demand and the demand side but also embrace foreign demand and the supply side.

Economic policies can be broadly divided into the four quadrants of supply-side policies, demand-side policies, domestic demand, and foreign demand. The Democratic Party of Japan (DPJ) administration, in part as an antithesis to the Liberal Democratic Party that gave some thought to the supply side and foreign demand, placed considerable weight on demand-side and domestic-demand policies. In the DPJ manifesto for the House of Representatives election of 2009, payment of a child support subsidy to address a declining birth rate, employment measures, and reform of the pension and social security systems were positioned as major policies. In reality, reform of the pension and social security systems, the most important of these policies, is flagging, and policies centering on the child support subsidy have been made the centerpiece of the administration (to be eligible for the subsidy a household income threshold was reintroduced in FY12).

As a result, many foreign investors, key players in Japan's stock market, have come to view the DPJ administration as not being well balanced and as being tilted toward the demand side of domestic demand centered on the child support subsidy—in other words, with an interest in only one quarter of the economy. At government-sponsored round table meetings on promoting domestic investment held four times from September to November 2010, Japanese business leaders identified five factors that are "evicting" Japanese companies from Japan and that are abetting the hollowing out of the economy. The so-called five "eviction factors" are a strong yen, slowness in concluding EPAs, environmental regulations, labor regulations, and a heavy corporate tax rate. By ignoring these issues, the DPJ administration has been roundly criticized as being an anti-business administration.

Clearly, we must go beyond the pointless contest between supply side and demand side and implement policies that are balanced between the two.

There would be no better way to stimulate the economy than to have the Japanese government forsake its anti-business stance and to clearly adopt a pro-business stance. Specifically, it will be of utmost importance to focus on both domestic and foreign demand and to strengthen such policies as practical growth strategies, deregulation, reduction of the corporate tax, promotion of the Trans-Pacific Strategic Economic Partnership Agreement, promotion of free trade agreements and economic partnership agreements, adjustment of the industrial structure, and government and industry working together to win major foreign contracts (expressways, water and sewerage facilities, next-generation transmission grids, water treatment plants, etc.).

Prescription 3: Restoring government finances to health

The third issue the Japanese government must address is without question the restoration of government finances.

Maintaining that there are things to do before raising taxes might seem like a sound argument (economic growth and cutting expenditures should come first). However, ever since Prime Minister Ohira failed in his attempt to introduce a general consumption tax in the 1970s, the same point has been repeated for more than 30 years. In other words, to argue that there are things to do before raising taxes is just an attempt to delay by diffusing the discussion. When facing the three political issues of economic growth, reducing expenditures (rationalizing social security), and increasing the consumption tax, claiming that there is absolutely no alternative to pursuing all three at the same time will, in practical terms, mean that government finances can never be rebuilt. The repeated delays caused by such discussions have endowed Japan with the world's worst fiscal deficit.

What will be important for Japan going forward is to begin a national conversation in the 18 months before the consumption tax is raised in April 2014 on how to promote economic growth and reduce expenditures (rationalization of social security) in a resolute manner.

Prescription 4: Closer coordination between the government and BOJ

The fourth issue for Japan is to have the government and BOJ work more closely together. This issue will be discussed in greater detail below along with the results of a quantitative analysis.

3.2 A weaker yen and higher stock prices ensuing from further monetary easing by BOJ will be effective in ending deflation

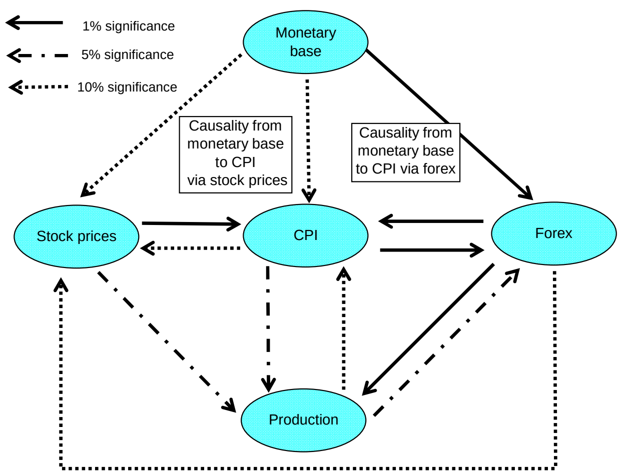
Importance of BOJ aiming to influence stock prices and exchange rates

Based on an analysis using the Granger causality test, we believe a weaker yen and higher stock prices ensuing from further monetary easing by BOJ will be effective in ending deflation.

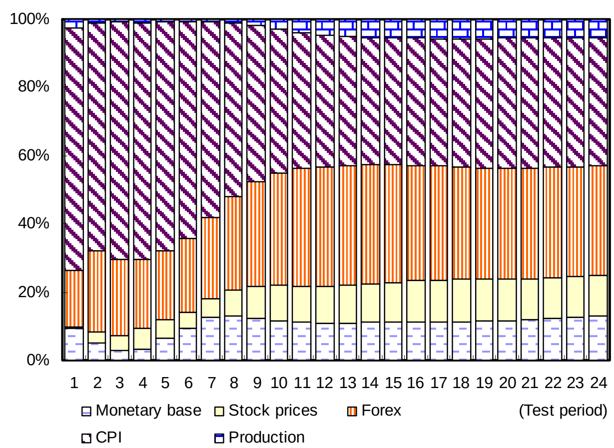
Chart 4 presents a five-variable-model Granger causality test. To define Granger causality, variable X is viewed as Granger-causing Y when past information about variable X is useful in improving the forecast of variable Y. The analysis we performed suggests the possibility that expansion of the monetary base influences CPI through stock prices and forex. Also, a variance analysis of CPI points to the possibility of forex having a certain effect on prices.

Granger Causality (y/y %) **Chart 4**

Conceptual image of five variable causality



Variance decomposition of CPI



Model description

Sampling period		Mar 2006-Feb 2011
Lag		Quartic lag based on Akaike information criterion
Variables	Monetary base	Avg outstanding balance, adjusted for reserve requirement ratio, seasonally adjusted
	Stock prices	Nikkei 225 (monthly avg)
	Forex	Nominal effective exchange rate (2010 benchmark; BIS regulation basis)
	Production	All-industry Activity Index (excl agriculture/forestry/fisheries & civil service; 2005 benchmark; seasonally adjusted)
	CPI	Major category items (excl. fresh food; nationwide; 2010 benchmark)

Source: Bank of Japan, Ministry of Finance, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, *Nikkei*; compiled by DIR.

A modified Soros chart suggests that the yen will appreciate against the dollar

Chart 5 illustrates the trend of the relative policy stances of the Japanese and US central banks and the trend of the Y/$ rate. The chart is known as the modified Soros chart, taking its name from George Soros, the founder of a major hedge fund. “Modified” is added to its title since it modifies the original Soros chart by excluding excess reserves from the monetary base. According to this chart, when Japan’s monetary base increases relative to that of the US, the yen tends to depreciate against the dollar, and when the reverse is true, the yen tends to appreciate against the dollar.

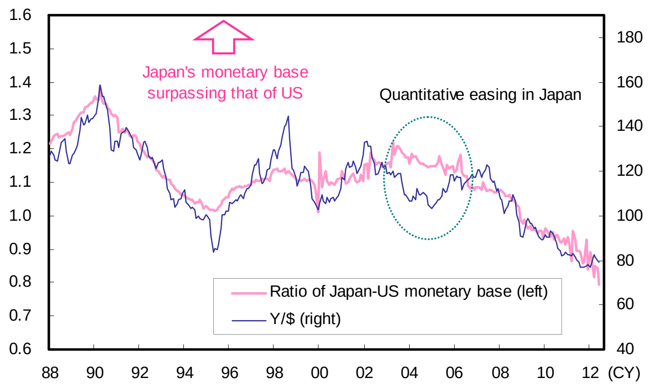
The chart can be interpreted as indicating that BOJ has still not eased monetary policy sufficiently relative to the FRB. Going forward, BOJ will need to brake the appreciation of the yen through such steps as expanding the monetary base.

From an international perspective, BOJ will need to increase the growth rate of money supply

From an international perspective, BOJ will need to increase the growth rate of money supply. Chart 6 portrays the relationship between the growth rate of money supply and rate of increase in CPI for different nations. Japan is positioned to the lower left in the chart, suggesting the possibility that the sluggish growth of money supply is giving rise to deflation.

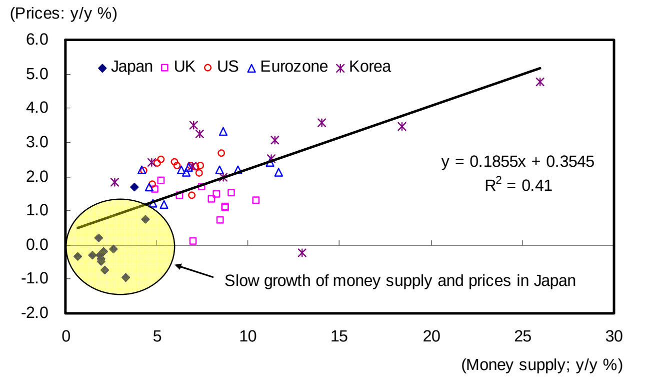
BOJ taking active steps to increase the growth rate of money supply would not only help brake the appreciation of the yen but would also increase inflationary expectations through higher stock prices. To accelerate the advance of stock prices, BOJ should consider (1) improving communication with financial markets, (2) increasing the purchase of risk assets, (3) raising the current goal for the growth of CPI from 1% to 2% as in the US, and (4) changing the goal for prices to a target.

BOJ Monetary Stance Relative to FRB and Y/$
(Implication from modified Soros chart) **Chart 5**



Source: Federal Reserve Board (FRB), Bank of Japan (BOJ); compiled by DIR.
Note: Excl. excess reserves.

Money Supply and CPI **Chart 6**



Source: OECD; compiled by DIR.
Notes: 1) Estimation period: 1997-2008.
2) Money supply for Japan=M2+CDs, Eurozone=M3, other=M2.
3) Eurozone prices=HCPI; other=CPI (excl food and energy).

Outlook for Japanese Economy, Interest Rates **Chart 7**

Indicator	2011 Oct-Dec	2012 Jan-Mar	2012 Apr-Jun	2012 Jul-Sep	2012 Oct-Dec	2013 Jan-Mar	FY10	FY11	FY12	FY13
	Actual			DIR estimates			Actual		DIR estimates	
Real GDP										
Q/q %, annualized	0.3	5.3	0.7	0.5	0.5	1.2				
Y/y %	-0.7	2.9	3.2	1.6	1.7	0.7	3.3	-0.0	1.8	1.2
Current account balance SAAR (Y tril)	6.7	5.9	5.4	5.6	6.1	6.2	16.7	7.6	5.8	6.9
Unemployment rate (%)	4.5	4.5	4.4	4.4	4.3	4.2	5.0	4.5	4.3	4.1
CPI (excl. fresh foods; 2010 prices; y/y %)	-0.2	0.1	-0.0	-0.1	0.1	0.1	-0.9	-0.0	0.0	0.1
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; %)	1.00	0.98	0.89	0.80	0.80	0.85	1.15	0.99	0.84	1.00

Source: Compiled by DIR.
Note: Estimates taken from DIR's *Japan's Economic Outlook No. 174 (Update)*.