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# Special Review: Impact of Middle East Turmoil on Japan's Economy

## Mini-stagflation risk because of surging crude oil prices and yen appreciation

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**Summary**

- **Middle East turmoil rattling global financial markets:** Turmoil in Middle Eastern markets is rattling global financial markets. In our main scenario, we believe Japan's economy will see an end to consolidation in Jan-Mar 2011 and then enjoy steady growth into FY12. In this report, with the view of examining our risk scenarios, we analyze the adverse impact that Middle East turmoil will have on Japan's economy. While we believe that the adverse effect of (1) a fall in exports to the Middle East will be limited, we are greatly concerned about the adverse effects of (2) surging crude oil prices and (3) re-emergence of upside pressure on the yen.

- **Fall in exports to the Middle East:** Although having an impact on Japan's economy, the effect of a fall in exports to the Middle East will be limited. Certain industries, centering on transport equipment, will receive a blow, but the impact on Japan's economy will not be of an order that could be called significant.

- **Surging crude oil prices risk mini-stagflation in Japan:** The second adverse effect is a surge in crude oil prices. We believe that the current level of commodity prices can be explained by real global demand and does not represent a major problem. However, heightening geopolitical risk or inflow of speculative funds could lead to bubbles in commodity markets, worsening the terms of trade of Japanese companies, with Japan perhaps experiencing mini-stagflation.

- **Re-emergence of upside pressure on the yen:** The third risk is re-emergence of upside pressure on the yen. According to our macroeconomic forecasting model, should the yen appreciate Y10 above its predicted exchange rate of Y82/$, the growth rate of real GDP would contract 0.1 point in FY11 and 0.6 points in FY12. Also, should the yen appreciate Y10 above rates of Y80/$ and Y112/euro, recurring profit would decrease 9.6% in FY11 (-7.5 points from depreciation against the dollar and -2.1 points from depreciation against the euro) and 8.4% in FY12 (-6.5 points from depreciation against the dollar and -1.9 points from depreciation against the euro).

- **Developments in Bahrain bear watching:** A matter of interest is what will happen in Bahrain. The rulers of Bahrain are mainly Sunni while the citizens are mainly Shiite. Many analysts see Bahrain as being in the midst of a proxy war between Saudi Arabia and the US who support the former and Iran which sympathizes with the latter. Developments related to the Fifth Fleet of the US Navy stationed in Bahrain are also of great interest. Depending on how things develop, turmoil in the Middle East may gain momentum, and the adverse impact on global financial markets may increase. While our bullish scenario for Japan's economy still holds central place in our forecast, we intend to carefully monitor the effect on Japan's economy of such risk factors as surging resource prices and the re-emergence of upside pressure on the yen ensuing from geopolitical risk.

## Three Adverse Effects of Middle East Turmoil on Japan's Economy

***Middle East turmoil rattling global financial markets***

Turmoil in Middle Eastern markets is rattling global financial markets. In our main scenario, we believe Japan's economy will see an end to consolidation in Jan-Mar 2011 and then enjoy steady growth into FY12. In this report, with the view of examining our risk scenarios, we analyze the adverse impact that Middle East turmoil will have on Japan's economy. Chart 1 lists three adverse effects that turmoil in the Middle East will have on Japan's economy. Specifically, we believe that the adverse effect of (1) a fall in exports to the Middle East will be limited, but are greatly concerned about the adverse effects of (2) surging crude oil prices and (3) re-emergence of upside pressure on the yen.

**Three Adverse Effects of Middle East Turmoil on Japan's Economy**
**Chart 1**

| |
|---|
| (1) Fall in exports to the Middle East |
| (2) Surging crude oil prices |
| (3) Re-emergence of upside pressure on the yen |

Source: Compiled by DIR.

## Adverse Effect 1: Fall in Exports to the Middle East

***Adverse effect 1: Fall in exports to the Middle East***

Although having an impact on Japan's economy, the effect of a fall in exports to the Middle East will be limited. Certain industries centering on transport equipment will receive a blow, but the impact on Japan's economy will not be of an order that could be called significant.

***Japanese export trends***

Chart 2 illustrates the trend of Japan's exports, which reveals that the share of those going to the Middle East is only about 3% of overall exports. However, when looked at by industry, nearly 60% of Japan's exports to the Middle East consist of transport equipment. Should turmoil in the Middle East continue, such industries as transport equipment, materials (iron/steel and rubber products), and general machinery are certain to receive a blow.

## Japan's Export Trend — Chart 2

Exports by Trading Partner

| | | CY06 | CY07 | CY08 | CY09 | CY10 |
|---|---|---|---|---|---|---|
| World | Y tril | 75.2 | 83.9 | 81.0 | 54.2 | 67.4 |
| | (% share) | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) |
| Asia | Y tril | 35.8 | 40.4 | 40.0 | 29.3 | 37.8 |
| | (% share) | (47.5) | (48.1) | (49.3) | (54.2) | (56.1) |
| Oceania | Y tril | 1.8 | 2.1 | 2.2 | 1.4 | 1.8 |
| | (% share) | (2.4) | (2.5) | (2.7) | (2.6) | (2.7) |
| North America | Y tril | 18.1 | 18.1 | 15.3 | 9.5 | 11.2 |
| | (% share) | (24.0) | (21.6) | (18.9) | (17.5) | (16.6) |
| Central/South America | Y tril | 3.6 | 4.1 | 4.2 | 3.1 | 3.9 |
| | (% share) | (4.7) | (4.9) | (5.2) | (5.7) | (5.7) |
| Western Europe | Y tril | 11.0 | 12.3 | 11.4 | 7.1 | 8.0 |
| | (% share) | (14.7) | (14.7) | (14.1) | (13.1) | (11.9) |
| Central/Eastern Europe | Y tril | 1.6 | 2.4 | 2.9 | 0.9 | 1.4 |
| | (% share) | (2.2) | (2.8) | (3.6) | (1.7) | (2.1) |
| Middle East | Y tril | 2.2 | 3.1 | 3.5 | 2.0 | 2.2 |
| | (% share) | (3.0) | (3.7) | (4.3) | (3.7) | (3.3) |
| Africa | Y tril | 1.1 | 1.4 | 1.4 | 0.9 | 1.1 |
| | (% share) | (1.5) | (1.6) | (1.7) | (1.6) | (1.6) |
| Egypt | Y tril | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| | (% share) | (0.2) | (0.2) | (0.2) | (0.2) | (0.2) |

Exports to Middle East by Industry

| | | CY06 | CY07 | CY08 | CY09 | CY10 |
|---|---|---|---|---|---|---|
| Export goods | Y tril | 2232.5 | 3078.0 | 3508.3 | 2013.3 | 2216.6 |
| | (% share) | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) |
| Foods | Y tril | 5.1 | 6.1 | 7.3 | 6.2 | 8.1 |
| | (% share) | (0.2) | (0.2) | (0.2) | (0.3) | (0.4) |
| Raw materials | Y tril | 9.0 | 13.1 | 10.4 | 6.3 | 6.5 |
| | (% share) | (0.4) | (0.4) | (0.3) | (0.3) | (0.3) |
| Mineral fuels | Y tril | 1.3 | 5.5 | 13.1 | 3.0 | 2.3 |
| | (% share) | (0.1) | (0.2) | (0.4) | (0.1) | (0.1) |
| Chemicals | Y tril | 43.2 | 57.7 | 75.2 | 52.3 | 58.0 |
| | (% share) | (1.9) | (1.9) | (2.1) | (2.6) | (2.6) |
| Manufactured goods | Y tril | 412.6 | 478.5 | 451.9 | 338.1 | 338.1 |
| | (% share) | (18.5) | (15.5) | (12.9) | (16.8) | (15.3) |
| General machinery | Y tril | 372.4 | 581.1 | 625.0 | 377.2 | 318.3 |
| | (% share) | (16.7) | (18.9) | (17.8) | (18.7) | (14.4) |
| Electrical machinery | Y tril | 202.7 | 251.5 | 248.9 | 218.5 | 146.5 |
| | (% share) | (9.1) | (8.2) | (7.1) | (10.9) | (6.6) |
| Transport equipment | Y tril | 1093.7 | 1565.9 | 1962.2 | 930.9 | 1259.6 |
| | (% share) | (49.0) | (50.9) | (55.9) | (46.2) | (56.8) |
| Other | Y tril | 92.5 | 118.7 | 114.4 | 80.8 | 79.2 |
| | (% share) | (4.1) | (3.9) | (3.3) | (4.0) | (3.6) |

Source: Ministry of Finance; compiled by DIR.

## Adverse Effect 2: Surging Crude Oil Prices Risk Mini-stagflation in Japan

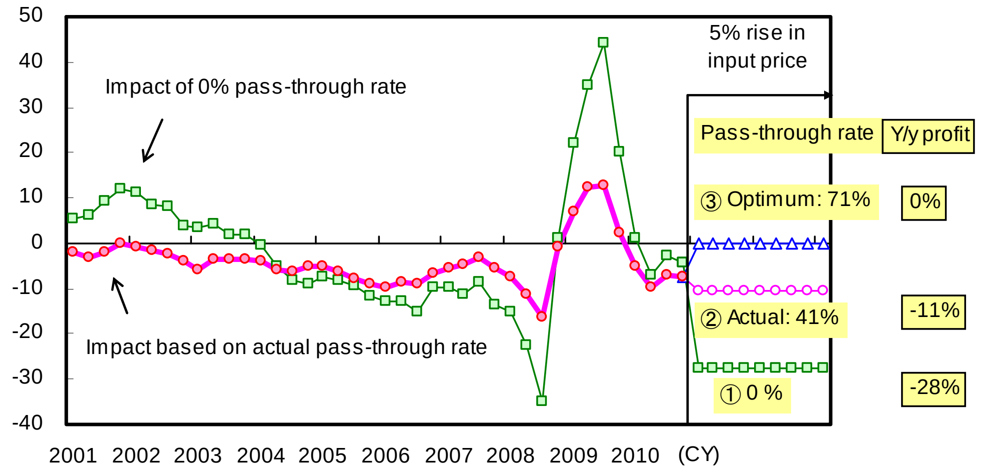
***Adverse effect 2: Surging crude oil prices risk mini-stagflation in Japan***

The second adverse effect is a surge in crude oil prices. We believe that the current level of commodity prices can be explained by real global demand and does not represent a major problem. However, an increase in geopolitical risk or inflow of speculative funds could lead to bubbles in commodity markets, worsening the terms of trade of Japanese companies, with Japan perhaps experiencing mini-stagflation.

***Effect of higher commodity prices on the profits of Japanese companies (all industries):***
***① zero pass-through***
***② actual pass-through***
***③ optimum pass-through***

Chart 3 depicts a quantitative simulation of how the profits of Japanese companies (all industries) would be affected if input prices rose 5% y/y. In this simulation, we considered three scenarios with regard to the pass-through rate of change in input prices to output prices, namely ① zero, ② actual rate, and ③ optimum rate. First, in the ① zero pass-through scenario (transfer rate of 0%), when none of the increase in import prices is passed through to output prices, macro corporate profit would decline 28% y/y. Second, in the ② actual pass-through scenario (average rate of 41% between 2005 and 1H07 when the rate was stable), macro corporate profit would fall 11% y/y. Third, in the ③ optimum pass-through scenario (71%), where the pass-through offsets the effect of higher input prices, the effect on macro corporate profit would be zero by definition. Currently, since the increase in input prices is slight, downward pressure on corporate profits remains limited. Should a surge in global commodity prices cause input prices to rise going forward, the issue for companies will be to what extent they can pass through this increase to output prices. Given that output prices are experiencing deflationary pressure, it may be that companies will not be able to pass through price increases as was the case in 2008.

**Impact of Input Price Rises on Profits** (All industries; y/y %) **Chart 3**




Source: Ministry of Internal Affairs and Communications, Bank of Japan, Ministry of Finance; compiled by DIR.
Notes: 1) DIR estimate of impact on corporate profits when input price increases 5% y/y.
2) Actual pass-through rate: 2005-1H 2007 avg. when pass-through rate was stable.

***Effect of higher commodity prices on profits of Japanese industries: Electrical machinery, transport equipment, and other assembly industries would be adversely affected***

Chart 4 provides a quantitative simulation of how the profits of Japanese industries would be affected by higher commodity prices. The optimum transfer rate is the rate by which added production costs accompanying the rise in import prices would need to be passed through to selling prices to keep operating profit unchanged. Compared to the average pass-through rate when prices rose in the past, the current rate is generally high for iron/steel and other materials industries (excess profits are being realized), and they are generally low for electrical machinery and other assembly industries (losses are being incurred). Should commodity prices surge going forward, there is considerable risk that assembly industries centering on the automobile and electrical machinery industries will be hit hard, which are precisely the industries driving the recovery of corporate profits. To conclude, an increase in geopolitical risk or the inflow of speculative funds leading to bubbles in commodity markets would risk giving rise to mini-stagflation in Japan through the worsening of the terms of trade of Japanese companies.

**Effect of Material Price Rises on Operating Surpluses** — Chart 4

| | Avg price pass-through rate when material prices on uptrend (%) | Optimum price pass-through rate (%) | Impact of material price rises on operating surplus | % rise in sales volume that offsets profit decline |
|---|---|---|---|---|
| Foods | 38 | 60.9 | -9.7% | 3.0% |
| Textiles | 51 | 63.3 | -27.0% | 3.3% |
| Chemicals | 65 | 70.9 | -17.3% | 4.6% |
| Oil/coal products | 87 | 61.7 | -19.6% | 3.1% |
| Glass/ceramics/cement | 92 | 57.5 | -13.7% | 2.6% |
| Iron/steel | 102 | 74.9 | -34.2% | 5.6% |
| Nonferrous metals | 95 | 70.5 | -23.6% | 4.6% |
| Metal products | 88 | 54.6 | -16.7% | 2.4% |
| General machinery | 33 | 62.9 | -21.0% | 3.3% |
| Electrical machinery | 16 | 68.5 | -33.6% | 4.2% |
| Transportation equipment | 28 | 77.9 | -82.4% | 6.6% |
| Construction | 139 | 53.6 | -54.1% | 2.3% |
| Electric/gas utilities | 100 | 47.5 | -5.8% | 1.8% |
| Commerce | 71 | 29.4 | -5.3% | 0.8% |
| Real estate | 37 | 14.1 | -0.6% | 0.3% |
| Transportation | 70 | 53.0 | -11.0% | 2.2% |
| Business services | 73 | 40.7 | -8.7% | 1.4% |
| Personal services | 26 | 43.0 | -6.2% | 1.5% |
| **All industries** | | | **-8.2%** | **2.6%** |
| **Manufacturing** | | | **-21.6%** | **3.8%** |
| Assembling | | | -31.6% | 4.1% |
| Materials | | | -19.6% | 3.8% |
| Other | | | -10.0% | 3.0% |
| **Non-manufacturing** | | | **-5.4%** | **2.3%** |

Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: Impact of price rises (iron ore, up 60%; coking coal, up 40%; crude oil, up 10%; and nonferrous metals, up 20%) on corporate earnings by industry, assuming that price pass-through rate of respective industries is 1 point lower than optimum rate. Optimum rate is one that does not affect operating profit.

## Adverse Effect 3: Re-Emergence of Upside Pressure on the Yen

***Adverse effect 3: Re-emergence of upside pressure on the yen***

The third adverse effect is re-emergence of upside pressure on the yen. Should turmoil in the Middle East increase, in view of global credit uncertainties we do not rule out the possibility of a resurgence in yen purchases as investors make a flight to quality as represented by a currency backed by current account surpluses. In our Japan's Economic Outlook No. 168, our macroeconomic forecasting model, we anticipate that the yen will trade at 82.0/$ in FY11 and FY12. Chart 5 provides an estimation of how Japan's economy would be affected if the yen appreciates Y10 against this assumption on a fiscal year basis.

***Impact of yen appreciation on Japan's economy***

The impact of yen appreciation would be reflected in corporate profits in the following way. Appreciation of the yen could result in a decline in exports via weakened price competitiveness, which in turn would curb the production of export industries (electrical machinery, transportation equipment) and operations of related non-manufacturing industries (transportation, electric utilities, commerce), resulting in lower sales and profits, reducing cash flow and depressing the expected economic growth rate. Thus, capex would be restricted. Meanwhile, lower import prices (reflecting a stronger yen) would reduce general domestic prices, meaning lower prices of corporate and consumer goods. Thus, although the real purchasing power of households would increase, a stronger yen could adversely affect consumption because the decline in corporate profits could impact households through deterioration in the employment and income environment. However, considering the long time lag before effects on consumption are felt, the likely impact within our simulation period would be minimal. If the yen appreciates Y10 against the dollar above our standard scenario, real GDP is forecast to be dragged down by 0.1 percentage point in FY11 and 0.6 points in FY12.

**Impact of Yen Appreciation on Japan's Economy** **Chart 5**

| | Japan's Economic Outlook No. 168 Standard Scenario | | Simulation Y10 appreciation against $ | | | |
|---|---|---|---|---|---|---|
| | FY11 | FY12 | FY11 | | FY12 | |
| Nominal GDP (Y/y %) | 0.9 | 2.4 | 0.9 | ( 0.1) | 2.0 | (-0.4) |
| **Real GDP (Chained [2000]; y/y %)** | **1.4** | **2.4** | **1.3** | **(-0.1)** | **1.8** | **(-0.6)** |
| GDP deflator (Y/y %) | -0.6 | 0.0 | -0.4 | ( 0.2) | 0.2 | ( 0.2) |
| All-industry Activity Index (Y/y %) | 2.8 | 3.1 | 2.7 | (-0.1) | 2.8 | (-0.3) |
| Industrial Production Index (Y/y %) | 6.1 | 7.1 | 5.8 | (-0.3) | 6.0 | (-1.1) |
| Tertiary Industry Activity Index (Y/y %) | 1.1 | 1.5 | 1.1 | ( 0.0) | 1.3 | (-0.2) |
| Corporate Goods Price Index (Y/y %) | -0.3 | 0.2 | -0.4 | (-0.1) | -0.0 | (-0.2) |
| Consumer Price Index (Y/y %) | -0.0 | 0.3 | -0.1 | (-0.0) | 0.2 | (-0.1) |
| Unemployment rate (%) | 4.9 | 4.5 | 4.9 | ( 0.0) | 4.6 | ( 0.1) |
| Trade balance (Y tril) | 10.9 | 13.7 | 11.2 | ( 0.2) | 13.3 | (-0.3) |
| Current balance (US$100 mil) | 2674.8 | 3155.0 | 2688.4 | ( 0.5) | 3156.9 | ( 0.1) |
| Current balance (Y tril) | 21.9 | 25.9 | 22.0 | ( 0.1) | 25.9 | ( 0.0) |
| Real GDP components (Chained [2000]; y/y %) | | | | | | |
| Private consumption | 0.4 | 1.1 | 0.5 | ( 0.0) | 1.0 | (-0.1) |
| Private housing investment | 4.6 | 4.4 | 4.6 | ( 0.0) | 4.5 | ( 0.1) |
| Private non-housing investment | 3.0 | 5.7 | 2.9 | (-0.1) | 4.3 | (-1.3) |
| Government final consumption | 0.8 | 0.5 | 0.7 | (-0.1) | 0.4 | (-0.1) |
| Public fixed investment | -6.5 | -4.9 | -6.5 | ( 0.0) | -4.9 | ( 0.0) |
| Exports of goods and services | 4.7 | 9.0 | 3.9 | (-0.8) | 6.7 | (-2.1) |
| Imports of goods and services | 1.8 | 6.4 | 1.5 | (-0.3) | 5.4 | (-1.0) |

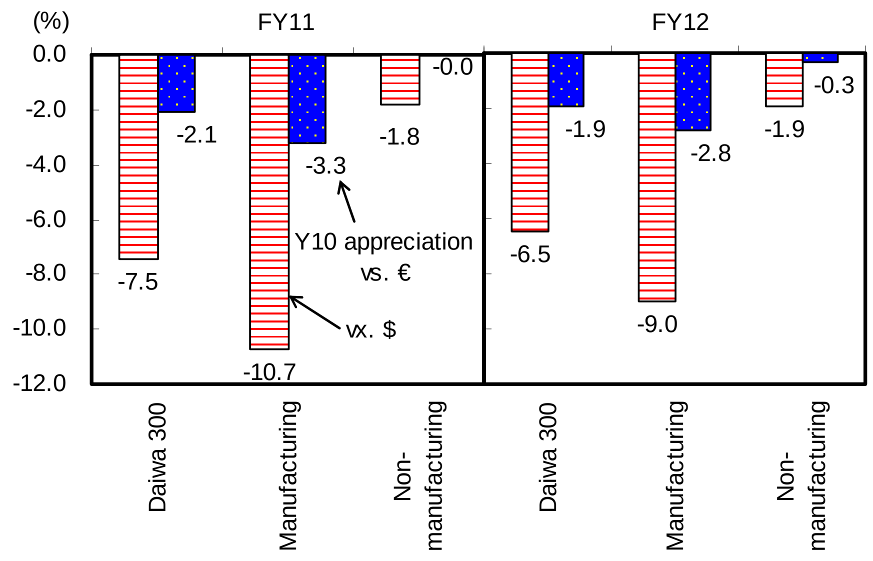
Source: Compiled by DIR.
Note: Figures in parentheses indicate changes from those under the standard scenario.

***Simulation of effect of a stronger yen on corporate earnings***

Chart 6 shows the effect of a stronger yen on corporate earnings (for further details, see "Regular Earnings Survey—December 2010", Yoshimasa Takashina and Kenji Serizawa, Financial Research Center, Daiwa Securities Capital Markets, 3 Dec 2010). The effect on the real economy would intensify in 2012 (the second year after the yen's appreciation) because of the time needed for changes in prices to have a quantitative impact. In the case of nominal earnings, the appreciation of the yen would immediately reduce yen-denominated foreign profits, and a significant impact would be felt from the first year. In particular, this effect would be pronounced for manufacturers that are highly exposed to foreign markets. Should the yen appreciate Y10 from exchange rate assumptions of Y80/$ and Y112/€, recurring profit would contract 9.6% in FY11 (down 7.5 points by way of the dollar and down 2.1 points by way of the euro) and shrink 8.4% in FY12 (down 6.5 points and down 1.9 points).

Findings of this simulation of corporate earnings differ from those in our macroeconomic forecasting model since quantitative changes and their knock-on effects are not factored in. Should quantitative changes be included, recurring profit might be reduced by a greater degree.

**Impact of Stronger Yen on Corporate Earnings** **Chart 6**



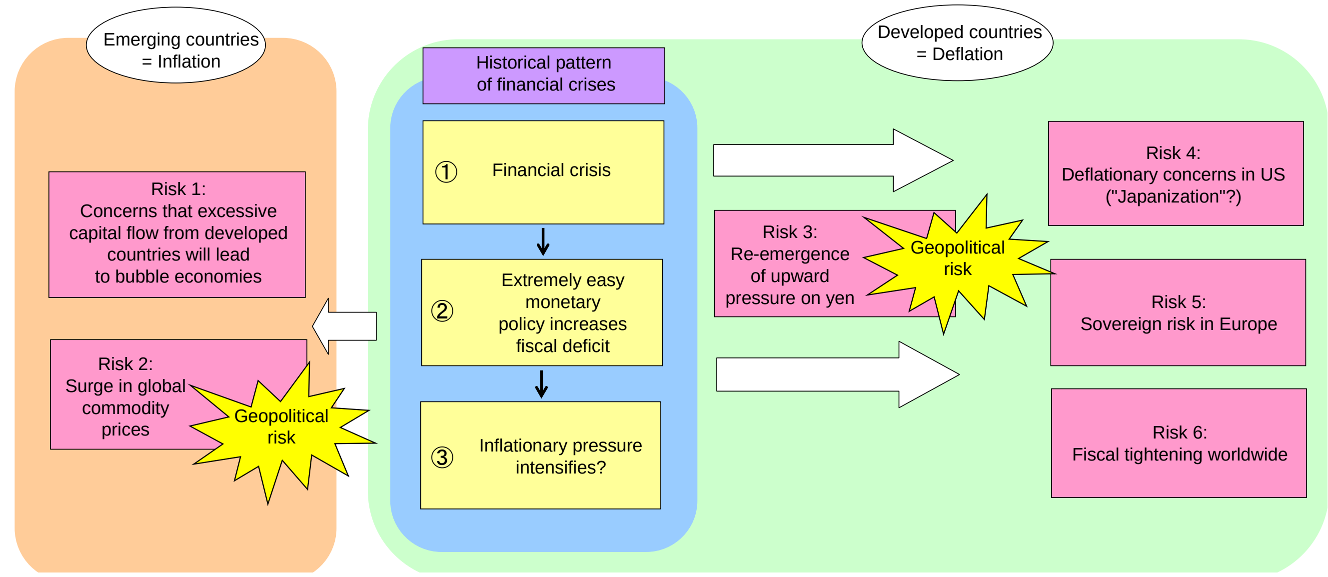

Source: Compiled by DIR based on "Regular Earnings Survey—December 2010" by Daiwa Securities Capital Markets.
Notes: 1) Daiwa 300: 300 TSE listed non-financials, as of 2 December 2010.
2) Standard scenario assumption: Y80/$ and Y112/€.
3) Here, corporate earnings =recurring profit.

## Matters of Interest

***Developments in Bahrain bear watching***

A matter of interest is what will happen in Bahrain. The rulers of Bahrain are mainly Sunni while the citizens are mainly Shiite. Many analysts see Bahrain as being in the midst of a proxy war between Saudi Arabia and the US which support the former and Iran which sympathizes with the latter. Developments related to the Fifth Fleet of the US Navy stationed in Bahrain also warrant monitoring. Depending on how things develop, turmoil in the Middle East may intensify, and the adverse impact on global financial markets may increase. Chart 7 provides a historical overview of the current global economic and financial environment. While our bullish scenario for Japan's economy still holds central place in our forecast, we intend to carefully monitor the effect on Japan's economy of such risk factors as surging resource prices and the re-emergence of upside pressure on the yen ensuing from geopolitical risk.

**Current Global Economic and Financial Environment in Historical Terms** **Chart 7**




Source: Compiled by DIR.