Mapping Japan’s Economic Future

2014 December

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About Japan Risk Forum

“The Japan risk forum®” is a general incorporated association founded in 2013. The majority of its members are risk officers and C level managers from financial and non-financial businesses. It holds closed monthly meetings to discuss major risks relating to Japan, its economic and geopolitical policies from impartial standpoint. Some current and former policy makers are also regular participants.
Summary

• Three representative economic scenarios await Japan: 1) Abenomics, 2) Stagflation and 3) Back to Deflation. Under Abenomics scenario, a combination of a high growth and moderate inflation let Japan avoid a fiscal crisis. Both Stagflation and Deflation scenarios eventually lead to a fiscal crisis.

• In our assessment as of November 2014, the Stagflation scenario became more probable than Abenomics scenario. Evidences suggest Japan’s potential growth is not rising as much to be consistent with Abenomics scenario.

• Recent policy changes on both monetary and fiscal policy significantly improves the near term economic outlook for Japan. At the same time, it exposes Japan to fall into a stagflation trap as soon as late 2016, potentially leading to a fiscal crisis.

• A fiscal crisis is a distinct possibility, if not yet the main scenario. We see Japan potentially stepping into a fiscal crisis in the second half of 2016.

• The Japan fiscal crisis could develop through a number of paths, all intertwined. A fear of tapering could cause VaR shock induced market crash. A sharp steepening in the yield curve, coupled with decline in stock prices, could cause a banking crisis. Japanese households, faced with a financial repression, start to shift their assets overseas, initiating a currency crisis.
1. Japan’s three futures
-Stagflation scenario now ahead of Abenomics and Deflation scenarios-
Source: Japan Risk Forum, JMA

Note:
The framework of “Japan Risk Typhoon Map” is a product from an ongoing discussion in Japan Risk Forum, a Tokyo-based voluntary association of experts in the field of risk management. Its members includes risk officers from major financial institutions, regulators as well as academic and business economists.
Mapping Japan’s economy (2002-2014)
Introducing Japan Risk Typhoon Map ©

Domestic demand deflator (yoy, %)

GDP gap (CAO) + Potential Growth %

General government net financial liabilities (as a percentage of GDP)

<Increase of Net financial liabilities>

less than 3% per year

3 - 5 % per year

more than 5% per year

Source: Japan Risk Forum, JMA

Japan Macro Advisors
Unbiased Opinion on Japan’s Economy
Future scenario 1: Abenomics to succeed

Abenomics to succeed
A combination of monetary easing and structural reform raises Japan’s growth rate to the average of 1.5% between 2013-2020. GDP gap turns positive in 2016. Structural reforms raise Japan’s potential growth rate to 1.2% by 2020. A robust growth coupled with moderate fiscal tightening enables Japan to stabilize its debt to GDP ratio in 2020.

General government net financial liabilities (as a percentage of GDP)

- Increase of Net financial liabilities
  - less than 3% per year
  - 3 - 5% per year
  - more than 5% per year
Future scenario 2: Stagflation

Japan suffers from stagflation

A combination of monetary easing and fiscal stimulus enables Japan to grow by 1.2% on average between 2013-2017. Japan fails to raise its potential GDP growth rate however. A robust domestic demand and relatively weak external demand lead to a sizable current account deficit, causing yen to depreciate. As the inflation rate rises toward 4%, the BoJ is forced into a rapid tightening. Insufficient domestic saving leads to high interest rates depressing growth as well as forcing the fiscal policy to tighten between 2018-2020.
Future scenario 3: Back to deflation

Fiscal austerity put Japan back into deflation

The fiscal tightening to be implemented in 2014 depresses Japan’s growth as well as its inflation expectation. Asset prices deflate with rising yen. While interest rates remain low with a flat yield curve, the low growth and persistent deflation cause the net debt to GDP ratio to rise toward 200% by 2020.
Which scenario looks the most likely?:
- Stagflation scenario took lead in November 2014
How do we score the likelihood of each scenario? 
- We evaluate how close the reality is to scenario narration

### Absolute score

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### Relative score (The scores of the three scenarios add to 100-points)

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# Back to deflation: Assumption as of April 2013

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## Factors in our Risk Scoring Method

### Growth

**Recent trend**
- 1 Consensus forecast for GDP
- 2 Consensus forecast for external demand
- 3 Consensus forecast for capital investment
- 4 Consensus forecast for fiscal impulse
- 5 Consensus forecast for current account
- 6 OECD leading indicators

### Inflation

**Recent trend**
- 1 CPI total excluding food and energy
- 2 Trimmed mean CPI
- 3 GDP domestic demand deflator
- 4 Growth rate of nominal wage

### Financial indicators / Expectations

1 Inflation expectations
2 Interest rate spread
3 Real effective exchange rate
4 Yen - US dollar exchange rate
5 Stock price growth rate
6 Growth rate of property price index
7 Consensus forecast for CPI

### Structural reforms

1 Consensus forecast for capital investment
2 World Bank Doing business ranking
3 Subjective judgement for structural reforms
4 Labor force participation rate

### External factors

1 IMF forecast for global economic growth
2 OECD forecast for economic growth
3 Japan-U.S. Interest Rate Spread (long-term)
4 Japan-Euro area Interest Rate Spread (long-term)
5 Forecast for monetary tightening of FED
6 Forecast for monetary tightening of ECB

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*Japan Macro Advisors*

Unbiased Opinion on Japan's Economy
2. Japan Fiscal Crisis
- Cry wolf story no more-
Factors supporting Japan’s public debt: 2D and C

• **Deflation:**
  - In mid 90s-early 2000s, Japan suffered from negative output gap
  - Between early 90s-early 2000s, Japanese equity and real estates were in a prolonged depreciation process.
  - Global deflationary factors affected Japan since late 2000s

• **Domestic nature of JGB market:**
  - Virtually entire stock of public debt are yen-denominated
  - JGBs were held by small circle of institutional participants

• **Current account surplus**
  - No need to borrow aboard
  - A reflecting of insufficient investment opportunity in Japan
Inflation likely to reach 2% in 2016

1% growth in real GDP raises employment by 0.5%

Working population rapidly shrinking in Japan

Source: disclosed information of each companies, JMA
Inflation likely to reach 2% in 2016

Jobless rate below 3% “hot zone” for wage growth

Labor market tight enough for 2% wage growth

Source: MHWL, MIC, JMA
BoJ will own over 35% of JGB market by early 2016

Our outlook for the BoJ’s JGB market share

Source: Bank of Japan, Ministry of Finance, JMA
2016 fiscal crisis scenario: VaR shock scenario

Starting condition at mid 2016:
- CPI inflation reaches 2%, Unemployment rate at below 3%, Wage growth at 1.5-2.0%
- GDP Growth slightly over 1%

-BoJ remains passive
- 2017 sales tax hike postponed

Yield curve steepens
- VaR shock kicks, 10yr yield reaches 3%

Larger PB deficit and debt service cost renders Japan’s debt unsustainable. Yield curve steepens further, culminating in JGB market crash

The Japanese population goes into a panic and all yen denominated asset prices start to crash

Source: JMA
Starting condition at mid 2016:
- CPI inflation reaches 2%, Unemployment rate at below 3%, Wage growth at 1.5-2.0%
- GDP Growth slightly over 1%

- BoJ remains passive
- Yield curve steepens
- Yen appreciates
- Stock prices decline
- Market expects recession

- Fiscal stimulus
  - BoJ implement QQE3
- Japan suffers recession in 2017
  - Yen to weaken
  - Stock prices keep falling
  - Inflation persists

- Declines in all major asset prices (JGB, Stocks, overseas asset) cause distress in the banking sector.
- Japan suffers recession in 2017
  - SMEs start to go under
  - Bad debt problem resurfaces, culminating in a banking crisis

Japan falls into an economic crisis. Declining tax revenue and fiscal stimulus renders Japan’s public finance unsustainable. The Japanese population goes into a panic and all yen denominated asset prices start to crash.

Source: JMA
2017-18 fiscal crisis scenario: Currency + banking crisis

Starting condition at mid 2016:
- CPI inflation reaches 2%, Unemployment rate at below 3%, Wage growth at 1.5-2.0%
- GDP Growth slightly over 1%

- BoJ maintain QQE
- 2017 tax hike maintained

Banking crisis

Yield curve remain flat
Yen weakens further
Inflation accelerates

Inflation approaches 3% in 2017

Japanese households shift asset overseas
(1% shift = 3% of GDP)

Capital outflow continues
Yield curve steepens but yen keep declining

Market loses confidence in Japan’s ability to maintain the value of its currency. Diminishing confidence put Japan into a recession. Japan implements austerity programs, but fail to stop the yen from declining, all yen denominated assets start to crash.

Source: JMA
Fiscal crisis scenario: How does it happen?

**Stagflation**
Quicker route to a fiscal crisis

- Higher interest payments
- Lower growth
- Lower tax revenue

**Fiscal tightening**

- Policy failure
  - Failure to balance growth and fiscal reconstruction
  - Negative growth
  - Further rise in debt to GDP

- Policy success
  - Moderate growth, yen depreciation, moderate inflation

- Gradual capital flight eventually turning into rapid capital flight

- Sharp yen depreciation
- Capital flight
- Sharp steepening in the yield curve

**Back to deflation**
Slow march to an eventual crisis

- Continued demand for JGB
- Yield curve remains flat
- Debt to GDP rises to 300% by 2020

**Fiscal crisis**

- Sharp yen depreciation
- Capital flight
- Sharp steepening in the yield curve

**Soft landing**

Source: JMA
What happens after a fiscal crisis moment?

**Fiscal crisis**
- Economic uncertainty depressing consumption and investment
- Severe recession
- Financial system instability
- Yen may temporarily loses a hard currency status

**Stabilizing the yen and rate market will be the key**
- An accord between Japanese government and BoJ
- BoJ to intervene in the JGB market
- Government to follow through in its fiscal reconstruction plan

**After 1-2 years of recession, growth returns**
- Sharply weaker yen to boost exports
- Structural reforms leads to capital investment
- Sizably lower standard of living in Japan

Source: JMA
Lifers and banks supported the JGB market until 2013

Source: Bank of Japan, disclosed information of each companies, JMA
BoJ is rapidly increasing its exposure to JGB since 2013

Source: Bank of Japan, disclosed information of each companies, JMA
**Measured in duration risks, lifers by far the biggest absorbers**

Breakdown of JGS risks held by various sectors

<table>
<thead>
<tr>
<th></th>
<th>Amount of JGS holding (trillion yen)</th>
<th>Duration (year)</th>
<th>Duration *Amount of JGS holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Japan</td>
<td>68 201 133 194%</td>
<td>3.3 4.0 0.8</td>
<td>223 808 585</td>
</tr>
<tr>
<td>Banks</td>
<td>78 130 52 66%</td>
<td>3.9 3.2 −0.7</td>
<td>303 417 114</td>
</tr>
<tr>
<td>Major banks</td>
<td>41 76 35 86%</td>
<td>3.1 2.5 −0.6</td>
<td>126 191 65</td>
</tr>
<tr>
<td>Regional banks</td>
<td>25 40 14 55%</td>
<td>5.1 4.4 −0.7</td>
<td>131 176 45</td>
</tr>
<tr>
<td>Other banks</td>
<td>12 14 2 21%</td>
<td>3.9 3.5 −0.4</td>
<td>47 50 4</td>
</tr>
<tr>
<td>Other depository corp.</td>
<td>206 190 −15 −7%</td>
<td>3.1 4.4 1.3</td>
<td>637 835 198</td>
</tr>
<tr>
<td>Japan Post Bank</td>
<td>138 126 −12 −9%</td>
<td>3.1 3.7 0.6</td>
<td>432 471 39</td>
</tr>
<tr>
<td>Shinkin Banks</td>
<td>44 32 −12 −28%</td>
<td>− − − −</td>
<td>− − − −</td>
</tr>
<tr>
<td>Agricultural cooperatives</td>
<td>23 32 9 39%</td>
<td>3.6 6.2 2.6</td>
<td>82 197 114</td>
</tr>
<tr>
<td>Life insurance/Mutual insurance</td>
<td>129 187 58 45%</td>
<td>7.8 12.0 4.2</td>
<td>1002 2241 1239</td>
</tr>
<tr>
<td>Life insurance</td>
<td>112 152 40 35%</td>
<td>7.3 11.8 4.5</td>
<td>820 1792 972</td>
</tr>
<tr>
<td>Mutual insurance</td>
<td>17 34 18 107%</td>
<td>11.0 13.0 2.0</td>
<td>183 449 266</td>
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<tr>
<td>Pension and social security funds</td>
<td>107 102 −5 −5%</td>
<td>4.7 5.8 1.1</td>
<td>507 595 87</td>
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<tr>
<td>Social security funds</td>
<td>80 68 −12 −15%</td>
<td>4.5 5.7 1.2</td>
<td>363 390 27</td>
</tr>
<tr>
<td>Pension funds</td>
<td>27 34 6 23%</td>
<td>5.3 6.1 0.8</td>
<td>144 205 60</td>
</tr>
<tr>
<td>Other</td>
<td>214 188 −26 −12%</td>
<td>4.3 2.6 −1.7</td>
<td>916 483 −433</td>
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<tr>
<td>Financial dealers and brokers</td>
<td>29 25 −4 −12%</td>
<td>3.8 5.3 1.4</td>
<td>111 134 23</td>
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<tr>
<td>Households</td>
<td>36 21 −15 −42%</td>
<td>1.3 0.6 −0.7</td>
<td>48 12 −35</td>
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<tr>
<td>Overseas</td>
<td>59 84 25 42%</td>
<td>9.2 2.0 −7.1</td>
<td>542 172 −370</td>
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<tr>
<td>Other</td>
<td>90 58 −32 −36%</td>
<td>2.4 2.9 0.5</td>
<td>215 165 −50</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>803 998 196 24%</strong></td>
<td><strong>4.0 5.5 1.5</strong></td>
<td><strong>3,218 5,450 2232</strong></td>
</tr>
</tbody>
</table>

Source: Bank of Japan, disclosed information of each companies, JMA
Can insurers keep buying JGS?

Lifers will soon stop their duration extension

End of Mar. 2008
End of March 2008

End of Mar. 2014
End of March 2014

Duration of JGS held by insurer

More than 10 years

7 - 10 years

5 - 7 years

3 - 5 years

1 - 3 years

Less than 1 year

Source: disclosed information of each companies, JMA

Estimated duration of liabilities
Similarly, the lack of lending opportunities have driven regional banks to invest in JGBs.

- In the past 6 years, deposits grew by 18%, while lending grew by 14%.

Regional banks tend to hold longer dated-JGBs. More than 40% of its JGS holdings have 5 years or longer maturity.

Style of duration risk management differ widely among regional banks.
Since April 2013, 61% of regional banks lowered the average duration while the other 37% extended it.

There are a few isolated banks with particularly high duration risk. They are at a significant risk if the JGB yield curve is to steepen.

### Regional banks’ JGS holding by remaining period

<table>
<thead>
<tr>
<th>Duration</th>
<th>2008/03</th>
<th>2014/03</th>
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</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td></td>
<td>16%</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>22%</td>
<td>26%</td>
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<tr>
<td>3 - 5 years</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>5 - 7 years</td>
<td></td>
<td>22%</td>
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<tr>
<td>More than 10 years</td>
<td>3%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: disclosed information of each companies, JMA
A few outliers in their risk profile: Regional bank I

Source: disclosed information of each companies, JMA
Wide variety in the duration risk exposure: Regional bank II

Source: disclosed information of each companies, JMA
Household tripled their non-yen exposure between 2000-2007

Ratio of foreign-currency-denominated assets

Source: JMA, MoF
3. Election 2014
-Ruling coalition to maintain comfortable majority-
Ruling coalition to maintain comfortable majority

Election in 2009
seats: 480

LDP
119

Komei
21

DPJ
308

Your
5

JRP (JIP)
54

PFG
19

Communist
9

others
18

Election in 2012
seats: 480

Election in 2014
seats: 475

Current
seats: 480

294

31

57

18

42

29

Partial alliance
- 5 common policies
  - More autonomy for municipalities
  - Same work same pay
- Candidates coordination so as not to cannibalize.

Prediction range
231-300
29-36
77-142
30-49
4-15
9-15

The ruling coalition aims to gain more than 270 seats.
### Campaign manifestos: No large difference in tax policies

<table>
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<tr>
<th></th>
<th>Consumption Tax</th>
<th>Corporate Tax</th>
<th>Labor Market</th>
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</thead>
<tbody>
<tr>
<td><strong>LDP</strong></td>
<td>8%→10% in April 2017. Introduction of reduced rate system.</td>
<td>More than 2% tax rate cut in 2015 and continue gradual reduction.</td>
<td>Pro-deregulation</td>
</tr>
<tr>
<td><strong>Komei</strong></td>
<td>Same as LDP.</td>
<td>Not mentioned.</td>
<td>Better child-care for working mothers.</td>
</tr>
<tr>
<td><strong>DPJ</strong></td>
<td>Future increase in rates but no specific dates.</td>
<td>Corporate tax cuts must not be financed through fiscal deficit.</td>
<td>Anti-deregulation.</td>
</tr>
<tr>
<td></td>
<td>Future increase in rates but no specific dates.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Together with income tax credit for low income households.</td>
<td></td>
<td></td>
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<tr>
<td><strong>JIP</strong></td>
<td>Reforms before a tax hike.</td>
<td>Not mentioned in their manifesto.</td>
<td>Pro-deregulation.</td>
</tr>
<tr>
<td></td>
<td>No reduced tax rate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Income tax credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PFG</strong></td>
<td>Reforms before a tax hike.</td>
<td>Tax cuts.</td>
<td>Pro-deregulation.</td>
</tr>
<tr>
<td><strong>Communist</strong></td>
<td>No tax hike.</td>
<td>No tax cuts.</td>
<td>Anti-deregulation.</td>
</tr>
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</table>
Main differences are in labor market and social security policies

<table>
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<tr>
<th></th>
<th>Public Debt Management</th>
<th>Nuclear Power</th>
<th>TPP</th>
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<tbody>
<tr>
<td><strong>LDP</strong></td>
<td>Attain PB balance surplus by 2020, specific measures to be decided by 2015 summer.</td>
<td>Pro-nuclear energy</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Komei</strong></td>
<td>Same as LDP.</td>
<td>Future phase out.</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>DPJ</strong></td>
<td>Reduce public works. Increase social security spending.</td>
<td>Cautious in restarting nuclear power plants. Phase out by 2030’s.</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>JIP</strong></td>
<td>30% reduction in public servant payrolls. Privatization of all public financial institutions.</td>
<td>Stronger inspection system is required before restarting power plants. Phase out in the future.</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>PFG</strong></td>
<td>Subsidy cuts.</td>
<td>Pro-nuclear energy</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Communist</strong></td>
<td>Asset tax. Progressive income tax. Higher capital gain tax.</td>
<td>No nuclear power.</td>
<td>No</td>
</tr>
</tbody>
</table>
About Japan Macro Advisors (JMA)

Our mission is to provide a concise and timely analysis on the Japanese economy for the benefit of global audiences.

In the last 20 years, we saw foreign institutions gradually reallocating their resources from Japan to other parts of the world. As a result, when we read reporting on Japan in foreign media, we sense a subtle but noticeable decline in the depth of understanding on what is actually happening in Japan.

In time of a crisis, such lack of understanding can be a critical deficit. What happened in the aftermath of the East Japan Earthquake was shocking as well as instructive for us. The Japanese government, in a crisis mode, failed to provide full and trustworthy information to the non-Japanese reading audience. This information shortage led to an uncertainty and a partial loss of trust in Japan.

The earthquake will not be the last crisis Japan would face. Aside from natural disasters, a fiscal crisis in the near future is almost a certainty and probably economically more damaging for Japan. We hope our services help eliminate the information gap between Japan and the rest of the world and benefit both side of the border.

Takuji Okubo
Managing Director and Chief Economist
JMA web: One stop solution to understand Japanese Economy

JMA provides an easy way to understand Japan economic data
- Concise analysis of economic indicators published by the government as well as by JMA
- Useful and easy to operate chart/data download and sharing function

JMA covers various statistics including our original statistics
- Inflation Expectation
- 10% Trimmed CPI
- JGS held by BoJ
- JGS related statistics etc.

You can change the time range of the chart
- from recent to long-term trend

You can add/change the series displayed in the chart

You can download the data and share the chart with your friends via e-mail.
JMA corporate offer

Contents of our service

10 individual log-in IDs to access the premium web contents
- Free data download, chart sharing
- Economic projection to 2020
- Detail analysis on Japan’s public finance

Semi-annual presentation visits (for London, NY, HK and Singapore)
Direct access to our senior economists (light weight requests and conference calls)
Research assistance service

Fee structure

**Basic fee**: USD 800 USD per month

**Additional individual log-in IDs**: 30 USD per person per month

**Additional consultation with our senior economists**: 1000 USD per hour

Please note that above fees are special rates for early adopters only. Once a quota is filled, we will not longer be offering subscription at this discounted rate.
## Forecast summary

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<tbody>
<tr>
<td><strong>Real GDP (QoQ saar)</strong></td>
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<tr>
<td></td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
<td>FY14</td>
<td>FY15</td>
<td>FY16</td>
<td>Q1E</td>
<td>Q2</td>
<td>Q3E</td>
<td>Q4E</td>
<td>Q1E</td>
<td>Q2</td>
<td>Q3E</td>
<td>Q4E</td>
<td>Q1E</td>
<td>Q2</td>
<td>Q3E</td>
</tr>
<tr>
<td>Private Consumption</td>
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<td>1.2</td>
<td>9.1</td>
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<td>Residential investment</td>
<td>-4.6</td>
<td>-4.4</td>
<td>4.1</td>
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<td>2.0</td>
<td>4.1</td>
<td>4.1</td>
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<td>Non-residential investment</td>
<td>5.6</td>
<td>2.8</td>
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<td>1.9</td>
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<td>Government consumption</td>
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<td>Government investment</td>
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<td>8.9</td>
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<td>4.1</td>
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<td>2.0</td>
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<td>Exports</td>
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<td>5.7</td>
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<td>4.1</td>
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<tr>
<td>Imports</td>
<td>6.9</td>
<td>0.8</td>
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<td>4.1</td>
<td>6.1</td>
<td>4.1</td>
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<td><strong>Contribution</strong></td>
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<tr>
<td>Inventories (ppt)</td>
<td>0.1</td>
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<td>-0.4</td>
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<td>Net exports (ppt)</td>
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<td>-0.1</td>
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<td><strong>Real GDP (YoY)</strong></td>
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<td>0.4</td>
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<td>1.5</td>
<td>2.9</td>
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<td>CPI (% yoy)</td>
<td>2.9</td>
<td>1.8</td>
<td>2.1</td>
<td>3.2</td>
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<td>1.1</td>
<td>1.9</td>
<td>2.1</td>
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<tr>
<td>excl. food &amp; energy (% yoy)</td>
<td>1.9</td>
<td>1.6</td>
<td>1.6</td>
<td>2.2</td>
<td>1.4</td>
<td>1.7</td>
<td>0.6</td>
<td>2.3</td>
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<td>0.8</td>
<td>1.0</td>
<td>1.4</td>
<td>1.6</td>
<td>1.8</td>
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<tr>
<td>Unemployment rate (%)</td>
<td>3.6</td>
<td>3.2</td>
<td>2.8</td>
<td>3.5</td>
<td>3.1</td>
<td>2.7</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.5</td>
<td>3.3</td>
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<td>3.0</td>
<td>2.8</td>
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<tr>
<td>Employment (%yoy)</td>
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<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
<td>0.4</td>
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<td>Bank of Japan Policy Rate</td>
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**Notes:**
- QoQ saar: Quarter over Quarter seasonally adjusted at annual rate.
- YoY: Year over Year.

*Source: Japan Macro Advisors*
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