Japanese Government Bond
- Japan’s Debt Management and Fiscal Consolidation -

June, 2012
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Ministry of Finance, Japan
I. Debt Management
### Market Issuance Plan by JGB Types

#### Annual JGB Issuance Plans

Annual JGB Issuance Plans are published in late December along with other Budget Documents. Product by product break down is determined through the dialogue with market participants.

#### Details of Auctions for Enhanced-Liquidity

Details of Auctions for Enhanced-Liquidity will be determined on a quarterly basis taking market conditions into consideration.

#### Inflation-Indexed Bonds

Market Issuance Plan by JGB Types

<table>
<thead>
<tr>
<th>JGB Types</th>
<th>FY2011 (Initial) (a)</th>
<th>FY2011 (Adjusted by 4th Supplementary Budget) (b)</th>
<th>(b) - (a)</th>
<th>FY2012 (Initial) (c)</th>
<th>(c) - (a)</th>
<th>(c) - (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-Year</td>
<td>0.4 × 4 times 1.6</td>
<td>0.4 × 4 times 1.6</td>
<td>—</td>
<td>0.4 × 4 times 1.6</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>30-Year</td>
<td>0.7 × 8 times 5.6</td>
<td>0.7 × 8 times 5.6</td>
<td>—</td>
<td>0.7 × 8 times 5.6</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>20-Year</td>
<td>1.1 × 12 times 13.2</td>
<td>1.1 × 12 times 13.2</td>
<td>—</td>
<td>1.2 × 12 times 14.4</td>
<td>+ 1.2</td>
<td>+ 1.2</td>
</tr>
<tr>
<td>10-Year</td>
<td>2.2 × 12 times 26.4</td>
<td>2.2 × 12 times 26.4</td>
<td>—</td>
<td>2.3 × 12 times 27.6</td>
<td>+ 1.2</td>
<td>+ 1.2</td>
</tr>
<tr>
<td>5-Year</td>
<td>2.4 × 12 times 28.8</td>
<td>2.4 × 12 times 28.8</td>
<td>2.4 × 8 times 29.2</td>
<td>+ 0.4</td>
<td>2.5 × 12 times 30.0</td>
<td>+ 1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.5 × 4 times 29.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Year</td>
<td>2.6 × 12 times 31.2</td>
<td>2.6 × 12 times 31.2</td>
<td>2.6 × 8 times 31.6</td>
<td>+ 0.4</td>
<td>2.7 × 12 times 32.4</td>
<td>+ 1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.7 × 4 times 31.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBs (1-Year)</td>
<td>2.5 × 12 times 30.0</td>
<td>2.5 × 12 times 30.0</td>
<td>—</td>
<td>2.5 × 12 times 30.0</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TBs (6-Month)</td>
<td>0.9</td>
<td>—</td>
<td>▲ 0.9</td>
<td>0.9</td>
<td>—</td>
<td>+ 0.9</td>
</tr>
<tr>
<td>10-Year Inflation-Indexed</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Auctions for Enhanced-Liquidity</td>
<td>0.6 × 12 months 7.2</td>
<td>0.6 × 12 months 7.2</td>
<td>—</td>
<td>0.6 × 12 months 7.2</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>144.9</strong></td>
<td><strong>144.8</strong></td>
<td>▲ 0.1</td>
<td><strong>149.7</strong></td>
<td>+ 4.8</td>
<td>+ 4.9</td>
</tr>
</tbody>
</table>

(Note1) In FY2012, 40-Year Bonds will be issued in May, August, November and February, while 30-Year Bonds will be issued in April, June, July, September, October, December, January and March.

(Note2) With regard to TBs(6-Month), only the total amount is listed since TBs and FBs are issued as unified bills (T-Bills).

(Note3) Details of Auctions for Enhanced-Liquidity will be determined on a quarterly basis taking market conditions into consideration.

(※) Practical discussions will be held with market participants on detailed product designs etc toward resuming the issuance of Inflation-Indexed Bonds. The resumption is then expected with appropriate conditions in place.
JGB yield curve is among the most robust through extensive arbitrage by global investors.
Market Issuance Plan by JGB Types

- Japan issues wide range of JGBs, responding to investors' needs and preferences.
- In recent years issuance of super long-term bonds has increased substantially.

<table>
<thead>
<tr>
<th>(trillion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term (Treasury-Bills)</td>
</tr>
<tr>
<td>Super long-term (20, 30, 40-year)</td>
</tr>
<tr>
<td>Auctions for Enhanced-Liquidity</td>
</tr>
</tbody>
</table>

(Note) FY2003~FY2010 : Actual

<table>
<thead>
<tr>
<th>(FY) (Initial)</th>
<th>(4th Supplementary) (Initial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>34.2</td>
</tr>
<tr>
<td>04</td>
<td>34.2</td>
</tr>
<tr>
<td>05</td>
<td>29.9</td>
</tr>
<tr>
<td>06</td>
<td>24.8</td>
</tr>
<tr>
<td>07</td>
<td>22.8</td>
</tr>
<tr>
<td>08</td>
<td>21.0</td>
</tr>
<tr>
<td>09</td>
<td>20.4</td>
</tr>
<tr>
<td>10</td>
<td>20.4</td>
</tr>
<tr>
<td>11</td>
<td>20.4</td>
</tr>
<tr>
<td>12</td>
<td>20.4</td>
</tr>
</tbody>
</table>

(Note) FY2003~FY2010 : Actual
The Average Maturity of JGB

- The average maturity of JGB has been extended. Both issuer’s intention to increase stability in funding and investors’ preferences for longer dated securities have contributed to the extension.

**Annual Market Issuance**

<table>
<thead>
<tr>
<th>(FY)</th>
<th>(month)</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>80 months</td>
<td>64 months</td>
</tr>
<tr>
<td>06</td>
<td>84 months</td>
<td>69 months</td>
</tr>
<tr>
<td>07</td>
<td>84 months</td>
<td>73 months</td>
</tr>
<tr>
<td>08</td>
<td>88 months</td>
<td>75 months</td>
</tr>
<tr>
<td>09</td>
<td>87 months</td>
<td>77 months</td>
</tr>
<tr>
<td>10</td>
<td>91 months</td>
<td>80 months</td>
</tr>
<tr>
<td>11</td>
<td>93 months</td>
<td>83 months</td>
</tr>
<tr>
<td>12</td>
<td>93 months</td>
<td></td>
</tr>
</tbody>
</table>

(Note) FY2003-2010: Actual figures  
FY2011: Figure based on 4th Supplementary budget  
FY2012: Figure based on the initial issuance plan

(Note) End of FY2011: Preliminary figure as of the end of December FY2011
For the preparation of JGB issuance plans, MOF engages in a dialogue with market participants and additionally uses the result of Cost-at-Risk analysis for quantitative examination purpose.

(Note1) Interest payment ratio = Interest payment cost / Average amounts outstanding.

(Note2) Relative CaR is the difference between the absolute CaR and the median payment ratio.
Abundant national savings contribute to 93% + domestic ownership of Japanese Government Bonds.

(The end of Dec. 2011(QE))

Total 755.4 trillion yen

(Source) Bank of Japan, “Flow of Funds”
(Note1) “JGB” includes FILP Bonds, does not include T-Bills.
(Note2) “Banks, etc.” includes Japan Post Bank, “Securities investment trust” and “Securities Companies.”
(Note3) “Life and Nonlife Insurance” includes Japan Post Insurance.
Breakdown of Government Securities Holders

Japan
(The end of Dec. 2011(QE))

- Households: 28.5% (3.8%)
- Foreigners: 50.9% (6.7%)
- Pension Funds: 28.5% (3.8%)
- Public Pensions: 69.7% (9.2%)
- Life and Nonlife Insurance: 169.1% (22.4%)
- Banks, etc.: 312.7% (41.4%)
- BOJ: 67.6% (9.0%)
- Others: 25.8% (3.4%)
- General Government (ex Public Pensions): 1.8% (0.2%)
- Fiscal Loan Fund: 0.8% (0.1%)

Total ¥755.4 trillion

U.S.A
(The end of Dec. 2011)

- Foreign investors: 45%
- Domestic investors: 55%

Total $10.4 trillion

U.K.
(The end of Dec. 2011)

- Foreign investors: 32%
- Domestic investors: 68%

Total £1.3 trillion

Germany

- Foreign investors: 56%
- Domestic investors: 44%

Total €1.7 trillion

France
(The end of Dec. 2011)

- Foreign investors: 39%
- Domestic investors: 61%

Total €5.1 trillion

Italy
(The end of Dec. 2011)

- Foreign investors: 45%
- Domestic investors: 55%

Total €1.6 trillion

Greece

- Foreign investors: 56%
- Domestic investors: 44%

Total €108 billion

(Note) For Japan, the figures includes FILP Bonds and does not include T-Bills. For U.S., the figures include marketable securities and saving bonds. For Germany, France and Italy, the figures include debt or securities issued by entities other than the central government e.g., local governments.

Foreign Investors Presence

While foreign ownership of JGBs has been relatively low, foreigners’ presence in the JGB market has been substantial due to higher turn-over.

(Note1) Calendar base.
(Note2) “JGB” does not include T-Bills. The figures of ② excludes dealers’ transactions.
(Source) Bank of Japan, Japan Securities Dealers Association, Tokyo Stock Exchange
Break-even Inflation rate has been on an upward trend and it is moving in the positive range now.

As of May. 30
II. Fiscal Consolidation
In Japan, as a result of conducting repeated large-scale economic stimulus measures as well as capital injections into financial institutions since 1990’s, national government debt grew rapidly while private debt declined.

(Note) “Gross Debt” is the total amount of debts consisting of loans and securities other than shares.
(Source) Bank of Japan “Flow of Funds”, IMF “World Economic Outlook”
Private and Public Gross Debts

- Japan’s combined gross debts of private and public are continuously increasing while considerable portion of the increase in public gross debt substituted the private gross debt. Likewise, combined gross debts are increasing in the U.S. and the U.K.

(Note) “Gross Debt” is the total amount of debts consisting of loans and securities other than shares.
Changes in private and public gross debts in the U.S., U.K., and Euro zone are very similar to that of Japan in the period following the bubble burst. Following the global financial crisis, they could show a similar path to Japan in the future.

(Note) “Gross Debt” is the total amount of debts consisting of loans and securities other than shares.
Economic stimulus measures also contributed to restoring the soundness of financial sector and decreasing the NPL ratio.
The government sector has absorbed a large part of financial surplus in the domestic sector while private capital demands have remained sluggish due to the balance sheet adjustment in the private sector.

(Source) Bank of Japan “Flow of Funds”
In 2011 the Great East Japan Earthquake and the flood in Thailand forced Japan’s trade balance to a deficit for the first time since 1985 (since which point the comparable data are available).

However the current account remained in surplus and it is expected to remain for the medium term supported by a large surplus of income balance.

(Note) (P) indicates that the figures are preliminary.
(Source) Ministry of Finance “Balance of Payments”, Cabinet Office (Nominal GDP)
Fiscal consolidation had been on track based on the robustness of the economy supported by fiscal measures, injection of public funds into financial institutions, and various structural reforms until it was impeded by the financial crisis since 2007 and the Great East Japan Earthquake in 2011.

"Achive surplus in the primary balance of the central and local governments combined should be achieved early in the 2010s."

Ⅲ. Projection Toward Future
## Economic Growth and Current Account Projections

### Real Gross Domestic Product (%)

<table>
<thead>
<tr>
<th></th>
<th>CY2010</th>
<th>CY2011</th>
<th>CY2012 (Projections)</th>
<th>CY2013 (Projections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>3.0</td>
<td>1.7</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Japan</td>
<td>4.4</td>
<td>-0.7</td>
<td>2.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Germany</td>
<td>3.6</td>
<td>3.1</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>U.K.</td>
<td>2.1</td>
<td>0.7</td>
<td>0.8</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Current Account Balance (% of GDP)

<table>
<thead>
<tr>
<th></th>
<th>CY2010</th>
<th>CY2011</th>
<th>CY2012 (Projections)</th>
<th>CY2013 (Projections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>-3.2</td>
<td>-3.1</td>
<td>-3.3</td>
<td>-3.1</td>
</tr>
<tr>
<td>Japan</td>
<td>3.6</td>
<td>2.0</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Germany</td>
<td>6.1</td>
<td>5.7</td>
<td>5.2</td>
<td>4.9</td>
</tr>
<tr>
<td>U.K.</td>
<td>-3.3</td>
<td>-1.9</td>
<td>-1.7</td>
<td>-1.1</td>
</tr>
</tbody>
</table>

(Source) IMF - World Economic Outlook (April 2012)
Shortening working hours, aging, and erosion of so-called life-time employment reduced the labour input in the 1990s. In addition, suppressed profit margins due to yen’s appreciation also reduced TFP growth.

The stagnation of labour input has continued in the 2000s, and the capital accumulation in the 1990s caused a surplus capital after 2000. TFP growth recovered to a limited extent.

A higher economic growth is expected through further improvement in the TFP growth.

\[
\text{Real GDP Growth} = \text{Capital Input Growth} + \text{Labour Input Growth} + \text{TFP Growth}
\]

(Source) Research Institute of Economy, Trade and Industry
Japanese Population

○ The population in Japan is aging ahead of other countries and is projected to decline.

○ Population (Medium-Variant Fertility)

○ Population (High-Variant Fertility)

(Source) National Institute of Population and Social Security Research
Labour Force Participation Rate

- To minimize reduction in labour force, it is necessary to take policy actions to raise the labour force participation rate to women and the elderly.

**Labour Force Participation Rate**

- **Labour Force Participation Rate by Sex and Age Group**
  - With policy actions,
  - Labour force participation rate (right)
  - Labour force
  - Labour force participation rate (right)

**Life Expectancy (65 years old)**

(Source) Cabinet Office, Government of Japan / Ministry of Internal Affairs and Communications / National Institute of Population and Social Security Research
In Fiscal Management Strategy in 2010, the government set the goal on primary balance where the deficit ratio to GDP should be halved by FY 2015 from the FY 2010 level, and the primary balance surplus should be achieved by FY 2020 at the latest.

In the face of the earthquake, the government decided to increase taxes to pay for the reconstruction. Also, the government clearly manifested a rise in consumption tax by the cabinet decision on the Comprehensive Reform of Social Security and Tax in February 2012.

Primary Balance for the National and Local Governments

- For the national and local governments primary balances, the deficit ratio to GDP should be halved by FY 2015 from the FY 2010 level, and the primary balance surplus should be achieved by FY 2020 at the latest.

- "Achive surplus in the primary balance of the central and local governments combined should be achieved early in the 2010s."

- "For the national and local governments primary balances, the deficit ratio to GDP should be halved by FY 2015 from the FY 2010 level, and the primary balance surplus should be achieved by FY 2020 at the latest."
Measures for Fiscal Consolidation

• Basic Policies for Economic and Fiscal Management and Structural Reform 2002
  (Cabinet Decision, Jun 25, 2002)
  - Aim at a primary balance surplus of the central and local governments combined in early 2010s.

• Basic Policies for Economic and Fiscal Management and Structural Reform 2006
  (Cabinet Decision, Jul 7, 2006)
  - Commit to achieve a primary balance surplus of the central and local governments combined by FY2011.
  - With the aim to also achieve the primary balance of the heavily-indebted central government, the government pushes forward fiscal consolidation while maintaining a proper fiscal balance between the central and local governments.

• Fiscal Management Strategy (Cabinet Decision, Jun 22, 2010)
  - Regarding the primary balance of the national and local governments, the deficit ratio to GDP shall be halved by FY2015 from the FY 2010 level, and the surplus shall be achieved by FY 2020 at the latest.
  - From FY 2021 on, a stable reduction of public debt to GDP ratio for both national and local governments shall be achieved.
  - Based on the current economic forecast and medium to long-term prospects on the economy and public finances, the latest fiscal indices and the progress toward the achievement of fiscal consolidation targets should be examined and published without delays after the outline of the budget is approved for each fiscal year.

  - As an act on special measures for securing financial resources necessary for the reconstruction from the Great East Japan Earthquake, (…) this law sets forth the Special Reconstruction Income Tax and the Special Reconstruction Corporation Tax as well as the measures concerning the issuance of bonds for financial resources concerned.

• Cabinet Decision of the Comprehensive Reform of Social Security and Tax (Feb 17, 2012)
  - For securing stable financial resources for maintaining and strengthening social security and at the same time promoting the fiscal consolidation, the rate of consumption tax shall be raised in stages to 8% on April 2014, and to 10% on Oct 2015 (**The rate includes the shares to the local governments).