Economic Policy and condition after the great east Japan earthquake

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Sources: National Policy Unit White Paper 2012
I. Influence of the Earthquake
The Scale of The Great East Japan Earthquake

Date: March 11th, 2011

Devastated Area:
- From Hokkaido to Kanto region,
- Mainly Northeast Pacific region

Number of Missing and Dead:
- Around 19,000 persons

Damaged Stocks:
- Around 16~25 trillion yen*
- Around 16.9 trillion yen**

*estimated by Cabinet Office, Economic Research Division
**estimated by Cabinet Office, Disaster Management Division

Features:
- Great Damage by Tsunami
- Supply Chain Disruption
- Electricity Constraint
- Damage to Nuclear Power Plant
I. Influence of the Earthquake

The Damage of 3 Tohoku Prefectures

Number of Missing and Dead in 3 Tohoku prefectures
### Estimated Economic Damage of the Great East Japan Earthquake

**Damaged Stocks in Disaster Areas**
*estimated by the Cabinet Office of Japan (June 24, 2011)*

<table>
<thead>
<tr>
<th>Category</th>
<th>Damage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings, etc. (housing, offices, plants, machinery, etc.)</td>
<td>10.4 trillion yen</td>
</tr>
<tr>
<td>Lifeline utilities (water service, gas, electricity, and communication and broadcasting facilities)</td>
<td>1.3 trillion yen</td>
</tr>
<tr>
<td>Social infrastructure (river, road, harbors, drainage, and airport, etc)</td>
<td>2.2 trillion yen</td>
</tr>
<tr>
<td>Others (including agriculture, forestry and fisheries)</td>
<td>3.0 trillion yen</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.9 trillion yen</strong></td>
</tr>
</tbody>
</table>
Foreign assistance and rescue efforts

Tremendous support from the international community

Assistance offered from
- 163 countries and regions
- 43 international organizations
  (As of October 21st 2011)

Rescue teams were dispatched from 29 countries, regions and international organizations
  (As of October 21st 2011)

Source: Ministry of Economy, Trade and Industry

US Navy/US Pacific Command
(Operation Tomodachi)

Ministry of Defence
Outline of Operations of Rescue Teams from Foreign Countries and Regions

- Republic of Korea (12th - 23rd March) Team of 107 rescue members, 2 rescue dogs
- Singapore (13th - 15th March) Team of 5 rescue members, 5 rescue dogs
- Germany (14th - 15th March) Team of 41 rescue members, 3 rescue dogs
- Switzerland (14th - 16th March) Team of 27 rescue members, 9 rescue dogs
- U.S. (15th - 19th March) Team of 144 rescue members (including 12 rescue dogs)
- China (14th - 20th March) Team of 15 rescue members
- U.K. (15th - 17th March) Team of 77 rescue members (including 8 reporters), 2 rescue dogs
- Mexico (15th - 17th March) Team of 12 rescue members, 6 rescue dogs
- Australia (16th - 19th March) Team of 72 rescue members, 2 rescue dogs
- New Zealand (16th - 18th March) Team of 52 rescue workers
- France (16th - 23rd March) Team of 134 rescue members (including 11 Monacans)
- Taiwan (16th - 18th March) Team of 28 rescue members
- Russia (16th - 18th March) 75 rescue members in Team 1, 80 rescue members in Team 2
- Mongolia (17th - 19th March) Team of 12 rescue members
- Turkey (20th March - 8th April) Team of 32 rescue members
- Indonesia (19th - 23rd March) Team of 11 rescue members, 4 members (official and medical staff)
- South Africa (19th - 25th March) Team of 45 rescue members
- Israel (29th March - 10th April) Team of 53 medical staff
- India (29th March - 6th April) Team of 46 relief members
- Jordan (25th April - 12th May) Team of 4 medical staff

Thailand (8th May – 3rd June) Two teams of 2 medical staff

- Sri Lanka (12th May – 1st June) Team of 15 recovery assistance staff (Staff of the Ministry of Disaster Management and Human Rights)
- Philippines (28th June - 11th July) Team of 3 medical staff
Soon after the earthquake, industrial production and exports declined sharply.

Nowadays, industrial production is picking up as the reconstruction of supply chains has progressed. Exports exhibit signs of picking up.
I. Influence of the Earthquake

Consumer Activities

Due to a mood of self-restraint, a concern for lack of electricity and harmful rumors, the Great East Japan Earthquake and Fukushima nuclear plants accident have dampened consumer activities temporarily.

Consumer activities are showing a V-shape recovery.
Supply Chain Reconstruction: Production

I. Influence of the Earthquake

Survey for Outputs of Production Base
(Survey Period: June 14-July 1, 2011)

Directly Affected Production Base (91)
- 13% more than pre-disaster
- 67% 100% pre-disaster
- 7% 80% pre-disaster
- 4% 50% pre-disaster
- 2% 30% pre-disaster
- 7% Not restart
- 80% in total

Indirectly Affected Production Base (137)
- 15% more than pre-disaster
- 68% 100% pre-disaster
- 15% 80% pre-disaster
- 3% 50% pre-disaster
- 3% 30% pre-disaster
- 9% Not restart
- 83% in total

About 80% of Production Bases Reached 100% of Pre-disaster Outputs

Recovery Estimation
- From Jul to Sep: 41%
- From Oct to Dec: 35%

Recovery Estimation
- From Jul to Sep: 54%
- From Oct to Dec: 38%

Source: Ministry of Economy, Trade and Industry

“The Second Emergency Survey on the Actual Status of Industries after the Great East Japan Earthquake”

● Production is steadily recovering toward pre-disaster levels in production bases directly and indirectly affected by the disaster.
Supply Chain Reconstruction: Alternative Suppliers

Survey for Availability of Alternative suppliers:
Secured Alternative Suppliers
(Multiple answers)

- As of Apr 2011: 65% Material Industry, 76% Processing Industry
- As of June 2011: 95% Material Industry, 100% Processing Industry

Survey for Availability of Alternative suppliers:
No Alternative Suppliers
(Multiple answers)

- As of Apr 2011: 12% Material Industry, 48% Processing Industry
- As of June 2011: 0% Material Industry, 18% Processing Industry

*Reason of multiple answer: some companies use plural kinds of materials, component and parts.

Source: Ministry of Economy, Trade and Industry

“The Second Emergency Survey on the Actual Status of Industries after the Great East Japan Earthquake”

- Almost all manufacturers can secure availability of alternative suppliers.
- Supply chain reconstruction has been progressing rapidly.
Impact to the production and sales by the shredding of Supply chain

Impact of shredding of supply chain was resolved early in 2012.

(Source) ANNUAL REPORT ON JAPANESE ECONOMY AND PUBLIC FINANCE 2012
I. Influence of the Earthquake

Management Policies about Supplier of products and parts

Management policies about regions of the suppliers by scale

By scale of capital

- No change of suppliers of products and parts because of present partnership and costs.
- There is plans to promote the diversity of supplier of products and parts.

Management policies about numbers of the suppliers in domestic

By scale of capital

- Decreased significantly
- Decreased
- No Change
- Increased
- Increased significantly

(Source) ANNUAL REPORT ON JAPANESE ECONOMY AND PUBLIC FINANCE 2012
Management Policies about Supply chain from overseas after the east Japan earthquake

There is no need to raise the percentage of supply chain from overseas.

There is no plan to change the percentage of supply chain from overseas.

No change of suppliers of products and parts because of present partnership and costs.

There is plans to begin supply chain from overseas.

There is plans to increase the share of supply chain from overseas.

Large companies plan to increase the share of supply chain from overseas.

(Source) ANNUAL REPORT ON JAPANESE ECONOMY AND PUBLIC FINANCE 2012
Management Policies about Supply chain from overseas after the east Japan earthquake

Ⅰ. Influence of the Earthquake

There is no need to raise the percentage of supply chain from overseas.

There is no plan to change the percentage of supply chain from overseas.

No change of suppliers of products and parts because of present partnership and costs.

There is plans to begin supply chain from overseas.

There is plans to increase the share of supply chain from overseas.

Manufacturing companies plan to increase the share of supply chain from overseas.

(Source) ANNUAL REPORT ON JAPANESE ECONOMY AND PUBLIC FINANCE 2012
“Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake” was decided by the Reconstruction Headquarters in response to the Great East Japan Earthquake on July 29, 2011. The Guidelines constitute a blueprint for the Government and other actors to tackle numerous challenges in the reconstruction process.

BASIC CONCEPT

• Main administrative actors are municipalities.
• The central government will present guidelines for reconstruction and provide support on finance, human resources, know-how and other aspects.
• Reinforce bonds (kizuna) with the international community; “reconstruction open to the world”

TIMEFRAME

• 10 years for the reconstruction period (the first 5 years for the “concentrated reconstruction period”)

RESPONSE ACTIONS TO BE IMPLEMENTED

• Measures for the recovery and reconstruction of the disaster-afflicted areas and for the restoration of lives of affected people
• Measures to be taken in areas closely connected with disaster-afflicted areas;
• Measures for nationwide disaster prevention and reduction.

BUDGET SCALE (estimation, national and local governments)

• ¥ 23 trillion in the next 10 years (¥ 19 trillion in the first 5 years)

SUPPORT FOR RECONSTRUCTION

• Create “system of Special Zone for Reconstruction”
• Establish “easy-to-use” grant for implementation of reconstruction plans formulated by local governments
• Work towards reconstruction with the vitality of private sector

POLICIES AND MEASURES

Building Disaster Resilient Regions

• Build regions which respond to challenges of aging society and population decline and mobilize measures on the concept of “disaster reduction”
• Realize swift reorganization of land use

Revival of Local Economic Activities

• Mobilize public and private funds for affected business enterprises, reduce corporate effective tax rate
• Assure quick recovery of logistic infrastructure, promote the use of renewable energy and improve energy efficiency
• Promote foreign investment to Japan and acceptance of foreign nationals with skill and knowledge.

Nation-building incorporating lessons from the Earthquake

• Promote international cooperation to share lessons learnt as global knowledge asset
• Verify measures to be taken in case of future earthquakes and strengthen response capacity to disasters
• Conduct in-depth study on the Great Earthquake including international joint study to contribute to disaster prevention

Reconstruction from Nuclear Accident

• Implement emergency, recovery and reconstruction measures and solve the nuclear accident as soon as possible.
• Monitor and provide information on radiation dose and develop system to assist inspection to assure food safety.

Source: Secretariat of the Headquarters for Reconstruction in response to the Great East Japan Earthquake
### First Supplementary Budget: Total of 4.15 trillion yen (approved on 2 May 2011)
- Disaster relief and other measures: 482.9 billion yen
- Removal of debris caused by the disaster: 351.9 billion yen
- Public infrastructure projects: 1.2 trillion yen
- Loans in response to the disaster: 640.7 billion yen
- Grants to local governments and other expenditures: 120 billion yen

### Second Supplementary Budget: Total of 1.99 trillion yen (approved on 25 July 2011)
- Compensation for damage caused by the nuclear accident: 275.4 billion yen
- Support for people affected by the disaster: 377.4 billion yen
- Reserve fund for recovery and reconstruction: 800 billion yen
- Grants to local governments: 545.5 billion yen

### Third Supplementary Budget: Total of 12.1 trillion yen (11.73 trillion yen allocated for reconstruction) (approved on 21 November 2011)

Source: Secretariat of the Headquarters for Reconstruction in response to the Great East Japan Earthquake
<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster relief</td>
<td>94.1 billion yen</td>
</tr>
<tr>
<td>Removal of debris caused by the disaster</td>
<td>386 billion yen</td>
</tr>
<tr>
<td>Additional public infrastructure projects</td>
<td>1.4 trillion yen</td>
</tr>
<tr>
<td>Loans in response to the disaster</td>
<td>671.6 billion yen</td>
</tr>
<tr>
<td>Grants to local governments</td>
<td>1.6 trillion yen</td>
</tr>
<tr>
<td>Grants in response to the disaster</td>
<td>1.5 trillion yen</td>
</tr>
<tr>
<td>Reconstruction from nuclear accident</td>
<td>355.8 billion yen</td>
</tr>
<tr>
<td>Nation-wide disaster prevention</td>
<td>575.2 billion yen</td>
</tr>
<tr>
<td>Other expenditures related to the disaster</td>
<td>2.4 trillion yen</td>
</tr>
</tbody>
</table>

- Subsidy to locate enterprises/industries in Japan
- Employment measures
- Restoration and reconstruction of fishery, agriculture and forestry
- Project of creating “eco-towns”
- Measures to support small and medium sized enterprises
- Reconstruction open to the world (youth exchange, international cooperation, etc.)
- Development of disaster resilient information network

See the detail: [www.mof.go.jp/english/budget/budget/fy2011/11sb03.pdf](http://www.mof.go.jp/english/budget/budget/fy2011/11sb03.pdf)
II. Japanese Economy
### Quarterly Estimates of GDP

Figures in brackets show contributions to changes in real GDP.

<table>
<thead>
<tr>
<th></th>
<th>(%, YoY)</th>
<th>(%, QoQ, S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CY2010</td>
<td>CY2011</td>
</tr>
<tr>
<td>GDP</td>
<td>4.4</td>
<td>-0.7</td>
</tr>
<tr>
<td>Domestic Demand</td>
<td>(2.7)</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Private Demand</td>
<td>(2.3)</td>
<td>(-0.1)</td>
</tr>
<tr>
<td>Private Consumption</td>
<td>2.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Private Housing</td>
<td>-4.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Non-residential Investment</td>
<td>0.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Private Inventory</td>
<td>(0.8)</td>
<td>(-0.5)</td>
</tr>
<tr>
<td>Public Demand</td>
<td>(0.4)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Government Consumption</td>
<td>2.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Public Investment</td>
<td>0.4</td>
<td>-3.6</td>
</tr>
<tr>
<td>Net Exports of Goods and Services</td>
<td>(1.7)</td>
<td>(-0.8)</td>
</tr>
<tr>
<td>Exports of Goods and Services</td>
<td>24.2</td>
<td>-0.1</td>
</tr>
<tr>
<td>Imports of Goods and Services</td>
<td>11.1</td>
<td>5.9</td>
</tr>
</tbody>
</table>

(Source) Quarterly Estimates of GDP: January-March 2012 (The Second Preliminary), Cabinet Office
In FY2012, the Japanese economy will grow, driven by domestic demand as intensive implementation of full-fledged reconstruction measures is expected to create steady demand and employment.

As for the world economy, major economies are expected to pick up on the assumption that concerted policy efforts by governments in Europe and others will stabilize the international financial and capital markets under the European sovereign debt crisis. This will create an environment favorable to Japan’s exports and production.

With regard to prices, the rate of increase in consumer prices is forecast to be approximately 0.1%, owing to such factors as the narrowing GDP gap.

Downside risks include a further downturn in the overseas economy amid the deepening European sovereign debt crisis, the appreciation of the yen and the subsequent acceleration of hollowing out of industry, constraints on the electricity supply, and crude oil price increase.

**Main Economic Indicators for FY2012**

<table>
<thead>
<tr>
<th></th>
<th>FY2010</th>
<th>FY2011</th>
<th>FY2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual (%)</td>
<td>Actual (%)</td>
<td>Forecast (Approx%)</td>
</tr>
<tr>
<td>Real GDP</td>
<td>3.2</td>
<td>-0.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Private consumption expenditure</td>
<td>1.5</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Private residential investment</td>
<td>2.4</td>
<td>3.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Private non-residential investment</td>
<td>3.5</td>
<td>0.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Contribution of private demand</td>
<td>2.3</td>
<td>0.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Contribution of public demand</td>
<td>0.1</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Contribution of external demand</td>
<td>0.8</td>
<td>-1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Nominal GDP</td>
<td>1.1</td>
<td>-1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Consumer price index</td>
<td>-0.4</td>
<td>-0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>5.0</td>
<td>4.5</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Note: All figures above except for contributions and unemployment rate are year-on-year growth rate as percentage.

Note: The figures for consumer price index is headline CPI.

Note: The figures for unemployment rate in FY2010 and FY 2011 are estimated by Cabinet Office.
## Main Economic Indicators from 2011 through 2013

<table>
<thead>
<tr>
<th></th>
<th>FY2011</th>
<th>FY2012</th>
<th>FY2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual (%)</td>
<td>Forecast (%)</td>
<td>Forecast (%)</td>
</tr>
<tr>
<td>Real GDP</td>
<td>-0.0</td>
<td>2.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Normal GDP</td>
<td>-1.9</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>CPI (excluding fresh food) (2010=100)</td>
<td>-0.1</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.5</td>
<td>4.3</td>
<td>4.1</td>
</tr>
</tbody>
</table>

(Source) Japan Center for Economic Research "ESP Forecast"
(Average of the economic forecasts collected from 40 economists between April 26 and May 8, 2012)
Exports and Imports

**Imports Quantum Index**

(CY2005=100, SA)

**Exports Quantum Index**

(CY2005=100, S.A.)

Note: The dotted lines show 3MA figures.
### The Outlook of the Supply-Demand Gap in This Summer and Target of Electric Saving

<table>
<thead>
<tr>
<th>Region</th>
<th>Hokkaido</th>
<th>Tohoku</th>
<th>Tokyo</th>
<th>Chubu</th>
<th>Kansai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply-Demand</td>
<td>-1.9%</td>
<td>2.9%</td>
<td>4.5%</td>
<td>5.2%</td>
<td>-14.9%</td>
</tr>
<tr>
<td>Target of Electric Saving</td>
<td>-7%</td>
<td>—</td>
<td>—</td>
<td>-5%</td>
<td>-15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Hokuriku</th>
<th>Chugoku</th>
<th>Shikoku</th>
<th>Kyushu</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply-Demand</td>
<td>3.6%</td>
<td>4.5%</td>
<td>0.3%</td>
<td>-2.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Target of Electric Saving</td>
<td>-5%</td>
<td>-5%</td>
<td>-7%</td>
<td>-10%</td>
<td>—</td>
</tr>
</tbody>
</table>

(Note) The table above shows the supply-demand gap in the case that the temperature in this summer is the same as the temperature in 2010, without nuclear power plants.

(Source) The package for electric power supply and demand, decided on 18th May 2012, The Energy and Environment Council and Electricity Supply-Demand Review Meeting.
## Reconstruction-Related Demand

### Budgets and Estimated Impacts

<table>
<thead>
<tr>
<th>Dates</th>
<th>Budgets (trillion yen)</th>
<th>Estimated impacts (% of GDP in FY 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2, 2011 supp. Budget</td>
<td>4.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Jul. 25, 2011 supp. Budget</td>
<td>2.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Nov. 21, 2011 supp. Budget</td>
<td>12.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Apr. 6, 2012 budget FY2012</td>
<td>2.5</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### Contracts of Public Works (YoY)
Prices

Consumer Price Index (CY2010=100) and Output gap

(%, yoy)

Output gap
Headline CPI
CPI excluding food and energy

Japanese Economy
Trends of the Overseas Production (Actual and Projection)

Oversea Production Ratio (Actual)

Comparison between Projection (5 years later) and Actual

(Source) Annual Survey of Corporate Behavior, Cabinet Office