

**Twenty-Fourth Meeting of the  
IMF Committee on Balance of Payments Statistics  
Moscow, Russia  
October 24–26, 2011**

**The Effects of the Great Japan Earthquake on Japan's BoP Statistics**

**Prepared by the Central Bank of Japan**





# **The Effects of the Great East Japan Earthquake on Japan's BoP Statistics**

**24th Meeting of the  
IMF Committee on Balance of Payments Statistics  
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October 24-26, 2011**

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# 1. The facts of “the Quake”

## (1) Earthquake and Tsunami Facts

- ❁ The Great East Japan Earthquake (hereinafter “the Quake”) hit the Tohoku area (northern part of Honshu, Japan’s main island) on March 11, 2011.
- ❁ The Quake was followed by tsunamis that devastated many cities in the area, created large aftershocks, and triggered the emission of radiation from the nuclear power plant in Fukushima.
- ❁ 15,811 people have been killed by the Quake and its aftermath, and 4,035 people are missing (as of September 26, National Police Agency).
- ❁ The Cabinet Office roughly estimates that the economic loss in the devastated area amounts to approximately 25 trillion yen (US\$310 billion).

# 1. The facts of “the Quake” (cont’d)

## Largest Earthquakes in the World Since 1900

	Ranking and Location	Year	Number
Magnitude	1 st. Temuco-Valdivia, Chile	1960	9.5Mw
	2nd. Prince William Sound, Alaska	1964	9.2Mw
	3rd. Sumatra	2004	9.1Mw
	4th. The Great East Japan Earthquake	2011	9.0Mw
Death toll	1 st. Haiti region	2010	316,000
	2nd. Tangshan, China	1976	242,769
	3rd. Sumatra	2004	227,898
	(20th) The Great East Japan Earthquake	2011	20,352
Heights* of tsunami	• Prince William Sound, Alaska	1964	32m
	• Sumatra	2004	30m
	• Temuco-Valdivia, Chile	1960	25m
	• The Great East Japan Earthquake	2011	17m

\* Rankings for heights of tsunami are not available.

Source: *United States Geological Survey National Earthquake Information Center, National Geophysical Data Center, Japan Meteorological Agency.*

# 1.The facts of the Quake (cont.)

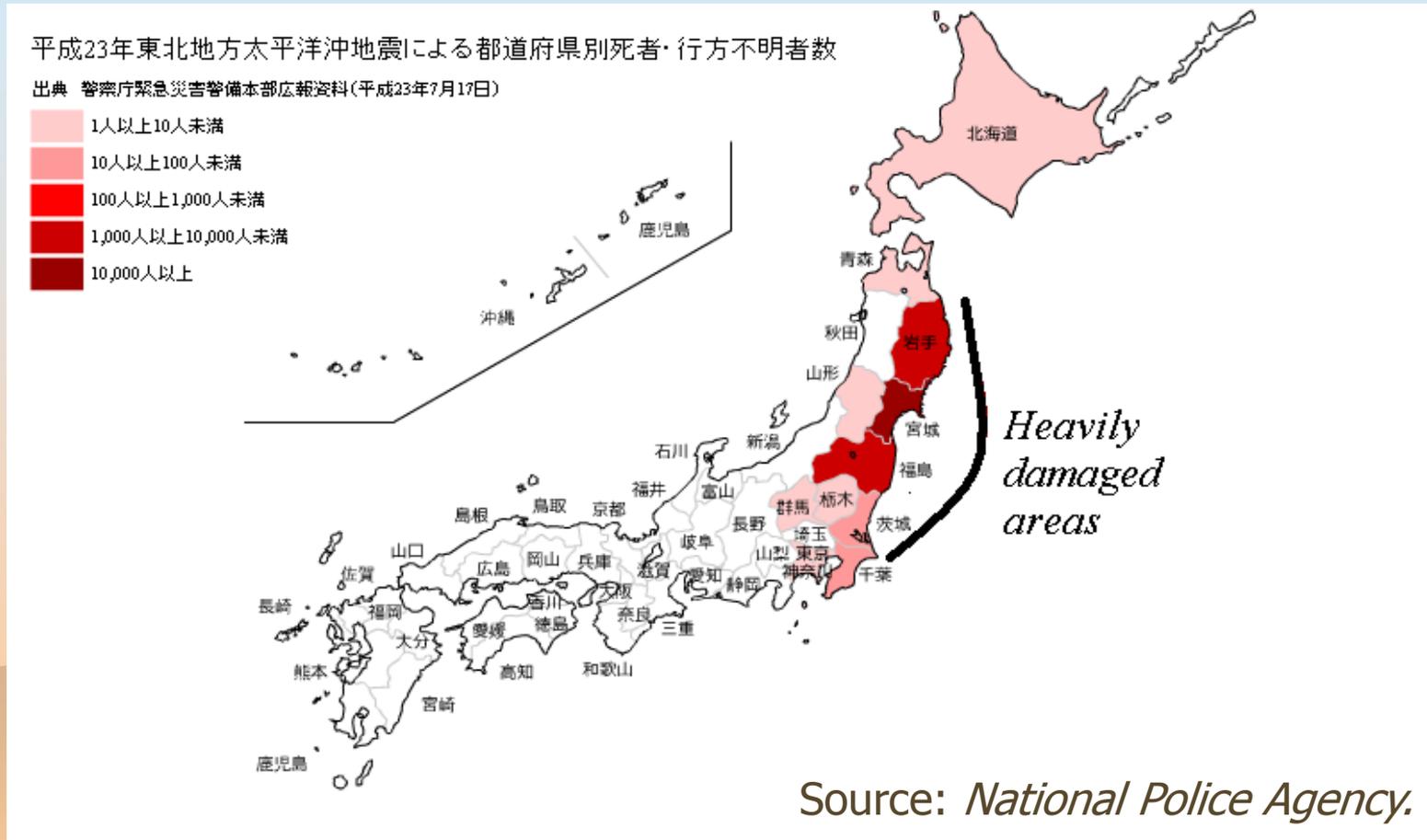
## Major Accidents at Nuclear Power Plants

	Year	Location and Country
Level 7 Major Accident	1986	Chernobyl, USSR
	2011	Fukushima, Japan
Level 6 Serious Accident	1957	Kyshtym, USSR
Level 5 Accident with Wider Consequences	1957	Windscale Pile, UK
	1979	Three Mile Island, USA
Level 4 Accident with Local Consequences	1980	Saint Laurent des Eaux, France
	1999	Tokaimura, Japan

Source: IAEA

## 2. Devastated areas (Touhoku area)

### (1) Death toll and missing persons by prefecture from The Quake



## 2. Devastated areas (cont.)

### Industrial sector's share of Tohoku Area

	Primary	Secondary	Tertiary
Tohoku area	3.4%	37.4%	59.2%
Japan	1.4%	40.1%	58.5%

Source: *Ministry of Economy, Trade and Industry.*

### Share in trade of the devastated area's ports in 2010

	Japan(a)	Devastated areas(b)	b/a
Exports	67.4 tril. Yen	1.2 tril. Yen	1.8%
Imports	60.8 tril. Yen	2.3 tril. Yen	3.8%

Source: *Ministry of Finance.*

## Major factories in the devastated areas

Prefecture	Name of companies	Location
Iwate	Nippon Steel Corporation Kamaishi Works	Tokyo
	IWATE TOSHIBA ELECTRONICS CO.,LTD	Iwate (of Parent company : Tokyo)
	Kanto Auto Works, Ltd. Iwate plant	Kanagawa
	TAIHEIYO CEMENT CORPORATION Ofunato Plant	Tokyo
Miyagi	Nippon Paper Industries Co., Ltd. Ishinomaki Mill	Tokyo
	Tohoku Ricoh Company, Ltd.	Miyagi (of Parent company : Tokyo)
	Miyagi Nikon Precision CO., Ltd.	Miyagi (of Parent company : Tokyo)
Fukushima	DENSO EAST JAPAN CORPORATION	Fukushima (of Parent company : Aichi)
	Shin-Etsu Handotai Co., Ltd.	Tokyo
	NISSAN MOTOR CO., LTD. Iwaki Plant	Kanagawa
Ibaraki	JX Nippon Oil and Energy Corporation Ishohara Plant	Tokyo
	Renesas Electronics Corporation Nasu Factory	Kanagawa
	Asahi Glass Co., Ltd. Kashima Plant	Tokyo
	Sumitomo Metal Industries, Ltd. Kashima Steel Works	Tokyo and Osaka

# 3. Data sources

## (1) General Information about Japan's BOP

- ❁ Most data from Japan's BOP statistics are obtained from the Payments Reports through the ITRS (International Transactions Reporting System).
- ❁ Japan's BOP statistics are compiled monthly and its revision is released only once.
  - ✓ The Ministry of Finance (MoF) and the Bank of Japan (BoJ) release Japan's preliminary BOP statistics of a month about 40 days after the end of the month.
  - ✓ The MoF and the BoJ release Japan's revised BOP statistics of a quarter about 100 days after the end of the quarter.



# 3. Data sources (cont.)

## (2) Data Collection from the Devastated Areas

- ❁ Authorized by a notice from the Finance Minister, delays in reporting due to the Quake had been allowed until June 30.
- ❁ Because the devastated areas had few major reporters, delays in reporting due to the Quake were slightly observed.
  - ✓ An anecdote shows that some employees of foreign financial institutions evacuated from Japan due to the nuclear power plants' accident, which caused a delay in their reporting.



## 4. Statistical treatment of transactions came from the Quake

### (1) **Donation: Current transfers in the current account**

- ❁ **There was no established way to collect data on donations from other countries to Japan; it was neither observed nor anticipated.**
- ❁ **The BoJ can only obtain reports of donations exceeding 30 million yen through the ITRS.**
- ❁ **Regarding donations under 30 million yen, the BoJ asked the Japanese Red Cross Society to report those figures to the BoJ.**
  - ✓ Even without any legal requirement, the Japanese Red Cross Society voluntarily reports those figures to the BoJ, since the Red Cross understands its importance.

# 4. Statistical treatment of transactions came from the Quake (cont.)

## (2) Receipts of relief goods and rescue operations

❁ Receipts of relief goods and rescue operations have never been recorded in Japan's BOP statistics. Collecting and estimating these figures are very difficult.

### (i) Relief goods: goods in the current account

- ✓ Relief goods are not recorded under Japan's trade statistics.
- ✓ Alternative data for relief goods are not available.
- ✓ Information on relief goods' prices is not available.

### (ii) Rescue operations: public services, current transfers in the current account

- ✓ Information on a number of public rescue parties is available.
- ✓ Information on a number of private rescue parties is not available.
- ✓ Information on dispatching costs of rescue parties is not available.

## 4. Statistical treatment of transactions came from the Quake (cont.)

### (3) Changes in the Classification of Insurance Claims

- ❁ The MoF and the BoJ adopted the treatment of insurance claims under BPM6 ahead of wider implementation of BPM6 in August.
- ❁ In Japan's BOP statistics, the MoF and the BoJ started to record insurance claims related to the Quake under capital transfers in the capital account.
- ❁ Those insurance claims had been recorded under current transfers in the current account until then.

## 5. Features of Japan's BOP after the Quake

See the other file.



# 6. Economic statistics other than BOP

## (1) Responses by the Ministry of Internal Affairs and Communications

### (i) After the Quake

- ❁ The ministry took the following measures, considering the difficulty in reporting for people in the devastated areas.
  - ✓ Exempting the reporting requirements for the fundamental statistical surveys
  - ✓ Changing scope and period of the surveys stipulated by the Statistics Act
  - ✓ Lessening the burden of reporting for the surveys stipulated by the Statistics Act

## 6. Economic statistics other than BOP (cont'd)

### (ii) In the Future

- ❁ The ministry will lift those measures when difficulty in reporting is resolved.
- ❁ To decide when to lift those measures, the ministry will communicate with the local governments and also closely monitor the situation.

## 6. Economic statistics other than BOP (cont'd)

(2) Measures taken for the fundamental statistical survey and general census after the Quake

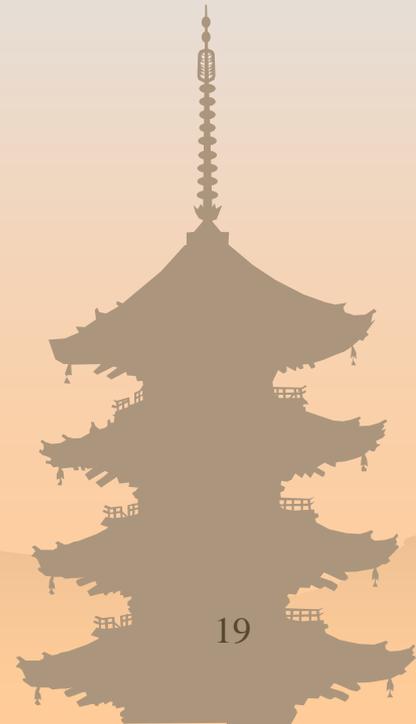
Excluding the devastated areas from the sample	14 surveys
Reducing the number of survey questions	5 surveys
Postponing the period of survey	4 surveys
Postponing the release of and changing the methods for aggregation and estimations	29 surveys
Suspending reminders for reporters, confirming reporters' feasibility of reporting, and other treatments	18 surveys

## 6. Economic statistics other than BOP (cont'd)

### (3) Measures taken for the major statistics released by the BoJ after the Quake

Tankan	Pre-earthquake and post-earthquake data are released for additional analytical use.
Corporate good price index	Missing values due to the Quake are imputed by predefined rules.
Corporate service price index	Outliers are removed. Missing values due to the Quake are imputed by predefined rules.
Financial statistics	Missing values are filled by the carry-forward method.

Thank you



## 5. Features of Japan's BOP after the Quake

Item	Features After the Great East Japan Earthquake (March, April, May)	Recent Highlights (June, July)
<b>Current Account</b>	○ The surplus decreased due to a decrease in the trade surplus. March -32.0%, April -69.5%, May -51.7%	○ The surplus continued to be under the previous year's level June -50.2%, July -42.4%.
<b>Trade Balance</b>	○ The surplus decreased. March -78.3%. April and May turned to deficit.	○ The deficit has turned to surplus. However, the level of the surplus continued to be low. June -82.7%, July -86.3%.
<b>Exports</b>	○ Exports decreased due to supply-side constraints. March -1.4%, April -12.7%, May -9.8%.	○ Trade has recovered due to an easing of supply-side constraints However, exports continued to be low. June $\Delta$ 1.1%, July $\Delta$ 2.3%.
<b>Imports</b>	$\Delta$ Urgent imports of daily necessities were observed. March +16.7%, April +12.3%, May +14.7%.	$\Delta$ Imports of LNG have increased. June +11.9%, July +13.6%.
<b>Services</b>	$\Delta$ The deficit in the balance of transportation and travel increased. March 2.9 times, April +6.3%, May -47.7%.	$\Delta$ The deficit in the balance of transportation and balance of travel increased. June. +31.4%, July 2.1 times.
<b>Transportation</b>	○ The deficit increased due to a decrease in sea flight receipts. March +46.4%, April +30.0%, May +62.3%.	○ The level of the deficit continued to be high. June 2.3 times, July +35.1%.
<b>Travel</b>	○ The deficit increased. In March both credit and debit decreased. In April credit decreased. March +8.6%, April +68.9%, May +30.6%.	○ The deficit increased. Debit recovered, while credit continued to decrease. June +23.7% , July +51.2%
<b>Other Services</b>	$\times$ No impact. March+29.2%, April -17.0%, May+70.4%.	$\Delta$ The credit of royalties and license fees decreased due to a decrease in manufacturing abroad. June +82.5%, July 82.4 times.
<b>Income</b>	$\times$ No impact. March -1.9%, April +34.9%, May +57.5%.	$\times$ No impact. June +31.7%, July +18.1%.
<b>Current Transfers</b>	$\Delta$ Relief donations receipts were observed. March -21.8%, April -33.4%, May+6.8%.	$\Delta$ Relief donations receipts continued to be observed. June +24.4%, July -13.4%.
<b>Capital and financial account</b>	$\Delta$ Inward portfolio investment in equity securities and loans on the asset side of other investment increased.	$\times$ No impact.
<b>Capital account</b>	$\Delta$ In May reinsurance claim receipts were observed.	$\Delta$ In June and July reinsurance claim receipts were observed.
<b>Direct investment</b>	$\times$ No impact.	$\times$ No impact.
<b>Outward</b>	$\times$ No impact.	$\times$ No impact.
<b>Inward</b>	$\times$ No impact.	$\times$ No impact.
<b>Portfolio investment</b>	$\Delta$ Inward portfolio investment in equity securities increased.	$\times$ No impact.
<b>Outward</b>	$\times$ No impact.	$\times$ No impact.
<b>Inward</b>	$\Delta$ Inward portfolio investment in equity securities increased during the fluctuations in stock value.	$\times$ No impact.
<b>Other investment</b>	$\Delta$ Loans on the asset side increased	$\times$ No impact.
<b>Changes in reserve assets</b>	$\times$ No impact.	$\times$ No impact.

(Notes 1) “○” indicates significant impact of the earthquake for the item. “ $\Delta$ ” indicates partial impact of the earthquake for the item.

“ $\times$ ” indicates no impact of the earthquake for the item. Figures for portfolio investment and other investment exclude securities lending transactions.

(Notes 2) Data for April through July are provisional data.

(Notes 3) Numbers show changes in the value of items from the previous year .