

VAKIFBANK GLOBAL ECONOMY WEEKLY

Economic and Financial Effects of Japan Earthquake







T. Vakıflar Bankası T.A.O



Japan's biggest earthquake...






-  The earthquake at 9.0 on Richter scale hit Japan on 11 March 2011 and killed thousands of people triggering a huge tsunami up to 10 meters. The waves inundated farmlands, swept away homes, crops, vehicles, and triggered fires. It is named after “the most powerful earthquake in Japan” according to Japan’s 140 earthquake records.
-  A powerful explosion has hit the 41 year old Fukushima nuclear power station in the north-east of Japan which was badly damaged in Friday's devastating earthquake and tsunami.
-  Even for Japan, a country which is so much used to earthquakes and successfully adapted a calm attitude towards it, the magnitude of this earthquake was unprecedented.
-  Huge earthquake in northeastern Japan will inevitably cause a decline in economic activity. It also has a significant effect on financial markets, especially in equity, FX and oil contracts.

Most affected prefectures accounts for %16.9 of Japan economy ...

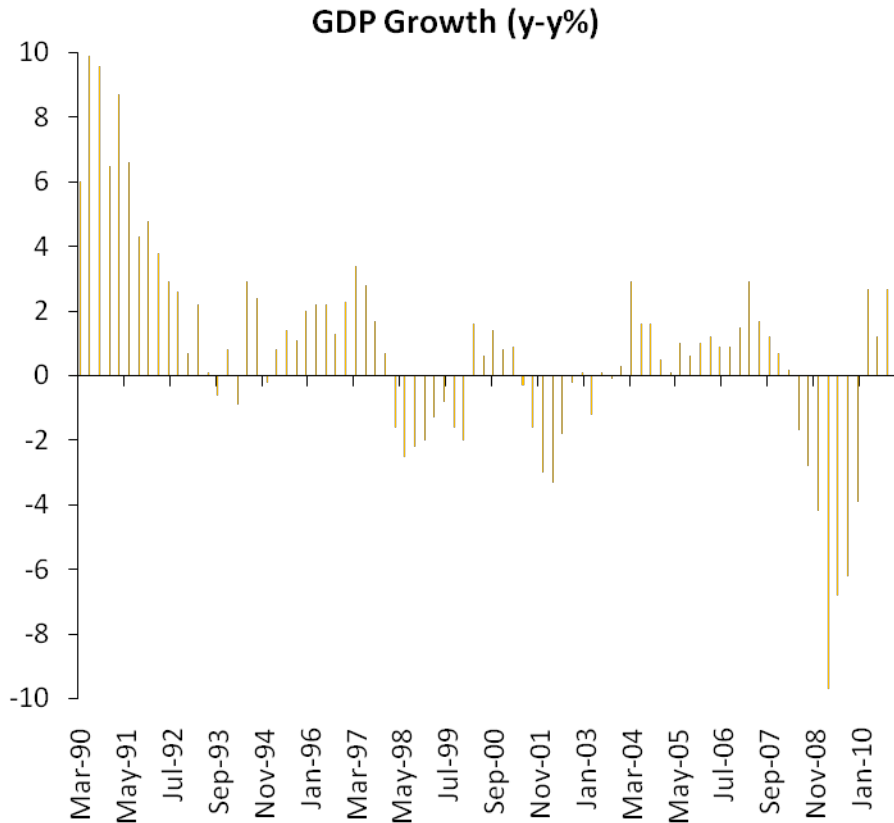
Most Affected Prefectures and Their Shares in Nominal GDP

| | |
|--|--------------------------|
| Miyagi | %1.6 |
| Iwate | %0.9 |
| Fukushima | %1.5 |
| Ibaraki | %2.2 |
| Tochigi | %1.6 |
| Saitama | %4.1 |
| Chiba | %3.8 |
| Aomori | %0.9 |
| These area's total share in Japan economy | %16.9 (¥85,888.9) |

Source: UK Cabinet Office

-  Japan's Gross Domestic Product (GDP) is ¥ 520,249.3 trillion as of 2010. The most affected area in the earthquake procures ¥85,888.9 trillion of Japan's GDP.
-  Nissan Motor Corp., Sony Corp., Toyota Motor Co., Panasonic decided to quit their production, because of power failure.
-  Blackouts are expected to continue until the end of April. TEPCO, one of the most powerful company in Japan, said that the blackouts will affect more than 3 million consumers.


A possible recession in Japan will affect the whole world, due to Japan's share in global economy and its huge foreign exchange reserves...




Source: Bloomberg






Comparison of Kobe and Tohoku Earthquakes

| | Kobe Earthquake (Actuals) | Tohoku Earthquake (Expectations) |
|---|---------------------------|----------------------------------|
| Budget Expansion | ¥ 3 trillion | ¥ 1 trillion |
| Share in Nominal GDP (most affected areas) | %20 | %16.9 |
| Damage | ¥ 100 billion | ¥ 175-200 billion |
| Growth Rate | %1 ↓ | %0.6-%1.1 ↓ |

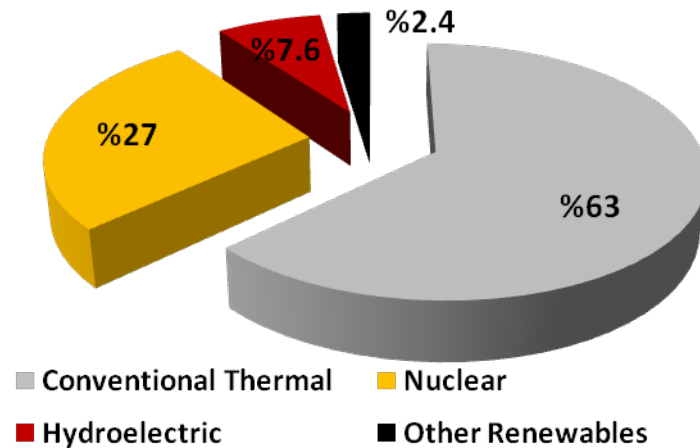
 Japanese economy's share in the global economy is %8.7. Because of the Japanese economy's size, a possible recession in Japan will impact all over the world.

 Kobe Earthquake caused 100 billion ¥ damage. In Tohoku Earthquake, expected damage is near 200 billion ¥.




There are two possibilities for the oil prices...

-  While Japan provides 0.15% of total oil production in the world, it consumes more than 5% of total production. At the same time Japan is the 3rd big oil consumer after US and China.
-  This situation increased the concerns that Japan and global oil demand will decline after the earthquake. These concerns caused a fall in oil prices.
-  Especially after the nuclear explosion in Fukushima Nuclear Station, crude oil prices decreased under \$100 per barrel.
-  However, in the same period US began to rollover to decline the oil prices. Hence, which of them decreased the oil prices, is important to be able to forecast the future movements in oil prices.
-  However, the decline in oil prices may continue in the next term as a result of Japan's trade relationship with US and China.







Japan's Electricity Generation by Source
(%, 2009)



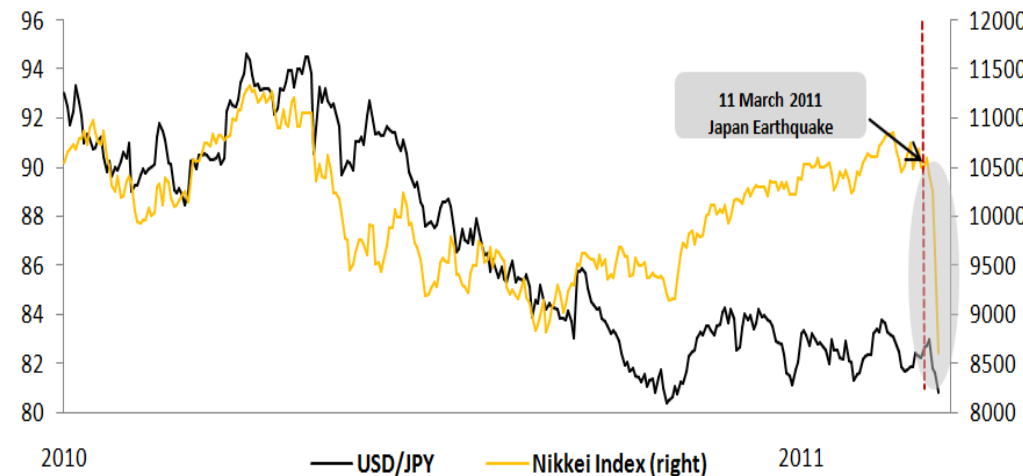
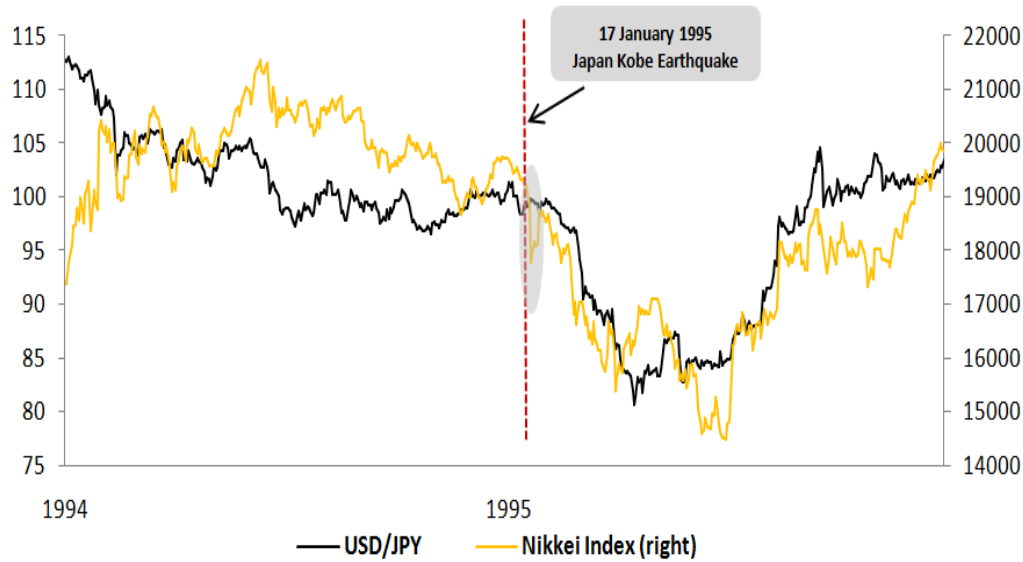
Source: Energy Information Administration

-  Increasing oil prices in the next term is another possibility.
-  27% of Japan's electricity generation was provided by nuclear sources. After the earthquake, damages in nuclear stations negatively affected the electricity generation.
-  Generation in these stations can't turn normal for a long time. This situation will prompt Japan to other sources and increase oil imports. As a result, oil prices may rise in the next term.

After the earthquake, big financial problems occurred...

-  As well as serious ruins and losses, nuclear explosions and radiation hazards have occurred. Hence, Japanese markets has experienced significant declines.
-  Although Japan who is the third largest economy in the world has a strong insurance market as well as it's strong economy, the insurance system has become a controversial issue after Tsunami disaster.
-  It is a significant problem that commercial and industrial risks are outside the insurance coverage in Japan as seen with the results of the earthquake.
-  As known as Chile earthquake, insurance sector has been damaged by cessation or interruption of production activity rather than the disasters such as earthquake.
-  In this situation, because energy, automotive, electronic industries and refineries stopped production after the earthquake in Japan, it is early to say how much the insurance sector was damaged from the earthquake.
-  However, the big earthquake in New Zealand, where insurance cost in this country was between \$6 and \$12 billion, can be showed as an example.

Japan earthquake has shown similarity to 1995 Kobe earthquake...



- Nikkei has experienced its worst period since October 2008, USD/JPY parity which was 82.98 before the earthquake has ranged between 81.66 and 83.30
- The following day, when the earthquake effects became clear, USD/JPY parity which has fallen to its lowest level with 80.62 has continued to decline sharply due to the radiation concerns after the nuclear explosions.
- The last Japan earthquake disaster has shown similarity to 1995 Kobe earthquake.
- As shown in the graph, after March 11th earthquake Nikkei Index has fallen 19%.
- After the 1995 Kobe earthquake Nikkei fell sharply and caught the pre-earthquake levels in 11 months.
- Hence, it can be said that Nikkei might catch the pre-earthquake levels within a year.

Source: Bloomberg

Serkan Özcan

Chief Economist

+ 90 312 455 7087

serkan.ozcan@vakifbank.com.tr

Cem Erođlu

Senior Economist

+ 90 312 455 8480

Cem.eroglu@vakifbank.com.tr

Ümit Ünsal

Economist

+ 90 312 455 8418

umit.unsal@vakifbank.com.tr

Naime Dođan

Researcher

+ 90 312 455 8486

Naime.dogan@vakifbank.com.tr

Fatma Özlem Kanbur

Researcher

+ 90 312 455 8482

Fatmaozlem.kanbur@vakifbank.com.tr

Senem Güder

Researcher

+ 90 312 455 8476

Senem.guder@vakifbank.com.tr

T. Vakıflar Bankası T.A.O

Ataturk Bulvari No: 207

Kavaklıdere 06683 Ankara, Turkey

www.vakifbank.com.tr

Vakıfbank Economic Research

ekonomik.arastirmalar@vakifbank.com.tr

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