Observation

TD Economics
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HIGHLIGHTS

- Japan's earthquake and tsunami is an enormous human tragedy. However, the economic impact is more limited.
- The directly affected area is 8% of Japan's economy, but there will be knock on effects in other parts of Japan.
- The disaster has led TD Economics to cut Japan's real GDP forecast for 2011 from 1.9% to 1.4%.
- However, rebuilding will add to economic growth, lifting the real GDP forecast for 2012 from 1.6% to 2.0%.
- The financial impact of the natural disaster has proven limited, outside of Japanese equities.
- The fiscal cost of rebuilding will not create a sovereign debt problem for Japan.
- The near-term weakness in Japan will have a limited impact on the world economy, or the economies of Canada and the United States.

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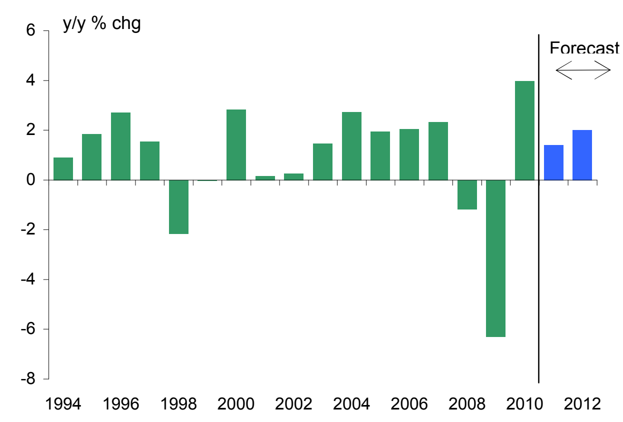
THE ECONOMIC IMPACT OF JAPAN'S NATURAL DISASTER

In the wake of Japan's earthquake and tsunami, TD Economics has been receiving many requests for an economic assessment of the fallout on Japan, the United States, Canada and the global economy. To be honest, it is still very early to tell the full economic ramifications, but we can outline some of the implications. The economics of natural disasters is always difficult to write about, as we are talking about an enormous tragedy, which has killed thousands and has created untold human hardship. This perspective should never be lost. This is why it seems highly insensitive to write that the unemotional, rational economic facts suggest that while the disaster will have a significant impact on the Japan's economy in the near term, the economy should bounce back in the second half of this year. Moreover, the impact on the global economy will be very limited.

Assessing the impact on Japan

In terms of the impact on Japan, natural disasters have three key dimensions. First, there is the immediate devastation. The destruction of previously built structures or purchased plant and equipment do not show up in the add-up for real GDP. However, economic activity is depressed by the disruption to production and spending in the region. The earthquake and tsunami have battered an area that constitutes roughly 8% of the Japanese economy. And, there are knock-on effects on other areas. For example, the loss of electricity generation at several nuclear reactors will dampen activity in other parts of the country for some time. Production supply-chains and/or transportation of goods and services could also be disrupted. So, the disaster will have a significant impact on Japan's economy this year, with the possibility of creating a contraction in March and perhaps through the second quarter of the year.

JAPAN - ECONOMIC GROWTH



Source: Economic & Social Research Institute, Japan Cabinet Office

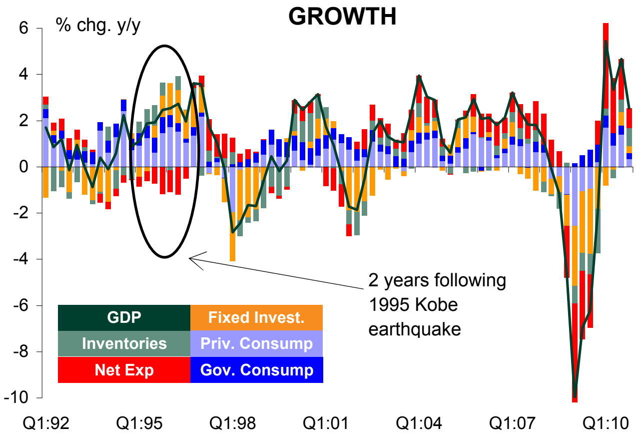
Second, there is the question of how fast economic activity rebounds. Japan is a country with a long history of earthquakes. It is better prepared than most to deal with such disasters. However, there will be lasting effects in certain areas. For example, some of the nuclear reactors will not be put back into service, while others will be put through long maintenance programs before coming back on line. Nuclear power generation accounts for roughly 25% of total Japanese electricity consumption. How fast the country can commission alternative generating sources to pick-up this slack and at what costs will be critical elements impacting the Japanese recovery after the natural disaster. Nevertheless, we believe that the Japanese economy will be growing again by the third quarter.

Third, there is the future rebuilding. The economics of disasters are perverse. The destruction of property has no impact on GDP, but the rebuilding does. Many businesses will have earthquake or flood insurance, and rebuilding will start quickly. The government will also need to invest in infrastructure and structures in the affected area.

When we put these three dimensions together, it has led us to lower our economic growth forecast for Japan from 1.9% to 1.4% in 2011, but we have raised our growth forecast for 2012 by 0.4 percentage points to 2.0%. If history is any reference, in the aftermath of the devastating earthquake that hit the city of Kobe in January 1995, Japanese GDP expanded by 1.8% that year, and accelerated to a growth rate of 2.7% in 1996. Granted, this year the tsunami has exacerbated the destruction caused by the natural disaster, something which did not happen back in 1995. But still, the economic dynamics of reconstruction will once again be at play.

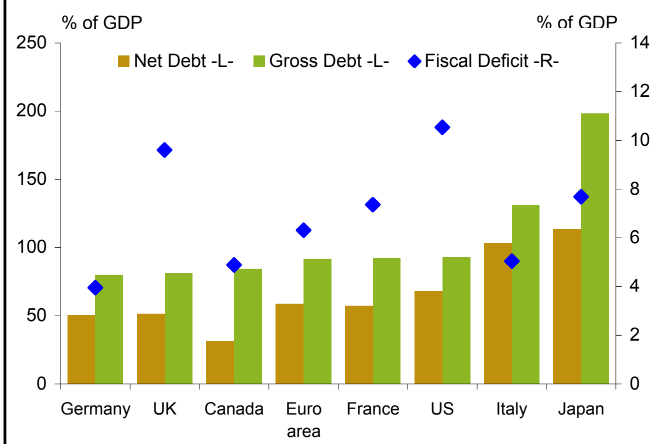
Some worry about the fiscal pressures from rebuilding will place on already strained government coffers. Japan's fiscal situation is the worst across the industrialized world. The government has a gross debt-to-GDP ratio of 210%, a net debt-to-GDP ratio of 120%, and it is currently running a fiscal deficit of about 8% of GDP. It is too early to say what the fiscal cost will be, but the possibility of a sovereign debt problem is low. Early estimates put the cost of reconstruction at around US$ 200 billion, which is roughly 3.7% of

DEMAND CONTRIBUTIONS TO GDP GROWTH



Source: TD Economics based on data from Economic & Social Research Institute, Japan Cabinet Office

FISCAL SITUATION



Source: OECD, 2010

Japanese GDP. Let's assume one fifth of those damages will be covered by insurance companies. This would still leave the Japanese government with a fiscal cost of close to 3% of GDP, which is significant, but should not prompt a fiscal crisis. First, the impact on the fiscal deficit will be incremental, as not all the reconstruction spending takes place at once. Second, as the country recovers from the shock, stronger economic activity will also translate into rising fiscal receipts. Third, 85% of Japanese debt is held by Japanese citizens. Due to the high personal savings rate, it is the Japanese people that determine the borrowing capacity of the government. There is every reason to believe that the willingness to purchase the debt issued to rebuild will be adequate.

Impact on the world economy and financial markets

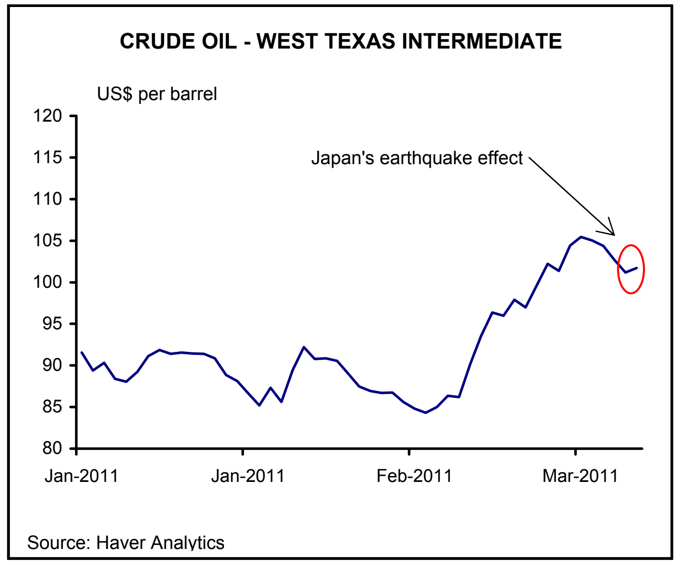
Japan is the third largest economy – China bumped it out of the number two spot last year. This statement has prompted many questions about whether weakness in Japan might derail the global economic expansion. The answer is 'No". Japan is 8.7% of the world economy. So, lowering Japanese economic growth by half a percentage point would translate into a twentieth of a percentage point reduction in global output.

The natural disaster is a negative for Japanese exports and this feeds through the global economy in a number of ways. For Japan, some of the reduced exports will only be delayed, while others will reflect the loss of production in the hard-hit region. The sectors most affected appear to be autos, semiconductors, and electronic components. From a global perspective, the impact on world trade will be limited. Some of the lost exports from Japan will be replaced by increased exports from other countries to meet global demand. A drop off in imports by Japan will occur over the coming quarter, but the rebuilding and the pent-up demand created by the supply disruption will lead to a rebound in imports in future quarters.

The Japanese disaster has had an impact on financial markets, weakening equities and raising bond prices as investors seek the safety of fixed-income products. In the grand scheme of things, these trends have been limited in scope, with the Japanese stock market being the hardest hit. The Japanese yen has strengthened slightly (less than 2 per cent) in the wake of the earthquake and tsunami, despite the commitment by the Bank of Japan to inject additional liquidity as necessary. The explanation is that Japanese insurance companies are expected to have to sell foreign assets and repatriate funds to pay for the insurance policies. This is what happened after the Kobe earthquake in 1995. Oil prices have dipped as well, but this is after having increased amid the political instability in the Middle East and North Africa. The pullback in oil is a reflection of the fact that Japan is a major oil-importing nation. If economic growth in Japan is weaker-than-anticipated, it supports a lower price for crude. However, at the time of writing, WTI crude oil prices were only down close to US$1 a barrel since the disaster struck. Our assessment is that financial markets have reacted in a knee-jerk fashion, but not dramatic fashion.

The disaster will have little impact on the U.S. economy…

The implications of the disaster in Japan on the U.S. economy will depend on the impact on global growth, the direct trade linkages between the two countries, and the impact in financial markets. In terms of the direct impact on trade, the repercussions are likely to be relatively small. Japan is the destination for just under 5% of U.S. exports. A weaker Japanese economy will lower U.S. exports, but the effect will likely be temporary. In terms of global exports, some U.S. companies in the short run may be able to benefit from the disruption of Japanese trade with other nations. In the long run, U.S. exports, which are highly capital intensive, will likely benefit as Japan begins rebuilding. On the import side, the timing of some imports from Japan will likely be disrupted, but the impact should also be limited. Imports from Japan, while large in certain categories, such as autos, represent just over 6% of total U.S. imports. If the import disruption proves lengthy, the substitution could benefit U.S. producers or other exporters to America. In other words, the main effect will be to disruption global production chains.



In terms of financial market implications, the impact for the U.S. has so far been muted. Non-Japanese stocks have not been hard hit, although there are some specific companies being affected. The Japanese Yen has appreciated slightly against the U.S. dollar, U.S. bond yields have fallen a few basis points and West Texas Intermediate has dipped a bit, all of which are small positives for the U.S. economy. However, none of the effects discussed above are substantial and they have not changed our view that the U.S. will deliver moderate economic growth of close to 3% in the coming year.

… or the Canadian economy

The Canadian macro economy is also likely to be little affected by the developments in Japan. Although Japan is a major trading partner, in 2009 it only represented 2.3% of Canadian exports. And, the dampening impact on exports is likely to pass quickly. Coal is a leading export to Japan, and it is possible that it could benefit if nuclear energy is slow to come back on line. After coal, Canada exports agricultural products, shipments of which may be disrupted but will ultimately reach Japan. Food demand won't go away. Canada also exports forest products and copper, commodities that could benefit from the rebuilding. Canadian imports could be curtailed, particularly since autos and auto-related parts are a leading import from Japan and this is a sector located in the disaster area. This could temper auto production in Canada at Japanese company plants and lead to reduced inventories on dealer lots. However, auto sales in Canada are unlikely to be dramatically affected, as non-Japanese auto producers could meet demand. Moreover, Japan only represents 2.5% of overall Canadian imports, so any disruption will primarily be a sectoral story. Again, the impact of the disaster will be mostly felt as a temporary disruption to global supply chains. There will also be individual companies affected. The financial impact is also negligible. Canadian bond yields have only dipped a few basis points, as mentioned crude oil is only down slightly, and the Canadian dollar is broadly unchanged since the day before the disaster. All of these dimensions are small and the impact on the overall Canadian economy will likely be negligible.

The bottom line

In the final analysis, the economic impact on Japan will be significant in the coming months. However, this near-term negative will abate as rebuilding unfolds. There will be a considerable cost to rebuilding, but it does not pose a risk to Japanese sovereign debt. The effect on the world economy will be minimal and will be mainly felt as a disruption to global production and supply chains. The North American economy is unlikely to be materially dampened by the disaster, but some sectors will be impacted.