

## The Impact of Japan's Earthquake and Tsunami on the Global Economy

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*(The following views are those of the author and do not necessarily reflect the views of WellsFaber Asset Management.)*

Prior to the terrible earthquake, tsunami and nuclear plant disaster experienced by Japan recently, the country was already facing some major structural problems, in terms of demographic tendencies, economic growth and government debt. Its workforce is shrinking, due to a low birth rate and an aging population, coupled with the absence of long-term immigration of workers. Population and workforce growth is a key component of economic growth, so Japan is facing a future with slowing underlying economic growth potential. It also has the heaviest public debt burden in the industrial world, at over 200 per cent of GDP. It has been through a more than a decade of recession.

Despite this, Japan is still the world's third-largest economy and the centre of many electronic and automotive production chains. The economy grew by 3.9 per cent last year – its best performance for two decades – but went into reverse in the final quarter.

Japan is now facing its worst crisis since World War Two after the 9.0 magnitude earthquake and a tsunami towering more than 10 metres battered its northeast coast, leaving nearly 28,000 dead or missing, and of course damaging its nuclear reactors at the Fukushima power station, thereby releasing radiation into the area surrounding the reactors. The Fukushima power station was responsible for approximately 8 per cent of Japan's electricity generation. The government estimates the material damage alone could top US\$300 billion, making it by far the world's costliest natural disaster.

What are the short and long term implications of this disaster, both for Japan and the global economy?

### Short to Medium Term Economic Growth

In terms of Japan itself, the immediate severe damage to Japan's nuclear plants, transportation system and infrastructure will disrupt the flow of power, water, oil and gasoline and other inputs into the production process. This will cripple economic activity across a broad range of industries in both the manufacturing and service sectors. As production will be severely impacted, it is likely that the Japanese economy will contract in at least the second quarter of this year. However, the situation should improve somewhat in the third and fourth quarters of 2011 as reconstruction efforts financed from emergency government spending boost growth. Based on developments following the 1995 Hashin quake in Japan, higher government spending could add around 1 per cent to GDP growth over the next year or so.

Although Japan accounts for around 7 per cent of global output, it is a net exporter and runs a massive trade surplus. This suggests that, even if the Japanese economy does slow down, however temporarily, the effect on global demand as a whole will not be significant, and it is therefore likely that the global economy will still

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expand at a pace above 3 per cent this year. However, while the effect may be minimal when looking at the situation from a broad global GDP perspective, some countries will definitely feel the impact from the economic downturn in Japan, especially those countries who export a great deal of raw commodities to Japan, and those who are reliant on Japanese production for their own. This would include many of Asia's key industries which depend on specialized Japanese components to keep their plants operating. For instance, industrial parts from Japan comprise around 25 per cent of South Korea's imports and, as a result, long delays in shipments from Japan could hurt production and economic growth in that country.

However, at this point in time it is difficult to estimate the full effect that a prolonged absence of Japanese production will have on specific industries in developed countries. Japanese companies have already shifted some of their production to other countries such as Thailand and excess capacity in developed countries like the United States provides the global economy with some room to manoeuvre.

In fact, at the most recent meeting of the Bank of Japan (BOJ), the central bank downgraded its assessments of local economic conditions for seven out of nine regions, reflecting the current setbacks in production. Japanese suppliers impacted by last month's quake are struggling to hang onto their business amid shortages of key components and electricity. Companies that rely on that hard-hit supply network are also rethinking their exposure to Japan.

### **Commodities**

The immediate effect of the earthquake has been a decline in oil prices, since the country will need less oil as a result of the halt in production for many Japanese manufacturers. However, this effect should prove to be temporary. The power previously provided by the Fukushima power station will eventually have to be offset by thermal power plants that rely on imports of coal, natural gas and oil from abroad. This likely increase in future demand may well have an impact on global oil prices as 2011 unfolds, especially in light of the ongoing unrest in the Middle East and North Africa.

There may also be an increase in demand for rice and sugar by Japan, whose domestic crops have been destroyed. This may cause a further surge in global agricultural prices which have been under pressure because of poor harvests around the world.

### **Financial Markets**

The Japanese yen actually strengthened following the earthquake. This development occurred because the market anticipated that Japanese governments, firms and financial institutions will have to sell some of their overseas holdings and convert into yen in order to meet the financial demands resulting from reconstruction. For instance, Japanese insurance companies will require yen to meet the huge payouts in claims that will be processed in the months ahead.

There is also the question of increased government debt and its effect on the Yen. At its most recent meeting, the BOJ unveiled a special lending facility for financial institutions in disaster-hit areas. Concerns have been expressed about Japan's ability to take on more debt to finance reconstruction efforts since the country's total debt as a share of GDP is already so high. All these factors may result in the BOJ eventually being forced to raise interest rates to fund reconstruction by bond issues, which would lead to an appreciation of the Yen. In fact, lending at regional banks rose 1.1 per cent year-on-year in March, up from a 0.8 per cent rise in February, which may reflect an increase in demand for funding after the quake. Outstanding commercial bonds held by banks rose 0.2 percent in March, marking the first rise since September 2008, which probably is the result of the same factors.

While an increase in Japan interest rates is possible, Japan's high savings and the fact that most of its debt is held domestically imply that the economy should be in a position to handle the extra debt burden required to get the economy back on its feet. Furthermore, Japanese cabinet ministers, including the finance minister, have said that Japan should avoid new bond issuance.

The Japanese central bank will flood the financial system with liquidity because, at this delicate time, the last thing the economy needs is an appreciating currency hurting export demand. Also, central banks in the G7 plan to take steps to put the brakes on the yen's rapid appreciation. It therefore seems unlikely that Japanese rates will increase for the foreseeable future, and therefore the Yen is unlikely to appreciate over the medium term at least.

### **Long Term Economic Growth**

Many studies have shown that natural disasters have little impact on a country's economic growth in the long term. Some studies even suggest natural disasters boost economic growth in the long run. An oft-cited 2002 study is by Michigan State University economics professor Mark Skidmore and Nagoya City University's Hideki Toya, who wrote that disasters create an impetus for the economy to adopt new technology and make new capital investments.

In fact, Japan's Kobe earthquake in 1995 saw its economy grow faster than expected, at 1.9 per cent in 1995 and 2.6 per cent the following year, driven by a rise in public spending and investment. After just a year, factory activity was back at 98 per cent of its pre-quake levels, according to a 2000 paper by Purdue University professor George Horwich.

Another study found that natural disasters tend to hurt developing economies more than developed economies, as less developed countries tend to be less prepared and suffer more damage from such disasters. Developed countries, on the other hand, have more resources and better institutional capacity to bounce back.

While Japan's structural economic problems will remain, the long term effects of this tragic event in Japanese history are therefore unlikely to be of major significance.