

On the Ground | 07:30 GMT 04 April 2011

Japan – Revised down on power/radiation concerns

- A power supply bottleneck and a protracted radiation fallout are now the biggest menaces to recovery
- We see only gradual resolution to these problems, and revise our growth forecast this year to 0.7% y/y
- We expect USD/JPY to reach 90 by end-2011 on interest rate spreads and fiscal concerns.

Summary

We are revising our growth forecast to take into account the risk of a delayed recovery from the 11 March earthquake due to lingering power shortages and radiation scares. Whereas we still see a V-shaped recovery as we argued in the initial assessment of the catastrophe (see **Special Report, 'Japan – Assessing the impact,' 15 March 2011**), the risk is that the trough may be deeper, and occur later, than previously expected. The latest developments have clearly shown that the quake's impact go beyond the directly affected Tohoku area. Damage to the country's energy infrastructure in general, and to the Fukushima nuclear plant in particular, are now creating crises of their own that warn of an even worse impact to the economy than the quake itself.

We now expect GDP growth to slow to 0.7% in 2011, before a 3.3% rebound in 2012. This is based on our assumption that private economic activities will suffer an initial plunge and will only gradually return to normal towards late summer. However, reconstruction will boost overall output by around 1ppt (in y/y terms) in every quarter starting from Q2 and continuing to end-Q4-2012. Based on these assumptions, our compilation suggests precipitous GDP declines both in Q1 and Q2 followed by a rebound in H2. We also argue that rising radiation scares are a negative demand shock that could act to depress general prices despite the potential for current supply disruptions and reconstruction demands to create pockets of price spikes. This argues for macroeconomic policies to remain extremely accommodative this year.

With the Bank of Japan (BoJ) set to maintain a strong easing bias, interest-rate spreads look set to move decisively against the JPY. There will also be concerns over how Japan will pay for the reconstruction efforts in the absence of either the BoJ buying MoF reconstruction bonds or a consumption tax hike. We see both factors spelling decisive weakness for the JPY and expect USD-JPY to grind higher towards 90 by the end of 2011.

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Table 1: Standard Chartered economic forecasts for Japan

	Q1-11	Q2-11	Q3-11	Q4-11	Q1-12	2011	2012	2013
Real GDP growth	-0.6% (1.2%)	-1.3% (3.1%)	1.3% (1.9%)	3.2% (2.4%)	3.6%	0.7% (1.9%)	3.3% (1.2%)	2.0% (1.6%)
Inflation	0.1% (0.3%)	-0.3%	-0.2 (-0.3%)	-0.2% (-0.5%)	0.0%	-0.2%	0.2%	0.7%
Policy rate	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.25%
USD/JPY	82.83	82.00	88.00	90.00	90.00	90.00	94.00	105.00

Source: Standard Chartered Research



The quake was only the first domino

As it turns out, the 2011 Tohoku earthquake will likely be remembered in history not only as the costliest natural disaster to date, but also for the chain of unfortunate events it set off that have now overshadowed the quake itself. Specifically, the authorities now have on their hands two crises to deal with before reconstruction can start in earnest.

Oil supply jitters may be short-lived

Get used to a power-rationing summer

First is a power bottleneck. By our estimate, the quake caused an immediate 1.4mbd reduction in Japan's oil refinery capacity (one-quarter of the national total) and a 24GW drop in the country's electric power generating capacity (one-tenth of the national total). We view the oil supply bottleneck as manageable: Of the 1.4mbd capacity initially lost, 800kbd has already resumed according to individual refiners' reports, putting current capacity at just below 3.9mbd. Furthermore, the industry was running below capacity before the crisis, outputting 3.95mbd out of a total pre-quake capacity of 4.51mbd. Most of the initial supply disruption reflects transportation problems rather than difficulties with refining capacity, as more than 100 oil trucks were reported lost to the tsunami. As a result, we see the oil supply bottleneck posing only a minor threat to the economy going forward as more refineries are put back on-line and more oil trucks are deployed from the rest of the country.

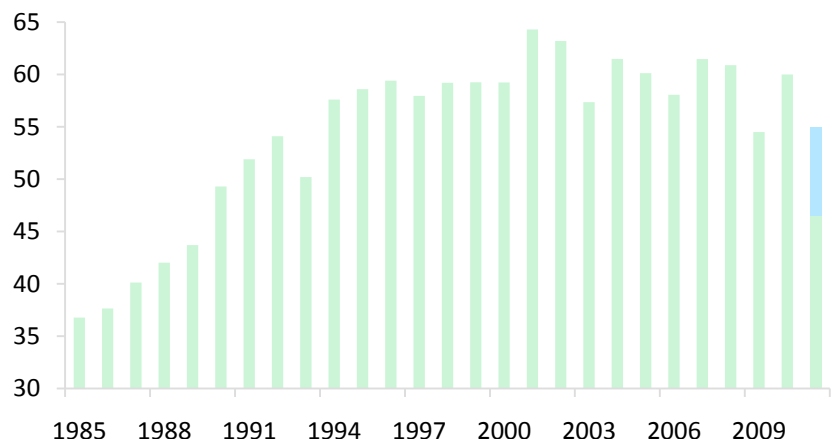
But electricity supply could face a W-shaped bottleneck

In contrast, overcoming the electricity supply bottleneck will be a far greater challenge. Of the 24GW initially put off-line, 10GW is attributable to the two Fukushima plants that will most likely be closed permanently, and we see only a staged and gradual return of the remaining 14GW. Tokyo Electric Power Company (TEPCO) authorities have already announced remedial measures to recoup capacity totalling 10GW by end-July, yet still forecast a supply shortage of 8.5GW during the coming peak summer season. Nonetheless, TEPCO aims to end current rolling blackouts by end-April through a combination of restoring supply and warmer weather.

This suggests that we may see a W-shaped supply bottleneck in the coming months as things get better in May/June followed by renewed tightness in the summer months. The best-case scenario would be the combination of a relatively cool summer and added output from so-called 'peak-load supply' – oil-fired and pumped-storage hydroelectric power – to alleviate the gap. But in any less favourable

Chart 1: Power rationing for the summer?

Peak demand for TEPCO power, in GW (deep blue bar indicates forecast capacity of 46.5GW; light blue bar indicates forecast shortfall of 8.5GW)



Sources: TEPCO, Standard Chartered Research



circumstance, the government will have to continue to resort to rationing measures such as the rolling blackouts that are a disruption to daily life and could take a toll on economic activities.

Radiation scares as a demand shock

All of these power disruptions now appear a minor inconvenience compared with the risk of radiation leakage. The latest developments suggest that ongoing containment and clean-up in the area surrounding the Fukushima nuclear plant will likely be a drawn-out effort lasting quarters, if not years, with the risk of contamination being highly uncertain and volatile in terms of duration, severity and geographic spread.

An open-ended radiation threat discourages economic activities

While the health threat of radiation itself is widely understood, it is difficult to assess the economic impact from an 'open-ended' radiation scare. It is likely that, in the long run, the public psyche in Japan will adjust to an elevated risk of radiation as it has historically done for earthquakes. In the near term, however, it can be viewed as a demand shock, as the risk of contamination raises the perceived 'security costs' of economic activities. The implications are two-fold:

Radiation threat could do to services what the power bottleneck does to manufacturers

First, whereas the impact of power supply shortage is felt most acutely in the manufacturing sector, a radiation scare could be more damaging to the services sector. As a result, the potential loss in economic value could also be bigger as services account for nearly 70% of the economy and cannot be inventoried.

Second, heightened radiation fear is deflationary as it restrains general demand, which is a counterpoint to arguments that the quake could bring an early exit from deflation via short-term supply shortages and longer-term reconstruction. While current disasters could push up the prices of certain goods (food and construction goods), they are likely to put medium-term downward pressure on the majority of price components.

GDP revised to 0.7% this year

Our core scenario calls for a rebound after summer, but radiation fear is the downside risk

As such, we are revising our GDP forecast to reflect a power supply bottleneck and a modest radiation scare that will linger until late summer. We now expect the economy to suffer two quarters of negative growth in Q1 and Q2, following by stabilisation in Q3 (see Table 1). Provided that authorities can put in place longer-term solutions to address the power gap and allay concerns of a debilitating radiation contamination, we expect normalisation of private sector activities in the autumn which, together with reconstruction activities, will lead to a clear acceleration in Q4 and 2012.

We now expect GDP growth to slow to 0.7% this calendar year before rebounding by a strong 3.3% in 2012. This compares with our previous forecasts of 1.9% and 1.2%, respectively. The implied growth in the coming fiscal year starting in April will be 1.7%, which is only 0.2ppt below our original forecast of 1.9% and notwithstanding the government's forecast of a 0.5ppt reduction in GDP in this period due to supply disturbances. The key swing factor to our forecast will be how fast the public will internalise the radiation threat, and it is there that we see the biggest downside risk to the recovery.

FX implications

From an FX perspective, weaker growth or outright technical recession would typically be a positive for the Japanese yen (JPY), making Japanese investors more cautious about investing abroad and putting the focus on the trade surplus. Moreover, downturns in the Nikkei 225 have typically been viewed as reflective of a more generalised downturn in global economic expectations. However, in this specific case, the 'governing dynamics' are fundamentally different – Japan's



downturn on the Tohoku earthquake will not only be in isolation but divergent from the overall global growth trend. This has particularly important implications for the monetary policy view, both on an absolute and a relative basis.

Interest rate spreads and fiscal concerns to fuel JPY weakness

With any possibility of Bank of Japan (BoJ) tightening gone and the central bank set to provide significant excess liquidity for the foreseeable future, interest-rate spreads look set to move decisively against the JPY on a multi-month view. In this regard, fiscal policy remains an important swing factor. With deficit and debt dynamics already strained, it remains in question as to how Japan will pay for the reconstruction effort in the absence of either the BoJ buying MoF reconstruction bonds or a consumption tax hike. While these policy options may appear to come from opposite ends of the policy spectrum, they both spell decisive weakness for the JPY. Japan's public finances are set to deteriorate further just as the country's fiscal flexibility reaches a new all-time low. With public debt now at 226% of GDP, we expect investors to assign an increased risk premium to Japanese assets. Much is made about the Japanese government bond (JGB) market being almost exclusively owned by domestic investors, but we do not think the currency will retain the same immunity.

With all this in mind, we note that the JPY nominal effective exchange rate (NEER) is turning down and looks set for an extended correction lower after a multi-year up-trend. In truth, this is exactly what Japan needs. In this context, real money investors should begin turning underweight the JPY broadly, particularly against currencies where policy expectations are for tighter monetary policy, such as in the euro area, Scandinavia, Switzerland and Canada. In the emerging market (EM) space, commodity-related plays such as Brazil, Mexico and Colombia look very favourable against the JPY given relative policy expectations and the terms-of-trade impact from high oil prices. In Asia ex-Japan (AXJ), we favour the likes of Malaysia and Indonesia against the JPY on policy and energy grounds. We also like Korea against the JPY for valuation.

We forecast USD/JPY at 90 by end-2011

USD-JPY is a more difficult proposition. In most historical examples of coordinated intervention, it can take several months before the action achieves its desired effect; and usually the authorities' resolve is tested. Only two weeks have passed since the G7 took their stand and we think there may be a long road ahead. Additionally, the relative fundamentals in USD-JPY are more mixed, particularly as the Fed pursues its own aggressive monetary easing. While certain regional Fed presidents have turned more hawkish, the core of the FOMC remains committed to an easy path. Until the Fed turns more clearly to a neutral policy stance, USD-JPY may have difficulty gaining significant traction on the topside. In the latest Tankan (a BoJ quarterly survey of Japanese business), large Japanese corporates have assumed that the yen will average 84.20 over this fiscal year (April 1-March 31). This level will act as a significant anchor for a large and important segment of the JPY market and have a notable impact on hedging programmes. We see USD-JPY grinding higher toward 90 by the end of 2011.

For leveraged funds, JPY risk reversals typically favour JPY calls given ultra-low Japanese interest rates. As such, with JPY realised vol falling, options – even simple structures such as JPY put spreads – look particularly attractive at this time.



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