

Post-Quake Trend in LNG Imports and Forecast for 2014 2H

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Foreword

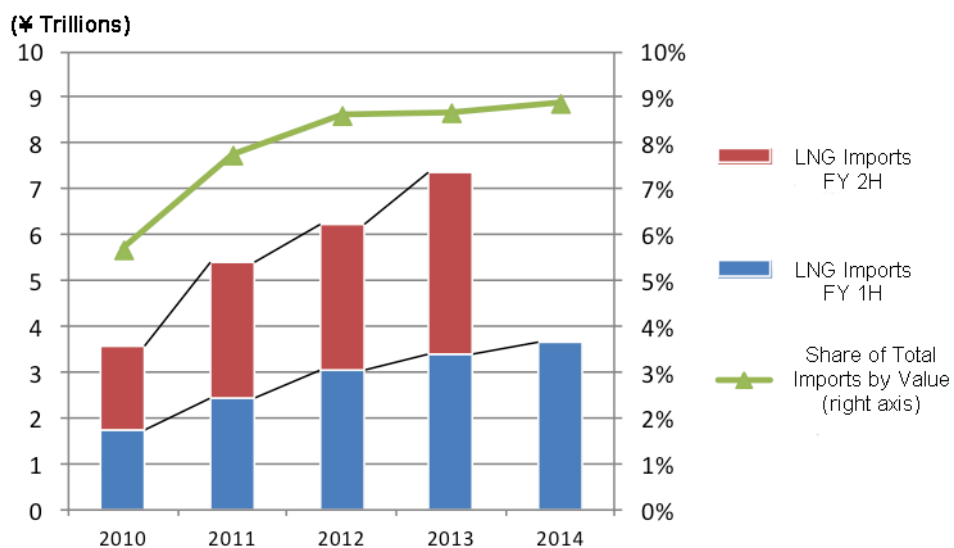
Following the Great Eastern Japan Earthquake of March 2011, the shut down of electricity generating nuclear power plants led to an increase in dependency on fossil fuels as an alternative energy source. The increase in fossil fuel imports caused the trade balance to swing from a 5.3 trillion yen surplus for the 2010 fiscal year prior to the disaster to a 4.4 trillion yen deficit for FY 2011, and stunted export growth caused the trade deficit to widen to 13.8 trillion yen for FY 2013. Within the fossil fuel category, the sudden increase in demand for LNG as fuel for electrical power generation has resulted in a major change in the trend in imports before and after the quake.

This paper uses statistical trade data from FY 2010 thru 2Q 2014 (April to September) to examine the trend in LNG import value as well as import volume and pricing trends by country.

LNG Import Value

Prior to the quake, the value of LNG imports registered 3.5 trillion yen for FY 2010 but swelled to an historic high of 7.3 trillion yen in FY 2013, suggesting that LNG accounted for a 3.8 trillion yen outflow of national wealth within an outflow of 10 trillion yen for the fossil fuels as a whole. For 1H 2014, the value of LNG imports rose by 290 billion yen or 8.7% over to the same period on the previous year to 3.7 trillion yen, an indication the continued year-by-year rise in the value of LNG imports. In FY 2010, LNG accounted for 5.7% of total imports by value, but that figure rose to 8.9% for 1H 2014.

Chart 1: Trend in LNG Imports and Share of Total Imports by Value

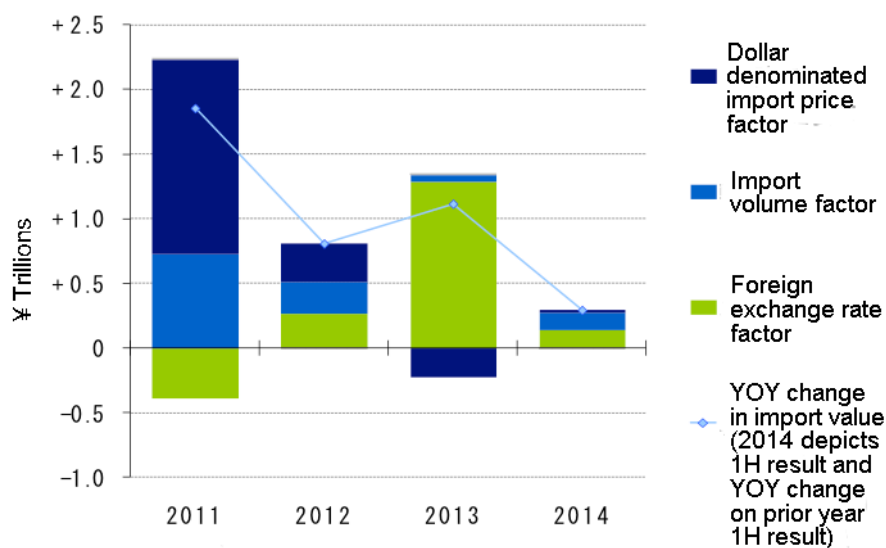


(Source) Ministry of Finance “International Trade Statistics”

Moving from left to right, LNG import value rises continuously, but the cause of the increase varies from year to year (Chart 2). In FY 2011, rising crude oil prices and an increase in spot purchases resulted in a 40.8% rise in dollar denominated prices, an increase of 4.61 dollar per MBtu. At the same time, a 12.62M ton (17.9%) YOY increase in LNG import volume also contributed significantly to the rise in import value. In FY 2012, changes in dollar denominated import prices, import volume and foreign exchange rates each supported the increase to roughly the same extent. In FY 2013, so-called “Abenomics” economic policy caused the yen/dollar exchange rate to rise by 17.3%, a 20.9% YOY weakening, resulting in a marked rise in yen denominated import value. Weakening of the yen continued through 1Q 2014, driving a further increase import value.

Although pricing factors, such as fluctuations in dollar denominated import prices and foreign exchange rates, contributed significantly to the rise in the value of LNG imports, import volume continued to rise year by year.

Chart 2: Factors Affecting Change in LNG Import Value



(Source) Calculation by Ministry of Finance “International Trade Statistics”

Country Specific LNG Import Volume and Pricing

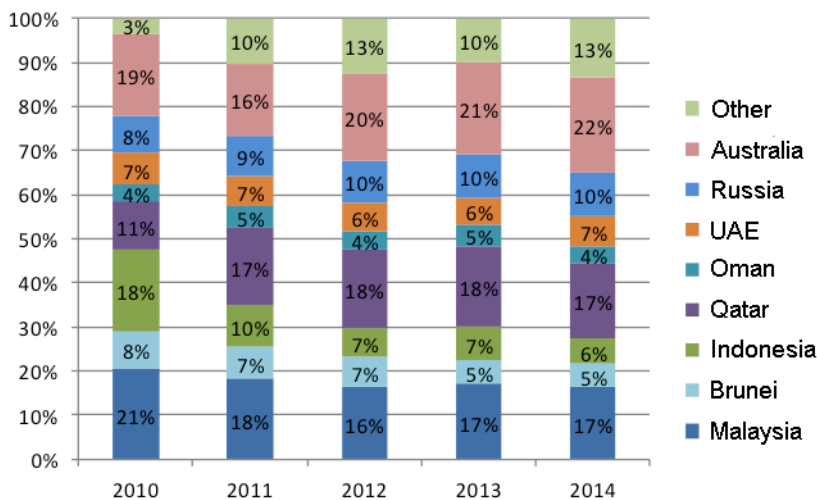
In FY 2010, prior to the quake, 3 Southeast Asian nations, namely, Indonesia, Malaysia and Brunei collectively accounted for over half of LNG imports by volume. Imports from Indonesia, which had been the largest source of imports through FY 2009, fell dramatically from FY 2011 as the result of a contract renewal that slashed volume and resulted in an increase in the average price of all imports to Japan. The relative contribution of imports by volume from these three Southeast Asian nations has fallen dramatically, currently standing around 30%.

On the other hand, Australia has ascended to become Japan’s largest supplier, accounting for more than 20% total imports by volume in FY 2012 due in part to commencement of exports from a new LNG project (Pluto). Increased supply from Australia has driven average prices downward.

In the wake of the earthquake disaster, spot purchases, short term and medium term contracts led to an 85% YOY increase in LNG imports from Qatar in FY 2011, which now ranks as Japan’s second largest supplier after Australia.

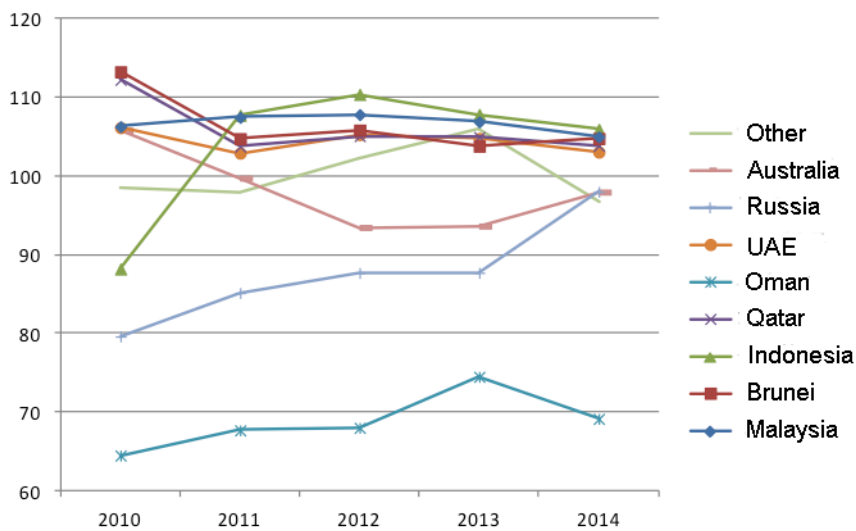
An increase in imports from African gas producing countries such as Nigeria and Equatorial Guinea based on spot purchases and portfolio contracts has caused the relative contribution by volume from countries included in the category [Other] to grow to 10% in the wake of the earthquake disaster.

Chart 3: Comparison of Country Specific Volumetric Contributions



(Source) Ministry of Finance “International Trade Statistics”

Chart 4: Comparative Pricing by Country (Japan Average = 100)



(Source) Ministry of Finance “International Trade Statistics”

2Q 2014 Forecast

Entering 2H 2014 with the yen having weakened to 110 yen per dollar range, forecasters expect continued weakening of the yen to put additional upward pressure on the value of LNG imports. On the other hand, a sharp fall in crude oil prices to the 80 dollar per barrel range and a softening in the price of LNG spot prices suggest that a decrease in dollar denominated purchase prices will serve to reduce the value of LNG imports. With the delay in the restart of nuclear power plants continuing to drag on longer than expected, the trend in rising annual import volume cannot be expected to flip to a significant decline. Given initial forecasts for an exchange rate of 113 yen per dollar, crude oil

prices (JCC) at 88 dollar per barrel and import volumes in line with the current trend, the weakening yen would support a 450 billion yen rise in LNG imports. A fall in dollar denominated import prices would offset this impact by 340 billion yen, resulting in a forecast net increase in LNG imports of 110 billion yen for 2H 2014 over the same period in the previous year. As a result, LNG imports are expected to register a 0.4 trillion yen YOY increase in 2Q, boosting LNG imports to an historic record high of 7.7 trillion yen for FY 2014.

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