

## **Ukraine Crisis: Costs of Economic Sanctions against Russia for Japan**

Concern about damage from energy embargo  
Be prepared for unexpected developments

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### **Summary**

*The Ukraine problem has caused relations between Western countries and Russia to deteriorate. While leaving the door open for diplomatic solutions, Western countries have imposed sanctions on Russia after Crimea's declaration of independence and Russia's annexation of the peninsula. They have also threatened to toughen the sanctions if Russia moves to deteriorate the situation further. Economic sanctions have been considered as one of the measures to toughen the sanctions.*

*Europe is remarkably more negative than the United States about the sanctions against Russia. One reason for such European attitude is that Europe has deepened economic relations with Russia. Japan is also in a difficult position like Europe, because it had been trying to enhance relations with Russia. But Russia absorbs only 1.5% of Japan's exports.*

*Economic sanctions are a double-edged sword that can injure not only Russia as the sanction target but also sanction imposers over a short term. If Japan's and the European Union's exports to Russia are cut to zero, the Japanese economy may contract by some 0.2%. Given the present breakdown of Japan's exports, such development will exert a relatively large impact on transportation machinery production and some adverse spillover effects on iron and steel, and non-ferrous metal production.*

*Rather than the loss of exports to Russia, an embargo on energy imports from Russia would cause greater damage to Japan. Japan's rate of dependence on Russian energy supply rose to 4% in 2013. Nevertheless, any situation where Japan would fail to find any alternative energy suppliers is unconceivable. For example, international cooperation through the International Energy Agency would be a significant response to the Russian energy embargo. Middle Eastern countries that do not necessarily support Russia over the Ukraine Crisis may become alternative energy suppliers. Rather, a matter of concern to Japan may be rise in oil price that may stem from structural changes in the international oil market amid the crisis. If the oil price increases by \$30/bbl due to a Russian oil export decline, the Japanese economy may contract by more than 1%.*

*Japan has reduced its energy self-sufficiency rate to 3% and increased dependence on fossil fuel imports due to the nuclear power plant shutdown. As Japan has originally featured a particularly heavy dependence on energy imports among developed countries, its energy security vulnerability has been frequently pointed out. Today, Japan's energy security has grown even more vulnerable. We must remember that stable energy supply is not always promised. It is an urgent, consistent challenge for Japan to be prepared for energy risks.*

Keywords: Ukraine crisis, Russia, economic sanctions, Japan, Europe, energy security

### Crimea problem triggered deepening of confrontation between West and Russia

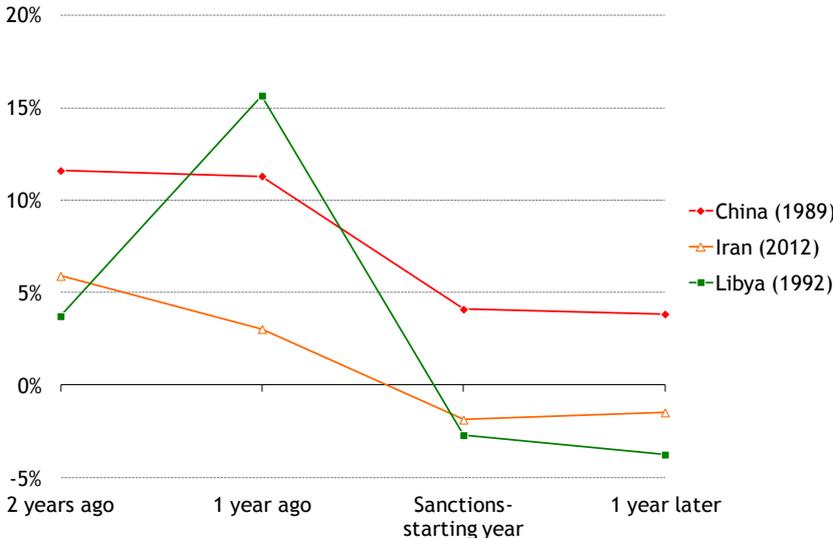
The Ukraine problem has caused relations between Western countries and Russia to deteriorate into what some people call “a new Cold War.” The United States has involved itself with the series of Russian actions more proactively and strongly than indicated by its recent diplomatic posture. In contrast, Europe has remarkably indicated its relatively restrained posture. Japan has been more prudent as it had been about to improve relations with Russia to solve a territorial dispute over the Northern Territories. Given a fear of the Ukraine crisis’ spillover effects on Chinese domestic problems and past China-Russia relations, China has tried to appear a neutral position concerning the crisis hiding behind the principle of non-intervention in other countries’ domestic affairs. India has not remarkably criticised Russia over the crisis. Middle Eastern Gulf countries have yet to express any specific stance.

Western countries have left the door open for diplomatic solutions. On the other hand, they implemented sanctions against Russia, including the suspension of visa issuance for some Russian government officials and interested persons, and a freeze on overseas Russian assets, after Crimea’s declaration of independence and Russia’s annexation of the peninsula. They have also declared to toughen the sanctions if Russia moves to deteriorate the situation further. Economic sanctions have been considered as one of the measures to toughen the sanctions. But it is uncertain whether economic sanctions could directly contribute to solving the problem that has also begun to involve Russia’s domestic political situation.

### Past economic sanctions

However, developed countries’ economic sanctions, though believed to have weakened their effect as times have changed, have in fact exerted due impacts on sanction targets(Figure 1).

Figure 1 Real GDP growth before and after economic sanctions (China, Libya and Iran)



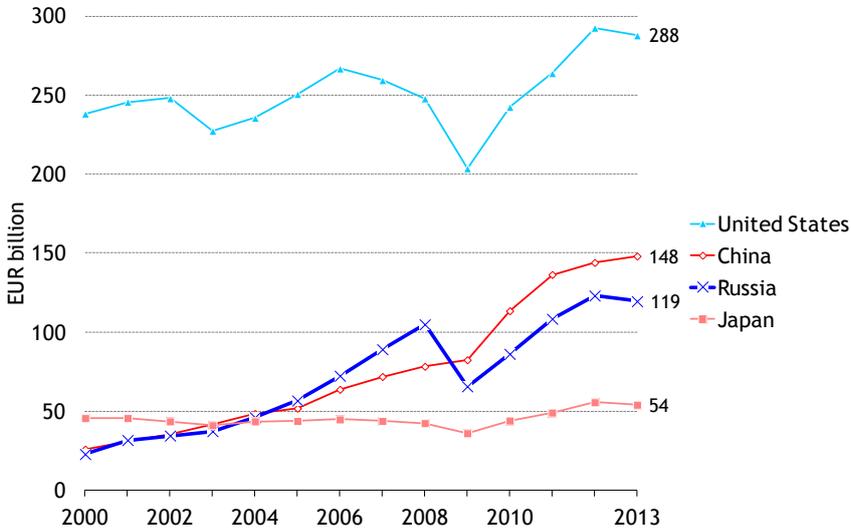
Note: In parentheses are years for starting economic sanctions.  
Source: International Monetary Fund “World Economic Outlook, October 2013”

For example, China saw its economic growth decelerating rapidly from the previous year's 11.3% to 4.1% in 1989 when Western countries imposed economic sanctions after the Tiananmen Square incident. Libya underwent economic sanctions in 1992 due to its refusal to extradite suspects in the 1988 Pan Am airliner bombing and saw its economy beginning to contract in the year. In the latest case, economic sanctions including an oil embargo were imposed on Iran for its nuclear development. The sanctions plunged Iran into economic difficulties accompanied by high inflation, eventually inducing its policy change.

**Europe takes rather restrained posture**

Europe usually demonstrates its strong will to protect democratic values. But it has remarkably taken a more restrained posture than the United States with regard to sanctions against Russia. One reason for such posture may be that Europe has deepened economic links with Russia. The European Union's exports to Russia tripled over the past decade, expanding to €119 billion in 2013 (Figure 2). A comparison of Russia and Japan as the European Union's export destinations shows that the union's exports to Russia were only half of its exports to Japan in 2000. At present, however, the Russian and Japanese positions for the European Union have been reversed. Exports to Russia now account for 7% of total exports for the union, more than double the share for those to Japan.

Figure 2 European Union's export breakdown by destination



Source: Eurostat

The slumping Russian economy<sup>1</sup> can be expected to deteriorate rapidly under the sanctions. If Russia takes retaliatory measures, Europe may lose the Russian market. As a result,

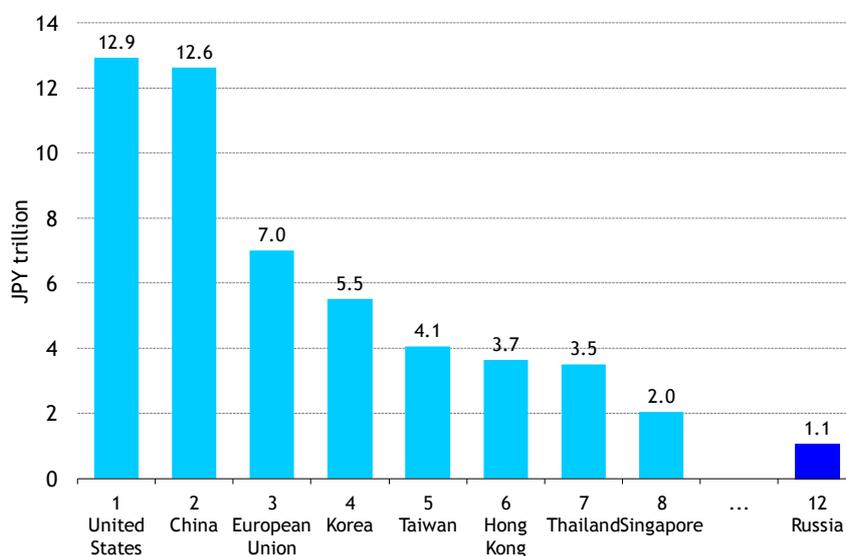
<sup>1</sup> Even before the Ukraine Crisis, the International Monetary Fund's "World Economic Outlook Update, January 2014" projected Russia's real economic growth rate for 2014 at 2.0%, down 1.0 percentage point from its projection three months earlier.

emerging signs of economic recovery after the Sovereign Debt Crisis in Europe could be easily lost

### While Japanese exports to Russia focus on cars, Russia is not one of the most important export destinations for Japan

Like Europe, Japan, which had been about to enhance relations with Russia, has been put into a difficult position. But Russia is not the most important export destination for Japan. In 2013, Russia was the 12th largest export destination for Japan, absorbing JPY1.1 trillion in Japanese exports (Figure 3). Exports to Russia accounted for only 1.5% of Japan’s total exports. But the Hokkaido and Sea of Japan coastal regions have relatively strong links to Russia<sup>2</sup>.

Figure 3 Japan’s exports to major trading partners (2013)



Source: Ministry of Finance “Trade Statistics of Japan”

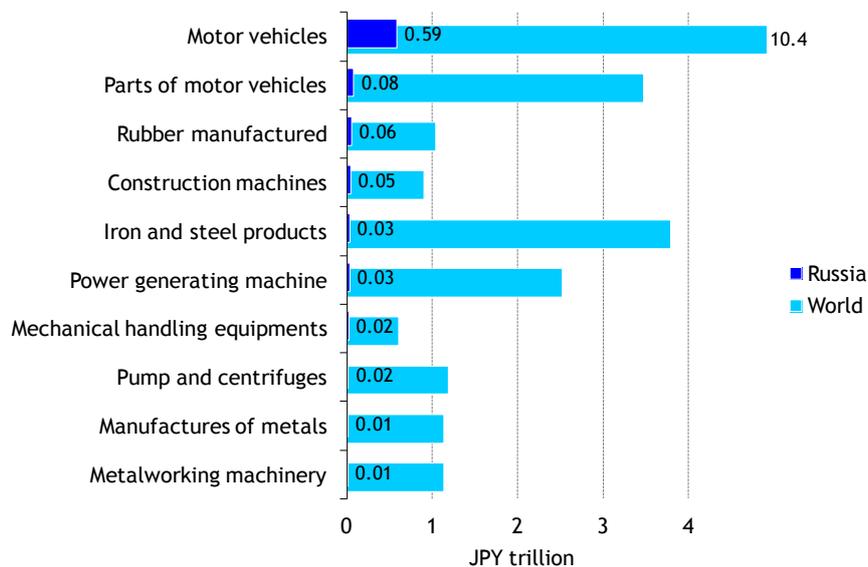
Motor vehicles are the largest among principal commodity categories for exports from Japan to Russia. In 2013, motor vehicle exports to Russia totalled JPY590 billion (Figure 4). However, of 350,000 cars exported to Russia in the year, used vehicles accounted for 160,000<sup>3</sup>. Any principal commodity category other than motor vehicles fell short of JPY100 billion in exports to Russia.

<sup>2</sup> For example, foreigners who arrived at seaports and airports in Hokkaido accounted for only 5.1% of all foreigners who entered Japan in 2012, while Russians who did so accounted for 11.4% of all Russians who entered Japan in the year. The share for Russians was more than double that for all foreigners (Ministry of Justice “Statistical Survey on Legal Migrants”). Russian-bound exports accounted for 4.8% of total exports via customs offices at Niigata, Naoetsu, Kashiwazaki and Niigata Airport in 2013. The share was triple the nationwide average (Ministry of Finance “Trade Statistics of Japan”).

<sup>3</sup> Russia is the largest export market for used vehicles from Japan.

Relatively major commodity categories for Japan’s exports to Russia include not only the abovementioned motor vehicles but also rubber products including tires, construction machines, mechanical-handling machines and motorcycles. However, Russia-bound exports’ shares of total Japanese exports for even these categories are limited to 3-6%.

Figure 4 Japan’s Russia-bound and total exports by principal commodity category (2013)



Source: Ministry of Finance “Trade Statistics of Japan”

### Loss of opportunities for exports to Russia may inflict limited damage on Japan’s economy

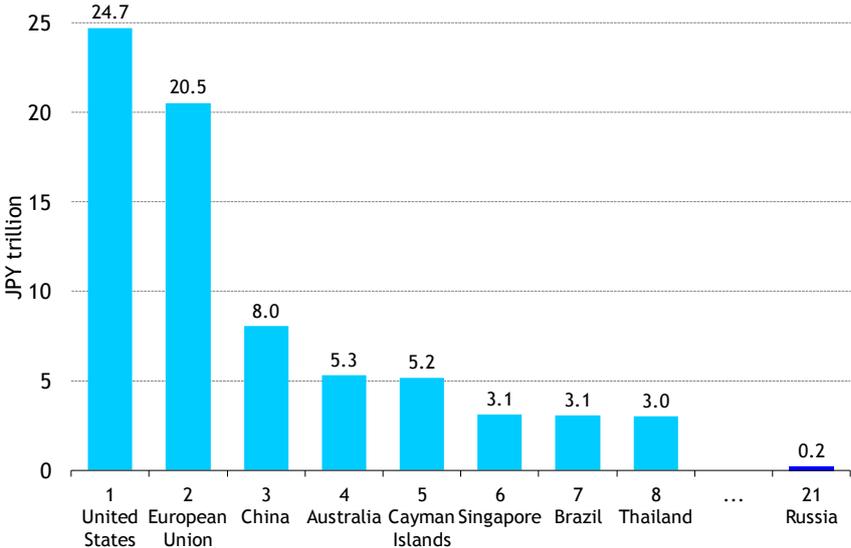
Economic sanctions are a double-edged sword that can injure not only Russia as the sanction target but also sanction imposers over a short term. To what extent will economic sanctions affect the Japanese economy? The extent may depend on the details and toughness of the economic sanctions and the types of Russia’s retaliatory measures. Here, we would like to assume an extreme case where Japan’s exports to Russia would be eliminated. The assumption includes a decline of about 1% in Japan’s exports to the European Union that would result from the union’s complete loss of opportunities for exports to Russia.

Estimated damage to the Japanese economy (real gross domestic product) under the assumption is as much as 0.2% of contraction. Given the mix of Japan’s exports to Russia and the European Union, transportation machinery may be affected relatively greatly in terms of production. In this respect, iron and steel, and non-ferrous metal production may also be affected. Relatively large damage may be inflicted on industrial sectors and regions that are closely related to Russia including used vehicles. Given various impacts, sales of fuel oils, city gas and electricity in volume may be reduced by as much as 0.1-0.2%.

Damage could emerge in other forms than an export decline. The wholesale and retail sector accounts for JPY79.3 billion or the largest share of JPY236 billion in foreign direct investment

(FDI) position in Russia (at the end of 2012) and the car industry proceeds with production in Russia. The sanctions may make these industries difficult to do business smoothly in Russia. But Japan’s FDI in Russia is limited to a small portion of its total FDI worth JPY90 trillion (Figure 5). Overall, damage from the export decline and Japanese companies’ restrained business operations in Russia would not be too large for the Japanese economy to overcome.

Figure 5 Japan’s foreign direct investment position (at the end of 2012)



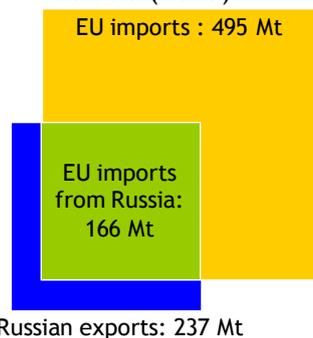
Source: Bank of Japan “Balance of Payments”

### Russia’s growing presence in Japan’s energy supply

Russia is one of the world’s largest oil and gas producing countries, boasting 523 million tonnes (10.88 million barrels per day) in crude oil output and 668 billion cubic metres in natural gas production in 2013<sup>4</sup>. Oil and natural gas exports totalled 237 Mt and 196 Bcm in the year, respectively, far exceeding consumption in Japan. Most of Russian energy exports are bound for Europe. Some 70% of Russian crude oil exports go to the European Union (Figure 6). The European Union for its part depends on Russia for 30% of its crude oil supply. In natural gas trade, Europe and Russia are more interdependent (Figure 7).

<sup>4</sup> Crude oil (Mt) and natural gas production data are from the IEEJ’s “EDMC Energy Trend, March 2014.” The crude oil output in Mb/d is from the International Energy Agency’s “Oil Market Report, 14 March 2014.”

Figure 6 European Union-Russia crude oil trade (2013)



Sources: (Russian exports) IEEJ “EDMC Energy Trend, March 2014”; (EU imports) Eurostat

Figure 7 Europe-Russia natural gas trade (2013)



Sources: (Russian exports) IEEJ “EDMC Energy Trend, March 2014”; (European imports) International Energy Agency “Facts in Brief: Russia, Ukraine, Europe, Oil & Gas - 4 March 2014”

Japan has also increased energy imports from Russia through the Sakhalin projects and the completion of the Eastern Siberia-Pacific oil pipeline. In 2013, Russia was the fifth largest crude oil exporter to Japan and the largest among non-Middle Eastern oil exporters (Figure 8). It was also the fourth natural gas (LNG) exporter to Japan (Figure 9).

Figure 8 Japan’s crude oil imports by country (2013)

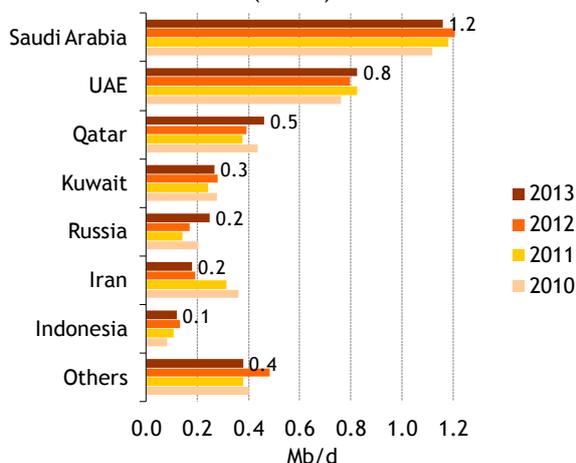
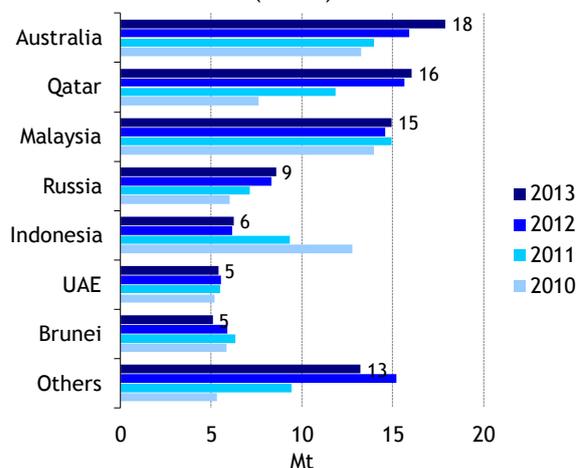


Figure 9 Japan’s LNG imports by country (2013)

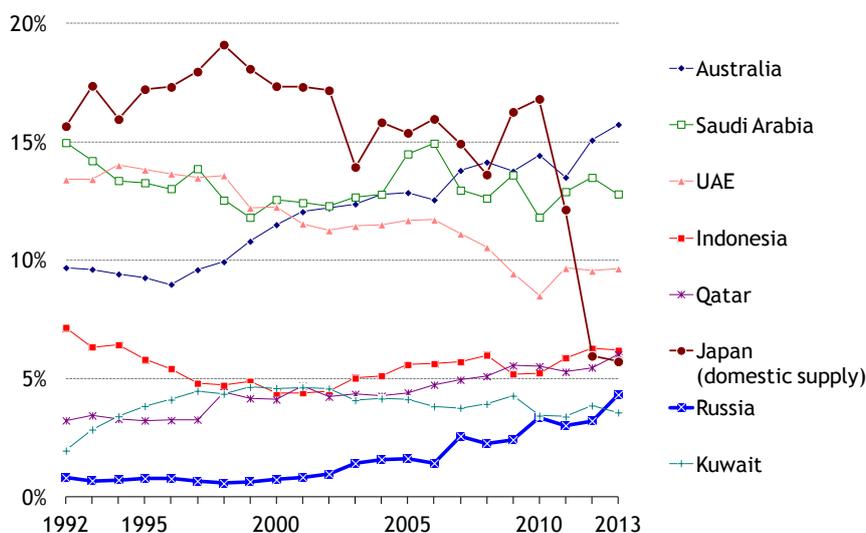


Source: Ministry of Finance “Trade Statistics of Japan”

As a result, Japan’s rate of dependence on Russia for primary energy supply rose to 4% in 2013 (Figure 10). Russia was the seventh largest energy supplier for Japan among suppliers including Japan itself. Over the past five years, the rate of dependence on Russia rose by 2.0 percentage points, the largest increase among energy suppliers for Japan<sup>5</sup>. Russia’s presence in Japan’s energy supply has increased gradually.

<sup>5</sup> The second largest expansion was 1.6 points for Australia, followed by 1.1 points for the United

Figure 10 Japan's rates of dependence on energy supplier countries



Note: Shares of Japan's primary energy supply for supplier countries (including Japan itself)

Source: Compiled from the IEEJ/EDMC Energy Databank

### Energy supply has a larger risk than an export drop

An embargo on energy imports from Russia, though an effective sanction on Russia, is expected to inflict greater damage on sanction imposers than the loss of opportunities for exports to Russia. If Russia suspends energy exports in retaliation against Western sanctions, particularly, the impact may be greater than in the case where Europe and Japan refrain from importing Russian energy resources after taking relevant countermeasures. Nevertheless, any situation where Japan would fail to find any alternative energy suppliers is unconceivable. For example, international cooperation, including tapping reserves, through the International Energy Agency would be a significant response to the Russian energy embargo. Middle Eastern countries that do not necessarily support Russia over the Ukraine Crisis may become alternative energy suppliers as far as it is allowed with their surplus production capacities.

Rather, a matter of concern to Japan may be rise in oil price that may stem from structural changes in the international oil market amid the crisis. During the 2011 Libyan civil war, for example, 1.3-1.4 Mb/d of Libyan crude oil exports was lost. Despite the absence of crude oil supply shortages, the Brent price sensitive to the Middle East situation expanded its price gap with the West Texas Intermediate by some \$10/bbl from January to May in the year. A rough estimate based on the case indicates that if Russia completely suspends oil exports to OECD Europe (4.1 Mb/d) and those to Japan (0.3 Mb/d), oil prices may rise by \$30/bbl. That price rise is estimated to lead the Japanese economy to contract by as much as 1%.

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States.

The international natural gas market has more local characteristics than the oil market. But no one can deny the possibility that a change in European natural gas supply could affect Japan's LNG import prices through spot natural gas and oil markets. Given that LNG prices are linked to oil price in the Asian market, Japan's LNG import prices can be expected to rise by at least the equivalent of the oil price rise. As a result, rises in oil and LNG prices may lead the Japanese economy to contract by more than 1%.

In this way, among adverse impacts of economic sanctions against Russia on the Japanese economy, the energy-related impacts could be greater than the direct impact of export drops, depending on assumptions<sup>6,7</sup> (Table 1).

Table 1 Estimated impacts on Japan's economy

Assumed events		Assumptions	Impacts on real GDP
1	Japan's loss of exports to Russia	Exports are cut to zero	About -0.2%
	A fall in Japan's exports to Europe	Japan's exports to European Union decline some 1% as European Union exports to Russia fall to zero.	
2	International energy price rises	Oil prices rise by \$30/bbl. Alternative supply is used to avoid quantitative shortages. LNG import prices also rise by corresponding to the oil price rise.	About -1%

### “Be Prepared”

Due to the shutdown of nuclear power plants, Japan's energy self-sufficiency rate declined to an average 6% for 2013 and to 3% in January 2014. Its dependence on imported fossil fuels is unprecedentedly high. As Japan has featured a particularly heavy dependence on energy imports among developed countries, its energy security vulnerability has been frequently pointed out. Today, Japan's energy security has grown even more vulnerable. We must remember that stable energy supply is not always promised. It is an urgent, consistent challenge for Japan to be prepared for energy risks.

### References

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<sup>6</sup> Take note of the fact that these numbers are estimates based on boldly simplified assumptions.

<sup>7</sup> In an extreme case where Russia will completely suspend energy exports to Japan, with Japan failing to secure substitute supply including its own reserves, Japan would lose 4% of its required energy supply. This could lead the Japanese economy to contract by up to around 7%. Even in this case, however, successful energy conservation could mitigate any adverse impact.

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