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ISSUE BRIEF: REVISITING OIL SANCTIONS ON RUSSIA

By Richard Nephew

JULY 2015

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By Richard Nephew*

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ACKNOWLEDGEMENTS

The author wishes to thank Yassamin Issapour for her assistance in researching the data incorporated into this issue brief, Akos Losz for his important addition of information on global natural gas supplies and trade, and Jason Bordoff, Nicola de Blasio, Simond de Galbert, Colin Fenton, Peter Harrell, Erin Nephew, Carlos Pascual, Matthew Robinson, Steve Sestanovich, and four anonymous reviewers for their very helpful comments on earlier drafts.

EXECUTIVE SUMMARY

Sanctions imposed by the United States and the European Union against Russia in response to its activities in Ukraine have been effective in undermining the Russian economy and potentially dissuading further Russian adventurism in Ukraine, but have not compelled a policy change in Moscow sufficient to correct the crisis. Though it is preferable to resolve the situation through the full implementation of the Minsk cease-fire of February 2015, it could be argued that the reason this has not occurred is that the sanctions currently in place have not applied sufficient pressure on Moscow, and that the United States and the European Union should seek to impose additional measures. One of the most critical elements of the current sanctions attempt is to restrict future growth in the critical Russian oil sector without causing a disruptive, immediate curtailment of supplies to the global market. Future sanctions could attempt to curtail oil exports immediately in an effort to inflict greater economic damage on the Russian economy and force a policy change from Moscow.

This paper reviews the state of the Russian economy and the role oil exports play in it. It offers an assessment of various scenarios, based on Russian economic data, for the application of sanctions pressure on Russian oil exports.

I conclude that:

- It is possible to impose additional costs on Russia through the targeting of Russian oil exports, but this will not be a silver bullet against the Russian economy. Though Russia is dependent on its oil exports, so too is the stability of the international oil market, and this creates a ceiling for how much pressure can be applied against Russia's oil exports.
- However, reducing Russian oil exports by 10 to 20 percent would impose real costs on Russia. It would further diminish expected GDP growth, already hard hit by the downturn in global oil prices, and exacerbate Russia's current recession. Combined with other steps to reduce investment in Russia, hinder activities at its oil production sites, and isolate its major financial institutions and energy companies, restricting Russian oil exports could play a valuable role in escalating the pressure on the Russian government.
- Russia retains many response options that it could employ, not the least of which is the ability to switch off the taps to its natural gas exports to Europe. Russia would pay a cost for this but may be prepared to endure it. As such, the decision about whether to impose such sweeping sanctions will remain a politically difficult one for Europe. There also remains the question of whether Russia could—and would be permitted to—divert its oil supply to alternative destinations, including to East Asia.
- Even if executed, additional sanctions pressure on Russia probably would not be independently sufficient to compel Russian capitulation in Ukraine, including the surrender of Crimea. As with many other instances of sanctions being employed, they should be considered an element of the Western strategy to confront Russia over its regional adventurism, not a strategy in and of themselves. Moreover, the utility of this tool needs to be balanced against the risk that an already-militant Russia will view military steps as the solution to its problems rather than the source of them.
- At a minimum, it is worth beginning the exercise of planning for future reductions of Russian oil now: first, to underscore with Russia the degree of international resolve in confronting it over Ukraine; and, second, to lay the groundwork for any future such decision and to counter anticipated hostile Russian reactions.

INTRODUCTION

Eighteen months ago, the West began to respond to indications of Russian interference in the sovereignty of Ukraine through political and economic pressure. Starting small, this pressure grew in mid to late 2014 into a major sanctions campaign by the United States and the European Union against core Russian economic interests, particularly the future of its energy sector and its overall access to the international financial system. Russia now faces a recession and prolonged loss of economic opportunity, but not an immediate economic crisis. In Ukraine, the situation remains tense, with reports emerging daily of apparent Russian support for eastern Ukrainian insurgent groups. The Minsk cease-fire, negotiated in early 2015, also remains fragile, with accusations of cease-fire breaches traded daily between Kyiv and Moscow.

Though the European Union recently decided to extend its existing sanctions against Russia, absent a radical improvement in the situation in Ukraine, these measures do not appear capable of creating an immediate economic crisis for Russia. This, however, is not the objective of the current sanctions campaign. Certainly it is the case that provoking major economic turmoil in Russia was a goal, but in a way that did not provoke Russia to reject diplomacy altogether or damage global economic interests. Consequently, the sanctions selected were intended to change Russian behavior in the near term and prompt efforts to arrive at a satisfactory diplomatic solution. They were also intended to dissuade further Russian adventurism.

The real question is whether sanctions imposed thus far have exacted sufficient cost to prompt this change in behavior. Sanctions impairing Russia's ability to tap into global capital markets have formed a sanctions "debt weapon" that will continue to inflict damage. Until these sanctions are removed, Russia and its sanctioned entities will continue to find it hard to roll over their existing debts and will have to tap into its foreign-exchange reserves to retire these foreign-currency obligations. But Russia has options to mitigate the effects of the sanctions that are in place. For example, the steep cut in Russian imports at the end of 2014 and into 2015 (in part as a result of Russia's decision to ban the import of food from the West) may have limited the impact of the debt weapon on the current account, the overall balance of payments, and foreign-exchange reserves thus far. Similarly, since Russia's debt is a long-term problem, the Russians have more time to figure out a response that will reduce the practical impact on their economy. Taken in combination with the aforementioned residual problems in Ukraine and uncertain future, it is possible that the sanctions in place at this time have exhausted their political usefulness.

These circumstances have prompted some discussion of what new kinds of sanctions may be necessary in order press Russian President Vladimir Putin to invest himself fully in a political solution to the Ukrainian problem he helped to create. Further pressure on Russia's energy sector has been raised as one possible option, especially oil exports, which remain a key driver for Russia's economy. This option appears more attractive now because of low oil prices and perceived oversupply of the market, as well as Iranian oil coming back into the market as a result of the Joint Comprehensive Plan of Action (JCPOA) concluded between Iran and the members of the P5+1 (China, France, Germany, Russia, the United Kingdom, and the United States). However, using Russia's dependence on its oil exports for sanctions purposes is fraught with risk, both to the stability of international oil markets and to Europe's ability to continue importing the natural gas upon which many EU countries are dependent.

This paper discusses whether pressure on Russia's oil exports is achievable and would contribute to a diplomatic outcome. It begins with a review of the sanctions presently in place against Russia as well as the state of the Russian economy. It then explores an oil reduction strategy, akin to what was employed against Iran in 2011–2013, and examines its potential impact.

This paper concludes that an oil reduction strategy could be implemented against Russia and cause further problems for the Russian government, but that its impact would be less than the damage already wrought by the drop in oil prices. Moreover, given Russia's ability to reduce imports (both as a matter of policy and as a

natural market response), the amount of oil exports that would need to be cut off to worsen Russia's external accounts in an aggressive way likely would be far more than is achievable or wise. Considering that a reduction strategy would risk unintended consequences—including an increase in oil prices and threats against Europe's import of natural gas—this paper argues against making this sanction the linchpin of an expanded sanctions campaign against Russia. But this is not to say that oil reduction efforts could not be part of a broader package of sanctions employed against the Russians. Rather, this paper argues that manageable reductions in Russian oil exports could be buttressed with an array of sanctions targeting Russia's economy and oil sector in particular.

Importantly, in offering its assessment, this paper does not speak exhaustively as to whether such a campaign would achieve the West's desired result of resolving the sovereignty of Ukraine and questions surrounding Crimea. Such questions are best left to experts on Russian politics and strategy. This paper's sole ambition is to outline whether an approach that restricts oil exports could contribute to an already-established pressure strategy. That said, in the author's view, Russia has made clear that its resistance to sanctions pressure will be significant. Consequently, the efficacy of sanctions in this context, particularly given the size of the Russian economy and its present importance to global energy markets, may be muted in comparison to other historical and current examples, and certainly in the near term. Those focused on the application of sanctions on Russia should, like in the case of Iran, prepare themselves for a multiyear campaign.

REVIEW OF EXISTING RUSSIA SANCTIONS

Sanctions imposed against Russia thus far by the United States, the European Union, and their partners basically fall into two categories::

1. Designation of individuals and entities for their direct role in Russia's intervention in Ukraine and irredentism in Crimea; and
2. Sectoral sanctions intended to dissuade further Russian activities in Ukraine.

The first category of sanctions is essentially intended to punish offenders (veiled as trying to change their behavior) and deter others from involving themselves in such activities. The sanctions' direct economic implications depend greatly on whether the individuals and entities in question have substantial assets in the jurisdiction imposing the sanctions. Based upon a cursory review of the Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons List (colloquially termed the SDN list), it is unlikely that the US designations imposed thus far would have had much of a direct financial impact.[1] Most SDNs are individuals, and most of the individuals and entities on the list have not, thus far, been reported to have substantial US financial holdings, though one press report indicated that as much as $640 million has been frozen in the United States as a result.[2] Some individuals identified had major ownership stakes of significant companies, but there are reports that these individuals have taken steps to reduce their legal ownership of these companies in order to make the application of sanctions pressure against the companies more difficult.[3] Legally, these companies can still be targeted under the principle of sanctions proving ownership or control, but this is a more complicated standard to enforce.

The probably modest impact of specific designations is not surprising. Though big successes have been achieved through asset freezes—such as with Muammar Qaddhafi's Libya in 2011—most of the impact of such designations is through the chilling effect these actions have on the overall business climate of a country or targeted sector. Treasury Assistant Secretary Daniel Glaser pointed to this reality in his testimony of July 2014 in his recitation of the many ways in which sanctions—which were far more limited at the time than at present—had damaged Russia; none of these examples were a direct result of an asset freeze.[4] Then Director of Treasury's OFAC Adam Szubin (who has since been nominated to the post of Under Secretary of the Treasury for Terrorism and Financial Intelligence) made a similar point in a Treasury blog post on June 2, 2014: "Targeted financial sanctions apply concentrated pressure on bad actors, isolating them and making it harder for them to continue their bad activities."[5]

Of far greater economic impact were the sectoral sanctions imposed by the United States starting in July 2014. In total (and in general terms), these sanctions:

1. Prohibit US persons* from providing new debt or new equity greater than thirty days' maturity to identified persons operating in the Russian financial sector.
2. Prohibit US persons from providing new debt greater than ninety days' maturity to identified persons operating in the Russian energy sector.
3. Prohibit the export of US goods, services (except for financial services), or technology in support of exploration or production for deepwater, Arctic offshore, or shale projects that have the potential to produce oil in the Russian Federation, or in maritime area claimed by the Russian Federation and extending from its territory, to identified persons operating in the Russian energy sector.
4. Prohibit US persons from providing new debt greater than thirty days' maturity to identified

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* "Persons" here are defined as legal persons, which could be individual human beings, companies, banks, etc. Persons can be defined differently depending on the sanctions regime. See Executive Order 13662 for the definition in the Russian context: "individual or entity." Available at: http://www.treasury.gov/resource-center/sanctions/Programs/Documents/ukraine_eo3.pdf.

persons operating in the Russian defense sector.

5. Impose full blocking sanctions on designated persons operating in the Russian defense sector (fourteen designations).

These sanctions build on a policy of denial for export license applications for key modernization technology and for certain other items for military end use (implemented by the Department of Commerce) and the termination of export credit and development financing for projects in Russia.

The European Union imposed similar sectoral measures in concert with the United States.

In all, these measures offer a startling twist on traditional sectoral sanctions, which have typically identified areas of activity and then denied cooperation and services with them. In Russia's case, it is possible for US and EU companies to do business with entities and individuals identified as being involved in these sectors, so long as the activities do not cross into expressly prohibited areas. This creates compliance burdens on the companies themselves and, ultimately, could cause them to reconsider their investments in Russia, though the number of companies that have extricated themselves from Russia altogether is quite small.

The targeting of company-specific debt is also a unique innovation that merits discussion. Most major companies utilize debt instruments. By making this normal activity sanctionable, the United States and the European Union have squeezed the long-term health of Russia's major industrial sectors, while not imperiling their active business. This has permitted oil and natural gas, for example, to continue to flow even to sanctioning jurisdictions while still hampering the longevity of the institutions conducting the transactions. And the companies involved on the Russian side have been faced with a unique conundrum: continue with these activities (e.g., selling natural gas) in order to keep their current business going, or cut off such transactions in order to impose a cost on the sanctioning parties. Thus far, the Russians have decided to keep business moving. This was not a uniform decision, of course, and Russia's decision to reduce its imports of foreign goods—dismissed as a fit of pique—may have played a major role in moderating some of the impacts of sanctions on Russia, as the following economic analysis will make clear.

REVIEW OF THE ECONOMIC IMPACT OF RUSSIA SANCTIONS

In part because Russia is a large, somewhat diversified economy, quantifying precisely the damage caused by sanctions is difficult. This report concludes that the impact of sanctions on Russia has been serious, compounding already present structural problems in the Russian economy, but that Russian policy responses have helped it to weather the storm thus far.

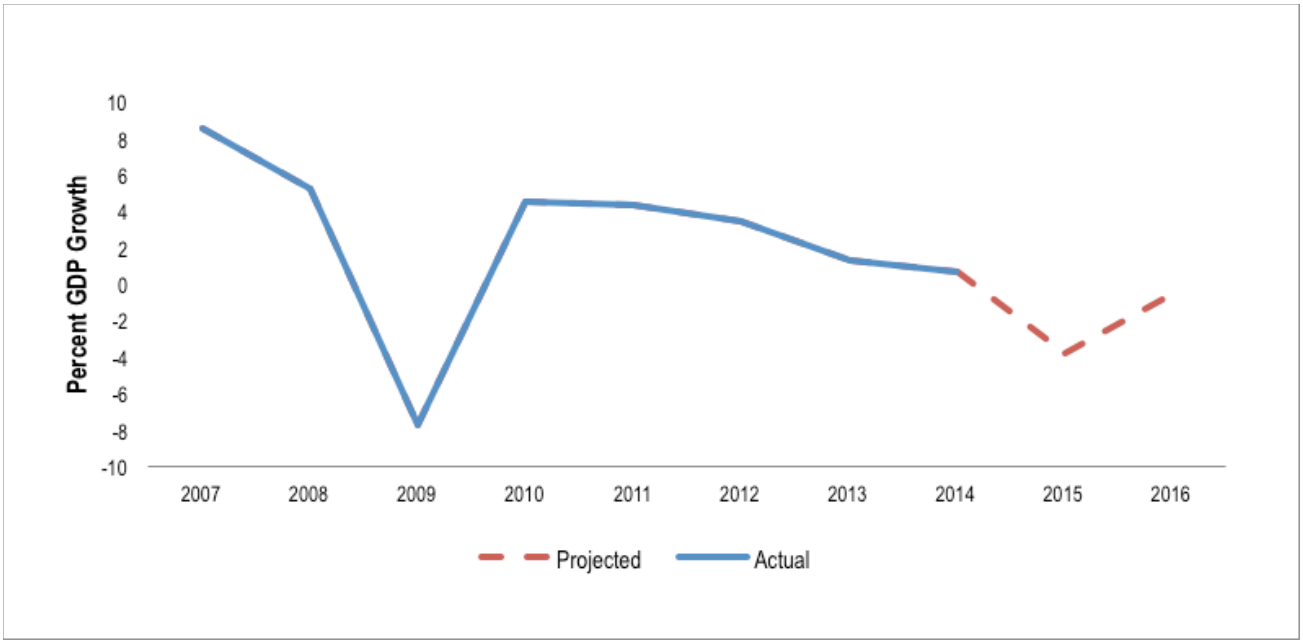
It has been widely reported that Russian GDP growth fell in 2013 and 2014, and that it is predicted to continue to contract in 2015 and 2016. The World Bank's April 2015 report on the Russian economy[6] forecast a contraction of 3.8 percent in 2015, followed by a 0.3 percent decline in 2016; the IMF has forecast a somewhat worse contraction of 1.1 percent in 2016.[7] However, Russian GDP was on a downward trajectory well before sanctions were imposed, as shown in Figure 1.

According to the World Bank's report, sanctions made things worse in Russia, primarily by:

1. Increasing volatility on the foreign-exchange market and contributing to a significant depreciation of the ruble;
2. Impairing Russia's access to international financial markets; and
3. Creating a negative climate around Russia, depressing both domestic consumption and foreign investment in the country.

Compounding these impacts was the drop in oil prices starting in the summer of 2014 and continuing throughout the beginning of 2015. Russia's economy is largely dependent on its ability to export energy. Russian oil production continues to be among the highest in the world, estimated at 10.93 million barrels per day at the end of 2014.[8] Combined with nearly $70 billion in natural gas exports annually, over 2011–2013, energy exports contribute nearly $350 billion of income every year to the Russian economy.[9] Russia's net oil exports of approximately 7.2 million[10] barrels per day (bpd) lost half their value when prices plunged below $50 a barrel, costing Russia approximately $160 billion in lost earnings, according to President Vladimir Putin.[11]

Figure 1: Russian GDP Growth
(Percent GDP growth)



Source: World Bank, May 2015.

The IMF has noted that oil dependence in Russia has become a systemic weakness. The Russians have been able to sustain a large current account surplus over the last decade because they have been generally able to sell their energy products at high prices, but at the expense of having become a petro-state in which it derives two-thirds of its exports from energy. This is particularly the case for the government itself, as oil revenues have "masked" a considerable non-oil deficit.[12]

When oil prices dropped and sanctions began to bite, a combination of market forces (such as the declining ruble), and Russia's policy response to trim sails by reducing imports, may have moderated considerably the impact of the sanctions on Russia's balance of payments. By reducing imports, the lost export revenue was mooted in terms of Russia's trade balance, and Russia maintained a current account surplus throughout 2014. Table 1 articulates these long-standing import compression dynamics in the Russian economy, which Figure 2 demonstrates further.

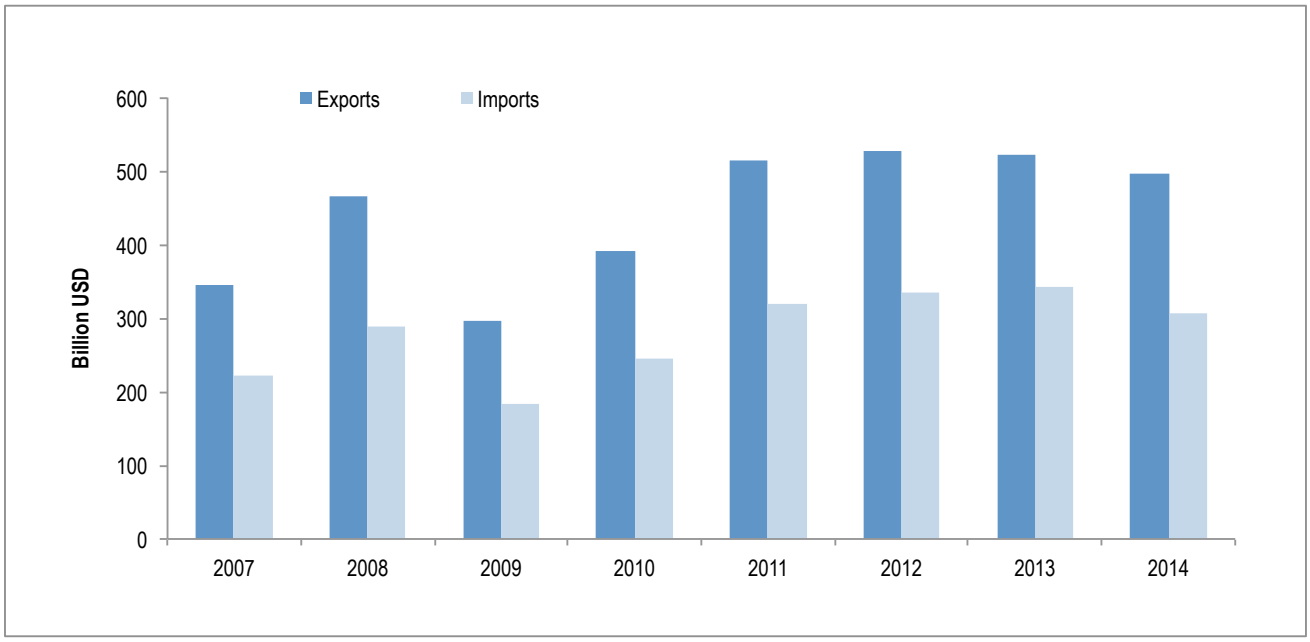
Though the current account continues to hold stable and at a surplus, the Russian economy has suffered. For example, inflation has risen dramatically in Russia, to a thirteen-year high of 16.9 percent in March 2015.[13] Naturally, this has had a major impact on the price of food and other basic commodities. Unemployment has also risen in Russia but is still comparatively low: 5.8 percent, according to the Russian statistical agency Rosstat.[14] This is, in part, because Russia has historically managed unemployment by dropping wages.[15] The effect

Table 1: Russia's Current Account Balance from 2007–2014

	2007	2008	2009	2010	2011	2012	2013	2014
Current Account	72.2	103.9	50.4	67.5	97.3	71.3	34.1	56.7
Exports	346.5	466.3	297.2	392.7	515.4	528	523.3	496.7
Imports	223.1	288.7	183.9	245.7	318.6	335.7	343	308

Source: World Bank, April 2015.

Figure 2: Select Russian Balance of Payment Indicators (Billions of US dollars)



Source: World Bank, April 2015.

has been a real wage crunch for the Russian people and partly explains why expensive imports—made more so by the collapse of the ruble—dropped at the end of 2014.

At this same time, the World Bank notes that capital "fled" Russia in the fourth quarter of 2014, both as the Russian government fought the depreciation of the ruble and as households and corporates converted deposits to hard currency.[16] Russia's credit rating plummeted. As the World Bank noted, "early in January 2015, Fitch downgraded Russia's sovereign debt rating to one notch above noninvestment; later in January and February, S&P and Moody's both downgraded Russia's sovereign rating to below investment grade."[17]

Taken in combination with the imposition of sanctions—which cut off Russia from normal international finance and the ability to roll over existing debts—Russia's hard currency reserves began to suffer. According to the Central Bank of Russia, its foreign-exchange reserves went from approximately $478 billion at the end of June 2014 to $356 billion at the end of April 2015,[18] most of which was used in the fourth quarter of 2014 and was used to retire existing debts.[19]

The strain on its reserves did not end there. Russia continues to have a considerable amount of external debt outstanding, nearly $560 billion at the end of March 2015, of which nearly $90 billion is falling due in the next four quarters.[20] Russia now faces a substantial fiscal deficit, estimated to be as high as 3.8 percent of GDP this year, caused by the drop in oil prices. The Russian government decided to use nearly $50 billion from its depleted national reserves to cover the fiscal deficit rather than expose itself to deeper external debt and the increased borrowing costs that result from its credit rating and widened spreads.[21] Taken in combination with other commitments for Russian foreign-exchange reserves, it is possible that Russia's truly liquid reserves could be as low as $140 billion.[22]

Consequently, Russia potentially has a major vulnerability with respect to its ability to acquire and maintain hard currency reserves in the face of sanctions. Without such reserves, Russia will find it difficult to finance its government operations or to pay off its various debts (both government and corporate). Moreover, the targeting of Russia's reserves would force it to make some tough decisions about its economic priorities and where to utilize this dwindling asset. Such choices would complicate government operations and potentially impose costs on the Russian population that, thus far, the Russian government has sought to avoid.

SEEKING OIL REDUCTIONS

This economic analysis suggests that, if a sanctioning state wished to inflict further damage on the Russian economy, the best place to start would be with Russia's current account, by pressuring reserves through the reduction of energy exports, primarily oil.

Imposing sanctions on Russia's oil sector would not be an easy venture, not the least because as a major supplier it would take substantial cuts in global supply in order to register substantial effects in the Russian economy. But exactly how much would have to be cut from Russian oil exports in order to have an effect?

To answer this question, this paper analyzes a variety of oil reduction and price scenarios, using Russian economic data from 2013, which represents the last data set available that did not show distortions from either sanctions or the recent drop in oil prices.

It starts by looking at a baseline scenario using the data provided by the IMF in its 2014 Article IV report. The baseline set of data looks as follows, showing the expected result of a positive trade balance and current account surplus afforded by high oil prices and a comfortable margin between exports and imports (Table 2).

But what if *crude* oil export reductions had taken place? For comparison's sake, let us look at the baseline scenario and three reduction scenarios (5 percent, 10 percent, and 20 percent) in which oil price and all other variables are held constant.

Table 2: 2013 IMF Article IV Baseline
(Figures are in billions of USD unless otherwise noted.)

	Article IV data
Current Account	32.8
Trade Balance	180.3
Exports	523.3
Non-energy	173.1
Energy	350.2
Oil	283
Gas	67.2
Imports	-343
Services	-58.6
Income	-78.9
Current Transfers	-9.2

Source: World Bank, April 2015.

Table 3: Reduction Scenarios
(Figures are in billions of USD unless otherwise noted.)

	Article IV data	5% crude oil export reduction	10% crude oil export reduction	20% crude oil export reduction
Current Account	**32.8**	**23.9**	**15.3**	**-2.1**
Trade Balance	180.3	171.5	162.9	145.5
Exports	523.3	514.4	505.9	488.5
Non-energy	173.1	173.1	173.1	173.1
Energy	350.2	341.4	332.8	315.4
Oil	**283**	**274.2**	**265.6**	**248.2**
Crude Oil	173.5	164.8	156.2	138.8
Volume (billion barrels)	1.735	1.648	1.562	1.388
Implicit Price ($/barrel)	100	100	100	100
Oil Products	109.4	109.4	109.4	109.4
Volume (billion tonnes)	151.6	151.6	151.6	151.6
Implicit Price ($/tonne)*	721.5	721.5	721.5	721.5
Gas	67.2	67.2	67.2	67.2
Imports	-343	-343	-343	-343
Services	-58.6	-58.6	-58.6	-58.6
Income	-78.9	-78.9	-78.9	-78.9
Current Transfers	-9.2	-9.2	-9.2	-9.2

Source: IMF Article IV, July 2014; crude oil and oil product data from Haver; author's calculations.

There is some variation due to rounding.[1] To simplify the analysis and avoid going product by product, I took a price based on Russian oil product revenue and total tonnage. I acknowledge that this creates some risk of distortion due to the varying prices of the myriad oil products.

Though dramatically oversimplified, this simple chart shows how a reasonable current account surplus can quickly become a current account deficit if oil exports dropped.

To apply the analysis further, now let us extrapolate the impact of a reduction of price combined with a reduction in oil revenues. Taking the exact same data and halving the price of oil from $100 per barrel to $50 per barrel shows a completely different picture.

Table 4: Reduction Scenarios at 50% of Price
(Figures are in billions of USD unless otherwise noted.)

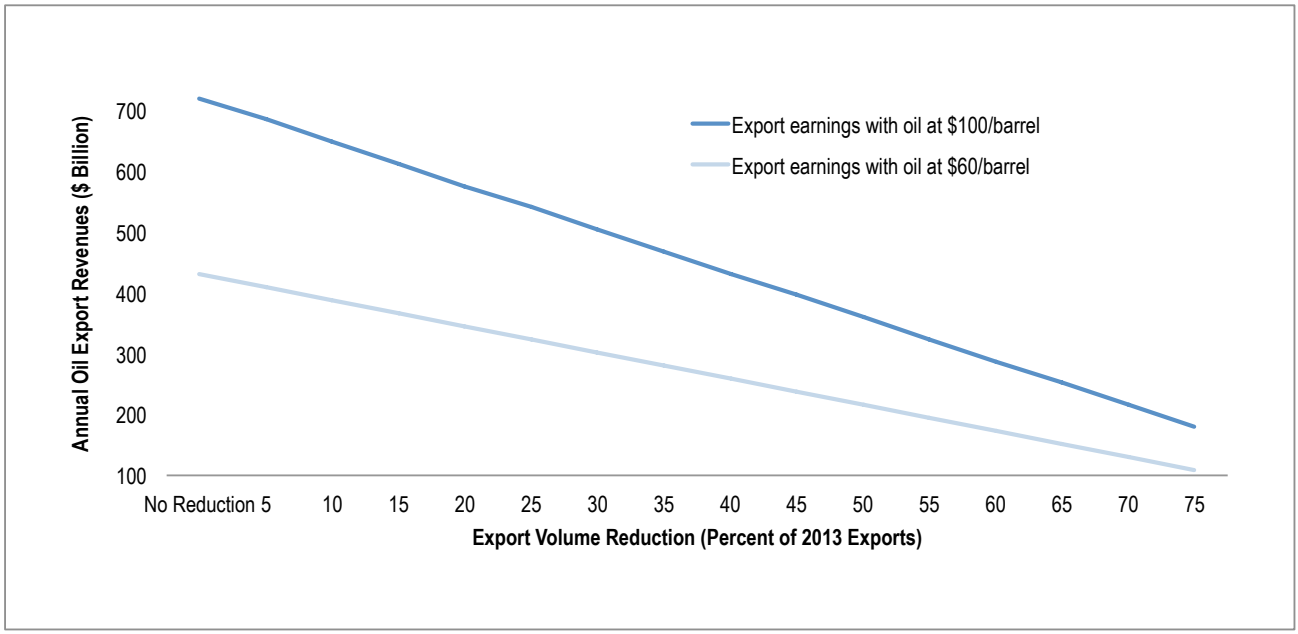
	Article IV data	5% crude oil export reduction	10% crude oil export reduction	20% crude oil export reduction
Current Account	**32.8**	**-113.2**	**-117.5**	**-126.2**
Trade Balance	180.3	34.4	30.1	21.4
Exports	523.3	377.4	373.1	364.4
Non-energy	173.1	173.1	173.1	173.1
Energy	350.2	204.3	200.0	191.3
Oil	**283**	**137.1**	**132.8**	**124.1**
Crude Oil	173.5	82.4	78.1	69.4
Volume (billion barrels)	1.735	1.648	1.562	1.388
Implicit Price ($/barrel)	100	50	50	50
Oil Products	109.4	54.7	54.7	54.7
Volume (billion tonnes)	151.6	151.6	151.6	151.6
Implicit Price ($/tonne)*	721.5	360.7	360.7	360.7
Gas	67.2	67.2	67.2	67.2
Imports	-343.0	-343.0	-343.0	-343.0
Services	-58.6	-58.6	-58.6	-58.6
Income	-78.9	-78.9	-78.9	-78.9
Current Transfers	-9.2	-9.2	-9.2	-9.2

Source: IMF Article IV, July 2014; crude oil and oil product data from Haver; author's calculations.

The results are stark. Though Russia in 2013 would have been harmed by a crude oil export reduction, the impact of lowered prices would have been far more significant. This is a somewhat obvious point, as the point of comparison is a 50 percent cut in prices versus a 5 to 20 percent cut in exports; the higher cut in prices naturally leads to less revenue than a cut in exports.

But there is a less obvious point here: that the reduction in oil prices that has actually occurred to date has reduced the per-barrel impact of an export reduction strategy, limiting the efficacy of one now. Figure 3 demonstrates this graphically, contrasting the relative impact of oil export reductions against price. The curve for higher-priced oil is, not surprising, steeper than the curve for lower-priced oil, a fact that is drawn out dramatically on the right side of the chart at 50 percent and 75 percent reductions. (Of course, it is worth noting that this analysis might not hold if oil prices were to outright collapse: a $10-per-barrel oil price would certainly have a disproportionately negative effect on Russia.)

Figure 3: Impact of Oil Price on Export Volume Reduction Value (In billions of US dollars)



Source: author's calculations.

But we also know that the Russian government and market response to reduced exports is import compression. In its April report, the World Bank offers a "lower-bound" oil price scenario, intended to demonstrate the potential effects on Russia from a continued low oil price environment. The scenario is based on an assumption of oil averaging $45 per barrel for 2015 and $50 per barrel for 2016, or between 12 to 20 percent less than the present $60- to $70-per-barrel prices realized in May 2015. This lower-bound scenario serves as an excellent proxy for how an oil export reduction strategy in which prices remain roughly constant would affect Russia's economy.

The results are surprising. Although GDP would continue to contract—now at -4.6 percent in 2015 compared to the baseline estimates of -3.8 percent—the current account surplus would likely increase to approximately $83.1 billion. The World Bank concludes that this would occur because import compression would intensify as imported goods became even more expensive, if not prohibited altogether by a government keen to prevent hard currency from flowing out of the country and to avoid the resulting impact on Russia's overall economic activity.

Arguably, with the ability to reduce imports available to Russia, any oil reduction strategy targeting the current account would have to overcome this natural Russian defense mechanism (which, again, has both a policy dimension as well as a market response). Table 5 reduces imports down to their lowest value in recent memory: $183.9 billion in 2009, following the oil price crash and the onset of the global economic crisis.

Table 5: Reduction Scenarios at 50% of Price with Import Compression (Figures are in billions of USD unless otherwise noted.)

	Article IV data	5% crude oil export reduction	10% crude oil export reduction	20% crude oil export reduction
Current Account	**32.8**	**45.9**	**41.6**	**32.9**
Trade Balance	**180.3**	**193.5**	**189.2**	**180.5**
Exports	523.3	377.4	373.1	364.4
Non-energy	173.1	173.1	173.1	173.1
Energy	350.2	204.3	200	191.3
Oil	**283**	**137.1**	**132.8**	**124.1**
Crude Oil	173.5	82.4	78.1	69.4
Volume (billion barrels)	1.735	1.648	1.562	1.388
Implicit Price ($/barrel)	100	50	50	50
Oil Products	109.4	54.7	54.7	54.7
Volume (billion tonnes)	151.6	151.6	151.6	151.6
Implicit Price ($/tonne)*	721.5	360.7	360.7	360.7
Gas	67.2	67.2	67.2	67.2
Imports	-343	-183.9	-183.9	-183.9
Services	-58.6	-58.6	-58.6	-58.6
Income	-78.9	-78.9	-78.9	-78.9
Current Transfers	-9.2	-9.2	-9.2	-9.2

Source: IMF Article IV, July 2014; crude oil and oil product data from Haver; author's calculations.

This table demonstrates that far more would have to be done in order to drive the Russian current account to deficit given the probable import compression. By extrapolating these figures out further, one can estimate that it would require at least reducing Russian crude oil exports by 725 million barrels annually, or 2.76 million bpd, to drive the current account to deficit.

However, before concluding that oil export reductions could be neutered by a Russian response, a critical omission has to be rectified: throughout the above analysis, oil products were not touched at all. What if a similar reduction strategy were employed against oil products in addition to crude oil? A deeper reduction in Russia's current account can be achieved but still remains insufficient to drive it into deficit.

Table 6: Reduction Scenarios at 50% of Price with Import Compression (Figures are in billions of USD unless otherwise noted.)

	Article IV data	5% oil export reduction	10% oil export reduction	20% oil export reduction
Current Account	**32.8**	**43.3**	**36.2**	**22.1**
Trade Balance	180.3	190.9	183.8	169.7
Exports	523.3	374.8	367.7	353.6
Non-energy	173.1	173.1	173.1	173.1
Energy	350.2	201.7	194.6	180.5
Oil	283	134.5	127.4	113.3
Crude Oil	173.5	82.4	78.1	69.4
Volume (billion barrels)	1.735	1.648	1.562	1.388
Implicit Price ($/barrel)	100	50	50	50
Oil Products	**109.4**	**52**	**49.3**	**43.8**
Volume (billion tonnes)	151.6	144	136.4	121.3
Implicit Price ($/tonne)*	721.5	360.7	360.7	360.7
Gas	67.2	67.2	67.2	67.2
Imports	-343	-183.9	-183.9	-183.9
Services	-58.6	-58.6	-58.6	-58.6
Income	-78.9	-78.9	-78.9	-78.9
Current Transfers	-9.2	-9.2	-9.2	-9.2

Source: IMF Article IV, July 2014; crude oil and oil product data from Haver; author's calculations.

That said, even without a current account deficit, reducing Russia's oil revenues by approximately 15 to 20 percent would have a negative impact on its economy. The complete World Bank chart referenced above is worth examination here.

Table 7: World Bank Assessment of Oil Revenue Impacts on Russia

	2012	2013	2014	2015	2016
Oil price (USD per barrel, WB average)	105.0	104.0	97.6	45.0	50.0
GDP growth, percent	3.4	1.3	0.6	-4.6	-1.0
Consumption growth, percent	6.4	3.9	1.5	-6.6	-2.7
Gross capital formation, percent	3.0	-6.6	-5.7	-17.1	-0.4
General government balance, percent of GDP	0.4	-1.3	-1.2	-4.5	-2.6
Current account (USD billions)	71.3	34.1	56.7	83.1	79.7
Percent of GDP	3.6	1.6	3.0	7.1	5.8
Capital and financial account (USD billions)	-32.3	-62.2	-143.2	-130.2	-79.7
Percent of GDP	-1.6	-3.0	-7.6	-11.1	-5.8
CPI inflation (average)	5.1	6.8	7.7	18.0	9.0

Source: World Bank.

With consumption growth and gross capital formation off as severely as this chart describes, the Russian economy would struggle considerably. Moreover, the negative general government balance would also force the Russian government to tap more heavily into its reserves, helping to counteract to some degree the import compression that the Russians would likely employ to weather their current account crisis. As such, though oil reductions would not serve as a deathblow to the Russian economy, they certainly would inflict damage that other sanctions measures could potentially complement. Additionally, one should not lose sight of the fact that import compression and consumption reductions actually equate to real-world problems for ordinary Russians. As noted above, real wages and underemployment are a problem in Russia today. One could imagine that, even if the Russian economy were still operating in the black, the people of Russia would experience real pain, which could translate to political pressure on the Russian government.

IMPACT ON OIL PRICES

Of course, it is not possible to simply remove Russian oil from the market without having some impact on oil prices. The question is how much of an impact and for how long.

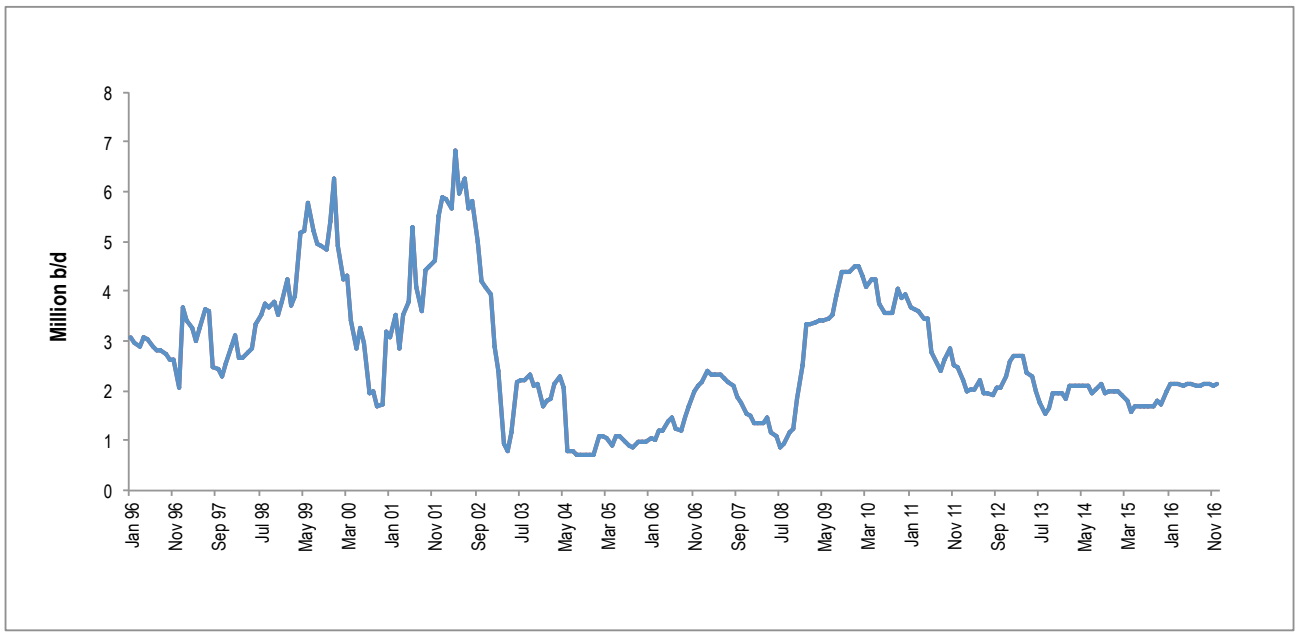
The report takes the view that a price increase would be likely, but that global spare capacity and potential for new production are such that the price impact could be managed both in terms of the broader economy and in preventing Russia from benefitting from increased rents.

First, though, let's take the factors one at a time.

The standard Energy Information Administration (EIA) definition of spare capacity is "the volume of production that can be brought on within thirty days and sustained for at least ninety days,"[23] and estimating it used to be—and may still be—a straightforward endeavor. Calculations were made about total production capacity and global consumption, with the expectation being that—when prices got too high or a disruption took place—additional production could enter the market to help cool prices and restore some semblance of balance. Spare capacity was a fluid thing, increasing as new production entered the market and diminishing as demand rose. Spare capacity shrank around 2003 and has remained at historically low levels since (except for a brief period in 2008–2010), far below the roughly 3 to 5 million barrels consistent with a well-managed market in the 1990s.

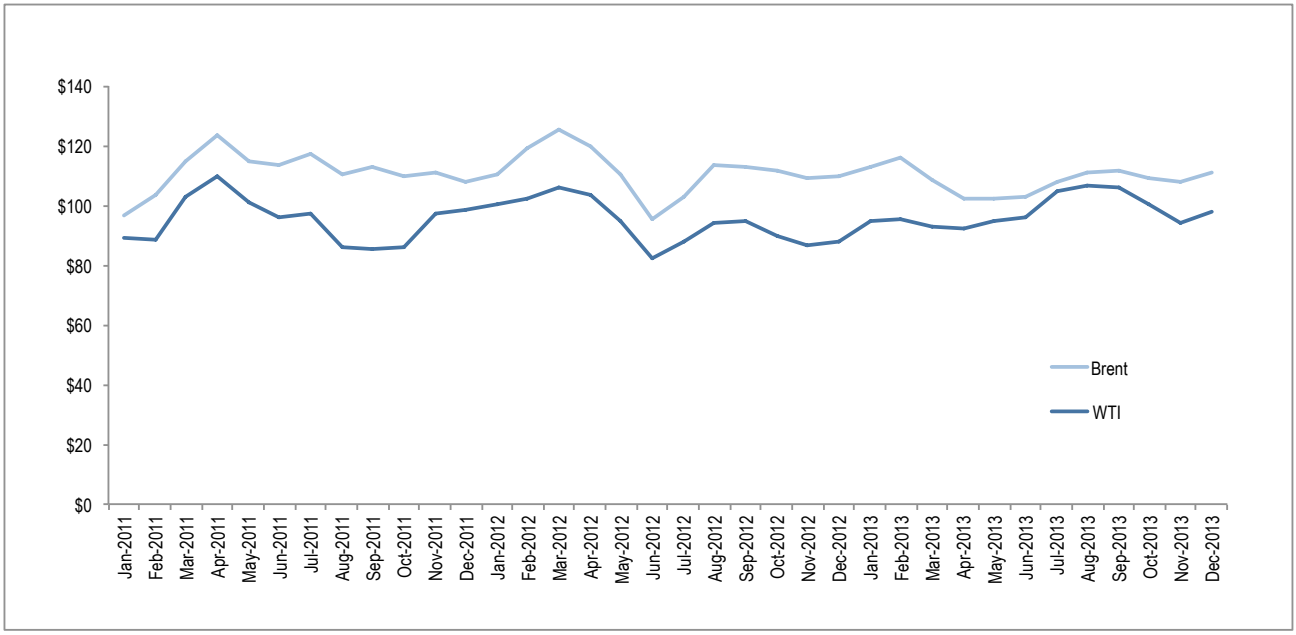
It was in this world that the Iran oil reduction effort, on which similar Russian concepts would be modeled, took place. Between 2011 and 2013, sanctions removed nearly 1.5 million barrels per day of Iranian crude oil from the market. As Figure 5 demonstrates, oil prices did go up in the period from January 2012 until March 2012 right after the application of sanctions, but the increase was relatively moderate and prices subsequently declined. The decline in part reflected, as is shown in Figure 6, an increase in Saudi exports, the growth in US shale production, and reduced European demand. But eventually prices did revert back to the $100-per-barrel level seen for much of the period from the second half of 2012 until mid-2014. The price reaction was therefore substantial but limited in time.

Figure 4: OPEC Total Spare Crude Oil Production Capacity, 1996–2016
(In millions of barrels per day)



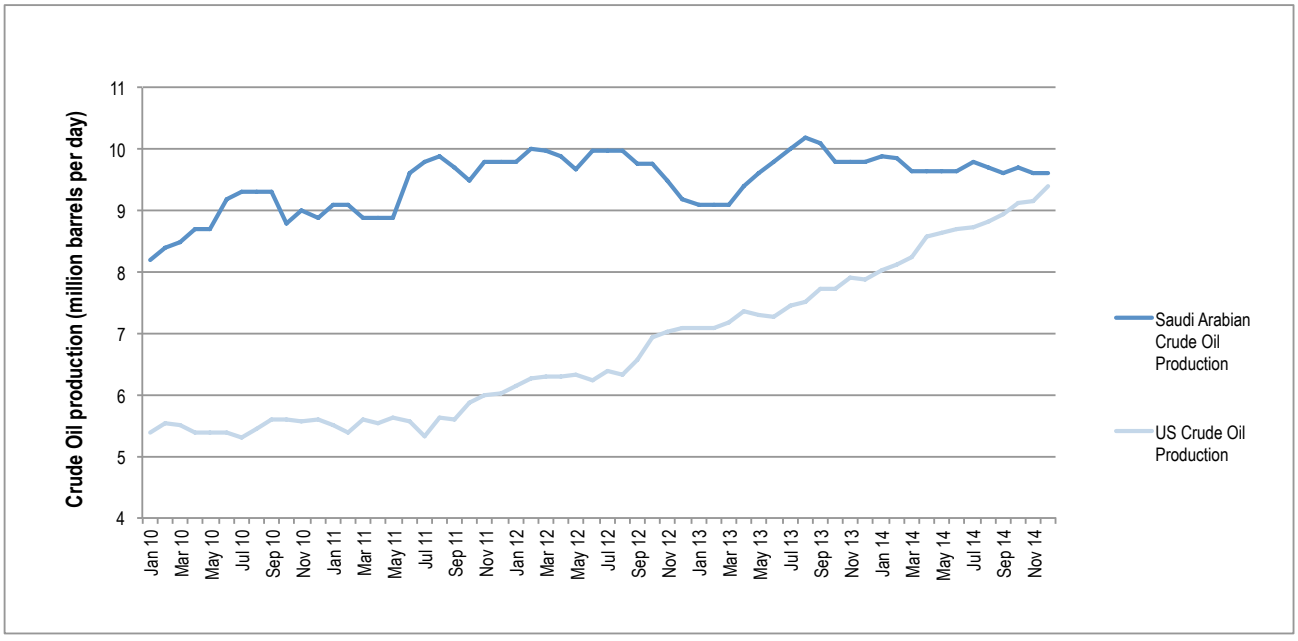
Source: Energy Information Administration.

Figure 5: Monthly Average Oil Prices from 2011 to 2013 (US dollars per barrel)



Source: Energy Information Administration.

Figure 6: Crude Oil Production, Saudi Arabia and United States, 2010-2014 (In millions of barrels per day)



Source: Energy Information Administration.

This is because spare capacity worked in managing the Iran reduction effort as intended: as a supply disruption, necessitating increased OPEC production. That said, the sanctions were themselves carefully orchestrated to avoid taking too much Iranian supply off the market at once. Other key factors include: the effective communications

effort about US objectives, the fact that the effort was subject to presidential authority to curtail the sanctions against Iran should the market experience trouble, and the implementation undertaken with the expectation that reductions would be incremental.

These factors should prompt consideration as to whether a similar loss of Russian crude oil production would cause a major, prolonged increase in prices. OPEC spare capacity is currently estimated by the EIA to be 2.1 million bpd,[24] though it could be lower, particularly given increased Saudi oil demand. More importantly, however, the volume of spare capacity needs to be viewed in the context of today's oil market and the reason for the low level.[25] When the market is tight, low spare capacity represents underinvestment and limited ability to ramp up production to meet global disruptions. Today's oil market, however, is oversupplied—with low prices, historically high inventory levels, robust US production even at lower prices, and relatively weak demand. In such a market, the low level of spare capacity represents an explicit choice by Saudi Arabia not to actively manage the oil market, but rather to maximize sales and market share for myriad reasons beyond the scope of this paper.[26,27] What this means is that the current price may be viewed as artificially low due to Saudi Arabia's refusal to maintain much spare capacity, and the higher oil price resulting from a loss of supply (due to Russian sanctions or for any other reason) should properly be viewed as the level that would have prevailed if Saudi spare capacity had been used to offset that disruption.

The market may continue to face this oversupply situation for some time to come. The P5+1 and Iranian nuclear deal concluded on July 14, 2015, will permit anywhere from 300,000 to 1,000,000 new bpd to enter the market. The timing of this additional oil entering the market is yet to be determined, as it depends on when Iran is able to complete a lengthy list of time-consuming nuclear steps. However, though it could be earlier in 2016, it will likely begin as soon as March or April 2016. Iraqi and Libyan production could potentially increase robustly. Demand growth is projected to remain weak, and more importantly, the energy intensity of growth in places like China is expected to decline sharply.[28] Particularly, as productivity improves and costs decline, over the near to medium term, US oil production can continue to grow at lower prices, and the rate of growth can respond more flexibly and quickly to any price increase from lost Russian supply, thus tempering the price hike—although this response still takes six months or longer, not weeks as with traditional spare capacity.[29]

The combination of spare capacity, increased US production, returned Iranian barrels, and other factors may mean the market can handle the loss of 1 to 2 million bpd. Yet even this high level of disruption would be far less than what the previous analysis suggested would be necessary to drive the Russian current account into deficit.

Of course, it is also the case that higher prices are more meaningful when prices are already high, and less meaningful in the reverse. Such was the case in 2012, when oil prices were high and Iranian production was being removed from the market. At that time, there was considerable concern that a loss in substantial Iranian production would create a major price push. But due both to increased supply and reduced demand, the impact was relatively modest and manageable.

There is a world of difference between seeking crude oil export reductions at $100 per barrel and seeking them at $50 per barrel. Though there can be little debate that—on economic grounds—net oil importers prefer lower prices, it is also true that economies can adjust to certain economic conditions. The rise in oil prices to over $100 a barrel for the first time in 2008 caused strong concerns about the impact on consumer economies. However, those economies adjusted as prices spent much of the period between 2011 and mid-2014 above that level. For that reason, the fall in prices since mid-2014 has been described as a windfall for net oil importers. At the same time, the IMF has noted that, without appropriate adjustments in fiscal policies, many economies could find lower oil prices to be problematic, including in relation to managing public debt (particularly where there is energy subsidization) and inflation.[30] Moreover, there are potentially deeper consequences of lower oil prices, ranging from environmental (as the economic disincentive for lower-efficiency automobiles and energy consumption evaporates) to the political (as petro-states deal with the consequences of less revenue coming in) to the financial (removing a powerful source of investment that came from sovereign wealth funds of oil-producing

states).[31] Though no "ideal" oil price exists that has equal benefits for consumers and producers, it is likely true that an increase in price from where it is at present would not prove catastrophic for consumers, provided it is appropriately built into oil market projections and does not spark a precipitous rise in prices. Notably, this may be particularly true with respect to the United States, given the changes to the oil dependency of the US economy and domestic oil production, as President Obama's chief economist and Chairman of the Council of Economic Advisors Jason Furman noted on April 28 when he said that "whatever happens to oil, whether it goes up or down, or does some combination of both, it's not going to affect our economy as much as it would have otherwise…we're considerably less vulnerable to oil shocks than in the past."[32]

As noted above though, one risk of increased prices is that Russia could avoid or mitigate the negative repercussions of the sanctions by offsetting production against higher prices. Table 8 shows the broad trend: for every $10 increase in prices, Russia would see roughly $26 billion more per year in a 5 percent reduction scenario, and $22 billion more per year in a 20 percent reduction scenario. This might then be offset with an increase in imports by Russia (reducing the current account surplus), or the Russians could continue to push for indigenization of certain industries in order to rebuild its reserves.

Whatever the upward price impact may be, there is also a question whether such a price increase would be sustained. First, there remains the question as to whether a price increase would be a temporary result of market jitters or would instead stabilize at the higher price over time. Second, there is some amount of risk premium that would also probably become priced into the market as tensions with Russia increased, both out of concern of future supply disruptions and the possibility of military conflict. Third, as noted previously, there is some spare capacity in the market and the possibility of new production coming online, whether from Iran, the United States, or elsewhere. Such new production would take time to come online, of course, and its flexibility and responsiveness remain in question. Depending on how large the loss of Russian supply is, it could take months for some new supply to come to market to offset the loss and, if large enough, years for additional supply to offset the remainder. In other words, while it is true that higher oil prices would help Russia weather the storm, it should not be taken as a given that prices would remain elevated for the long term. Some steps can be taken and built into the sanctions effort in order to mitigate the impact. Last, in the event of a real panic in the market, the presence of strategic oil reserves in the United States and beyond makes it possible that government action could be taken to address what would be an oil problem created by a national security crisis.

Table 8: Reduction Scenarios with Import Compression at $50/barrel, $70/barrel, and $80/barrel (Figures are in billions of USD unless otherwise noted.)

	Article IV data	5% oil export reduction	10% oil export reduction	20% oil export reduction
Current Account at $50/barrel	32.8	43.3	36.2	22.1
Current Account at $60/barrel	32.8	70.1	61.6	44.6
Current Account at $70/barrel	32.8	96.9	87.0	67.2
Current Account at $80/barrel	32.8	123.8	112.5	89.9

Source: IMF Article IV, July 2014; crude oil and oil product data from Haver; author's calculations.

A FUTURE SANCTIONS PACKAGE

This analysis can lead to the conclusion that reducing Russia's oil exports would have a likely negative impact on the Russian economy with minimal risk to the international community directly, provided prices can be managed. However, Russia's self-defense mechanisms may be sufficient to water down the impact and to prolong the crisis. As such, the trick is to find the combination of stressors on the Russian economy that induce pain in a variety of ways beyond oil reductions. A potential sanctions enhancement strategy could include the following elements:

1. **Targeted reduction of 10 to 20 percent of Russian oil exports (crude and oil products), timed in order to build space for new production to come online as needed in order to compensate for Russian lost exports**. As noted above, this would not be enough by itself to inflict crippling damage on Russia's economy, but it would contribute to its instability and deprive Russia of yet another source of hard currency. Assuming that Russian import compression behaved as in the past, this would cost Russia between approximately $155 billion and $170 billion in foreign exchange, bringing the current account surplus to $22.1 billion. It would be achieved in a similar fashion as the Iran oil reductions of 2012–2013: establishing state-based targets for oil export levels on 6- to 12-month schedules and engaging in robust diplomatic activity to secure reductions to the levels, with potential readiness to go further in the future.

2. **Restrictions on more general investment in Russia**. Though it is true that Russia's investment climate is poor, this is not stopping money from continuing to be channeled into Russian sovereign bonds.[33] Such transactions could be targeted, perhaps first by prohibiting any new such investments and—over time—requiring a divestment of US and EU companies from these investments in Russia.

3. **Restrictions on services to support Russia's present production of oil.** The sanctions imposed thus far have targeted future development in Russia rather than the present production capacity of Russian fields. Russia will already find it difficult to maintain its oil production levels and to correct the damage done to its overall growth potential. The International Energy Agency concluded in its Medium Term Oil Market Report that Russian oil production can be expected to drop by 560,000 barrels from now until 2020 as a result of the imposition of sanctions, lack of investment, and natural degradation of its oil fields.[34] This amount, independently, would not be fatal to Russia's overall economic potential; it will exacerbate its problems.

   Taking measures a step further to limit foreign support for Russia's current oil production activities would contribute to the bleeding it is presently experiencing. Importantly, it would also accelerate a broader minimization of Russia's value to the international economy that ultimately would make future, more aggressive sanctions options more achievable. Such measures could include a prohibition on any provision of services that supports Russian crude oil production or more novelty aspects—such as services associated with logistics, transportation, or other arrangements—that facilitate bringing Russian oil to market. A smaller-scale approach could also be enlisted by targeting the export of equipment or technical support to Russia that facilitates oil production.

4. **Expansion of the Office of Foreign Assets Control Specially Designated Nationals and Blocked Persons List, and possibly its application to third parties.** Though observers often point to the possibility of sanctions being imposed on Russia's access to the SWIFT system, this is by no means the only way to target non-US and non-EU financial activities with Russian

banks and companies. The United States has successfully used its SDN list to convince many global institutions to halt their interactions with designated entities and individuals. This kind of pressure could once again be undertaken with an expansion of the SDN list to include more Russian banks and prominent businesses. Because these entities probably have ties to US companies and banks as well as those of other US partners, this would impose greater costs on the US and partner economies.

If necessary, the United States could also consider the development of more far-reaching secondary tools, including an analog to the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010's authority to prohibit access to the US financial system of any entity that engages in transactions with US-designated Russian entities and individuals. This is a powerful (and, taken in consideration with my already-noted concerns with overuse of the US sanctions regime, dangerous) tool, but one that is available if need be.

Such measures as these would deepen the impact of an oil reduction strategy, integrating it into a more comprehensive attack on the Russian economy. They would also take time to develop, define, and coordinate with international partners (particularly if a broader oil reduction effort were part of the effort). With such a campaign, however, there are risks.

RUSSIA REACTS

There are two primary (and intertwined) problems with the conclusion that targeting oil is achievable in concert with other tools:

1. EU energy needs and political problems; and
2. Russian responses are unpredictable.

First and foremost, EU energy needs and the unpredictable nature of Moscow's response could create a major political headache for any sanctions strategy targeting Russian oil exports. Oil supplies themselves are generally replaceable in today's oil market, and consequently, any EU decision to forego imports from Russia could be made up from other suppliers (up to a certain amount of oil and considering quality differentials, naturally), possibly including access to strategic reserves. The real threat to EU energy supplies would come from Russia's ability to turn off the natural gas taps in response. Several countries in the EU are wholly dependent on Russia for energy supplies, and even accounting for their antipathy to the Russian government, they would have to carefully consider their vote for any such sanctions regime. Several EU member states have taken steps to improve natural gas supply security since the 2009 gas crisis, including the most vulnerable Eastern European member countries. These include new LNG import terminals in Poland and Lithuania, increased storage capacities across the region, improved cross-border pipeline interconnectivity, and reverse flow capabilities on key transit pipelines, which now enable Russian gas to flow all the way back to Ukraine via EU member states in sufficient quantities. However, even with these protective measures, Europe is not prepared to cope with a complete halt of Russian gas supplies. LNG import capacities are technically sufficient to replace Russian imports entirely with liquefied natural gas, but this would require a substantial increase in spot LNG prices to attract vast volumes of LNG to the European market, and impose great costs on all natural gas–importing countries in Europe. Some countries in southeast Europe (e.g., Bulgaria) would still be unable to replace all Russian gas with alternate sources, given the poor interconnectivity in this part of Europe.

At the same time, Russia itself would also be hurt from any decision to reduce natural gas supplies. Though Russia has made considerable efforts to diversify its gas exports away from the EU, Europe remains the single most important export market for Russia at the moment. Russia's first pipeline link to China, the so-called "Power of Siberia" or "eastern route" with a transit capacity of 38 billion cubic meters will be supplied from newly developed East Siberian fields, and will not divert volumes away from Europe. The pipeline will only enter service after 2019. The so-called "Altai Pipeline" or "western route" is intended to turn Russia into a swing supplier between China and Europe by connecting the countries' Western Siberian gas fields to both export markets. But progress on this project has been slow, and operation start is not expected before 2020. Shutting down European gas exports completely would probably not

be a realistic response, even for Gazprom. Previous gas supply disruptions largely resulted from disagreements with Ukraine on gas prices and transit fees, and Gazprom has made great efforts in recent years to maintain its reputation as a reliable supplier to European consumers. This reputation is not only being scrutinized in Europe, but also in China and Turkey, Russia's most important future gas buyers. Consequently, this would not be a straightforward decision for Moscow. Maintaining 100 percent of natural gas exports while only suffering a 20 percent reduction in oil sales is economically more sensible than suffering a major reduction in natural gas exports alongside such a reduction in oil sales. The value of natural gas sales to Russia is much less than oil, but is not miniscule, particularly during strapped financial times. Moreover, as Table 6 shows, in an environment in which Russia's current account surplus has been significantly reduced to approximately $22.1 billion, cutting even a third of its natural gas supply would tip Russia into a current account deficit that it has no clear way to finance, other than deeper cuts to imports.

That said, the decision on whether to cut off Europe would not be an economic one. Rather, it would be a political act taken by the Russian government as a whole, and as such, noneconomic factors will play a significant role in Moscow's decision-making. Though Gazprom has sought to be seen as apolitical, Putin has often used energy supply as a foreign policy tool, witnessed in the cut-off of natural gas to Europe in 2006 and 2009. It would be folly to suggest that, once challenged, Moscow would not respond, but the response could also be at a time and place of its choosing. For example, it is reasonable to believe that the Russians could keep the gas flowing during the warm months and then cut it off during the winter. Quite naturally, this is what would be going through the minds of the EU's leadership were they to consider an oil export reduction strategy, as well as any resulting impacts of the Greek debt situation, a nuclear deal with Iran, and future negotiations on global trade and climate accords.

Over time though, this issue may become less searing for the EU as alternative sources of natural gas are developed. In the last couple of years, it appeared that Asia would be the premium market for LNG, and most US liquefied natural gas exports will target the Asian market. However, Asian oil-linked prices have dropped substantially since the 2014 oil price collapse, and European spot LNG prices have inched above Asian levels. This means that substantial amounts of US natural gas can actually be exported to Europe from Cheniere Energy's Sabine Pass terminal starting in late-2015, and from at least four other US export terminals by 2019. (See the Center on Global Energy Policy's September 2014 report "American Gas to the Rescue?" for further details.) Still, at this time, the EU remains in thrall to the export of Russian gas.

Of course, Russia's response options are not limited to sanctions evasion or reciprocation. Russia may also continue with its project of trying to structure an alternative to the US-dominated economic system that, over time, would help Russia insulate itself from these dynamics. Seeking investment and financial support from China, for example, could be an opportunity for Putin to undermine both the sanctions and the system. However, it is questionable whether Russia could get sufficient support from non-Western sources to counter Western sanctions. Furthermore, as in the case of Iran, Russia may find that its erstwhile partners have their own economic and political concerns to worry about and may not be prepared to throw in their lot with Putin.

There is also the military dimension. Though it is beyond the scope of this paper to assess Russian military strategy, it is inescapable that Russia has sought to demonstrate its readiness to saber-rattle or undertake cyber-attacks in response to tensions in Ukraine. I suspect that Russia does not seek a military confrontation with the EU or the United States. However, this cannot be dismissed out of hand or considered an impossible scenario should economic pressure begin to threaten the Russian government in a serious fashion. Moreover, increased military tensions also breed the possibility of accidents that can become uncontrolled escalations. That said, this is a high-stakes situation. If the United States and its partners are serious about challenging Russian regional adventurism, then they also have a credibility and resolve problem if they fail to utilize the tools at their disposal. A calculated, careful decision must be made about the potential for excessive Russian escalation and how best to handle it in the context of confronting Russia for its misbehavior.

Of course, all of these factors will make selling an oil reduction strategy all the more difficult, particularly if the math behind it suggests that it would take a substantial cut in Russian exports in order to prompt significant economic damage. There are already hints within Europe that sustaining the existing sanctions regime will be difficult. Augmenting it with far more sanctions, particularly those that risk setting off an escalatory spiral with Russia, would be a very steep climb.

CONCLUSION

Of course, an unresolved question in this analysis is, would any of this shake President Vladimir Putin's strategic thinking? Probably not, if the objective of the sanctions is to secure the return of Crimea to Ukraine, dissolution of insurgent groups in eastern Ukraine, and the end of Russia's ambitions on the country altogether. Russian rhetoric following the annexation of Crimea argues heavily in favor of a conclusion that it would take far more than economic woes—even significant ones—to get Russia to reverse course on that front. Putin's own popularity in Russia, despite hardship, also buttresses the theory that more is needed to change Russia's approach. Moreover, even a superficial review of Russian history speaks to a tremendous capacity on the part of the Russian people to endure harsh conditions and persevere. We should expect no less an effort in this instance, which also means that the costs would need to be far more than lost economic opportunity to cripple the Russian government or people.

But, as with all proper sanctions regimes, outright resolution should not necessarily be the objective of enhanced sanctions against Russia. The point of intensifying the pain on the Russian government and its population through such measures would be to make a diplomatic solution of the current crisis more palatable. Though Russia may not give up Crimea in response to any cost, Russia may view Ukrainian association with the EU differently and, consequently, be prepared to accept results from a diplomatic endeavor that are far different than its preferred path. As such, it may be that the best outcome achievable from the use of enhanced sanctions is real Russian cooperation in the implementation of the Minsk cease-fire and the political process that it was to set in motion. If so, then sanctions would have done their job.

It would be advisable at this juncture for governments to begin, first, to plan for a future eventuality in which Russian oil exports are cut off (not the least because, with current sanctions, Russian oil exports are almost certain to drop as future investment is curtailed); and, second, to game out how to respond to Russian countermoves. There may be policy tools that would be advantageous to have in place far in advance of such a strategy, such as an ability for the United States to offset European energy needs with either US supplies or arrangements with other partners to divert new sources of natural gas toward Europe. It would be advisable to begin the discussion now within the International Energy Agency and among other US partners as to how markets would be managed in the event of a Russian energy crisis. Even doing so would usefully broadcast to Russia that international resolve is strengthening, not weakening, in the face of its intransigence and that even Russia cannot withstand global economic alignment against it.

APPENDIX: IRAN CASE HISTORY

This appendix explores oil reduction efforts from the Iran example, the first instance of a calculated effort to reduce foreign oil exports over time, which can serve as a blueprint for an oil reduction strategy for Russia.

As I have written previously, the intent in applying the original oil reduction sanctions against Iran was not to target oil explicitly.[35] Rather, oil reductions were a by-product of the structure put in place to permit countries to continue purchasing Iranian oil and depositing payments in accounts held by the Central Bank of Iran (CBI).

This is surprising to some, but it is a function of the Iranian oil economy. The CBI is the sole authorized recipient of Iranian oil sales (though, of course, these funds are then circulated throughout the Iranian government and economy according to national budgets). Consequently, when the United States imposed sanctions on any third-party financial institution conducting business with the CBI in December 2011, a mechanism had to be created to permit payments for oil sales or risk the sudden halt in those sales. The mechanism chosen was a freely available exception to the sanctions, provided that the country governing the financial institutions conducting the transactions reduced its purchases of Iranian crude oil by a significant degree. The legislation left open the definition of "significant" but narrowly defined the Iranian products that could permit a reduction determination to be made (leaving aside, for example, gas condensates).

The result was legislation in the FY12 National Defense Authorization Act (NDAA) that worked insofar as the administration was able to achieve approximately 1.5 million bpd in reductions in 2012–2013. However, it was by no means an easily translated statute, and its puzzling omissions soon became obvious. In addition to the definition of "crude oil," the statute ignored the possibility of payments in kind or those facilitated by banks other than the CBI or another US-sanctioned Iranian financial institution. Moreover, the statute created a scenario in which an entity could only be protected from sanctions if its government orchestrated a reduction in oil purchases, even though in many countries, such decisions are the province of individual companies rather than necessarily government policy. Last, the entity that would be sanctioned under the terms of the statute is the bank that made the payment, not the government responsible for securing the exception to sanctions or the importing company itself. Altogether, the statute needed repair.

Executive Order 13622—which was promulgated on July 30, 2012—addressed some of these problems within the limits of the law. From this point forward, any entity facilitating the purchase of Iranian oil outside of a significant reduction exception could be held liable for sanctions, and purchases in kind (as well as barters or other accounting tricks that Iran might have employed) were similarly barred. The definitional issue surrounding "crude oil" remained because it was outside of the president's legal authorities to fix this problem, and this remains a problem today. The definition of "significant" was not pegged, which appropriately gave scope to define the results of national oil reduction efforts depending on a variety of factors. These include both the overall size of the reductions to be made (so, for example, a reduction of 10 percent of 500,000 bpd could be seen as inherently more damaging to Iran than a 20 percent reduction of 200,000 bpd) and the size of the oil purchase in the overall oil imports of a country (acknowledging that a 20 percent reduction of oil purchases from a total oil import budget of 200,000 bpd may cause more problems for a country than a 20 percent reduction of oil purchases from a total oil import budget of 6 million bpd).

In all, the results of the Iran oil sanctions effort are well established, despite the deficiencies of the original law that were addressed through appropriate and robust implementation. However, any future oil reduction strategy could be designed to avoid some of these pitfalls. For the purposes of this paper, the main lessons to be gleaned from this experience are as follows:

- **Pick definitions carefully**. Words like "crude oil" often get thrown about inexpertly. However, the incorrect use of terms led to real implementation problems in the Iran case

that could be corrected through more precise drafting.

- **Ensure that target sanctions are targeted on those involved in the bad acts in question**. Before the administration fixed the law, it would not have been out of the realm of possibility for an importer to create a sanctions problem for its bank and escape any real repercussions of its own. Similarly, giving banks no ability to influence their sanctions fate by relying on national-level reduction efforts may have helped isolate Iran further, but it also created an unreasonable burden on banks to police the efforts of their clients. Banks, as a result, became primary enforcement agencies of the sanctions. This had its own advantages but may be contributing to fatigue with US sanctions efforts more generally (a concern explored previously).[36]
- **Define the intended end result and provide some clarity for those to be affected by the measures**. By not defining the intended end result (Driving Iran to zero sales? To a de minimis amount? To a de minimis amount so long as global oil markets were not impaired?), the United States had flexibility, but also a substantial burden to explain to its partners what its goals were in the abstract.

  Moreover, the obvious lack of communication between the executive branch and legislative branch also created confusion. For example, at a time when the administration was using the ambiguity involved in the word "significant" to try to obtain large cuts in purchases, Senators Robert Menendez and Mark Kirk issued a public letter that established a bar of 18 percent. This may have been lower than what was achievable through executive branch negotiations, but the moment that it came out, the letter set a virtual ceiling. By trying to micromanage the efforts of the administration's negotiators, Menendez and Kirk ultimately undermined their own endeavors.

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