

## THE “OIL WEAPON” REVERSED? SANCTIONS AGAINST IRAN AND U.S.-EU STRUCTURAL POWER

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The longstanding history of sanctions against Iran entered a new phase in late 2011 and early 2012, when the United States and the European Union (EU) introduced a new series of oil sanctions on what was then still the third-largest oil exporter in the world.<sup>1</sup> Both sanctions experts and oil-market watchers were initially skeptical that these oil sanctions would work, not only in terms of inducing behavioral change in Tehran on the nuclear issue but even in terms of simply reducing Iran’s oil exports. To the surprise of many, however, the International Energy Agency (IEA) reported in early 2013 that Western sanctions had succeeded in slashing Iran’s oil-export revenues by over \$40 billion in 2012. The IEA further estimated Iranian crude exports to have declined by 40 percent from 2011 levels, adding that its oil production was hovering below three-decade lows.<sup>2</sup> These figures were confirmed by top Iranian officials.<sup>3</sup>

Whether these effects will be sustained remains to be seen. Yet, the very fact that they have hitherto been much larger than initially anticipated again illustrates how

little is actually known about when and how oil sanctions can curtail the exports and revenues of a producer country. In fact, oil sanctions have remained a curiously understudied subject in both the extensive sanctions literature and the energy-security literature. A study by Michael Canes forms an important exception.<sup>4</sup> Canes finds that multilateral oil sanctions can substantially reduce the gross domestic product (GDP) of the targeted oil exporter but can also affect many other countries besides the target. In particular, multilateral oil sanctions can also imply considerable costs to oil-consuming countries while increasing the GDPs of other oil exporters. While valuable, this analysis tells us little about when and how different types of oil sanctions can be effective in trimming the oil exports of the targeted country.

This article tries to address this knowledge gap by developing a framework for understanding the varying effects of oil sanctions, rooted in the workings of the international oil market. The framework, which builds on previous work by El-Katiri and Fattouh, stresses the importance of two conditions that determine

the success or failure of oil sanctions: the state of the oil market and the type of sanctions. This results in two conjectures. The first: oil sanctions against producers have a relatively greater chance of success in a buyers' market (where sellers must compete for consumers) than in a sellers' market. The second: unilateral, selective oil boycotts are far less effective than sanctions that a large group of buyers impose or abide by.

Applying this framework to the case of the recent Western oil sanctions against Iran, the article finds that the relative success of the current set of oil sanctions in restraining Iranian crude exports is not due to the respective unilateral oil embargoes put in place by the United States and the EU. Rather, it is the result of a set of flanking measures, notably the American financial and banking sanctions and the European restrictions on oil-tanker insurance. These measures are rooted in the structural power positions of the United States and the EU in the financial and shipping-insurance markets, respectively.<sup>5</sup> Even so, the continued effectiveness of these sanctions critically hinges on three elements that are beyond the direct control of Washington and Brussels: the physical balance of the oil market, the oil price, and the behavior of third-party consumer countries. Moreover, while these flanking economic sanctions are more powerful in curbing Iranian oil exports than the respective oil-import bans, they could potentially backfire and undermine the structural power positions of the United States and the EU.

### **OIL AS A POLITICAL WEAPON?**

To most people, the idea of using oil as a political weapon immediately calls to mind the 1973 Arab oil boycott against the United States and a handful of other

Western countries that had supported Israel during the Yom Kippur/Ramadan War. The dramatic effects of this embargo are well known: oil prices quadrupled overnight, long queues formed at petrol stations in the West, and the global economy was tipped into a recession.<sup>6</sup>

Yet, it is not just the oil exporters in the Middle East who have resorted to the oil weapon in recent history. The oil-consuming countries, too, have tried to leverage their trade with producers to coerce them to change their behavior.<sup>7</sup> In fact, as petroleum economist Alhajji writes, "the U.S. has historically imposed a greater number of oil embargoes than any other nation, including oil embargoes on Japan before World War II; on the Soviet Union in the 1960s; and on South Africa, Burma, Serbia, Haiti, Libya, Iraq, Iran, and Sudan in the last two decades."<sup>8</sup>

Of course, the United States has long been a significant oil producer, and its production is set to rise dramatically thanks to the shale and tight-oil revolution.<sup>9</sup> But in some of the aforementioned sanctions episodes, Washington has used its oil *imports*, not its exports, to try to gain leverage over the behavior of foreign oil-exporting countries. The EU has enacted similar oil embargoes; in September 2011, it banned all imports of Syrian oil in an effort to put pressure on the Syrian regime for its violent suppression of popular uprisings.<sup>10</sup> These sanctions are enacted unilaterally and thus differ greatly from the United Nations (UN) oil sanctions imposed on Saddam Hussein's Iraq between 1990 and 2003, amended in 1996 to allow for limited oil exports in return for food imports (the so-called "Oil-for-Food Program").

The recent oil sanctions against Iran form one of the most dramatic illustrations of consuming countries' trying to unilaterally

ally employ their oil imports as a strategic foreign-policy tool. In late 2011 and early 2012, both the United States and the EU put in place extremely tough oil sanctions against Iran. The basic idea behind these sanctions was to hinder Tehran's ability to sell oil abroad so as to dissuade it from continuing its nuclear program. This section first gives an overview of the oil sanctions against Iran, before scanning the relevant literature on the subject.

### OIL SANCTIONS AGAINST IRAN

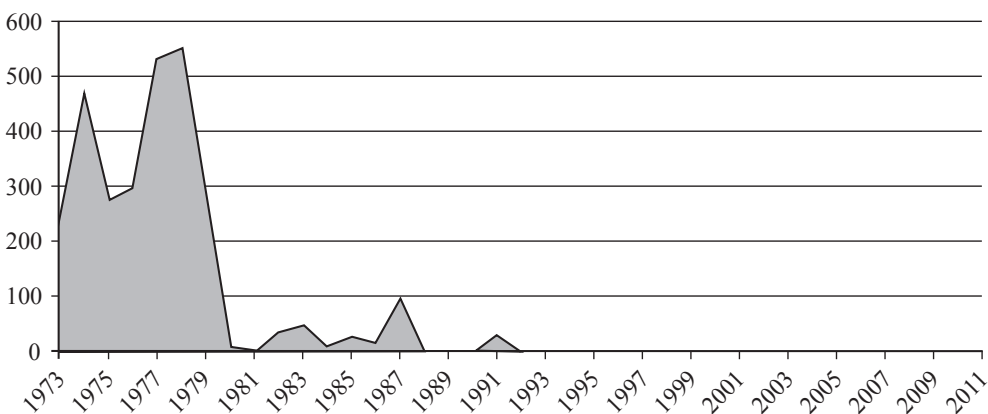
The history of sanctions against Iran began more than 30 years ago. In response to the Iran hostage crisis, U.S. President Jimmy Carter imposed the first set of economic sanctions against Iran in November 1979. One of the first measures taken by Carter was a ban on Iranian oil imports. Ever since, the United States has had some form of economic sanctions continuously in place against the Iranian regime, alternately loosened and tightened.<sup>11</sup> As is evident from Figure 1, the sanctions have had dramatic effects on United States oil imports from Iran. Since the 1979 hostage crisis, the U.S. has never imported more

than 50,000 barrels of Iranian oil a day, except in 1987. No Iranian oil at all has been imported since 1991.

Over time, though, the United States learned that its oil embargo on Iran was riddled with gaps and loopholes that made it ineffective. Because oil is a fungible commodity, Iran's oil could simply be swapped with other countries' oil for import into the United States, while Iranian oil easily found its way to other export markets.<sup>13</sup> Moreover, while U.S. oil companies were prohibited from shipping Iranian crude oil to the U.S. market, their offshore subsidiaries could still sell Iranian oil to other export destinations.<sup>14</sup>

In the mid-1990s, the United States therefore tried to strengthen its Iranian sanctions regime. It moved from applying strictly unilateral oil sanctions to an attempt to enforce extra-territorial sanctions through the adoption in 1996 of the Iran-Libya Sanctions Act (ILSA). Under this act, the U.S. government was mandated to impose sanctions on foreign firms doing business with Iran.<sup>15</sup> Washington had hoped that allied countries would back up the sanctions regime but, in fact, Euro-

**Figure 1.** U.S. Imports from Iran of Crude Oil and Petroleum Products (thousand barrels per day, yearly averages)<sup>12</sup>



pean and Asian companies continued to be heavily involved in the Iranian upstream oil and gas sector. The act was never applied in full strength to the foreign companies investing in Iran's energy sector.<sup>16</sup>

Still according to ILSA, U.S. companies could no longer use subsidiaries to gain access to Iranian oil. However, at times, the United States even turned a blind eye to American companies' dealings with Iran. For example, in the late 1990s, Chevron was allowed to participate in swap deals with Iran for the crude oil from its Tengiz field off the Kazakh coast, pending the completion of the CPC pipeline to the Russian Black Sea port of Novorossiysk.<sup>17</sup>

In 2006, ILSA was renamed the Iran Sanctions Act (ISA), as it no longer applied to Libya. The application of ISA was further expanded by the Comprehensive Iran Sanctions, Accountability and Divestment Act (CISADA), enacted July 1, 2010, as well as by Executive Order 13590, issued November 21, 2011. CISADA amended ISA by sanctioning the sale to Iran of gasoline and other petroleum products as well as refinery-related equipment. This is important; even though Iran is one of the world's largest crude oil exporters, it is dependent on gasoline imports to meet about 40 percent of its needs.<sup>18</sup> In the wake of a November 2011 report by the International Atomic Energy Agency (IAEA) indicating Iran might have worked on nuclear explosive technology, the Obama administration issued an executive order imposing sanctions on foreign firms that sell Iran energy-sector equipment and services.<sup>19</sup>

By this time, however, the international community had joined the United States in imposing sanctions on Iran. Since 2006, the UN Security Council has adopted four resolutions sanctioning Iran for its nuclear program.<sup>20</sup> The sanctions have included

asset freezes, an arms embargo and a ban on the supply of nuclear-related materials and technology. It is important to note that these UN sanctions do not target Iran's energy sector. However, the latest resolution, 1929, does note "the potential connection between Iran's revenues derived from its energy sector and the funding of Iran's proliferation-sensitive nuclear activities."<sup>21</sup> This wording is interpreted by some observers as providing support for countries that want to ban their companies from investing in Iran's energy sector.<sup>22</sup>

In December 2011, both the U.S. House and Senate passed the National Defense Authorization Act (NDAA) to authorize all U.S. defense programs for the coming fiscal year.<sup>23</sup> This act, signed into law by the president on New Year's Eve, includes a provision related to the sanctioning of the Central Bank of Iran. Specifically, the bill requires the U.S. president to deny foreign banks or financial institutions that process payments through Iran's central bank access to U.S. financial markets.<sup>24</sup> The sanctions were split into two pieces. The first dealt with non-oil transactions between private foreign financial institutions and the Central Bank of Iran. Those sanctions began to take hold on February 29, 2012. The second dealt with oil-related transactions between any foreign financial institutions and the Central Bank of Iran. These transactions became sanctionable on June 28, 2012.

The activation of the oil-related sanctions requires the U.S. president to determine the availability of non-Iranian oil supplies, first within 90 days of enactment, and then every 180 days thereafter. On March 30, 2012, President Obama made such an assessment and indicated that he was determined to go forward with the sanctions.<sup>25</sup> Importantly, the bill includes

another "safety valve," in that it gives the U.S. president authority to grant waivers in cases in which petroleum purchasers are unable, due to supply or cost, to significantly reduce their purchases of Iranian oil, or in which American national security is threatened by implementation of the sanctions.

Following in the footsteps of the United States, the foreign ministers of the EU agreed on January 23, 2012, to ban all purchases of Iranian crude oil from July 1, 2012. This decision took into consideration the IAEA's November 2011 report, as well as the escalating diplomatic rift between the United Kingdom and Iran in the wake of the storming of the British embassy in Tehran on November 30, 2011. Collectively, the EU bought about 600,000 barrels per day of Iranian oil in 2011, about a quarter of Iran's total oil exports.<sup>26</sup> The EU's decision also prohibited European companies from providing storage or transport vessels for Iranian oil and petrochemical products, effectively prohibiting European insurance companies from covering oil tankers transporting Iranian oil.<sup>27</sup>

## **ANALYTICAL FRAMEWORK**

### **The Functioning of the Global Oil Market**

A thorough understanding of the way the global oil market works is essential for analyzing the effectiveness of oil embargoes. Oil is a fungible commodity that has been traded since the 1980s on a liquid and globally integrated market.<sup>28</sup> Petroleum is very different from natural gas, which is mainly traded through regionally structured markets because it requires transportation by expensive pipelines or liquefied-natural-gas (LNG) terminals and tankers. Oil, by contrast, has physical properties that make it relatively easy to transport and store.

To be sure, there is a difference in the quality of different types of oil. In fact, there are over 160 varieties of crude oils produced worldwide. Crude oil is generally classified by density and sulfur content. Refiners consider light sweet crude (containing less than 0.5 percent sulfur) the best; it requires less processing and produces a slate of products with a greater percentage of value added, such as gasoline, diesel and aviation fuel. Even so, crude oils of different geographic origins are largely interchangeable and can be blended so that they match other varieties of oil. Thus, the different crude-oil markets remain closely linked. Economists agree that the oil market works very much as "one great pool,"<sup>29</sup> a "giant bathtub,"<sup>30</sup> or "a global auction"<sup>31</sup> in which the highest bidder wins the supply.

In such an environment, oil embargoes against individual producing countries can only work if they are supported by a large number of buyers, to prevent producers from diverting crude oil from one export market to the other. There are always routes to bypass selective embargoes, as illustrated by Iraq's bypassing of the oil-for-food program,<sup>32</sup> Iran's helping to get Syrian oil to China,<sup>33</sup> or the "oil-tanker diplomacy" practiced by Venezuela, which sent fuel shipments to Iran in 2010 and 2011 and to Syria in 2012.<sup>34</sup>

The view that the oil market functions as a global auction clearly undermines the notion of an "oil weapon," whether used by producers or consumers. It is impossible for individual oil consumers to single out a producer and block its exports, just as it is impossible for producers, acting alone or in small coalitions, to boycott a single consumer country. The net result will be a redirection in oil-trade flows, and possibly

an increase in price, without changing the volumes traded across borders.

**Type of Sanctions and Market Conditions**

Rather than dismissing oil embargoes as inconsequential myths, it is worth contemplating the mechanisms and conditions that make such boycotts fail — or work. A recent working paper by El-Katiri and Fat-touh offers a useful framework, rooted in a thorough understanding of the oil market. They contend that the effectiveness of oil sanc-tions against producers hinges on two critical factors: the type of sanctions and the pre-ailing market conditions.<sup>35</sup>

Multilateral sanctions, such as the UN oil sanctions imposed on Saddam Hus-sein’s Iraq in the 1990s, can be very effective; they deprive the targeted country of alternative buyers. Unilateral oil embargoes imposed by one country or only a handful against a specific producer are much more difficult to enforce. To the extent that the producer finds new customers for its petroleum exports, such oil boycotts may affect the direction of trade flows but not necessarily the vol-ume of oil exported from the country under sanctions. Still, such an embargo could hurt the targeted country financially; faced with a dwindling number of potential buyers, it might need to sell its oil at a discount.<sup>36</sup>

These effects are compounded by the state of the oil market. Economists generally make a distinction between buyers’ and sellers’ markets. In a buyers’ market, there are a lot of sellers who must sell their oil, and buyers have some discretion as to when and how much they buy. In such circumstances, it may be easier for con-sumers to impose targeted oil embargoes

against producers because they will have little trouble finding other sellers willing to fill the void. If, alternatively, oil sellers have the upper hand in bargaining with the buyers (a sellers’ market), such boycotts are much more difficult to implement.

The following table summarizes how types of sanctions and market conditions influence the degree to which embargoes against oil exporters can be effective.

**Table 1.** Expected Effect of Oil Import Embargoes on a Target Country’s Exports

		Type of Sanctions	
		Multilateral	Unilateral
<i>Market Conditions</i>	<b>Buyers’ market</b>	Strong effect	Medium effect
	<b>Sellers’ market</b>	Medium effect	Weak effect

Three additional remarks are in order. First, while both variables are presented as strictly dichotomous, it is probably more accurate to see each of them as a con-tinuum. It is not always easy to determine whether global oil is traded on a buyers’ or a sellers’ market at a given moment. There is a lot of grey area in between. Similarly, there are many possibilities between the extremes of purely unilateral and multilateral sanctions. Second, an important scope condition that is omitted from this table is that the sender country (or group of countries) must have suffi-cient market power. Indeed, it matters little when a small oil-consuming country (say, Luxemburg) bans its oil imports from a relatively large oil exporter (say, Russia). Third, while multilateral sanctions are in theory more powerful, they require that a set of states agree on the strategic purpose of imposed sanctions and overcome any

collective-action problem that may arise — for example, when the economic costs of imposing sanctions is unevenly distributed among the senders.<sup>37</sup> However, as we will see below, the United States circumvents this dilemma by using its structural financial power to discipline Iran's major oil customers.

Historically, the oil market has gone through several cycles. It is usually characterized as a sellers' market between 1973 and the early 1980s. From around 1983 until the turn of the millennium, the oil market went through a long phase in which it was clearly a buyers' market, as reflected in the low prices. For the past decade, many observers agree that the pendulum has swung back, creating once again a sellers' market.<sup>38</sup> The ongoing revolution in unconventional oil and gas production may prepare the ground for a new era of a buyers' market, although, for now, oil prices are still too high to talk about such a shift.

This rudimentary classification of the state of the oil market allows us to cite some anecdotal evidence in support of the analytical framework presented in Table 1. The multilateral oil sanctions against Iraq in the 1990s clearly fall in the first quadrant, where we expect a strong effect. During the sanctions period, oil prices were generally low, and there were ample supplies, clearly a buyers' market. Iraq's oil exports fell from an estimated 2.3 million barrels per day in 1989 to 1.6 million in 1990. They were estimated to be down to 39,000 barrels in 1991.<sup>39</sup> In terms of drying up Iraq's oil exports, it is fair to say that the sanctions worked. At the opposite end, there is the example of U.S. unilateral oil sanctions against Iran, first enacted in 1979. Despite the U.S. embargo, Iranian oil exports doubled between 1980 and 1982, from 800,000 barrels to 1.6 million

barrels. They continued to rise in subsequent years, reaching 2.6 million barrels in 1993.<sup>40</sup> This illustrates that unilateral sanctions, even when imposed by the world's major power, have little effect in a globalized oil market.

### CRITICAL SUCCESS FACTORS AGAINST IRAN

According to the analytical framework developed in the previous section, the effectiveness of the European and American oil sanctions against Iran hinges on the extent to which the United States and the EU succeed in "multilateralizing" their respective embargoes, on the one hand, and the state of the oil market (physical balance and prices), on the other. Three questions are thus crucial for the sanctions to succeed: (1) Do Iran's largest consumers (particularly China, India and South Korea) abide by the embargo or act as spoilers (*type of sanctions*)? (2) Do international oil prices rise so much that they deter Western countries from further enforcing their sanctions (*state of the oil market*)? (3) Do other producer countries ramp up their production to offset the potential loss of Iranian grades (*state of the oil market*)?

### Behavior of "Black Knights"

The first crucial factor for the success of oil sanctions is the existence of so-called "black knights." This term refers to countries that are able to use sanctions and punitive measures as a lucrative opportunity to increase their presence in the markets of the sanctioned country and, in doing so, mitigate the negative effect of the punitive measures on the targeted country.<sup>41</sup> This dynamic is easily illustrated by the effects on Iranian oil of the U.S. embargo, in place since October 1987.<sup>42</sup> Instead of being reduced, Tehran's exports have simply

flowed to able and willing buyers. The United States tried to close the loophole by tightening the sanctions in 1995 and expected its allies to support the sanctions by banning the purchase of Iranian oil. None of them did.<sup>43</sup>

A similar thing could happen to the current embargoes. Consider the EU ban on oil imports from Iran. While this boycott will probably block Iranian crude exports from reaching European markets, on its own, it is unlikely to stop Iran's oil exports altogether. Large volumes of Iranian oil can be redirected to Asia instead, where demand has been growing at breakneck speed over the past couple of years, a trend which is set to continue.<sup>44</sup> It is also possible for Iranian crude to be exported to a non-EU country (say, Turkey), where it could be refined or blended with other barrels of crude and re-exported to Europe, a practice that is not forbidden under the current EU oil sanctions.

The crucial question thus becomes whether Iran's non-EU customers will abide by the sanctions regime or act as spoilers. As Table 2 shows, the EU accounts for only 20 percent of Iranian oil exports. In 2011, the bulk of Iranian oil was shipped eastward, to China (22 percent), India (12 percent), Japan (13 percent) and South Korea (10 percent). Clearly, these other

customers have strong incentives to defect — primarily supply concerns. Asian countries are generally far larger customers for Iranian oil than the EU. Second, to the extent that Iran will find it more difficult to find buyers for its oil, those that remain are put in a strong bargaining position. For instance, the oil sanctions may offer them the possibility of extracting discounts for the barrels they purchase from Iran. Media reports indicate that they have already resorted to barter deals and oil trade in their national currencies to circumvent the embargo.<sup>45</sup> Third, the United States is unlikely to press those states so hard diplomatically that their energy security (and economic prosperity) is jeopardized. All 20 of Iran's major oil buyers have been waived under U.S. sanctions, even

**Table 2.** Estimated Jan.–Sept. 2011 Imports of Iranian Crude<sup>47</sup>

Countries	kb/d	% Total 2011 Oil Demand	% Total Exports
China	550	6%	22%
Japan	327	7%	13%
India	310	9%	12%
Other Asia	240	3%	9%
South Korea	228	10%	9%
Turkey	196	29%	8%
Italy	185	13%	7%
Spain	161	12%	6%
Greece	103	30%	4%
South Africa	80	14%	3%
France	58	3%	2%
Belgium	36	5%	1%
Netherlands	19	2%	1%
Germany	15	1%	1%
UK	11	1%	0%
Czech Republic	5	3%	0%
Poland	3	1%	0%



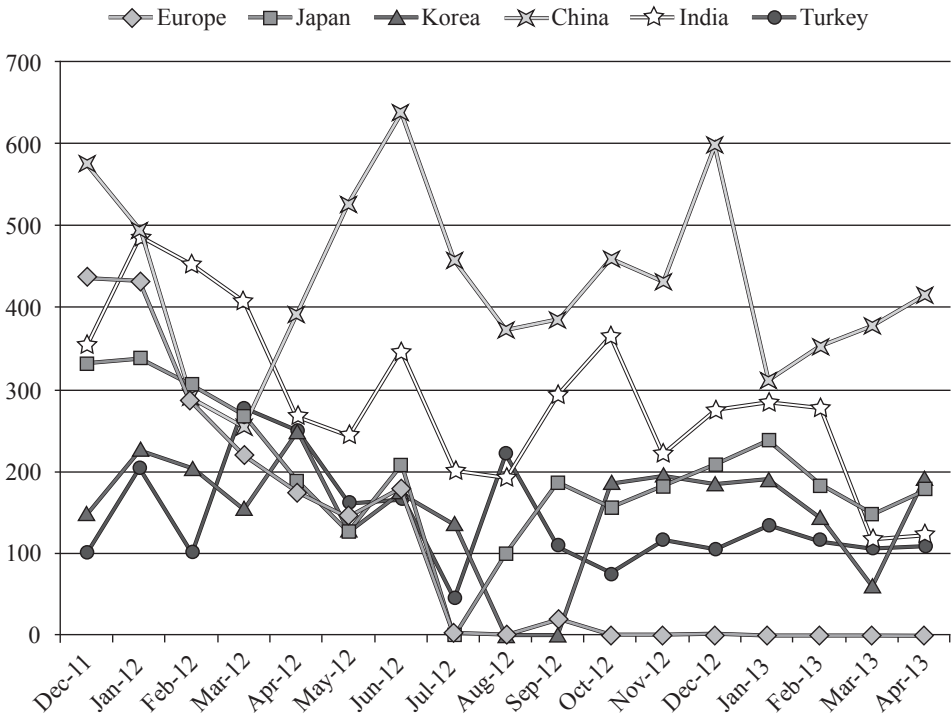
if they still continue to buy Iranian oil, in exchange for cutting their purchases of oil from the Islamic Republic.<sup>46</sup>

Iranian crude exports have taken a clear hit since the enactment of the recent round of sanctions. The IEA reports that Iranian oil exports fell by approximately 40 percent in 2012 compared with 2011 levels, a figure that was confirmed by the Iranian oil minister.<sup>48</sup> In August 2012, Iran’s monthly crude-oil production fell below Iraq’s for the first time since 1989. Moreover, Iran has been forced to deploy more than half its fleet of supertankers as floating storage at anchor in the Gulf.<sup>49</sup> In order to conceal how much oil Iran is mothballing at sea, the country is trying to disguise its oil supertankers by reflagging, renaming and even repainting them,

as well as turning off their GPS tracking devices.<sup>50</sup> If the storage capacity becomes exhausted, Iran will have to shut down some of its production. This would be a potentially disastrous step since it could damage the oil wells.<sup>51</sup>

Figure 2 shows how, among Iran’s major customers, Europe was hit hardest in 2012, followed by Japan (down by 40 percent year-on-year) and South Korea (down by 36 percent). Chinese imports were down 21 percent, while Indian imports declined by 12 percent. Figure 2 also shows how Iranian exports hit their lowest point during the summer of 2012, right after the European import ban and U.S. financial sanctions took effect. But sales to Japan, China and Korea recovered somewhat in the subsequent months.<sup>52</sup>

**Figure 2.** Iranian Monthly Crude Exports, Dec. 2011–Apr. 2013 (thousand bbl/d)<sup>53</sup>



It is quite remarkable that some of the black knights have reduced their oil imports from Iran to an even greater extent than required under the waiver they were granted by the United States. The main reason is that the Western oil boycotts are buttressed by a host of other economic sanctions that are more consequential in terms of blocking Iran's crude from reaching world markets. In March 2013, for example, *The Financial Times* reported that India, the second-largest buyer of Iranian crude after China, planned to stop importing Iranian oil from April 2013 onward to avoid losing insurance coverage for its refineries.<sup>54</sup> This move is noteworthy, since India has received a waiver from the United States that allows it to import no less than 300,000 barrels of oil per day from Iran, about a quarter of Tehran's crude exports.<sup>55</sup>

This example illustrates two mechanisms that have widened and intensified the impact of the sanctions on Iranian oil exports: reputational risk for banks handling oil payments to Iran, and maritime insurance. The ingenious aspect of the U.S. financial sanctions is that they do not strike directly at the companies or countries importing Iranian oil. Banks handling the payment for oil sales can be cut off from the U.S. financial system. Given the structural power position of the United States in the global financial system,<sup>56</sup> this is an outcome all key banks want to avoid: "Washington is granting waivers to countries that have showed a commitment to cutting imports of Iranian oil, but the banks are no longer prepared to take the reputational risk of handling the payments. The result is that some banks are cutting their links with Iran even if legally they do not need to."<sup>57</sup>

Similarly, the EU sanctions not only target oil companies but also European-

based insurers of oil tankers. Here, Europe and, more specifically, the UK have a structural power position on world markets since the London-based International Group of Protection and Indemnity (P&I) Clubs reinsures about 95 percent of the world's tankers. The EU oil ban thus implies that virtually no insurance can be obtained for oil tankers carrying Iranian crude.<sup>58</sup>

### The Oil Price

Oil prices rose in the first weeks of 2012 in anticipation of the European and American boycotts, which entered into full force in June-July 2012. Since late 2011, there has also been a great deal of saber rattling from Tehran, with its threat to close the Strait of Hormuz, further pushing oil prices higher. The advantages of such saber rattling to the regime in Tehran are clear: each time it makes such an announcement, the price of oil goes up, as it stirs fears among oil traders that the market will experience trouble on the supply side.

Paradoxically, even though the explicit aim of the sanctions is to deprive Iran of oil revenue (more precisely, foreign currency with which it can buy sensitive material for nuclear enrichment), the sanctions may well lead to higher prices, limiting the net revenue loss for Iran. In fact, under the right circumstances, Iran could even gain financially from the sanctions.

Evidence suggests that high oil prices have indeed shielded Iran from sanctions. Even after factoring in the loss of roughly a third of its export volume due to sanctions (or nearly 1 million bbl/d), Iran still earned \$69 billion selling its crude abroad in 2012, thanks to high oil prices (see Figure 3). While this is a decline of 35 percent compared to 2011, it still represents the country's third-highest earnings ever.<sup>59</sup>

### Physical Balance of the Oil Market

Do other producers ramp up their production, and do they step up their production sufficiently and in time? This is another critical parameter that will help determine the effectiveness of the oil boycott. By "other producers" is actually meant Saudi Arabia, as well as some smaller

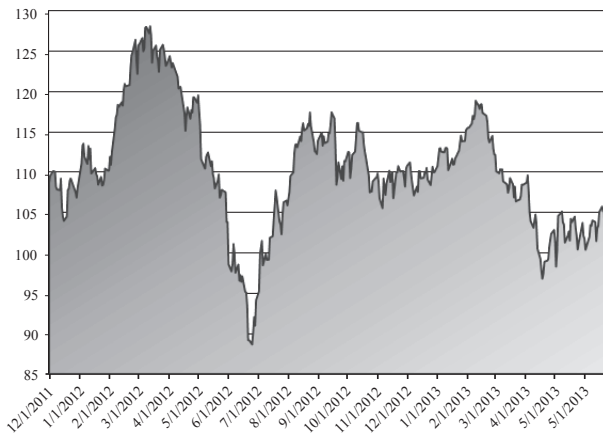
Gulf producers (notably Kuwait, the United Arab Emirates and Qatar). When it comes to spare capacity, all eyes are traditionally on the kingdom, which commands the single highest level of standby oil production in the world.

Riyadh is thus one of the few forces that can dampen oil-price spikes and volatility more generally by acting as the "swing producer."

In the current stand-off, Saudi Arabia has made it clear that it is willing to cover any supply shortages resulting from Iran's diminishing export volumes. Saudi oil minister Ali Naimi even wrote an opinion piece for *The Financial Times* to confirm once again that his country "will use spare production capacity to supply the oil market with any additional required volumes."<sup>61</sup> The IEA reported in May 2012 that OPEC producers had stepped up their production for seven months running, with Iraq, Libya and Nigeria accounting for the largest increase.<sup>62</sup>

One possible scenario that could unfold here is that Saudi Arabia would steal Iran's market share by offering Tehran's customers Saudi crude. Stratfor has calculated that a mere 10 percent shift in market share is equivalent to a revenue loss for Iran of about a billion dollars a month. Stratfor therefore concludes that

**Figure 3.** Brent Spot Price, December 2011 - June 2013 (dollars per barrel)<sup>60</sup>



the strategy of Riyadh to displace Iranian market share has a greater chance of success in bringing Iran to heel than any of the public financial sanctions enacted by the United States and Europe.<sup>63</sup> In the mid-1980s, a simi-

lar effort by Saudi Arabia to increase its oil output, eventually flooding the market with Saudi crude, created a price crash that was one of the factors that devastated the Soviet economy, besides the costly occupation of Afghanistan.

### RISKS AND UNINTENDED CONSEQUENCES

It is well-known that sanctions can produce unintended consequences for the sender states. Here, I list five such possible downsides: closure of the Strait of Hormuz, a restructuring of trade and business patterns, a boost for the hardliners in Iran, economic and political divisions in the EU, and higher oil prices. The purpose of this section is to briefly present those risks

and evaluate the extent to which they have materialized in the case of the oil sanctions against Iran.

### **Closure of Strait of Hormuz**

In response to the latest Western oil sanctions, Iran has repeatedly threatened to close the Strait of Hormuz, a narrow maritime chokepoint connecting the Persian Gulf to the Gulf of Oman. At its narrowest point, the Strait is only about 50 kilometers wide. Hormuz is the most important export route for oil and gas from the Middle East. About 16-17 million barrels of crude oil — 20 percent of world consumption — pass through this strait every day, in addition to millions of tons of LNG. If the Persian Gulf region is the beating heart of the world oil markets, then the Strait of Hormuz would certainly qualify as its aorta.

Iran faces political, economic and military disincentives to block the strait. Politically, Iran would face isolation and could even provoke an international military intervention. More than 75 percent of crude-oil exports that pass through the Strait of Hormuz go to Asian markets. If Iran succeeded in halting these flows, it would not only injure its political foes in the West and its oil-exporting neighbors but also its emerging oil customers in the East, in particular China and India. It is not unthinkable that the UN Security Council would authorize a military intervention in response, as happened after Iraq's invasion of Kuwait in the early 1990s.

A blockade of the Strait of Hormuz would also hurt Iran economically. Oil revenues account for 80 to 90 percent of Iran's export revenues and 40 to 50 percent of its government's budget.<sup>64</sup> Moreover, Iran would cut off not only its own exports, but also its imports of petroleum

products. Despite having the world's third-largest oil reserves, Iran depends on imports of oil products because it lacks domestic refining capacity. Shortages of oil products and dwindling state revenues provide a dangerous mix that could generate domestic unrest and even bring down the regime in Tehran.

From a military perspective, a long-term blockade of the Strait of Hormuz is very difficult, if not impossible, for Iran to carry out. There are basically four alternatives: military artillery on the coastline, the sowing of sea mines, the sinking of tankers, and a blockade by the Iranian navy. Each option can be offset relatively easily by the United States, alone or in coalition with allies. The Persian Gulf has been described as "an American lake" by Michael Klare (2008) because of the overwhelming U.S. military presence in the region. Military experts agree that, while Iran is certainly capable of disturbing the flow of oil from the Persian Gulf, it cannot sustain a closure of the Strait of Hormuz for a long period of time.

Should Iran decide to take the "suicidal" option of a blockade of the strait, prices would certainly spike in the short term; there are few alternative export routes.<sup>65</sup> Some part of the loss could be offset by the emergency stocks of IEA member states. The longer-term consequence of such a blockade would be particularly dire for Iran itself. The 1973 oil embargo provided a similar salutary shock that prompted Western governments to diversify away from Middle Eastern oil.<sup>66</sup> This shift was as quick as it was dramatic. Whereas OPEC had a global market share of 60 percent in the early 1970s, a decade later its share had shrunk to about 30 percent. Today, OPEC supplies about 40 percent of world oil consumption. Iran would face a

similar backlash if it were to cut off the oil flows from the Persian Gulf.

There are many reasons to expect Iran *not* to be able and willing to close off the Strait of Hormuz, at least not for a sustained period of time. Major challenges lie ahead in the longer term, however. As the world's remaining reserves of oil and gas are increasingly concentrated in the Middle East, the chokepoints will become even more congested, inviting more political blackmail of this kind. The question also arises whether the current situation, whereby the United States provides a security umbrella over the Persian Gulf that benefits all consumers, will be accepted by key players in the future.

### **Trade Diversion**

Another risk of these sanctions is that they will shift business opportunities in Iran from Western states to China and other non-Western powers. EU countries bought about 14.6 billion euros worth of oil from Iran in 2010, according to data from the European Commission.<sup>67</sup> A long-lasting embargo could shift that business to other countries instead, most notably China, further deepening its relationship with Iran. The strategic implications of such a shift could be immense; it may ensure that China continues to protect Iran from UN sanctions.

A related risk of these oil sanctions is that they threaten to undermine the structural power positions that the EU and the United States are currently employing to enforce the oil embargoes. It may lead to oil producers switching to other currencies and thus threaten the dollar's dominance in oil trade. The sanctions could also compel Asian consumers to seek oil-shipping insurance from non-UK companies, thereby

undermining the latter's structural power position.

### **Rally around the Flag**

It is a well-known phenomenon that external pressure may rally support around a beleaguered regime. Previous research from political scientists has concluded that foreign-policy crises can cause a "rally around the flag" effect, boosting citizens' approval of and confidence in their leaders.<sup>68</sup> Observers disagree about whether this theory is applicable to the case of Iran. Kroenig downplays the risks; Iranian hard-liners are already firmly in power and an attack might produce increased internal criticism of the regime.<sup>69</sup> Kahl argues that Iranian leaders have staked their domestic legitimacy on resisting international pressure to halt the nuclear program.<sup>70</sup>

Moreover, Western sanctions were a convenient scapegoat on which Ahmadinejad could place the blame for Iran's economic woes. These economic hardships for ordinary Iranians may constitute another unintended effect of the oil sanctions. No matter how "surgically" the sanctions are designed to affect only the Iranian government, the effects are already beginning to hit Iranian citizens very hard. Iran's economy was facing many challenges, such as unemployment and inflation, which have only been exacerbated by the latest round of sanctions. Prices for foodstuffs are soaring, and the Iranian rial has sharply lost value against the dollar.

In any case, it is clear that Ahmadinejad's regime lost a lot of popularity and support at home after the disputed 2009 presidential elections. These elections led to massive street demonstrations, put down violently by Iran's rulers. Therefore, the regime will now surely want to exude an

image of strength by not acceding to foreign demands on an issue that is viewed as a matter of national pride by hardliners and reformists alike.<sup>71</sup> There still appears to be broad domestic support for the nuclear program.<sup>72</sup> In that respect, the June 2013 presidential elections had an unexpected outcome: the only moderate candidate, a cleric relatively unknown to the public until just a few weeks before the elections, Hassan Rohani, beat his conservative opponents in a single round. Thus, so far, the rally-around-the-flag effect seems muted.

### **Schism in the EU**

Another risk is that the European boycott of Iranian crude will continue driving Greece and other southern European countries into the economic abyss. No less than 30 percent of Greece's oil imports in 2011 originated from Iran. Moreover, Iran had offered Greece beneficial terms; it could buy oil on credit. It is hard to see another oil-exporting country granting Greece the same terms, given the dire financial situation in Greece. At the meeting of EU foreign ministers in January 2012, Greece was in no position to block the decision to impose an oil embargo on Iran. The only "concession" it got from the other member countries was to have a transitory period before the oil embargo would actually enter into force, so that Greece (and other EU member states) would have the time to find alternative suppliers.

Moreover, the economic pain of high oil prices is not spread evenly in the euro area. Higher oil prices hit GDP three times harder in Greece than in Germany. Ireland and Italy are big losers, too. While a \$10 increase in the price of a barrel of oil subtracts just 0.28 percentage points from German growth a year later, the damage to Ireland and Italy is twice as large. Hapless

Greece, which imports four times as much oil per unit of GDP than France, suffers most of all, with a 0.8 percentage point slowdown in growth. The effect is magnified in sunny countries, since tourism suffers when petrol or jet fuel prices rise.<sup>73</sup>

The European decision to impose an oil embargo on Iran not only creates economic rifts. It also undercuts the solidarity on energy matters as enshrined in the EU's Lisbon treaty and spawns political divides.<sup>74</sup> The UK, one of the staunchest proponents of erecting the oil ban, recently moved to delay the actual implementation of the embargo as it began to see that the ban would harm its maritime insurance companies. This must have appeared as utterly opportunistic to policy makers in Athens.<sup>75</sup>

### **Sustained High Oil Prices**

The IMF warned in January 2012 that crude-oil prices could rise by as much as 30 percent in the case of a halt in Iran's oil exports to OECD countries, unless replacement supplies were found. The closure of the Strait of Hormuz could trigger a much larger price spike, including by limiting offsetting supplies from other suppliers in the Gulf.<sup>76</sup> While oil prices climbed from January to March 2012, reaching historic highs in many currencies but not in dollars, they have somewhat receded since, as is evident from Figure 3.

It is often forgotten that high oil prices cause the most harm to the least-developed countries. This can result in serious balance-of-payment problems; these economies often have a much higher oil intensity, as they require a comparatively higher amount of oil to produce the same amount of GDP. The economies of most African countries and much of developing Asia are characterized by such high energy intensity.<sup>77</sup>

Admittedly, there is spare capacity to offset Iranian supply losses, but if Saudi Arabia produces more oil in response to European and American requests, this could result in a serious diminution of the cushion of global spare capacity and, thus, higher oil-price volatility. Even the sheer possibility that global spare capacity could drop to 1.5 million barrels per day or below jolts markets and increases the price, especially given doubts about Saudi capacity. If slashed Iranian exports lead to a drastically reduced Saudi spare capacity, currently falling oil prices would succumb to a more bullish market this summer.<sup>78</sup> It is well known that there is an inverse correlation between the level of spare capacity held in the Gulf Cooperation Council (GCC) countries and global oil prices.<sup>79</sup>

Strategic reserves are not the answer either, for largely the same reason. Using these limited emergency oil stocks to deal with a protracted Iran crisis would make the major consumer countries vulnerable to other, unforeseen oil-supply shortages. Tapping the emergency supplies does not guarantee that prices come down. Moreover, Europe's reserves are mostly refined products, not crude.<sup>80</sup> Nevertheless, U.S. President Obama and some allied governments talked openly about such a collective move, for example at the G8 summit at Camp David in May 2012.<sup>81</sup>

Beyond the immediate oil-market prospects, sanctions that target Iran's petroleum sector could also drive up the oil price in the longer run. Oil sanctions against Iran, Iraq and Libya during the 1990s caused a decrease in investment in the oil fields, which had slow-burning effects on global oil supply. Because of those sanctions, OPEC was unable to reach its planned production-capacity targets for the mid-1990s. The impact was even felt dur-

ing the period 2003-08, when global economic demand reached new heights, and supply was limited precisely by the lack of excess supply caused by sanctions.<sup>82</sup>

## CONCLUSION

Oil sanctions can be a double-edged sword. While the goals of nuclear nonproliferation and deterring an Israeli strike on Iran are certainly laudable, policy makers need to weigh the potential benefits of sanctions against their costs and risks — some of which are not well understood. At least two general conclusions follow from the analysis presented in this article.

First, neither the U.S. financial sanctions nor the European oil embargo are likely to prevent Iranian crude from reaching the market. For one thing, the United States has built-in "safety valves" to protect its national economic and strategic interests while allowing some of Iran's key customers to continue buying Iranian oil. For another, there are a number of ways to bypass these sanctions and redirect oil-trade flows. Asian consumer countries in particular seem keen to absorb Iranian exports, especially if they come at a discount price. In the absence of a genuine multilateral oil embargo, Iran will find customers for its oil.

At the same time, however, it is clear that the recent oil sanctions against Iran have been more successful than anticipated. This article argues that the strong effect of the recent set of sanctions on Iranian crude exports does not result from the implementation of the oil boycotts in itself, but rather stems from the flanking financial, banking and insurance sanctions. The relative success of the current set of oil sanctions hence derives from the structural power positions of the United States and the EU.

Second, the Iran sanctions produce a number of unintended consequences, such as the diversion of oil-trade flows with Iran from Europe to Asia, the economic hardship experienced by Iran's population, and the economic and political divisions within the EU. However, some fears of harmful side effects have proved to be overblown. Oil prices have not exploded to insupportable levels. Iran has not acted

on its threat to close the Strait of Hormuz, and the conservatives and hardliners did not profit from the sanctions in the June 2013 presidential elections. It remains to be seen whether the new Iranian president, Hassan Rohani, elected on the promise of a reform agenda that includes greater nuclear transparency, will be able to steer Iran toward better relations with the West and an easing of the oil sanctions.

<sup>1</sup> BP, Statistical Review of World Energy, available at: [www.bp.com/statisticalreview](http://www.bp.com/statisticalreview).

<sup>2</sup> IEA, Monthly Oil Market Report, February 13, 2013.

<sup>3</sup> Rick Gladstone, "Iranian Oil Minister Concedes Sanctions Have Hurt Exports," *New York Times*, January 2013, 7.

<sup>4</sup> Michael E. Canes, "Country Impacts of Multilateral Oil Sanctions," *Contemporary Economic Policy* 18, no. 2 (2000): 135-144.

<sup>5</sup> The notion of "structural power" is borrowed from Susan Strange, who defines it as the "power to shape and determine the structures of the global political economy within which other states, their political institutions, their economic enterprises and (not least) their scientists and other professional people have to operate." Susan Strange, *States and Markets* (London: Continuum, 1988), 24-25.

<sup>6</sup> To a large extent, however, the economic damage from the Arab oil embargo was also self-inflicted because of hoarding and competitive behavior on the part of western governments.

<sup>7</sup> For the sake of completeness, it is worth noting that there have also been boycotts of particular oil companies in the past, such as the one instigated by Greenpeace against Shell in 1995 for its plans to dispose of the Brent Spar offshore oil platform.

<sup>8</sup> A.F. Alhajji, "The Oil Weapon: Past, Present and Future," *Oil & Gas Journal*, May 2, 2005.

<sup>9</sup> The IEA (2012) even predicts the United States will overtake Saudi Arabia as the largest oil producing country by 2017.

<sup>10</sup> Nada Bakri and Steven Erlanger, "EU Bans Syrian Oil As Protests Continue," *New York Times*, September 2, 2011.

<sup>11</sup> For an overview, see Akbar E. Torbat, "Impacts of U.S. Trade and Financial Sanctions on Iran," *World Economy* 28, no.3 (2005): 407-434; Ray Takeyh and Suzanne Maloney, "The Self-Limiting Success of Iran Sanctions," *International Affairs* 87, no.6 (2011): 1297-1312.

<sup>12</sup> Source: EIA, [http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTTIM\\_NUS-NIR\\_2&f=A](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTTIM_NUS-NIR_2&f=A).

<sup>13</sup> Akbar E. Torbat, "Impacts of U.S. Trade and Financial Sanctions on Iran," *World Economy* 28, no.3 (2005): 407-434.

<sup>14</sup> David Lektzian and Glen Biglaiser, "Investment, Opportunity, and Risk: Do U.S. Sanctions Deter or Encourage Global Investment?" *International Studies Quarterly* 57, no.1 (2013): 65-78.

<sup>15</sup> American firms were already prohibited from investing in Iran under the 1995 trade and investment ban. Note that simple purchases of oil or natural gas from Iran are generally considered not to constitute violations of ILSA, because ILSA sanctions investment in Iran's energy sector.

<sup>16</sup> Nikolay A. Kozhanov, "U.S. Economic Sanctions against Iran: Undermined by External Factors," *Middle East Policy* 18, no.3. (2011): 144-160; and David Lektzian, and Glen Biglaiser, "Investment, Opportunity, and Risk".

<sup>17</sup> Since the mid-1990s, Kazakhstan, Turkmenistan, and Uzbekistan have set up so-called "swap deals" with Iran. Under such deals, these countries ship some of their crude oil to Iran's Caspian port of Neka by tank-



ers. Iran then processes the oil in its northern refineries, which are located far from Iran's main oil fields, for domestic consumption. In return, Iran delivers the equivalent amount of oil to the designated clients specified by the concerned Caspian states through the Iranian Persian Gulf oil terminal of Kharq. Hooman Peimani, "Central Asian States Increase Energy Swap Deals with Iran," *Central Asia-Caucasus Institute*, June 30, 2004. <http://www.cacianalyst.org/?q=node/2233> (last accessed: March 11, 2013); and Henry E. Hale, "Independence and Integration in the Caspian Basin," *SAIS Review*, 13, no.1 (1999): 163-189.

<sup>18</sup> Kenneth Katzman, "Iran Sanctions," Congressional Research Service, Report for Congress, <http://www.fas.org/sgp/crs/mideast/RS20871.pdf>. (2012), 3.

<sup>19</sup> This would appear to make sanctionable the activity of global oil services firms in Iran, or the provision to Iran of gear typically used in the oil industry such as drills, pumps, vacuums, oil rigs, and the like (Katzman, 2012).

<sup>20</sup> UNSC Resolutions 1737 (December 2006), 1747 (March 2007), 1803 (March 2008), and 1929 (June 2010).

<sup>21</sup> UNSC Resolution 1929, Preamble.

<sup>22</sup> Kenneth Katzman, "Iran Sanctions," 38.

<sup>23</sup> 112th Congress, 1st Session, H1540CR.HSE: "National Defense Authorization Act for Fiscal Year 2012," <http://www.gpo.gov/fdsys/pkg/BILLS-112hr1540enr/pdf/BILLS-112hr1540enr.pdf>.

<sup>24</sup> According to the NDAA, foreign financial institutions will, after February 29, 2012, be restricted or prohibited from maintaining accounts in the United States if they have "knowingly conducted or facilitated any significant financial transaction with the Central Bank of Iran." See Section 1245 of the NDAA.

<sup>25</sup> Annie Lowrey, "Obama Finds Oil in Markets Is Sufficient to Sideline Iran," *New York Times*, March 30, 2012. This report and subsequent reports are available at <http://www.eia.gov/analysis/requests/ndaa/> (accessed: March 11, 2012).

<sup>26</sup> IEA, Oil Market Report, December 13(2011b), 20.

<sup>27</sup> Mansour Kashfi, "Iranian Oil Industry under Siege As International Sanctions Grow," *Oil & Gas Journal*, March 4, 2013.

<sup>28</sup> Energy Charter Secretariat, *Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas*. (Brussels: Energy Charter Secretariat, 2007).

<sup>29</sup> Bassam Fattouh, "The Dynamics of Crude Oil Price Differentials," *Energy Economics* 32, no.2 (2010): 334-342. See also Morris A. Adelman, "International Oil Agreements," *Energy Journal* 5 (1984): 1-9.

<sup>30</sup> William Nordhaus, "The Economics of an Integrated World Oil Market," Keynote address, International Energy Workshop, Venice, Italy, June 17-19, 2009, 2.

<sup>31</sup> James G. Speight, *An Introduction to Petroleum Technology, Economics and Politics* (John Wiley & Sons, Massachusetts 2011), 203.

<sup>32</sup> "Iraq Bypassing UN Embargo on Unauthorized Oil Exports via Tanker Diversions," *Oil & Gas Journal*, February 24, 2003. See also "Oil Exporters Shrug Off Iraqi Call for Embargo," *Oil & Gas Journal*, April 15, 2003.

<sup>33</sup> Lina Saigol, "Iran Helps Syria Defy Oil Embargo," *Financial Times*, May 18, 2012.

<sup>34</sup> William Neuman, "As Others Isolate Syria, Chávez Ships Fuel to It," *New York Times*, February 22, 2012.

<sup>35</sup> Laura El-Katiri and Bassam Fattouh, "On Oil Embargos and the Myth of the Iranian Oil Weapon," Oxford Energy Comment, Oxford Institute for Energy Studies, February 2012, 2.

<sup>36</sup> *Ibid.*, p. 2.

<sup>37</sup> Gary Clyde Hufbauer, Jeffrey J. Schott, Kimberley Ann Elliott, and Barbara Oegg, *Economic Sanctions Reconsidered* (Washington, D.C.: Institute for International Economics, 3rd edition, 2007); and N. A. Bapat & T. Clifton Morgan, "Multilateral versus Unilateral Sanctions Reconsidered: A Test Using New Data," *International Studies Quarterly*, 53, no.4 (2009): 1075-1094.

<sup>38</sup> Correljé and Van Geuns, 2011.

<sup>39</sup> OPEC, *Annual Statistical Bulletin*, <http://www.opec.org/library/Annual%20Statistical%20Bulletin/interactive/current/FileZ/Main.htm>.

<sup>40</sup> *Ibid.*

<sup>41</sup> Elena V. McLean and Taehee Whang, "Friends or Foes? Major Trading Partners and the Success of Economic Sanctions," *International Studies Quarterly* 54 (2010): 427-447; Bryan R. Early, "Unmasking the Black Knights: Sanctions Busters and Their Effects on the Success of Economic Sanctions," *Foreign Policy Analysis* 7, (2011): 381-402.

- <sup>42</sup> Executive Order 12613, "Prohibiting imports from Iran," available from: <http://www.archives.gov/federal-register/codification/executive-order/12613.html>. An important exception from this law were petroleum products refined from Iranian crude oil in a third country. US oil companies could also continue to buy Iranian oil for other export markets beyond the United States.
- <sup>43</sup> Akbar E. Torbat, "Impacts of U.S. Trade and Financial Sanctions on Iran," 407-434.
- <sup>44</sup> IEA, *World Energy Outlook* (Paris: OECD/IEA, 2011a).
- <sup>45</sup> Indira A.R. Lakshmanan and Pratisht Narayanan, "India and China Skirt Iran Sanctions with 'Junk for Oil,'" Bloomberg, March 30, 2012.
- <sup>46</sup> Steven Lee Myers, "U.S. Exempts Japan and 10 Other Countries from Sanctions over Iran Oil," *New York Times*, March 20, 2012; Timothy Gardner and Roberta Rampton, "U.S. Extends Waivers on Iran Sanctions to China and India," Reuters, December 7, 2012.
- <sup>47</sup> IEA, *Oil Market Report*, December 13 (2011b). 20.
- <sup>48</sup> IEA, Monthly Oil Market Report, February 13, 2013; and Rick Gladstone, "Iranian Oil Minister Concedes Sanctions Have Hurt Exports," *New York Times*, January 7, 2013.
- <sup>49</sup> Data from Reuters show that, already by the end of March 2012, Iran held about 18 million barrels in floating storage. The figure rose to a total of 33 million barrels by the end of April 2012. Luke Pachymuthu, "Half Iran Tanker Fleet Storing Oil at Sea," Reuters, April 23, 2012.
- <sup>50</sup> Thomas Erdbrink and Clifford Krauss, "Oil Backed Up, Iranians Put It on Idled Ships," *New York Times*, July 4, 2012.
- <sup>51</sup> Thomas Erdbrink, "OPEC Sees Sanctions Taking Toll on Iranian Oil Production," *New York Times*, May 17, 2012.
- <sup>52</sup> Trevor Houser, "Iran Sanctions: The Year in Review," Note, Rhodium Group, February 11, 2013.
- <sup>53</sup> Rhodium Group, Iran Oil Desk, available at <http://rhg.com/interactive/iran-oil-desk>; and "Iran Crude Exports to Rebound in April from March Slump," Reuters.
- <sup>54</sup> Javier Blas, "Tehran Faces Cut in Asia Oil Exports," *Financial Times*, March 18, 2013.
- <sup>55</sup> Ibid.
- <sup>56</sup> Martijn Konings, "The Construction of U.S. Financial Power," *Review of International Studies* 35, no.1 (2009). 69-94.
- <sup>57</sup> Javier Blas, "Beware the Crude Impact of Iran Sanctions," *Financial Times*, April 10, 2012.
- <sup>58</sup> Ibid.
- <sup>59</sup> Houser, 2013; Javier Blas, "High Oil Prices Shield Iran from Sanctions," *Financial Times*, April 17, 2012.
- <sup>60</sup> <http://www.eia.doe.gov>.
- <sup>61</sup> Ali Naimi, "Saudi Arabia Will Act to Lower Soaring Oil Prices," *Financial Times*, March 28, 2012.
- <sup>62</sup> IEA, *Oil Market Report*, May 11, 2012, 19.
- <sup>63</sup> "Oil: A Weapon against Iran," Stratfor, March 30, 2012.
- <sup>64</sup> Mehdi Majidpour, "The Unintended Consequences of U.S.-led Sanctions on Iranian Industries," *Iranian Studies* 46, no.1 (2013): 2.
- <sup>65</sup> There's an East-West pipeline for oil and gas crossing Saudi Arabia, but it's total capacity is limited to about 5 million barrels a day. Abu Dhabi is also constructing an alternative pipeline to Oman, which is expected to be operational as from this summer, but it will only have a volume of 1-2 million barrels in its early stages.
- <sup>66</sup> Even though it was not OPEC itself which enacted the first oil shock, it was only a handful of Arab oil-exporters; the cartel has always been associated with the oil embargo in the perception of Western public opinion.
- <sup>67</sup> [http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc\\_113392.pdf](http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113392.pdf).
- <sup>68</sup> E.g., Kenneth N. Waltz, "Electoral Punishment and Foreign Policy Crises," in *Domestic Sources of Foreign Policy*, ed. James N. Rosenau (New York: Free Press, 1967), 263-94; and John R. Oneal and Anna Lillian Bryan, "The Rally 'Round the Flag Effect in U.S. Foreign Policy Crises, 1950-1985," *Political Behavior* 17 (1995): 379-401.
- <sup>69</sup> Matthew Kroenig, "Time to Attack Iran: Why a Strike Is the Least Bad Option," *Foreign Affairs* (January/February 2012): 76-86.
- <sup>70</sup> Colin H. Kahl, "Not Time to Attack Iran: Why War Should Be a Last Resort," *Foreign Affairs* (March/April 2012).

- <sup>71</sup> Friedbert Pflüger, “Iran Sanctions: Right Intent, Wrong Approach,” *European Energy Review*, February 16, 2012.
- <sup>72</sup> Colin H. Kahl, “Not Time to Attack Iran: Why War Should Be a Last Resort,” *Foreign Affairs* (March/April 2012).
- <sup>73</sup> Kevin Allison, “Euro Zone Powerless to Avoid Big Oil Divide,” Reuters, April 11, 2012.
- <sup>74</sup> Ruairi Patterson, “EU Sanctions on Iran: The European Political Context,” *Middle East Policy* 20, no.1 (2013): 135-146.
- <sup>75</sup> The EU embargo prohibits Europe-based insurers from covering any ships that carry Iranian oil. Britain, which is an epicenter of maritime insurance services and home to the International Group of P&I Clubs, thus potentially would be hit hard by the actual implementation of this insurance ban. Rick Gladstone, “European Countries Seek Easing of Provision Included in Iranian Oil Embargo,” *New York Times*, May 10, 2012.
- <sup>76</sup> Emilie Gosden, “IMF: Iran Sanctions Could Push Oil to \$140,” *Telegraph*, January 25, 2012.
- <sup>77</sup> Andreas Goldthau, “The Costs to the West — and the Rest,” *European Voice*, February 9, 2012.
- <sup>78</sup> Cliff Kupchan and Greg Priddy, “Roll Out the Oil Revenue Weapon,” *Financial Times*, May 17, 2012.
- <sup>79</sup> Trevor Houser and Shashank Mohan, “Can the Saudis Save the Oil Market?” Note, Rhodium Group, January 17, 2012.
- <sup>80</sup> Kevin Allison, “Euro Zone Powerless to Avoid Big Oil Divide.”
- <sup>81</sup> Jeff Mason, “G8, Raising Pressure on Iran, Puts Oil Stocks on Standby,” Reuters, May 19, 2012; Javier Blas, “Oil Buyers Ready Emergency Stocks Action,” *Financial Times*, April 3, 2010; Javier Blas, “Talks over Oil Release Push Down Crude,” *Financial Times*, March 28, 2012; and David Jolly, “France Suggests Deal Is Near on Tapping Oil Reserve,” *New York Times*, March 29, 2012.
- <sup>82</sup> Mahmoud A. El-Gamal and Amy Myers Jaffe, *Oil, Dollars, Debt, and Crises: The Global Curse of Black Gold* (Cambridge: Cambridge University Press 2010), 92.