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## Iran Launches 2012 Campaign to Rattle Oil Markets

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### SUMMARY

- Iran's recent threats to close the Strait of Hormuz have rattled oil markets and increased the risk premium attached to each traded barrel; however, this is likely just the beginning.
- The current flare-up follows closely on the heels of a threatened embargo on Iranian oil imports by the European Union and strengthened financial sanctions announced by the United States as the West escalates punitive measures designed to coerce Iran to abandon its nuclear program.
- As the standoff over Iran's nuclear program continues, policymakers should expect Iran to continue to threaten to use oil as a strategic weapon to hold the global economy hostage and deter the West from implementing hard-hitting sanctions. This tradeoff highlights a central consequence of U.S. oil dependence—its impact on foreign policy.
- In the case of Hormuz, the West can and will call Iran's bluff. Iran depends on the Strait as much—if not more than—anyone else. Going forward, look for Iran to expand its unconventional efforts to rattle oil markets and inflict economic damage on oil-consuming nations, which is a win-win for Iran: keep the oil flowing, but at higher prices.

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### ANALYSIS

It is often said that the best strategy in a game of chicken is to throw your steering wheel out the window. As soon as you do, your opponent knows you can't possibly change course. It is the strongest signal you can send that you are committed to your strategy. The latest Iranian threat to close the Strait of Hormuz is intended to convey the sense that Iran's leaders are considering 'throwing the steering wheel out the window.' Not only would an act of such provocation inevitably lead to conflict with the United States, it would also signal that Iran was moving rapidly forward with nuclear weaponization—or in fact had already achieved it.

For this and several other reasons, it is unlikely that Iran will actually make good on its threat to block the Strait of Hormuz in the near term. The regime knows that such an act

would trigger conflict with the United States, and it can't risk that showdown without a nuclear deterrent. Nonetheless, Iran's threat to close the Strait has serious consequences for the United States and the global economy, and it probably signals an intensification of the regime's strategy to use oil prices as a strategic weapon that weakens Western resolve while they race toward nuclearization.

Will Iran's strategy succeed? With the global economic recovery hanging in the balance, Europe on the brink of recession, and unemployment in the United States still around 8.5 percent, it certainly looks possible. One need look no farther than the weak position taken by the Italian government in recent days. Dependent on Iran for 13 percent of its oil imports, Italy has insisted on a phased implementation of sanctions to avoid an oil price shock, which the government of Italian Prime Minister Mario Monti believes would affect its nation disproportionately by driving Italy into a deep recession and thereby undermining confidence on Italy's ability to pay its debt. Despite its much stronger economy, South Korea—a key U.S. ally in Asia that receives 9.6 percent of its oil from Iran—is looking for similar exemptions. Never mind that phased implementation buys the Iranians more time. This unfortunate dilemma highlights the key risk of continued dependence on oil—its impact on the conduct of foreign policy.

Hesitation in implementing sanctions against Iran ignores another stark reality: if Iran succeeds in developing nuclear weapons, the impact on the price of oil would likely be greater than the current threat and also more sustained, because a nuclear-armed Iran would be able to provoke the West without fear of meaningful retaliation and likely cause a nuclear arms race throughout the Middle East. In addition, there would then be an increased probability of an attack on Iran by Israel, which would further increase volatility in the oil market and lead to a more sustained price spike.

#### Understanding the Strait of Hormuz

The Strait of Hormuz has the potential to give Iran tremendous strategic leverage, because it is the most vital oil shipping route on the planet. In 2011, nearly 17 million barrels of oil transited the Strait each day, equal to 35 percent of seaborne oil trade and 20 percent of all oil traded globally. Situated between Iran and Oman, the Strait connects the Persian Gulf with the Gulf of Oman and the Arabian Sea, providing access to the global market for the majority of Saudi, Kuwaiti, Emirati, Iraqi, and Iranian oil exports. Gulf crude oil exports averaged 17.7 million barrels per day (mbd) in 2010, of which 16 mbd passed through Hormuz. While the Strait is 21 miles wide at its narrowest point, the shipping lane in either direction is just 2 miles wide.

The Strait has been used as a strategic target in past conflicts. During the Iran-Iraq War, both nations targeted the oil exports of their opponent in an effort to starve the other of revenue. Beginning in the mid-1980s, however, oil tankers of several non-combatant nations began to be targeted—particularly by Iran. In 1987, the United States began escorting Kuwaiti vessels out of the Persian Gulf in addition to granting the tankers U.S. flag status. The 1984-87 Tanker War, as it has come to be known, resulted in damage to more than 500 commercial vessels and the death of more than 400 civilian sailors.

It is important to note that the violence against shipping did not have a noticeable impact on oil prices at the time. Oil prices crashed in 1986, and the global market was flush with supplies. Spare production capacity among the members of the Organization of the Petroleum Exporting Countries (OPEC) was also at an extremely high level, averaging nearly 10 mbd from 1984 to 1987—equal to nearly one-fifth of global demand.

The situation is much different today. Global oil markets are generally tight, in spite of persistent economic weakness in the United States and Europe, due to Asian oil

demand, the increasing cost of marginal oil production, and political decisions by many countries—including the United States—to keep large oil reserves closed to production. OPEC spare capacity today stands at just 3.2 mbd, or 3.5 percent of demand. The vast majority of this surplus capacity—particularly from Saudi Arabia, Kuwait, and the United Arab Emirates (UAE)—would reach markets through the Strait of Hormuz.

Limited bypass options exist for Hormuz oil. Saudi Arabia's East-West (Petroline) Pipeline has nameplate capacity of 5 mbd and delivers crude oil to the west coast of the Arabian Peninsula. It is currently operating at 50 percent utilization. In recent days, the UAE has announced that its planned Abu Dhabi Crude Oil Pipeline will not be operational until June 2012. The pipeline, which has a nameplate capacity of 1.5 mbd and theoretical maximum of 1.8 mbd, would skirt the Strait of Hormuz and offer an additional outlet. Nonetheless, bypass options offer the potential to reroute only a small fraction of total Hormuz oil supplies. Further instability in the Strait, ranging from attempted closure to violence against commercial tankers, or even a credible threat of instability, would likely have a substantial and immediate impact on oil prices.

**Analyzing the Threat** The immediate issue isn't whether Iran can close the Strait and for how long, but rather the impact that its threats and other provocations may have on the price of oil. In fact, the greatest threat may be Iran's ability to deploy a range of unconventional warfare tools against energy targets in the region—for example Iranian Naval Special Forces attacking oil facilities elsewhere in the Gulf—as well as ships transiting the Gulf, resulting in a highly uncertain outlook for Gulf oil flows.

In order to understand the problem better, two scenarios should be considered. In the first scenario, Iran talks about disrupting the Strait and conducts provocative military operations, but does not actually disrupt tanker traffic. In the second scenario, Iran causes a 30 percent fall in exports through the Strait of Hormuz through various means. This fall in supplies come from a combination of Iran embargoing its own exports (2.5 million barrels of oil a day, or 15 percent of Hormuz traffic), Iranian ships attempting to blockade the Strait, Iranian ships boarding and harassing tankers, Iranian Special Forces and proxies like Hizb'allah disabling key export infrastructure in the Gulf, and shippers choosing not to send vessels through the Strait during the conflict. We have not considered a scenario where Iran successfully closes the Strait, because the example of the Tanker War indicates that the U.S. Fifth Fleet could protect the Strait successfully, especially given its current strength relative to the Iranian Navy.

#### **Scenario One: Threat but No Action**

The threat of a possible disruption of an uncertain magnitude would cause markets to bid up the price of oil. Prices of Brent crude traded in London increased by 5.5 percent from \$107.54 to \$113.37/bbl between December 28 and January 4 for exactly this reason. Major users of oil, like airlines, as well as major gas consumers who either rely on liquefied natural gas (LNG) exports from the Persian Gulf or buy gas on oil-linked contracts, will seek to hedge their exposure to the possibility of rising oil prices, bidding up the future price of oil as hedging counterparties buy forward to manage their risk.

We saw early last year that before any oil exports had actually been disrupted, the price of oil rose by roughly 25 percent in response to the revolutions in the Middle East. A much larger increase should be expected in this case, given that the volume of oil under threat is six times larger (17 million barrels a day passes through Hormuz versus 2.8 million barrels per day combined production of Egypt, Libya and Syria).

When considering the market's reaction to Iranian posturing, it is important to keep in mind the numerous bearish factors that arguably should have led to price *declines* over the past several weeks (e.g., European economic crisis, falling forecasts of global oil demand growth in 2012, signs of trouble in the Chinese economy, etc.). In this light, the Persian Gulf risk premium appears to have provided buoyant support for an oil market that should otherwise be trending bearish today. It is difficult to quantify this effect, but we argue it is clearly at least \$5 to \$7/bbl in Brent terms—and potentially much more.

It is also important to note that shipping rates are currently at historic lows (~\$2 per barrel). Rates and insurance premiums are currently being driven by aggregate demand and the risk of piracy. If there were a meaningful threat to ships entering the Strait, shipping costs could reasonably expect to increase five-fold, adding \$6-\$7 to oil prices. This increase would reflect both the fact that some independent ship owners (but not national oil companies) would not want to take ships through Hormuz and the additional cost of war risk insurance that ships entering the Persian Gulf would be required to obtain.

### **Scenario Two: An Attempted Closure with Traffic Falling 30 Percent**

As mentioned above, there is currently only one major pipeline diversion option for Hormuz oil supplies at the moment: the East-West Pipeline through Saudi Arabia (Petroline) that has 5 mbd of capacity and is currently half-full. This means that Petroline could replace 15 percent of Hormuz exports. Thus, if a conflict in the Strait did reduce throughput by 30 percent (about 5 mbd), exports to international markets could be expected to fall by half (2.5 million b/d). This would be roughly equivalent to Kuwait, Iraq, Venezuela or Nigeria ceasing production.

Theoretically, the U.S. Strategic Petroleum Reserve (SPR) could replace this oil for 280 days before the SPR is emptied. Including stocks in other IEA countries, missing supplies could be compensated for well over a year. However, significant questions exist regarding how quickly the IEA would respond, whether the U.S. and other nations would be willing to severely deplete stocks, and whether they have the technical ability to drawdown at a rate of 2.5 mbd. Drawdowns would also have to be supplemented with major changes to world shipping patterns, as most IEA stocks are in the Atlantic Basin whereas Persian Gulf crude goes largely to Asia.

Even if these obstacles were overcome and all lost Hormuz exports were compensated for, the impact on oil prices would be dramatic. While these types of disruptions—where psychology matters as much as market fundamentals—are too complex to model, history may give us a sense of the impact. The first Iraq War (1990-91), which occurred in a much looser global oil market, saw crude prices rise 25-30 percent in response to a similar scale of oil export disruption when Iraq occupied Kuwait. Given the tighter conditions and the perceived possibility that Iran could disrupt a much larger quantity of exports than the 30 percent in our scenario, prices could rise much more. Any rise of this nature would be on top of a sizeable increase in the risk premium.

## Review of Policy Options

Broadly speaking, there are two policy priorities in play for the United States. The first is halting Iran's nuclear program, for which additional sanctions or ultimately military action are the key policy tools available. The second policy priority is maintaining the flow of oil through the Strait of Hormuz—or at least minimizing the impact of rising oil prices due to provocations initiated by Iran—today and in the future. Keeping the Strait open in the face of a blockade attempt could require military action. Mitigating the effects of oil price volatility in the short term could necessitate more strategic use of global public-sector oil stocks. Over the long term, it will require a move away from oil dependence.

A move away from oil dependence, important as it is, will take many decades, and is thus not a realistic policy response to the current escalation in Iran. Nevertheless, it is time for the U.S. and the world to take such steps today to start minimizing this recurring vulnerability with the goal of solving the problem of oil dependence in the future. Conflict with Iran is also perhaps at least one more round of international pressure away (though Iran seems willing to test that hypothesis). As such, we consider here two short-term, non-military policy options in greater detail: more sanctions and strategic use of international oil stocks.

### **More Sanctions**

Between 2006 and 2010, there were four rounds of United Nations (UN) sanctions against Iran. The EU has sanctions in place against Iranian companies and individuals and bans the export of equipment for producing natural gas. The EU expanded its sanctions on December 1st, 2011, adding 39 people and 141 companies to the list. Some EU countries, notably France, are calling for stronger sanctions, including freezing Iranian Central Bank assets in Europe and embargoing Iranian oil imports to the European Union. In November, the United States, United Kingdom, and Canada expanded their bilateral sanctions against Iran. The United Kingdom ordered all British financial institutions to stop doing business with Iranian counterparts, including the Iranian Central Bank. Switzerland, Japan and Australia also have bilateral sanctions against Iran. The United States has implemented additional financial sanctions, including against the Iranian Central Bank, and the British government has done so as well. The new U.S. version of these sanctions, which President Obama signed on New Year's Eve, will enter into force in six months and will apply to firms and countries that do business with Iran or the Iranian Central Bank, including countries that import Iranian oil.

Additional sanctions against importing Iranian crude oil may not have much effect unless they are also imposed by the countries in Asia who import most of Iran's oil. The United States doesn't import any Iranian crude. The EU imports some (Italy is the fourth largest importer of Iranian crude), but is unlikely a European ban on its own will have a major impact. Sanctions do appear to be successfully pressuring Japan (second largest importer), India (third largest importer) and South Korea (fifth largest importer) to stop importing from Iran. While the United States and EU have substantial leverage over Turkey (sixth largest importer), it may be more difficult to get Turkey to stop imports, as it has a direct natural gas pipeline from Iran and relies on Iran for 50 percent of its oil imports. Turkey is seeking a waiver from the United States to exempt its firms from sanctions under the new law. Meanwhile, China, the largest importer of Iranian crude, is using reductions in imports by Iran's other customers to negotiate better prices for Iranian crude.

*Key analysis:* Clearly, the United States and the international community are using sanctions as a primary tactic to confront Iran. However, Iran's oil supplies create leverage over countries that currently import Iranian crude—especially those countries that are struggling economically and are concerned that higher oil prices will further damage their economies.

### **More Strategic International Stock Management**

The 28 developed economies that are members of the International Energy Agency (IEA) consumer group plus China have adequate strategic stockpiles of crude to replace 5 mbd of disruption for many months. If the major stockholders, working with Saudi Arabia, can develop a credible plan to replace the 5 mbd through stock drawdowns and the use of Petrolina at full capacity, the international community could effectively call

Iran's bluff. But there are several obstacles to this: maximum technical drawdown rates from strategic stocks are uncertain, as are rates to ramp up Petrolina to full capacity; there is no established means of coordinating IEA and Chinese drawdowns; and global trade patterns would need to shift in response to these changes.

To address this, the IEA, working as closely as possible with Saudi Arabia and China, could determine whether it is possible to replace 5 million barrels for one day by diverting 2.5 mbd of Saudi exports through Petrolina and releasing 2.5 mbd from IEA members' strategic stocks.

This test would demonstrate to oil markets that the IEA and Saudi Arabia stand ready to replace Iranian exports and ensure that the world remains supplied with oil even in the most extreme realistic scenario. The test could also pressure China into participating in any future stock draw to show that it has a seat at the top table of global energy policy. In the longer term, the positioning of international stockpiles could be made more strategic by bringing China and India into the IEA and allowing (indeed encouraging) Saudi Arabia to pre-position oil outside of the Persian Gulf near major demand centers in Asia, Europe and the United States. Saudi Arabia would hold this oil in bond, enabling it to release oil for sale during a disruption.

*Key analysis:* Strategic petroleum reserves provide the West with valuable leverage against Iranian aggression. While the necessary quantities of oil needed to offset a major Iranian disruption to crude exports through the Strait of Hormuz sustained over months could meaningfully reduce government stockpiles, strategic stock management is an important short- to medium-term option.

## Conclusion

Iran is not in a position to play military chicken with the United States and its regional allies over the Strait of Hormuz—unless and until it becomes a nuclear power. So while the Islamic Republic cannot push the confrontation too far, it doesn't really need to do so in order to advance its cause. Simply by aggravating oil markets through belligerent rhetoric, Iran is able to add a risk premium to the price of oil that puts more money into its own treasury while hurting the economies of the United States and its allies.

The United States has lacked good policy options against the Iranian regime for decades, because the U.S. transportation sector is heavily dependent on oil. More than 70 percent of our oil consumption comes from motor vehicles, and our vehicle fleet is 94 percent reliant on oil-based fuels for delivered energy. Evidence of this dependence is highlighted by the fact that every U.S. recession since 1973 has been associated in some way with an oil price spike. There is no quick and easy solution, but the key to any effective strategy that will reduce our dependence over the long-term will likely only be found in our transportation sector.

In the short-term, we are left with three policy options: military action, sanctions, and the use of strategic stocks. Sanctions appear likely to meaningfully reduce imports of Iranian oil by several of Iran's largest consumers, but not to its largest: China. Showing that the largest consumer nations, working with Saudi Arabia, could successfully weather an Iranian disruption of traffic through the Strait of Hormuz would help to reassure oil markets in the medium-term and make Iran's future threats appear empty.

Oil price stability will remain elusive as long as the market remains tight and instability or geopolitical crises in countries like Iran can meaningfully—and rapidly—affect supplies. U.S. households in 2011 spent a record \$4,155 on gasoline, with the high cost acting as a drag on economic growth. Even though the United States imports no oil from Iran,

prices at U.S. gasoline pumps are directly influenced by events like Iran's current provocation, making our continued dependence on oil among the nation's greatest strategic challenges.

Together with increased domestic production and continued improvement in vehicle fuel-economy, the shifting of America's light-duty vehicle fleet to electricity and the heavy-duty vehicle fleet to natural gas looks to be the best long-term direction for U.S. energy security policy.