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Answers to Middle East Oil Crisis

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Key takeaways

» *A recent attack on Saudi Arabian oil processing facilities has global oil prices jumping.*

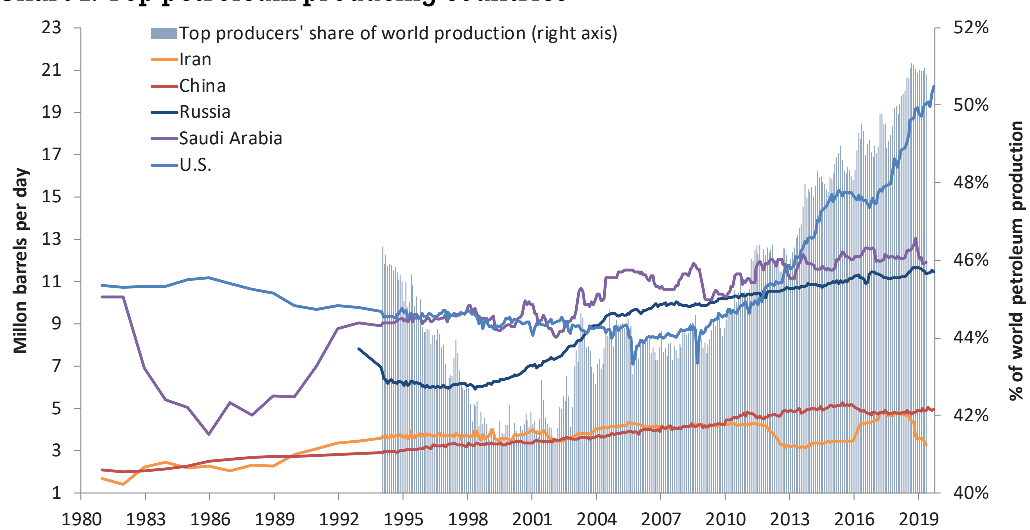
» *We are not raising our oil targets. We had already baked-in $10 extra to our 2019 oil targets, fearing heightened Middle East geopolitics.*

What it may mean for investors

» *We are maintaining our 2019 oil targets, $50-$60 per barrel for West Texas Intermediate (WTI) and $55-$65 for Brent as our targets already include a $10 geopolitical premium. To increase our 2019 oil targets, we will need to see continued Saudi supply disruptions, Saudi/U.S. military aggression toward Iran, or a separate major oil supply disruption.*

Over the September 14-15, 2019 weekend, one of the world's largest oil processing facilities, located in Saudi Arabia, was attacked. 5-7 million barrels a day of processed oil from the Abqaiq oil region may be off-line for some time. This represents more than half of daily oil production by the world's second largest oil producer (purple line, Chart 1), and 5-7% of the world's daily oil supplies.

Chart 1. Top petroleum producing countries



Sources: Energy Information Administration, Bloomberg, Wells Fargo Investment Institute. Monthly data: December 31, 1980 - August 31, 2019. Monthly data: January 31, 1994 - August 31, 2019. Yearly data: 1980 - 1993. Share of world production calculated from January 31, 1994 when monthly data is available from all selected countries.

Oil prices, understandably, have been quite volatile. The first move on Monday, September 16 was a 13% price spike in both WTI and Brent. Since then, though, oil prices have given back more than half of those gains. To help investors better understand the investment outlook after the attack, we're going to run-down a list of questions asked of us as events have unfolded since the attack.

How long will the facility be off-line?

Damage details are lacking, and Saudi Arabia has been known to be cautious about sharing oil field information with the world. Saudi sources have said that production will be fully back online within 2 to 3 weeks. They also said that 50% of production is already back online, as of September 17, 2019.

Who did it?

Houthi rebels from Yemen have claimed the attack; however, the White House believes that Iran may be the ultimate perpetrator.

What is the U.S. doing about this?

The U.S. is rallying behind the Saudis. The U.S. has said that it is willing to tap into its Strategic Petroleum Reserve (SPR), the first time it has said so since 2011, should shortages emerge. The U.S. SPR contains 645 million barrels, which amounts to roughly 32 days of U.S. consumption. The U.S. SPR, though, would likely be used sparingly, if at all, as it is there for U.S. oil consumption—not necessarily for the rest of the world. As for strategic reserves held by Saudi Arabia, the Saudis report a stock of roughly 200 million barrels. However, the market's knee-jerk reaction on Monday (the 13% price jump) suggests that it may be worried that Saudi strategic reserves may not be that large, or that they have been shrinking since 2016.

Is the U.S. looking at a military response?

Yes, but non-military responses are possible.

By the end of September, Saudi Arabia should complete its analysis of where the attack originated, and a measured response against Iran is likely to follow. We believe new retaliation, if it comes, may be most likely to come from the U.S. and could take unconventional forms, including cyber attacks or additional sanctions on Iran. Earlier in the year, the U.S. and its allies exchanged limited military actions with Iran, demonstrating a clear preference to avoid escalating the conflict. A much stronger military response, in our view, would be the main risk for sharply higher oil prices. If Saudi Arabia joins in a military retaliation, or if the U.S. and/or Saudi Arabia were to destroy Iran's Kharg Island oil loading facility for example, we would foresee a high risk for a protracted military confrontation that could sustain oil prices above $80/barrel. We believe the more deeply any U.S. military response damages Iran's military or economic assets, the greater the potential for equity price volatility, falling bond yields, further global economic slowing, and more central bank interest rate cuts.

The impact on oil prices, markets, economies and elections

Is the Saudi supply disruption a big deal to oil prices?

Yes. Removing 5-7 million barrels per day of oil refining capacity is a significant number in a world that consumes roughly 100 million barrels per day. To put it in perspective, the entire state of Texas produces about 5 million barrels of oil per day. Losing the Abqaiq refinery is the equivalent of losing oil production from the entire state of Texas. And the impact to Saudi Arabia is not to be underestimated. 5-7 million barrels a day is more than half of the country's daily output.

How long can the Abqaiq facility be down before a global supply response is needed (from U.S. or other oil producers) to stabilize prices?

A supply response needs to be worked on as soon as possible, in our view. Replacing 5% of the world's daily refined oil supply adds up quickly. If Abqaiq is off-line for more than a few weeks with no coordinated world supply response worked-out, oil prices will likely start heading into the $70s and $80s in order to force a supply response.

Who could step-in and replace the Saudi oil shortfall?

No one country can do it alone. Not only is Saudi Arabia the world's second largest oil producer, it also has the most concentrated oil production. Most of Saudi production comes from five super-giant oil fields, the largest being Ghawar, which produces 3.8 million barrels per day. Interestingly, Iran could play a leading role. The world's solution to the supply shortage will need to be a coordinated one and will likely include the U.S., Russia, OPEC (Organization of the Petroleum Exporting Countries), and Iran. Iran has the most slack capacity at this moment, as its production has dropped almost 2 million barrels per day over the last year. The type of oil that Iran produces is a factor as well. It is largely heavy and sour crude—the same as Saudi Arabia.

Which countries import the most Saudi crude oil?

China, India, and Japan are the largest importers of Saudi crude oil. They will likely have to turn, at least in part, to other oil suppliers, if the Saudi supply situation is not fixed quickly.

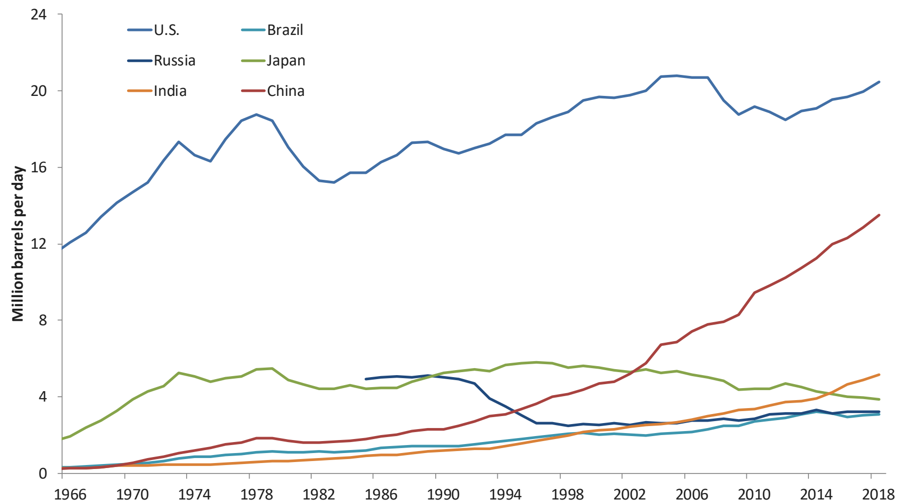
Will China's economy be impacted?

It could, but it is too early to tell. China imports roughly 1.6 million barrels per day from Saudi Arabia. Saudi Arabia has said that it will use its emergency reserves to make sure its customers remain supplied during this disruption. Should Abqaiq stay off-line beyond a few weeks, China may need to start looking for back-up supplies. Chart 2 emphasizes that China's oil consumption (red line) continues to climb higher each year, and it is now second only to the U.S. (top blue line) in yearly oil consumption.

Will the world's manufacturing sectors be impacted?

It depends on the length of the supply disruption. World oil production, as shown earlier in Chart 1, comes largely from a handful of countries. If one or a few of them have issues, then the world's manufacturing machine could slow further. Europe could see significant new headwinds for its manufacturing sector, if global oil prices persist at elevated levels. That said, the U.S. has arguably become more insulated to such supply shocks thanks to the shale revolution. The U.S. imports far less oil today than it did 5-10 years ago.

Chart 2. Oil consumption for selected countries



Sources: Bloomberg, BP Statistical Review, Wells Fargo Investment Institute. Yearly data: December 31, 1966 - December 31, 2018.

Have past Middle East oil crisis weighed on U.S. stock markets?

Not really. Since 1990, negative equity market impacts have come early in the days of a crisis, even before a solution to the crisis became more visible. Looking months out, U.S. stock markets have tended to shrug-off rising oil prices during Middle East crisis events.

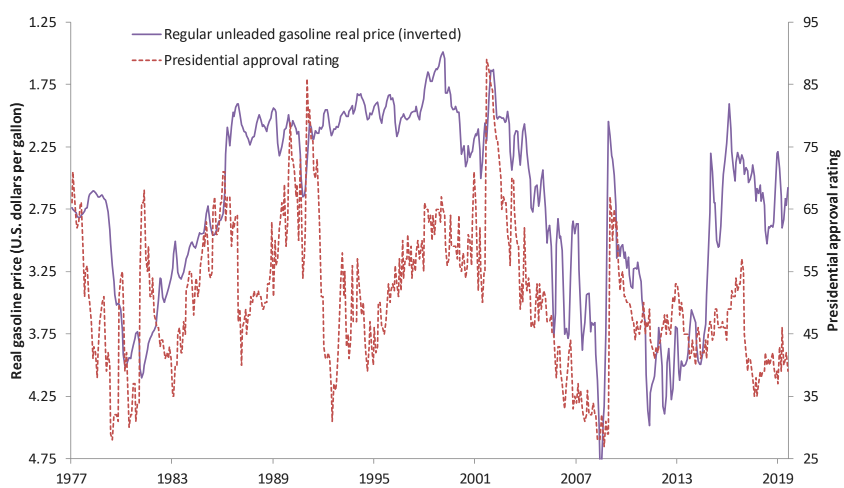
At what level of gasoline prices could the U.S. economy begin feeling an impact?

In the past, $3 per gallon is the level that has led to slower U.S. gross domestic product (GDP) growth. Currently, the average U.S. retail gas price is $2.55. For U.S. GDP to slow some, today's gas prices would need to rise by an additional 17% to get to the $3 level. This would equate, roughly, to a $70 WTI price.

Could spiking gasoline prices have an impact on the 2020 U.S. Presidential election?

It very well could. Presidential approval ratings (Chart 3, red dashed line) have been known to track the direction of gasoline prices (Chart 3, purple line).

Chart 3. Gasoline prices versus Presidential approval



Sources: Bloomberg, Gallup, University California Santa Barbara, Energy Information Administration (EIA), Wells Fargo Investment Institute. Monthly data: January 31, 1977 - August 31, 2019. Real gasoline price is adjusted for inflation by Consumer Price Index (CPI). **Past performance is no guarantee of future results.**

How does the Saudi supply disruption impact our 2019 oil price targets?

It doesn't. While no one could have predicted the attack, we baked-in a $10 geopolitical premium into our 2019 oil targets a long time ago, fearing potential Middle East conflicts. Our 2019 oil targets, $55 for WTI and $60 for Brent, each include a $10 geopolitical premium (a premium that we did not have in our 2018 targets). We also figured Iran could be at the center of controversy. Since the White House started blocking the flow of Iranian oil to American allies in May (waivers expired), Iran has stirred the pot. Prior to this weekend's attack on Abqaiq, Iran was involved in a series of tanker attacks near the Straits of Hormuz.

What would make us raise the geopolitical premium?

There is much that goes into this answer. But the three outcomes that would likely lead us to raise our oil targets (add more to our geopolitical premium) would be: 1) Abqaiq remains off-line, or largely off-line, two weeks from now; 2) Saudi/U.S. military show aggression towards Iran; or 3) a separate major oil supply is disrupted. To be clear—we believe our 2019 oil targets are still good, as they factor in a $10 geopolitical premium. We will monitor the situation carefully, however, in case we need to adjust our year-end targets higher.

Our bottom line and base case

This past weekend's attack on Saudi oil supplies shocked the world. That said, we had already baked into our 2019 oil targets the potential for disruptions/heightened geopolitics in the Middle East. We are holding our 2019 oil targets steady at $55 WTI, and $60 Brent per barrel. These targets already include a $10 geopolitical premium. To increase our 2019 oil targets, we will need to see continued Saudi supply disruptions, intensified military confrontation in the region, or a separate major oil supply disruption.

Risk Considerations

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