



Low Oil Price: Causes, Consequences, Duration – The Role of Geopolitics

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Key Points

- Growing tensions with North Korea and China risk major disruptions in key global shipping lanes, principally the South and East China Seas.
- Exports from Venezuela, Nigeria, and Libya remain vulnerable to abrupt supply disruptions due to unresolved geopolitical issues.
- Islamic State and other terrorist organizations are showing a predilection to target oil and gas infrastructure and remain major risks to oil exports from several sources, including Algeria, Northern Iraq, and even Saudi Arabia (although a successful major attack on Saudi Arabia oil infrastructure remains a long-shot). U.S. energy infrastructure remains vulnerable to cyber attack, as noted by the Director of National Intelligence's 2016 Worldwide Threat Assessment. Instability in the Strait of Hormuz also remains a key tail risk.
- The Brexit risks eroding U.S./EU unity on Russia sanctions at a time when Russia may grow even more assertive in its near abroad.
- Recent analysis of the Strategic Petroleum Reserve's (SPR) effective distribution capability shows that, in most disruption scenarios, the SPR cannot meet its current IEA obligation to contribute 43.9% of the barrels in a collective action without marine terminal enhancements.



Conflict Risk

- North Korea has been testing nuclear weapons and ballistic missiles at an unprecedented rate since Kim Jong Un took power in 2011.
- China is growing increasingly assertive in protecting its maritime claims in the South China Sea and has even leveraged its cyber warfare capabilities in doing so.

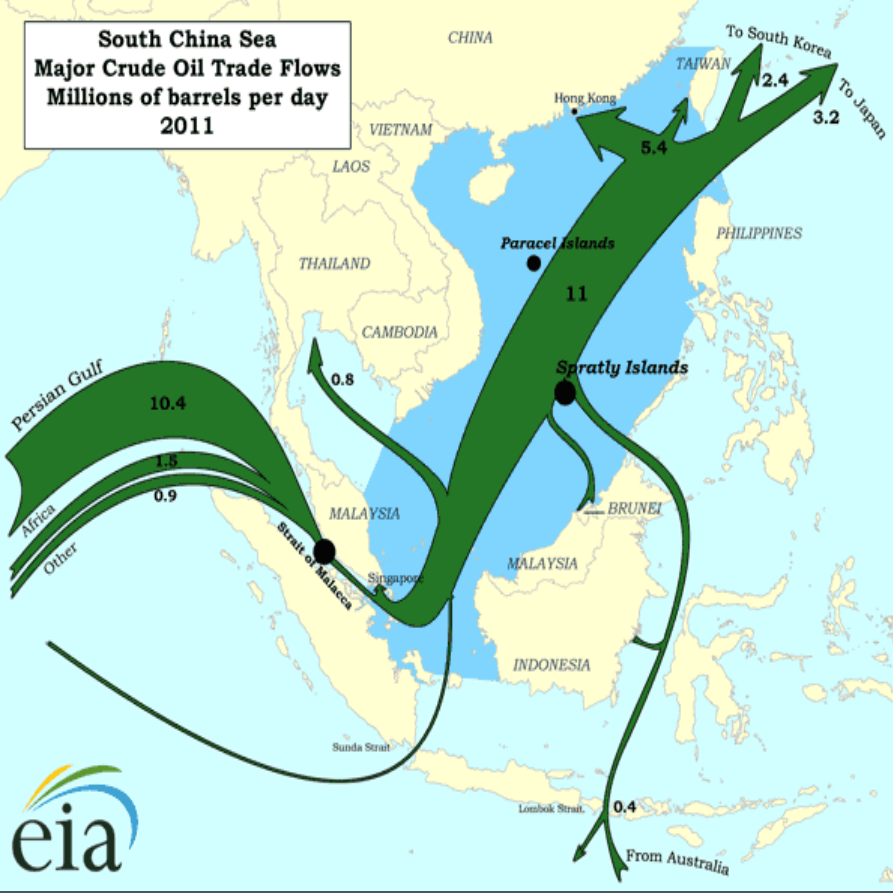
North Korea Risk



China Risk



South China Sea Major Crude Oil Trade Flows
Millions of barrels per day
2011



South China Sea Major LNG Trade Flows
Trillion cubic feet
2011





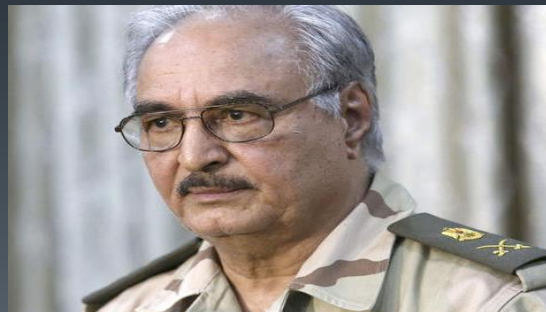
Failed State Risk

- Venezuela remains in the throes of a severe economic crisis and risks an abrupt change of government, major accident, or worker strike.
- The ceasefire declared by the Niger Delta Avengers is tenuous and the grievances that brought about increased militant attacks this year have not been addressed.
- Gen. Khalifa Hifter's move to seize Libya's eastern oil terminals affords him unprecedented leverage over the Government of National Accord.

Venezuela Risk



Libya Risk



Nigeria Risk



Islamic State/Terrorism/Cyber Risk

- The 2013 and 2016 attacks targeting Algerian natural gas facilities in In Amenas and Krechba, respectively, demonstrate the continued threat militants pose to energy infrastructure there.
- Saudi Arabia arrested over a dozen Islamic State operatives planning attacks against high value targets, including oil infrastructure, this month.
- The collapse of the Turkey-PKK peace process means that PKK is likely to intensify attacks on the KRG pipeline transiting crude to international markets through Turkey.
- The Director of National Intelligence's 2016 Worldwide Threat Assessment notes the "asymmetric and offensive opportunities" that U.S. energy infrastructure vulnerabilities present to hostile actors. Such actors could be "independent" terrorist organizations or state-sponsored groups.

Saudi Arabia Risk



Algeria Risk



Iraq Risk

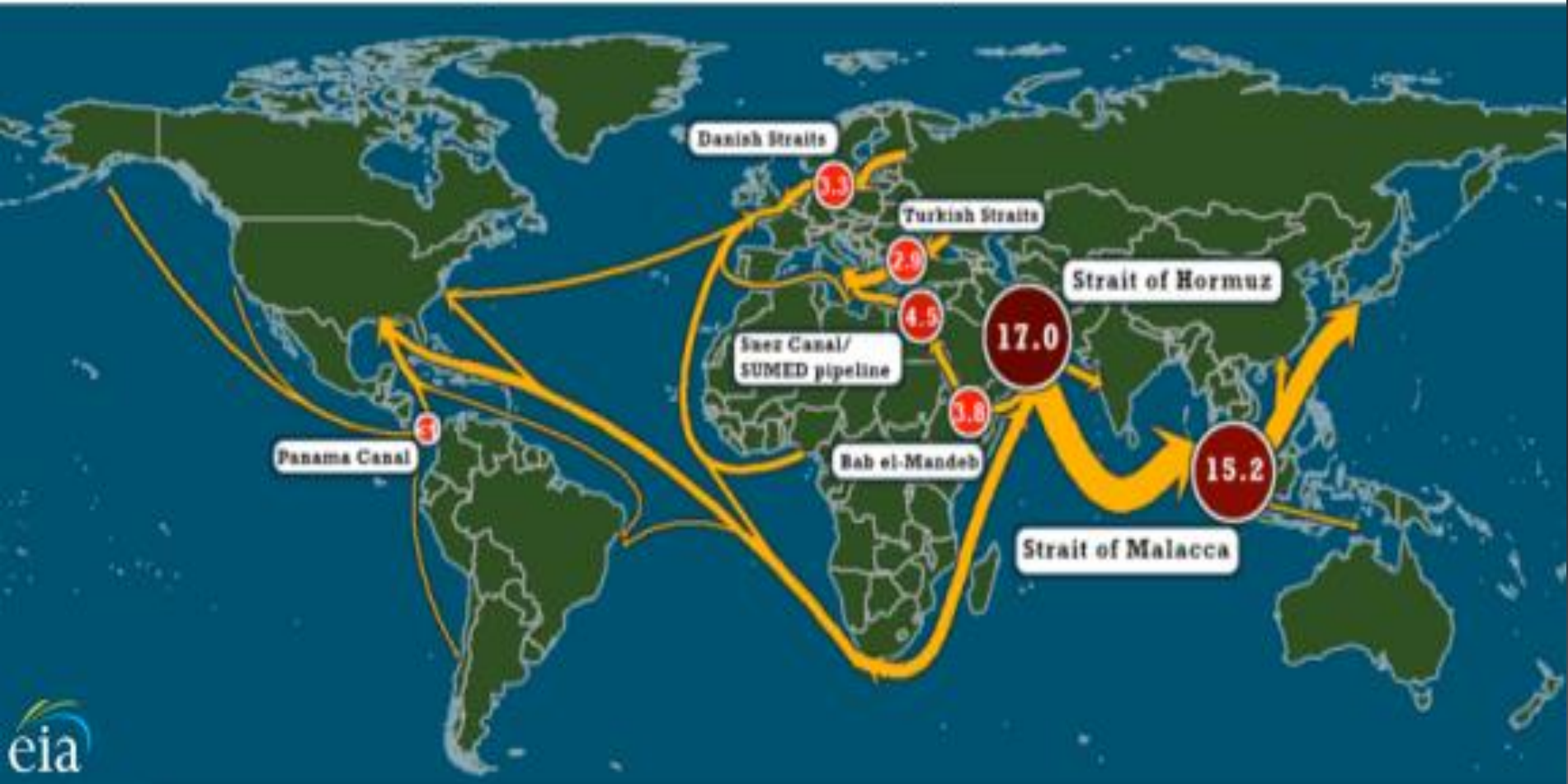


Cyber Risk





Daily transit volumes through world maritime oil chokepoints





Brexit Risk

- Brexit will cause UK influence within the EU to wane.
- Among the areas where the Brexit risks rendering the most negative impacts is U.S./EU unity on Russia sanctions.
 - This could occur in the context of growing risk of Russian assertiveness in its near abroad, principally Central Asia.
- There are fears that Minsk will unravel due to limited progress on both the Russian and Ukrainian sides. Even if Minsk is sustained for now, an SPD victory in Germany's September 2017 federal elections could lead to a new European approach toward Russia – without or without Washington.





Response Risk

- DOE's August 2016 Long-Term Strategic Review of the Strategic Petroleum Reserve (SPR) included a study to determine the volume of crude oil the SPR can add to the market without displacing domestic or Canadian barrels in oil supply disruption scenarios warranting an IEA collective action response.
- The ranges of the results represent variability in the level of dock utilization at SPR-connected distribution facilities. This variability is driven by a number of factors, such as weather, pilot availability, marine traffic, and the level of commercial activity at a given terminal at a given time.
- The results clearly indicated that in scenarios involving large losses to U.S. refiners, space would necessarily open up in the Gulf Coast distribution system to accommodate some of an SPR release, creating a higher level of effective distribution capability. In cases where a dislocation occurred in the world market that did not interrupt U. S. import flows, the task of delivering oil to the market would be more difficult, creating a lower level of effective distribution capability.
- The analysis of the SPR's effective distribution capability shows that, in most of the disruption scenarios, the SPR cannot meet its current IEA obligation to contribute 43.9% of the barrels in a collective action without marine terminal enhancements. Depending on the size of the contribution and other market assumptions, up to 1.74 MMbbl/d of additional marine distribution capacity may be required.

Response Risk

Disruption Scenario	Total Global Disruption (MMbbl/d)	IEA Collective Action U.S. Obligation (43.9%) (MMbbl/d)	Effective Distribution Capability*		Additional Capacity Needed (Mbbbl/d)
			Coastwise Compliant Vessels Only (Mbbbl/d)	All Vessels (Mbbbl/d)	
Baseline	–	–	280	620–1,040	–
Iraq – Basra	2.10	0.90	350	740–1,110	0–160
Venezuela	1.70	0.70	680	1,290–1,600	0
Russia – Complete Urals Outage	4.00	1.80	280	670–1,040	760–1,130
Straits of Hormuz – Initial Crisis Event	8.00	3.50	1,070	1,760–2,560	940–1,740
Saudi Arabia – Abqaiq	6.00	2.60	890	1,410–2,120	480–1,190
Nigeria – Workers’ Strike	2.00	0.90	290	620–1,040	0–280
Mexico – Hurricane	1.50	0.70	760	1,390–1,740	0

*Effective distribution capability is the ability of the SPR to move incremental barrels of oil to market.

Red color indicates IEA obligations would not be met using only the SPR.