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American Liquefied Natural Gas (LNG) Exports to Europe, made possible only by the recent shale boom and launched in 2016, have significant positive national security, economic, political, and geopolitical implication for the United States and its European allies.

National Security Implications
From a national security perspective, the United States should be concerned about the security implications of Europe's high dependence on Russian natural gas. In the past and today, Russia and its national gas company Gazprom has used gas exports as a tool of political influence, intimidation, coercion, and even as a weapon by threatening and enacting gas supply cuts and gas price increases. Thus, Russian gas exports and their accompanying political strategies directly threaten the national security of European gas importing states. As the largest NATO power and a key security guarantor for many European members of the Alliance, the United States is directly implicated in the security repercussions of Europe's energy dependence.

The European Union (EU) has also been concerned about the security implications of its energy dependence. In 2014, the EU adopted its energy security strategy, which argued that the Union must diversify its energy sources, suppliers and routes. In 2017 Russia accounted for about 30% of the EU's total gas imports most of which was provided by natural gas pipelines. However, this figure may soon rise to 40% if Gazprom implements the Nord Stream 2 gas pipeline. Increasing dependence on Russian gas would sabotage the EU's diversification efforts and its overall energy security strategy by concentrating the bulk of bloc's gas imports via a single Nord Stream I & II route via the Baltic Sea and would boost imports from a single gas source and supplier: Russian Gazprom. Such concentration of imports via a single route and from a single source would have negative implications for Europe's supply security, increasing risks of Russian political pressure and cyber and infrastructural vulnerability.

This is not a new concern for the United States. Since the Cold War era, the U.S. government has pursued a consistent and long-term policy of aiming to prevent Europe's over-dependence on Russian natural gas and on helping its European allies to diversify their energy imports. In late 1981 President Ronald Reagan's administration enacted sanctions against the Soviet Union in response to Soviet imposed martial law in Poland with the aim of blocking the construction of Urengoy-Uzhgorod, the Soviet natural gas pipeline to Europe. By mid-1982, Reagan's administration extended the sanctions to certain American-made or American-licensed energy equipment, specifically so that it would not be used for the Urengoy-Uzhgorod pipeline. However the effort failed due to lack of European support and alternative energy resources. In November 1982

Washington lifted its sanctions against the Soviets. More recently, the United States sought to prevent the construction of Russian gas pipelines to Germany, such as Nord Stream I (completed in 2011-2012) and the current plans for Nord Stream II (originally set to be completed by the end of 2019). The United States has consistently supported Europe's efforts to diversify their natural gas imports via projects such as the Southern Gas Corridor pipeline system (and its preceding but unfulfilled plans for the Nabucco pipeline) to bring Caspian gas to Europe. The U.S. has also supported the efforts of Central and Eastern European states to build new LNG import terminals in order to access the growing LNG markets instead of continuing to rely on Russian piped gas.

Economic Implications

While America's aims have been consistent, today Washington benefits from a more effective tool kit than previously to help Europe's diversification. Until the mid to late 2000s, the United States was preparing to increase its own dependence on foreign gas imports and there was a build up of LNG import terminals along the American coasts. The shale boom unlocked America's unconventional oil and gas resources and made the United States the largest natural gas producer in the world. The United States emerged as an LNG exporter in 2016. Since then, American LNG has been exported across the globe and in the European markets has reached countries such as Turkey, U.K., Spain, Portugal, Poland, Lithuania, Malta, The Netherlands, and Italy.

Overall Europe received about 10 percent of total U.S. exports in 2017, up from 5 percent in 2016. Since 2016 Europe has imported more than 40 LNG cargoes totaling about 2.8 billion cubic meters, which is still just a fraction of Europe's total demand of 550 billion cubic meters. As the United States is gearing up to be the world's third largest LNG exporter by 2020 according to the forecasts of U.S. Energy Information Administration (EIA), such exports to Europe will benefit to the U.S. energy sector, trade balance, and the overall economy.

In contrast, without (or with limited) American LNG exports to Europe, the risks of unstable of natural gas supplies or hikes in gas prices are detrimental to the welfare of European allies. These risks can be seen from previous episodes when Russia interrupted gas supplies to EU states in 2004 and 2008 and to Ukraine following 2014. For instance, during the Kyiv-Moscow gas tensions of 2008-2009 in the middle of a very cold winter, Gazprom shut off supplies to Europe's gas transit country Ukraine. Gas shortages were felt for two weeks impacting supplies to Czech Republic, Romania, Austria, Poland, Croatia, and Slovakia. As a result there were at least eleven casualties as citizens froze to death including ten in Poland, where temperatures reached minus 20 degrees Celsius. Since Russia's annexation of Crimea of 2014 and its subsequent shadow war in eastern Ukraine, Kyiv has also had difficulty securing gas supplies from Russia at reasonable prices and now the country turned to its European neighbors that deliver the same Russian gas in reverse flows.

Due to the US shale boom, America's LNG exports, and an overall growth in global LNG trade, the current global gas markets are marked by a transformation where there is greater competition and liquidity. Overtime, however, the U.S. can expect increasing competition both from traditional LNG suppliers such as Australia and Qatar and emerging ones such as Russia. The U.S. is also likely to face more competition as other countries develop their own shale programs. For now, the U.S is the leader in shale development and one of only four countries in the world that has a commercial shale development program including Canada, Argentina, and China.

Thus, the U.S. would be wise to take advantage of its early entrant and strong position in the global gas markets rather than leave these open to its competitors. In fact, Russia's natural gas company Gazprom seeks to secure and lock-in its largest European gas markets of Germany and Turkey with new gas pipeline projects such as Nord Stream II and Turk Stream. On a smaller scale, in the fall of 2017 Gazprom signed a 10 year deal with the national Croatian gas company meeting all of the country's domestic demand, in what could be seen as an effort to reduce Croatia's appetite for building the Krk LNG import terminal which could supply Southeast Europe. Beyond Gazprom, Russian LNG exporter Novatek will increasingly become a competitive player in the European LNG markets via its new Yamal LNG terminal.

If the European states fall short of their diversification aims and U.S. LNG does not become a competitive player in the European markets, economic benefits will accrue to the Kremlin regime. Russia is notorious for widespread corruption and rampant cronyism. Gazprom's close links with the Kremlin's elite drive not only Russian gas exports, but also the worst type of business practices. Russian export of corruption to Europe is well documented. Last year, individuals close to the Kremlin and its state-owned companies were part of a high-profile investigation, where they were suspected of being involved in a financial fraud scheme titled the "Russian laundromat." This money laundering scheme, which also involved numerous European companies, enabled Russia's *kleptocrats* to move some 17–68 billion Euros out of Russia from 2010 to 2014. In another example, the largest Danish bank, Danske Bank, has been implicated in a money-laundering scheme that had $150 billion of Russian and former Soviet Union transactions go through their small Estonian branch.

Political Implications

Russian gas exports have traditionally served the Kremlin not only as a source of revenue but even more importantly as a source of political influence and the basis for political alliances in the European states. Since the Soviets launched their gas exports to Western Europe in the late 1960s, Moscow has a track record of wooing European businesses and lawmakers via the energy business in order to advance its own strategic goals. The oldest Soviet and subsequently Russian gas relationships with Western European states included Germany, Austria, France, Italy, and the UK and later served as the basis for closer commercial and political ties. More recently, following Russia's invasion of Crimea in 2014, large German companies with considerable business ties with Russia, such as chemical giant BASF, engineering group Siemens, Vokswagen, Adidas, and Deutsche

Bank were among the harshest critics of Western sanctions against Moscow. Moscow has also succeeded in enlisting in high profile politicians such as Gerhard Schröder, Germany's ex-Chancellor. After his departure from government, Schröder has served as the chairman of Nord Stream AG since 2005 and as the chairman of Russia's biggest state-owned oil producer Rosneft since 2017. Though Schröder's political influence has greatly diminished in German politics, he has continued to lobby for Russian business interests and pursued an anti-American campaign in German politics. Similarly the close relationship between Italian Prime Minister Silvio Berlusconi and Russian President Vladimir Putin was also forged due to Gazprom's and Italian energy company ENI energy deals and Italy's growing imports of Russian gas. NATO's strategically important member, Turkey, has also steadily increased imports of Russian gas and represents Gazprom's second largest European market. Similarly, the Kremlin has been trying to woe Turkey's President Recep Erdogan even if the Moscow-Ankara relationship has been fraught with tensions.

Geopolitical Implications

From the perspective of America's global interests, the exports of U.S. LNG would serve to strengthen the Washington's global leadership and serve as a source of leverage in the emerging geopolitical competition for influence among rival and revisionist powers such as China and Russia. As the world's largest natural gas importer, the EU, highly depends on foreign imports. Thus whoever will supply the EU will have a degree of political and economic influence over the continent including among Europe's key industrial nations such as Germany and in the politically and economically contested regions of the former Soviet Union such as Ukraine and in the Southeast Europe. By meeting some of Europe's gas demand via American LNG, could mitigate foreign political influence on the European continent, including the influence stemming from Russian energy exports and hybrid warfare campaigns and from the influx of Chinese investments. With American LNG exports, the U.S. would be able to mitigate the ability of Russia to play the European gas markets against the Asian (and specifically Chinese) markets after the Russian gas pipeline Power of Siberia launches exports to China in late 2019.

In summary, the United States currently has a unique tool at its disposal – the potential to export greater quantities of American LNG to Europe and beyond, which would bring strategic, economic, and geopolitical benefits to the United States and its allies in Europe. Moreover, despite the actual volumes of exports directed at Europe, America's rising global LNG exports would improve liquidity and optionality of the globalizing gas markets and thus would also indirectly accrue notable benefits for European importing states providing them with more liquidity, flexibility, and optionality to diversify away from Russian gas supplies. America's energy diplomacy should take advantage of the rapidly transforming global gas markets and leverage its early entrant position to prevent competing gas suppliers from locking in their market positions and using these positions as a source of political leverage over the European continent and beyond.