2023 Preview

Rise of the Middle Powers

Why fossil fuel supply chains will upend the geopolitical status quo

CAPSTONE

Contents

Introduction

Capstone believes that, in 2023, the global shortfall in fossil energy supply will further exacerbate geopolitical tensions globally by emboldening a subset of new countries to pursue increasingly assertive foreign policy. The relative influence and bargaining power of countries that control fossil energy supply chains, including Turkey, Brazil, Qatar, Saudi Arabia, and Norway, will continue growing until we begin to see a resurgence in investment directed toward the development of oil, natural gas, and coal resources as well as in the related critical infrastructure that underpins these sectors.

The renewed appreciation for energy security was a key theme in commodity markets in 2022. However, to date, we have not yet seen this realization translate fully into Western energy policy to the degree that we expect it will in the coming years. Access to inexpensive, reliable fossil energy supply remains the key to national energy security. In turn, energy security plays a key role in defining a country's geopolitical influence. The pendulum of energy policy swung away from decarbonization in 2022, and we expect it will continue to move further in the direction of security in 2023.

We believe that the global pursuit of an energy transition will continue destabilizing the geopolitical status quo by requiring the development of new supply chains and strategic foreign relations. In turn, we expect the focus on decarbonization to continue facilitating new supply-demand mismatches in key fossil energy markets, as seen in Europe this past year. We anticipate that the insufficient availability of fossil energy molecules will continue to exacerbate geopolitical tensions, including between Germany and Poland.

The waning role of US shale as the key global swing producer of fossil energy commodities will also have broad implications for US domestic and foreign policy and, more broadly, geopolitics globally. The Biden administration's pivot toward increasingly protectionist rhetoric on US fossil energy exports in 2022 marks a turning point for the growth of US geopolitical influence stemming from its abundance of domestic resources.

Winners and Losers: Control Over Fossil Energy Supply Chains	
Winners	Turkey, Saudi Arabia, Brazil, Poland, Qatar, Norway, Kazakhstan, Australia
Losers	China, Russia, the United States, Canada, Germany

A Deeper Look

We believe that in 2022, the impact of geopolitical catalysts on energy markets exceeded expectations for most of our clients. This could be explained, in part, by the fact that qualitative geopolitical analysis has largely been an afterthought for North American investors in recent decades. This is particularly true relative to quantitative economic and financial analysis. For decades, the world has remained relatively peaceful, and the US's role in that world has been clearly defined and largely predictable. Amid that backdrop, an investment process concentrated on quantitative analysis made sense.

However, we view the confluence of notable events in 2022 as evidence that, increasingly, policy and geopolitical analysis should be treated as important considerations in the investment process of our clients. Specifically, because we expect the frequency and magnitude of opportunities to generate geopolitical alpha will continue to rise in 2023 and beyond.

> Many policymakers have not yet come to terms with the fact that fossil energy supply remains the key to energy security.

One of the key overarching energy market themes this past year was the renewed appreciation for energy security. This dynamic prompted growing concern from countries that rely on increasingly fragile international supply chains to satisfy domestic fossil energy demand. Energy insecurity has subsequently manifested itself in energy policy decisions globally. The resurrection by Western governments of long-decreased energy policy constructs, including windfall profit taxes, price caps, and trade embargoes, is a symptom of energy insecurity. So too, is the ongoing rerouting of seaborne energy trade flows, including tankers laden with petroleum products and liquefied natural gas (LNG), to satiate European demand amid EU efforts to stop buying from Russia.

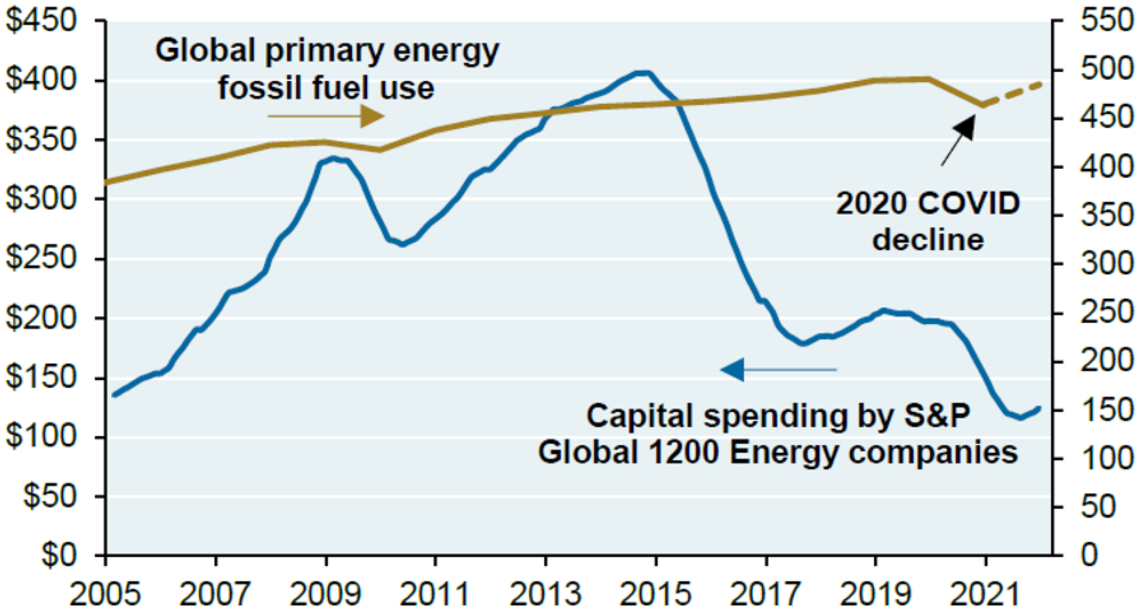
Global underinvestment in upstream fossil energy production capacity and the critical infrastructure that underpins it—a dynamic that has persisted since 2015—has played a key role in recent geopolitical developments. In part because the current shortage of fossil energy molecules has increased the relative bargaining power of countries with control over fossil energy supply chains. We view Russia's decision to invade Ukraine in February as a clear example of the perception of increased leverage held by countries with control over fossil energy supply chains amid the prevailing supply shortage. We expect this dynamic to persist until there is a resurgence in upstream investment activity, which we have yet to see.

By analyzing the litany of policy decisions made in 2022, it is clear to our team that many policymakers have not yet come to terms with the fact that fossil energy supply remains the key to energy security. Alternatively, for the recently enlightened, the momentum behind past energy policy decisions has thus far overwhelmed a pivot toward pragmatism.

Because the world remains overwhelmingly reliant on fossil energy supply—in 2021, 83% of the primary energy consumption globally was from coal, oil, and natural gas—we do not expect a significant near-term shift in the degree to which controlling fossil energy supply chains afford national energy security and geopolitical influence.

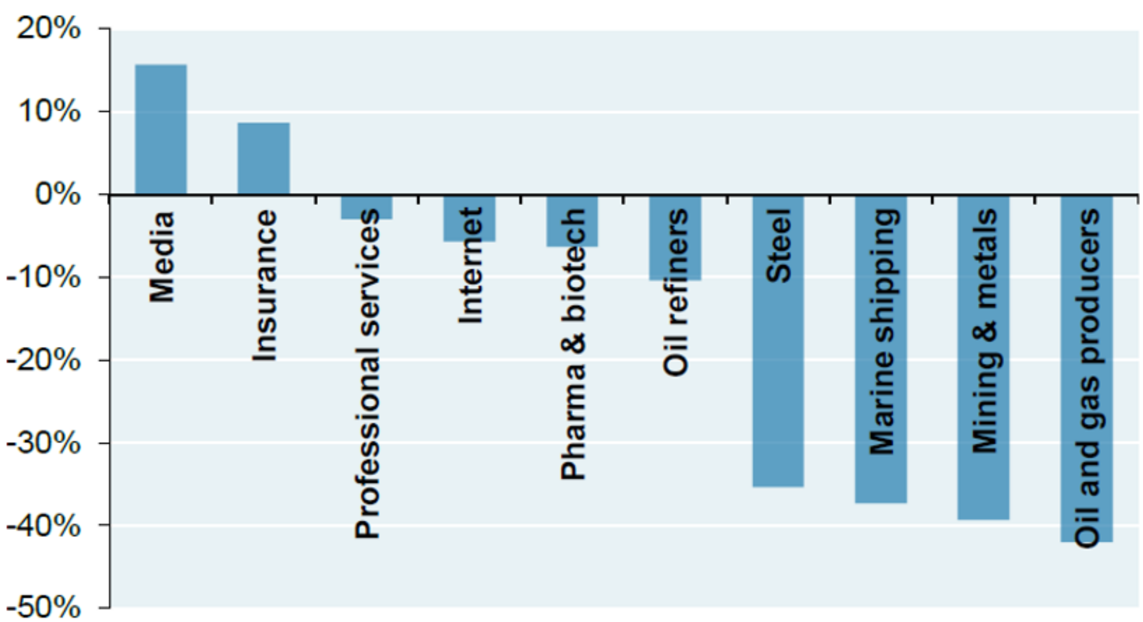
Exhibit 1: Underinvestment in Energy Production Has Begun To Create a Molecule Shortfall

Fossil Energy Capex and Consumption (US$ billions, Exajoules)



Source: Michael Cemblast (Eye on the Market 2022), BP, Bloomberg, IEA, JPMAM

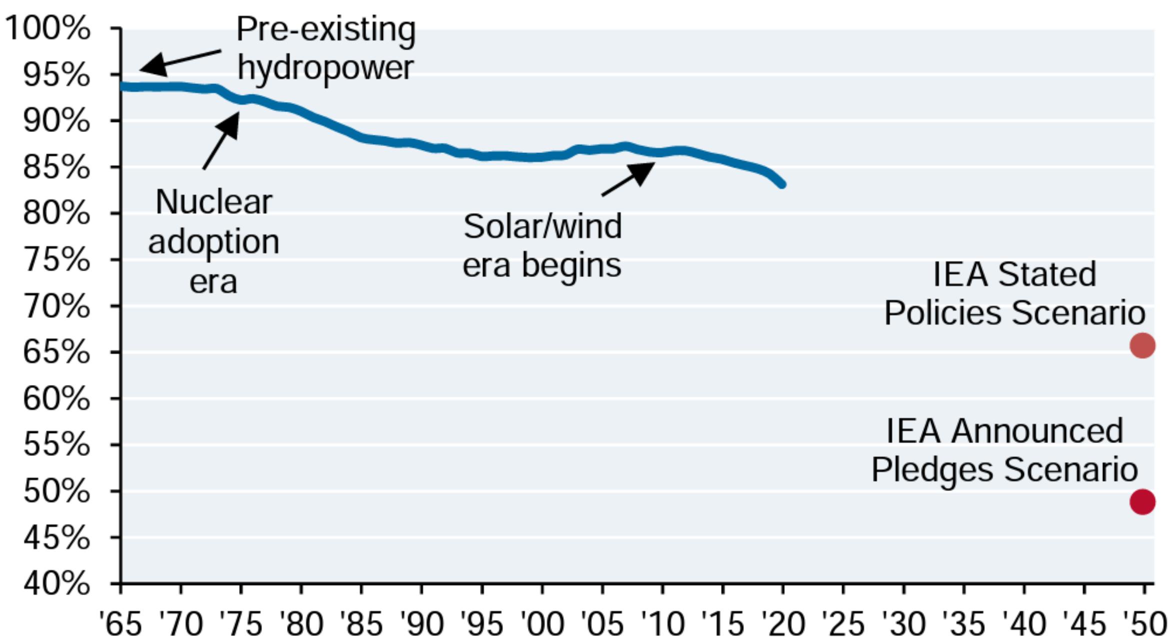
Expected Investment Levels vs. Ten-Year Average (2022, %)



Source: Michael Cemblast (Eye on the Market 2022), BP, Bloomberg, IEA, JPMAM

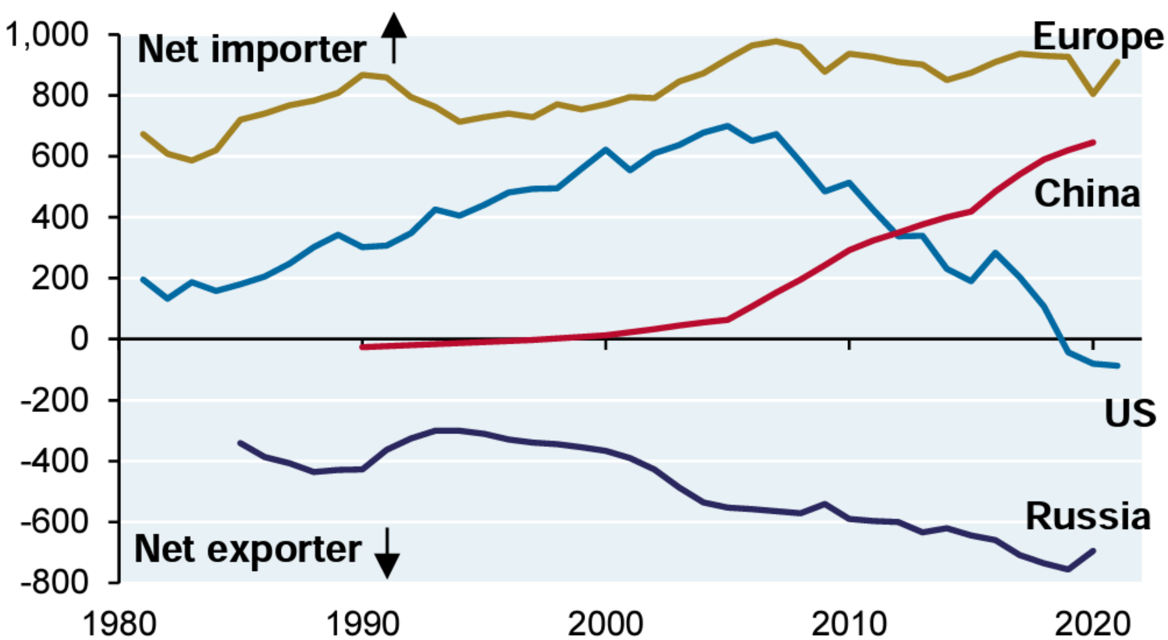
Exhibit 2: The World Remains Overwhelmingly Reliant on Fossil Energy

Global Primary Energy Consumption: Oil, Coal, Natural Gas (% Total)



Source: Michael Cemblast (Eye on the Market 2022), BP Statistical Review, NBS China, JPMAM, IEA

Net Imports of Oil, Natural Gas, Coal (Mt of Oil Equivalent)



Source: Michael Cemblast (Eye on the Market 2022), BP Statistical Review, NBS China, JPMAM, IEA

Notably, it is these countries in Europe and North America that have pushed most aggressively for accelerated decarbonization to date, albeit with different carrot- and stick-based policy approaches. The extent to which Russia's invasion of Ukraine destabilized the European continent relative to North America exemplifies the critical role that fossil fuels play in our global economy today. It also serves as a reminder of the importance of supply surety.

The Pursuit of Decarbonization Will Exacerbate Geopolitical Change

Through 2050 and beyond, a key challenge for policymakers will be striking the right balance between the four fundamental energy criteria: availability, reliability, affordability, and carbon intensity.

Effectively balancing these competing priorities will be critical for countries seeking to grow or simply maintain international relevance. Given the realities of our current fossil-dependent energy system and the relative technological uncertainty and commercial nascency of hydrogen, biofuels, wind, and solar, among others, the path function toward decarbonization will play an important role in dictating the evolution of geopolitics globally. Similarly, we expect geopolitics to play a growing role in defining domestic energy policy priorities in the coming decade. The geopolitical feedback loop inherent in the pursuit of Net Zero should, at the very least, be a consideration on the minds of policymakers and investors alike.

The recognition that pursuing a faster decarbonization trajectory will not necessarily generate the ideal long-run outcome has not yet fully sunk in for many policymakers. Arriving at that realization is complicated because, in many ways, the pursuit of decarbonization and the prioritization of energy security are in direct conflict.

The gradual transition away from our fossil-powered economy will inevitably create new mismatches between the supply and demand of key energy resources on both a regional and global level. Similarly, the evolution of new supply chains for commodities uniquely important to a clean energy economy will lead to the formation of new strategic foreign relationships. Within both traditional and new energy supply chains globally, the dueling pursuit of decarbonization and security will shift the balance of global influence. The friction between these two priorities will further destabilize the current geopolitical order. Therein, new investment opportunities will emerge.

> A new subset of countries with control over fossil energy supply chains will play an increasingly important role in the evolution of international affairs.

In 2023, we expect the geopolitics-induced volatility in energy prices seen this past year to persist. However, instead of the usual suspects being in the limelight—namely China, Russia, and the US—we anticipate that a new subset of countries with control over fossil energy supply chains will play an increasingly important role in the evolution of international affairs. It is those countries that we expect to surprise our clients in 2023 through their assertiveness and promiscuity in the pursuit of domestic and foreign policy priorities. Examples of this dynamic have abounded in recent months, most notably in Turkey, Saudi Arabia, Brazil, and Qatar.

Conversely, a lack of control over fossil energy supply chains will increasingly be recognized as the strategic weakness it is. That dynamic is becoming more apparent in the EU as tensions between member states, most notably between Germany and Poland, continue to heat up.

Inter-EU Energy Tensions: The Challenge of Molecule Shortage

In 2022, the EU's historical reliance on Russian energy supply proved to be a colossal miscalculation. The EU's unmitigated dependence on a combination of petroleum product imports—diesel and unrefined crude, most notably—as well as coal and natural gas imports, handed away its agency and energy policy independence to the increasingly belligerent Russian state. Notably, across individual EU member states, the degree of reliance on Russian energy imports, and the extent of historical animosity toward Russia, differs significantly.

> We anticipate that the eventual conclusion of the Russia-Ukraine conflict will further complicate the growing divide between different factions within the EU.

Within the EU, no individual country has been as greatly impacted by the economic fallout stemming from lost energy affordability as Germany. While punditry around Germany's de-industrialization has proved thus far to be overblown, it is hard to dispute that diminished access to inexpensive Russian fossil energy exports has disadvantaged Germany's energy-intensive, export-oriented manufacturing sector relative to international competitors. Contrarily, Northern European countries, including Poland and Norway, have remained largely unscathed by the Russian decoupling, given the relative lack of exposure to Russian energy imports.

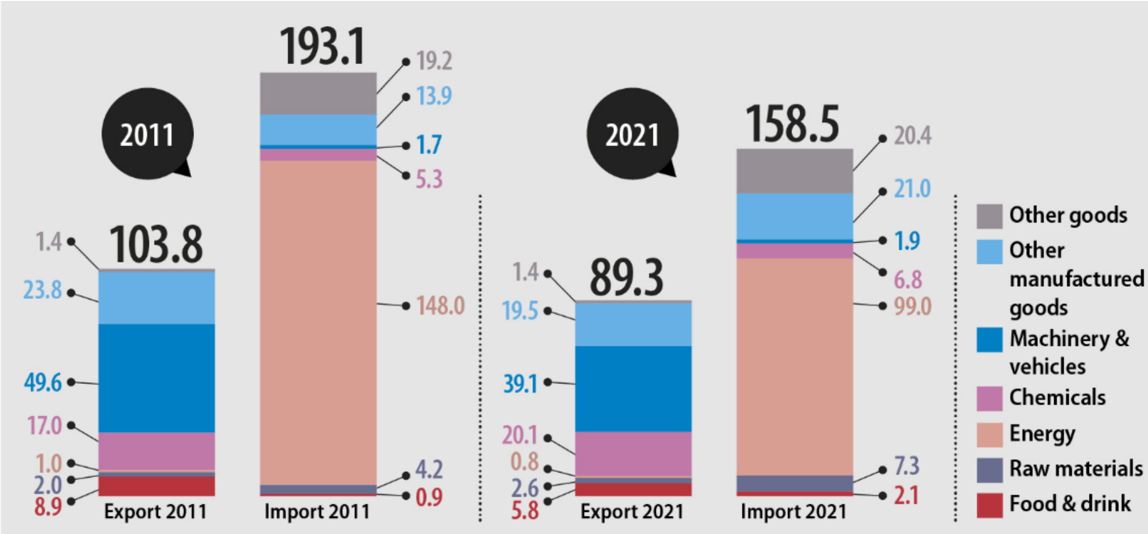
We believe the current unavailability of cheap fossil energy supply will continue to stoke tensions among the various EU factions that vary in reliance on Russian fossil energy and nationalistic animosity toward President Putin's Russia.

The economic fallout in Europe stemming from its decoupling with Russia could still worsen significantly as this winter drags on. Amid that dynamic, particularly as the Russia-Ukraine conflict drags on through this upcoming winter, the EU's ability to maintain a cohesive, unified front in its support of Ukraine will be challenged, particularly if economic conditions in Europe continue worsening as the bills for Ukrainian support keep racking up.

We anticipate that the eventual conclusion of the Russia-Ukraine conflict will further complicate the growing divide between different factions within the EU. That friction was recently made apparent in the run-up to the finalization of the G7 Price Cap, as Poland, Estonia, and Lithuania pressed their position of bargaining power strength to lower the price of the cap on Russian oil to $60 per barrel and institute a bi-monthly review mechanism to adjust the price cap in the future.

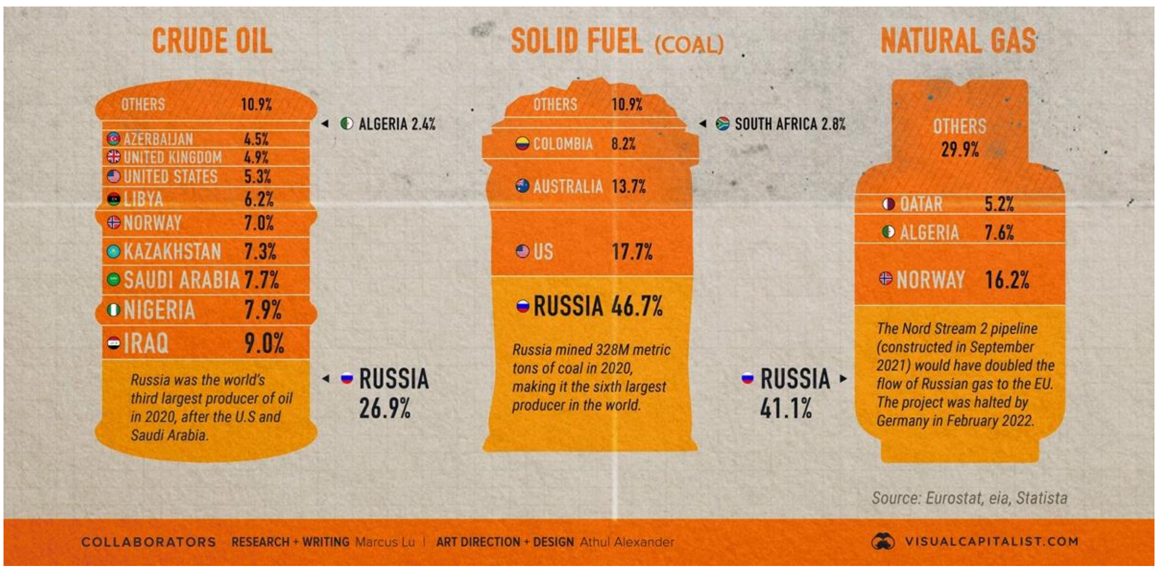
Exhibit 3: The EU Remains Dependent on Russian Fossil Energy Supply

EU trade with Russia by Product Group, 2011 and 2021 (€ billions)



Source: World Economic Forum

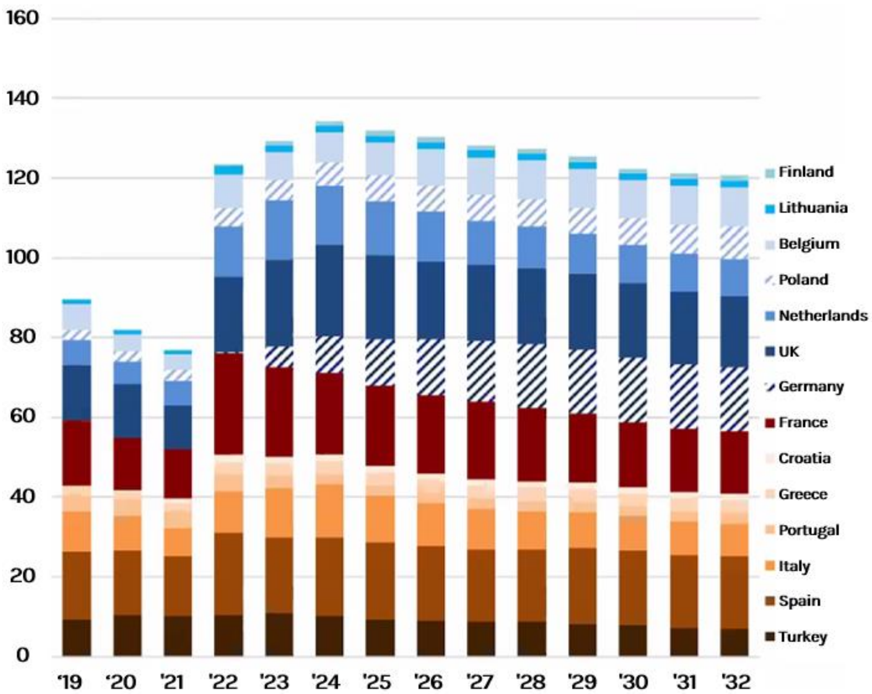
EU Fossil Energy Imports by Country of Origin (% Total Imports)



Source: Visual Capitalist

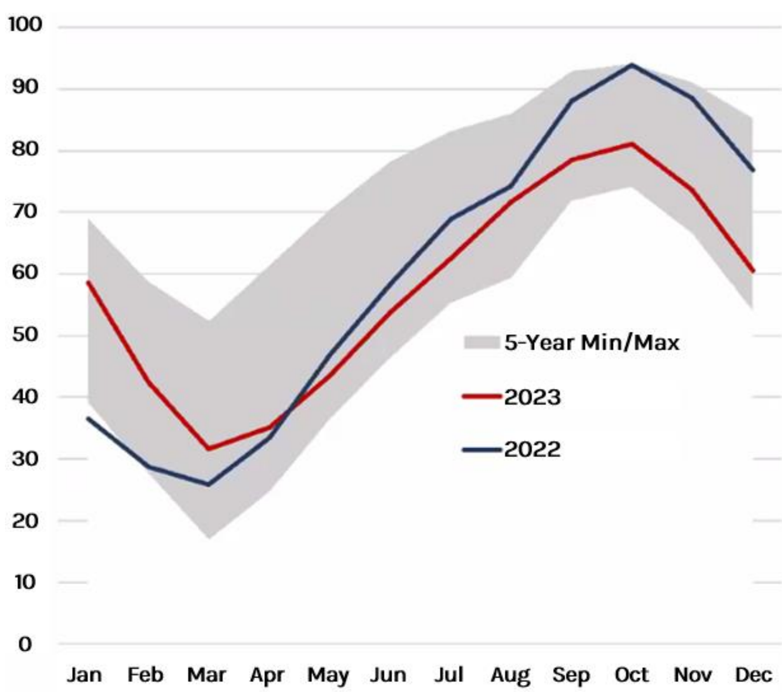
Exhibit 4: Europe's Struggle to Maintain Natural Gas Supply Will Worsen Next Winter

EU LNG Import Forecast (Million Metric Tons per Year)



Source: Poten & Partners Global LNG Outlook (2022)

European Natural Gas Forecast (Billion Cubic Meters)



Source: Poten & Partners Global LNG Outlook (2022)

The Importance of Cheap Natural Gas Supply

Following the resolution of the Russia-Ukraine conflict, which seems increasingly likely to occur sometime in 2023, we expect that Poland and Germany will differ significantly in their views on the degree to which the EU should increase its near-term imports of Russian natural gas. The in-service timeline for new LNG export projects in both the US and Qatar—most new post-final investment decision liquefaction trains aren't expected to come online until 2024 through 2027—will further stoke those tensions. While Poland and Germany did recently sign a petroleum security agreement to protect key refinery assets, we believe that similar cooperation on gaseous molecules will be a bridge too far for the duo.

Over the next two winters, we expect the EU will struggle to replace the piped Russian gas flow on which several key EU member states previously subsisted. While the replenishment of EU natural gas storage benefited from the receipt of continued pipeline flows in 2022, the sabotage of the Nordstream pipeline system ensured that this won't be the case in 2023. Additionally, while projections of EU-wide storage levels currently look healthy, it is country-specific inventory levels that tell the full story of the challenges to come. Europe also benefited this past year from reduced LNG Asian demand, including from China, South Korea, and Japan. It seems unlikely that the EU will benefit from either of these two tailwinds next winter.

All that to say, Europe's reliance on foreign supply chains for its fossil energy supply in years to come and on prevailing weather conditions will not be beneficial in satisfying its foreign policy and geopolitical ambitions.

The Next Wave of Russian Sanctions

The evolution of the EU's stance on Russian economic sanctions will also have significant ramifications, both for energy markets and the global economy. In the next two months, G7 and EU policymakers need to iron out the details of two new price caps on Russian refined products. In turn, the EU will need to prepare for the loss of seaborne Russian refined product imports, including diesel; the lifeblood of the European economy.

We understand that both the EU and the G7 remain woefully unprepared for the onset of those two sanctions packages on February 5, 2023, which we believe increases the risk that negative, unintended consequences arise. We expect to see a repeat of the inter-EU disagreement that came to bear in negotiations leading up to the crude oil price cap's finalization in early December. Amid the inter-EU negotiations, it is worth remembering that the recalcitrant Poles and other, more hawkish EU members hold more bargaining power.

Poland, Germany, and Inter-EU Energy Geopolitics in 2023

In 2023, the insufficiency of domestic fossil energy production in the EU, in concert with the continued prioritization of decarbonization over energy security by policymakers in Brussels, will lead to new, unintended consequences. We expect one such consequence—the growing animosity between Poland and Germany—will become increasingly heated over in the coming year.

The assertiveness of both Poland and Germany in seeking to dictate the evolution of EU energy policy will be important to watch. The interplay between competing EU member interests and the progression of Russia's war in Ukraine creates a wide range of potential outcomes for the European continent.

The tensions between EU member states—stemming from the relative lack of control over fossil energy supply chains—will continue to escalate in 2023. Going forward, the relative influence of Germany within the EU bloc will depend, in part, on its ability to source reliable, affordable energy supply in the near term. Contrarily, Poland's relative energy security afforded by its proximity to Norway creates an opportunity to build more power within the EU bloc.

The Republic of Turkey's Strategic Repositioning: A Beneficiary of Geography

Turkey serves as an interesting case study because, like the EU, it lacks an excess of domestic fossil energy supply. Turkish imports of energy commodities as a percentage of total domestic consumption have risen steadily over the past half-century.

However, unlike the EU, Turkey's favorable geography will allow it to continue inserting itself into critical energy supply chains that connect foreign sources of supply with international demand centers. Turkey's strategy as it pertains to fossil energy policy tells us much about the country's foreign policy and geopolitical aspirations.

Turkey's Role in Navigating Russian Aggression

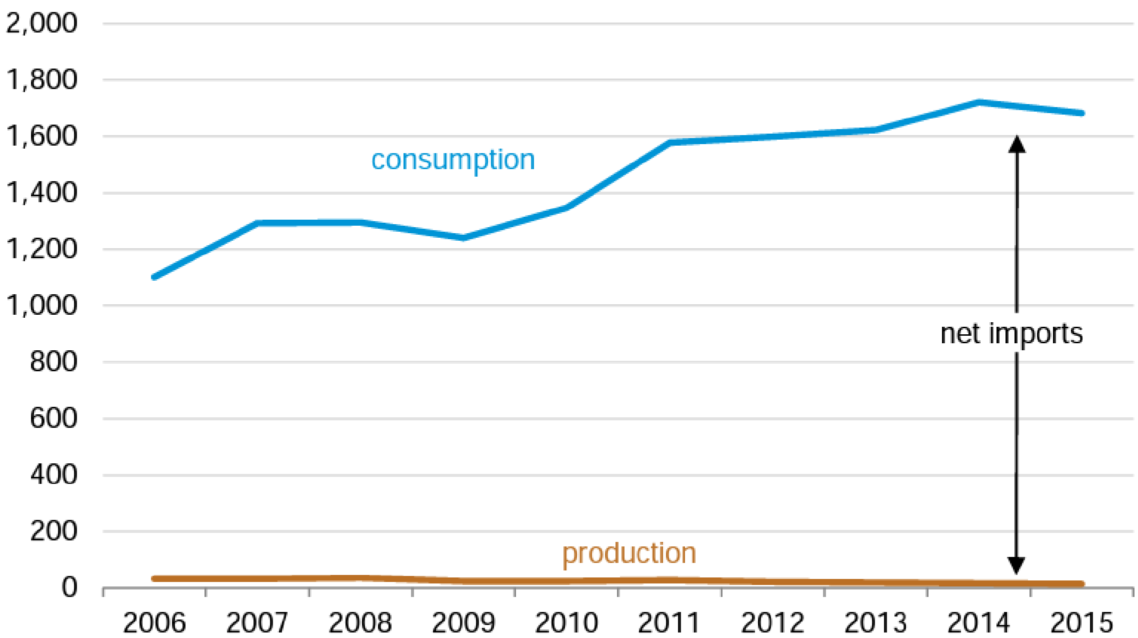
Turkey's recent success in navigating the role of intermediary between Russia and the West is noteworthy. The most recent example of Turkey's growing geopolitical influence stemming from its role as negotiator is the resumption of a Black Sea grain deal, which was announced by the United Nations (UN), Turkey, and Ukraine on October 30th. The announcement occurred only days after Russia announced its intention to suspend the pact. Turkey: 1, Russia: 0.

Throughout the Russia-Ukraine conflict, Turkey's geopolitical influence has grown considerably. On the one hand, as a member of the North Atlantic Treaty Organization (NATO), Turkey plays a role in dictating the defense partnership's approach to Russia. On the other hand, as a significant buyer of Russian commodities, including natural gas, the economic fortune of Turkey's economy is tied to some degree to its ability to maintain that import relationship. Although, following the sabotage of the Nordstream pipeline system, the universe of available buyers for Russian gas shrunk considerably, handing further leverage to Turkey in managing that bilateral relationship.

> In 2023, Turkey will continue to establish itself as a dominant geopolitical force, in part, because of its strategic approach to energy policy.

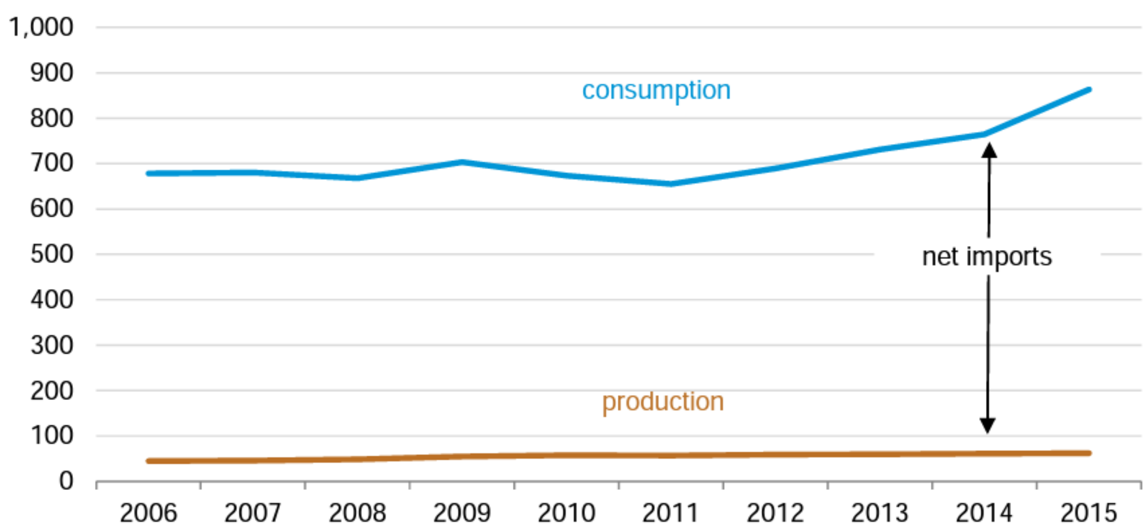
Exhibit 5: Like the EU, Turkey is Overwhelmingly Reliant on Fossil Energy Imports

Turkey Natural Gas Consumption and Production (Bcf/d)



Source: US EIA

Turkey Petroleum and Liquids Consumption and Production (kBpd)



Source: US EIA

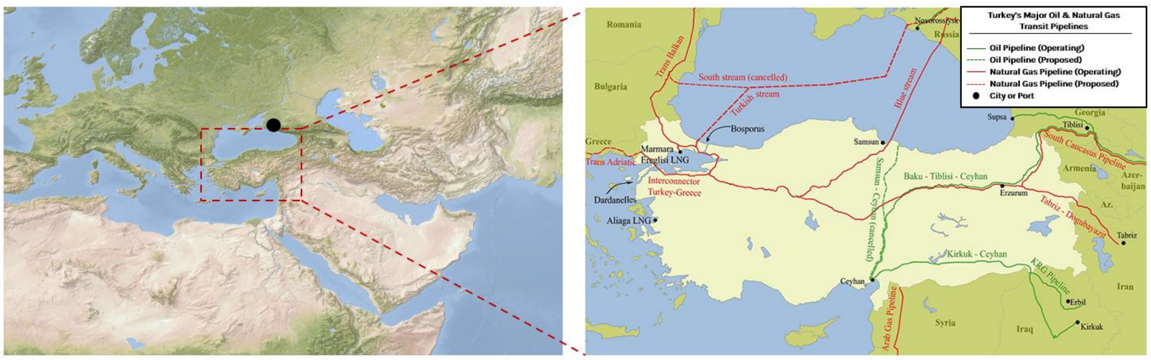
Geography Matters for Physical Commodity Flows

In addition to serving as a bridge builder, the announcements earlier this year highlighting Turkey's intention to develop a natural gas trading and settlement hub domestically should also not be shirked off, partly due to the country's geographic position in the heart of Eurasia.

The opportunity for Turkey to expand its control over natural gas flows globally will increase the country's relative influence over both Russia and the EU. Particularly amidst the absence of Nordstream I offtake capacity and given the construction challenges in Eastern Russia, Turkey has a captive seller in the Russian state, which needs the import revenue. Additionally, given the EU's continued unwillingness to sign long-term LNG offtake agreements, Turkey has several potential long-term buyers on the European continent.

Exhibit 6: Turkish Geography Facilitates its Growing Influence Over Fossil Energy Supply Chains

Map of Turkish Energy Infrastructure



Source: Arid Ocean, EIA

The onset of the G7's Price Cap on Russian seaborne crude oil has also created an opportunity for Turkey to assert influence via its control of strategic waterways, namely, the Bosphorus and the Dardanelles straits. Following the sanction's December 5th onset date, the queue of tankers carrying Kazakh crude waiting to cross the Turkish straits has steadily grown due to the country's announcement of new insurance requirements for tanker operators seeking passage.

Ironically, in recent weeks, tankers laden with Russian crude oil, carrying Russian protection and indemnity (P&I) insurance, have sailed through unabated. From our perspective, this was a clear example of Turkey's increasingly assertive foreign policy.

Turkish Energy Geopolitics In 2023

This past year, Turkey's role as an intermediary in the Russia-Ukraine conflict has elevated its status as a global power broker. The eventual conclusion of that conflict, and the degree to which Russia-EU ties are reformed, will also present an opportunity for Turkey to advance its foreign policy agenda.

Despite its lack of domestic fossil energy resources, Turkey's growing control of fossil energy supply chains will allow it to continue increasing the assertiveness with which it can pursue foreign policy objectives. In 2023, Turkey will continue to establish itself as a dominant geopolitical force, in part, because of its strategic approach to energy policy.

The Saudi Kingdom's Dueling Bilateralism: An Example of Geopolitical Promiscuity

As one of the world's largest producers of fossil energy, and given the relative inexpensiveness of that production, it should come as no surprise that Saudi Arabia will also continue to press the geopolitical advantage inherent in its access to fossil energy supply.

However, for Saudi Arabia, what we find more notable than the absolute strategic influence it possesses is the kingdom's evolving strategy in asserting that influence.

Saudi Promiscuity in the Pursuit of Diversification

To that end, we would be remiss not to shine a light on the red carpet that was rolled out in Riyadh earlier this month upon the arrival of Chinese President Xi Jinping. The reception of China's President starkly contrasted with the relatively chilly reception of Xi's American counterpart, President Joe Biden, back in July.

The bilateral relationship between China and Saudi Arabia is notable for energy markets for several reasons, most obviously the kingdom's continued supply of crude oil to the world's largest consumer of fossil energy. Beyond the sale of oil, the relationship also bears note due to the implications for the global refined products and petrochemicals sectors, in addition to Saudi's intention to continue diversifying its economy away from fossil energy by growing its manufacturing base.

Not only is Saudi Arabia seeking to diversify its economy away from fossil energy, but it is also seeking diversification in its foreign policy strategy away from the US.

Saudi Arabia & Middle East Energy Geopolitics In 2023

The promiscuity of Saudi Arabia in managing its competing Westward and Eastward foreign policy priorities is also a sign of the energy security and geopolitical advantage born by those that control access to fossil energy supply. Sino-Saudi rapprochement will undoubtedly be of concern to policymakers in DC. We expect Saudi Arabia to continue diversifying its foreign relations by building new bridges and knocking down others in both the West and the East.

More broadly, within the Middle East, the evolution EU-Qatari relationships, particularly as Qatar works to sell offtake capacity from its massive LNG projects. The internal power struggle within Iran, and the implications for petroleum markets, will also be noteworthy.

The US Role in the Trajectory of Global Geopolitics: A Destabilizing Force

It is also worth highlighting the influence that US energy and foreign policy priorities have on the slow-moving dissolution of the geopolitical status quo. In particular, over the last decade, we have seen the US government's gradual transition away from the laissez-fair approach it had long maintained on global trade and foreign policy; a rare example of bipartisan consistency within the increasingly contentious US political system.

The rising use of economic sanctions—including on microchips, solar panels, or petroleum products—highlights the shift in US trade strategy. Domestically, the revitalization of critical supply chains through the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the CHIPS and Science ACT (CHIPS), among others, could be characterized as a significant shift in US industrial policy. Finally, the evolution of the US Navy fleet, and its waning grip over certain corners of the world's international waters, is yet another example.

We expect US foreign policy to continue along its current trajectory, shifting the world's most powerful country further in the direction of dirigisme in 2023, and throughout this coming decade.

A Waning Beneficiary of Geologic Endowment

One considerable source of growth in US foreign influence over the past fifteen years has been its domestic endowment of geological resources and the related engineering prowess to produce these resources economically. The shale boom and the related bounty of inexpensive fossil fuel supply have been nothing short of an adrenaline shot for the US economy and the US international influence. This past year, for example, the US set numerous monthly records for refined product and LNG export volumes.

Like the US' other sources of foreign influence, the country's role in global energy commodity markets will, at one point, also reach its peak. We believe that peak is closer than many energy market participants, including policymakers and investors, may realize. This is particularly true for the frictionless explosion in US LNG export capacity, which began only six short years ago in 2016.

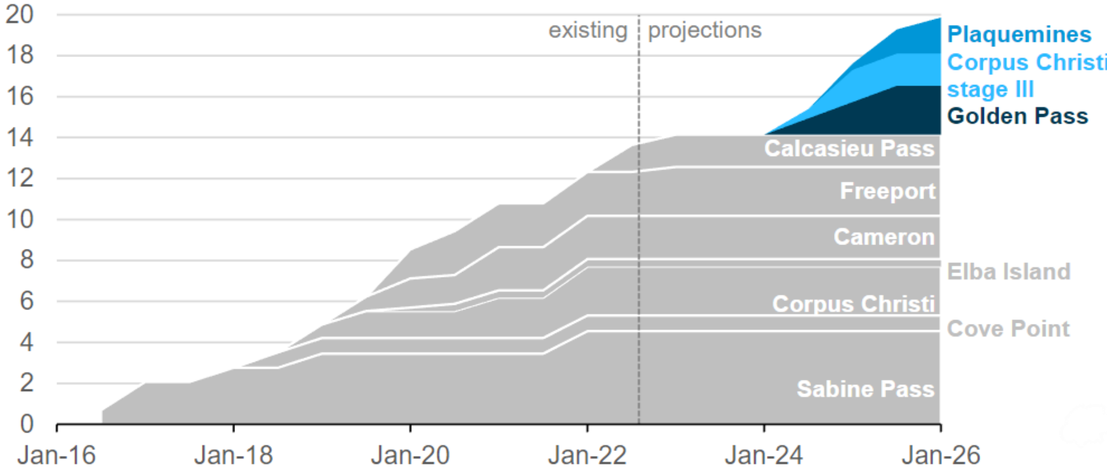
That isn't to say that US fossil energy exports won't continue to rise near-term. Instead, we expect the US will bear increasingly higher domestic costs for the role it's choosing to play in international energy markets. The step function increase in US natural gas prices seen in 2022 is one example of such.

The loss of the US shale patch as the key global swing producer in fossil energy markets will have significant implications for both US domestic and foreign policy. We began to see evidence of that in 2022, as the Biden administration threatened to curtail crude oil, natural gas, and refined product exports. We believe this change in tone by the US federal government marks a significant inflection point in the US influence born by its control over fossil energy supply chains.

The shift in US energy policy over the past twelve months is a sign of what's to come: greater energy resource protectionism at the expense of foreign relations. Both US allies and rivals will undoubtedly take note of this dynamic.

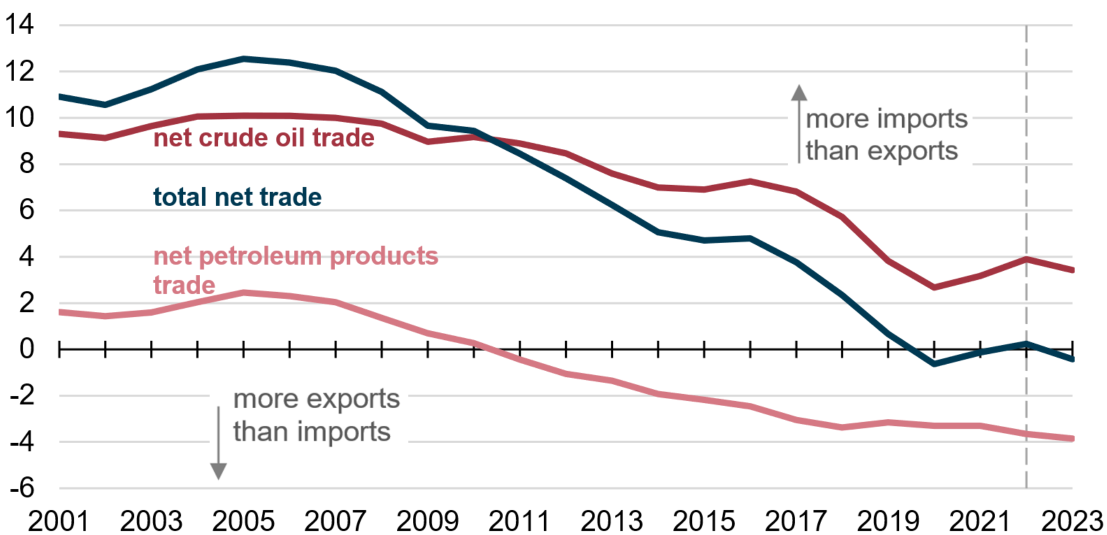
Exhibit 7: The Growth of the US Shale has Yielded Considerable Geopolitical Gain

Existing and Under Construction US LNG Capacity (Bcf/d)



Source: [US EIA]

US Annual Net Trade in Crude Oil & Liquid Fuels (Mbpd)



Source: US EIA

> The shift in US energy policy over the past twelve months is a sign of what's to come: greater energy resource protectionism at the expense of foreign relations.

Control over Fossil Energy Supply Chains Remains the Key to Energy Security

In 2023, and until we see a resurgence in investment in upstream production capacity and critical infrastructure, we expect the countries that control fossil energy supply chains will be surprisingly assertive in their pursuit of domestic and foreign policy priorities. Similarly, we expect the geopolitical influence of countries reliant on fossil energy imports to decline in the coming years.

Amid the persistence of global fossil energy demand, the reduction in supply resulting from underinvestment has improved the bargaining power of countries that do control a share of the relatively smaller supply pie. That shift in bargaining power incentivizes promiscuity in the pursuit of strategic foreign policy. In 2023, historically stable bilateral relationships will continue to strain under the weight of competition for insufficient global fossil energy supply.

In the coming decades, the ongoing pursuit of decarbonization will also exacerbate current geopolitical tensions by necessitating the formation of new supply chains for metals and minerals critical to a clean energy economy. As we have seen this past year in Europe and elsewhere, the headlong pursuit of decarbonization via stick-based policy will also facilitate new supply-demand mismatches in key energy commodity markets, putting additional stress on already brittle energy supply chains and creating new investment opportunities for our clients. The diminishing role of the US shale patch as the key global swing producer of fossil energy, and the US federal government's influence in protecting its domestic resource advantage, will also reverberate through US domestic and foreign policy in the coming years.

> The combination of these dynamics will further exacerbate the progression away from the current geopolitical status quo.

The combination of these dynamics will further exacerbate the progression away from the current geopolitical status quo. Suffice it to say that the path function that individual countries choose to take toward Net Zero will play an important role in determining the evolution of geopolitics in the years to come.

About Capstone

Capstone is a global, policy-driven firm helping corporations and investors navigate the local, national, and international policy and regulatory landscape.

Work with Us

We tailor our work to help our corporate clients predict meaningful policy and regulatory backdrops, quantify their impact, and recommend strategies that unveil novel opportunities and avoid hidden risks.

Capstone's Global Reach and Local Expertise

Capstone is a global, policy-driven firm helping corporations navigate local, national, and international policy and regulatory landscapes. We combine subject-matter expertise with an extensive regulatory network to help companies thrive.

Contact Us. We Can Help.

We would be happy to schedule a Quick Read—a free thirty-minute call with one of our expert teams—to discuss the regulatory risks and opportunities that impact your company's decisions and to consider how we can best help you develop strategies to prepare for the future. To learn more, contact us at corporateadvisory@capstonedc.com

About the Author

Adam Cotterill
Vice President, Energy and Industrials
acotterill@capstonedc.com

Research Disclaimer