

RESEARCH ARTICLE

Energy as a weapon of war: Lessons from 50 years of energy interdependence

Michael Carnegie LaBelle 

Environmental Sciences and Policy
Department at Central European
University, Vienna, Austria

Correspondence

Michael Carnegie LaBelle, Environmental
Sciences and Policy Department at
Central European University, Vienna,
Austria.
Email: labellem@ceu.edu

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Abstract

The Organization of the Petroleum-Exporting Countries (OPEC) used oil as a weapon against Western countries supporting Israel in the 1973 Yom Kippur War. From 2021, Russia used a similar strategy of restricting gas flows to Europe, while Europe later reduced Russia's market access. In these cases, there was economic and political damage. These examples show that energy is a weapon used to pressure sovereign states. Energy is a multidimensional resource that reflects broader ties within the political-economic system of international relations. This comparative study identifies four components that enable energy as a weapon: interdependence, energy security, neoliberal economics and sovereignty. Four key policy lessons emerge to improve energy security: (1) determine the acceptable limits of energy dependence, (2) acknowledge institutions and markets cannot deliver energy security outside their design parameters, (3) energy security requires addressing the entire value chain, and (4) energy is a weapon that threatens state sovereignty. The collapse of the gas trade between Russia and the EU creates instability and removes the pillar of interdependency; this now ushers in a new era.

1 | INTRODUCTION: THE 50-YEAR ENERGY REGIME

'Although a crisis had been looming, it was the October 1973 Arab-Israeli war and subsequent embargo that exposed the vulnerability of the energy system. This came as somewhat of a surprise. Oil supplies had been affordable and seemingly plentiful, and so it was hard to envisage the resulting disruption and price spikes that ensued' (Kissinger, 2009).

In 2022, energy was brought back as a weapon of war. It had been 50 years since a similar threat was successfully executed. The start of the war on 6 October 1973 did not represent an immediate utilisation of oil as

a weapon; likewise, 24 February 2022, marks Russia's most recent military violation of Ukrainian sovereignty. In both cases, those instigating military action against a sovereign state supplemented their arsenal by restricting the flow of oil and gas to Western countries. Both energy crises were long in the making, reflecting the interdependency of energy supplies. Energy is a multidimensional resource that reflects broader ties within the political-economic system of international relations. Europe turned to the Soviet Union during the 1970s oil crisis. Now the once-stable Russian energy pillar is crumbling and is a source of instability and insecurity.

In 1977 Keohane and Nye, in their seminal book, *Power and Interdependence* noted asymmetrical interdependence is a source of power, linking 'the liberal stress on interdependence and the realist focus on power' (Keohane & Nye, 1989, p. xi, second edition). The recent scholarship goes further to explore

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'weaponised interdependence' between states (Farrell & Newman, 2019, p. 45), which challenges the 'energy sovereignty' of states (Graf, 2014). More concrete questions ask *how* the EU uses its liberal regulatory power to blunt Putin's realist energy weapon (Goldthau & Sitter, 2015a, 2020). In both the 1970s and 2020s, the energy trade was utilised to project power and impinge on the sovereignty of other states.

The asymmetrical interdependence of the EU on Russian energy resources makes energy security central in reducing vulnerabilities (Casier, 2011). There is an empirical and conceptual case to examine energy interdependence and dependence. There is a clear value chain of oil, coal and gas beginning in Russia and running to Europe (Balmaceda, 2021, p. 13). For this value chain to work, there are extensive exchanges of technologies, political bargaining and business practices extending back to the 1960s (see Gustafson, 2020; Högselius, 2013). Because of this history, Central European society and industry depend on Russian resources (Högselius, 2013; LaBelle, 2020; Ostrowski, 2022). From a security perspective, threats that destabilise the delivery of gas are of utmost importance to European states (Bouzarovski et al., 2015). This is because the disruption of resources and technologies is an assault on state sovereignty and independence (Graf, 2014).

Energy security applies to both producing and consuming countries. Energy security is multidimensional, affecting energy affordability and availability, state revenues and defence policies (Jonsson et al., 2015). Governments and societies plan on the income and the cost of energy services, thereby producing a stable equilibrium that society trusts (Szulecki, 2018a, p. 5). Because of this dependency, the 'power to' influence governments and society plays an important part in the energy value chain and relations within and around the resources (Balmaceda, 2021, p. 13; Sovacool & Saunders, 2014). This is because governments balance domestic politics and economic growth with international relations intertwined with energy security (Szulecki, 2018a).

The novel perspective in this article reflects on what interdependency means—and has meant—to energy security in Europe. The initial focus is on how the oil crisis of the 1970s fostered global oil interdependency. The effort was to ensure oil could not be weaponised. This interdependence carried over into the European gas sector to foster interdependency between European countries and Russia. Nonetheless, in the European gas trade, energy as a weapon was not diffused, only greater levels of dependency developed between Russia and EU Member States. In 2022, Russia weaponised the gas trade, and in turn, the EU weaponised its energy market. This is a European energy policy failure.

My analysis here interprets interdependence as improving energy security and examines how it was

Policy Implications

- Putin's threat to create 'catastrophic consequences on the global energy market' brought back energy as a weapon of war. Likewise, European and allies' sanctions on Russia created their own demand-side energy weapon.
- The expression of state sovereignty can override the established relationship based on energy interdependence. Both politicians and businesses need to be aware that in the energy sector 'weaponisation' of networks and nodes is a possibility.
- Interdependence developed to prevent a 1970s oil crisis contributed to the weaponisation of gas between Russia and Europe. Constrained supplies into the EU gas market could not compare to the global oil market with military security alliances and many producers. Policymakers need to be cautious when transposing regulations and market design from one resource to another.
- Governments need to determine the limits to energy interdependence and dependence to improve energy security. Economic trade on its own will not prevent energy-related conflicts between countries. Managing this geopolitical transition is essential for governments and diplomats.
- Institutions and markets cannot deliver energy security outside their design parameters. Awareness of the entire value chain needs to account for disruption and threats in both supply and demand.
- Energy is a weapon that threatens state sovereignty. Policies and infrastructure need to be designed to mitigate impacts against governments that have the potential to be on the receiving end of the energy weapon.
- The rise in inflation and the heavy weight of energy in the cost of living demonstrates the political impact that tampering with international energy markets hold in domestic politics.

conceptually used in the EU's gas market. This article does not address the complex history of Soviet and Western energy relations (Balmaceda, 2021; Gustafson, 2020; Högselius, 2013; Ostrowski, 2022), nor Russia's involvement in global oil markets (Bradshaw et al., 2019) expansion of supply, demand and speculation (Barsky & Kilian, 2004; Stevens, 1995) and technological changes (Plante

& Patel, 2019). Importantly, it only gives a cursory history of key developments in the EU's energy market and its institutional development and contestation between the European Commission and Russia (Andersen et al., 2017; Hancher et al., 2021; Ostrowski, 2022) while avoiding the bilateral relations of European states and Russia (Balmaceda, 2021; Gustafson, 2020; Högselius, 2013).

Instead, I seek to build on the previous interdependency scholarship (Farrell & Newman, 2019; Franza & Van Der Linde, 2017; Graf, 2018; Keohane & Nye, 1989) to provide a macro-perspective of the conceptual framing that drove co-operation and co-ordination despite geopolitical tensions and energy security concerns (Nye, 2004; Szulecki, 2018b; Van de Graaf & Colgan, 2017). I question one of the basic tenets of neoliberal economics and globalisation that guided the energy sector over the past 50 years. A maxim articulated at the height of the Cold War by German Chancellor Helmut Schmidt to President Jimmy Carter was that 'those engaged in trade with each other do not shoot at one another' (Bösch, 2014, 167). This was used to justify Germany's energy deals with the Soviet Union in 1980—after the Soviet invasion of Afghanistan (Bösch, 2014, 167). Russia and the EU's use of energy as a weapon nullified this hypothesis.

Disassembling the energy weapon exposes four interlinked conceptual components. These are well-developed conceptual framings: Interdependence, energy security, neoliberal economics and sovereignty. In this paper, I bring them together to explain how energy impinges on another state's sovereignty. My argument is energy is a weapon-holding severe economic and political consequences that go to the heart of state sovereignty. To unpack this argument, I use the components to organise each of the three main sections. Addressed first is the history of the 1970s oil crisis and how Arab members of the Organization of the Petroleum Exporting Countries (OPEC) used energy as a weapon spurring the development of a more secure global oil market (Section 2). Second, the growth of interdependency between Europe and Russia is analysed to understand how gas became a weapon to strike at each side's sovereignty (Section 3). Concluding each section is the observation that the global oil market moved from dependency to interdependency, while the European-Russian relationship has moved from interdependency to destructive dependency. Dependence is central to the energy weapon. Later, the discussion section (Section 4) draws together the lessons from both energy crises to provide policy suggestions in each of the four areas. The conclusion outlines Europe's new dynamics in the post-Russia and post-fossil fuel era (Section 5). The energy transition requires a new energy security arrangement to defuse the energy weapon.

2 | WESTERN OIL DEPENDENCE

In 1973, after the start of the Yom Kippur War (Arab-Israeli war), the Arab members of OPEC met to discuss using oil supplies as a weapon against Western countries supporting Israel (Sampson, 1975, p. 250). The subsequent oil embargo and OPEC oil price hike created an economic crisis for the West. This assertion of sovereignty by the OPEC countries stemmed from a desire to control oil production and revenue. This was pushback against seven multinational oil companies known as the seven sisters, whose history was rooted in colonialism and post-WWII US dominance. These companies were Anglo-Iranian Oil Company, Gulf Oil, Shell, Standard Oil of California, Standard Oil of New Jersey (Esso), Standard Oil of New York and Texaco. They were supported by the national governments of the United Kingdom, the United States and the Netherlands to collude to set the price and output of much of the global oil supply.

In the 1970s, OPEC countries pushed back and nationalised assets claiming the right to set prices and supply levels (Sampson, 1975). Through these means, they sought to assert their sovereignty, thereby reconceptualising security in the West to include energy and economic issues (Graf, 2018; Sampson, 1975). Once the West lost control over supply and pricing, the asymmetrical dependency on OPEC countries was exposed. The following section analyses how oil became an energy weapon used against Western governments.

2.1 | Interdependence

Global interdependencies in the oil sector are not recent. In 1952, the US Federal Trade Commission labelled the action of seven global oil firms—the seven sisters—oligopolistic. They created an interdependent oil market and controlled the global flow with indirect collusion (Noguera, 2017, p. 299; Sampson, 1975, Chap. 8). Later, as the Middle Eastern countries nationalised assets and took control of their oil production, they would form a cartel of states (rather than companies), thereby dethroning these Western firms (Sampson, 1975, p. 259) and forming OPEC. In 1973, there was a tight oil market, overlaid with OPEC asserting national sovereignty and Arab members using oil as a weapon against Western supporters of Israel.

Many European countries were among the most heavily affected by the 1973 oil embargo. In the early 1970s, OPEC members nationalised the assets of the seven sisters, thereby turning the table on Western countries. OPEC now controlled the international oil market. This led to a rethink in the West. In the 1970s, 'European' insecurity referred to the Middle East more than the Soviet bloc' (Gustafson, 2020, p. 84). Europe looked to the Soviet Union to provide a stable supply of

oil with an eye on gas as an alternative to oil (despite Washington's opposition) and accelerated the search for hydrocarbons in the North Sea (Gustafson, 2020, p. 84). An outcome of this policy pivot was that interdependency grew. Because the price of oil continued to climb in the 1970s, the Soviet Union reaped hard currency from oil exports. Later, this revenue funded Soviet food and consumer imports and its military invasion of Afghanistan in 1979 (Gaidar, 2007, chapter 4; Gustafson, 2020, p. 143).

The shared history of these players produces shared geopolitics of energy, reflecting *both* dependency and interdependency. The power of interdependence relies on mutual dependence in a reciprocal relationship (Keohane & Nye, 1989, p. 8). Keohane and Nye (1989) point out oil differs from imports of other materials, like furs and jewellery, because of the interlinked economic costs in the economy. The gains from interdependency are perceived to be higher than the costs of independence (Keohane & Nye, 1989, pp. 9–10). For the global market in oil, security was provided by the US in the form of the Carter Doctrine which proclaimed military protection to ensure no hostile power could block oil shipments through the Persian Gulf. Military force, as the justification proclaimed, would be used because national security, economic prosperity and the protection of the environment benefit from a secure geopolitical environment around energy resources (Bazilian & Roques, 2009).

In Henry Kissinger's reflection on the 1970s oil crisis (in the opening quote), a well-functioning global energy market collapsed. Historian Frank Bösch labels the 1970s as an emergent era for interdependency. 'The word interdependency is a new buzzword of the 1970s', which changed political action (LaBelle, 2022, 31:26). He points to German Chancellor Helmut Schmidt flying around the world, working with other leaders to manage the economic crisis of the 1970s, including the impact of the Iranian Revolution on global oil supplies (LaBelle, 2022).

2.2 | Energy security

Since the 1970s, energy security has been established through interdependence and is not contained within national borders. Comprehending this strategic shift requires understanding two prominent schools of thought on energy security: (1) a geopolitical school prioritising states and (2) an institutionalist school prioritising international institutions. Wrapped tightly into these perspectives is the neoliberal order of economic regulation. For example, the EU places market liberalisation at the core of its energy system (Goldthau & Sitter, 2015b, p. 4).

Since the 1970s, there has been a coherent policy framing by businesses and governments based on

fostering greater interdependence. From an energy security perspective, this informs the 'geopolitical school', which rests on power balances and controlling energy assets and resources (Cherp & Jewell, 2011, p. 204). As Keohane and Nye describe, 'In common parlance, dependence means a state of being determined or significantly affected by external forces. Interdependence, most simply defined, means mutual dependence' (Keohane & Nye, 1989, p. 8). The Chicago School of Economics bolstered the idea of interdependence; free trade in energy commodities delivered increased supply, matching increasing demand since the 1970s (Energy Information Administration, 2022). This perspective is not without contradictions. Neoliberalism functions alongside the cartel of OPEC in setting the price of oil.

The 'geopolitical school' is informed by events of the 1970s and the growth of interdependencies, which addresses the role of states in the geopolitical energy order—or rather 'energy statecraft' (Högselius, 2018). Ensuring the security of energy supply through geopolitical relations can provide a higher level of energy security but relies on fostering international alliances (Cherp & Jewell, 2011). In comparison, growing out of this same era is the institutionalist school focused on integrating markets, institutions, non-state actors and global governance regimes (Cherp & Jewell, 2011, p. 204). Each school of thought influences the interpretation of events and state actions for both supply and demand.

Energy security is essential for both consuming and exporting countries due to the economic activities surrounding both sides. The 1970s 'rendered energy a matter of national security concern for consumer nations, and part of foreign policy for exporting nations' (Cherp et al., 2011, p. 81). From an International Relations perspective, protecting national oil markets from competition because of national security concerns, as Stigler points out, was no longer a viable excuse (Stigler, 1971, p. 3). Particularly as a global *détente* after the Vietnam War, resulting in less hostility towards and between the US, Russia and China (Keohane & Nye, 1989, p. 7).

Solving the 1970s energy crisis relied on creating a new international institution (the International Energy Agency) and a commodity market resting on interdependencies in oil and military protection, such as the Carter Doctrine, to ensure unencumbered global oil supplies in 1980. This was all done to 'encourage collaboration on energy policies, avoid bruising scrambles for supplies, and deter any future use of an "oil weapon" by exporters' (Yergin, 2006, p. 75). This strategy was neoliberal by rejecting national market barriers and relying on global market forces—particularly in oil. The market became essential to maintain peace. All nations needed to participate by supplying or consuming from global oil markets.

A global oil market was stimulated by increasing interdependency. As Yergin summarises, the security of

supply is solved by higher market prices and regulatory reforms, which prompt greater investment into more fossil fuels and infrastructure (Yergin, 2006, p. 74). 'Higher oil prices will do what higher prices usually do: fuel growth in new supplies by significantly increasing investment' (Yergin, 2006, p. 74). The response to the conflict in the 1970s was the exploitation of more supplies in North America, Russia and the North Sea. For 50 years, global interdependency guided international relations, investments and global economic growth.

Paul Stevens delivers an insightful analysis of the oil markets in the 1980s, with one reason for the increase in global oil production. Earlier, long-term contracts between producing and consuming countries were the primary form of agreement. However, with the gradual shift towards an open market, there were lower transaction costs and more supply, which 'created a self-feeding process of more players, more transactions, and more transparency' throughout the value chain (Stevens, 2005, p. 22). Energy security benefited from the high price signals of the 1970s to deliver greater production in the 1980s and expand both production and consumption of oil.

2.3 | Economics

In 1971, remarking on the stagnating US oil output, Nobel Prize Winner George Stigler, in his article, *The theory of economic regulation*, wrote, 'The petroleum industry is an immense consumer of political benefits' because it purchases regulation for its benefit (Stigler, 1971, p. 2). The theory of removing economic regulations and reducing trade barriers combined with the ideas of interdependence (Keohane & Nye, 1989) created a neoliberal economic paradigm underlining globalisation and structural economic reform, most prominent in the 1980s and 1990s (see Harvey, 2005).

The domestic US response to the 1970s oil crisis was constrained by oil firms past domestic and international practices. During the energy and economic crisis, the political benefits from 'national security' regulations that suppressed competition and supplies were injurious to the public good. Before the first oil shock in 1973, the call to reduce economic regulation had already prompted more significant investment and competition. 'Regulations which injure the public—as when the oil import quotas increase the cost of petroleum products to America by \$5 billion or more a year—are costs of some social goal (here, national defense)' (Stigler, 1971, p. 3). Reform was needed.

Regulations, Stigler states with cynicism, 'protect' Americans but actually only benefit incumbents. Therefore, they are a perversion of the original meaning of the regulatory philosophy (Stigler, 1971, p. 3). This stagnation can be seen in Figure 1 with the exhaustion of US spare oil capacity, after which the US

became reliant on imported oil. The government was forced to abandon the price cap on oil because of the increasing cost of imports (Baumeister & Kilian, 2016). In energy, this oil production plateau hit Western economies, prompting further reliance on Middle Eastern supplies. In 1973, the Yom Kippur War between Israel and its Arab neighbours, and in 1979, the Iranian revolution and war with Iraq created unstable global oil markets. Figure 1 outlines key events affecting the price of oil between 1970 and 2020 (Energy Information Administration, 2022).

In the 1970s, Stigler called out the oil firms' patronage of Washington politicians for retaining their domestic monopoly on oil production (1971). The solution came by reducing barriers to the domestic market, lifting price controls, stimulating investments and moving towards a spot price for oil (Stevens, 1995; Yergin, 2006). In this context, national security shifted from being *national* in scope to *international*. Oil moved from bilateral contracts to the global spot price influenced by OPEC and political events (Barsky & Kilian, 2004). The 'regulatory philosophy' of neoliberalism encouraged privatisation in the energy sector and reshaped domestic and international energy markets (see Harvey, 2005; LaBelle, 2009; Yergin, 2011).

2.4 | Sovereignty

The 1970s crisis was also a challenge to the sovereignty established after WWII. Graf calls the oil crisis a challenge to Western sovereignty and political authority. OPEC members utilised the 'oil weapon', which threatened the economic prosperity and rising affluence of citizens in liberal democracies during the Cold War (Graf, 2014, p. 45). The oil embargo highlighted the limits of 'interdependence sovereignty' and the weakness of Western countries in the face of pressure from OPEC countries (Graf, 2014, p. 45). This challenged the 'domestic sovereignty' of liberal democracies in the post-war economic boom of the 1950s and 1960s which were built on cheap oil (Graf, 2014, p. 45).

As a consequence of this interdependence and the vital role companies play in building networks and shaping bilateral dependence of trade, these networks provide opportunities for states to exert leverage over other states (Farrell & Newman, 2019, p. 54). This can provide the weaponisation of interdependence by states controlling access through commercial communication and trading 'hubs' in markets (Farrell & Newman, 2019, p. 58). This can translate into an institutional approach to control market participation, thereby externally extending the regulatory state into the realm of another state (Goldthau & Sitter, 2015b). From a realist perspective, giving up some state sovereignty is inherent to interdependence because both states become dependent. Energy sovereignty stems from holding power

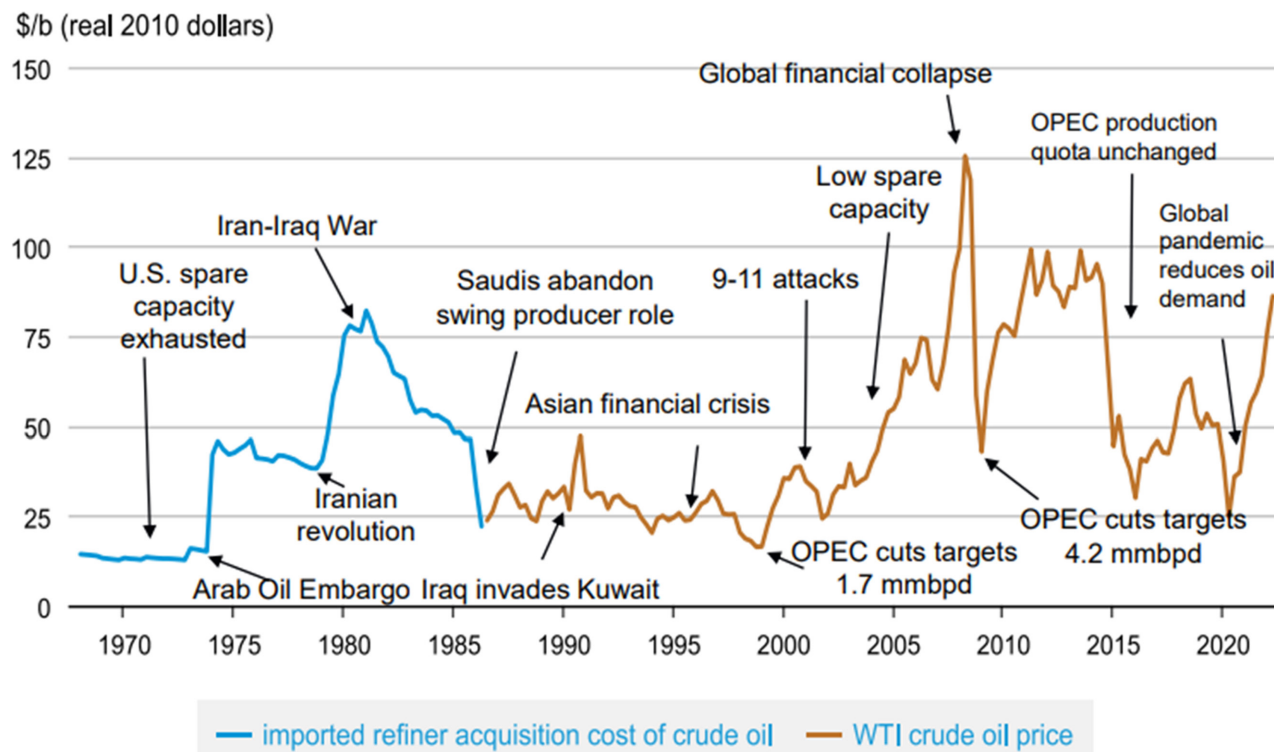


FIGURE 1 Crude oil prices react to a variety of geopolitical and economic events (Energy Information Administration, 2022).

over a territory 'independent of external control or interference' (Graf, 2014, p. 44); energy interdependence emerges as central in expressing state sovereignty.

Graf (2014) identifies the fight over sovereignty in the 1970s oil crisis partially stemming from the transferring of oil production quotas and prices to producing countries and away from the Western oil firms of the seven sisters. Once oil was weaponised by the Arab countries, the economic prosperity of Western countries was threatened and so was their sovereignty (Graf, 2014, p. 45). As Sampson recounts, the assertion of sovereignty and control over the oil resources by the former colonies of the West was done to increase state revenues and demonstrate their sovereign status. The West now confronted not a cartel of the seven sisters' companies 'but of sovereign states' (Sampson, 1975, p. 259).

2.5 | Conclusion: From dependency to interdependency

Energy security, sovereignty, interdependence and economic relations are necessary to transform energy into a weapon. This interrelationship reflects Thaler and Hofmann's 'energy trinity' which highlights the interrelationship between energy sovereignty, energy security and the more recent development of environmentally 'sustainable' energy (Thaler & Hofmann, 2022). Certainly, a more futuristic view of

these interrelationships with energy statecraft can address climate change (Dalby, 2018; Sovacool et al., 2023), particularly when justifying the use of Russian gas in the EU (discussed next). From the 1970s to the 2020s, transposing the lessons learned holds sovereignty in the middle with security, interdependence and economics shaping the deployment of the energy weapon in asymmetrical relationships.

Solving the 1970s energy crisis relied on fostering interdependence in international institutions and an open global oil market infused with military alliances stabilising the global supply chain. Western countries moved away from dependence on the seven sisters and OPEC to fostering a complex global market in oil supported by a US security doctrine. This was all done to 'encourage collaboration on energy policies, avoid bruising scrambles for supplies, and deter any future use of an "oil weapon" by exporters' (Yergin, 2006, p. 75). Neoliberal market policies in commerce and energy supported this strategy. The open market approach became essential to maintain peace.

Despite the rapid change in the 1970s, it needs to be remembered that the 1973 oil crisis was *not* a turning point. Instead, it solidified progress already underway in gas, oil and nuclear power (Bösch, 2014, p. 182) between the Soviet Union, its satellites and Western Europe, delivering politically significant changes during the Cold War (Bösch, 2014, p. 167). Drawing on this linear history will provide a macro perspective on energy security (Cherp & Jewell, 2011; Szulecki, 2018b),

highlight the role of neoliberal market philosophy (Stigler, 1971), trace the development of interdependence (Keohane & Nye, 1989; Stigler, 1971) and the role of energy sovereignty (Graf, 2018; Sampson, 1975; Thaler & Hofmann, 2022). The argument in this paper recognises that energy is more than another commodity (Goldthau & Sitter, 2015b, p. 4). Over time, as interdependence grows, it holds the power to inflict serious economic and political damage to states. The European gas market demonstrates how deep this damage can go.

3 | EUROPEAN GAS INTERDEPENDENCE

History may not repeat; instead, as historian Frank Bösch states, it sends warnings around similar events that policymakers should heed (LaBelle, 2022, 36:47). Drawing out the lessons from the 1970s energy crisis can inform how the present European energy crisis is handled. Importantly, learning from these lessons is essential, even if the full implications are difficult to quantify. From a policy perspective, the age of interdependence from the past 50 years yields how the lessons of the 1970s were not heeded for Europe's gas sector. What is apparent is that the EU was more vulnerable to supply and price shocks than previously believed (Mišík, 2022, p. 165).

This section assesses the historical parallels utilising the critical components of the energy weapon: interdependence, energy security, economics and sovereignty. As Bösch summarises, academics and politicians have debated since the 1970s how much oil companies influence state sovereignty and foreign relations (Bösch, 2014, p. 167). History demonstrates how Russia uses gas as a foreign policy tool. Gas and oil are used to influence and coerce, most notably affecting the EU supplies in 2006 and 2009 when disputes arose between Ukraine and Russia and later with the annexation of Crimea in 2014 (Ostrowski, 2022, p. 876; Pirani et al., 2009; Van de Graaf & Colgan, 2017). Likewise, the interplay of companies and state sovereignty is part of European gas history.

3.1 | Interdependence

But how dependent is Europe on Russia? High inflation and high energy prices are enough to draw parallels between the current energy and economic crisis and the 1970s. However, as the authors of the report, 'Global energy price inflation with a European twist' (Gros & Shamsfakhr, 2022) point out, the *twist* this time is that European dependence on gas is a significant component fueling the continent's inflation. The current supply shortage is defined as an energy crisis since

there is a political and economic motivation for the disruption of supplies resulting in a sudden price increase and short and long-term economic effects (Clingendael International Energy Programme, 2004, p. 36). The answer to the initial question is whether Europe is dependent enough on Russia that gas shortages are sufficient to create an energy crisis.

Since 1997, the success of global energy interdependence can be seen in the correlation of energy as a per cent of inflation (Figure 2). The assumption is that oil underlines much of this correlation. However, across the selected developed countries, differences emerged in 2021 and 2022 when EU Member States with the Euro saw energy as a higher inflation component than Japan, the US or Switzerland. Beneath the numbers, the price of gas—and indirectly—electricity drove inflation; in September 2022, energy prices were 40% higher in the Euro area while peaking at 20% in the US (Gros & Shamsfakhr, 2022, p. 12). The past 25 years may hold a pricing correlation, but the recent divergence also exposes the regional differences in the composition of energy resources and relations.

Figure 3 shows that European countries have different energy import levels from Russia. However, what is apparent from the high gas and electricity prices in Europe is no EU country can avoid the increased costs with the disappearance of Russian energy sources.

In 2022, the rapid secession of Europe from Russia's energy supplies is counter to the historical integration. Within Europe, interdependencies developed with Russian energy resources of oil, gas, coal, electricity and other sources, leading to some EU Member States being at higher degrees of integration with Russia (and dependence) (Balmaceda, 2021; Gustafson, 2020; Högselius, 2013). As European oil and gas production has fallen, imports, including those from Russia, have replaced them. So much so that in 2020, all EU 27 Member States imports of oil and petroleum products were four times higher than in 1990. The period between 2004 and 2015 represents a 6-fold increase (Figure 4). Total Russian oil imports ranged from 24% to 31% in late 2021 and January 2022 (Eurostat, 2023a), with 2021 Russian gas imports at approximately 36% (Eurostat, 2023b). Germany consumes 23% of the EU's gas (Kedzierski, 2022, p. 1).

Figure 4 shows diversification efforts as the EU's demand for gas doubled between 1990 and 2020 (to over 400 bcm in 2020). Still, Russian dependence dropped from 58% to 39% during the same period (Figure 4), indicating greater EU-wide supply diversification as demand increased. Nonetheless, in 2022—even on the eve of war, the increasing prices and lower stocks indicated the limited diversification routes and difficulty of replacing Russian gas (Kedzierski, 2022, p. 1). Interdependence could also be interpreted as dependence due to the supply and price shocks to come.

Annual rate of change

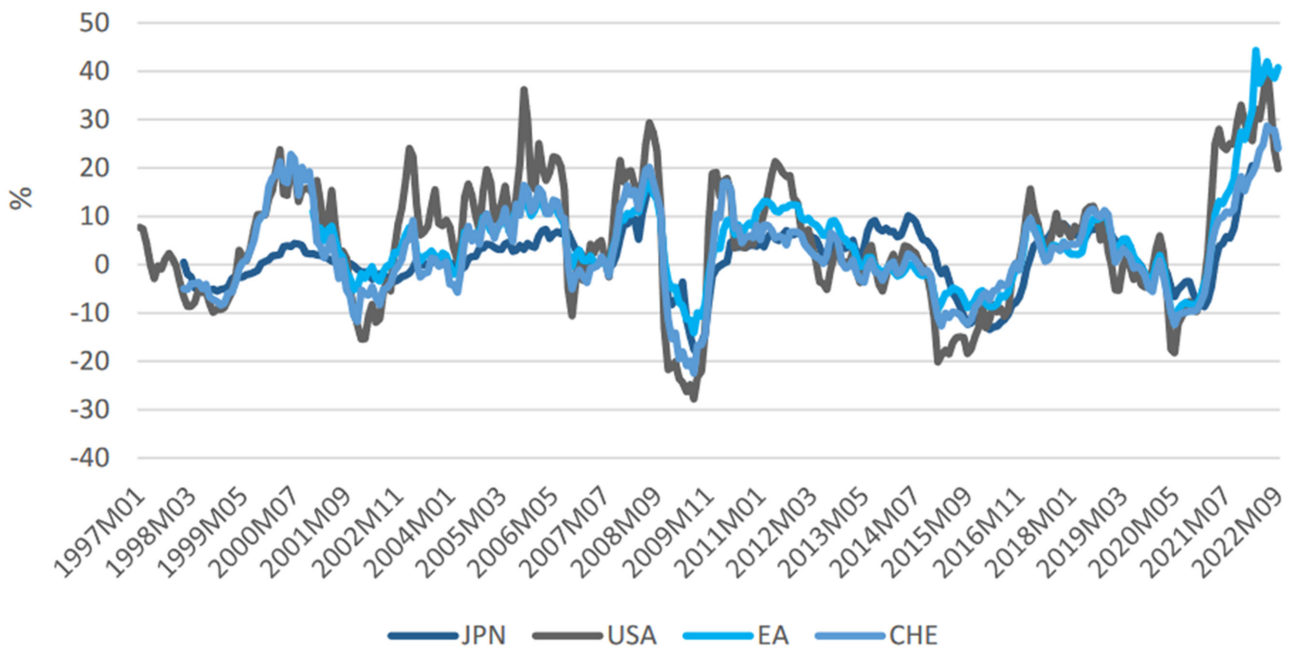


FIGURE 2 Energy price component of the national consumer price index. *Source:* Gros and Shamsfakhr (2022).

Imports from Russia in gross available energy, EU, 2020

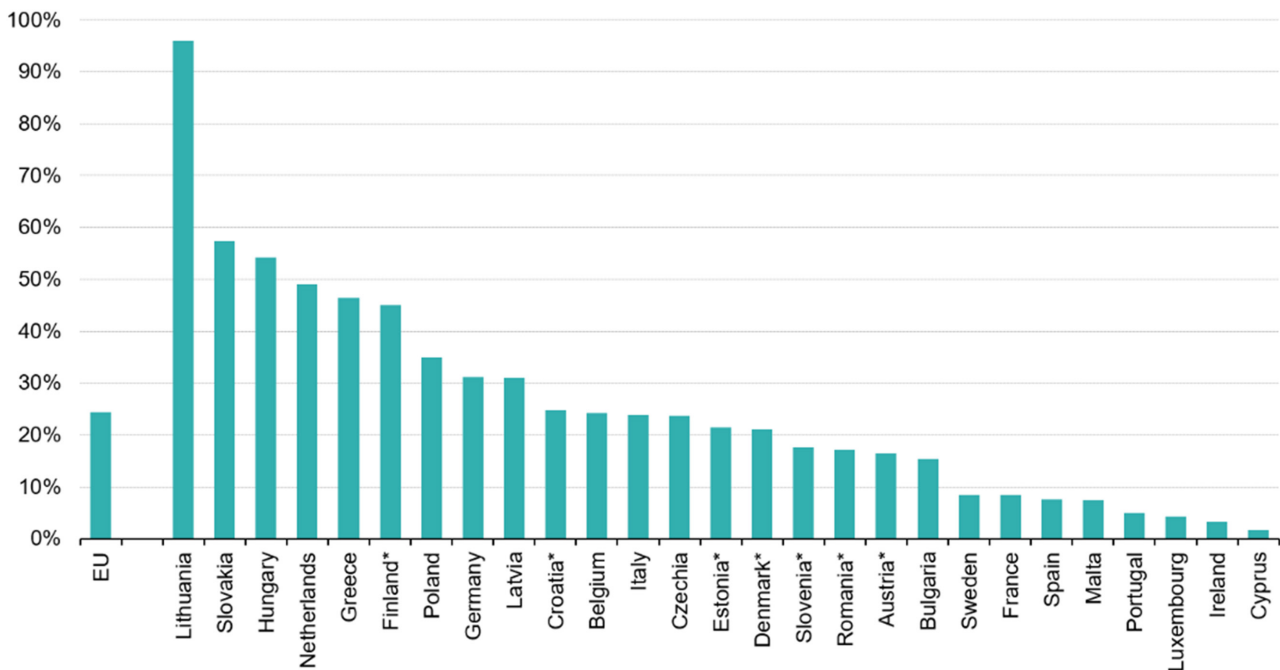


FIGURE 3 EU gross energy imports from Russia in 2020 (Eurostat, 2022).

In comparison, for Russia, since the 2000s, revenue from the country's fossil fuels has added to its ability to reassert its influence within the post-communist neighbourhood (Ostrowski, 2022, p. 876). After the low prices of the 1990s, oil increased in the 2000s from \$10 to a peak of \$147 per barrel. This extra revenue funded the

revitalisation of the Russian economy under President Putin (Ostrowski, 2022, p. 879). It also spurred more production, increasing almost 40% since 2000. Oil is viewed as a significant factor in its external military adventures. It was viewed as financing Russia's invasion of Afghanistan in 1980 (Gaidar, 2007, Chapter 4)

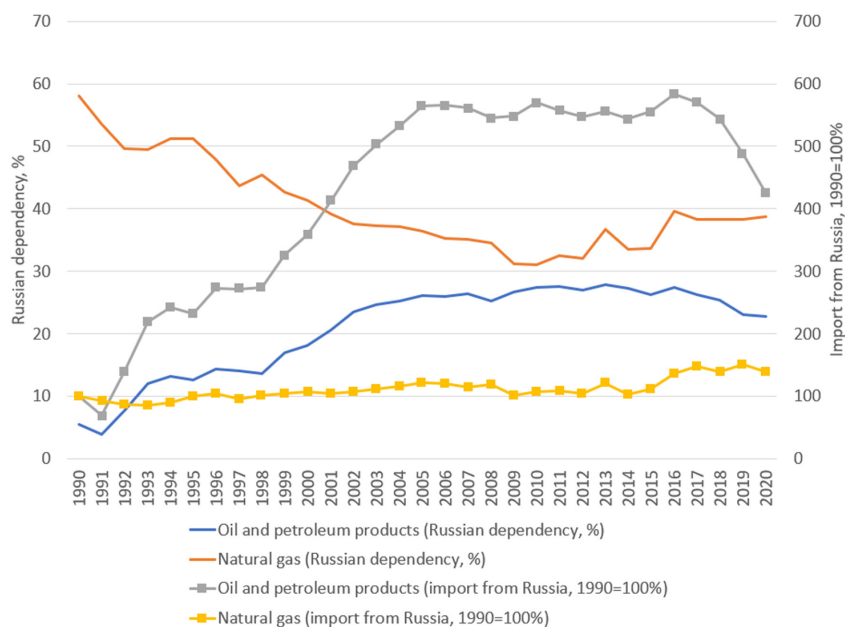


FIGURE 4 EU import dependency on Russia 1990–2020 (source Eurostat).

and also Russia's annexation of Crimea (Van de Graaf & Colgan, 2017, p. 59). Russia is viewed as a petro-state with oil rents facilitating its 'aggressive foreign policy' (Van de Graaf & Colgan, 2017, p. 59). Half of Russia's federal budget is from oil and gas, with oil and petroleum products bringing in four times as much as gas (Van de Graaf & Colgan, 2017, p. 61). Gas creates a bond of mutual dependency between the EU and Russia, in other words—interdependence. In contrast, oil is primarily part of the global oil market and is less constrained by potential threats around pipeline politics—although these cannot be ruled out. This global integration of oil, as Moscow's evasions of oil sanctions demonstrate, can also secure some degree of independence from Europe.

3.2 | Energy security

The current utilisation of energy as a weapon by Russia and EU Member States runs counter to what began as an integrated reciprocal relationship of supplier and buyer (Gustafson, 2020). In 1968, the Soviets began to look to export gas instead of oil to Eastern Europe. A gas pipeline grew from East Germany to Berlin, creating an economic opening and framing the *Ostpolitik* (Eastern policy) for Western German engagement with the Soviet Union (Gustafson, 2020, pp. 66–67). The growth of gas and oil pipelines held strategic payoffs for the Soviets, creating a system of energy-dependent states in Eastern Europe (Högselius, 2013).

Energy relations between the East and West began more as a diplomatic and business effort rather than

holding strong security concerns (although the US government expressed these) (Gustafson, 2020, Chapter 2). After the collapse of the Soviet Union, relations between the EU and Russia did not hold an energy security element. Rather, with strong foreign direct investment from all Western energy firms, relations were framed as the EU helping Russia by providing the capital, technology and market for its natural resources, thereby extending the pre-existing business and diplomatic relationships. The growing interdependence was viewed as an asymmetrical relationship benefiting the EU, due to the poor state of Russia's energy system (Casier, 2011, p. 538).

Indeed, energy security was perceived differently by the former Soviet satellite states of Eastern Europe (Gustafson, 2020; Högselius, 2013; Orban, 2008). Before the energy crisis emerged in 2021, there were different interpretations of how former communist countries adjusted their energy strategies as EU member states. Ostrowski and others perceive less anxiety in Central Europe with a decline in the 'perceived threat of Russia using energy as a geopolitical weapon' even after Russia's annexation of Crimea (see Ostrowski, 2022, p. 880). In contrast, this author highlights the anxiety in Lithuania and Poland as enough to prompt diversification because energy was used as leverage for political influence (LaBelle, 2020, Chapters 3 and 5). Regardless of the perspective, the working assumption was that in the worst case of a complete Russian gas cut-off, an integrated EU-wide gas market could sustain itself for 6 months (Szulecki, 2018a, pp. 2–3). In both cases, the EU market was not set up to deal with the sustained use of gas as a weapon.

Overall, Russia created a split between East and West. It utilised energy to exert influence and coerce alignment in former communist countries while co-operating and co-opting governments and industries in Western European countries (Grigas, 2017; Högselius, 2013; Orban, 2008; Ostrowski, 2022). Gazprom was a central tool in this effort. The perception of Russia utilising energy as a coercive foreign policy tool shifted in Brussels. The drastic actions of a dawn raid and a competition investigation exposed different pricing strategies (Franza & Van Der Linde, 2017, p. 92). Leading to the claim, the tables turned, with the EU becoming the hunter and Gazprom the hunted (Overland, 2017). The problem emerged from the perspectives around what a secure energy system is. The rise of EU's multilateral gas market protected by regulation (Goldthau & Sitter, 2020) and administered through an institutionalist approach (Cherp & Jewell, 2011) sits in contrast to the geopolitical leverage practised by Russia (Bouzarovski et al., 2015, p. 2019).

The diverging and evolutionary perspective of energy security in the field of gas can be viewed in the debate around the Nord Stream gas pipelines. The first pipeline became operational in 2011, and the second only needed German regulatory approval in 2021. The view that the EU was assisting Russian energy investments (Casier, 2011), like in Nord Stream 1, shifted by the time Nord Stream 2 sought to become operational (in 2022 Nord Stream 1 and 2 were sabotaged, rendering the first inoperable and the second partially). The EU altered market access requirements to operate along the principles of EU competition law (Hancher et al., 2021, p. 76). For the Russians, red flags may have been raised with the passage of the EU Green Deal in 2020. This indicated a new era of drastically reducing Russian gas imports just as the infrastructure was increasing (Vinois & Bros, 2021, p. 2).

The energy security relations between the EU, Russia and individual countries evolved, each with unique historical characteristics. Even in 2023, with the EU's embargos on Russian oil and gas, exemptions extend to certain countries and certain products—mainly those former communist countries with long-established oil and gas infrastructure and trade relations with Russia (European Council, 2023a). Each side has sought to ratchet up pressure and inflict pain based on the interdependencies in oil and gas. For the EU, this was increasing sanctions and embargoes since Russia's first invasion of Crimea in 2014, then with all-out war in 2022. On the Russian side, pressure was increased by restricting gas supplies using various excuses in 2021 (Mišík, 2022, pp. 1–2) then threatening the global oil market (Sheppard & Polina, 2022). In gas, these actions were likely to pressure Germany for regulatory approval to open Nord Stream 2 (Kedzierski, 2022, p. 3) and keep Europe on a short leash before Russia's invasion of Ukraine. These measures increased the

prices for consumers undermining the cornerstone of energy security by reducing availability and affordability (Cherp & Jewell, 2014; Mišík, 2022, p. 165).

3.3 | Economics

The impact of Russia's 2021 gas supply throttling began a reassessment of how the EU structured its gas market. Russia withheld gas from the European market in 2021; this led to low storage levels. This action, combined with the upswing in demand after the Covid-19 pandemic, 'left European gas inventories at historically low levels and the gas market vulnerable to supply and demand uncertainty' (de Guindos, 2022). The price of gas and electricity dramatically increased, leading to calls for subsidies and price caps, directly contradicting the neoliberal regulatory market in operation.

Condensed in this section is a larger story about the development of the EU market rules and the role of regulation as a source of hard and soft power of the EU delivered through the Agency for Cooperation of Energy Regulators (ACER) (Andersen et al., 2017; Andersen & Sitter, 2015; European Parliament, n.d.; Goldthau & Sitter, 2015a, 2015b; LaBelle, 2017). For example, The EU's Single European Market forces energy firms—even those outside the EU—to conform to a particular ownership structure to participate in the EU's marketplace (Goldthau & Sitter, 2015a). The EU relies on an institutional governance structure built on neoliberal regulatory capitalism (Eberlein & Grande, 2005; Levi-Faur, 2011; Maggetti, 2009). Most profound in this change is the Third Energy Package, which sought to break 'national champions' in electricity and gas, encourage cross-border flows of electricity and gas, and improve the security of supply through a single-market approach (see European Commission, 2009). High energy prices were viewed as reflecting monopolistic markets and not competition (see Eikeland, 2011). The design structure of the single market provides energy security with the assumption that state and non-state actors respect the institutional order.

The EU's energy security problem emerged from the failure to ensure affordable and available gas supplies (Mišík, 2022, p. 2). The EU set out to find a means to adjust the market rules and enable consumers to afford gas and electricity. The European Commission asked for recommendations to change the electricity market's pricing structure by April 2022. This reflected the dramatic price increase of 400% for gas from April 2021 to October 2021. With a spillover into the electricity price of 200% for the same time period (Pototschnig, Glachant, Meeus, & Rancil, 2022, p. 2). In December 2022, a price cap on gas in the EU was implemented (DW, 2022), and broader household assistance was distributed by national governments across the EU in 2022 and into 2023.

The broader economic impact of high gas prices is seen in the increase in inflation. Indirectly, this indicates the effect Russia's withholding of gas had on the European economy. For example, European gas dependency can be measured in the resulting inflation increase tied to gas prices. The disjuncture between the Eurozone and the US energy prices is highlighted in the inflation data. Figure 5 below shows that 4.5% of European inflation is fueled by higher natural gas prices for heating and electricity production, while in the US, there was only a 1.5% contribution to inflation. In Europe, due to the merit order of gas generation plants, gas prices are more directly passed into electricity prices. In addition, the US remains primarily disconnected from the global price of LNG by exporting about 10% of domestic supplies (Gros & Shamsfakhr, 2022, p. 14).

The EU's gas market adjusted to constrained supplies by sending prices higher. The 400% price increases were not a market design problem, rather, it was an energy security problem stemming from the weaponisation of gas by both Russia and the EU. Accessibility and affordability of gas and electricity moved beyond the assumed market parameters forcing a policy response by the EU and Member States (Pototschnig, Glachant, Meeus, & Rancl, 2022). This economic and energy crisis, represented in the form of high inflation, reflects a deeper level of international relations by Russia infringing on the sovereignty of the EU and its member states.

3.4 | Sovereignty

At the core of the energy weapon is the sovereign state. The interdependency of the European gas system comes from both a realist and institutionalist perspective. From

a realist perspective, interdependence is built on dependency on another state (Graf, 2014). Institutionalists would see commercial and regulatory relations as interdependency (Farrell & Newman, 2019). The grappling by EU institutions, Member States and academics after the 2004 enlargement around EU energy security demonstrates the complexity and inherent perspectives on protecting and expressing sovereignty in relation to energy (LaBelle, 2020; Ostrowski, 2022; Szulecki, 2018b). Energy sovereignty within an interdependent world emerges as framing to be both challenged and protected.

In 2009 after Russia invaded Georgia, an open letter was written by Central and Eastern European intellectuals and former policymakers to the Obama administration. The signatories called for greater US engagement in the CEE region. They claimed Russia was utilising 'energy blockades' and working on a revisionist historical account negating their national histories (The International Centre for Democratic Transition, 2009). They cited the threat of energy supplies, which 'can exert an immediate influence on our nations' political sovereignty' and affect their decision-making within NATO (The International Centre for Democratic Transition, 2009). For these leaders' sovereignty, military action and energy security are intertwined. They claimed that only continued US commitment in the region can assist the EU and these new Member States in protecting their territorial and energy sovereignty.

In 2014, this warning was raised again after Russia annexed Crimea and occupation of Eastern Ukraine by insurrectionists and a gas cut-off to Ukraine. In 2014, European countries applied sanctions to Russia's oil sector—but not its gas sector (Bradshaw & Connolly, 2016, p. 6). Implicitly, acknowledging Europe's high Russian gas dependency. But not raising red flags on Europe's gas dependence to acknowledge

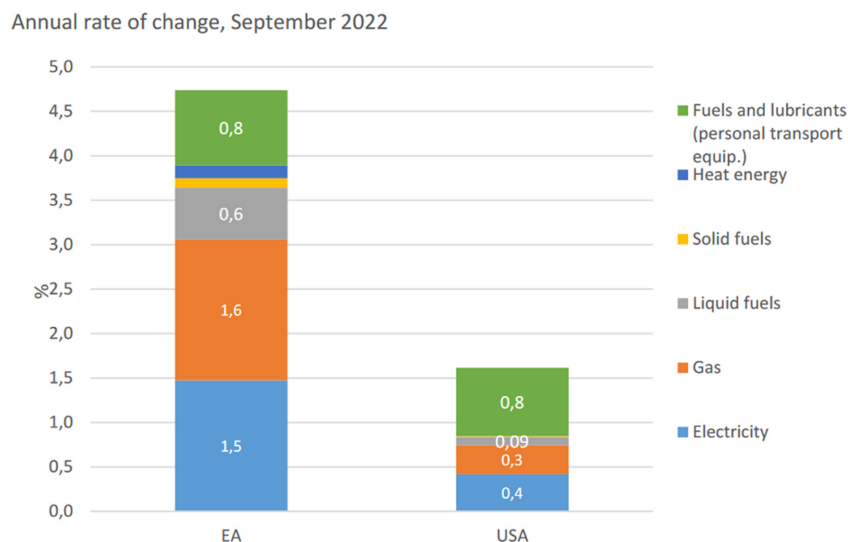


FIGURE 5 Contribution of energy prices to inflation, the US and the euro area. Source: Gros and Shamsfakhr (2022, p. 16).

the potential security of supply threat Russia posed (Ostrowski, 2022).

In 2014, the breach of Ukrainian territorial sovereignty by Russia—which the CEE authors had warned about—highlighted the energy dependency of Europe and the necessity to improve energy security, even from a market perspective (Van de Graaf & Colgan, 2017, p. 63). Nonetheless, in hindsight, it is interesting to note countries like Germany and Hungary continued developing gas projects with Russia, demonstrating their commitment to interdependency despite Russia's military actions against another sovereign European state. Other countries like Poland and Lithuania continued their diversification efforts (LaBelle, 2020). Thereby informing the European Union and the Commission's split around energy security.

Russia's use of the energy weapon can be traced back to preparations for Putin's war against Ukraine beginning in 2021. Russia was shorting Europe of natural gas supplies leading to severely underfilled gas storage facilities (Mišák, 2022, p. 1). This led to an 'energy shock', squeezing household disposable income and reducing European industrial production (de Guindos, 2022). Using energy as a weapon aimed at households and businesses was a direct attack on European sovereignty. Russia applied direct pressure on European society and industry to coerce governments. Even threatening oil supplies and prices (Sheppard & Polina, 2022).

Within the gas sector, various pipeline shutdowns and demands for payment in rubles worked to keep gas prices high (Mišák, 2022), along with the destruction of Nord Streams 1 and 2 (Oltermann, 2023). Even Putin proclaiming if price caps on oil and gas were introduced then 'We will not supply gas, oil, coal, heating oil—we will not supply anything' (Reuters, 2022). In short, Russia threatened European sovereignty by using energy as a weapon.

Nonetheless, interdependency is dependency for both sides—even with asymmetrical power relations (Keohane & Nye, 1989, p. xi). From this perspective and the case of the EU and Russia, asymmetrical power can emerge on both sides. In response to Russia's 2022 invasion of Ukraine, the EU utilised its institutionalist position to deploy its energy weapon. The imposition of price caps and embargoes on gas, oil and oil derivatives worked to limit Russia's involvement in the EU's energy market (DW, 2022; European Council, 2023b). This also directly affected the sovereignty of Russia by seeking to deprive them of oil and gas revenue. Utilising the institutions of the EU and its regulatory power, the EU fought back and sought to inflict monetary pain on Russia. These actions describe what it means to 'weaponise' energy, both sides utilised their interdependency and dependency to exert pressure and attempt to extract concessions based on their mutual dependency.

While the territorial integrity of the EU, Member States and Russia was not directly threatened; the dual actions did threaten the 'interdependence sovereignty' that Graf outlines from the 1970s oil crisis (Graf, 2014, p. 45). In this case, Russia utilised a realist framing of geopolitics to leverage the interdependence built since the 1970s to keep Europe from materially supporting Ukraine. The threats and actions impinged on the energy sovereignty of Europe. Both supply shortages and interruptions managed to damage the European economy and threaten the legitimacy of governments.

3.5 | Conclusion: From interdependency to dependency

After Russia invaded Ukraine, the EU and national governments stepped into energy markets to control and influence within a reasonable band the affordability and availability of energy supplies—both within Europe and globally (Pototschnig, Glachant, Meeus, & Conti, 2022; Pototschnig, Glachant, Meeus, & Rancl, 2022). Within Europe, the supply crisis exceeded the expected security of supply parameters designed by the EU and ACER, forcing the EU Commission to find a relief valve (Pototschnig, Glachant, Meeus, & Conti, 2022; Pototschnig, Glachant, Meeus, & Rancl, 2022). The EU and Western allies utilised an institutionalist approach towards market operations to reduce demand and Russia's oil and gas revenue. Thereby attacking Russia's energy sovereignty—its right to sell—and creating greater threats of supply disruptions for Russia (Reuters, 2022). For both sides, interdependence turned to dependence. Sovereignty on both sides was breached when supply and demand were weaponised.

4 | DISCUSSION: THE RETURN OF THE ENERGY WEAPON

There is a presumption that there is 'only one oil market' where 'secession is not an option' (Yergin, 2006, p. 76). It turns out that interdependence developed to prevent a 1970s oil crisis contains a trigger mechanism: attempting to secede from fossil fuel trade results in a mutual economic crisis. Because Europe and Russia were interdependent, they used their mutual gas dependency as an economic and political weapon. Russia, by shorting supplies, placed Europe in a vulnerable economic position and threatened its political legitimacy. In return, by imposing sanctions and price caps on Russian oil and gas, the EU and allies utilised their institutions and regulatory tools to reduce revenues and damage the petrostate's finances. Both actions struck the heart of each other's energy sovereignty. Using the energy weapon ended the era of European-Russian interdependency and

exposed the underlining dependency on resources and revenue.

This historical reflection on the 1970s and the subsequent institutional development to prevent another 1970s weaponisation of oil is important to assess. Keohane and Nye (1989) power and interdependence framing reflects a broader economic paradigm of neoliberalism and institutionalism in energy (Goldthau & Sitter, 2015a; Overland, 2017; Stigler, 1971), technological and market developments (Stevens, 1995), shifting energy security alliances (Bouzarovski et al., 2015; Bradshaw & Connolly, 2016; Gustafson, 2020; Sampson, 1975) and the emergence of energy as an important component of state sovereignty (Graf, 2014). The utilisation of oil as a weapon combined with energy statecraft (Högselius, 2018) in an era of neoliberal economic reforms (Stigler, 1971) built a structure of interdependence to prevent another energy crisis (Keohane & Nye, 1989).

The comparison between the 1970s and the 2020s demonstrates changes and the crisis in energy security has not happened overnight. Violations of sovereignty emerge outside the energy sector, upending established interdependencies within. The global and regional networks of energy resources are quickly weaponised (Farrell & Newman, 2019), affecting domestic energy consumers and producers. The resulting energy crisis emerges because of the political intent to inflict economic harm (Clingendael International Energy Programme, 2004, p. 36), with the potential to destabilise society through higher energy prices. The following sections tie together the events and lessons of the 1970s oil crisis with the 2020s European energy crisis.

4.1 | Components of the energy weapon

The path out of the energy and economic crisis of the 1970s was global market integration with oil fueling economic growth and neoliberalism creating interdependencies. The strategy was based on energy interdependence, which from a security point of view, 'means mutual dependence' (Keohane & Nye, 1989, p. 8). The global success of energy interdependence is displayed by the harmony of energy prices in different national price indices (Gros & Shamsfakhr, 2022). The world changed when prices diverged—indicating once again that the political actions in the market led to the destabilisation of markets (Barsky & Kilian, 2004). Four lessons emerge that contrast the interdependencies in oil markets with the failure of supply security in the EU's gas market. These are based on the four components of the energy weapon: (1) interdependence, (2) energy security, (3) neoliberal economics and (4) sovereignty.

The first lesson requires determining the limits to energy interdependence and dependence. By asking

the question, what is the capacity or willingness of another state to coerce and blackmail another state? The idea that engaging in trade prevents shooting at each other (Bösch, 2014, 167) was the backbone of the neoliberal economic philosophy of globalisation. From the history of the collapse of the Soviet Union to the expansion of the EU to Eastern Europe, energy trade led the way to broader political and economic reforms and created the system of interdependencies (Balmaceda, 2021; Gustafson, 1989, 2020; Högselius, 2013; Kedzierski, 2022). But the historical interpretation is shifting power between actors (seven sisters to OPEC) within the energy interdependence framing fostered the 1973 oil crisis. The Arab backlash against the seven sisters and Western support for Israel provoked Middle Eastern countries to use their military and oil for a common goal. Likewise, Russia sought to utilise its military and energy supplies to claim and hold Ukrainian territory. Caution should be expressed about the view that economic trade can prevent a conflict—even with significant interdependence.

The second lesson is institutions and markets cannot deliver energy security outside their design parameters. The European Union built an internally competitive energy market utilising a liberal economic model while attempting to exert realist pressure on Russia (Goldthau & Sitter, 2015b; Overland, 2017). However, there was a failure to induce new gas supply routes via pipelines with non-Russian sources or forcefully switching away from gas (Mišić, 2022, p. 4; Van de Graaf & Colgan, 2017, p. 94). The European gas market could not be designed like the global oil market.

The third lesson is that energy security requires addressing the entire value chain. A robust systemic design is required beyond short-term crisis intervention from political and economic actors. This is highlighted in the long-term impact of the Carter Doctrine (Krane & Medlock, 2018), protecting global oil supplies in the Persian Gulf. Disruptions with Russia raise the awareness of intermediaries and territoriality of energy supplies and the threat from those extracting rents along the chain (Balmaceda, 2014, 2021). The rise in electricity and gas prices was unexpected and unprecedented from a market and regulatory point of view. This required consumer protection and assistance (Pototschnig, Glachant, Meeus, & Conti, 2022; Pototschnig, Glachant, Meeus, & Rancl, 2022). Likewise, as Stigler points out, the lead-up to the 1970s oil crisis was the assumption of a stable market because the oil industry—the seven sisters—was given *carte blanche* through regulatory capture (Stigler, 1971). Nonetheless, the later shortages were caused by both a tight global oil market and the exploitation of this by Arab OPEC countries exposing the actual vulnerability of the oil supply chain.

The fourth lesson is that energy is a weapon that threatens state sovereignty. This is the most significant

finding. The Carter Doctrine is an example of steps a country will take to protect its sovereignty in energy. More recently, no country has had its sovereignty violated as much as Ukraine. Russia's war places Ukraine's statehood in jeopardy. In 2021, Russia's frequent interruptions of gas supplies were orchestrated events used to build price pressure by utilizing the EU market design to inflict economic damage. Since 2021, the increasing energy prices and inflation are partially attributable to supply constraints from both market positions and direct consequences of supply restrictions (Gros & Shamsfakhr, 2022). This echoes the use of oil supplies as an economic weapon against the Western economies in the Arab oil embargo of 1973 (Sampson, 1975), setting off a decline in economic activity and a scramble for additional oil stocks—regardless of the fall in demand (Stevens, 1995, p. 863).

In both cases, the energy crises broached the 'domestic sovereignty' of liberal democracies (Graf, 2014). There was a direct impact on economic activities and household budgets and forced unconventional and unforeseen restrictions on energy use. State institutions and politicians faced an externally created crisis that targeted their technical competence and political legitimacy. The energy sovereignty of states, both up and downstream—with the right to sell and buy—was violated. For the EU and Russia, each end of the energy 'stick' (supply and demand) was utilised to inflict economic and political pain.

5 | CONCLUSION: THE POWER TO CHANGE

There is a black-and-white perspective on the relationship between Europe and Russia around the gas trade: Either gas is hostage to the geopolitics of Russia and Europe, or gas is a business tied to economics and the regulatory regime (Gustafson, 2020, p. 9). Since the outbreak of this energy war, both sides have utilised their respective strategies to punish and set up their future course of business. Echoing previous authors, Russia's 2022 invasion of Ukraine was not an 'energy war' (Van de Graaf & Colgan, 2017), but neither was the Yom Kippur War of 1973. Nonetheless, in both cases, there were catastrophic consequences for energy consumers creating shortages and unforeseen price hikes leading to damaging inflation. Bridging Gustafson's history of gas in Europe, as either a hostage or a commodity (Gustafson, 2020, p. 9) and Bösch's summary of trade bringing peace between the Soviet Union and West—energy is a multidimensional resource that reflects broader ties within the political-economic system of international relations.

The Russian pillar of stability and security provided to Europe is now the source of instability and insecurity. The EU, the United States and other Western allies are

transforming the global energy system again. For example, the United States' Inflation Reduction Act aims to shift the energy system away from fossil fuels. After Russia invaded Ukraine, the EU's RePower plan (European Commission, 2022) was launched by speeding up the previous Fit for 55 policy package with 2030 goals. The revised, more ambitious plan explicitly intends to 'make Europe independent from Russian fossil fuels well before 2030, in light of Russia's invasion of Ukraine' (European Commission, 2022). The new form will be more like the 'energy trinity' emphasizing energy security, sustainability and sovereignty (Thaler & Hofmann, 2022).

Energy interdependence will need to find a new footing between friend and foe in a carbon-constrained world where alternative technologies offer new opportunities for international relations (Buschle & Westphal, 2019; Paltsev, 2016). Putin's threat to create 'catastrophic consequences on the global energy market' (Sheppard & Polina, 2022) brought back energy as a weapon of war. Russia fell into the same trap as the Arab countries in the 1970s, believing that constraining supplies would enable their militarised aims to succeed. Secession from fossil fuels enables a new energy security paradigm reliant on new interdependencies with those committed to affordable and sustainable energy production (Scholten et al., 2020; Sovacool et al., 2023; Thaler & Hofmann, 2022). This paradigm delivers the power to change rather than the power to dominate.

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DATA AVAILABILITY STATEMENT

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ORCID

Michael Carnegie LaBelle  <https://orcid.org/0000-0002-5013-1186>

REFERENCES

- Andersen, S.S., Goldthau, A. & Sitter, N. (Eds.). (2017) *Energy union Europe's new Liberal mercantilism?* London: Palgrave Macmillan UK. Available from: <https://doi.org/10.1057/978-1-137-59104-3>
- Andersen, S.S. & Sitter, N. (2015) Managing heterogeneity in the EU: using gas market liberalisation to explore the changing mechanisms of intergovernmental governance. *Journal of European Integration*, 37(3), 1–16. Available from: <https://doi.org/10.1080/07036337.2014.953947>

- Balmaceda, M.M. (2014) *Living the high life in Minsk: Russian energy rents, domestic populism and Belarus' impending crisis*. Budapest; New York: Central European University Press.
- Balmaceda, M.M. (2021) *Russian energy chains: the remaking of Technopolitics from Siberia to Ukraine to the European Union*. New York: Columbia University Press.
- Barsky, R.B. & Kilian, L. (2004) Oil and the macroeconomy since the 1970s. *Journal of Economic Perspectives*, 18, 115–134. Available from: <https://doi.org/10.1257/0895330042632708>
- Baumeister, C. & Kilian, L. (2016) Forty years of oil Price fluctuations: why the Price of oil may still surprise us. *Journal of Economic Perspectives*, 30, 139–160. Available from: <https://doi.org/10.1257/jep.30.1.139>
- Bazilian, M. & Roques, F. (2009) *Analytical methods for energy diversity and security: portfolio optimization in the energy sector: a tribute to the work of Dr. Shimon Awerbuch*: Elsevier.
- Bösch, F. (2014) Energiediplomatie. Westdeutschland, die Sowjetunion und die Ölkrisen der 1970er Jahre Energy diplomacy: West Germany, the Soviet Union and the oil crises of the 1970s. *Historical Social Research/Historische Sozialforschung*, 39(4), 165–185. Available from: <https://doi.org/10.12759/HSR.39.2014.4.165-185>
- Bouzarovski, S., Bradshaw, M. & Wochnik, A. (2015) Making territory through infrastructure: the governance of natural gas transit in Europe. *Geoforum*, 64, 217–228. Available from: <https://doi.org/10.1016/j.geoforum.2015.06.022>
- Bradshaw, M. & Connolly, R. (2016) Barrels and bullets: the geostrategic significance of Russia's oil and gas exports. *Bulletin of the Atomic Scientists*, 72, 156–164. Available from: <https://doi.org/10.1080/00963402.2016.1170372>
- Bradshaw, M., Van de Graaf, T. & Connolly, R. (2019) Preparing for the new oil order? Saudi Arabia and Russia. *Energy Strategy Reviews*, 26, 1–12. Available from: <https://doi.org/10.1016/j.esr.2019.100374>
- Buschle, D. & Westphal, K. (2019) A challenge to governance in the EU: Decarbonization and energy security. *European Energy & Climate Journal*, 8, 53–64. Available from: <https://doi.org/10.4337/eecj.2019.03-04.04>
- Casier, T. (2011) The rise of energy to the top of the EU-Russia agenda: from interdependence to dependence? *Geopolitics*, 16, 536–552. Available from: <https://doi.org/10.1080/14650045.2011.520862>
- Cherp, A. & Jewell, J. (2011) The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration. *Current Opinion in Environmental Sustainability*, 3, 202–212. Available from: <https://doi.org/10.1016/j.cosust.2011.07.001>
- Cherp, A. & Jewell, J. (2014) The concept of energy security: beyond the four As. *Energy Policy*, 75, 415–421. Available from: <https://doi.org/10.1016/j.enpol.2014.09.005>
- Cherp, A., Jewell, J. & Goldthau, A. (2011) Governing global energy: systems, transitions, complexity: governing global energy. *Global Policy*, 2, 75–88. Available from: <https://doi.org/10.1111/j.1758-5899.2010.00059.x>
- Clingendael International Energy Programme. (2004) Study on Energy Supply Security and Geopolitics 281.
- Dalby, S. (2018) Firepower: geopolitical cultures in the Anthropocene. *Geopolitics*, 23, 718–742. Available from: <https://doi.org/10.1080/14650045.2017.1344835>
- de Gindos, L. (2022) *The euro area economy and the energy transition*.
- DW. (2022) *EU agrees to gas price cap* [WWW Document]. dw.com. Available from: <https://www.dw.com/en/eu-agrees-to-gas-price-cap/a-64154256> [accessed 14th April 23]
- Eberlein, B. & Grande, E. (2005) Beyond delegation: transnational regulatory regimes and the EU regulatory state. *Journal of European Public Policy*, 12, 89–112.
- Eikeland, P.O. (2011) The third internal energy market package: new power relations among member states, EU institutions and non-state actors? *JCMS: Journal of Common Market Studies*, 49, 243–263.
- Energy Information Administration. (2022) What drives crude oil prices? An analysis of 7 factors that influence oil markets, with chart data updated monthly and quarterly [WWW document]. *What Drives Crude Oil Prices: Overview*, 1–23. Available from: https://www.eia.gov/finance/markets/crudeoil/reports_presentations/crude.pdf [accessed 11th August 22]
- European Commission. (2009) *Third energy package* [WWW Document]. Available from: https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/third-energy-package_en [accessed 15th May 23]
- European Commission. (2022) *REPowerEU: affordable, secure and sustainable energy for Europe* [WWW Document]. Available from: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/repower-eu-affordable-secure-and-sustainable-energy-europe_en [accessed 10th August 22]
- European Council. (2023a) *EU sanctions against Russia explained* [WWW Document]. Available from: <https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/sanctions-against-russia-explained/> [accessed 16th April 23]
- European Council. (2023b) *EU agrees on level of price caps for Russian petroleum products* [WWW Document]. Available from: <https://www.consilium.europa.eu/en/press/press-releases/2023/02/04/eu-agrees-on-level-of-price-caps-for-russian-petroleum-products/> [accessed 16th April 23]
- European Parliament. (n.d.) *Report on Prospect for the internal gas and electricity market* [WWW Document]. Available from: http://www.europarl.europa.eu/meetdocs/2004_2009/documents/pr/659/659924/659924en.pdf [accessed 6th February 08]
- Eurostat. (2022) *EU energy mix and import dependency* [WWW Document]. Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_energy_mix_and_import_dependency [accessed 13th August 22]
- Eurostat. (2023a) *Crude oil imports and prices: changes in 2022* [WWW Document]. Available from: <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/DDN-20230328-1> [accessed 9th May 23]
- Eurostat. (2023b) *EU trade with Russia continues to decline – Products Eurostat News – Eurostat* [WWW Document]. Available from: <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20230303-1> [accessed 9th May 23]
- Farrell, H. & Newman, A.L. (2019) Weaponized interdependence: how global economic networks shape state coercion. *International Security*, 44, 42–79. Available from: https://doi.org/10.1162/isec_a_00351
- Franza, L. & Van Der Linde, C. (2017) Geopolitics and the foreign policy dimension of EU energy security. In: Andersen, S.S., Goldthau, A. & Sitter, N. (Eds.) *Energy Union*. London: Palgrave Macmillan UK, pp. 85–98. Available from: https://doi.org/10.1057/978-1-137-59104-3_5
- Gaidar, Y. (2007) *Collapse of an empire: lessons for modern Russia by Yegor Gaidar*, 1st edition. Washington: Brookings Institution Press.
- Goldthau, A. & Sitter, N. (2015a) Soft power with a hard edge: EU policy tools and energy security. *Review of International Political Economy*, 22(5), 1–25. Available from: <https://doi.org/10.1080/09692290.2015.1008547>
- Goldthau, A. & Sitter, N. (2015b) *A Liberal actor in a realist world: the European Union regulatory state and the global political economy of energy*. New York, NY: OUP Oxford.

- Goldthau, A. & Sitter, N. (2020) Power, authority and security: the EU's Russian gas dilemma. *Journal of European Integration*, 42, 111–127. Available from: <https://doi.org/10.1080/07036337.2019.1708341>
- Graf, R. (2014) Souveränitätsbehauptungen in der Ölkrise. "Project Independence" und globale Interdependenz in den USA 1973/74 | Claiming Sovereignty in the Oil Crisis "Project Independence" and Global Interdependence in the United States, 1973/74. *Historical social research/Historische Sozialforschung*, 39(4), 43–69. Available from: <https://doi.org/10.12759/HSR.39.2014.4.43-69>
- Graf, R. (2018) *Oil and sovereignty: petro-knowledge and energy policy in the United States and Western Europe in the 1970s*, 1st edition. Oxford & New York: Berghahn Books. Available from: <https://doi.org/10.2307/j.ctvw04b9p>
- Grigas, A. (2017) *The new geopolitics of natural gas*. Cambridge, MA: Harvard University Press. Available from: <http://www.hup.harvard.edu/catalog.php?isbn=9780674971837> [accessed 7th September 22]
- Gros, D. & Shamsfakhr, F. (2022) Global energy price inflation with a European twist. *Monetary Dialogue Papers*.
- Gustafson, T. (1989) *Crisis amid plenty: the politics of soviet energy under Brezhnev and Gorbachev. A Rand Corporation research study*. Princeton, N.J: Princeton University Press.
- Gustafson, T. (2020) *The bridge: natural gas in a Redivided Europe*. Cambridge, MA: Harvard University Press.
- Hancher, L., Talus, K. & Wüstenberg, M. (2021) Retrospective application of legal rules in the European Union: recent practice in the energy sector. *Journal of Energy & Natural Resources law*, 39, 65–81. Available from: <https://doi.org/10.1080/02646811.2020.1804712>
- Harvey, D. (2005) *A brief history of neoliberalism*. Oxford: Oxford University Press.
- Högselius, P. (2013) *Red gas: Russia and the origins of European energy dependence*, 1st edition. Palgrave Macmillan transnational history series. New York: Palgrave Macmillan.
- Högselius, P. (2018) *Energy and geopolitics*, 1st edition. London: Routledge. Available from: <https://doi.org/10.4324/9781315177403>
- Jonsson, D.K., Johansson, B., Månsson, A., Nilsson, L.J., Nilsson, M. & Sonnsjö, H. (2015) Energy security matters in the EU energy roadmap. *Energy Strategy Reviews*, 6, 48–56. Available from: <https://doi.org/10.1016/j.esr.2015.03.002>
- Kedzierski, M. (2022) A dangerous dependence on Russia. Germany and the gas crisis [WWW Document]. *OSW Centre for Eastern Studies*. Available from: <https://www.osw.waw.pl/en/publikacje/osw-commentary/2022-02-23/a-dangerous-dependence-russia-germany-and-gas-crisis> [accessed 13th August 22]
- Keohane, R.O. & Nye, J.S. (1989) *Power and interdependence*, second edition. New York: Longman.
- Kissinger, H.A. (2009) *The future role of the IEA*.
- Krane, J. & Medlock, K.B. (2018) Geopolitical dimensions of US oil security. *Energy Policy*, 114, 558–565. Available from: <https://doi.org/10.1016/j.enpol.2017.12.050>
- LaBelle, M. (2009) Expanding opportunities: strategic buying of utilities in new EU member states. *Energy Policy*, 37, 4672–4678. Available from: <https://doi.org/10.1016/j.enpol.2009.06.022>
- LaBelle, M. (2017) Regulating for consumers? The agency for cooperation of energy regulators. In: Andersen, S.S., Goldthau, A. & Sitter, N. (Eds.) *Energy union – Europe's new Liberal mercantilism?* London: Palgrave Macmillan, p. 253.
- LaBelle, M. (2020) *Energy cultures: technology, justice, and geopolitics in Eastern Europe*. Cheltenham, UK: Edward Elgar Publishing.
- LaBelle, M. (2022) *Breaks in the wall: history of east-west energy relations – frank Bösch*. Available from: <http://myenergy2050.com/breaks-in-the-wall-history-of-east-west-energy-relations-frank-bosch-ep-64> [accessed 11th November 22]
- Levi-Faur, D. (2011) Regulatory networks and regulatory agencification: towards a single European regulatory space. *Journal of European Public Policy*, 18, 810–829. Available from: <https://doi.org/10.1080/13501763.2011.593309>
- Maggetti, M. (2009) The role of independent regulatory agencies in policy-making: a comparative analysis. *Journal of European Public Policy*, 16, 450–470. Available from: <https://doi.org/10.1080/13501760802662854>
- Mišík, M. (2022) The EU needs to improve its external energy security. *Energy Policy*, 165, 112930. Available from: <https://doi.org/10.1016/j.enpol.2022.112930>
- Noguera, J. (2017) The seven sisters versus OPEC: solving the mystery of the petroleum market structure. *Energy Economics*, 64, 298–305. Available from: <https://doi.org/10.1016/j.eneco.2017.03.024>
- Nye, J.S., Jr. (2004) *Soft power: the means to success in world politics*. New York: Public Affairs.
- Oltermann, P. (2023) State actor still main suspect behind Nord stream sabotage, says investigator [WWW document]. *The Guardian*. Available from: <https://www.theguardian.com/world/2023/apr/06/nord-stream-sabotage-pipeline-blasts> [accessed 16th April 23]
- Orban, A. (2008) *Power, energy, and the new Russian imperialism, PSI reports*. Westport, Conn.: Praeger security international.
- Ostrowski, W. (2022) The twenty Years' crisis of European energy security: central and Eastern Europe and the US. *Geopolitics*, 27, 875–897. Available from: <https://doi.org/10.1080/1465045.2020.1835863>
- Overland, I. (2017) The hunter becomes the hunted: Gazprom encounters EU regulation. In: Andersen, S.S., Goldthau, A. & Sitter, N. (Eds.) *Energy Union*. London: Palgrave Macmillan UK, pp. 115–130. Available from: https://doi.org/10.1057/978-1-137-59104-3_7
- Paltsev, S. (2016) The complicated geopolitics of renewable energy. *Bulletin of the Atomic Scientists*, 72, 390–395. Available from: <https://doi.org/10.1080/00963402.2016.1240476>
- Pirani, S., Stern, J. & Yafimava, K. (2009) *The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment*.
- Plante, M.D. & Patel, K. (2019) Breakeven oil prices underscore Shale's impact on the market – Dallasfed.org [WWW document]. *Federal Reserve Bank of Dallas*. Available from: <https://www.dallasfed.org/research/economics/2019/0521> [accessed 8th June 20]
- Pototschnig, A., Glachant, J.-M., Meeus, L. & Conti, I. (2022) Consumer protection mechanisms during the current and future periods of high and volatile energy prices. *Florence School of Regulation, Robert Schuman Centre, Policy Brief*, 2022(20), 1–7. <https://doi.org/10.2870/920931>
- Pototschnig, A., Glachant, J.-M., Meeus, L. & Rancl, P. (2022) Recent energy price dynamics and market enhancements for the future energy transition. *Florence School of Regulation, Robert Schuman Centre, Policy Brief*, 2022(5), 1–12. <https://doi.org/10.2870/920931>
- Reuters. (2022) *Putin says Russia to stop supplying energy if Western price caps imposed*. Reuters. Available from: <https://www.reuters.com/business/energy/putin-blames-germany-west-nord-stream-1-shutdown-2022-09-07/> [accessed 7th September 22]
- Sampson, A. (1975) *The seven sisters: the great oil companies and the world they shaped*. New York: Viking Press.
- Scholten, D., Bazilian, M., Overland, I. & Westphal, K. (2020) The geopolitics of renewables: new board, new game. *Energy Policy*, 138, 111059. Available from: <https://doi.org/10.1016/j.enpol.2019.111059>
- Sheppard, D. & Polina, I. (2022) Putin warns of 'catastrophic' energy crisis if west boosts sanctions [WWW document]. *Financial Times*.

- Available from: <https://www.ft.com/content/45210531-0fc6-48e3-82d2-aece0d02a675> [accessed 7th September 22]
- Sovacool, B.K., Baum, C. & Low, S. (2023) The next climate war? Statecraft, security, and weaponization in the geopolitics of a low-carbon future. *Energy Strategy Reviews*, 45, 101031. Available from: <https://doi.org/10.1016/j.esr.2022.101031>
- Sovacool, B.K. & Saunders, H. (2014) Competing policy packages and the complexity of energy security. *Energy*, 67, 641–651. Available from: <https://doi.org/10.1016/j.energy.2014.01.039>
- Stevens, P. (1995) The determination of oil prices 1945–1995. *Energy Policy*, 23, 861–870. Available from: [https://doi.org/10.1016/0301-4215\(95\)00092-W](https://doi.org/10.1016/0301-4215(95)00092-W)
- Stevens, P. (2005) Oil Markets. *Oxford Review of Economic Policy*, 21, 19–42.
- Stigler, G. (1971) The theory of economic regulation. *The Bell Journal of Economics and Management Science*, 2, 3–21.
- Szulecki, K. (2018a) The multiple faces of energy security: an introduction. In: Szulecki, K. (Ed.) *Energy security in Europe: divergent perceptions and policy challenges, energy, climate and the environment*. Cham: Springer International Publishing, pp. 1–29. Available from: https://doi.org/10.1007/978-3-319-64964-1_1
- Szulecki, K. (Ed.). (2018b) *Energy security in Europe*. Cham: Springer International Publishing. Available from: <https://doi.org/10.1007/978-3-319-64964-1>
- Thaler, P. & Hofmann, B. (2022) The impossible energy trinity: energy security, sustainability, and sovereignty in cross-border electricity systems. *Political Geography*, 94, 102579. Available from: <https://doi.org/10.1016/j.polgeo.2021.102579>
- The International Centre for Democratic Transition. (2009) *An open letter to the obama administration from central and Eastern Europe*.
- Van de Graaf, T. & Colgan, J.D. (2017) Russian gas games or well-oiled conflict? Energy security and the 2014 Ukraine crisis. *Energy Research & Social Science*, 24, 59–64. Available from: <https://doi.org/10.1016/j.erss.2016.12.018>
- Vinois, J.-A. & Bros, T. (2021) *High energy prices: Russia fights back?*
- Yergin, D. (2006) Ensuring energy security. *Foreign Affairs*, 85, 69. Available from: <https://doi.org/10.2307/20031912>
- Yergin, D. (2011) *The quest: energy, security, and the remaking of the modern world*. London: Penguin.

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