Books & arts

Why pipelines persist amid geopolitical turmoil

In a new book, Thane Gustafson analyses the Russia–Europe gas trade. **By Andrew Moravcsik**

ALEXANDER NEMENOV/AFP/GETTY

Many people imagine that geopolitics drives the energy trade between Russia and Europe. As the story goes, each side seeks to exploit gas and oil to influence the other in the big game of power politics – and Russia seems to have the upper hand. The European Union now imports nearly 40% of its natural gas from Russia. For decades, national-security specialists have recommended that Europeans reduce their dependence on these imports at any cost. Most recently, a fierce debate over Nord Stream 2 – a second Russian pipeline across the Baltic Sea to Germany – has led US congresspeople to threaten sanctions.

Political scientist Thane Gustafson challenges this view in *The Bridge*. He argues that the trade in gas reflects slow-moving patterns of market demand and supply, which in turn stem from incremental changes in technology for pumping, piping and consuming fuel. The result is a pattern of remarkably stable economic interdependence that seems impervious to the geopolitical environment.

As extraction and pipeline technology opened up Soviet gas fields in the 1960s, and the ongoing postwar reconstruction of Europe stoked demand, East–West gas trade became all but inevitable. Ever since, Russia has wanted to supply gas and Europe has wanted to buy it. The past 50 years have seen energy shocks and gluts; major political crises from Poland to the former Yugoslavia; the fall of the Soviet Union and rise of Russian President Vladimir Putin's authoritarian state; outright warfare in Ukraine and elsewhere; massive experiments in deregulation; and the rise of environmentalism. Yet relations between Europe and Russia in the natural-gas sector have remained nearly constant. This is because change is slow in three factors: proven reserves of gas, aggregate demand for energy and investment in physical infrastructure to link the two.

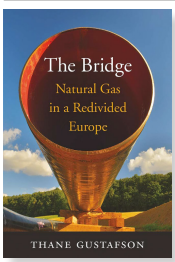
The Bridge is an overview rather than a work of original research. Yet it offers a readable, intelligent, even-handed historical interpretation of this modern economic relationship. It divides East–West natural-gas relations neatly into three distinct periods.

The first begins around 1960, with the spread of transport and use of natural gas in Europe, originally limited to small local networks in Italy and the Netherlands. Backed by US expertise, Europeans began to consider long-distance gas pipelines from Siberia, and made Western industrial equipment, investment and technical know-how available to the Soviet Union. The rigidity of the Communist system meant that production took almost a decade to come online. Eventually, the gas arrived, at first flowing through a terminal in Austria.

The second period begins after 1970, when the quantity of Russian natural gas entering Europe increased. European consumption expanded quickly; gas proved cheaper and environmentally cleaner than coal or oil. Other countries, notably undersea-gas producers Norway and Britain, also created highly centralized systems for exploiting and piping the fuel. Yet the vast, low-cost Russian reserves enjoyed a comparative advantage, rising to provide almost half of consumption in European countries, prominent among them Germany and Italy.

This period, Gustafson argues, demonstrates the exceptionally stable nature of this type of international economic cooperation. Pipelines take decades to build, then tend to operate for decades more, often governed by just one or two long-term contracts. The physical, tangible linkage between producer and consumer "automatically creates a mutual dependence", he writes. Moreover, because pipelines are centralized, they encourage domination of the market by monopolies – in the 1970s, these consisted of the Soviet Ministry of the Gas Industry, and European national or regional utilities. Natural gas, or anything else that travels through a fixed infrastructure, becomes a "relationship commodity": investments, personal contacts and market shares follow the technology.

This, Gustafson avers, is why the East–West gas trade has remained impervious to geopolitical disruption. In 1968, shortly after the Soviet invasion of Czechoslovakia, Austria accepted the first Russian gas shipments into Europe. In 1981, when the pro-democracy Solidarity movement in Poland led to the Soviet-backed imposition of martial law, the US administration under president Ronald Reagan imposed sanctions on exports of pipeline technology. It could afford to do this because it was largely uninvolved in the



The Bridge: Natural Gas in a Redivided Europe
Thane Gustafson
Harvard Univ. Press (2020)

Russian natural-gas pipelines in northwestern Siberia.

East–West energy trade.

Yet behind the scenes of these political upheavals, the real stakeholders acted differently. The Soviet Union developed homegrown alternative compressor and pipe technology — crucial for transporting gas — and Europe continued to sell technology that the Soviets could not produce at home.

The third period began around 1990. Geopolitics grew more unruly. The Soviet Union collapsed in 1991. The gas ministry was turned into the massive state-owned corporation Gazprom, which was then largely privatized. Putin, who became president in 2000, brought Gazprom back under near-total state control. Russia also provoked a series of interventions and conflicts in Georgia, Moldova, Syria and Ukraine. The West responded by imposing sanctions — limits on investment and exports in sensitive military and civilian technologies, and even on energy investment. Russia's countersanctions largely targeted Western agricultural exports. More recently, Russia has become involved in the disruption of elections in the West, and in cyberwarfare. Yet gas quietly continues to flow through the East–West pipeline.

Much of the book's analysis of the most recent period focuses on another potentially disruptive change: new EU regulations. Gustafson makes much of the fact that, 30 years ago, the European Commission began pressing to open up the European energy market to greater competition. Directives render prices more transparent and uniform, and compel firms to supply gas across borders. At the same time, the commission is acting more forcefully to limit monopolies and cartels, and domestic deregulation has led to the rise of new corporate players.

Overall, this concerted EU policy has further strengthened Europe's hand. Russia cannot use embargoes or market segmentation to exploit individual countries. And Gazprom — which still has a near-monopoly on Russian exports, even though it is losing domestic market share — cannot acquire dominant positions in Europe. This is a significant development — and, from a Western perspective, a positive one.

Yet it is difficult to discern how EU policies have altered Russia's gas trade with Europe in any fundamental way. Exporting and importing nations alike have found ways to maintain overall control of their markets. If anything, Gustafson's analysis would seem to show that the primary impact of EU consolidation has been to insulate a mutually beneficial economic status quo from disruption.

Gustafson ends by considering long-term threats, which he introduces only to dismiss. For 20 years, conflict with Ukraine — first over energy pricing, then over politics — has led Russia to propose new pipelines that geographically circumvent its neighbour. Many worry that new lines, such as Nord Stream 2, might cut Ukraine out entirely. Yet Gustafson remains confident that if this occurs, Kiev, already transitioning away from Russian natural gas, will find new suppliers.

> **"Russia has become involved in the disruption of elections in the West, yet gas quietly continues to flow."**

Another threat comes from new technological options for transporting fuel as liquid natural gas, a more fungible form that would permit US imports to Europe. This might create an alternative to stable pipeline politics, although the transition would be slow because of the higher cost of the technology. Also, environmental-protection and climate-change concerns will continue to rise, reducing European demand in the long term. Yet, in the interim, natural gas will remain abundantly available, relatively inexpensive and still environmentally superior to oil or coal power.

Gustafson's overall conclusion is thus that Russian gas is likely to remain Europe's major energy bridge to a future world of renewables. He even sees the next few decades as a "golden age of gas". This is a soberly optimistic conclusion, not least because it suggests that commercial interests will induce modern countries to transcend ideological and geopolitical differences.

Andrew Moravcsik is professor of politics and international affairs, and director of the EU Program, at Princeton University in New Jersey.
e-mail: amoravcs@princeton.edu

Correction

Why pipelines persist amid geopolitical turmoil

This article (*Nature* **575**, 30–31; 2019) incorrectly stated that natural gas is environmentally superior to nuclear power.

See https://doi.org/10.1038/d41586-019-03694-y