

Concepts of Geopolitics and Energy Security

By Ole Gunnar Austvik

Geopolitics is the study of how geography affects international relations, power and vulnerabilities. Rudolf Kjellén (1905) first coined the term, and defined it as the studies of the way geographical (and often also historical and social) factors help explain the power and role in international affairs of nation states. In classical formulations, the links and causal relationships between political and physical power over geographic space were emphasized. Halford Mackinder (1904) described much of the 20th century's geopolitical thought, great power strategies, alliances and military events based on geographic and historic factors. Geopolitics was often considered a competitive zero-sum game played by nation states in their pursuit of power and security, and gains from trade and investment relative to other national competitors (Victor, Jaffe & Hayes 2006:4). Geopolitics was a study of the dynamic or evolving political structuration of space. Greater territory and more resources was the win for one and loss for the other. The outset was that geography (or nature) created various types of societies and cultures as their spatial dimensions implied different opportunities and limitations. Often rivers, mountains, forests, lakes and coasts were borders to human societies.

Because geopolitical thinking was used to defend Lebensraum for Nazi-Germany, social scientists and politicians more or less abandoned the concept after WWII, claiming there was no geopolitical science anymore, only geoideologies, such as Nazism and fascism (Haushofer 1924, Bingen 2014). For more decades, borders and the established geopolitical structures were considered permanent sacrosanct. After the break-up of the Soviet Union, the market became more or less the sole mechanism for allocation of economic resources. Francis Fukuyama (1993) even declared the "End of History". Nevertheless, a rebirth of geopolitical studies emerged in the economically and politically interdependent world of the 1990s, and beyond. Now the concept was adjusted to the international economic and political integration that had taken place, and included how political control over a territory influences power and political and economic outcomes through factors, mechanisms and institutions in the international economic and political system (Agnew & Corbridge 1989). Modern geopolitics became concerned with the political discourse among international actors resulting from all factors that determine the political and economic importance of a country's geographic location. "Relative gains matter, but so (also) joint gains from possible cooperation" (Victor, Jaffe & Hayes 2006:5).

As part of geopolitics is geoeconomics and geostrategy. Geoeconomics describes and analyzes the distribution of resources in and between states, focusing on industrial capacity, technologic, scientific and administrative competence and capacity, finance and the flows of trade in space. Geopolitics is very much a geoeconomic phenomenon and vice versa. Any state's control of a given territory is in the end a question of "economic gain" – how to finance the costs and how to gain an optimal share of the values created or transmitted in/on that territory. Geostrategy has mostly been used as a military concept and describes plans for obtaining physical control of certain areas, or the capability to deny others to control them, irrespective of prevailing geopolitical and geoeconomic structures. Together they presuppose intentionality and are thus not natural phenomena.

GEOPOLITICS AND ENERGY

The energy geopolitics of any region must be understood by both the size and location of own and other natural resources, how available they are, who controls them, their cost, alternative transportation routes, how regional and global markets balance, market mechanisms and regulations, political decisions, and prices in general. Furthermore, as national and international policy-making and business is intertwined, the state is not anymore the only actor that shapes political outcomes. The geopolitical role of a country is influenced by the scale and scope of the dependence it represents for other actors (businesses, countries). Resources affect national policy making by acting upon domestic actors, which in turn affect the domestic political system through associations, state structure and ideology and, hence, business-to-business and business-to-government relations, must be included in the analysis (Austvik & Lembo 2017: 663-666)..

Energy and geopolitics have been closely linked in both old and new formulations. Countries have made and make national strategies and geostrategies to meet their energy needs, reach markets and secure national positions and interests. The securitization of energy policy have contributed to shape

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See footnote at end of text.

bilateral, European and global affairs. Historically, the industrial revolution from the mid-1700s was partly a coal and steam revolution, and an economic backdrop for the build-up of the British Empire in the 1700s and 1800s. One important goal for Nazi Germany's expansion eastwards in World War II was to gain control of oil production in Azerbaijan, albeit stopped at Stalingrad. The motivation was both to secure oil for itself, as well as to prevent the Soviets from using it in its motorized forces. America from the 1900s, and especially after WWII, has been based on imported petroleum, largely from the Middle East, heavily influencing both U.S. as well as Arab foreign and security policy over decades. In some cases, for example in the Soviet era and in Saudi Arabia, oil and gas has been emphasized for geopolitical influence.

In recent decades, climate and environmental concerns and the desire for a greener economy has added to the politicization of the energy sector, and created worldwide pressures and policies for improved energy efficiency, more renewable energy, and less dependence on fossil sources. The climate debate has added to the complexity of the energy industry, not least since fossil energy, still representing as much as 87 percent of world energy usage (2016) is the main source of global CO2 emissions. Hence, it should be curbed, renewable energy increased, and energy savings encouraged as an alternative source of energy supply competing with all non-renewable and renewable sources. At the same time, while domestic US shale oil and gas resources are about to change American physical dependency on imported energy, and thereby the scope of the geopolitics of oil for the U.S., Europe remain largely dependent on import. Although the shale "revolution" may spread to Europe and elsewhere, and liquefied natural gas (LNG) will transport natural gas globally, new trade routes based on pipeline transportation that can bring gas resources to European markets continue to be central for EU energy dependency and energy security.

SECURITY-OF-SUPPLY AND SECURITY-OF-DEMAND

Energy security and geopolitics links to security-of-supply for importers, and security-of-demand for exporters. For an energy importing country import dependency has been defined as a situation where it does not possess the capacity to produce 100 per cent of its own needs (Hogan and Mossavar-Rahmani 1987:8). A similar definition for a producing country would be a situation where it does not have domestic customers with the capacity of consuming 100 per cent of its production. According to such definitions most countries are dependent on imports of a whole range of commodities, and on exports of fewer commodities (because countries specialize) to pay for the imports. Dependency on exporting and importing goods and services to and from other countries is the normal state of affairs in a modern society, and a consequence of increased economic integration. The political, or strategic, part of it addresses the possibility of major breakdowns in production or infrastructure, caused by either political or non-political events. The IEA (1995:17) set out two broad categories for risks for energy importing countries:

- "Long term risk that new supplies cannot be brought on stream to meet growing demand for either economic or political reasons;
- Risk of disruptions to existing supplies such as political disruptions, accidents or extreme weather conditions"

Both importing and exporting countries are concerned about changes in prices and availability/market access for a commodity. The character of risks connected to it is a function of the magnitude and duration of change, the country's ability to adjust to it, and the importance of the commodity in the economy. Countries can be somewhere in the continuum between *neutral*, *sensitive* or *vulnerable* in its dependency when prices and availability/market access to a commodity change (Austvik 2016:375).

- *Neutral dependence* can be defined as a situation when a country exports or imports a commodity, and always has an alternative if one of the customers or suppliers disappears. This is a situation very much equivalent to what is assumed in contestable markets; there are numerous suppliers and customers and none of them has any influence on market outcome. If one supplier or customer, respectively, withdraws from a relationship there will always be someone in the market to fill the empty place. In such a situation, there should be no concern over supply or demand security.
- *Sensitivity dependence* is in this context measured by the degree of responsiveness within an existing policy framework. It may reflect the difficulty to change policy within a short time and/or bindings to domestic or international rules, when price or availability /market access change dramatically (Keohane and Nye 1977:12-18).
- *Vulnerability dependence* is more serious and measure the ability to adjust to changes after policies has been changed (ibid).

In economic terms, vulnerability dependence can be represented by the potential for significant losses of output or welfare. Sensitivity dependence, on the other hand, does not need to induce a welfare loss in the long run when circumstances change. An importing country can become more sensitive or vulnerable in a given state of dependency if the commodity originates from one powerful state, as opposed to if it is multilaterally dependent. An exporting country can become more sensitive or vulnerable if it depends only on one market as opposed to many markets in its exports. It is important whether supplying, respectively purchasing, nations are antagonistic or friendly in their relations in addition to the degree of market power they possess.¹ The dependence between sellers and buyers is reciprocal but not necessarily symmetrical, and the balance may change over time.

Vulnerability dependence is primarily concerning long-term supply and demand issues, while sensitivity dependency largely concerns the risk of disruptions to existing supplies. Sensitivity dependence occurs in “the short run or when normative constraints are high and international rules are binding”. A vulnerability dependence occurs when “normative constraints are low, and international rules are not considered binding” (ibid). Thus, a country’s vulnerability dependence can be significantly different from its sensitivity dependence, and potentially much more costly. As dependency on imports and exports is a normal state of economic affairs, government policy should aim at eliminating or reducing (potential) sensitivity and vulnerability dependence, while neutral dependency from this perspective is optimal.

DOMESTIC AND FOREIGN POLICY RESPONSE

The politicization and securitization of energy markets has often to do with imperfect market structures, when sellers and buyers are locked-in with each other. The more imperfect markets are, the more important the behavior of the participants is, being political, regulative or commercial. Social first-best solutions as defined in economics may not be attainable in such markets, and policy choices must be found among several alternative second- or third-best alternatives. Policy response depends on political will and ability, resource capabilities as well as on the rules of conduct embedded in international regimes (e.g. WTO-regulations, EU-law).

The challenge is of both external and domestic political nature. Externally, foreign policy can be an important external instrument for reducing sensitivity and vulnerability dependence, in addition to influencing degrees of market imperfections that may exist. When problems cannot be solved through foreign policy or market reorganization, effects of sharp price changes and/or availability, or market access must be addressed by domestic measures. If a country changes from being inelastic (inflexible) in its demand for imports in both the short and long-term; to inelastic in the short and elastic in the long-term, the country’s dependence on imports may change from vulnerable to sensitive. Domestic and external measures to deal with a problem can consequently (partly) substitute each other, which together create the character of a dependency on others, and whether it should be considered a political problem or not.

In this context, natural gas markets based on pipeline transportation differ from oil and LNG markets by the large and irreversible investments made in natural gas transportation. As free market principles of competition is less relevant especially to infantile market situations, case-by-case political decisions and bilateral relations are important for the realization of the huge projects. The advantages of large-scale operation and vertical integration imply that few companies operate as gas transporters in any immature pipeline based gas market. In these markets, as opposed to in mature and often liberalized markets, large and long-lasting business-to-business, business-to-government and government-to-government contracts and agreements across borders are necessary to build costly production and transport installations with reasonable economic security. Demand and supply are two sides of any market, and over time, there is less security-of-supply when security-of-demand is weak.

Important to notice is that sensitivity or vulnerability dependence on imports and exports, respectively, may occur even if the access to physical markets are not considered commercial or politically “risky.” An exogenous shock in international markets caused, for example, by a war limiting supplies and disrupting pipelines may dramatically change prices also in “secure” markets. This was much the situation following the two oil shocks in the 1970s. In a price shock situation anyone may sell and buy the commodity (unless it comes to a conflict with the country itself involved). The problem is that if prices increase dramatically, parts of demand will switch to other energy sources and push these prices up, as well. Thus, security-of-supply for an energy consuming country is influenced by both the pure physical access to oil or gas, increased economic costs due to a rise in energy prices, as well as the political pressure that can be brought on them by parties controlling supply elsewhere. Making a

market more competitive is a measure to reduce sensitive and/or vulnerable dependency to changes in physical volumes for both exporters and importers, but the price risk may persist and even increase.

Footnote

¹ For example, as an importing country, Ukraine appears to be vulnerable to Russian pressure as they either has to pay a high price for the gas or give political concessions to get a low price. The price of gas was reduced for Ukraine as part of the Kharkov agreement in 2010 to make relations between the two countries more friendly, including the agreement that Russia could use the Sevastopol base on the Crimea for its navy until 2035 (Kremlin.ru 2010). For Russia, as an exporting country, building the Nord Stream pipeline in the Baltic Sea (expanded or not), from Vyborg near St. Petersburg to Greifswald in Germany, is a way to circumvent the transit country Ukraine which has been considered a security-of-demand problem from their side in relation to EU purchasers (Austvik 2009).

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