Geoeconomic Leverage of Natural Gas Resources in the Mediterranean

The Case of Israel

ABSTRACT This article examines the claim that Israel's natural gas exports from its Mediterranean gas fields will give geopolitical leverage to Tel Aviv over the importing countries. Using the geoeconomic tradition of Klaus Knorr and others who wrote about applying leverage using economic resources to gain geopolitical advantage, it is argued that certain criteria have to be satisfied for economic influence attempts, and that Israel's gas exports do not satisfy these criteria. They include the importer's supply vulnerability, the supplier's demand vulnerability, and the salience of energy as an issue between both countries. Israeli gas exports to Egypt are used as a case study. KEYWORDS natural gas, leverage, supply vulnerability, demand vulnerability

INTRODUCTION

Israel's recent natural gas findings in the East Mediterranean have provoked a lot of talk about prospects for Tel Aviv's energy security and perhaps regional influence. Israel, which has historically been energy poor and dependent on energy imports from its neighbors, can now enhance its national security by securing its own domestic energy sources. It is also looking forward to exporting its natural gas to its neighbors in the Middle East, Mediterranean region, and perhaps even Europe. There has been talk that these potential Israeli gas exports can enhance Tel Aviv's geopolitical influence over these gas-importing neighbors.

This may reflect geoeconomics in practice, as it shows how a strategic economic resource (natural gas) can enhance Israel's national security. The term "geoeconomics" is relatively new in international relations, and there is disagreement over its exact definition. A simple, all-encompassing, and loose definition may be "the entanglement of international economic, geopolitics

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and strategy" (Blackwill and Harris 2016, 19; Thirlwell 2010). However, there are other more specific and more complex definitions that will be discussed below.

More importantly, this article sets itself in the tradition of Klaus Knorr (Knorr 1977), who discusses how states use their economic resources to practice leverage or influence over other states. Knorr (1977, 125) defines "leverage" as "one actor using a lever to gain advantage over another actor." Furthermore, he sets a few conditions or criteria for a successful influence attempt using economic power. Without these criteria, he argues, any attempt by a state to use its economic power to influence other states would fail.

Generally, any attempt to use economic resources (whether natural gas, petroleum, or any other economic resource) is not easily destined to succeed. Experts on power, economic leverage, and the geopolitics of energy all agree that each case has its own specific circumstances which determine whether the supplier would succeed or fail at applying influence over the importing country.

Hypothesis 1: One cannot understand the geoeconomics of energy leverage unless one understands the specific political and economic conditions under which states can use their power to advance their strategic interest.

Additionally, this article acknowledges that the new natural gas discoveries will increase Israel's energy security. Nevertheless, it is argued that Israel's natural gas exports will not significantly add to Tel Aviv's political leverage among its neighbors because there is no proof that any attempt by Israel to use its natural gas exports to apply leverage over the importing countries would satisfy the conditions set by Knorr and other experts, as discussed below.

Using the criteria set by Knorr, as well as by other experts who have written about the use of natural gas exports, this article tests the extent of the leverage that Israel is expected to gain out of its gas exports. Based on previous works on similar issues, several criteria will be used to measure the leverage which Tel Aviv would obtain out of Israeli gas exports. Such criteria include: the extent of Israel's dependence on gas exports (i.e., Israel's demand vulnerability), the extent of the importers' dependence on Israeli gas supplies (the importers' supply vulnerability), and the ranking, or importance, of energy in the mutual relations between Israel and the importers. The article concludes that Israel would not actually extract substantial geopolitical leverage out of gas exports because it would not satisfy these criteria. This shows that energy resources, as an economic tool, are not always useful to extract geopolitical gain, and that there are limitations to economic statecraft, where "economic statecraft" can be loosely defined as all the economic means by which the makers of foreign policy might attempt to influence other international actors (Baldwin 1985, 40). Israeli gas exports to Egypt are used as a case study.

Hypothesis 2: Israel's gas exports would not satisfy the criteria for applying economic leverage or influence on the importing countries.

One limitation of this article is that it does not measure the will of the Israeli government to use economic leverage against Egypt. It does not raise questions such as: What situation would make Tel Aviv consider using gas exports as leverage against Cairo? How and to what extent will these gas exports be used? For what target exactly? Such questions are not considered here. Another limitation is that the article does not consider the role of non-government actors, namely the Egyptian and Israeli energy companies involved in the exchange of natural gas. Only government actions are considered here.¹

The article is structured as follows. The next section gives a brief explanation of geoeconomics and the link between geopolitics and economic resources from the writings of Knorr and others. The third section offers a literature review of attempts to use natural gas exports to extract geopolitical gain. The most cited example in the post-Cold War world is the Russian cutoffs of natural gas in 2006, 2009, and 2012. The fourth section gives the historical background of the Israeli natural gas discoveries in the Mediterranean. The fifth section applies certain criteria to measure the extent to which Israel can obtain geopolitical leverage out of its natural gas exports, namely, Israel's demand vulnerability, the importers' supply vulnerability, and the centrality of energy issues in the mutual relationship between Israel and the importers. Egypt is considered as it is currently the largest export market for Israeli gas which takes most of Israel's gas exports.

^{1.} For more on the limitations of using different techniques of measuring power, see Hart (1976, 290).

Based on the above criteria, the research questions that the article attempts to answer are as follows:

Research question 1: To what extent is Israel dependent on its importers for revenues (demand vulnerability)? Research question 2: To what extent are the gas importers dependent on Israel for their natural gas supplies (supply vulnerability)? Research question 3: To what extent is the importance or salience of energy resources in Tel Aviv's relations with these importers?

The answers would determine the extent to which Israel can, or cannot, use its natural gas exports to apply its leverage on the importing countries.

THEORIES ON GEOECONOMICS AND ECONOMIC LEVERAGE

Luttwak (1990) coined the term "geoconomics," as he observed that "the methods of commerce are displacing military methods—with disposable capital in lieu of firepower, civilian innovation in lieu of military–technical advancement, and market penetration in lieu of garrisons and bases." He added that this displacement of military tools with commercial tools marked "the emergence of 'geoeconomics.' This neologism is the best term I can think of to describe the admixture of the logic of conflict with the methods of commerce" (17, 19).

Since its coinage, the term "geoeconomics" has been subject to different definitions. For example, Baldwin (1985) focuses on the use of economic instruments as tools of foreign policy. Based on Baldwin's work, Blackwill and Harris (2017) define geoeconomics as an economic instrument of statecraft, and define the term as "the use of economic instruments to promote and defend national interests, and to produce beneficial geopolitical results" (20).²

Geoeconomics and economic statecraft both agree on the use of economic tools to influence other actors' behavior. Baldwin's (1985) work on economic statecraft uses the terms "power" and "influence" interchangeably, where he defines power as "all relationships in which someone gets someone else to do something that he or she would not otherwise do" (9, 20). I add the word "leverage" to these two terms, to be used interchangeably with them as well.

^{2.} There are other definitions of geoeconomics, such as those offered by Baru (2012), but these will not be discussed here.

Knorr (1977) defines "leverage" as "one actor using a lever to gain advantage over another actor." He states that a state can attempt to use its economic power to apply leverage over another state. The advantages gained from applying this leverage may be one or more of the following purposes: coercing the target state into an action which it would otherwise not do, or to force financial profit out of the target states, or to have a general influence over the foreign policy direction of the target state. Leverage, therefore, "arises from national control of things of great economic value to other countries" (99–100, 125).

Economic coercive power arises from an "asymmetrical interdependence," which means three points. First, the coercing actor has a "high degree of control over the supply" of a commodity that the target state needs. Second, the target state's demand for this commodity is "intensive," or very high. Third, the target state acknowledges that the "cost of compliance" to this coercion is less than the "cost of defying," or resisting, this coercion (102, 103). These three points focus only on the "supply vulnerability" of the consumer, which means that the consumer is highly dependent on the supplier, thus vulnerable to the supplier's pressure.

However, Knorr also acknowledges that this dependency and vulnerability can be reversed, which means that it can be the supplier who is highly dependent on the demand of the consumer, and therefore vulnerable to pressure from the consumer. This is true, especially that it is rare for one state, or group of states, to have enough control over the supply of a specific strategic resource to practice economic leverage. Therefore, says Knorr, the outcomes of economic leverage attempts are "situational," which means that they depend on the circumstances of each case (104, 105, 108, 118, 123).

Similarly, using classic examples of previous attempts to use economic influence to affect another state's behavior, Baldwin (1985) shows that it is necessary to examine closely the specific characteristics of each "influence attempt." These specific characteristics include the specific goals that are intended out of the influence attempt, the "cost of compliance" to pressure versus the "cost of defiance" or resistance to the pressure, the reaction of the target state, as well as the cost endured by the state carrying out the influence attempt (130–205).

There is talk in Tel Aviv on how to use natural gas exports to apply leverage over Israel's Middle Eastern or European neighbors. Based on the aforementioned, one could ask: How can we test for geopolitical influence as a result of gas exports? To test for geopolitical influence, this article focuses on three important points: Israel's demand vulnerability, the importers' supply vulnerability, and the centrality of energy issues in the mutual relationship between Israel and the importers, with Egypt as a case study.

The literature on other users of gas exports to extract geopolitical influence is used to apply similar tests to the Israeli case. The most obvious case study used in the analysis of attempting to apply leverage using natural gas exports is the Russian case. Russia does not always succeed at using its natural gas exports to apply leverage because it does not always satisfy the conditions of a successful influence attempt. The reasons for the success or failure of Moscow's influence attempts using natural gas can be applied to the case of Israel's natural gas exports.

LITERATURE REVIEW

Russian gas exports to Europe do not lead to increased Russian leverage

Blackwill and Harris (2016, 90) argue that there are three methods that determine how a state can use energy to influence its geopolitical standing. First, the ownership of energy supplies, which can be used to pressure the importing countries. Second, being a large demand market, which the exporting country needs. Third, being an important transit country, which can block the passage of energy resources through its territory.

Stulberg (2005) argues that there is a disagreement between two groups of theorists. The first group is the "great gamers," who explain Russia's energy politics in terms of geopolitical power relations and neocolonial policies. The second group is the "globalists," who see that Russia's power politics will not always succeed because globalization and privatization stand in the way of Russia's neocolonial attempts. This was seen in Azerbaijan's and Kazakhstan's diversification of their foreign energy dealings away from Russia, which made them able to resist Moscow's influence attempts. According to Stulberg, the reason why analysts were not able to agree on understanding Moscow's mixed record of success and failure of using its energy leverage is because of the failure to understand the geoeconomics of energy leverage and the specific conditions under which each state can use globalization to advance its strategic interests. These conditions include market conditions such as the distance, feasibility, and economies of scale of different energy and pipeline projects, in addition to managerial and domestic political conditions that affect the foreign economic and political policies of states.

Based on Stulberg's work, Casier (2011a, 2011b) uses four criteria to prove that Russia's gas exports did not significantly contribute to Moscow's political leverage over Europe. Casier argues that Europe's dependence on Russian energy supplies (the first criterion, Europe's "supply vulnerability") is lower than Russia's dependence on Europe's energy demand (the second criterion, Russia's "demand vulnerability").³ Moreover, he argued that the ranking of energy as an issue in European-Russian relations (the third criterion) is not very high, given that Russia's economy is vulnerable to global energy prices and that Moscow is "considerably dependent on the EU [European Union] economy for its exports." The fourth criterion was the willingness to use energy as a political instrument, which Russia has demonstrated in its relations with former Soviet republics, "in contrast to its relations with the EU." (Moscow did this by raising prices, or by "control over transit" through building gas pipeline networks compatible with Moscow's interests.) Additionally, Casier also argues that Russia's natural gas is a "blunt" weapon. After factoring in the share of Russian gas in overall EU gas supply and factoring in the share of natural gas in the EU's overall energy mix, he argues that Russian gas accounts for only 6.5 percent of the EU's total energy supply. Furthermore, Russia's use of gas for leverage did not influence the policies of the "old member states" of the EU. However, he notes, the EU's vulnerability to Russian gas supply is "distributed highly unevenly" between the member states of the EU, since there are also EU countries that are highly dependent on Russia for gas, especially among the new member states. Nevertheless, he argues, "there is no positive correlation between energy dependence on Russia and the willingness to engage pragmatically with Russia," and that this higher dependency on Russian gas did not prevent the new member states from "calling for a tougher EU policy" (Casier 2011a, 2011b).

Mišík and Prachárová (2016) further develops the model used by Casier (2011a, 2011b) to examine the use of Russia's "energy weapon" against Lithuania. They argue that Casier's model is sound, but it should have paid more attention to Russia's relations with individual states in the EU, especially ex-Soviet states that have recently joined the EU and are very highly dependent on Russian gas. Using criteria very similar to those of Casier (energy relationship, the dominance of the energy agenda in mutual relations, and the influence of the EU), they argue that Moscow attempted to use the

^{3.} Depending on Keohane and Nye's (2012, 10–12) definition of vulnerability, Casier (2011a, 497) states that the word "vulnerability" is used for the long-run reaction to pressure, while "sensitivity" is used for the immediate or short-term reaction to pressure. Roupas, Flamos and Psarras (2011, 349) define vulnerability as "the degree to which a system is unable to cope with selected adverse effects." For simplification, this article will use the latter definition.

energy weapon (whether through a supply cutoff or raising prices) to prevent Lithuania from gaining its independence in 1990, but failed. This is especially true, since Russia is also dependent on Lithuania as a transit country of gas to Kaliningrad, a Russian enclave without a direct border with the Russian mainland. This means that the energy dependence in the Russian– Lithuanian case is "mutual." Similar Russian actions in the 2000s further made Vilnius doubt Russia as a reliable gas supplier, and encouraged Lithuania to diversify its energy supplies and reduce dependence on Russian gas (Mišík and Prachárová 2016).

Ziegler (2010, 80) focuses on Russia's use of its natural gas exports to expand Russia's influence in Europe and Asia. He argues that it is not always the case that the importing country is subject to the influence of the exporting country, as Russia is "dependent on Europe for the majority of its revenues." He therefore deduces that Russia may be better off exporting gas to the Asian market, since Asia has more energy demand and less diversification options than Europe. Russia's exports to Japan and South Korea have potential because both are energy hungry and want to reduce their dependence on the Middle East. China, however, has a vast amount of domestic energy sources, and even though these domestic sources cannot satisfy China's growing demand, China would not be subject to Russia's influence since Beijing can diversity its foreign energy sources and is a major economic and strategic power which can stand up to Russia (Ziegler 2010).

Similarly, Røseth (2017) argues that Russia's need for China's consumer market is more than China's need for Russia's gas supplies, and that Moscow is allowing its dependency on Beijing to increase in return for having China on its side as a counterbalance against the West. "China is less exposed to vulnerability on Russian gas and oil, since Beijing in principle can turn to alternative sources," and, due to its power as a demand market, China can indeed "use energy as leverage to influence Moscow" in future (Røseth 2017, 48).

Using the methodology set by Knorr (1977), Stulberg (2005), Casier (2011a, 2011b), and Mišík and Prachárová (2016), the following criteria will be used to examine whether Israel's natural gas exports can increase Tel Aviv's leverage:

• To what extent do the importing countries need Israeli gas (the importers' supply vulnerability)? This question is answered by calculating two figures. First, the percentage of Israeli gas in the overall gas consumption of the importing country. Second, the

percentage of natural gas use in the total energy mix of the importing country. The higher the figure, the more likely the country can be vulnerable to Israeli leverage.

- To what extent does Israel need the importing country as an export market for its natural gas (Israel's demand vulnerability)? This question is answered by calculating the amount of Israeli natural gas imported to this country as a percentage of overall Israeli natural gas imports. The lower the figure, the stronger is Israel's position vis-àvis this country and the more likely that an influence attempt using gas exports will succeed.
- What is the importance or salience or significance of Israel's natural gas supplies in the relation between Tel Aviv and the importing country? This is seen by presenting the other significant issues in the relations between Israel and the importing country, and comparing the importance of natural gas trade with these important strategic issues.

The following sections explain the historical background of the Israeli natural gas discoveries, followed by the criteria to measure the geopolitical influence which Tel Aviv can extract out of its prospected natural gas exports.

HISTORICAL BACKGROUND

Israel's gas bonanza: Tamar and Leviathan

In 2009, a consortium led by Noble Energy, an American energy company based in Texas, discovered the Tamar gas field in the Levant Basin in the East Mediterranean. (The Levant Basin is an area in the eastern Mediterranean that covers approximately 32,000 square miles and includes the offshore territory of the Gaza Strip, Israel, Lebanon, Syria, and Cyprus.) Tamar was the world's largest gas discovery in 2009, containing about 8.4 trillion cubic feet, or about 238 billion cubic meters, of gas (Beckwith 2013; Engdahl 2012; Reuters 2012; *Times of Israel* 2018a; UBS 2011; Udasin 2013). Gas started to flow from the Tamar field to a receiving station in Ashdod on March 30, 2013 (Solomon and Ackerman 2013; Udasin 2013).

In October 2010, the same consortium, led by Noble Energy, discovered the Leviathan gas field in the same East Mediterranean region. It contains about 18.9 trillion cubic feet, or 535 m³, of gas, making it at the time the world's largest deep-water gas discovery in a decade (Engdahl 2012; Levinson and Chazan 2010; *Times of Israel* 2019). Leviathan is expected to start production in late 2019 (Reuters 2019).

With the production from Tamar, and with the expected production from Leviathan, Israel is now moving towards more energy self-sufficiency instead of importing energy from foreign energy sources, as Tamar currently provides Israel with sixty-five percent of its natural gas (Schindler 2018), and it is forecasted that Tamar would provide sixty to seventy percent of Israel's natural gas supplies over the next two or three decades (UBS 2011).

With these discoveries, Israel is taking serious steps to become a major gas exporter in the region. The Israelis are now making deals with Egypt, Jordan, Cyprus, and Greece to start exporting gas to them. Indeed, in February 2014, Noble Energy signed a US\$500 million contract with the Jordanian government to export 66 billion cubic feet (1.8 billion m³) of natural gas from the Tamar field to Jordan over fifteen years, at a price of at least US\$6.50/thousand cubic feet (Reed 2014). In October 2014, Dolphinus Holdings, an Egyptian consortium consisting of private gas-importing and refining companies, signed a letter of intent with Delek Group and Noble Energy to buy 2.5 billion m³ of gas annually from the Tamar field. And in January 2017, natural gas from Israel's Tamar field started flowing to Jordan, providing energy for a Jordanian bromine plant and potash factory (Mahdi 2017).

The gas discoveries also led to claims that these gas discoveries would give Israel significant geostrategic leverage and force its neighbors into peace with Israel. Noble Energy, which operates the Israeli Mediterranean fields, argued that

Israel could use its large gas reserves to enhance its geopolitical standing in the region and further afield, wherever it exports its excess gas. Qatar, for example, has greatly enhanced its relations with the U.S. and Japan as a result of its global standing as a leading LNG exporter.

(Freeman 2011)

Similarly, Wurmser (2013) argues that Israel would geopolitically benefit from its new gas discoveries, which, despite their "modest size," could "represent the marginal difference between tight supply and oversupply, which could cause gas prices to decline, even sharply at times." He adds that the potential to export Israel's gas would provide Tel Aviv with strategic opportunities that can give Israel leverage on the international arena, and, when combined with the high-tech industries for which Israel is known, will help Israel become a member of the "elite inner circle of the world's... most advanced economies."⁴

4. Wurmser consults for one of the major energy firms investing in Leviathan, and was a Middle East adviser to former US Vice-President Dick Cheney (Traiman 2014).

Are these claims true? Can Israel's natural gas exports lead to geopolitical leverage for Tel Aviv, or not? The next section tests for geopolitical leverage as a result of natural gas exports, with exports to Egypt used as a case study. So far, only Egypt and Jordan have agreed to buy gas from Israel. Out of these two markets, only the Egyptian has significant economic weight in terms of volume (Eran 2018; Shaw 2018; *Times of Israel* 2018b). Using the tradition set by Knorr (1977), Stulberg (2005), Casier (2011a, 2011b), and Mišík and Prachárová (2016), certain criteria will be used to examine these claims.

TESTING THE POTENTIAL OF ISRAEL'S LEVERAGE ATTEMPTS USING NATURAL GAS EXPORTS

Egypt is used as a case study for Israeli gas exports for several reasons. Egypt is, arguably, the most influential Arab country on the Mediterranean coast. In 2005, Egypt had signed a gas deal with Israel to supply it with forty percent of its gas, until 2012 when this deal was cancelled by Cairo. More importantly, Egypt is potentially Israel's largest export market for Israeli gas. Additionally, Egypt is looking forward to becoming an energy hub in its own right, where it would refine the gas imported from Israel and, potentially, Cyprus and re-export it to the European market.

The first criterion is Israel's dependence on its gas importers (Israel's demand vulnerability). Egypt is expected to import 7 billion m³ from Israel annually (Lewis 2019), which constitutes the bulk of Israel's total gas exports. (Compare Israel's exports with Egypt of 7 billion m³ annually with Israel's exports to Jordan of 1.8 billion m³ over fifteen years.) However, natural gas does not contribute much to Israel's economy. According to the World Bank, revenue from natural gas sales constituted only 0.12 percent of Israel's gross domestic product (GDP) in 2016 (Trading Economics n.d.). Even though exports to Egypt currently constitute the bulk of Israel's natural gas sales since they constitute a very small percentage of the Israeli economy.

The second criterion is the importers' dependence on Israel for their energy supplies (supply vulnerability). Egypt currently enjoys self-sufficiency in natural gas due to the discovery of the Zohr field in the Mediterranean. However, Egypt would still import gas from Israel for the purpose of refining it, then re-exporting it, in line with Cairo's ambition to become an energy refining hub in the Mediterranean region (*Haaretz* 2018; Lewis 2019; Paraskova 2018).

Egypt consumes about 70 billion m³ of natural gas per year.⁵ This means that Egypt's imports of gas from Israel (7 billion m³/year for ten years) equals ten percent of Egypt's total annual gas consumption. If, as Israeli Energy Minister Yuval Steinitz said, only half of the 7 billion m³ were to be used for consumption (Lewis 2019), then exports from Israel actually constitute only five percent of Egypt's gas consumption. And if we consider that natural gas constitutes only half of the energy mix in Egypt,⁶ then only 2.5 percent of Egypt's total energy consumption comes from Israel.

The third criterion is the importance, or salience, of energy in Tel Aviv's relations with the gas importers. The most salient issues in Egypt–Israeli relations are high-politics issues such as the relations with Washington, the situation in Sinai, and Islamic militancy, which can have a substantial effect on Egypt's national security. Natural gas from Israel, as a low-politics issue, can come in fourth place. Regarding the Arab–Israeli peace process, it is only important to the extent to which it can affect the first three interests (relations with Washington, Sinai's security, and Islamic militancy).

It should also be kept in mind that those who argue that gas exports will give Israel more geopolitical leverage were not clear on the type of geopolitical leverage which Israel would have. Exactly what particular target or specific goal would Israel gain from pressing an importer using its natural gas exports? The answer to such questions is not provided by those who claim that gas exports will lead to leverage.

CONCLUSIONS

It is an oversimplification to assume that a supplier of a commodity can always apply economic leverage on the consumer. The geoeconomics of each attempt to use economic tools to influence another actor has its own unique circumstances, which will determine the success or failure of this influence attempt. These factors include the vulnerability of the consumer to pressure from the supplier (the supply vulnerability of the consumer), the vulnerability of the supplier to pressure from the consumer (the demand vulnerability of the supplier), and whether this economic tool is of such high salience to the extent that it can affect the behavior of the state targeted by the pressure attempt.

5. A source at the Egyptian Ministry of Petroleum stated in January 2019 that Egypt's consumption of natural gas has reached 6.6 bcf/day, which is about 2409 bcf/year. If 35.315 is divided to obtain the cubic meters, the result is 68.2 billion m³ of natural gas/year (Ameen 2019).

^{6.} Different sources have given different figures in the forties and fifties, so they all approximate to fifty percent (e.g., Ameen 2018).

Consequently, using the criteria advanced by Knorr (1977), Stulberg (2005), Casier (2011a, 2011b), and Mišík and Prachárová (2016), it is clear that Israel would not be able to use natural gas to exercise economic leverage against the importing countries. Egypt, potentially the largest export market for Israeli gas, would not be vulnerable to Israeli gas as a pressure card by Tel Aviv.

The three criteria show that Israel would not have the ability to use its natural gas exports to extract geopolitical gain. Israel's gas imports do not constitute a large percentage of Egypt's natural gas consumption. This means that Egypt has low supply vulnerability to a possible attempt by Israel to use its natural gas supplies as a pressure point. Therefore, it would be difficult for Israel to use natural gas as a leverage point to influence Egypt's behavior. Also, natural gas, as a low-politics issue, is not as salient in Egyptian–Israeli relations as other high-politics issues such as relations with Washington, the situation in Sinai, and anti-terrorism. Those who argue that Israel can use its natural gas to gain geopolitical leverage are not adhering to the academic methods used to test for that kind of economic leverage.

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REFERENCES

- Ameen, Asmaa. 2018. "OAPEC: Egypt is Largest Energy Market in the Region." Youm7 December 31.
- ———. 2019. "Petroleum Ministry Source: Egypt's Consumption of Natural Gas is 6.6 bcm per day." Youm7 January 24.
- Baldwin, David. 1985. Economic Statecraft. Princeton: Princeton University Press.
- Baru, Sanjaya. 2012. A New Era of Geo-Economics: Assessing the Interplay of Economic and Political Risk. International Institute of Strategic Studies (IISS). http://www. iiss.org/en/events/geo-economics%20seminars/geo-economics%20seminars/ archive/2012-4152/a-new-era-of-geo-economics-617d/understanding-geoeconomics-and-strategy-bofi

Beckwith, Robin. 2013. "Israel's Gas Bonanza." *Society of Petroleum Engineers* March. Blackwill, Robert, and Jennifer Harris. 2016. *War by Other Means: Geoeconomics and Statecraft*. Cambridge, MA: Belknap/Harvard University Press.

- Casier, Tom. 2011a. "Russia's Energy Leverage Over the EU: Myth or Reality?" Perspectives on European Politics and Society 12 (4): 493–508.
- ———. 2011b. "The Rise of Energy to the Top of the EU–Russia Agenda: From Interdependence to Dependence?" *Geopolitics* 16 (3): 536–52.
- Engdahl, William. 2012. "New Mediterranean Oil and Gas Bonanza." *Russia Today* February 26. Accessed April 24, 2012. http://rt.com/news/reserves-offshoremiddle-east-engdahl-855/

- Eran, Oded. 2018. Israel's Stake in the Egyptian Natural Gas Pipeline: Strategic and Economic Benefits. October 15. The Institute for National Security Studies (INSS). https://www.inss.org.il/publication/israels-stake-in-the-egyptian-natural-gaspipeline-strategic-and-economic-benefits/
- Freeman, Lawson. 2011. Noble Energy Submission to the Israel Natural Gas Policy Committee. December 15. Israeli Ministry of Energy. http://energy.gov.il/ AboutTheOffice/NewsAndUpdates/Documents/NaturalGas/2011-12-15%20NBL %20Submission%20to%20INGPC%20(2).pdf
- *Haaretz.* 2018. "Egypt's Sissi: We 'Scored a Goal' with \$15 Billion Israeli Gas Deal." *Haaretz* February 21, https://www.haaretz.com/middle-east-news/egypt/egypt-ssissi-we-scored-a-goal-with-15-billion-israeli-gas-deal-1.5842985
- Hart, Jeffrey. 1976. "Three Approaches to the Measurement of Power in International Relations." *International Organization* 30 (2): 289–305.
- Keohane, R., and J. Nye. 2012. Power and Interdependence, 4th ed. New York: Longman.
- Knorr, Klaus. 1977. "International Economic Leverage and Its Uses." In *Economic Issues and National Security*, edited by Klaus Knorr and Frank Trager, 99–126. Kansas City: Regents Press of Kansas.
- Levinson, Charles, and Guy Chazan. 2010. "Big Gas Find Sparks a Frenzy in Israel." *Wall Street Journal* December 20. Accessed November 14, 2013. http://online.wsj. com/article/SB10001424052970204204004576049842786766586.html
- Lewis, Aidan. 2019. "UPDATE 2—Israel Will Begin Exporting Gas to Egypt in a Few Months' Time—Energy Minister." Reuters January 14. https://www.reuters.com/ article/egypt-israel-energy/update-2-israel-will-begin-exporting-gas-to-egypt-in-afew-months-time-energy-minister-idUSL8N1ZE51N
- Luttwak, Edward. 1990. "From Geopolitics to Geo-Economics: Logic of Conflict, Grammar of Commerce." *National Interest* 20 (Summer): 17–23.
- Mahdi, Ahmed. 2017. "Flare-Ups in the Mediterranean." *Al-Ahram Weekly* October 12–18. http://weekly.ahram.org.eg/News/22654.aspx
- Mišík, Matúš, and Veronika Prachárová. 2016. "Before 'Independence' Arrived: Interdependence in Energy Relations between Lithuania and Russia." *Geopolitics* 21 (3): 579–604.
- Paraskova, Tsvetana. 2018. "Egypt to Start Importing Israeli Gas for Re-Export in Early 2019." OilPrice.com August 7. https://oilprice.com/Latest-Energy-News/World-News/Egypt-To-Start-Importing-Israeli-Gas-For-Re-export-In-Early-2019.html
- Reed, John. 2014. "Noble Energy Signs \$500m Deal to Supply Gas from Israel to Jordan." *Financial Times* February 20. http://www.ft.com/cms/s/0/5db74ce8-9978-11e3-91cd-00144feab7de.html#axzz2tqu6VMnH
- Reuters. 2012. "Israel's Tamar gets \$902 mln in Natgas Financing." Reuters April 22. Accessed September 24, 2013. http://uk.reuters.com/article/2012/04/22/israelnatgas-financing-idUKL5E8FM28X20120422
- ———. 2019. "Israel's Delek Hopes Gas Exports to Egypt to Start in June." Reuters June 2. https://www.reuters.com/article/israel-egypt-natgas/israels-delek-hopes-gasexports-to-egypt-to-start-in-june-idUSL8N23907Y
- Røseth, Tom. 2017. "Russia's Energy Relations with China: Passing the Strategic Threshold?" *Eurasian Geography and Economics* 58 (1): 23–55.

- Roupas, C., A. Flamos, and J. Psarras. 2011. "Comparative Analysis of EU Member Countries Vulnerability in Oil and Gas." *Energy Sources, Part B: Economics, Planning, and Policy* 6 (4): 348–56.
- Schindler, Max. 2018. "Noble Energy to Sell \$800 Million Stake of Tamar Natural-Gas Field." *Jerusalem Post* January 30. https://www.jpost.com/Israel-News/Noble-Energy-to-sell-800-million-stake-of-Tamar-natural-gas-field-540255
- Shaw, Barry. 2018. "Original Thinking: The Israel–Europe Pipeline—A Strategic Umbilical Cord." *Jerusalem Post* December 9. https://www.jpost.com/Opinion/ Original-Thinking-The-Israel-Europe-pipeline-a-strategic-umbilical-cord-573899
- Solomon, Shoshana, and Gwen Ackerman. 2013. "Israel Starts Tamar Gas Production." *Bloomberg* March 31. http://www.bloomberg.com/news/2013-03-30/israel-beginsgas-production-at-tamar-field-in-boost-to-economy.html
- Stulberg, Adam. 2005. "Moving Beyond the Great Game: The Geoeconomics of Russia's Influence in the Caspian Energy Bonanza." *Geopolitics* 10 (1): 1–25.
- Traiman, Alex. 2014. "Success of Israel's New Natural Gas Deals Hinges on Fluctuating Regional Conditions." JNS March 3. http://www.jns.org/latest-articles/2014/ 3/3/success-of-israels-new-natural-gas-deals-hinges-on-fluctuating-regionalconditions#.U90R6q3n_IX=
- Thirlwell, Mark. 2010. "The Return of Geo-Economics." *Lowy Institute* May 24. https://archive.lowyinstitute.org/the-interpreter/return-geo-economics
- *Times of Israel.* 2018a. "Delek-Noble Energy Announces \$500 m Deal to Allow Israeli Gas Exports to Egypt." *Times of Israel* September 27. https://www.timesofisrael.com/ delek-noble-energy-announces-500m-deal-to-allow-israeli-gas-exports-to-egypt/
- ———. 2018b. "Israel, Cyprus, Greece and Italy agree on \$7b. East Med Gas Pipeline to Europe." *Times of Israel* November 24. https://www.timesofisrael.com/israelcyprus-greece-italy-said-to-agree-on-east-med-gas-pipeline-to-europe/
- ———. 2019. "Jordanian Lawmakers Urge Canceling \$10 Billion Natural Gas Deal with Israel." *Times of Israel* March 27. https://www.timesofisrael.com/jordanianlawmakers-urge-canceling-10-billion-natural-gas-deal-with-israel/
- Trading Economics. n.d. "Israel—Natural Gas Rents (% of GDP)." Trading Economics. https://tradingeconomics.com/israel/natural-gas-rents-percent-of-gdp-wb-data.html
- UBS. 2011. "Israel Oil and Gas Sector Initiation." *UBS* April 5. Accessed December 16, 2013. http://israelstrategist.com/wp-content/uploads/2011/10/UBS-Israel-Oil-and-Gas-sector.pdf
- Udasin, Sharon. 2013. "Natural Gas from Tamar Field Starts Flowing." *Jerusalem Post* March 30. http://www.jpost.com/National-News/Report-Gas-from-Tamar-fieldto-come-online-Sunday-308186
- Wurmser, David. 2013. "The Geopolitics of Israel's Offshore Gas Reserves." *Jerusalem Center for Public Affairs* April 4. http://jcpa.org/article/the-geopolitics-of-israels-offshore-gas-reserves/
- Ziegler, Charles. 2010. "Neomercantilism and Energy Interdependence: Russian Strategies in East Asia." *Asian Security* 6 (1): 74–93.