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New Obstacles Facing Israeli Natural Gas Exports Oded Eran and Elai Rettig

Two developments of recent weeks threaten to reduce significantly the possibility of exporting Israel's natural gas. One is Erdogan's victory in the Turkish elections and the expansion of his powers, which reduce and perhaps eliminate the chances of an underwater gas pipeline from Israel to Turkey. The second is (unverified) initial reports regarding new gas reserves off the coast of Egypt*, which threaten the existing deal to export gas from Israel to Egypt, as well as Israel's plan to make use of Egypt's liquefaction facilities to export liquid gas to Europe. The Israeli economy cannot itself absorb a large enough volume of gas in the coming years to justify the capital investment needed for the development of the Leviathan field. If the gas export deal with Egypt does not materialize, the gas partners will become dependent on the relatively small export deal with Jordan as their only anchor. This would endanger the development of Leviathan, leaving Israel without sufficient backup in the event of a prolonged disruption of gas supply from the Tamar field. Therefore, gas companies should push for the rapid implementation of the export deal with Egypt while the Egyptian gas shortage continues. In turn, the Israeli government should provide behind the scenes assistance in this matter to the extent necessary.

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Economically speaking, Turkey is the simplest and most profitable export destination for Israeli natural gas. The Turkish economy's demand for imported natural gas is expected to grow significantly in the coming years, from 55 billion cubic meters in 2017 to 75 billion cubic meters in 2025. Russia is expected to supply approximately half of this quantity (50-60 percent), Iran another 20 percent, and Azerbaijan 10 percent. Additional natural gas exporters such as Iraq, Turkmenistan, and perhaps also Israel will compete for approximately one fifth of the overall quantity, accounting for approximately 15 billion cubic meters per year. It is estimated that Israel is capable of supplying Turkey with

between 8 and 16 billion cubic meters per year for a period of 15 years, subject to the capacity of the underwater pipeline and to the deals that the gas partners in Israel are able to reach with Turkish companies. In addition, Turkey constitutes a comfortable route for transport of Israeli gas to Europe. The cost of laying the pipeline to the southern coast of Turkey is far less than the alternative of building a direct pipeline via Greece, or building a liquefaction facility in Israel. Turkey may also be willing to pay more for Israeli gas than it is currently paying for Russian gas, given its interest in reducing its dependence on Russia. All of these factors were supposed to make Turkey one of the most desirable destinations for Israeli gas.

At the same time, there are numerous political and geographical obstacles to investment in such an expensive project. The shortest route from the Israeli gas deposits to the Turkish coast crosses the exclusive economic zones (EEZ) of two countries: Lebanon and Syria. Although international law does not preclude Israel from laying pipelines in the economic waters of an "enemy state," the security risks involved in this case could force the Israeli navy to defend almost the entire route of the pipeline. A different possible route for the pipeline traverses the economic zone of Cyprus, and theoretically this does not require the resolution of the conflict between Turkey and Cyprus. In recent years, however, each party in the conflict has used the natural gas issue as a political bargaining chip, and presumably an agreement for laying the pipeline will require a broad resolution of all the drilling and exploration rights around Cyprus, which could make it difficult for the process to move forward.

More importantly, Turkey's regional relations in general, and with Israel in particular, do not provide the gas companies with the stability required to build an inter-state pipeline and sign off on such capital intensive contracts. Although the deterioration of Turkish-Israeli bilateral relations that began in late 2008 was halted temporarily by the normalization agreement signed in June 2016, it resumed with even greater intensity over the past year with the violent events on the Temple Mount and in the Gaza Strip. Erdogan's recent reelection adds difficulties in this context. Even before the elections, Erdogan led Turkey along a path that in many ways was problematic for its traditional partners. His willingness to cooperate with Russia and Iran raised questions among NATO members, as did the Turkish army's conquest of part of northern Syria. Turkey's support of Qatar in its conflict with other Arab countries in the Gulf has worsened their perception of Turkey. Added to this is Erdogan's success in creating an authoritarian presidential regime in Turkey, which further damages his image among European Union leaders.

It is currently doubtful that Erdogan will approve an agreement whereby Israeli companies supply natural gas to Turkey. It is also doubtful that the gas companies

themselves will agree to incur the risk of relying on a Turkish president so hostile toward Israel. However, even Erdogan can consider the possibility that certain national economic interests outweigh the desire to harm Israel's economy. In other words, were a deal to be signed with a Turkish company for the provision of Israeli gas, it would likely be implemented. Nonetheless, logic dictates that any company involved in such a deal will be asked to pay increased premiums for foreign trade insurance, which in addition to the high uncertainty associated with the deal will make it less worthwhile.

As it stands now, the gas companies in Israel have only one real alternative for exporting their gas in large volumes: Egypt and its gas liquefaction facilities in Idku and Damietta. The quantities of gas needed by Jordan and the Palestinians are relatively negligible, and the idea of building a direct underwater pipeline to Greece defies all economic logic, in addition to the technical difficulties involved in laying it in the seabed of the Mediterranean. In February 2018, the partners at Tamar and Leviathan signed an agreement with the Egyptian company Dolphinus for the provision of 64 billion cubic meters over a period of ten years. Immediately following this announcement, questions emerged regarding the necessity of the deal with Egypt. After years of shortages in the Egyptian natural gas market, Egypt is presently on the verge of achieving complete gas independence. The massive Zohr gas field that was discovered three years ago currently produces some 11 billion cubic meters per year for the Egyptian economy and is expected to reach an output of approximately 29 billion cubic meters per year by the end of 2019. In addition, initial reports point to the discovery of a much larger field in Egypt, known as Noor. If further exploration tests do not confirm the existence of a major natural gas reserve that is worthy of investment and production, export from Israel will indeed help bridge the gaps in the provision of natural gas to the Egyptian market in the short term. This provision, in addition to the existing export deal with Jordan, will ensure sufficient capital for the development of the Leviathan field. However, every additional commercial quantity that is discovered and produced in Egypt will greatly reduce the value and logic of importing gas from Israel.

A greater worry implied in the reports on a new gas field discovery in Egypt lies in the possible preclusion of Israel's use of the liquefaction facilities in Egypt. The new field, if confirmed, will meet the Egyptian demand for natural gas in the foreseeable future and will rekindle the Egyptian desire to export liquid gas to Europe through its underutilized facilities. New Egyptian discoveries leave no room to accommodate the Israeli gas, and will create additional hurdles for Israel's desire to reach the European market. Although a new and larger Egyptian gas field could encourage the construction of an additional liquefaction facility in Egypt or the expansion of the existing facilities, any such addition requires a substantial investment of time and capital.

The natural gas that was discovered in Israel's economic waters has the potential to generate immense profits and revenue, as well as to improve Israel's relations with its neighbors. However, the prolonged internal political process within Israel regarding the development of the reserves and the method of taxation and ratio between domestic use and exports, in addition to the recent developments in Turkey and Egypt, make it difficult for Israel to realize these benefits. In addition, other current and potential producers in the region (Egypt, the Palestinian Authority, Lebanon, and Cyprus) also do not fully enjoy the economic and political potential that the natural gas presents, as they are unable to overcome the conflicts between them and they often work against their own clear economic interest.

Other benefits that can be derived from the gas are not dependent on the countries surrounding Israel. They include substantial economic savings that the increased use of natural gas will facilitate for industry, agriculture, and transportation in Israel, as well as the resulting reduction in air pollution. Nonetheless, even in the most optimistic scenarios, the Israeli economy cannot itself absorb a large enough volume of gas in the coming years to justify the capital investment needed for the development of the Leviathan field. If the gas export deal with Egypt does not materialize, the gas partners will become dependent on the relatively small export deal with Jordan as their only anchor. This would endanger the development of Leviathan, leaving Israel without sufficient backup in the event of a prolonged disruption of gas supply from the Tamar field. Therefore, gas companies should push for the rapid implementation of the export deal with Egypt while the Egyptian gas shortage continues. In turn, the Israeli government should provide behind the scenes assistance in this matter to the extent necessary.

^{*} It is important to note that there are no published reports verifying gas deposits at Noor. The article refers only to a situation that could arise if large quantities of gas are discovered in Egypt's exclusive economic zone.