### THE GEORGE WASHINGTON UNIVERSITY

# THE ELLIOTT SCHOOL OF INTERNATIONAL AFFAIRS

#### THE INSTITUTE FOR MIDDLE EAST STUDIES

# IMES CAPSTONE PAPER SERIES

East Mediterranean Natural Gas and Israel's Regional Foreign Policy

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#### Introduction

Since natural gas was discovered in the eastern Mediterranean's Levant Basin in 2009, policymakers, analysts, and energy experts have talked about the potential for this resource to change the regional geopolitical status quo. Israel, which boasts commercial export potential for natural gas, has reformulated bilateral ties with Greece and Cyprus since the discovery of hydrocarbons, while political relations with Turkey—but not economic ties—have significantly deteriorated. The extent to which new offshore natural gas has altered Israel's political calculus factors into the broader debate over the role of energy in reshaping political relationships.

Some scholars argue that hydrocarbons are potential game-changers; they can dramatically transform economic opportunities and encourage political cooperation.

These claims are generally deterministic and based on rational actor calculus; for instance, "large, transnational, interstate natural gas projects promote cooperation, because the challenge of mobilizing trillions of dollars in capital forces regional leaders to put aside historical and ideological differences in the interests of economic integration and regional energy security." Policy makers also have espoused an "energy as political cooperation" approach to addressing regional political challenges. Amos Hochstein,

Deputy Assistant Secretary for Energy Diplomacy at the U.S. State Department, agrees with Jaffe regarding the East Mediterranean. "Energy can serve as a bridge, an incentive" to resolve states' "differences on political fronts so that they can all benefit from the

<sup>&</sup>lt;sup>1</sup> Brenda Shaffer, "Can New Energy Supplies Bring Peace?", German Marshall Fund of the United States, March 2014. 1.

<sup>&</sup>lt;sup>2</sup> Benjamin K. Sovacool, "Energy policy and cooperation in Southeast Asia: The history, challenges, and implications of the trans-ASEAN gas pipeline (TAGP) network," *Energy Policy* 37 (2009): 2361.

resources."<sup>3</sup> Similarly, Israeli officials espouse this view. According to Israeli Minister of Intelligence Yuval Steinitz, "natural gas reserves have strategic implications" and "could help our geostrategic position and create a more friendly atmosphere between us and our neighbors."<sup>4</sup> Eran Lerman, the Deputy National Security Advisor in the Prime Minister's Office, agrees that "Israel's emergence as a hub of future energy exporting is making its way into the manner in which we interact with major players."<sup>5</sup>

Others, however, are more circumspect about the role of energy in resolving deep-rooted political problems. They claim that shared energy revenues and wealth cannot enforce cooperation and overcome political conflict, arguing, "there is no evidence from elsewhere in the world that trading in energy is an incentive for peace." Rather, "energy trade reflects existing peaceful relations." In the eastern Mediterranean case, the economic opportunities energy presents cannot transcend enduring political differences.

Still others, including regional scholars and experts, do not choose between politics and economics. Energy can play a role but only under particular and limited conditions; "the gas in the region can facilitate economic development and also negotiations in a way, though usually geopolitical considerations come before economic ones." While "the burgeoning of Greek-Israeli cooperation that followed the Mavi Marmara incident ... combined with the delimitation of the Cypriot-Israeli Exclusive Economic Zone (EEZ) in December 2010, created the impression that a small diplomatic revolution was at hand," a "strategic energy alliance has remained heretofore

<sup>&</sup>lt;sup>3</sup> Amos Hochstein, Interview by Allison Good, Washington, DC, March 20, 2014.

<sup>&</sup>lt;sup>4</sup> Yuval Steinitz, Israel Energy and Business Convention, Ramat Gan, Israel, November 19, 2013.

<sup>&</sup>lt;sup>5</sup> Eran Lerman, Israel Energy and Business Convention, Ramat Gan, Israel, November 19, 2013.

<sup>&</sup>lt;sup>6</sup> Brenda Shaffer, "Can New Energy Supplies Bring Peace?", German Marshall Fund of the United States' Eastern Mediterranean Energy Project, March 2014.

<sup>′</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

unconsummated." An agreement between Israel, Cyprus, and Greece in 2012 to "set up working groups to discuss an 'eastern Mediterranean energy corridor' to export Israeli and Cypriot gas to Europe via Greece" failed to produce major deals<sup>10</sup>

These debates compel us reconsider to what extent energy development can encourage political cooperation. Hochstein's optimism dismisses any effect Israel's political rift with Turkey may have had on its changing relations with Cyprus and Greece, while Shaffer too quickly dismisses the potential for hydrocarbons to encourage political peace. Greater nuance is required to understand the conditions in which hydrocarbons can be a source of cooperation and where it can encourage conflict, or have no effect. To address this lacuna, this paper seeks to provide an analytical framework by answering the following research question: To what extent has the discovery of viable new hydrocarbons in the East Mediterranean influenced Israel's geopolitical relations with Turkey, Cyprus, and Greece?

## Methodology and Structure

To systematically examine the role of hydrocarbons in shaping Israel's relations with Turkey, Cyprus, and Greece, I will establish analytical variables. The independent variable is the presence of hydrocarbons in the Levant Basin, which will be operationalized by 1) the volume of proven reserves, and 2) commercialization potential for export, including costs, security risks, technical feasibility, and international support through third-party actors.

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<sup>&</sup>lt;sup>9</sup> Theodoros Tsakiris, "The Hydrocarbon Potential of the Republic of Cyprus and Nicosia's Export Options," *Journal of Energy Security* (August 2013).

<sup>&</sup>lt;sup>10</sup> Anais Antreasyan, "Gas Finds in the Eastern Mediterranean," *Journal of Palestine Studies* 42 (Spring 2013): 41.

The dependent variable is Israel's relationships with Turkey, Cyprus, and Greece. These relationships will be operationalized by examining 1) security and economic discourse by elites relating to energy issues, and 2) policy measures including diplomatic exchanges, signed agreements, military cooperation, and business relations. I will focus on two distinct periods; Israel's creation in 1948 to the discovery of East Mediterranean hydrocarbons on January 17, 2009, and from that date to the present. I chose 1948 because that is when Israel began interacting with its neighbors at the government-to-government level, and January 17, 2009, because it is when Israel discovered Tamar. Hydrocarbons were not a factor in Israel's regional geopolitical relations during this period, but they became one when Israel found significant quantities of offshore resources, and include trilateral cooperation between Israel, Cyprus, and Greece.

Analyzing the interaction of these two variables will provide greater insight into whether Israel's relationships with its East Mediterranean neighbors depend on new hydrocarbon volumes and commercialization opportunities. This analysis is based on six months of fieldwork conducted in Israel from July through December 2013 that included interviews with government officials, NGOs, natural gas company representatives, and local consultants and analysts. I retrieved additional source material from speeches by experts and officials at three different conferences held in Israel. I conducted additional interviews in Washington, DC, from January through March 2014. I also reviewed relevant literature both prior to and following fieldwork abroad.

This paper begins with a detailed discussion of the nature of Israeli hydrocarbons: volumes of natural gas and commercial potential. It then lists the opportunities for and challenges of exporting Israel's offshore natural gas, as well as international support for

and engagement in any of these options. American efforts in particular are highlighted, and the entire section is framed within the context of international and regional energy market trends.

To assess energy's role in Israel's relations with Turkey, Greece, and Cyprus, I first examine these relations between 1948 and January 17, 2009, to formulate a baseline. I then compare Israel's energy-poor era to the post-January 17, 2009 period, focusing on areas of change and continuity. This study cannot account for every single Israeli-Turkish political issue, but it does examine specific incidents that downgraded official diplomatic and security relations. Nor is it clear that disentangling political incidents from energy developments is possible, but this study does not aim to formulate a direct causal relation. Rather, it intends to demonstrate a correlation between entrenched political conflict and the extent of energy-related cooperation.

The concluding section discusses the relationship between volumes of hydrocarbons and political relationships, and the degree to which political issues affect the energy factor in those relationships. It presents a final analysis of Israel's relations with Turkey, Cyprus, and Greece since the discovery of natural gas, and answers the research question.

# Volumes and Commercial Potential: Challenges, Stakes, and Opportunities

The Levant Basin, which encompasses Israeli, Syrian, Lebanese, Cypriot, and Palestinian territory, is a hydrocarbon formation containing proven and potential oil and natural gas. Israel discovered some offshore hydrocarbons in 1999 and 2000, but these fields only contained approximately 2.2 trillion cubic feet (tcf) of gas, most of which is

depleted.<sup>11</sup> The Levant Basin had no regional potential until 2009 and 2010 with the discovery off Israel's coast of Tamar, which has an estimated 10 tcf of gas, and Leviathan, which has an estimated 19 tcf.<sup>12</sup> In 2011, Cyprus found gas in offshore block 12, but lowered the estimate from 7 to 5 tcf in 2013.<sup>13</sup>

Both countries stand to benefit enormously according to projected commercial values. Tamar's gas, which began production in 2013, is "worth \$52 billion to the Israeli economy," including \$10 billion generated from taxes and royalties. <sup>14</sup> Leviathan, slated to begin production in 2017, is valued at \$10.8 billion. <sup>15</sup> A "very preliminary estimate" of Cyprus' Aphrodite field places its gross value at \$50 billion, with a net profit of "between \$12 and \$18 billion over a 14 year period." <sup>16</sup> The gas is particularly valuable to local consumers because it will lower electricity bills in Cyprus and Israel. Cypriots "currently pay the highest electricity prices in Europe," and switching from diesel to natural gas "should save ... \$300 million a year." <sup>17</sup> Electricity prices in Israel reached an "all-time high" last summer due to prescheduled tariff increases, <sup>18</sup> but beginning in 2015 the tariffs should "decrease by more than 20 percent due to the use of gas, saving households hundreds to thousands of shekels per year."

Israel will also accrue revenues through royalties and taxes. In 2013 the country's cabinet approved creating a sovereign wealth fund "for the investment of the expected

<sup>&</sup>lt;sup>11</sup> ISN Security Watch, "Natural Gas Discoveries in the Eastern Med Reignite Old Rivalries," OilPrice.com, June 26, 2013, http://oilprice.com/Energy/Natural-Gas/Natural-Gas-Discoveries-in-the-Eastern-Med-Reignite-Old-Rivalries.html.

<sup>&</sup>lt;sup>12</sup> Bini Zomer, Interview with Allison Good, Herzliya, September 22, 2013.

<sup>&</sup>lt;sup>13</sup> Michele Kambas, "Noble's Cyprus gas drill at lower end of estimates," Reuters, October 3, 2013.

<sup>&</sup>lt;sup>14</sup> Amiram Barkat, "E&Y: Tamar gas worth \$52b to Israel," *Globes*, January 7, 2014.

<sup>&</sup>lt;sup>15</sup> Ari Rabinovitch, "Leviathan group plans a natural gas hub offshore Israel." Reuters, March 13, 2014.

<sup>&</sup>lt;sup>16</sup> Michele Kambas, "Noble's Cyprus gas drill at lower end of estimates," Reuters, October 3, 2013.

<sup>&</sup>lt;sup>17</sup> Amiram Barkat, "Israeli cos in pole position for Cyprus tender," *Globes*, January 1, 2014.

<sup>&</sup>lt;sup>18</sup> Amir Ben-David, "Electricity prices to reach all-time high," Ynetnews.com, May 16, 2013, http://www.ynetnews.com/articles/0,7340,L-4380460,00.html.

<sup>&</sup>lt;sup>19</sup> Amit Mor, "Natural gas domestic use and export," *The Jerusalem Post*, June 12, 2013.

\$125 billion of profits [from natural gas production] in foreign markets,"<sup>20</sup> but what the money will be used for has yet to be decided. Plans that do not include spending on local socioeconomic problems such as education and housing will likely not satisfy the Israeli public, but a portion of the revenue probably would be used for domestic defense projects.<sup>21</sup>

There are also high stakes for Israel in transportation and industry. According to some experts, shifting more than 50 percent of transportation to natural gas by 2030 is "doable," and "most industries are going to shift to natural gas" because utilizing cheap hydrocarbons "provides a comparative advantage to exporters over their international competitors." Finally, new industries will develop in Israel, including methanol, ammonia, and "high added value petrochemicals" production.<sup>24</sup>

An optimistic scenario for natural gas demand growth in Israel estimates gas will generate 70 to 80 percent of domestic power, a significant boon for the historically resource-poor country. Until Tamar came online, Israel relied on energy imports. Israel's most important energy partner was Egypt, which signed a deal in 2005 to provide most of Israel's natural gas via a pipeline in the Sinai Peninsula, but these exports, which accounted for "around 40% of Israel's gas consumption," ceased following President Hosni Mubarak's ouster during the 2011 uprising. The security situation in the Sinai deteriorated, and the pipeline became a target for militant groups, rendering the supply unreliable. Egypt officially cancelled the deal in 2012, so Israel had to rely on more

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<sup>&</sup>lt;sup>20</sup> Sharon Udasin, "Experts: Natural gas sovereign wealth fund merits further discussion," *The Jerusalem Post*, March 18, 2014.

<sup>&</sup>lt;sup>21</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

<sup>&</sup>lt;sup>22</sup> *Ibid*.

<sup>&</sup>lt;sup>23</sup> Amit Mor, "Natural gas domestic use and export," *The Jerusalem Post*, June 12, 2013.

<sup>&</sup>lt;sup>24</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

<sup>&</sup>lt;sup>25</sup> Brenda Shaffer, "Israel—New natural gas producer in the Mediterranean," *Energy Policy* 39 (2011), 5379.

expensive sources—"diesel oil, heavy fuel oil, and coal"—to meet demand until Tamar began production.<sup>26</sup>

The stakes increase yet again because Israel has enough gas for export, but the domestic debate over how much it should send abroad hurts Israel's chances to take advantage of international market trends. The window of opportunity for Israeli to exploit supply constraints lasts only until 2020, which is when producers are expected to have finished developing a "commercial unconventional gas sector." At that point, unconventional sources like shale gas from the US and China are expected to hit the market, creating an international glut and driving prices—and profits—down. Therefore, exploration and production companies operating offshore Israel are likely to be pressured to sign export contracts as soon as possible to take advantage of current regional supply constraints and lock in prices that will produce the highest possible return on investment. The fact that Israel has only "one half of one percent of the world's natural gas reserves," a "drop in the bucket in terms of the global market," means its amount of exportable natural gas amount is negligible compared to other emerging suppliers. Other localities coming online are Mozambique, Tanzania, Brazil, and Mexico.

Israel is expected to export most of Leviathan's reserves when the field begins production, but the government and private companies have not yet been able to form a comprehensive export policy. The government established a committee in 2011 led by Ministry of Energy and Water Resources then-director general Shaul Zemach to

<sup>&</sup>lt;sup>26</sup> Daniel Fink, "Turning Off the Egyptian Gas Spigot: Implications for Israel," *Journal of Energy Security*, May 2011.

<sup>&</sup>lt;sup>27</sup> Henning Gloystein and Oleg Vukmanovic, "World to gain from gas glut if regulation right," Reuters, May 29, 2012.

<sup>&</sup>lt;sup>28</sup> Ihid.

<sup>&</sup>lt;sup>29</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

Oharles Ebinger, Interview by Allison Good, Washington, DC, February 7, 2014.

determine how much gas Israel should export and how much it should keep for domestic supply. A final report released in 2012 recommended Israel "guarantee a local supply of natural gas for energy needs for a period of 25 years," using 450 billion cubic meters (bcm) out of 800 bcm of available gas, in addition to "at least a further 150 bcm" Israel expects to discover in the future. The volume of gas permitted for export should "not exceed 500 bcm."

Based on the committee's work, Prime Minister Netanyahu's cabinet proposed and decided that Israel reserve 540 bcm for domestic use, leaving the remaining 40 percent of gas for export.<sup>32</sup> Many in the public and private sectors decried this decision, which the cabinet made without holding a discussion in the Knesset. "Of course it is good to export and get revenue, but one of the key issues is the guarantee that ... we take care of the availability of gas to develop our own economy, our own industry," Member of Knesset Avishay Braverman of the Labor Party explained. "I told the Prime Minister, bring [the decision] to the parliament, this is the biggest economic decision in Israel's history.... I think it's an antidemocratic step."<sup>33</sup> Braverman and some of his colleagues petitioned Israel's Supreme Court to overturn the decision, but a panel of judges ruled in favor of the government in October 2013. Delays in creating a national gas policy are the sort of bureaucratic setbacks that affect the viability of export options and carry implications for Israel's geopolitical relations. Companies operating in Israel will not sign export contracts unless a comprehensive regulatory infrastructure already exists. As time

<sup>&</sup>lt;sup>31</sup> Zemach Committee, "The Recommendations of the Inter-Ministerial Committee to Examine the Government's Policy Regarding Natural Gas in Israel: Executive Summary," Ministry of Energy and Water Resources, September 2012, 7-9.

<sup>&</sup>lt;sup>32</sup> Sharon Udasin, "Netanyahu recommends keeping 60% of natural gas," *The Jerusalem Post*, June 19, 2013.

<sup>&</sup>lt;sup>33</sup> Avishay Braverman, Interview by Allison Good, Jerusalem, Israel, August 7, 2013.

passes, those states vying for Israeli gas may also lose confidence in Israel's ability to commercialize its hydrocarbons and turn to other suppliers. This could undo any positive progress Israel has made to improve energy ties with its neighbors.

Geographic constraints further limit export options. The companies developing Israeli gas successfully negotiated deals with Jordan and the Palestinian Authority because building pipelines to those destinations is relative cheap and topographically uncomplicated. Egypt, which has become a net energy importer due to ongoing political turmoil and long-time mismanagement of its energy sector, reportedly opened talks with the Leviathan consortium about buying "up to eight billion cubic meters of gas a year." However, reversing the Ashkelon-el-Arish pipeline in the Sinai carries significant risk as a target for militant attacks. For the Leviathan consortium—Houston's Noble Energy and Israeli companies Delek, Avner Oil, and Ratio Oil—the inability to guarantee natural gas transport infrastructure security would likely outweigh potential profits.

An alternative is to build a subsea pipeline from Tamar to Egypt's underutilized Idku liquefied natural gas plant in the Nile Delta, which is topographically feasible and would not be enormously expensive to construct. While Noble Energy and Delek signed a letter of intent with Spain's Union Fenosa in May to export up to 2.5 tcf of gas over 15 years from Tamar to Idku, however, a binding agreement between the companies will not be viable without an intergovernmental agreement between Israel and Egypt. Indeed, any signed agreement between Israeli and Egyptian public or private sector actors would face substantial public opposition in Egypt, whose relations with Israel are chilly at best. Furthermore, even though Union Fenosa would probably prefer to export all of that gas

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<sup>&</sup>lt;sup>34</sup> Joshua Mitnick and Summer Said, "Energy Firms in Talks to Sell Israeli Gas to Egypt," *Wall Street Journal*, February 19, 2014.

<sup>&</sup>lt;sup>35</sup> John Reed, "Israeli gas supply deals to Egypt and Jordan draw closer," *Financial Times*, May 21, 2014.

as liquefied natural gas to ensure maximum profit potential, any intergovernmental deal would probably require that some of the gas be reserved for growing domestic consumption in Egypt.

Exporting to Cyprus is another option because the island still needs additional gas to fund a proposed LNG export facility in Vassilikos. In order to fill the project's "\$7.5 billion funding hole," Cyprus would have to export "more than twice the gas discovered to date,"<sup>36</sup> which it does not have. To be economically viable, an LNG plant typically needs 5.5 tcf, <sup>37</sup> and Israel could send gas to bridge that gap. The Leviathan consortium proposed "the construction of two underwater pipelines linking both Aphrodite and Leviathan with Vassilikos" in 2011, but this option's low relative profitability has deterred a final investment decision due to flat demand in Europe "for at least the next decade."38 East Asia is considered a more profitable destination for gas according to some experts because growth in demand there will continue.<sup>39</sup> Still, Noble Energy, which has majority stakes in both Tamar and Leviathan, has indicated it is considering all options. 40 The long wait has forced Cyprus to pursue other options. In 2013 and 2014, the government signed memoranda of understanding with France's Total and Italy's Eni to help finance an LNG terminal. 41 If these result in binding agreements, Cyprus may see relations with Israel as less geopolitically advantageous than before.

<sup>&</sup>lt;sup>36</sup> Henning Gloystein and Kevin Allison, "Analysis: Cypriot gas no fix for country's funding gap," Reuters, March 22, 2013.

<sup>&</sup>lt;sup>37</sup> Constantine Levoyannis and Mathieu Labreche, "New gas discoveries in southern periphery may transform European energy landscape," *Energy Post*, December 13, 2013.

<sup>&</sup>lt;sup>38</sup> U.S. Energy Information Administration, "Overview: Emerging oil and gas developments in East Africa," U.S. Department of Energy, May 23, 2013.

<sup>&</sup>lt;sup>39</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

<sup>&</sup>lt;sup>40</sup> Bini Zomer, Interview by Allison Good, Herzliya, Israel, September 22, 2013.

<sup>&</sup>lt;sup>41</sup> Karen Ayat, "ENI, Cyprus to Sign LNG MOU," Natural Gas Europe, February 17, 2014, http://www.naturalgaseurope.com/eni-cyprus-lng-mou.

Israel could also export gas via pipeline to Turkey, which imports 98 percent of its natural gas and generates 46 percent of its electricity from it.<sup>42</sup> Gas from Leviathan would help satisfy growing Turkish demand, which is estimated to rise from 47 billion cubic meters (bcm) in 2013 to 52 bcm in 2014.<sup>43</sup> The Turkey pipeline option also makes the most economic sense because it is the cheapest, costing about \$3.5 billion to construct.<sup>44</sup> However, such a pipeline must traverse the Syrian, Lebanese, or Cypriot EEZs to reach the Turkish coast. Israel does not have political relations with Syria and Lebanon. While it is the most geographically and economically feasible export option, routing the pipeline through Cypriot waters requires addressing political conflict between Nicosia and Ankara. This could limit Israel's regional relations by forcing it to choose between Cyprus and Turkey, thereby alienating one potential partner for East Mediterranean energy cooperation.

Some see exporting Israeli gas as a means to further Turkey's aims of becoming an energy hub, but others are less certain. If Israeli gas is exported to Turkey it could, according to Delek, "by definition get to Europe." Turkey, however, is already a bad transit state and has no gas transit regime in place. The World Trade Organization and the Energy Charter Treaty, to which Turkey is party, has failed to reinforce "freedom of transit and non-discrimination in the trade of hydrocarbons." Nor has Turkey acceded to the European Union's European Energy Community *acquis*, which is linked to its EU

<sup>&</sup>lt;sup>42</sup> "Turkey's future nuke plants to cut down its energy bill," Anadolu Agency, April 26, 2014.

<sup>&</sup>lt;sup>43</sup> "Turkey buys two more LNG cargoes as power demand soars," *Gulf Times*, December 19, 2013.

<sup>&</sup>lt;sup>44</sup> Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

<sup>&</sup>lt;sup>45</sup> Gideon Tadmor, Interview by Allison Good, Herzliya, Israel, October 17, 2013.

<sup>&</sup>lt;sup>46</sup> Gareth M. Winrow, "The Southern Gas Corridor and Turkey's Role as an Energy Transit State and Energy Hub," *Insight Turkey* 15 (2013): 152.

membership status negotiations.<sup>47</sup> This reality challenges Israel's ability to use Turkey as an energy corridor to Europe that could improve its relations with the European Union, at least in the short to medium term.

Israel also has new economic opportunities with Greece. The Greek and Cypriot governments want to be part of East Mediterranean Gas Pipeline that would link Israel and Cyprus to Greece and Italy<sup>48</sup> with gas from Leviathan, enabling the EU to further diversify its supply. Topographical problems, however, including seismic activity in Greek waters render such a pipeline infeasible.<sup>49</sup> Furthermore, the pipeline's required length of 675 kilometers built at "depths of about 800 to 2000 meters" makes no sense economically. The estimated cost for a pipeline from Cyprus to Crete alone is \$20 billion, "an amount that could be justified only in case further natural gas discoveries will materialize in the offshore eastern Mediterranean." Still, Greece recently commissioned a feasibility study for the pipeline project. The gap between the project's feasibility and Greece's aspirations to be part of Israel's gas export calculus could cause friction between the two countries if Athens is convinced the pipeline is viable. Increasing its capacity as an energy transit state would accord Greece more importance in the EU, and that is not a goal it will easily give up.

<sup>&</sup>lt;sup>47</sup> David Koranyi and Nicolo Sartori, "Energy: Key to EU-Turkish relations?" *Al Jazeera*, February 20, 2014

<sup>&</sup>lt;sup>48</sup> Simone Tagliapietra, "Towards a New Eastern Mediterranean Energy Corridor? Natural Gas Developments Between Market Opportunities and Geopolitical Risks," Fondazione Eni Enrico Mattei, December 2013, 20.

<sup>&</sup>lt;sup>49</sup> Michael Lotem, Offshore Energy Discoveries and the Geopolitics of the Eastern Mediterranean, Jerusalem, Israel, November 27, 2013.

<sup>&</sup>lt;sup>50</sup> Simone Tagliapietra, "Towards a New Eastern Mediterranean Energy Corridor? Natural Gas Developments Between Market Opportunities and Geopolitical Risks," Fondazione Eni Enrico Mattei, December 2013, 20.

<sup>&</sup>lt;sup>51</sup> Karolina Tagaris, "Greece to commission feasibility study for Mediterranean gas pipeline," *Cyprus Mail*, March 10, 2014.

The other export option for Israeli natural gas is Asia, which is the premiere market for LNG because prices are twice as high as in the European and Middle East markets. <sup>52</sup> This would justify building an up to \$15 billion LNG facility. <sup>53</sup> Even though the international community has deemed this option viable, Israeli gas would have to compete with LNG from the Gulf States, Qatar, Indonesia, and Australia. According to one expert, Israeli gas would be disadvantaged "in all cases ... by the complexity of the initial development ... and by the distances involved." <sup>54</sup> As the most expensive export option, it would also reduce tax revenue to the Israeli treasury. Finally, it is also unclear what route Israel would use to export gas to Asia. <sup>55</sup>

Israel can most realistically maximize its energy commercialization potential by exporting natural gas to Turkey. Exporting to Cyprus is the next most feasible option despite flat European demand because LNG from Vassilikos could be shipped to Asia, and the pipeline from Israel would also be relatively cheap to construct. According to one finance expert, "the Asia exports option delivers the highest returns, but actual revenues from sales would take several years." In fact, France's Total and Italy's Eni have signed memoranda of understanding to participate in the Cypriot LNG facility project that give priority to exporting that product to both European and Asian markets. An export plan that includes Greece is far less realistic, but remains attractive as a portal to Europe. Asia and Egypt present the least realistic opportunities for Israel to capitalize on commercialization potential. Comparing the feasibility of these options indicates how

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<sup>&</sup>lt;sup>52</sup> Gideon Tadmor, Interview by Allison Good, Herzliya, Israel, October 17, 2013.

<sup>&</sup>lt;sup>53</sup> Jen Alic, "Israel Approves 40% Gas Exports, But to Where?", OilPrice.com, June 26, 2013, http://oilprice.com/Energy/Natural-Gas/Israel-Approves-40-Gas-Exports-But-to-Where.html.

<sup>&</sup>lt;sup>54</sup> Nick Butler, "Evidence to the Committee of Inquiry on the Israeli gas export policy," Israel Ministry of Energy and Water Resources, December 2011.

<sup>&</sup>lt;sup>55</sup> Charles Ebinger, Interview by Allison Good, Washington DC, February 7, 2014.

<sup>&</sup>lt;sup>56</sup> Elias Hazou, "Experts debate the viability of a LNG plant," *Cyprus Mail*, November 25, 2013.

<sup>&</sup>lt;sup>57</sup> "Cyprus, Total sign MoU for LNG Terminal," *Reuters*, November 7, 2013.

Israel will perceive the advantages and disadvantages to various regional alliances. The Israeli government will likely take this cost-benefit analysis into account when discussing export opportunities with private companies operating in Israel given what is at stake financially.

Geographic constraints and economic realities do not elucidate where Israeli gas will go, but the role of international support has encouraged particular relationships with cooperative engagement. The US was instrumental in negotiating the Jordan export deal and engineering Israeli Prime Minister Benjamin Netanyahu's apology to Turkish counterpart Recep Tayyip Erdoğan in March 2013 for the Mavi Marmara incident. See Some Israeli officials, however, think the US is not involved enough in helping regional players to resolve geopolitical conflicts that hinder hydrocarbon cooperation. Washington has a very active energy envoy specifically for the East Mediterranean, but one Israeli official says he would like to see "boots on the ground. One has the EU provided sufficient support. It indicated support for the East Mediterranean Gas Pipeline last year when the proposed project "received a vote of confidence from the European Commission when it was selected as one of their Projects of Common Interest. However, being selected does not automatically make the project eligible for Connecting Europe Facility (CEF) funding.

Despite all of these constraints, the Israeli government and companies operating in the country will likely favor either the Turkey or Cyprus pipeline option because the

<sup>&</sup>lt;sup>58</sup> Herb Keinon, "Netanyahu apologizes to Turkey over Gaza flotilla," *The Jerusalem Post*, March 22, 2013.

<sup>&</sup>lt;sup>59</sup> Michael Lotem, Interview by Allison Good, Jerusalem, Israel, October 16, 2013.

<sup>60</sup> Ibid.

<sup>&</sup>lt;sup>61</sup> Christopher Coats, "Greece Moves On Russian Gas Concerns With Pipeline Project," Forbes.com, March 13, 2014, http://www.forbes.com/sites/christophercoats/2014/03/13/greece-moves-on-russian-gas-concerns-with-pipeline-project/.

<sup>&</sup>lt;sup>62</sup> Kostis Geropoules, "EU Eyes East Med Gas South Stream Alternative," New Europe, March 11, 2014.

potential profits are economically attractive. With high stakes and significant opportunity, however, come enormous costs for both the Israeli government and private companies that influence how export decisions are made. Noble Energy predicts developing

Leviathan will cost \$8 billion<sup>63</sup> compared to the \$3 billion it took to develop Tamar.<sup>64</sup>

Data regarding the likely costs of developing Aphrodite is limited, but estimates reach as high as \$4 billion.<sup>65</sup>

Geographic constraints translate into costs as well. Israel can export gas either through pipelines or as liquefied natural gas (LNG). While pipelines can traverse several countries as well as bodies of water, there are geographical, political, technical, and topographical issues that limit how long they can stretch. LNG, on the other hand, can travel farther distances on carrier ships. LNG projects are also more capital intensive than pipelines, making the consumer product significantly more expensive than piped gas. However, exponentially rising demand, especially in East Asia, necessitates developing reliable sources of LNG. Deciding between pipelines and LNG will narrow export options even further and force Israel to make tough geopolitical decisions. Australian LNG company Woodside Petroleum's decision in May to end an agreement to buy a 25 percent stake in Leviathan, 66 however, indicates that Noble and Delek prefer to focus on pipelines for now.

Security costs present yet another challenge for Israel. Increasing supply security requires the country to build at least one more pipeline to the Mediterranean coast to

<sup>&</sup>lt;sup>63</sup> U.S. Commercial Service, "Israel's Oil and Gas Industry Newsletter," U.S. Department of Commerce, January 2014.

Ari Rabinovitch, "Israeli navy gears up for new job of protecting gas fields," Reuters, April 1, 2013.
 Oliver Joy, "Can Cyprus cash-in on gas treasure chest locked beneath the sea?", CNN, December 17, 2013

<sup>66 &</sup>quot;Australia's Woodside scraps \$2.7 bln Israeli gas field deal," Reuters, May 21, 2014.

diversify entry points to the shore, as well as more refining and treatment facilities. Israel's gas market is based totally on Tamar, which has one pipeline, one production treatment platform, and one terminal. All of "these installations are sitting ducks, and the consensus is that it is only a matter of time until an attack or an accident leaves Israel either sitting in the dark or once again relying on expensive diesel for power generation." When Leviathan comes online, it will also need its own gas treatment facilities.<sup>67</sup>

Securing Israel's offshore natural gas installations and EEZ adds greater costs. The Israeli Navy is responsible for protecting the Israeli coast, but it only has 13 fast attack ships that cannot on their own protect Israel's EEZ, which is almost twice the size of the country itself. Rigs will still have private security forces, but according to one security expert, Israel's government has "changed the law forbidding the protection of infrastructure outside territorial waters, enabling the navy to extend its jurisdiction to the EEZ." This obstacle leaves the navy with a substantial burden that must also take into account "new threats like cyber warfare and the accumulation of advanced weapons by non-state actors." <sup>68</sup>

Indeed, costs for securing Israel's natural gas infrastructure and EEZ are unclear since the government has not allocated specific and sufficient funds for that purpose. Still, the Israeli Ministry of Defense contends "more than \$860 million is needed in the form of a one-time budget allocation plus annual operations costs for large patrol vessels, extended surveillance and intelligence capabilities, and Unmanned Aerial Vehicles (UAVs)." The Ministry of Finance, meanwhile, "claims that ... defending installations

<sup>&</sup>lt;sup>67</sup> Allison Good, "By Land or Sea, Where to Expand Israel's Natural Gas Facilities," The Daily Beast, December 10, 2013, http://www.thedailybeast.com/articles/2013/12/10/by-land-or-sea-where-to-expand-israel-s-natural-gas-facilities.html.

<sup>&</sup>lt;sup>68</sup> Allison Good, "Defending Israel's Natural Gas," ForeignPolicy.com, January 13, 2014, http://mideastafrica.foreignpolicy.com/posts/2014/01/13/defending israel s natural gas.

would only cost about \$200 million," and Israel's national security council "recommends spending about \$775 million."69 Private companies do not have complete confidence in any export option unless Israel can adequately defend offshore infrastructure located in its waters. These companies must also have confidence in states on the receiving end of gas exports. The Cyprus option, for example, presents security costs for Israel and private companies because the country does not have "indigenous military capacities" necessary for protecting its end of a pipeline from Israel, nor would Israel be responsible for protecting a Cypriot LNG facility. 70 If Cyprus cannot acquire the equipment and manpower needed to secure infrastructure built there, the risks associated with a pipeline from Israel will increase. Private companies will be hesitant to take on the responsibility of protecting the Cypriot EEZ and energy facilities themselves, which would involve significantly increasing their private security forces and therefore incur more financial costs.

Developing offshore hydrocarbons also carries environmental costs. Israel's supervisory laws, which provide oversight on industrial activity, apply to its territorial waters but not to its EEZ, where most hydrocarbon drilling is done.<sup>71</sup> Therefore, exploration and production companies cannot "legally be accountable for damages that ensue there."<sup>72</sup> Israel's National Planning Commission does not have jurisdiction over the EEZ either, "which gives gas companies free reign to operate without being required to perform due diligence, such as environmental-impact studies of drilling plans and safer alternatives." The Knesset has proposed new guidelines, but they do not "satisfy

<sup>69</sup> Ibid.

<sup>&</sup>lt;sup>70</sup> Ephraim Sneh, Energy, Defense and Strategy Conference, Herzliya, Israel, December 5, 2013. <sup>71</sup> *Ibid*.

<sup>&</sup>lt;sup>72</sup> Sharon Udasin and Yonah Jeremy Bob, "State proposes legal framework for complete alteration of national policy on coastal waters," *The Jerusalem Post*, December 18, 2013.

environmental groups, which lambast loopholes in the text that could result in a disaster." Legislation is unlikely to be passed in the near future; <sup>73</sup> however, companies operating in Israel may have to jump through environmental regulatory hoops in the future. This could hold back the export process by requiring companies to operate according to more specific standards, and delay export licenses if such standards are not met. Delaying exports, in turn, could cause regional neighbors to question their viability, limiting the degree to which natural gas can influence Israel's geopolitical relations.

In addition, many Israelis are opposed to land treatment facilities located in such close proximity to residential areas. The National Council for Planning and Building chose a land and sea treatment combination, but the plan is flexible.<sup>74</sup> Proposed refining sites in northern Israel have raised local concerns about the negative environmental effects. Others, like the Society of Preservation of Nature's Dror Boymal, worry that offshore treatment is a risk to drinking water and the integrity of the country's coast. 75 The government meanwhile, is "adamant that the amount of natural gas slated for domestic consumption requires land installations." According to Natural Gas Authority director Shuki Stern, Israel must have "at least 1,000 dunams of land" if it wants natural gas to be 50 percent of the energy market. If Israel wants to ensure reliability of supply, it "can't rely on offshore facilities alone." <sup>76</sup>

Given these opportunities for and constraints on exporting, how will they shape Israel's natural gas commercialization calculus? If economic and security costs determine

Allison Good, "Defending Israel's Natural Gas," *Foreign Policy*, January 13, 2014.
 Allison Good, "By Land or Sea, Where to Expand Israel's Natural Gas Facilities," The Daily Beast, December 10, 2013, http://www.thedailybeast.com/articles/2013/12/10/by-land-or-sea-where-to-expandisrael-s-natural-gas-facilities.html.

<sup>&</sup>lt;sup>75</sup> Dror Boymal, Israel Energy and Business Convention, Ramat Gan, Israel, November 19, 2013.

<sup>&</sup>lt;sup>76</sup> Allison Good, "Defending Israel's Natural Gas," Foreign Policy, January 13, 2014.

export decisions, then the most logical route would be for Israel to develop a pipeline to Turkey. More than five years after Tamar's discovery, we should expect to see tangible progress on such a project, but in fact this has not been the case. It would seem that if energy is the strongest factor, Israel should be establishing direct natural gas-related ties with Turkey, but in fact it has enhanced relations with Cyprus and Greece where energy export costs are higher. Explaining Israel's decision-making process, then, requires looking at political interactions.

#### Israel's Relations with Turkey, Greece, and Cyprus

Israel and Turkey

Israel and Turkey had cooperative economic relations from 1948 to January 17, 2009, that featured both public and private sector ties, but only private sector cooperation grew after January 2009. Security relations, however, increased throughout the 1990s and into the 2000s, but have deteriorated since January 2009. The only cooperation between Israel and Turkey on East Mediterranean natural gas occurred recently in the private sector, and there is a correlation between this lack of cooperation and political conflict during the second period.

Bilateral trade began early on in the Israeli-Turkish relationship. In 1950, a "direct air corridor" opened between Istanbul and Tel Aviv, <sup>77</sup> and the two countries signed a trade agreement. <sup>78</sup> Turkey invited Israel "to take part in the international industrial fair of

<sup>78</sup> "Formal Relations between Israel and Turkey, 1961-1967," Prime Minister's Office: Israel State Archives, accessed April 14, 2014,

 $http://archives.gov.il/archivegov\_eng/publications/electronic pirsum/is rael-turkey/is rael-turkey/introduction.htm.\\$ 

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<sup>&</sup>lt;sup>77</sup> Burcu Gultekin Punsmann, "Turkey-Israel: Towards a decoupling between economics and politics," *Today's Zaman*, September 6, 2011.

Izmir in 1951,"<sup>79</sup> but while Tel Aviv and Ankara signed a tourism cooperation agreement in 1961, "the Turks' indifference" precluded implementation.<sup>80</sup>

Security cooperation in both the public and private sectors drove bilateral ties throughout the 1990s, which "witnessed the expansion of the role of the military in Turkish politics." Israel and Turkey signed a Security and Secrecy Agreement and "'Memorandum on Mutual Understanding and Cooperation' on fighting terrorism" in 1994, 82 followed by a secret agreement in 1996 that included "an exchange of military, experience and personnel; access to airspace of both countries for military flight training and joint training activities; and mutual use of port facilities." Israeli and Turkish aircraft would "visit each other's countries for one week, four times a year." During an April 1996 speech in Washington, Israeli Prime Minister Shimon Peres remarked that, "The so-called military alliance [between Israel and Turkey] is more of a technical nature. It is not that we have joined in forces to fight an enemy or to defend something, but ... to exchange information, to learn from each other." Israel and Turkey held joint naval maneuvers that summer.

<sup>&</sup>lt;sup>79</sup> Burcu Gultekin Punsmann, "Turkey-Israel: Towards a decoupling between economics and politics," *Today's Zaman*, September 6, 2011.

<sup>&</sup>lt;sup>80</sup> "Formal Relations between Israel and Turkey, 1961-1967," Prime Minister's Office: Israel State Archives, accessed April 14, 2014,

 $http://archives.gov.il/archivegov\_eng/publications/electronic pir sum/is rael-turkey/is rael-turk ey/introduction.htm.\\$ 

<sup>&</sup>lt;sup>81</sup> Ozlem Tur, "Turkey and Israel in the 2000s-: From Cooperation to Conflict," *Israel Studies* 17 (Fall, 2012): 47.

<sup>&</sup>lt;sup>82</sup> Alexander Murinson, *Turkey's Entente with Israel and Azerbaijan: State identity and security in Middle East and Caucasus* (Oxford: Routledge, 2010), 46.

<sup>&</sup>lt;sup>84</sup> Ozlem Tur, "Turkey and Israel in the 2000s-: From Cooperation to Conflict," *Israel Studies* 17 (Fall, 2012): 48.

<sup>85 &</sup>quot;PM Peres at Washington Institute for Near East Policy – April 29 – 1996," Israel Ministry of Foreign Affairs, April 29, 1996, http://mfa.gov.il/MFA/MFA-Archive/1996-

<sup>1997/</sup>Pages/PM%20Peres%20at%20Washington%20Institute%20for%20Near%20East%20Pol.aspx.

86 Amikam Nachmani, "The Remarkable Turkish-Israeli Tie," *Middle East Quarterly* 5 (Jun., 1998): 19-29.

In 1996 Israel and Turkey also formalized the Defense Industry and Cooperation Agreement, which led to two "upgrading deals,' signed in 1997 and 1998, for the modernization of Turkish F-4s and F-5s," as well as Turkey's agreements with Israel to buy Merkava Mark-3 tanks<sup>87</sup> and engage in joint production of Arrow missiles.<sup>88</sup> The 1997 agreement also resulted in a "Strategic Dialogue," a "biannual process of highlevel military consultations by the respective deputy chiefs of staff. 89 Turkey's Defense Minister Turhan Tayan first visited Israel in April 1997, where Israeli Defense Minister Yitzhak Mordechai "promised ... Israel would do everything possible to strengthen ... security ties with Turkey."90 The following month Mordechai met with Turkey's deputy chief of armed forces Cevik Bir, who was "leading a delegation of 23 senior officers in Israel." Israel's defense minister "welcomed the anticipated joint naval exercises between the Turkish, Israeli and U.S. militaries"91 that would be conducted annually from 1998 to 2009. 92 All of these exchanges included sizeable entourages from the visiting country, "so that by the latter part of 1997 significant numbers of commanding officers from both militaries had met each other."93

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<sup>&</sup>lt;sup>87</sup> "Turkey 'freezes arms deals with Israel," UPI.com, June 18, 2010, http://www.upi.com/Business\_News/Security-Industry/2010/06/18/Turkey-freezes-arms-deals-with-Israel/UPI-24011276879457/.

<sup>&</sup>lt;sup>88</sup> Alain Gresh, "Turkish-Israeli-Syrian Relations and Their Impact on the Middle East," *Middle East Journal* 52 (Spring, 1998): 191.

<sup>&</sup>lt;sup>89</sup> Alexander Murinson, *Turkey's Entente with Israel and Azerbaijan: State identity and security in Middle East and Caucasus* (Oxford: Routledge, 2010), 47.

<sup>&</sup>lt;sup>90</sup> "Defense Minister Mordechai Meeting with Turkish DM Tayan – 30 – Apr – 97," Israel Ministry of Foreign Affairs, April 30, 1997,

http://mfa.gov.il/MFA/PressRoom/1997/Pages/DEFENSE%20MINISTER%20MORDECHAI%20MEETI NG%20WITH%20TURKISH%20DM.aspx.

<sup>&</sup>lt;sup>91</sup> "Mordechai Meeting With Turkish Deputy Chief of Staff – 05 – May – 97," Israel Ministry of Foreign Affairs, May 5, 1997,

http://mfa.gov.il/MFA/PressRoom/1997/Pages/MORDECHAI%20MEETING%20WITH%20TURKISH%20DEPUTY%20CHIEF%20OF%20STA.aspx.

<sup>&</sup>lt;sup>92</sup> Asher Zeiger, "Israel, US and Greece begin annual naval exercise," *Times of Israel*, March 7, 2013.

<sup>&</sup>lt;sup>93</sup> Cevik Bir and Martin Sherman, "Formula for Stability: Turkey Plus Israel," *Middle East Quarterly* 9 (Fall, 2002): 23-32.

Still, Turkey's need for new trade partners brought Israel and Ankara closer economically in the 1990s. The Tourism Cooperation Agreement of June 1992, one of the first bilateral economic agreements signed, "led to an average of 300,000 Israeli tourists visiting Turkey annually" throughout the rest of the 1990s, "up significantly from just 7,000 in 1986. By the end of the decade, daily flights linked "Antalya, Istanbul and Izmir to Tel Aviv." The "major turning point," though, came when Israel and Turkey signed agreements on "economic cooperation, free trade, the promotion and protection of bilateral investments, and preventing double taxation" during President Süleyman Demirel's visit to Israel in March 1996. By 1994, Israeli exports to Turkey no longer exceeded Turkish exports to Israel. Bilateral trade grew rapidly—from \$54 million in 1987, to \$100 million in 1991, to \$440 million in 1995, and to \$750 million in 1998.

Security and economic cooperation in both the public and private sectors continued into the 2000s. By the end of 2008, "military-to-military cooperation extended to ... anti-missile defense and even military use of Israeli space satellites." Turkey allowed Israel to "station fighter planes at Turkish air bases," and sent its F-16 pilots to learn electronic warfare in Israel. Israeli pilots used Turkish airspace to "practice long-range flying over mountainous land in preparation for missions against Iran." Meanwhile, Israeli Prime Minister Ariel Sharon and Turkish Prime Minister Erdoğan

<sup>&</sup>lt;sup>94</sup> Suha Bolukbasi, "Behind the Turkish-Israeli Alliance: A Turkish View," *Journal of Palestine Studies* 29 (Autumn, 1999): 31.

Amikam Nachmani, "The Remarkable Turkish-Israeli Tie," *Middle East Quarterly* 5 (Jun., 1998): 19-29.
 Alain Gresh, "Turkish-Israeli-Syrian Relations and Their Impact on the Middle East," *Middle East Journal* 52 (Spring, 1998): 192

<sup>&</sup>lt;sup>97</sup> Suha Bolukbasi, "Behind the Turkish-Israeli Alliance: A Turkish View," *Journal of Palestine Studies* 29 (Autumn, 1999): 32.

Amikam Nachmani, "The Remarkable Turkish-Israeli Tie," *Middle East Quarterly* 5 (Jun., 1998): 19-29.

<sup>&</sup>lt;sup>99</sup> Alexander Murinson, *Turkey's Entente with Israel and Azerbaijan: State identity and security in Middle East and Caucasus* (Oxford: Routledge, 2010), 47.

"expressed satisfaction over the increase in bilateral trade" during the latter's visit to Israel in 2005. 100 In 2008, Turkish-Israeli trade volume was \$3.4 billion, 101 and a record number of 500,000 Israelis traveled to Turkey. 102 Israeli firms and the Turkish military also signed new defense contracts, including a 2005 agreement that provided Turkey with ten unmanned aerial vehicles. 103

By Hochstein's logic, natural gas-related opportunities for cooperation in the economic and security spheres should have produced a discernible positive change in Israeli-Turkish relations during the second period. Since January 2009, however, there has been almost no security cooperation between Israel and Turkey. Israel's economic cooperation with Turkey in the private sector has increased since January 2009, but cooperation on energy issues within this sector was virtually nonexistent until April 2014.

Israeli-Turkish bilateral trade grew to "around \$4 billion" in 2012, 104 and Israeli tourism to Turkey has also increased. In 2013, 180,000 Israelis arrived in Turkey—up from 84,000 in 2011—and "may rise to 270,000" in 2014. 105 Turkish Airlines now operates more flights between Istanbul and Tel Aviv than ever, and the two countries signed an agreement in 2013 to allow Israeli airlines to "renew regular flights to Turkey following a hiatus of more than 5 years." The "regional trade corridor running through Israel for Turkish hauliers heading to and from Jordan and the Arab countries of the

<sup>100 &</sup>quot;PM Sharon meets with Turkish PM Erdogan," Israel Ministry of Foreign Affairs, May 1, 2005, http://mfa.gov.il/MFA/PressRoom/2005/Pages/PM%20Sharon%20meets%20with%20Turkish%20PM%20 Erdogan%201-May-2005.aspx.

<sup>&</sup>lt;sup>101</sup> Busra Ozerli, "Economic ties grow despite political fluctuations between Israel, Turkey," *Today's* Zaman, July 28, 2013.

<sup>&</sup>lt;sup>102</sup> Sapir Peretz, "Israeli tourists seen flocking back to Turkey," *Globes*, March 24, 2013.

<sup>&</sup>lt;sup>103</sup> Yaakov Katz, "Israel not withholding UAVs from Turkey, officials say," *The Jerusalem Post*, September 7, 2011.

<sup>&</sup>lt;sup>104</sup>Dorian Jones, "Turkey-Israel Trade Remains Strong Despite Tensions," *Voice of America*, October 15,

<sup>&</sup>lt;sup>105</sup> Amy Teibel, "Turkey Back on Israel's Travel Circuit as Countries Mend Ties," *Bloomberg* Businessweek, March 27, 2014.

<sup>&</sup>lt;sup>106</sup> "Israeli airlines to resume flights to Turkey after 6 years," *Hurriyet Daily News*, December 19, 2013.

Gulf" is also expanding. 107 Meanwhile, according to Israel's Ministry of Defense, "defense exports between Turkey and Israel never halted," and "there are requests for new transactions from Turkey." <sup>108</sup>

While none of this cooperation is energy-based, a March 2014 report indicated that hydrocarbons are affecting private sector relations and may become a more influential factor in the future. An Israeli business publication wrote that Turkish companies allegedly submitted multiple bids for a gas export tender by Leviathan's partners, ranging from 7 bcm to 10 bcm a year. <sup>109</sup> In April, this was confirmed when Turkish energy company Turcas "notified the Istanbul Stock Exchange that its gas subsidiary has initiated negotiations ... to buy natural gas ... for domestic customers." <sup>110</sup> This proposed deal, however, only becomes viable when companies involved make the final investment decision and put real money into a project. 111

These private negotiations are certainly a positive step forward in energy cooperation, but Israel and Turkey should have undertaken more joint initiatives in the public and private sectors in both the security and economic spheres due to the economic viability of an Israel-Turkey gas pipeline. The fact that economic logic alone has not determined outcomes indicates that politics remains salient, as evidenced by politically conflictual incidents and ongoing diplomatic tensions.

Indeed, political crises have shaped Israel-Turkey relations throughout the East Mediterranean hydrocarbons period. For example, at the time Israel discovered natural

<sup>&</sup>lt;sup>107</sup> John Reed, "Israel promotes trade route between Turkey and Middle East," *Financial Times*, August 27,

<sup>&</sup>lt;sup>108</sup> Busra Ozerli, "Economic ties grow despite political fluctuations between Israel, Turkey," *Today's* Zaman, July 28, 2013.

hill Brenda Shaffer, Interview by Allison Good, Washington, DC, March 27, 2014.

gas, the Israeli military was engaged in Operation Cast Lead, an offensive against Hamas in Gaza. When Israel launched the operation in December 2008, Erdoğan immediately froze all contact with Israeli Prime Minister Ehud Olmert. In late January 2009, after Tamar's discovery, Erdoğan left a panel discussion on Gaza at the World Economic Forum following an angry exchange with Israeli President Shimon Peres.

The Mavi Marmara incident ultimately caused Turkey to sever diplomatic ties to Israel. On May 31, 2010, Israeli naval commandos boarded an aid ship bound for Gaza and Turkish nationals were killed. Ankara immediately "called Israel a 'terrorist state' and recalled its ambassador. After the UN released a report in September 2011 claiming Israel had acted in self defense, Ankara downgraded diplomatic ties with Israel to the lowest possible level" and expelled the Israeli ambassador. Normalization talks have occurred behind the scenes since then, but with limited results. Israeli Prime Minister Benjamin Netanyahu formally apologized to Erdoğan in March 2013 for the casualties, and talks between the two countries about the amount Israel will pay to compensate victims' families are making progress, but Israel has not met Ankara's third condition for political reconciliation—lifting the naval blockade on Gaza to allow Turkish humanitarian aid.

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<sup>&</sup>lt;sup>112</sup> "Timeline: Crisis in Israel-Turkey relations," *Haaretz*, March 22, 2013,

http://www.haaretz.com/news/diplomacy-defense/timeline-crisis-in-israel-turkey-relations.premium-1.511423

<sup>113</sup> Katrin Bennhold, "Leaders of Turkey and Israel Clash at Davos," *The New York Times*, January 29, 2009.

<sup>114 &</sup>quot;Timeline: Crisis in Israel-Turkey relations," *Haaretz*, March 22, 2013,

http://www.haaretz.com/news/diplomacy-defense/timeline-crisis-in-israel-turkey-relations.premium-1.511423

Herb Keinon, "Israeli sources: We won't lift Gaza blockade to normalize ties with Turkey," *The Jerusalem Post*, February 13, 2014.

<sup>116 &</sup>quot;Timeline: Crisis in Israel-Turkey relations," *Haaretz*, March 22, 2013,

http://www.haaretz.com/news/diplomacy-defense/timeline-crisis-in-israel-turkey-relations.premium-1.511423

<sup>&</sup>lt;sup>117</sup> Barak Ravid, "Lieberman: Israel-Turkey relations will soon normalize," *Haaretz*, May 3, 2014.

Both Operation Cast Lead and the Mavi Marmara caused security sector fallout. Turkey cancelled NATO air exercises to be held in its airspace in October 2009, <sup>118</sup> and Israel temporarily froze "sales of advanced military platforms to Turkey" in April 2010 due to concerns about Erdoğan's anti-Israel rhetoric. <sup>119</sup> In June 2010, after the Mavi Marmara, Turkey reportedly froze "at least 16 arms deals with Israel worth an estimated \$56 billion," <sup>120</sup> and formally froze defense trade and suspended all military agreements with Israel in September 2011. <sup>121</sup> Still, Israel "completed the sale of electronic warfare systems to the Turkish air force" in February 2013, <sup>122</sup> suggesting Turkey is honoring contracts on a case-by-case basis. Joint drills, however, have not been reinstated, and in May 2012 Turkey accused Israel of violating the airspace of North Cyprus and sent fighter jets to expel the aircraft. <sup>123</sup>

Political conflict not only froze security ties between Israel and Turkey, but also affected public and private sector economic relations in a way that altered Israel's gas export calculus. There was no longer any space for government-to-government agreements on energy-related cooperation, or ministerial meetings about hydrocarbons. Private companies decide where to export the gas, but the Israeli government has to grant licenses for such transactions. Despite Turkish and Israeli private sector interests, given the "current political circumstances between Turkey and Israel, it will be very difficult

<sup>&</sup>lt;sup>118</sup> Julian Borger, "Turkey confirms it barred Israel from military exercise because of Gaza war," *The Guardian*, October 12, 2009.

<sup>119 &</sup>quot;Israel imposes partial arms embargo on Turkey," *Today's Zaman*, April 19, 2010.

<sup>120 &</sup>quot;Turkey 'freeze arms deals with Israel," UPI.com, June 18, 2010,

 $http://www.upi.com/Business\_News/Security-Industry/2010/06/18/Turkey-freezes-arms-deals-with-Israel/UPI-24011276879457/.$ 

<sup>&</sup>lt;sup>121</sup> Edmund Sanders, "Turkey expels Israel's ambassador, suspends military agreements," *Los Angeles Times*, September 2, 2011.

<sup>&</sup>lt;sup>122</sup> Yaakov Lappin, "Israel sells electronic warfare systems to Turkey," *The Jerusalem Post*, February 18, 2013.

<sup>&</sup>lt;sup>123</sup> "Turkish jets chase Israeli plane over Cyprus – reports," *Famagusta Gazette*, May 17, 2012.

for decision-makers in this case ... to look at Turkey as a viable market or station on the way to Europe." A pipeline to Turkey would also have to cross Cyprus' EEZ, which Turkey does not recognize and primarily claims for the Turkish Republic of Northern Cyprus. Israel does not technically have to ask for permission from Nicosia, 125 but not doing so would damage Israeli-Cypriot bilateral ties.

The Israeli and Turkish governments and militaries have shown no signs that they intend to cooperate in order to maximize the potential for Israel's most economic export option. Anticipating economic opportunity for joint natural gas infrastructure projects and the security costs involved, the Israeli and Turkish defense ministries should have showed some signs of coordination given the existing extent of their strategic alliance. In fact, however, that strategic alliance collapsed.

While politics is largely responsible for determining outcomes in Israel-Turkey relations, energy still plays a role in the private sector. Indeed, Leviathan has opened negotiations with Turcas for supplying gas to Turkey because those companies believe a pipeline is viable. East Mediterranean natural gas has proven unable to transcend Israel's entrenched political conflict with Turkey; still, energy opportunities are instigating private sector cooperation in exploiting Israel's hydrocarbons. Both economic energy opportunities and politics, therefore, explain Israel's shifting relations with Turkey. Political conflict determined the trajectory of security ties, but it could neither stifle nonenergy economic relations nor prevent new ventures in private sector energy cooperation.

Amb. Oded Eran, Interview by Allison Good, Tel Aviv, Israel, November 3, 2013.
 Amit Mor, Interview by Allison Good, Herzliya, Israel, October 22, 2013.

#### Israel and Greece

Similar to Israeli-Turkish relations, public and private sector economic ties with Greece were cooperative from 1948 to January 17, 2009. Early conflictual security ties turned more cooperative during the 1990s, but the Israeli-Turkish strategic alliance limited Israeli-Greek relations. Since January 2009, non-energy economic ties have remained stable, but natural gas-related cooperation has only emerged in the public sector. In contrast to Turkey, however, Israeli-Greek security sector relations have improved, and East Mediterranean natural gas discoveries affected this shift to a degree. Still, there is a correlation between Israel's increasing cooperation with Greece around hydrocarbons and regional political conflict.

The early years of Israeli-Greek relations included cooperative economic initiatives, such as a delegation of Israeli manufacturers and exporters visiting Athens in 1950 to study "measures to improve" bilateral trade relations. 126 In 1961, the Greek Ministry of Trade "lauded ... the development" of bilateral trade, noting "great opportunities for commerce." 127 When "the Egyptians demanded the area allocated to the Israeli ... El Al" after Greece decided to build an office for foreign airlines in 1966, "the Greeks decided in El Al's favor." Bilateral security relations, however, proved more conflictual when Greece "refused to provide bases and facilities to the American airlift of weapons to Israel" during the Yom Kippur War in 1973. 129

<sup>126 &</sup>quot;Deirgation [sic] of Israel Businessment [sic] Visiting Greece in Effort to Improve Trade Relations," Jewish Telegraphic Agency, September 25, 1950.

<sup>127 &</sup>quot;Greek Ministry Lauds Development of Trade Between Israel and Greece," Jewish Telegraphic Agency, September 18, 1961.

<sup>&</sup>lt;sup>128</sup> Jacob Abadi, "Constraints and Adjustments in Greece's Policy toward Israel," Mediterranean Quarterly 11 (2000): 49. 129 *Ibid.*, 54.

Moshe Gilboa, Israel's diplomatic representative in Greece, <sup>130</sup> helped improve private sector economic relations throughout the 1980s by establishing "connections with top Greek businessmen, who agreed to establish the Greek-Israeli Chamber of Commerce" in 1988. 131 Security relations also became cooperative in the following years, but Athens did not enjoy the strategic alliance with Israel that Turkey maintained. In December 1994 Israeli Defense Minister Yitzhak Rabin and his Greek counterpart "signed a defense cooperation agreement, which included exchange of information, mutual visits, and a general framework for arms procurement." Mutual visits followed, as did intelligence cooperation, and "Israel agreed to refurbish forty American-built F-4 Phantons [sic] owned by Greece." <sup>132</sup> Israel's defense ties with Turkey, however, worried Greece and caused conflict. Israel and Greece agreed to hold joint naval maneuvers during 1997, but Athens indefinitely postponed them. While Israeli officials "were enthusiastic about military cooperation with Greece," they did not want to "antagonize" Ankara, and Athens did not hide "concern about the Israeli-Turkish rapprochement." 133 Before Israeli Defense Minister Mordechai visited Greece in December 1998, Athens turned down the joint naval maneuver offer again during the Greek air force commander's visit to Israel. Greek Foreign Minister Theodoros Pangalos deemed Israeli-Turkish cooperation "an alliance of wrongdoers," but Mordechai "assured the Greek commander that ... cooperation did not target a third country." <sup>134</sup>

Despite Greek qualms about Israeli-Turkish security cooperation, Greek-Israeli economic ties remained cooperative throughout the 1990s, but they did not experience

<sup>&</sup>lt;sup>130</sup> *Ibid*. 64-65.

<sup>&</sup>lt;sup>131</sup> *Ibid.*, 65.

<sup>&</sup>lt;sup>132</sup> *Ibid.*, 66.

<sup>&</sup>lt;sup>133</sup> *Ibid.*, 67-68.

<sup>&</sup>quot;Mordechai says Greece rejected maneuver offer," Hurriyet Daily News, December 2, 1998.

the exponential growth of Israeli-Turkish commercial relations. Bilateral trade "doubled between 1989 and 1995" to \$350 million, <sup>135</sup> and commercial activity included the lucrative defense contracts detailed above. In 1998, Greece even expressed interest in supplying Israel with natural gas. <sup>136</sup> Greece continued to be a popular tourism destination for Israelis <sup>137</sup> at the turn of the twenty-first century, and during his visit to Athens in 2006, President Katsav said, "we consider Greece an important economic partner for Israel's economy, as well as a gateway to the Balkans." <sup>138</sup> By 2009, bilateral trade totaled \$522 million. <sup>139</sup>

Security cooperation also continued. In 2008, Israel and Greece participated in a joint air force operation in Greek airspace that "simulated ... an attack on Iran's nuclear site." These ties, however, fell victim to politics in early January 2009. Washington "had to cancel a planned shipment of munitions from a Greek port to a US depot in Israel because of objections by Athens" related to Israel's military offensive against Hamas in Gaza from December 27, 2008, to January 18, 2009. 141

Despite the costs and topographic infeasibility of exporting Israeli natural gas to Greece, bilateral economic and security cooperation around East Mediterranean gas actually increased. Indeed, if economic logic solely determines outcomes, Israel should

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<sup>&</sup>lt;sup>135</sup> John M. Nomikos, Ioannis Michaletos, "An Outline of Greek-Israeli Strategic Relations," Research Institute for European and American Studies, accessed April 15, 2014, http://www.rieas.gr/researchareas/greek-studies/115.html.

<sup>&</sup>lt;sup>136</sup> David Harris, "5 nations vie to supply Israel natural gas," *The Jerusalem Post*, January 14, 1998. <sup>137</sup> John M. Nomikos, Ioannis Michaletos, "An Outline of Greek-Israeli Strategic Relations," Research Institute for European and American Studies, accessed April 15, 2014, http://www.rieas.gr/researchareas/greek-studies/115.html.

<sup>&</sup>lt;sup>138</sup> "Global Greece: Israel," Invest in Greece Agency, May 2007,

http://www.investingreece.gov.gr/newsletter/newsletter.asp?nid=690&id=715&lang=1.

Gwen Ackerman, "Israel's Netanyahu Visits Greece as Ties With Turkey Founder," *Bloomberg*, August 16, 2010.

<sup>&</sup>lt;sup>140</sup> "IAF 'Glorious Spartan 08' Exercise Details Revealed," Arutz Sheva, June 23, 2008,

http://www.israelnationalnews.com/News/Flash.aspx/148688#.U0HPm8fc339.

<sup>&</sup>lt;sup>141</sup> "Athens blocks arms from US," *The Australian*, January 15, 2009.

not have pursued such cooperative initiatives with Greece. In fact, however, this has not been the case, indicating that economics alone do not explain shifting bilateral relations. Rather, there is also a correlation between Israeli-Turkish political conflict and growing Israeli-Greek energy ties. Politics are actually more responsible for improving Israeli-Greek security relations than energy-related opportunities. In the economic sphere, however, the Greece export option's inherent limitations have prevented energy cooperation from moving beyond public sector statements.

Israel's security ties with Greece have deepened significantly, especially in the area of military collaboration. The Marmara incident interrupted a joint air force drill, which continued five months later, 142 and media reported in December 2010 that "at least four joint exercises combining Greek and Israeli combat aircraft" had been "performed in recent months." <sup>143</sup> Armed Greek commandos helped thwart a Gaza-bound flotilla in July 2011, 144 and Israel hosted the Greek air force for a joint exercise the following November. 145 In April 2011, Israel replaced its annual exercise with Turkey with an annual joint naval and air maneuver with Greece and the US named Noble Dina. It now includes simulating defending offshore natural gas platforms, and the most recent maneuvers were in March 2014. 146

There are other indicators of increasing security cooperation. The Greek parliament "approved the purchase of ... bomb precision upgrade kits" from an Israeli company in September 2011, and the following week Greek Defense Minister Panos

<sup>&</sup>lt;sup>142</sup> "Greek-Israeli joint air force exercise held at Larissa AB Greece, Oct. 21-26<sup>th</sup>," defencegreece.com, November 4, 2012, http://www.defencegreece.com/index.php/2012/11/greek-israeli-joint-air-forceexercise-held-at-larissa-ab-greece-oct-21-26th/.

<sup>&</sup>lt;sup>143</sup> Arie Egozi, "Israel steps up Greek training activities," Flightglobal.com, December 6, 2010. Joshua Mitnick, "Israel's new friend: Why Greece is thwarting Gaza flotilla," *Christian Science* Monitor, July 5 2011.

<sup>&</sup>lt;sup>145</sup> Anshel Pfeffer, "Israel hosts Greek Air Force for joint exercise," *Haaretz*, December 12, 2011.

<sup>&</sup>lt;sup>146</sup> Gavriel Fiske, "'Iran scenario' at Israel, US, Greece naval exercise," Times of Israel, March 25, 2014.

Beglitis visited Israel, where he signed a security cooperation agreement with his Israeli counterpart, Ehud Barak. Israeli ambassador to Greece Arie Mekel noted the visit "'highlights again the dramatic upgrade of relations.'"<sup>147</sup> When Barak met his new counterpart Dimitris Avramopoulos in 2012, the Greek defense minister asserted his country's "commitment to … make up for lost time.""<sup>148</sup> According to former Israeli ambassador to Turkey Oded Eran, while "the neo-Hellenist option does not fully replace the strategic assets lost with the disintegration of the neo-Ottoman option … it embodies much interesting potential that is well worth cultivating."<sup>149</sup>

While the annual Noble Dina exercise is by no means insignificant, it represents the entirety of Greek-Turkish energy cooperation in the security sphere. Greece's importance to Israel as an air force drill partner actually confirms that Israeli-Turkish political conflict has shaped relations more than energy opportunities during the hydrocarbon era. Israel "relies heavily on its advanced air power but has very limited airspace of its own in which to train," so when Turkey cancelled joint drills, Israel had to find another geographically close partner to serve that purpose. Furthermore, Greece no longer had to worry about the Israel-Turkey strategic alliance, which completely broke down after the Mavi Marmara. That threat reduction made Greece more amenable to cooperating with Israel and created an opening for enhancing public and private sector security ties.

Noble Dina, in fact, is both a symptom of the Israeli-Turkish break as well as a sign of energy-related cooperation. After discovering gas, Israel needed an East

<sup>&</sup>lt;sup>147</sup> Jean Cohen, "Greece, Israel sign pact on security cooperation," *Jewish Telegraphic Agency*, September 5, 2011.

<sup>&</sup>lt;sup>148</sup> "Greece, Israel Pledge to Boost Defense Ties," Agence France-Presse, January 10, 2012.

<sup>149</sup> Oded Eran, "Greece: A Strategic Alternative to Turkey?", INSS Insight No. 201, August 20, 2010.

<sup>&</sup>lt;sup>150</sup> Jonathan Marcus, "Israel woos Greece after rift with Turkey," BBC, October 16, 2010.

Mediterranean marine space for practicing hydrocarbons defense maneuvers. When Turkey suspended all joint drills with Israel after the Mavi Marmara, Greece offered to fulfill that need. Even if Israel's strategic relations with Turkey had remained intact, however, Noble Dina would likely still have resulted from Greece's need to practice defending natural gas infrastructure it anticipates constructing in the future.

Israel's economic relations with Greece also improved after January 2009 as trade relations continued to grow. In 2010, 250,000 Israeli tourists visited Greece—a 200 percent increase over 2009—and "some 400,000" visited in 2012. Greek tourism minister Olga Kefalogianni expected "a further growth" for 2013, 151 the year she visited Israel to meet with her counterpart, Stas Misezhnikov, and President Peres about strengthening tourism and "options for attracting Israeli investment to Greece." Greek president Karolos Papoulias attended the 2011 Greek-Israeli Business Forum on Investment and Trade in Tel Aviv, 153 and Prime Minister Samaras led a mission to Israel in 2013 accompanied by "more than 100 businesspeople, who met with potential business partners" and participated in another Greek-Israeli Business Forum. 154 Bilateral trade, however, fell to \$496 million in 2009 155 and "approximately \$140 million" in 2010. 156

While East Mediterranean hydrocarbons do not account for improving bilateral economic ties in the private sector, public sector officials have indicated a desire to

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<sup>&</sup>lt;sup>151</sup> Danny Sadeh, "Israeli visits to Greece hit new record," Ynetnews.com, February 13, 2013, http://www.ynetnews.com/articles/0,7340,L-4343838,00.html.

<sup>152 &</sup>quot;Kefaloyianni woos tourism, investment in Israel visit," Ekathimerini, February 5, 2013.

<sup>&</sup>lt;sup>153</sup> "State visit of President Papoulis to Israel and the Palestinian Authority (10-13 July 2011)," Hellenic Republic Ministry of Foreign Affairs, July 10, 2011, http://www.mfa.gr/en/current-affairs/top-story/state-visit-of-president-papoulias-to-israel-and-the-palestinian-authority-10-13-july-2011.html.

<sup>154 &</sup>quot;Greece, Israel Advance Relations," Enterprise Greece, October 9, 2013, http://www.investingreece.gov.gr/default.asp?pid=25&la=1&n=1835.

<sup>&</sup>lt;sup>155</sup>Gwen Ackerman, "Israel's Netanyahu Visits Greece as Ties With Turkey Founder," Bloomberg News, August 16, 2010, http://www.bloomberg.com/news/2010-08-15/netanyahu-to-meet-papandreou-in-athens-as-israeli-ties-with-turkey-founder.html.

<sup>&</sup>lt;sup>156</sup> Jean Cohen, "Greece-Israel relations soar as ties with Turkey fade," *Jewish Telegraphic Agency*, December 14, 2010.

cooperate on energy issues. During Prime Minister George Papandreou's trip to Israel in 2010, Prime Minister Netanyahu "suggested ... that the country purchase natural gas from Israel," but without approval from the Israeli Ministry of National Infrastructure. <sup>157</sup> In 2011, Greek energy minister Georgos Papakonstantinou met his Israeli counterpart, Gilad Erdan, and National Infrastructure Minister Uzi Landau in Israel. In addition to discussing "Greece's latest projects in both the energy and environmental sectors and potential for cooperation with both ministries," Papakonstatinou said there was also "a lot of discussion on looking at the technical and financial feasibility for pumping Israeli gas to Greece." When Prime Minister Antonis Samaras visited in 2013, he said Greece thought it could "cooperate with Israel in the development and the transportation" of natural gas. <sup>159</sup>

Despite these positive statements, there is definitely a gap between the Israeli and Greek administrations regarding governments' abilities to determine outcomes. Israeli Foreign Minister Avigdor Lieberman visited his Greek counterpart in March 2014 to discuss matters including energy issues. When asked about the potential for Israeli gas to travel to Greece, Lieberman replied that "it is a private project," but Foreign Minister Evangelos Venizelos noted "there is always a parameter that is institutional, political, intergovernmental." <sup>160</sup>

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<sup>&</sup>lt;sup>157</sup> Avi Bar-Eli, "Netanyahu offers natural gas to Greece," *Haaretz*, August 29, 2010.

<sup>&</sup>lt;sup>158</sup> Sharon Udasin, "Israel could benefit from Greek plan to be gas hub," *The Jerusalem Post*, November 29, 2011.

<sup>&</sup>lt;sup>159</sup> "Remarks by PM Netanyahu and Greek PM Samaras," Israel Ministry of Foreign Affairs, October 8, 2013, http://mfa.gov.il/MFA/PressRoom/2013/Pages/Remarks-by-PM-Netanyahu-and-Greek-PM-Samaras-8-Oct-2013-.aspx.

<sup>&</sup>lt;sup>160</sup> "Joint statements of Deputy Prime Minister and Foreign Minister Venizelos and Israeli Foreign Minister Avigdor Lieberman," Hellenic Republic Ministry of Foreign Affairs, March 20, 2014, http://www.mfa.gr/en/current-affairs/top-story/joint-statements-of-deputy-prime-minister-and-foreign-minister-venizelos-and-israeli-foreign-minister-avigdor-liberman-athens-20-march-2014.html.

As with Turkey, politics primarily drives Israel's security ties with Greece. Political conflict between Israel and Turkey created an opening for enhanced Israeli-Greek cooperation, and framed shifting security relations between Jerusalem and Athens. In contrast to Turkey, however, Israel and Greece did not exhibit economic energy cooperation in the private sector, demonstrating that the ability for politics to influence economic outcomes is limited. Indeed, ministerial talks indicate that the energy factor has influenced the progressive shift in economic relations in the public sector, but such discussions have occurred absent cooperation between private companies. In fact, this shows that official public statements cannot induce energy-related cooperation on their own. If an export option is not financially and topographically viable, as is the case with Greece, companies will not invest in it regardless of public sector statements that herald enhanced energy-related economic ties.

## Israel and Cyprus

As with Greece and Turkey, Israel enjoyed cooperative public and private sector economic ties with Cyprus from 1948 to January 17, 2009. Similar to Greece, Israel's strategic alliance with Turkey limited its security relations with Cyprus. In contrast to Greece, however, Israel-Cyprus security ties were more conflictual. Defense cooperation was limited to private equipment sales because public security sector relations were strained. Similar to Greece, non-energy economic ties with Cyprus have continued since January 2009. In the Israeli-Cypriot case, however, East Mediterranean gas cooperation has emerged in both the public and private sectors. Israeli-Cypriot security relations have also improved, but in contrast to Greece more bilateral military cooperation is gas-related.

Israel's early economic relations with Cyprus were cooperative in the private sector. "Around 8,000-10,000" Israeli tourists visited Cyprus each year from 1961 to 1964. Despite civil conflict in Cyprus and the Six-Day War, Israeli tourism helped maintain bilateral relations. 161

Cyprus had concerns about Israel's military cooperation with Turkey, but that did not stop the public and private sectors from pursuing ties. Nicosia "concluded several deals purchasing military equipment from Israel," in the late 1990s, 162 including a Shaldag fast patrol boat in 1997. 163 Still, In November 1998, Nicosia arrested "two Israelis on suspicion of spying on a military installation in Cyprus." An Israeli security expert wrote at the time that the "arrests were meant to send 'a warning to Israel lest it decide to provide Turkey with any intelligence or military assistance in its fight against Greek Cyprus." 164 Israel denied the accusations, and a Cypriot court acquitted the men in February 1999, 165 but tense security relations continued. In 2000, Israel "apologized to Cyprus for repeated violations by military aircraft of Cypriot airspace" and "promised to conform strictly with agreed flight procedures in the future." 1666

While Israeli-Cypriot public sector security relations vacillated between cooperative and conflictual, economic relations formed the basis for Israel-Cyprus ties. In

<sup>&</sup>lt;sup>161</sup> "Introduction," Prime Minister's Office: Israel State Archives, accessed April 15, 2014, http://www.archives.gov.il/ArchiveGov/Templates/Articals/Article.aspx?NRMODE=Published&NRNODE GUID={B2215F74-8C2A-43A0-82AE-

<sup>0</sup>F69658DD01E}&NRORIGINALURL=%2farchivegov\_eng%2fpublications%2felectronicpirsum%2fcyprus%2fisrael-cyprusintroduction.htm&NRCACHEHINT=Guest#1.

<sup>&</sup>lt;sup>162</sup> Efraim Inbar and Shmuel Sandler, "The Importance of Cyprus," *Middle East Quarterly* 8 (Spring, 2001): 51-58.

<sup>&</sup>lt;sup>163</sup> Eric Wertheim, The Naval Institute Guide to Combat Fleets of the World: Their Ships, Aircraft, and Systems (Annapolis: U.S. Naval Institute, 2013): 152.

<sup>&</sup>lt;sup>164</sup> Deborah Sontag, "Jailed Israelis: A Spy Fiasco Or a Warning By Cyprus?", *New York Times*, November 9, 1998.

<sup>&</sup>lt;sup>165</sup> Robert Fisk, "Israeli men in Cypriot port were not spies, court decides," *The Independent*, February 2, 1999.

<sup>&</sup>lt;sup>166</sup> "Nicosia: Israel apologizes for violating Cyprus's air space," Reuters, May 26, 2000.

1998 the two countries signed a bilateral investment treaty,<sup>167</sup> and that same year the Cypriot government decided "to initiate provision of special benefits to Israelis investing in high-tech." Israeli companies also invested in Cyprus, and the Cyprus-Israel Business Association was founded in 2000. DE Technologies inaugurated a desalination plant in Larnaca in 2001, and in 2008 Israel Electric Corporation bid for "a \$50 million Cypriot tender" to construct an "ultra-high power tension line."

Cyprus also became a destination for civil marriage ceremonies. In 2008, "5,028 Israeli couples married in ... Cyprus." Meanwhile, Cypriots traveled to Israel for medical procedures. <sup>173</sup> Bilateral trade reached nearly 600 million euros in 2008. <sup>174</sup>

If economic logic prevails, one would expect more Israeli-Cypriot than Israeli-Greek natural gas cooperation after January 2009, but less Israeli-Cypriot than Israeli-Turkish natural gas cooperation. While exporting Israeli gas to Cyprus is more economically and topographically feasible than exporting to Greece, exporting to Turkey is still the most viable option. In fact, however, this has not been the case. Indeed, Israel has cooperated more on energy-related security and economic initiatives with Cyprus than Greece, but Israeli-Turkish hydrocarbons collaboration lags far behind Israel's

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<sup>&</sup>lt;sup>167</sup> "Principal Activities of the Ministry of Foreign Affairs in 1998," Israel Ministry of Foreign Affairs, September 13, 2000, http://mfa.gov.il/MFA/MFA-

Archive/2000/Pages/Principal%20Activities%20of%20the%20Ministry%20of%20Foreign%20Af.aspx. <sup>168</sup> David Hayoun, "Cyprus to Accord Israeli High-Tech, R&D Investors Special Benefits," *Globes*, October 15, 1998.

<sup>&</sup>lt;sup>169</sup> "Profile," Cyprus-Israel Business Association, accessed April 15, 2014, http://www.cyprus-israel.org.cy/profile/.

<sup>&</sup>lt;sup>170</sup> David Moxey, "Successful Boot Project Nears Completion," IDE Technologies, accessed April 15, 2014, http://www.ide-tech.com/wp-content/uploads/2013/09/Larnaca-Successfull-BOOT-Project-Nears-Completion.pdf.

Lior Baron, "IEC bids in Cyprus project," Globes, September 18, 2008.

Linda Gradstein, "Israelis seeking alternatives to traditional wedding ceremonies," *Jewish Telegraphic Agency*, November 21, 2011.

<sup>&</sup>lt;sup>173</sup> Netty C. Gross, "The Medical Tourist," *The Jerusalem Report*, September 24, 2008.

<sup>&</sup>lt;sup>174</sup> "Greek Cyprus, Israel draw closer, presenting challenges for Turks," *Today's Zaman*, February 16, 2012.

cooperation on gas-related issues with Cyprus. As with Greece, this indicates that economics alone do not explain shifting bilateral relations, and that a correlation between political conflict and growing Israeli-Cypriot energy exists. In contrast to Greece, however, energy-related opportunities are actually more responsible than politics for improving Israeli-Cypriot economic and security relations.

Similar to Greece, Israel's break with Turkey affected shifts in Israeli-Cypriot ties, but security cooperation in the public and private sectors has focused on hydrocarbon issues. In 2011, Israel submitted a comprehensive proposal for improving and upgrading the Cypriot Navy Command, which calls for joint action to protect mutual interests in the EEZs because of "upcoming drilling for natural gas." Israeli Defense Minister Ehud Barak hosted Cypriot counterpart Demetris Eliades in January 2012 to sign "two agreements on defense cooperation and the protection and exchange of classified information." During his visit, Eliades said "the natural gas reserves found" offshore Israel and Cyprus "opened a new chapter" in bilateral relations. Israel and Cyprus have also conducted annual joint search-and-rescue drills as per a 2012 bilateral agreement, to up 1013, Israel sent "four or five" warships to the eastern Mediterranean for a joint exercise with Cyprus that focused "on the security of the eastern Mediterranean region and that of gas companies." That same year, Cyprus signed an agreement to "purchase two Israeli naval craft that are to be used primarily for patrolling

<sup>&</sup>lt;sup>175</sup> "Israeli proposal to strengthen the Cyprus Navy Command," Defencegreece.com, August 30, 2011, http://www.defencegreece.com/index.php/2011/08/israeli-proposal-to-strengthen-the-cyprus-navy-command/.

<sup>&</sup>lt;sup>176</sup> "Israel, Cyprus sign defense agreements – reports," *Globes*, January 10, 2012.

<sup>177 &</sup>quot;Cyprus and Israel mount joint military exercise," Cyprus Mail, February 11, 2014.

<sup>&</sup>lt;sup>178</sup> "Report: Israel to use warships in joint exercise with Greek Cyprus," *Today's Zaman*, April 9, 2013.

the waters in the Exclusive Economic Zone" for a "combined price tag of €100m," pending approval from Parliament. <sup>179</sup>

Israel-Cyprus economic relations in general have also improved since January 2009, but hydrocarbons added a new dimension to those ties. Bilateral trade climbed to 910 million euros in 2011, 180 and even though Nicosia shunned an Israeli tourism expo in 2009 "to protest the participation of a company representing" North Cyprus, 181 it remained a magnet for civil wedding ceremonies. 182 Diplomatic exchanges also encouraged development, and in 2012 Cypriot Minister of Commerce, Industry and Tourism Praxoula Antoniadou visited Israel, "accompanied by a sixty-member delegation of the Cyprus Chamber of Commerce and Industry ... comprising businesspeople from various Cypriot sectors for contacts with their Israeli counterparts." Israel's National Water Company launched a desalination plant it built for Cyprus in August 2013. 184

East Mediterranean hydrocarbons emerged as a factor in bilateral economic cooperation beginning in December 2010 when the two countries signed a landmark agreement delimiting each other's EEZs. At the signing ceremony in Nicosia, Israeli Minister of National Infrastructure Uzi Landau said that, "Israel and Cyprus commit to cooperating on the development of cross-border resources if any are discovered, and will hold negotiations over the nature of the technical and professional arrangements needed

<sup>&</sup>lt;sup>179</sup> "Cyprus agrees to buy Israeli vessels costing €100m," *Cyprus Mail*, December 19, 2013.

<sup>&</sup>lt;sup>180</sup> "Greek Cyprus, Israel draw closer, presenting challenges for Turks," *Today's Zaman*, February 16, 2012.

<sup>&</sup>lt;sup>181</sup> Irit Rosenblum, "Greek Cyprus shuns Israel tourism expo," *Haaretz*, February 11, 2009.

<sup>&</sup>lt;sup>182</sup> "Israeli couples wed at mass civil ceremony in Cyprus," Associated Press, June 19, 2011.

<sup>&</sup>lt;sup>183</sup> "Huge momentum in business between Cyprus and Israel," Famagusta Gazette, January 26, 2012.

<sup>&</sup>lt;sup>184</sup> Sharon Udasin, "Israel's National Water Company Mekorot launches Cyprus desalination plant," *The Jerusalem Post*, August 7, 2013.

in order to divide the joint resources." Landau also asserted that EEZ agreement would enable "investors to feel economic certitude." 185

Bilateral public and private sector initiatives followed. At the government-to-government level, Landau met his counterpart in Jerusalem in January 2012 to discuss "possible bilateral cooperation in the field of energy," and during a trip to Israel in April 2013, Energy, Commerce, Industry and Tourism Minister Yiorgos Lakkotrypis told a seminar of Israeli and Cypriot business leaders and government officials that "a close collaboration with Israel" will enable Cyprus "to be a major player in the world energy market." In August 2013, Minister of Energy and Water Resources Silvan Shalom traveled to Cyprus that August to meet with Lakkotrypis. Public sector economic cooperation reached a new level in April 2014 when Israel's Ambassador in Nicosia Michael Harari and deputy permanent secretary of the Cypriot foreign ministry Ambassador Tasos Tzionis signed "an agreement on the exchange and protection of confidential information on hydrocarbons discovered in Block 12 in Cyprus' Exclusive Economic Zone (EEZ) and in the adjacent Ishai offshore licence within Israel's EEZ." 189

Private sector actors are also cooperating to take advantage of natural gas-related opportunities. Israeli companies Delek and Avner signed an agreement in 2013 "to acquire a 30 percent stake in exploration rights for gas and oil off Greek Cyprus's

<sup>&</sup>lt;sup>185</sup> Zvi Lavi, "Israel-Cyprus exclusive economic zone set," Ynetnews.com, December 19, 2010, http://www.ynetnews.com/articles/0,7340,L-4000679,00.html.

<sup>&</sup>lt;sup>186</sup> "Energy and Water Resources Minister Landau meets with Cyprus Minister Kyriacou," Israel Ministry of Foreign Affairs, January 29, 2012,

http://mfa.gov.il/MFA/PressRoom/2012/Pages/Energy\_Minister\_Landau\_meets\_Cyprus\_Minister\_Kyriaco u 24-Jan-2012.aspx.

<sup>&</sup>lt;sup>187</sup> Sharon Udasin and Greer Fay Cashman, "'Israel, Cyprus cooperation could impact gas market," *The Jerusalem Post*, May 8, 2013.

<sup>188 &</sup>quot;CNA News," Cyprus News Agency, August 7, 2013,

http://www.cna.org.cy/webnewsEN.asp?a=df54216fac0046879160e9f29551b414.

<sup>&</sup>lt;sup>189</sup> "Cyprus-Israel deal on hydrocarbon secrecy," Cyprus Mail, April 29, 2014.

southern shore."<sup>190</sup> In April 2014, the Leviathan consortium "bid in a \$3 billion Cypriot tender for the supply of 0.7-0.95 billion cubic meters (BCM) of gas over ten years" to the Vassilikos power station."<sup>191</sup>

In contrast to Turkey and Greece, energy opportunities drive Israel's security ties with Cyprus. A pipeline from Israel to Cyprus is economically feasible, but Cyprus lacks the military capacity necessary to defend natural gas infrastructure in its own EEZ. Indeed, Israel has an interest in helping Cyprus develop its naval patrol and defense capabilities to protect potential natural gas projects. This has included both public security sector initiatives like Israel's proposal for upgrading the Cypriot Navy Command, and private sector initiatives like Nicosia's tentative agreement to buy Israelimade naval patrol craft. Still, costs for Israel limit how far energy-related security cooperation with Cyprus can go. Even if companies decide that constructing a pipeline from Leviathan to Vassilikos is the best route for Israeli gas exports, it will take years for Cyprus to accumulate the capacity needed to protect its end of the project. Protecting Israel's EEZ alone is a daunting task for the Israeli Navy, and it has neither the capacity nor the desire to also take responsibility for securing the Cypriot EEZ.

Unlike Turkey and Greece, Israel and Cyprus also developed energy-related public and private sector economic ties. While the Greek and Israeli public sectors have only indicated natural gas-related cooperation through public statements, the Cyprus export option's commercial viability has produced more tangible indicators, such as signed agreements on delimiting the Israeli and Cypriot EEZz and exchanging and protecting information about adjoining exploration blocks. The Cyprus option's potential

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 <sup>190 &</sup>quot;Israel firms invest in US energy search off Greek Cyprus," *Agence France-Presse*, February 11, 2013.
 191 Yossi Nissan, "Leviathan partners bid in \$3b Cyprus gas tender," *Globes*, April 16, 2014.

has improved private sector economic relations as well. While non-energy indicators have remained steady, companies have also undertaken new gas-related initiatives, as evidenced by Israeli companies' investments in potential Cypriot hydrocarbons and Leviathan's bid for a Cypriot gas supply tender.

Israel, Cyprus, and Greece

A fourth dynamic that has emerged since the discovery of East Mediterranean hydrocarbons is trilateral security and economic relations between Israel, Cyprus, and Greece. Ministers from all three countries convened in August 2013 to sign a tripartite energy memorandum of understanding, which "states that the countries will cooperate to protect regionally important infrastructure in the Mediterranean where natural gas fields are located," and included "a joint declaration of intent to ... lay an electric cable to link Israel and Cyprus's grids" that continues to Crete. 192 Israel, Greece, and Cyprus also held a trilateral air and naval drill with the US in April 2014 that included scenarios involving "countering terrorist attacks on ships and rigs; search & rescue operations; and sea pollution." The four countries will use these findings "to further improve ... cooperation ... in handling natural and man made disasters during natural gas extraction in the open seas."193 Such trilateral cooperation did not exist between 1948 and January 17, 2009. While Israel's conflict with Turkey has certainly made Cyprus and Greece more amenable to increasing security ties with Israel in general, all trilateral initiatives so far are energy-centric, indicating that new hydrocarbons in the East Mediterranean are indeed driving this new alliance.

<sup>192</sup> Yuval Azulai, "Israel, Greece, Cyprus sign new energy MOU," *Globes*, August 8, 2013.

<sup>&</sup>lt;sup>193</sup> "Nemesis 2014' confirms sovereignty of Republic of Cyprus, Ministers note," *Famagusta Gazette*, April 10, 2014.

## Conclusion

It is clear that both economic opportunities presented by East Mediterranean hydrocarbons and politics influenced Israel's changing geopolitical relations with Turkey, Greece, and Cyprus. Each factor's influence, however, was limited. Indeed, operating hurdles including geographic, security, and other costs rendered some export options more viable than others. Security costs and political realities, for example, make both Egypt options unfeasible, and geographic realities render an East Mediterranean Gas Pipeline that includes Greece financially impractical. Transiting Syrian or Lebanese waters en route to Turkey would also preclude cooperation and likely incur enormous security costs as well, given Hezbollah's influence in Lebanon and the current civil war in Syria. Crossing Cypriot waters, however, makes economic sense. Exporting LNG to Asia would also be financially risky because it involves much higher development costs than pipeline options, and there is no guarantee Israel could compete in that market.

Given all of these opportunities and their constraints, it would appear that Israel should clearly move forward in developing its exports to Cyprus and Turkey because they are the most economically viable and profitable allies. This study, however, indicates that hydrocarbon economics alone have not dictated Israel's geopolitical relations with its neighbors. In fact, political conflict played a significant role in Israel's security ties with Turkey, Cyprus, and Greece that limited energy's influence.

Indeed, opportunities for developing East Mediterranean natural gas could not overcome political conflict. If hydrocarbons had determined outcomes, one would have expected to see Israeli-Turkish security relations expand to include East Mediterranean gas-related initiatives. The discovery of new hydrocarbons, however, neither prevented

the Israeli-Turkish strategic alliance from collapsing, nor provided an impetus for resuming and enhancing security sector cooperation. If energy economics dictates more security cooperation between Israel and Turkey, furthermore, Israel and Greece should not have initiated energy-related security ties. Noble Dina was the only indication of Israeli-Greek security cooperation around natural gas, but its purpose was to replace Israel's annual exercise with Turkey.

Despite that Israel's bilateral ties with Greece have been driven primarily by politics, Israel has still pursued more energy-related cooperation with Greece in the form of a trilateral alliance with Nicosia and Athens. Indeed, this relationship includes initiatives in the public security and economic sectors that indicate a common interest in East Mediterranean hydrocarbons. In fact, however, this cooperation is not entirely cemented. As a memorandum of understanding, the trilateral energy agreement is non-binding. While the trilateral military drill with the US served as a more solid signal of converging energy interests, it still does not indicate that Israel sees Greece as a valuable partner for similar drills on is own.

Looking forward, politics will likely continue to dictate Israeli-Turkish security relations. There is no indication the Israeli-Turkish military relationship will go beyond limited defense equipment contracts in the near future, regardless of economic energy opportunity. This in turn will likely continue to determine Israel's security ties with both Cyprus and Greece.

Some might argue that more energy-related economic and security cooperation between Israel and Turkey is happening than measured in this analysis. After all, people like Hochstein and Israel Energy Envoy Michael Lotem exist to facilitate discreet energy-

related government-to-government contact in politically sensitive situations. However, such activities do not fulfill their purpose as indicators unless parties make them public. Secret agreements and negotiations do not truly become viable unless the parties decide they are practically feasible and able to withstand public scrutiny.

Political limits naturally impede third-party efforts to promote energy-related cooperation, but there are measures that third parties—primarily the US—can take. First, Washington can help facilitate commercial contacts between Israel and all three countries to promote investment in their energy sectors. In the case of Turkey, it can also facilitate energy-related communication between the Israeli and Turkish governments until political ties normalize and direct interaction resumes. Finally, the US can solidify trilateral cooperation between Israel, Cyprus, and Turkey in tandem with American participation by launching more initiatives similar to the Congressional Hellenic-Israeli Alliance, a caucus launched in the House of Representatives in 2013 to promote collaboration in the economic and security sectors.<sup>194</sup>

While energy opportunities have failed to entirely dictate Israel's East

Mediterranean geopolitical relations, politics has also proven unable to assume a similar
role. In fact, this study indicates that the private economic sector is insulated from
negative political change. Israeli-Turkish private sector relations grew after 2009, and
new bilateral economic ventures also emerged, indicated by the expanding regional trade
corridor. When civil war broke out in Syria, it could no longer function as Turkey's main

<sup>&</sup>lt;sup>194</sup> "Jews & Greeks in U.S. Form Caucus To Forge Hellenic-Israel Ties," American Jewish Committee, accessed April 17, 2014,

http://www.ajc.org/site/c.7oJILSPwFfJSG/b.8598825/k.B1BF/Jews\_\_Greeks\_in\_US\_Form\_Caucus\_to\_Forge\_HellenicIsrael\_Ties.htm?msource=IMPACT032013&kntaw556431=9246B371A07D46989F94EEF09770A186.

land bridge to the Middle East.<sup>195</sup> Turkish-Israeli political relations had already reached their nadir, but deteriorating conditions in Syria necessitated turning to Israel for exporting products to Jordan and the Arab Gulf States. Nor could Israeli-Turkish political conflict prevent gas-related private sector economic initiatives. The fact that Israeli and Turkish companies are discussing a pipeline project, in fact, shows that politics cannot deter private sector actors from taking advantage of economically attractive and feasible energy opportunities.

The ability for politics to influence outcomes is also limited where energy opportunities are infeasible. Despite public statements by Greek and Israeli government officials heralding a gas cooperation partnership, private companies remain unconvinced by such gestures because exporting Israeli gas to Greece is significantly less viable compared to other options. In contrast to Greece, however, public statements and agreements signed by Cypriot and Israeli officials have occurred in tandem with energy-related private sector cooperation. Companies are more willing to take on risks associated with a pipeline project because exporting Israeli gas to Cyprus is more feasible than exporting to Greece.

It could be argued that Israel's cooperation with Cyprus and Greece on energy issues is a symptom of Israel's political conflict with Turkey, rather than an independent factor. Indeed, Israel may not have looked to form military partnerships with Cyprus and Greece if the Israeli-Turkish strategic alliance was still intact. Israel, however, still would have signed the 2010 agreement with Cyprus because delimiting EEZs is mutually

<sup>&</sup>lt;sup>195</sup> John Reed, "Israel promotes trade route between Turkey and Middle East," *Financial Times*, August 27, 2013.

beneficial; such agreements are crucial to joint exploration and development of hydrocarbons.

This study, running contrary to claims that either energy or politics determines Israel's cooperation with its regional neighbors, situates itself in the middle of the spectrum. Indeed, the discovery of viable new hydrocarbons in the East Mediterranean influenced Israel's relations with Turkey, Greece, and Cyprus in some sectors, but politics influenced others. While natural gas discoveries in the East Mediterranean have changed Israel's relations with states in the region, those relations may very well change again soon. Private companies operating in Israel will have to make final export decisions in the very near future, and there is potential for an Israeli-Turkish reconciliation deal. The regional landscape could look quite different one or two years from now, but hydrocarbon volumes will continue to affect East Mediterranean regional dynamics.

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  <a href="https://www.archives.gov.il/ArchiveGov/Templates/Articals/Article.aspx?NRMO">DE=Published&NRNODEGUID={B2215F74-8C2A-43A0-82AE-0F69658DD01E}&NRORIGINALURL=%2farchivegov\_eng%2fpublications%2forestering electronicpirsum%2fcyprus%2fisrael-cyprusintroduction.htm&NRCACHEHINT=Guest#1</a>
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## **Appendices**

*Appendix A – Interviewees and Speeches* 

Dror Boymal – Infrastructure and Sea Planning Coordinator, Society of Preservation of Nature (at Israel Energy and Business Convention, November 19, 2013, in Ramat Gan)

Avishay Braverman – Member of Knesset (Labor Party), August 7, 2013, Jerusalem

Charles Ebinger – director at the Brookings Institution's Energy Security Initiative, February 7, 2014, Washington, DC

Amb. Oded Eran – former Israeli ambassador to Turkey and senior research associate at the Institute for National Security Studies (INSS), November 3, 2013, Tel Aviv

Amos Hochstein – Deputy Assistant Secretary for Energy Diplomacy, State Department, March 20, 2014, Washington, DC

Eran Lerman – Deputy National Security Advisor at Israel's Prime Minister's Office (at the Israel Energy and Business Convention, November 19, 2013, in Ramat Gan)

Amb. Michael Lotem – Israel Energy Envoy at the Ministry of Foreign Affairs, October 16, 2013, Jerusalem; Offshore Energy Discoveries and the Geopolitics of the Eastern Mediterranean conference, November 27, 2013, in Jerusalem

Amit Mor – CEO at Eco Energy Ltd., October 22, 2013, Herzliya

Brenda Shaffer – visiting researcher at Georgetown University's Center for Eurasian, Russian and East European Studies, March 27, 2014, Washington, DC

Ephraim Sneh – former Israeli Deputy Minister of Defense (at the Energy, Defense, and Strategy Conference, December 5, 2013, in Herzliya)

Yuval Steinitz – Israeli Minister of Intelligence (at the Israel Energy and Business Convention, November 19, 2013, in Ramat Gan)

Gideon Tadmor – CEO at Avner Oil and drilling chairman at Delek, October 17, 2013, Herzliya

Bini Zomer – director of corporate affairs at Noble Energy Mediterranean, September 22, 2013, Herzliya

Karish 2013 1.8 tcf Tanin 2010 1.2 tcf Tamar Aphrodite 2011 4.1 tcf 2009 10 tcf Tamar SW TURKEY 2013 0.6 tcf Leviathan 2010 19 tcf SYRIA Dalit 2009 0.5 tcf Haifa CYPRUS Dolphin 2011 0.1 tcf Mediterranean Sea Mediterranean LEBANON Sea Yam Tethys Area 2000 0.1 tcf shown ISRAEL remaining \* Volumes are reserves and resources Noa Tel-Aviv (contingent and prospective), best estimates.

Not shown: ATP East Med BV's 2012 Shimshon discovery south Mari-B of Leviathan and BG Group's 2000 Gaza Marine discovery \*Ashdod southwest of Mari-B, both undeveloped. Source: Delek Group **EGYPT** Ashkelon

Fig. 1: East Mediterranean Natural Gas Discoveries

Bob Tippee, "E. Mediterranean gas work faces geopo