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Gas Developments in the Eastern Mediterranean: Trigger or Obstacle for EU- Turkey Cooperation?

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Abstract

This paper positions energy as a critical component of international relations as it has been both a driving force for cooperation between nations as well as a source of conflict and war. It provides an overview of energy resources and trends in the Eastern Mediterranean, debating the influence of the tensions on the exploitation of gas, the role of EU and Turkey and the possibilities for regional cooperation. The paper finds that the quantity of Eastern Mediterranean offshore gas, the evolution of natural gas prices, Turkey-Israel political relationship, Turkey-Egypt bilateral ties, Cyprus-Egypt-Israel cooperation and the growth performance of the Turkish economy are main energy drivers that will steer EU-Turkey relations either towards conflict, converge or cooperation. The question of whether energy resources and trends will create an inter-regional dynamic favoring peace and cooperation or prove as destabilizing factors is essential to understand the emerging regional political environment. At the same time, the assessment of how energy dynamics affects the intra-regional order needs to take into consideration the current state of affairs marked by ongoing geopolitical disputes, including the Cyprus issue, and distressed bilateral relations, as is the case between Turkey and Israel and Turkey and Greece. The authors argue that better inter-state coordination will decrease the costs in exploration and exploitation activities, which none of the region's countries can bear alone.

Özet

Bu çalışma enerji konusunu, hem uluslararası işbirliğinin bir aracı, hem de çatışma ve savaşın bir kaynağı olması sebebiyle, uluslararası ilişkilerin kritik bir bileşeni olarak konumlandırmaktadır. Doğu Akdeniz'de enerji kaynaklarına ve buna ilişkin eğilimlere genel bir bakış sunarak, gazın işletilmesi üzerindeki gerilimlerin etkisini, AB ve Türkiye'nin rolünü ve bölgesel işbirliği olanaklarını tartışmaktadır. Rapor, Doğu Akdeniz'in doğalgaz miktarının, doğal gaz fiyatlarındaki değişmelerin, Türkiye-İsrail siyasi ilişkilerinin, Türkiye-Mısır ikili ilişkilerinin, Kıbrıs-Mısır-İsrail işbirliğinin ve Türkiye ekonomisinin büyüme performansının, enerji konusunun AB-Türkiye ilişkilerini çatışma, yakınsama veya işbirliği yönünde yönlendirecek ana dinamiklerini oluşturduğunu ileri sürmektedir. Enerji kaynaklarının ve trendlerin oluşturduğu bölgeler arası dinamiğin barış ve işbirliğini destekleyici veya bölgeyi istikrarsızlaştırıcı bir etken olarak ortaya çıkıp çıkmayacağı sorusu, mevcut bölgesel siyasi ortamı anlamak için şarttır. Bunun yanı sıra, enerji dinamiğinin bölge-içi düzeni nasıl etkilediği değerlendirilirken, Kıbrıs meselesi gibi jeopolitik ihtilaflar ile Türkiye-İsrail ve Türkiye-Yunanistan gibi gerilimli ikili ilişkiler de mevcut durum kapsamında dikkate alınmalıdır. Türkiye ve İsrail, Türkiye ve Yunanistan. Yazarlar, daha verimli bir devletlerarası işbirliğinin, bölgedeki hiçbir ülkenin tek başına altından kalkamayacağı enerji kaynağı araştırma ve işletme faaliyetlerinin maliyetlerini azaltacağı savunmaktadır.



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1. Introduction

Energy has always been a critical component of international relations. The study of this subject is replete with examples in which energy has been a driving force for cooperation between nations. The establishment of Euratom (the European Atomic Energy Community) as the maiden institution for nurturing post-war cooperation in Europe is a case in point. But energy has also been a source of conflict and war. The quest for access to energy resources has historically been a driver of inter-state conflict. The relationship between energy and inter-state relations has become a topical issue in the eastern Mediterranean (East Med) with the discovery of offshore natural gas there. Therefore, the question of whether these resources will create an interregional dynamic favouring peace and cooperation or whether they will, on the contrary, be a destabilizing factor will be critical in understanding the emerging regional political environment.

Any assessment of how energy dynamics will affect the interregional order will at the same time need to take into consideration the current state of affairs, which is marked by ongoing geopolitical disputes, as in the Cyprus issue; conflicts, as in the case of Syria; and distressed bilateral relations, as is the case between Turkey and Israel and Turkey and Greece. Yet, regional collaboration is the key to the development of East Med. Improved inter-state coordination will decrease the costs of exploration and exploitation activities, which none of the region’s countries can bear alone.

This paper will provide an overview of resources and trends in the region, debating the influence of tensions surrounding the exploitation of gas, the role of the European Union (EU) and Turkey and the possibilities for regional cooperation.

2. The Hydrocarbon Potential of the East Med Region

In an oft-quoted March 2010 study, the US Geological Survey (USGS) reported that the Eastern Mediterranean Levant Basin was hosting a mean probable 3.5 trillion cubic metres (tcm) of natural gas and 1.7 billion barrels of oil (USGS, 2010). According to experts quoted at a conference organized by Peace Research Institute Oslo’s (PRIO’s) Cyprus Center by the *Cyprus Mail*, already in 2017, ‘more than 3000 bcm gas has been discovered in the East Med’ and ‘potential of new discoveries could double or treble this amount’ (2017). The same report states that Eni S.p.A., an Italian company with stakes in offshore fields around the island of Cyprus¹ and also in Egypt, estimates that, ‘after supplying regional markets, potentially there may be 40-50 bcm/year excess gas in the East Med available for export’. Although the present level of findings in the region is barely 1.5 percent of global gas resources, they are still important within the bilateral and regional context. The said resources also have possible implications at the global level, given the proximity of this resource base to the European Union (EU), globally the third largest gas consumer (12.1

¹ The island of Cyprus is divided between the Republic of Cyprus (RoC, or simply Cyprus), Member of the European Union and recognized by the international community and the Turkish Republic of Northern Cyprus (TRNC), self-proclaimed in 1983 and not recognized by the international community with the exception of Turkey.



percent of global consumption) and with no significant gas resources of its own (BP Statistical Review of World Energy, 2017: 28–9).

Contrary to the overemphasis placed on Israeli and Cypriot gas discoveries, the Eastern Med is not a new hydrocarbon-producing area. Years before the Tamar discovery (2008) in Israel’s Exclusive Economic Zone (EEZ), the first in a stream of successful exploration wells, Egypt was already a significant gas producer and the region’s principal reserves holder. In 1990, Egypt controlled 0.4 tcm of natural-gas reserves – almost half of Israel’s current reserve basis. In 2000 – at the time that Israel made its first commercial discovery in the now-extinct Mari B field, estimated to contain 0.028 tcm – Egypt already controlled 1.4 tcm. In 2010 – by the time Israel had completed its stream of discoveries, including Tamar (0.318 tcm) and Leviathan (0.5 tcm) – Egypt still controlled 2.2 tcm. One year before the revolution that overthrew President Hosni Mubarak, Egypt was producing 61.3 billion cubic metres a year (bcm/y) and was exporting around 15 bcm/y, of which approximately one third was exported to Europe in the form of Liquefied Natural Gas (LNG).²

Even before its ‘super-giant’ Zohr discovery (0.84 tcm) in 2015, Egypt was unquestionably the epicentre of the eastern Mediterranean in terms of reserves. Between 2010 and 2015, despite a period of unprecedented political turmoil and very low domestic gas prices, Egyptian gas reserves in the offshore Nile Delta kept expanding thanks to the discovery of the Atoll and WMDW (West Med Deep Water) discoveries, which were estimated to contain 0.14–0.196 tcm and 0.14 tcm respectively. In less than two years, between 2014 and 2015, Egypt – as a result of the Zohr, Atoll and WMDW discoveries – added to its proven reserves basis *more than the combined discoveries* of both Cyprus (0.125 bcm) and Israel (0.894 bcm). More importantly, there are still many areas of the currently delimited Egyptian EEZ that have yet to be explored – especially in the deep-offshore areas that lie adjacent to the Cypriot EEZ.

The political and economic crisis that Egypt has been going through since 2011 has not allowed Cairo to utilize its expanding reserve basis to re-emerge as the region’s pivotal exporter, although it is likely that Egypt will once again become a marginal net exporter by the early 2020s.³ Its first task, though, is to eliminate its current net import dependency by the end of this decade by pushing forward with the monetization of the Atoll, WMDW and Zohr fields. Egypt is on schedule to achieve this goal by also expanding the use of natural gas as its principal feedstock for electricity generation.⁴ The country is already using more natural gas than oil in its primary-energy mix, and this trend is set to expand as the government reduces energy subsidies and progressively deregulates its domestic gas market, allowing for more competition.⁵ Part of its strategy is to emerge as the region’s natural-gas hub through the construction of additional connecting

² BP Statistical Review of World Energy 2011, (London: June 2011), data are for 2010, p.20 (reserves), p.22 (production) and (exports) p.29.

³ “Egypt: Bid to become a regional energy hub”, BNP Paris Bank, Economic Research Division, (May 2017), pp.23-26.

⁴ “Egypt sets sights on doubling natural gas output by 2020”, Reuters, 17/07/2017 & Ahmed Ismail, “Cutting Back on Imported Gas”, Al-Ahram Weekly, 24/05/2017.

⁵ BNP Paris, Ibid, p.25-26.



infrastructure with Cyprus and Israel, centred around the export of gas from Aphrodite and Leviathan Phase 2 fields to its two idle LNG liquefaction plants in Idku and Damietta.

If the impact of gas discoveries in 2014–15 was important in helping Egypt to overcome its economic crisis, the discoveries of Tamar and Leviathan had a revolutionary effect on Israel’s economy and energy security. They not only significantly reduced its electricity costs, they also expanded the country’s ability to depend on its own domestic energy resources for the first time in its history. In 2011, before Egypt shut down its exports to Israel through the El Arish–Ashkelon pipeline, Tel Aviv produced less than 10 percent of its own energy consumption. In 2016, Israel produced 33 percent of its energy needs and covered 100 percent of its expanding natural-gas demand. Gas consumption almost quadrupled between 2012 (2.6 bcm) and 2016 (9.7 bcm),⁶ and is expected to expand by more than 2.5 times to 24.8 bcm by 2040 fuelled – primarily from the use of natural gas in electricity. In 2015, Israel used natural gas to generate 50 percent of its electricity production, a share expected to rise to 75 percent by 2030. Electricity is, and will remain, the primary factor driving natural-gas demand in the country.⁷ The unprecedented level of energy self-sufficiency that these gas discoveries⁸ gave Tel Aviv have induced the Israeli Government to direct the majority of these reserves to its domestic energy market. In June 2013, Israel decided to reserve for domestic consumption 60 percent of its proven reserves while directing the remaining 40 percent to regional and international markets. Such a strategy proved to be challenging, especially when it came to exports, for two reasons. First, the absence of international players in Israel’s EEZ who could help to finance the necessary export infrastructure; second, the over-concentration of existing reserves in the hands of two companies: Noble Energy, and two subsidiaries (Delek Drilling and Avner) of the Delek Group, which together control 85 percent of existing reserves. Unlike in the cases of Egypt and Cyprus, the current regulatory and investment framework has so far failed to attract major foreign investment to Israel,⁹ although Tel Aviv is auctioning off 24 of its 69 offshore blocks in its first international licensing tender.

Offers for the tender, whose deadline was extended twice in 2017, indicated a lukewarm response on the part of the international oil industry given the regulatory upheaval in which Israel has

⁶ *BP Statistical Review of World Energy 2017*, (BP: June 2017), p.29.

⁷ Shaul Meridor, Director General of Israeli Energy Ministry, *Israeli Gas Opportunities*, (Israeli Energy Ministry: November 2016), p.14, http://www.energy-sea.gov.il/English-Site/PublishingImages/Pages/Forms/EditForm/Roadshow_2016_Presentation%20GD%20Shaul%20Meridor_Regulatory%20and%20Fiscal%20Regim.pdf

⁸ Israel’s gas reserves, all located offshore, are estimated by the Ministry of Israel’s latest review in November 2016 at 858,5 bcm, divided between the following fields: Leviathan (500 bcm), Tamar & Tamar Southwest (282 bcm), Shimshon (5 bcm), Karish & Tanin (55 bcm), Dalit (8 bcm), Ishai (7-10 bcm, average of 8,5 bcm used here). State of Israel, Ministry of Energy, *Israeli Gas Opportunities*, (Tel Aviv: November 2016), p.4, <http://www.energy-sea.gov.il/English-Site/Pages/News%20And%20Media/ISRAELI%20GAS%20OPPORTUNITIES.pdf>. To this estimate we need to add the recent update of the Tamar reserves completed in July 2017 that increase the proven volume of reserves to 318 bcm in the Israeli EEZ to 894,5 bcm. For Tamar’s estimated increase, not yet confirmed by the Israeli Ministry of Energy, Hillel Koren, “Tamar partners increase gas field estimate by 13%”, *Globes*, 02/07/2017. See also Theodoros Tsakiris, “The Energy Geopolitics of the Eastern Mediterranean and the Cyprus Problem”, *IEMed Mediterranean Yearbook 2017*, (Barcelona: September 2017) pp.288-291.

⁹ Israel’s gas industry is too introverted and may need to revamp some of its regulations such as 12.5% upfront royalty payment that may endanger the development of smaller gas fields.



engulfed itself after the decision of the country's competition authority to revoke Leviathan's export license in December 2014. The results of the round proved rather disappointing, since no major oil company even submitted a proposal for any of the fields offered.¹⁰ Yet, the potential for further discoveries is significant since currently less than 30 percent of the Israeli EEZ has been licensed off for exploration. The country's Ministry of Energy has announced its intention to launch a second licensing round within 2018. It is difficult to see, though, how exploration efforts will advance if there is no major infusion of capital and expertise from the international oil industry.

In the case of Cyprus, after its initial discovery of the Aphrodite field in Block 12 in 2011 and its certification in 2013, the country has been faced with a series of disappointments. In 2014 and 2015, Eni drilled two exploratory wells in Block 9, and in February 2015, Total pulled out of Block 10 while Eni chose to freeze additional exploration in Blocks 2 and 3 until it reassessed its previous assessment modelling. Had it not been for the discovery of Aphrodite in August 2015, Cyprus' offshore exploration efforts may have ended in failure.

The Zohr discovery re-galvanized the interest of the international major oil companies. Total remained in Block 11, and drilled an exploratory well in the Onisiforos target in September 2017. The results were disappointing in that the 11 bcm discovery could not be autonomously developed, but they confirmed the existence of hydrocarbon reserves to the north of the Zohr discovery and around the underwater Eratosthenes Seamount. In early 2017, the Republic of Cyprus tendered Block 8 to Eni; Block 6 to Eni/Total; and Block 10 to a consortium made up of Exxon and Qatar Petroleum, in which Exxon holds 80 percent of the joint venture.¹¹

Despite Turkey's claims that the northern part of Block 6 belongs to its continental shelf, Eni and Total started drilling in the block in January 2018, while Exxon is expected to drill two exploratory wells in Block 10 starting in October 2018. The exploratory drilling in Blocks 6 and 10 is expected to confirm whether or not a Zohr- or Leviathan-sized gas field exists inside Cyprus' EEZ. If positive, these results will spearhead additional exploration, including the possibility of a fourth licensing round. If not, they are likely to dissuade Eni from pursuing all of its existing exploratory obligations in Blocks 2, 3 and 8.

Clearly, the rapid emergence of the East Med as a potential global energy hotspot attracted the attention of the EU and Turkey, both of which regard energy hydrocarbons located in the region as a valuable asset in reducing their external energy dependence.

¹⁰ Italy's Edison and Spain's Repsol pulled out from submitting an offer. The only participants were a consortium of four Indian companies led by state-controlled ONGC and as well as a Greek company, Energean Oil & Gas, which in August 2016 bought the Tanin and Karish fields from Delek Drilling and Avner Oil. In December 2017, Israel's Petroleum Council granted five blocks (12, 21, 22, 23 and 31) to Energean as well as Block 32 to the Indian consortium.

¹¹ Theodoros Tsakiris, "Cyprus' Natural Gas Strategy: Geopolitical & Economic Preconditions", *Mediterranean Quarterly*, Vol.27 / Issue 1 (March 2017), pp.20-57.



3. EU and Turkish interest in the area

3.1. The renewed emphasis of the European Union

The prospective importance of East Med hydrocarbons for the EU initially emerged on the think-tank circuit in Brussels during 2012–13,¹² but did not reach the level of official policy making until mid-2014 when the region was first mentioned in the EU's Energy Security Strategy (EUESS) as a potential supplier of natural gas. However, it has to be noted that natural-gas exports from the East Med are not a new phenomenon: between 2005 and 2012, several EU member states imported Egyptian LNG from the two currently idle LNG liquefaction plants located in Idku and Damietta.

The renewed attention of EU authorities towards the region emanated not only from the fact that two new significant gas exporters came to the fore, one of which is a member state, but also from the need to enhance the Union's external energy policy at a time of renewed tensions with Russia over Ukraine. The EUESS proposed a series of internal policy measures to enhance the ability of the Union to deal with major supply/transit crises by boosting domestic-energy supply and completing the internal energy market through enhanced interconnectivity and solidarity, price liberalization and common crisis-management mechanisms.

It also proposed a series of external policy measures that centred around the need to improve the security of its increasing energy imports by diversifying its import sources and routes. In this regard, the EUESS called for 'the EU to engage in intensified political and trade dialogue with Northern African and Eastern Mediterranean partners, in particular with a view to creating a Mediterranean gas hub in the South of Europe'.¹³ However, the text fell short of proposing a specific policy action that would commit EU funds to any particular implementation project, and did not seem to differentiate between the EU's established Southern Gas Corridor strategy and the resources of the East Med.

This all changed a year later, as a result of the greater emphasis placed on the construction of common energy infrastructures that would further ameliorate inter-EU interconnectivity as well as facilitating the commercial linkage between EU markets and non-EU energy suppliers. The Connect Europe Facility (CEF) financial instrument was set up in order to materially support enhanced interconnectivity through the promotion of several Projects of Common Interest (PCI).

Simultaneously, at the EU Commission and Council levels, a more detailed strategy focused on specific areas of interest for the Union's emerging EUESS that would serve the overarching strategic priority of supply diversification. The EU's Energy Diplomacy Action Plan (EU EDAP), published in July 2015, singled out 'the strategic potential of the Eastern Mediterranean region'

¹² Igor Taranic, "European energy policies and their relevance to the Eastern Mediterranean", in Angelos Giannakopoulos (ed.), *Energy Cooperation and Security in the Eastern Mediterranean: A seismic shift towards peace or conflict?*, The S.Daniel Abraham Center for International and Regional Studies, (Tel Aviv University Press: 2016), p.109.

¹³ European Commission, *Communication from the Commission to the European Parliament and the European Council: European Energy Security Strategy*, SWD(2014) 330 final, Brussels, 28/05/2014., p.16.



as ‘a key priority’ for the EU’s ‘diversification of sources, suppliers and routes’, on which the EU should ‘focus its diplomatic support’.¹⁴

The EU EDAP clearly distinguished the East Med from the Southern Corridor, indicating that it would prefer an independent development of East Med reserves. More importantly – in what could be perceived as an indirect warning to Turkey, which is questioning the right of the Republic of Cyprus (RoC) to explore the waters of its demarcated Exclusive Economic Zone (EEZ) – the document underlined the fact that the EU’s ‘Energy partnerships and dialogues [...] should also ensure that the sovereignty and sovereign rights of the Member States to explore and develop their natural resources are safeguarded’.¹⁵

Two major projects emerged with strong EU backing under the PCI framework, promising to tap in to the region’s strategic potential: the high-voltage electricity-interconnector project EuroAsia and the East Med Gas Pipeline (EMGP) project.¹⁶

EuroAsia, a joint venture between a private Cypriot investor (Quantum Energy) and Greece’s Public Power Corporation (PPC), aspires to transfer up to 2 gigawatts (GW) of electricity from Israel and Cyprus to Attica in Greece over a distance of 1,518 km. Although the project may struggle to find a market in Greece and could duplicate a venture promoted by ADMHE, the Greek Electricity TSO (Transmission System Operator), to connect Attica to Crete, it would significantly enhance the security of electricity supply for the RoC by terminating its energy isolation while progressively connecting it to the EU grid via Greece. In 2015, the EuroAsia Interconnector received from the CEF €1,325 million in order to complete all necessary design, technical implementation and environmental-assessment studies, which it finished in late 2016. In April 2017, the project was upgraded to the next level of planning maturity, which allowed it to secure €14.5 million from the CEF to complete its final FEED (Front End Engineering and Design) study. The study is expected to be completed by 2020, and will allow the investors to take the FID (Final Investment Decision) leading to the construction of the first 1 GW underwater cable by 2022. The CEF has covered 50 percent of all project-associated costs so far.¹⁷

The EMGP – the second, and even more important – project comprises the construction of an ambitious East Med Gas Pipeline, which aspires to transport by 2025 between 10 and 16 bcm/y of East Med Gas to Greece and, via Greece, to Italy – promoted by the Greek–French–Italian IGI Poseidon consortium. In May 2015, the EMGP – analysed in section 4.2.1, below – received €2

¹⁴ European Council, *Council conclusions on Energy Diplomacy*, 10995/15, CFSP/PESC 414, Brussels, 20/07/2015, p.3.

¹⁵ *Ibid*, p.4.

¹⁶ More on the EU and Greek approach on East Med Energy, Theodoros Tsakiris, *Greece and the Energy Geopolitics of the Eastern Mediterranean*, Strategic Update 14.1, LSE Ideas, London School of Economics, (LSE: June 2014).

¹⁷ European Commission, “EuroAsia Interconnector - Design, Implementation and Environmental Studies”, 3.10.1-0028-CY-S-M-14, <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/3.10.1-0028-cy-s-m-14>; “Grant agreement to finalise the design of the EuroAsia interconnector signed in INEA today”, April 5, 2017,



million to complete its pre-FEED studies, which confirmed the technical and financial viability of the project although serious challenges remain regarding its eventual implementation.¹⁸

Nevertheless, these challenges did not discourage the Italian Government or the EU’s energy commissioner, Miguel Arias Cañete, from joining the original promoters of the project in Tel Aviv in April 2017 in order to sign the first quadrilateral political framework agreement in support of EMGP’s implementation.¹⁹ In their joint declaration the energy ministers of Italy, Greece, Cyprus and Israel stressed that they supported ‘the establishment of the Eastern Mediterranean as another corridor for gas supplies to Europe’, underlining the fact that the project ‘represents a strategic priority for exporting into Europe part of the current gas reserves of the Eastern Mediterranean’.²⁰

Commissioner Cañete, who said that EMGP is eligible for additional financial assistance from the CEF in order to reach its FID level, noted that the pipeline ‘is an ambitious project, which as the Commission, we clearly support, as it will have a high value in terms of security of supply and diversification targets’,²¹ while adding that ‘in the next decades, gas flows from the Eastern Mediterranean region will play a vital role in the energy security of the European Union’.²² In January 2018, in another indication of tangible support for the project from the EU, the European Commission granted another €34.5 million to EMGP developers in order for them to complete their FEED study and cover all licensing and permitting expenses for the project in Cyprus and Greece.²³

7

3.2. Turkey and the relevance of East Med gas for Turkish energy security

As fossil fuels remain the main energy source for Turkey, hydrocarbon resources located in the East Med can play a relevant role in Ankara’s energy strategy. Globally, the world’s 21st largest energy consumer in 2016, Turkey does not hold significant amounts of global reserves itself (BP Statistical Review of World Energy, 2017: 29), which makes the country the world’s 9th largest individual importer of natural gas and 17th largest importer of oil.

¹⁸European Commission, “EuroAsia Interconnector - Design, Implementation and Environmental Studies”, 3.10.1-0028-CY-S-M-14, <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/3.10.1-0028-cy-s-m-14><https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/7.3.1-0025-elcy-s-m-15>

¹⁹ Sharon Udasin, “Israel, European states advance plans for world’s largest underwater gas pipeline”, *Jerusalem Post*, 03/04/2017

²⁰ “Joint Declaration of the East Med Pipeline Ministerial Summit in Tel Aviv”, *Press and Information Office of the Republic of Cyprus*, 03/04/2017, <https://www.pio.gov.cy/moi/pio/pio2013.nsf/All/3E481E83C28B5163C22580F7004DD29C?OpenDocument&L=E>

²¹ Michael Tanchum, “EU Backs Israel to Italy pipeline to alter East Med energy chessboard”, *Hurriyet Daily News*, 13/04/2017, <http://www.hurriyetaidailynews.com/eu-backs-israel-to-italy-pipeline-to-alter-east-med-energy-chessboard.aspx?pageID=238&nID=111949&NewsCatID=396>

²² “Italy, Greece, Cyprus and Israel agree on implementing a gas pipeline through the Eastern Mediterranean”, *Iemed*, 03/04/2017, <http://www.iemed.org/actualitat/noticies/03-04-italy-greece-cyprus-and-israel-agree-on-implementing-a-gas-pipeline-through-the-eastern-mediterranean>

²³ “The European Commission will fund the technical studies and permitting costs of the East Med with €34,5 million”, *Energy Press*, 18/01/2018, <https://energypress.gr/news/me-345-ekat-eyro-i-komision-hrimatodotei-tis-tehnikes-meletes-kai-tis-adeiodotiseis-toy-eastmed>, (accessed 18/01/2018)



Hence, Turkey is highly exposed to risks in its energy security, and therefore it is of paramount importance for the country to decrease its existing vulnerabilities. Ankara’s strategy for mitigating these vulnerabilities is crystallized in its vision of becoming an energy hub – an active contributor to the dynamics of international/regional energy markets as both a transit and trading centre, with enhanced infrastructure including storage, processing and conversion facilities as well as pipelines. In this context, diversified resources and routes would enable the country to establish mechanisms of pricing and trade, with opportunities for re-export that go beyond the need to secure domestic demand.

From a resource perspective, Turkey’s strategic energy policy is centred around natural gas rather than oil. The East Med is important for Turkey in terms of resource diversification and its contribution to Turkey’s energy-hub ambitions.

4. The impact of political conflicts and controversies on the development of energy resources

4.1. The resolution of the Cyprus issue

The Turkish perspective

The intractability of the Cyprus problem has negatively affected the prospects of energy cooperation in the region. The Turkish position on the future of the existing and prospective natural-gas reserves of the island maintains the collective and indivisible ownership of these resources. Turkey categorically rejects the issuance of any concession blocks by the Greek Cypriots until a final settlement is reached between the parties. The country is adamant that no exploration or production activity should take place in the blocks claimed by the Greek-Cypriot authorities,²⁴ as it does not accept the Greek side as the rightful heir and sole legal representative of the ‘entity known today as the Republic of Cyprus’ (Çavuşoğlu, 2017). Furthermore, when it comes to the delimitation of maritime zones to the west of Cyprus, ‘beyond the western part of the longitude 32°16’ 18’’’ (Baseren, 2010: 79), Turkey asserts that it has *ab initio* and *ipso facto* rights that are inherent and do not need to be proclaimed, and views Greek-Cypriot claims on parts of concession blocks 1, 4, 5, 6 and 7 as a violation of its sovereignty.²⁵ Turkey has declared that under no circumstances will it allow ‘foreign oil companies to conduct unauthorized oil/natural gas exploration and exploitation activities in these’ areas (Erciyes, 2011: 32). To the north, east and south of the island, the Turkish Republic of Northern Cyprus (TRNC) has promulgated an

²⁴ This position has been reiterated, albeit in slightly different wording according to the context and occasion, time and again, latest of which was, “Press Release Regarding The Greek Cypriot Administration’s Hydrocarbon-Related Activities In The Eastern Mediterranean”, Turkish Ministry of Foreign Affairs, No: 228, 13 July 2017.

²⁵ “The Greek Cypriot unilateral actions do not only disregard Turkish Cypriots’ existing rights but also challenge Turkey’s maritime jurisdiction areas in the Mediterranean in the west of the Island”. Ministry of Foreign Affairs of the Republic of Turkey, “Greek Cypriot’s Unilateral Activities in The Eastern Mediterranean”, October 25, 2017, (online) http://www.mfa.gov.tr/greek-cypriot_s-unilateral-activities-in-the-eastern-mediterranean.en.mfa.



agreement dividing the continental shelf between the parties,²⁶ and with a separate agreement has granted Turkish Petroleum Inc. (TPAO) exploration rights in the designated concession blocks – namely, parts of Block 1 as well as 2, 3, 8, 9, 12 and 13.

Turkey sees the matter going beyond the Cyprus issue and the delimitation of maritime zones concerning the island, with an additional bearing on long-standing issues of maritime-zone delimitation and jurisdiction with Greece and other states in the Mediterranean and Aegean seas.

Also, Turkey intends to respond to ongoing Greek-Cypriot efforts to exploit offshore-gas resources. Ankara perceives access to eastern Mediterranean energy resources to be ‘as important as the Baku-Tbilisi Ceyhan TurkishStream, Trans-Adriatic Pipeline (TAP) and Trans-Anatolian Natural Gas Pipeline (TANAP)’ projects for its diversification strategy.²⁷ Furthermore, Turkish Minister of Energy Berat Albayrak has explicitly declared that Turkey will be exploring for oil and gas in the Mediterranean,²⁸ having added another ship to its existing fleet²⁹ – a statement echoed by the Minister of Energy of the TRNC.³⁰ A declaration by the Turkish Ministry of Foreign Affairs stating that the ‘only way to exploit the natural resources of the island’ is with ‘the clear consent of the Turkish Cypriot side regarding the sharing of these natural resources’ sums up the Turkish stance, and this position should not be expected to change in the future in the absence of a settlement of the Cyprus issue (Turkish Ministry of Foreign Affairs, 2013).³¹

²⁶ “Agreement on Delimitation of Continental Shelf in the Mediterranean Between Republic of Turkey and Turkish Republic of Northern Cyprus”, September 21, 2011, *Resmi Gazete*, Sayı 28437, October 10, 2012.

²⁷ “Bakan Albayrak: ‘Doğalgaz İletim Şebekemizin Günlük Taşıma Kapasitesini İki Yıl İçinde 400 Milyon Metreküpe Çıkaracağız’”, T.C. Enerji ve Tabii Kaynaklar Bakanlığı, July 11, 2017, (online) <http://www.enerji.gov.tr/tr-TR/Bakanlik-Haberleri/Bakan-Albayrak-Dogalgaz-Iletim-Sebekemizin-Gunluk-Tasima-Kapasitesini-Iki-Yil-Icinde-400-Milyon-Metrekupe-Cikaracagiz>

²⁸ “Bakan Albayrak: Son çeyrekte sondaj gemimizi Akdeniz’de devreye alacağız”, *Sabah*, August 10, 2017. It should be noted though that Minister Albayrak also set the date of the said exploration activity for Autumn 2017 and so far no activity as such has been carried out. Nevertheless, the posturing of the Turkish Armed Forces and Navy has not changed from November 2014 until now. During the “Blue Whale” biannual exercises than Commander of the Turkish Naval Forces Admiral Bülent Bostanoğlu has declared that Turkey’s answer to any threats would be devised within the “rules of engagement” that has been transferred to the Navy by the Chief of Staff of the Turkish Armed Forces. “Bülent Bostanoğlu: Angajman kuralları Deniz Kuvvetlerine devredildi”, *Deniz Haber Ajansı*, November, 10, 2014, (online) www.denizhaber.com.tr/bulent-bostanoglu-angajman-kurallari-deniz-kuvvetlerine-devredildi-haber-58666.htm. As stated these rules of engagement are based on protecting Turkish and TRNC’s rights in the Eastern Mediterranean and are implemented on a logic of progressive stages of escalation, the last stage including use of arms. Turkey holds two biannual invitex military exercises in Eastern Mediterranean titled “Blue Whale” and “Eastern Mediterranean” and deploys a standing task force of a frigate, two fast attack crafts, two patrol boats and a submarine in ports on its Eastern Mediterranean board, as well as in Cyprus, under Operation Mediterranean Shield since 2006. The unchanging character of the Turkish stance has further been confirmed by Admiral Bostanoğlu’s visit to *TCG Gaziantep*, and the new seismic research vessel of Turkish Petroleum Inc. *Barbaros Hayreddin Paşa* as they have been on duty in the Mediterranean off the coast of Cyprus. “Oramiral Bostanoğlu’ndan ‘Doğu Akdeniz’ mesajı”, *Anadolu Ajansı*, 30 Nisan 2017, (online) <http://aa.com.tr/tr/analiz-haber/oramiral-bostanoglundan-dogu-akdeniz-mesaji/808317>.

²⁹ “Türkiyeden Akdeniz ve Karadeniz Hamlesi”, *Yeni Akit*, March 9, 2017.

³⁰ “KKTC Akdeniz’de petrol ve gaz aramaya devam ediyor”, *Enerji Enstitüsü*, Sept., 8, 2017, (Online), <http://enerjiensitusu.com/2017/09/08/kkct-akdenizde-petrol-gaz-aramaya-devam-ediyor/>

³¹ “Statement Regarding the Claims of the GCASC on Hydrocarbon Resources in the Eastern Mediterranean”, Turkish Ministry of Foreign Affairs, No: 83, 23 March 2013.



The Greek and Greek-Cypriot perspective

For the Republic of Cyprus, the discovery of the Aphrodite field was seen as a factor that could ameliorate its position at the negotiating table with Turkey and the Turkish Cypriots. The challenge for the RoC is to find the appropriate mix of incentives for the Turkish Cypriots that would generate the impetus for a compromise without endangering its sovereignty, legally recognizing the self-proclaimed 'Turkish Republic of Northern Cyprus' or freezing its hydrocarbon development in case a compromise proves impossible.

This is a delicate balance and could prove to be an impossible task for the RoC, since the policies of Mustafa Akinci, the President of the self-proclaimed TRNC are identical – as were those of his predecessors – to those of Turkey when it comes to the critical issues of (a) who should control the licensing process for the issuing of exploration/exploitation permits in the RoC's EEZ, (b) how the gas revenue should be divided and (c) the optimal option for the export of Cypriot gas.

With respect to these issues, Mr Akinci and the Turkish Cypriots (a) demand an equal right with the RoC in granting licenses to International Oil Companies (IOC) or freezing all hydrocarbon-related activities in order to avoid 'tensions',³² (b) insist on a share of the prospective profits even before a solution is reached and (c) have always promoted the construction of an export pipeline to Turkey as the optimal option for the monetization of Cypriot gas.³³ The RoC's political parties unanimously reject all of the aforementioned Turkish-Cypriot demands in the absence of a solution to the Cyprus question.

The main reason for this approach relates to what they perceive as Turkey's outright hostility towards the RoC's attempts to monetize the island republic's energy potential within its demarcated borders, established in the EEZ agreements that Nicosia signed with Egypt (2003), Lebanon (2007) and Israel (2010). Turkey has not recognized any of these three EEZ agreements, and has supported Lebanese claims against Israel's northern EEZ boundaries, despite the fact that both Tamar and Leviathan are located further to the south of the contested area.³⁴ Ankara's refusal to recognize Nicosia's EEZ agreements stems from the fact that it does not recognize the existence of the Republic of Cyprus since it claims that there are two states on the divided island republic. Turkey claims the near entirety – estimated at approximately 70% – of the RoC's EEZ either directly (Blocks 1, 4, 5, 6 and 7) or on behalf of the Turkish Cypriots (Blocks 1, 2, 3, 8, 9, 12 and 13), and attempted to use its military might in order to deter Nicosia and Noble Energy from carrying out the exploratory drilling that discovered the Aphrodite field in September 2011.

³² It is notable that upon the announcement of the 3d Licensing Round Mr. Akinci protested that the Greek Cypriots did not include him in the decision making process and warned such actions "will create tensions as it has happened in the past", <http://www.reporter.com.cy/politics/article/50027/akintzi-yparchoyn-themata-sta-opoia-echoyme-plisiasei>, 28/03/2016

³³ Menelaos Hadjicostis, "Turkish Cypriot Head: Gas May Fund Peace Deal", *Associated Press*, 04/04/2016, <http://www.usnews.com/news/business/articles/2016-04-04/ap-interview-turkish-cypriot-head-gas-may-fund-peace-deal>

³⁴ Simon Henderson, "Turkey's Threats to Israel's New Gas Riches", *The Washington Institute for Near Eastern Policy*, 13/09/2011, <http://www.washingtoninstitute.org/policy-analysis/view/turkeys-threat-to-israels-new-gas-riches>



Figure 4.1 – Gas fields and T/C claims in the eastern Mediterranean



Source: The Economist

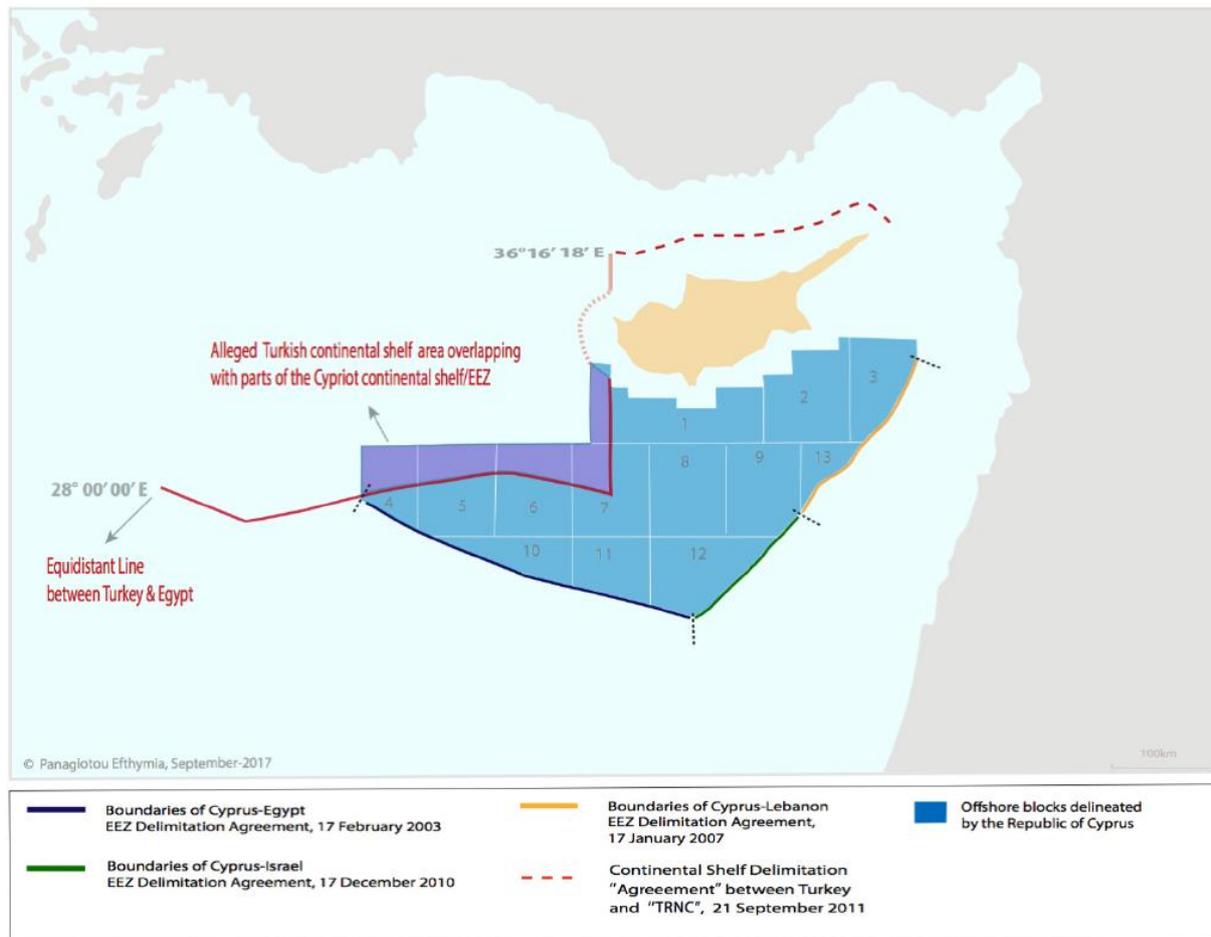
To many Greek Cypriots it is incomprehensible that the Turkish Cypriots have automatically aligned themselves with Turkish claims since, curiously, Ankara does not claim the Aphrodite field as either Turkish or 'Turkish-Cypriot' but at the same time refuses to recognize Cypriot sovereignty over it. So, presumably, for Turkey, Aphrodite may 'belong' to Israel. As it is clearly indicated in Figure 3.1, above, the field is located outside the areas claimed by the self-proclaimed TRNC – areas that it then 'licenses' to the state-owned TPAO in 2012. The question must surely be: how can the Turkish Cypriots claim co-ownership over a gas field that even according to their own maps does not have a sovereign owner – unless, of course, they acknowledge the RoC as the field's sovereign?

Moreover, Greek Cypriots note that if Turkey's assertions are accepted with regard to the western demarcated blocks of the RoC's EEZ, which Ankara claims to fall within *its* continental shelf, the recent 11 bcm Onisiforos discovery, as well as any other potential discoveries in Blocks 10 and 11 and the biggest parts of Blocks 5 and 6, will belong to someone else *other* than the RoC or its federal successor state should a solution is found.³⁵

³⁵ Nicholas Ioannides, *Turkish Maritime Claims Offshore Cyprus*, Eastern Mediterranean Policy Note #18, (September 2017), Cyprus Center for European & International Affairs, University of Nicosia, p.3.



Figure 4.2 – Turkish claims in the Cypriot EEZ as areas falling within its Continental Shelf



Source: Ionnides (2017)

How could the Turkish Cypriots demand a share of the profits from any potential discovery in those areas under a federal Cypriot state if Turkey asserts that these blocks belong to someone other than the RoC? EEZs are defined through the application of international law over geographical entities such as the island of Cyprus. International maritime law does not 'care' what type of political system (federative or not, for instance) Cypriots may choose to govern themselves by. Presumably, if we follow Turkey's line of thought, those areas and their prospective energy resources may belong to Egypt – but Cairo is not challenging Nicosia over them. No other regional state, IOC or international power has supported, or even recognized, the abovementioned Turkish or Turkish-Cypriot claims in the eastern Mediterranean.

On the contrary, all actors respect and support the legality of the RoC's actions in spite of Turkey's active opposition and regardless of the continued irresolution of the Cyprus question. Egypt has never questioned its 2003 EEZ agreement with the RoC, and in December 2013 signed a Common Unitization Agreement (CUA) that later allowed Nicosia to process the seismic and geological data from the discovery of the Zohr field.



Those data were used by Nicosia to launch its successful third licensing round in 2016–17, which tendered Blocks 6, 8 and 10 to, respectively, Eni/Total, Eni and ExxonMobil/Qatar Petroleum. Lebanon has yet to ratify its 2007 agreement with the RoC, but this has more to do with its overlapping claims with Israel rather than Turkey’s influence. Since 2007, Beirut has never challenged RoC’s sovereignty over Blocks 3 and 13, which are adjacent to the line of demarcation agreed ten years ago, and did not oppose the presence of RoC-licensed IOCs – specifically, Eni in Block 3.

Despite its halfhearted rapprochement with Turkey, Israel, has not challenged its 2010 EEZ agreement with the RoC, nor is it likely to do so in the foreseeable future. Even the US and the UK, who have publicly noted the need to reach an equitable profit sharing of the RoC’s resources between the island communities, have never said that such a profit-sharing arrangement should happen *before* a solution is reached and have never recognized any Turkish or Turkish-Cypriot claims over parts of the RoC’s EEZ.

Neither Washington nor London have ever publicly attempted to dissuade IOCs operating from or headquartered in their jurisdiction from investing in the RoC’s EEZ, as is evidenced by the presence of Shell and Noble in Block 12 and ExxonMobil in Block 10. Finally, no IOC that signed a production-sharing-agreement contract with Nicosia or participated in Nicosia’s three licensing rounds in 2008, 2012–13 and 2016–17 was dissuaded from doing so as a result of Ankara’s military and economic warnings – which include, since 2012, a threat to impose sanctions on any IOC doing business in the RoC.³⁶

A potential resolution of the Cyprus question will facilitate the monetization of Cypriot reserves, securing access for the Turkish-Cypriot community to the additional revenues generated by the exports of hydrocarbons. But its irresolution has not hindered, nor is it likely to stop, the monetization of the reserves discovered inside the RoC’s currently demarcated EEZ.

4.2 What future for Israel-Turkey relations?

Given their geopolitical influence on the region and their roles as, respectively, key producer and consumer of hydrocarbon resources, Israel and Turkey have an important stake in the establishment of an enduring regional-cooperation framework. Despite this objective, Turkish–Israeli interaction comprises a surprisingly uneasy and reluctant relationship. Most importantly, the level of visibility of their relations was, and still is, strongly correlated with the outlook for Palestinian–Israeli relations. Its relations with Israel also form part and parcel of Turkey’s domestic politics and the obstinate, inner struggle over Turkey’s identity. In this respect, ‘the ebb and flow of relations can be connected to the political attitudes and behaviors of social forces in Turkey’s

³⁶ Theodoros Tsakiris, “The Gifts of Aphrodite: The Need for Competitive Pragmatism in Cypriot Gas Strategy”, in Angelos Giannakopoulos (ed.), *Energy Cooperation and Security in the Eastern Mediterranean: A Seismic Shift towards Peace or Conflict?*, (Tel Aviv University Press: February 2016), pp.22-36



domestic political space’ (Balci and Kardaş, 2012: 116).³⁷ It has to be noted that another factor pertinent to Turkish–Israeli relations is surely the role of the United States.

The nature of the relationship remained largely unchanged from 1996 until 2009, when Israel executed Operation Cast Lead in Gaza. A bitter exchange of words during the World Economic Forum meetings at Davos between Turkey’s prime minister, Recep Tayyip Erdoğan, and the Israeli president, Shimon Peres, substantially worsened relations; the Israeli attack on the *Mavi Marmara* flotilla, which had been aiming to break the Israeli embargo on Gaza, that led to the killing of nine Turkish nationals put the final ‘nail in the coffin’ in 2010. Following the 2016 resignation of Ahmet Davutoğlu – the then Turkish prime minister, who had also been the governing AKP’s (Justice and Development Party’s) foreign-policy guru up to that point – a rapprochement became possible. Although this was in part due to the prospect of hydrocarbon deals between Turkey and Israel, the primary reasons behind it are surely more complex and concern Turkey’s larger strategic habitat.

At the lowest point of bilateral relations, the Israeli side seemed to be restraining itself in its diplomatic tone. The reasoning behind this attitude has been attributed by some in Turkey to pressure on Israel to get its new-found gas reserves to European markets through a pipeline from Israel’s giant Leviathan field to the Turkish port of Ceyhan,³⁸ where Turkey is investing to create a Special Energy Industry Zone. It could be said that overall Turkish attitudes towards the issue of East Med gas-transportation routes have been (and largely still are) predicated on the indispensability of the Turkish route.³⁹

Since June 2016, Turkish–Israeli relations have displayed all the characteristics of a ‘Cold Collaboration’ – and will most likely continue to do so. Full, long-term reconciliation will require patience, persistence and prudence on both sides. This may prove to be no easy task under the

³⁷ Even though these two analysts, perhaps due to their own political preferences, are somehow largely underestimating the *Realpolitik* aspect of the bilateral relations their assertion is accurate. Ali Balci and Tuncay Kardaş, “The Changing Dynamics of Turkey’s Relations with Israel: An Analysis of ‘Securitization’”, *Insight Turkey*, Vol. 14 / No. 2 / 2012 pp. 99-120

³⁸ This attitude was reflected in various statements coming from the Turkish side. Then Minister of Energy Taner Yıldız went on record to say that; “Israel is destitute” to Turkey for “the project” as “the project would not be feasible if the gas is not transported over Turkey”. “İsrail’den özür enerjisi”, *AHaber*, April 3, 2014, (online) <https://www.ahaber.com.tr/ekonomi/2013/04/03/israilden-ozur-enerjisi>; The Turkish view to this end is also observable in the way that Turkish press has reflected statements of the Israeli side on the gas issue. “İsrail’den açıklama: Türkiye olmazsa olmaz...”, Feb. 8, 2016, (online) <http://akademikperspektif.com/haber/2016/02/08/israilden-aciklama-turkiye-olmazsa-olmaz/>; Also Turkish energy industry executives have at times declared similar opinions. “İsrail gazı için olmazsa olmaz rota...” Nov., 28, 2014, (online) <http://uzmanpara.milliyet.com.tr/haber-detay/gundem2/israil-gazi-icin-olmazsa-olmaz-rota--/8000/8509/>.

³⁹ In a statement Davutoğlu outright called what he dubbed as “the Greek Cypriot Plan” to transport the gas through alternative routes, namely East Med Gas Pipeline, “not realistic”. He said: “Turkey is the only place where that gas can go. It cannot go anywhere else. When you look at this area, which country has the energy deficit and the energy demand? Very well, if it is wanted to be transported to Europe which route would it take? Either from under the sea to Crete, from there to Greece, there are such large fault lines there that it is impossible to pass there. So they are constrained”. Nuh Yılmaz, “Kıbrıs’ta Kesin Çözüm için Rumlara 3 Alternatifli Plan”, *Star*, March 28, 2013.



circumstances defined by the region’s geopolitics, which are currently changing faster than ever. However, it is worth noting that, since 2009, the two countries have in fact found a way of compartmentalizing their relations. Bilateral trade has enjoyed a solid upward trend since they ratified a free-trade agreement that had been in force since May 1997. In fact, trade between the two has been on a very solid footing for the seven years since 2009 and, despite political issues, has never fallen below its 2008 level after what one might call the initial shock of 2009.

In the near future, Turkish–Israeli relations will remain susceptible to the ups and downs of Palestinian–Israeli relations. This is the case not only because of the ideological disposition of Turkey’s current government, even though this factor surely has its influence, but also because of the fact that the history of Turkish–Israeli relations is a testimony that Turkish public opinion vis-à-vis Israel tends to sway according to the circumstances of the Palestinian issue.

4.3 Egypt and Turkey: competition or collaboration?

Domestic policies affect relations between Turkey and Egypt, with implications on those countries’ willingness to strengthen energy cooperation in the Levant Basin. Indeed, the onset of the ‘Arab Spring’ has upset relations between Turkey and Egypt, which since 17 February 2003 has had an agreement with Cyprus on the delimitation of its EEZ with the island. The initial years of the Arab Spring coincided with a particularly strong rapprochement between the two, which turned into a deep alienation after the ousting of Egyptian President Mohamed Morsi. The coming to power of the Muslim Brotherhood (MB), with Morsi as elected President of Egypt, was greeted positively by Turkey partly because even before the AKP won power itself, the mainstream Turkish political Islamist movement – organized under its ‘sire’, Necmettin Erbakan – ‘saw itself as part of a larger network of Islamist movements’ (Düzgüt, 2014) with an especial sympathy for the MB.⁴⁰ However, even though the AKP could be seen as the scion of Erbakan’s National Outlook movement, going beyond ideological affinity, the support that it lent to Morsi and the MB should also be attributed to the opportunity that Turkey saw for advancing its interests in the region. For instance, Turkey immediately extended a US\$2 billion credit line to Morsi’s Egypt.⁴¹ A High Level Strategic Cooperation Council was established in September 2011, according no less than 40 bilateral agreements during the two meetings that it held in 2011 and 2012.⁴² When Erdoğan visited Egypt in September 2011, he was welcomed almost as a local political leader (Kirkpatrick, 2011).⁴³

The tide decisively turned with the ousting of President Morsi. Turkey’s strong backing of the MB overnight became a liability for the bilateral relationship. Following the coup in Egypt, Ankara repeatedly branded its government illegitimate and pressured the international community to

⁴⁰ Senem Aydın-Düzgüt, “The Seesaw Friendship Between Turkey’s AKP and Egypt’s Muslim Brotherhood”, Carnegie Endowment for International Peace, July 24, 2014, (online) carnegieendowment.org/2014/07/24/seesaw-friendship-between-turkey-s-akp-and-egypt-s-muslim-brotherhood-pub-56243.

⁴¹ “Mısır’ın istikrarına bizden 2 milyar dolar”, *Star*, Sept. 15, 2012.

⁴² “Yüksek Düzeyli İşbirliği Mekanizmaları”, *T.C. Başbakanlık Kamu Diplomasisi Koordinatörlüğü*, (online) <https://kdk.gov.tr/haber/yuksek-duzeyli-isbirligi-mekanizmalari/452>

⁴³ David D. Kirkpatrick, “Premier of Turkey Takes Role in Region”, *The New York Times*, Sept. 12, 2011.



follow suit (Kader, 2013: XX). After Turkey asked the UN Security Council to impose sanctions on the new Egyptian Administration in 2013, Turkish Foreign Minister Mevlüt Çavuşoğlu accused Egypt, along with Saudi Arabia and some other Gulf states, of actively lobbying against Turkey’s bid for a seat on the Council in 2014.⁴⁴ In November 2013, the countries also expelled their respective ambassadors. As Turkey is said to be hosting news channels affiliated to the MB, and as a considerable number of Brotherhood members found refuge there, Egypt has reportedly detained 29 individuals on alleged charges of espionage on behalf of Turkey.⁴⁵ At present, therefore, Turkey and Egypt are at loggerheads. From Syria to Qatar, on almost all regional issues, the two countries could be said to be on the opposite sides of the aisle. Even though Turkish–Egyptian Council meetings were convened in Cairo in January 2017 after a gap of four years,⁴⁶ and a delegation of Turkish parliamentarians has visited Egypt for a meeting on cooperation in the eastern Mediterranean (Şimşek, 2017),⁴⁷ a full-fledged normalization of relations between the two countries seems highly improbable in the near future. This prospect also renders any cooperation on East Med energy resources between the two countries, or facilitation of such cooperation by one of the parties between the other and third parties, a rather distant prospect.

5. Players and solutions for regional coordination

5.1 The role of Egypt

Egypt – the second largest gas producer in Africa after Algeria, and a gas exporter to Israel and Jordan since 2003 – owns one of the most highly developed LNG and export infrastructures⁴⁸ in the eastern Mediterranean. Largely because of high demand spurred by the share of natural gas in electricity production, which stands at 75 percent (Samir, 2017),⁴⁹ and an insufficient diversification of both resources, Egypt had to stop exports in 2012. In such a context of resource scarcity, the gas and power shortages that the country has suffered since then had an important impact on Morsi’s fate.⁵⁰

⁴⁴ “FM: Certain Gulf countries lobbying against Turkey”, *Daily Sabah*, January 13, 2015

⁴⁵ “Egypt detains 29 people who allegedly spied for Turkey”, *The Jordan Times*, Nov. 22, 2017.

⁴⁶ “Dört Yıl Aradan Sonra Türk-Mısır İş Forumu Düzenlendi”, *Yeni Şafak*, January 30, 2017.

⁴⁷ Yurdagül Şimşek, “Türkiye-Mısır İlişkileri Normalleşiyor mu?”, *Sputnik News*, Oct. 20, 2017 (online) <https://tr.sputniknews.com/columnists/201710201030686938-turkiye-misir-iliskileri-normallesiyor-mu/>

⁴⁸ The Egyptian infrastructure is composed of two LNG plants, located in Damietta and Idku, and two pipelines, the El Arish-Ashkelon Pipeline and the Arab Gas Pipeline. The total LNG export capacity is calculated at 19 Bcm/year. (Tagliapietra, 2017; 14) Simone Tagliapietra, *Energy: A Shaping Factor for Regional Stability in the Eastern Mediterranean*, European Parliament Directorate General for External Policies Policy Department, June 2017

⁴⁹ Mohammed Samir, “Egypt’s Energy Future Between Reality and Fantasies”, *Daily News Egypt*, June 6, 2017.

⁵⁰ Ahmad Rahim, “Egypt’s Electricity Crisis Poses An Early Challenge for Morsi”, *Al Jazeera*, July 24, 2012 (online) <https://www.al-monitor.com/pulse/politics/2012/07/worsening-living-conditions-in-e.html>



Figure 4.1 – Egypt's gas-export infrastructure



Source: Observatoire Méditerranéen de l'Énergie (2011)

Egypt's fortunes seemed to be changing in 2015 with the discovery of the 'supergiant' Zohr field, which came into production at the end of 2017. With a 'potential 20 year plateau production level of 20-30 bcm/year' and estimated reserves of 850 bcm, Zohr could be 'a major relief for Egypt's constrained gas market' (Tagliapietra and Zachmann, 2015).⁵¹ In 2016, Zohr minority stakes in the Shorouk concession, where Zohr is located, have been sold to BP (10 percent) and Russian oil company Rosneft (30 percent).⁵² However, the question remains: will Egypt have excess capacity to pool and export together with other producers and potential producers, like Israel and Cyprus?

Indeed, Egypt's gas demand has increased by almost 9 percent per year during the last decade, and gas has come to represent 50 percent of its energy supply – up from 35 percent in 2000. The domestic demand in Egypt for natural gas will keep on growing; the Egyptian Government recently signed a €8 billion contract for three high-efficiency natural-gas power plants at a total capacity of 14.4 GW in addition to securing 'a 1.5 billion dollar project to connect 1.5 million households to natural gas' (Samir, 2017). Under the circumstances set in train by these developments, Egypt might remain a net gas importer – or, at least, a non-exporter – into the foreseeable future. A

⁵¹ Simone Tagliapietra and Georg Zachmann, "Egypt Holds The Key To The Eastern Mediterranean's Gas Future", *Forbes*, Nov. 29, 2015, (online) www.forbes.com/sites/realspin/2015/11/29/egypt-holds-the-key-to-the-eastern-mediterraneans-gas-future/#16a78ce4b7bf

⁵² Eni, "The History of Zohr", Eni, (accessed) Nov. 22, 2017, (online) www.eni.com/en_IT/operations/upstream/exploration-model/zohr-egypt.page



study on the level of energy security in Egypt found that the ratio of total energy resources to total consumption⁵³ stands at four years by 2030 under a ‘business-as-usual’ scenario (Atlam and Rapiea, 2016: 693).⁵⁴

This context might also provide an opportunity for Egypt’s neighbours. Should Egypt not be able to export for whatever reason, its LNG export infrastructure might also be available for them to utilize rather than it lying idle – especially when one considers that, when it comes to companies, the ownership of exploration rights of the fields in this part of the world presents important overlaps. Hence, at one level, cooperation between different interests and the integration of projects located in different sovereign zones might seem to be relatively easy at a first glance.⁵⁵ In terms of existing circumstances, this could hold true especially for both Israel and Cyprus, where Zohr’s main shareholder, Eni, has relevant interests.

After reaching their 2003 arrangement on delimitation, Egypt and Cyprus initialed a document intended to further their cooperation in August 2016. However, drilling activities in these blocks are expected to create heightened tensions as Turkey is adamant on protecting its rights in its maritime jurisdiction areas.⁵⁶ In addition to these geopolitical risks, the commercial dynamics affecting the markets – such as decreasing prices of LNG – will remain a critical issue.⁵⁷ Therefore, even though Egypt might choose to further its coordination and cooperation with third parties, it might prove difficult to realize these regional, capital-intensive, long-term export projects – and the cooperation schemes on which they are based – without a certain consensus being present amongst all of the interested parties. Indeed, although Egypt might hold the key to the future prospects of East Med hydrocarbons, the complexity of the issue makes it difficult for any one party – or even a convenient combination of parties – to overcome the risks and burdens involved.

5.2 The role of Turkey

Turkey perceives issues related to Eastern Mediterranean hydrocarbons not merely as part of a broader energy deal that would contribute to its energy security but, even more importantly, as central to the debate concerning its wider sovereign territorial rights – and not limited to the

⁵³ This indicator measures the number of years in which available energy resources can meet the expected demand. (Atlam and Rapiea, 2016; 685)

⁵⁴ The same study foresees 25,8 years under a new discoveries scenario. (Atlam and Rapiea, 2016; 694) An earlier study finds the same ratios at 16,7 years for oil and 36 years for gas (Ediger, Devlen, McDonald, 2012; 81 -82) Volkan Ediger, Balkan Devlen and Deniz Bingöl McDonald, “Levant’ta Büyük Oyun: Doğu Akdeniz’in Enerji Jeopolitiği”, *Uluslararası İlişkiler*, Vol. 9, No. 33, Spring 2012, pp 73 – 92.

⁵⁵ For example while Aphrodite and Leviathan has overlapping ownership structures, while the same company that discovered and holds majority stakes at Zohr is declared to have an intention to start a drilling campaign in “so-called” concession blocks declared by the GCA, namely 8, 3, and 6 with slightly differing partnership structures. The Turkish Ministry of Foreign Affairs declared that some of these “so-called blocks in the Mediterranean fall squarely on the Turkish continental shelf.”

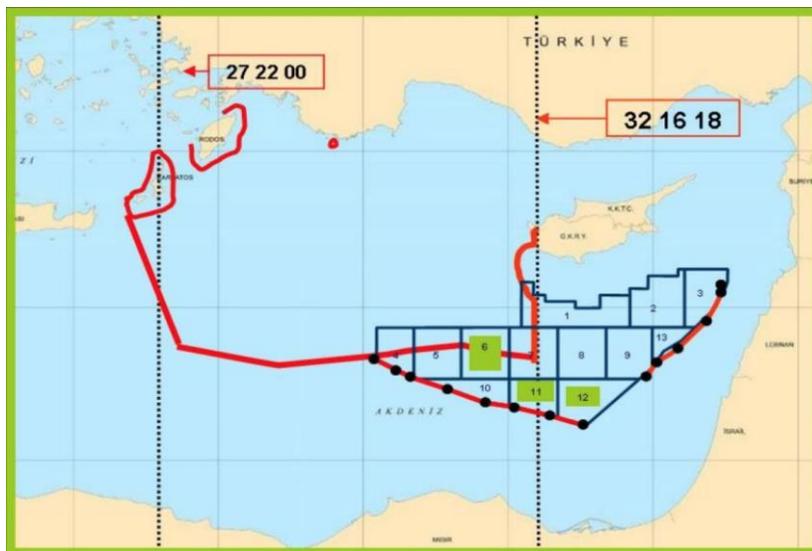
⁵⁶ Turkish Ministry of Foreign Affairs showed its reaction to such intentions by informing companies, and calling the situation “a conflict waiting to happen”.

⁵⁷ Remarkably an expert opines that, “gas from Israel and Cyprus exported to be liquefied at Egypt’s two idle LNG plants at Idku and Damietta, for export to Europe, cannot compete” with the present market prices. (Ellinas,2016) Charles Ellinas, “Egypt impact on Cyprus and Israel (Part II)”, *Strata Insight*, May 8, 2016, (online) <https://stratainsight.com/2016/05/06/egypt-impact-on-cyprus-and-israel-part-ii-by-charles-ellinas/>



eastern Mediterranean. As such, the issues of delimitation and exploration activities by third parties in the East Med are topics of very high sensitivity for the country. In this sense, Turkey’s approach to East Med hydrocarbons should be expected to be both preventive and proactive. This is not only part and parcel of Turkey’s Cyprus policy, even though that bears undeniably heavily on Turkey’s approach, but Ankara’s perspective is also closely determined by concerns about maritime security and the issue of the delimitation and sovereign rights on areas of maritime jurisdiction. For Turkey, these matters are not limited to the eastern Mediterranean but also encompass its long-standing issues in the Aegean with Greece. Under the circumstances, the Turkish approach to East Med exploration activities necessitates recognition of the country’s sovereign rights as set forth by the map below.

Figure 4.2 – The Turkish EEZ in the eastern Mediterranean and overlapping Greek-Cypriot blocks



Source: Başeren, 2010: 86 and Yaycı, 2012: 33.

Turkish Minister of Energy Albayrak has openly declared that Turkey is, in principle, ‘ready for any and all kinds of cooperation for the commercialization of the Eastern Mediterranean gas’, and strongly believes in the argument that ‘the energy security of Europe starts at Turkey’. Albayrak has also stated that ‘Turkey is the region’s keystone state when it comes to energy, and an important regional actor, as well as a reliable partner and should not be assessed through the lens of daily political debates, conjectural developments or transient political worries.’⁵⁸ At the same time, the Leviathan Consortium’s official presentations put their emphasis on the Turkish route as an alternative to the utilization of Egypt’s idle LNG infrastructure.⁵⁹ The Egypt LNG option is not a foregone investment opportunity either: the International Energy Agency (IEA) states in its Global

⁵⁸ “Albayrak: 10 yıl sonra enerji ihracatçısı olacağız” *EnerjiGünü*, November, 2, 2017, (online) <http://www.enerjigunlugu.net/icerik/24757/albayrak-10-yil-sonra-enerji-ihracatcisi-olacagiz.html>

⁵⁹ Delek Drilling, “BOAML Emerging Markets Corporate Conference Presentation”, June 2017, http://www.delekdrilling.co.il/sites/default/files/media/document/field_ev_presentation/DD%2023052017%20vfv.pdf, See Slide 24.



Gas Security Review that ‘[e]ven accounting for unavailability of supply [...] LNG markets are not expected to rebalance before the mid-2020s’, as ‘for now, LNG prices remain low [...] and demand, while growing robustly, is not keeping pace with the addition of supply (IEA, 2017: 13). The low prices and existing political and market risks and uncertainties make the commercialization of the eastern Mediterranean reserves ‘much more difficult’ (Ellinas, 2017).⁶⁰

On the export-route issue, the prevalent mood in Turkey (Karagöl and Özdemir, 2017: 55–62)⁶¹ considers the Eastern Mediterranean Gas Pipeline project to be truly ‘just another European pipe dream’ (Tagliapietra, 2017),⁶² despite the fact that it has been declared a project of common interest by the EU and claimed to be technically feasible, economically viable and complementary to other projects⁶³ in the face of a €6.2 billion price tag; declining gas prices; and the scale of existing reserves, which necessitates ‘the pooling of the gas as a prerequisite’. Hence, from a purely feasibility point of view, Turkey feels reasonably comfortable that neither a Greece–Cyprus–Israel (or, possibly an Italy) deal nor an Egyptian–Israeli–Cypriot trilateral cooperation would create a challenge to its status as the most attractive route, and probably market, for the eastern Mediterranean’s gas resources.

5.3 Export options, and how they will shape gas developments in the region

Although much of the focus on the potential exportation of natural gas from the region has been on the construction of new LNG facilities in either Cyprus or Israel, the option of building a new liquefaction plant in the eastern Mediterranean has been effectively taken ‘off the table’ as a result of the following reasons:

Cost. If one were to add together the existing net export capacity of Israel (360 bcm) and Cyprus (110 bcm), there would, theoretically, be more than enough gas to build a new, two-train LNG-export facility capable of liquefying anywhere between 10 and 14 bcm/y to global markets – especially in Europe, where East Med gas would not face strong competition from Qatari, Australian and established South East Asian LNG exports to China, Japan, Taiwan and South Korea. Unfortunately for both Cyprus and Israel, LNG-liquefaction plants have become extremely costly to develop – even for the Israelis, who do have the necessary reserves to build a two-train LNG-export facility, to the detriment of one or more of their regional pipeline-export options (to be analysed below).

⁶⁰ Charles Ellinas, “Future Challenges for East Med Energy”, *Cyprus Mail*, Oct. 15, 2017, <http://cyprus-mail.com/2017/10/15/future-challenges-east-med-energy/>

⁶¹ Erdal Tanas Karagöl and Büşra Zeynep Özdemir, *Türkiye’nin ENerji Ticaret Merkezi Olmasında Doğu Akdeniz’in Rolü*, SETAV, 2017.

⁶² Simon Tagliapietra, “Is the EastMed gas pipeline just another EU pipe dream?”, *Bruegel*, May 10, 2017, (online) <http://bruegel.org/2017/05/is-the-eastmed-gas-pipeline-just-another-eu-pipe-dream/>

⁶³ “A Direct Link to New Sources for Europe”, IGI Poseidon, Nov. 22, 2017, (online) <http://www.igi-poseidon.com/en/eastmed>



Since Israel’s net export capacity is limited by its own domestic regulation, signed in June 2013, to 360 bcm, or 40 percent of its existing proven reserves of almost 900 bcm, then it would need to commit at least 10 bcm/y out of the 18 bcm/y that it has available for 20 years in order to finance a commercially viable two-train LNG facility in Israel. Israel, which has the right to approve all export deals made by companies developing its natural-gas reserves, has, ever since the inter-ministerial Zemach Committee Report of September 2012, excluded the possibility of liquefying its gas reserves outside areas of its sovereignty. By virtue of this decision, it has effectively ruled out (since at least 2013) the construction of a joint Israeli–Cypriot LNG facility in Vassilikos that would be partially fed by Israeli gas. Cyprus has never by itself had enough gas to self-finance a commercially viable LNG option.

This leaves around 8 bcm/y, of which Leviathan’s developers have already agreed (in September 2016) to sell 3 bcm/y to the Jordanian market from Phase 1 of Leviathan’s production – a deal that has been approved by the Israeli state.⁶⁴ The remaining 5 bcm/y are not enough to finance a 10 bcm/y pipeline to Turkey, but could be exported to Egypt through a joint Cypriot–Israeli export pipeline that links Aphrodite and Leviathan to the Egyptian grid or its two idle LNG-liquefaction terminals in Damietta and/or Idku. An LNG option for Israel, in short, is commercially detrimental to an offshore pipeline to Turkey, but not to Egypt especially if existing infrastructure is utilized like the El-Arish-Ashkelon gas pipeline.

Investors. Existing Israeli developers do not have the necessarily financial capacity and technical expertise to shoulder alone the costs of a major LNG-export project, which could easily surpass a \$8–10 billion price tag on top of the \$4–5 billion that they need to finance the production target of the first phase of gas from Leviathan. The cost of the upstream phase alone forced the developers (Noble, Delek and Ratio) to reduce their initial production target for Phase 1 from 21 bcm/y to 16 bcm/y when they submitted a revised Field Development Plan (FDP) to the Israeli Government in February 2016⁶⁵

By the time that the FDP began to be implemented in February 2017, the production target set to be achieved by the end of 2019 had shrunk further – to 12 bcm/y – because the developers could only mobilize \$3.75 billion for its financing. The plan includes the construction of two 120 km offshore pipelines connecting the field with the existing Israeli grid in the northern part of the country, which will absorb three quarters of the entire output with the remaining one quarter being exported to Jordan.⁶⁶ An LNG option was simply impossible to finance without the participation of a major IOC. No such organization sought to join the Leviathan consortium after

⁶⁴ Sharon Udasin, “Israel to supply gas to Jordan in \$10 billion deal”, *Jerusalem Post*, 26/09/2016

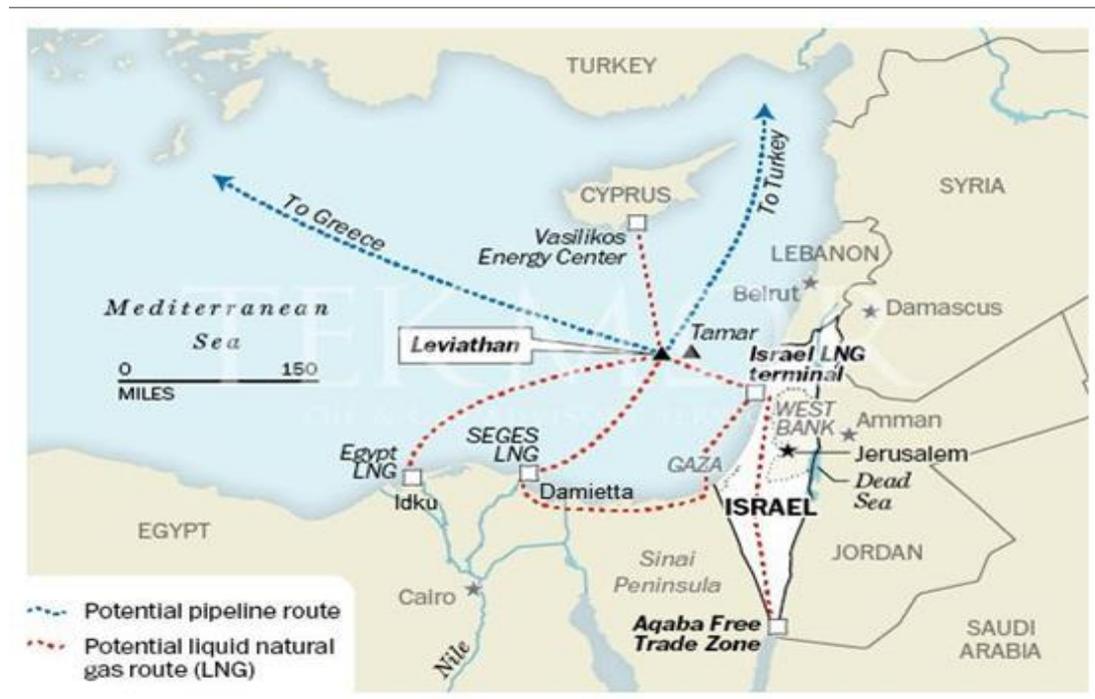
⁶⁵ The initial development plan submitted in 2014 had a production target of 21 bcm/y at a cost of \$6-7 billion. It has since been revised down to 16 bcm/y according to the revised plan submitted in February 2016. “Revised plan pushes Leviathan development”, *Oil & Gas Journal*, 25/02/2016, <http://www.ogj.com/articles/2016/02/revised-plan-pushes-leviathan-development.html>

⁶⁶ “Noble Energy Sanctions Leviathan Project Offshore Israel”, 23/02/2017, <https://globenewswire.com/news-release/2017/02/23/926886/0/en/Noble-Energy-Sanctions-Leviathan-Project-Offshore-Israel.html>, (accessed, 04/10/ 2017)



an attempted purchase of a 30 percent share by Australia's Woodside Petroleum ended in failure back in May 2014.⁶⁷

Figure 5.3 – East Med Gas Export Options



Source: A. Dimou

If an LNG option is off the table, does this mean that all of the region's export potential will be consumed inside the region without any exports reaching the EU? Not necessarily. Pipeline options do exist that could monetize, in conjunction with existing LNG-liquefaction facilities, the region's proven reserves in ways that could have a major, positive effect on the EU's import-diversification strategy by as early as 2021-2022. Theoretically, there are three pipeline options allowing Europe to import East Med gas: (i) the East Med Gas Pipeline (EMGP), connecting Israel, Cyprus and Greece; (ii) a pipeline connecting Israel with Turkey, with a potential extension to Turkey's EU border; and (iii) a pipeline connecting Aphrodite and/or Leviathan with Egypt's idle liquefaction plants.

⁶⁷ James Paton, "Woodside Scraps \$2.6 Billion Israeli Gas Deal as Talks Fail", *Bloomberg*, 21/05/2014, <https://www.bloomberg.com/news/articles/2014-05-20/woodside-scraps-2-6-billion-leviathan-gas-deal-after-talks-fail>, (accessed 01/10/2017)



The East Med Gas Pipeline (EMGP)

Although the option of a direct pipeline linkage between the East Med and EU markets has been revived by the improvement of deep-offshore pipe-laying technology and the signing in April 2017 of a preliminary framework agreement between Israel and the three EU states (the RoC, Greece and Italy) championing the project, its implementation remains debatable. The EMGP, estimated to cost around €6.2 billion, is cheaper to build than a twin-train LNG-liquefaction plant, but its construction will prove very challenging. Crossing over 1,900 km, it would be the longest pipeline ever to operate at depths close to 3,000 m.⁶⁸ Due to its length and depth, it would need a minimum booking capacity of 10 bcm/y, and because of its technical characteristics it would be more difficult to scale up so as to transport additional volumes.

The pipeline may end in mainland Greece, but Greece is not its principal market; Italy is, and currently there is no pipeline connection between Italy and Greece. More importantly, Cyprus does not have sufficient additional reserves to commit to the project, whereas Israel, which has additional reserves, understands that a 10 bcm/y commitment to the EMGP will eliminate any chances for exporting gas to Turkey. Should Israel decide to book 100 percent of the EMGP's capacity – an unlikely probability in the absence of new discoveries – it would still be able to export 3 bcm/y to Jordan *and* book almost a third of Egypt's idle liquefaction capacity. In this scenario, Israeli companies could also export their remaining 5 bcm/y to independent gas operators in Egypt like Dolphinus, provided that they use *in reverse* one of the existing, although currently inoperable, pipeline connections between Israel and Egypt – namely, the Ashkelon–Arish pipeline or the trans-Arabian pipeline that links Israel and Egypt via Jordan.

A pipeline connecting Israel with Turkey

The second option is that of the Leviathan–Ceyhan Gas Pipeline (LCGP), which, given its depth (1,500–1,800 m) and length (500–550 km), would also need a minimum gas commitment of 8–10 bcm/y in order to become financially viable. Since Israel would sell to Jordan, an LCGP pipeline – estimated to cost anywhere between \$2 billion and \$4 billion⁶⁹ – would mean that Israeli companies would have no more than 5 bcm/y to dedicate to either Egypt's domestic market –if, of course, they use existing infrastructure – or the idle LNG-liquefaction capacity in Idku or Damietta. An 8 bcm/y LCGP would provide around 12 percent of Turkish demand – expected, according to projections by the Turkish Energy Ministry, to reach around 65 bcm in 2023, when Leviathan's second production phase is expected to come on stream.⁷⁰

⁶⁸ Simone Tagliapietra, "Is the East Med gas pipeline just another EU pipe dream?", *Bruegel*, 10/05/2017, <http://bruegel.org/2017/05/is-the-eastmed-gas-pipeline-just-another-eu-pipe-dream/>

⁶⁹ Hedy Cohen, "Gas execs see Israel-Turkey gas deal by 2017", *Globes*, 28/06/2016, <http://www.globes.co.il/en/article-gas-execs-see-israel-turkey-gas-deal-by-2017-1001135479>. For a detailed analysis, Theodoros Tsakiris, "The Leviathan-Ceyhan Pipeline: Political & Commercial Arguments Against the Construction of a Turkish-Israeli Pipeline", in Sami Andoura & David Koranyi (eds.), *Energy in the Eastern Mediterranean: Promise of Peril?*, Egmont Institute & U.S. Atlantic Council, (Academia Press: May 2014), pp.47-58.

⁷⁰ Gulmira Rzayeva, *Natural Gas in the Turkish Domestic Market: Policies and Challenges*, OIES Paper#82, Oxford Institute for Energy Studies, (Oxford: February 2014), p.9



Turkey’s private gas traders – who, led by Turcas, are lobbying for the project – may even offer a higher price to Israeli producers compared with Egyptian importers in order to improve the pipeline’s commercial attractiveness. Turkey’s domestic market makes economic sense for Israeli exporters; an attempt to transit via Turkey to the EU does not make any economic sense – something that is admitted even by the leading Turkish developers of the LCGP.⁷¹ There are those who claim that Israeli and/or Cypriot gas could merely transit to Europe via Turkey via the TANAP/TAP (Trans Anatolian Natural Gas Pipeline/Trans Adriatic Pipeline) system.⁷²

However, the proponents of a Turkish transit option for East Med gas fail to take into account that:

- there is no connection between TANAP and the Ceyhan region;
- TANAP, with the exception of 5 bcm/y, is fully booked for the transportation of Azeri gas exports from Shah Deniz 2 and from other Azeri fields in the Caspian Sea, which will come on stream by the mid-2020s;
- there is no free capacity in TAP for East Med gas, for the same reasons since Azeri-based producers from the Shah Deniz consortium will give priority to their own gas
- there is no pipeline system -other than TAP- presently available to carry the gas from the Turkish–EU border to its final EU market destinations; and
- the continued irresolution of the Cyprus question would mean that the construction of the LCGP through the Republic of Cyprus’s EEZ would seriously damage the multifaceted cooperation between Israel and the RoC. This cooperation is something that many political forces inside Israel may value more than the commercial interests of Leviathan’s developers. In any case under current conditions the EU has nothing to gain from increasing its transit-gas dependence on Turkey, and that is partly why the Union has refrained from expressing any support for a Turkish transit option compared with its very public and very tangible support of the EMGP.

A pipeline connecting Aphrodite/Leviathan with Egypt’s liquefaction plants

The lack of sufficient resources to build its own LNG plant, the continued irresolution of the Cyprus problem and the immaturity of the EMGP have left the RoC with essentially one realistically attainable option, which did not even exist as late as 2013 – namely, Egypt’s LNG facilities. Cypriot Energy Minister George Lakkotrypis has also mentioned Egypt’s domestic gas market and Jordan⁷³ as potential export destinations. Both alternatives, however, are highly unlikely since Jordanian demand will be covered by Israeli exports and the discovery of Zohr has limited any prospect for

⁷¹ As *Platts* noted in a recent interview with Batu Aksoy, the CEO of Turcas, the leading developer of the Leviathan-Ceyhan consortium on the Turkish side “While previous reports have said that if Israeli gas was brought to Turkey, the bulk of it would be transited on to Europe, Aksoy said “In moderate to high growth cases, most of the gas to be imported to Turkey may be for local Turkish consumption”, *European Gas Daily*, 21/04/2016, p.2.

⁷² Jonathan Ferziger and Elliott Gotkine, “U.S. Says Israel Gas May Help Europe Diversify From Russian Fuel”, *Bloomberg*, 07/04/2016.

⁷³ Henderson, *Jordan’s Energy Supply Options*, op.cit, pp.7-8.



direct imports to the Egyptian market by the time that Aphrodite or Leviathan Phase 2 may come on stream. Prospective Israeli exports may go to Egypt’s domestic markets via Tamar or Leviathan Phase 1 *only* if pre-existing pipeline infrastructure, in particular the Ashkelon-El Arish pipeline is utilized to cut the final cost to the end consumer.

This is not the case for Cypriot reserves, which need a new pipeline connection to be constructed in order to reach their market destination in either Idku or Damietta. Aphrodite gas can begin production within 36–42 months after the signing of a sales contract, which can come at the earliest in 2018. This means that Cypriot exports can begin no sooner than late 2020 to mid-2021. Idku and Damietta are not equally attractive options, and require a different supply mix to become viable. The prospective export of Aphrodite’s gas, estimated at approximately 7.4 bcm/y over 15 years, does not suffice to book all of Idku’s liquefaction capacity (estimated at 9.36 bcm/y) but it is more than enough to book the entire capacity at Damietta for 17 years.

Damietta is also much closer to Aphrodite, at a distance of 200 km, whereas the Idku facility is 400 km away from the Cypriot field – thereby doubling the cost of the necessary offshore pipeline. Cypriot gas can book Damietta alone; for Idku, an Israeli contribution is necessary. The biggest challenge for the RoC, which its current administration has been unable to overcome, is the fact that Shell – which joined the Aphrodite consortium in January 2016 – is a major shareholder not in Damietta but in the Idku facility. Shell controls 35 percent of the Aphrodite consortium, while Delek and Noble, who control the remaining 65 percent, want to prioritize Leviathan’s development so as to link it first with Egypt’s market, and have been aggressively lobbying Tel Aviv in favour of the Leviathan–Ceyhan pipeline.

This non-alignment between the commercial preferences of the RoC, which remains the biggest single owner of Aphrodite’s future gas production, and the marketing strategies of Delek and Noble is seriously delaying, and may eventually derail, the project to monetize Aphrodite’s gas for the benefit of the RoC and the EU. These LNG volumes, part of which will be sold to the EU, may represent the first exports of Cypriot gas arriving in EU markets a decade after Aphrodite’s initial discovery in 2011. Israeli exports, primarily from Leviathan, are quite likely to follow once Tel Aviv and Cairo resolve their \$1.76 billion dispute over the compensation that Egyptian Natural Gas Holding Company EGAS has to pay to the Israeli Electricity Company for the disruption of a 2012 contract that supplied, at the time, 60 percent of Israeli demand.

If, by 2021-2022 Cypriot and Israeli gas is fed to Egypt’s existing LNG facilities, which are able to liquefy up to 15.86 bcm/y,⁷⁴ then the EU will be importing East Med LNG in significant volumes for the first time since the beginning of the Arab revolts in early 2011. Historically, these facilities, commissioned in 2005, reached their peak utilization rate in 2010 with a total liquefaction volume of 9.71 bcm, while 48.6 percent of that LNG (i.e. 4.72 bcm) was eventually consumed in the EU – primarily in Spain, which imported 2.62 bcm in 2010.⁷⁵

⁷⁴ The Damietta facility is a single-train LNG plant with a 6,5 bcm/y liquefaction capacity. Idku has two LNG-trains each with a 4,68 bcm/y capacity. International Gas Union, *World LNG Report-2015*, (IGU: 2015), p.77.

⁷⁵ *BP Statistical Review of World Energy 2011*, (London: June 2011), data are for 2010, p.29.



If the facilities are indeed booked at capacity and the 2010 patterns are reconfirmed, then the EU may get easily 50 percent of the combined Damietta/Idku liquefaction capacity, amounting to 7.93 bcm/y. If Damietta restarts operations first in 2021, fed only by Cypriot gas, then the EU can import up to 7.4 bcm/y from the region – a volume equal to three quarters of the Azeri gas exports scheduled to arrive via the TANAP/TAP system in late 2020.

6. Drivers and Scenarios

In the light of the foregoing geopolitical and geoeconomic analysis, focused on the eastern Mediterranean region, we are able to define a set of drivers that will affect the specific potential scenarios of conflict, cooperation and convergence.

The quantity of eastern Mediterranean offshore gas. The eventually exploitable amount of offshore natural gas is considered to be a key driver in so far as it will impact on the requirement to collaborate with Turkey. At the one extreme is the scenario whereby the eventually exploitable natural gas that can ultimately be exported to EU markets is relatively low. This scenario may push the various stakeholders to choose one of the less-expensive option, which is the construction of a pipeline linking these offshore fields to the Turkish grid to then be exported to Europe.

A low exportable quantity will preclude more expensive infrastructure options like the construction of an LNG facility in Cyprus or longer pipeline projects bypassing Turkey. Under these conditions, the natural-gas parameter would also have a benign influence on ongoing Cyprus negotiations to the extent that a political settlement on the island would be almost an economic and financial precondition for the commercialization of those resources that fall under the sovereignty of Cyprus. Therefore, somewhat paradoxically, a low volume of exploitable offshore-gas resources would strengthen the prospects of a cooperation scenario.

A potentially high volume of exploitable resources would act in the opposite direction by essentially obviating the possibility of Turkey’s collaboration. The higher volume would create a sufficient economic endowment to justify investment in more costly gas-transport infrastructure, precluding the possibility of creating a transport link through Turkey. In the same vein, this prospect of higher potential economic gain would create a stronger incentive to push ahead with these projects even without the collaboration of Ankara. So, from this angle, the higher volume of exploitable offshore gas in the East Med would act as a driver leading to the conflict scenario between Turkey and the EU on account of an increase in the political tension between EU member Cyprus and Turkey.

2000s, it was believed that they would trigger more cooperation between the two communities on the island and therefore play a constructive role in negotiations facilitating the settlement of the Cyprus dispute. The argument still stands. In other words, offshore gas findings could, under these conditions, be interpreted as a driver for the convergence and/or cooperation scenario between Turkey and the EU. Yet, the energy issue has not by itself been a strong enough motivating factor for a Cyprus settlement thus far. Other political issues, ranging from power-



sharing arrangements to the future of the guarantee and security system, were clearly more important in determining the outcome of these as-yet failed negotiations.

But to the extent that the prospects of a settlement are dimming, the energy issue has the potential to play a totally different role in terms of creating a more confrontational situation between Cyprus and Turkey and therefore becoming a strong driver for a conflict scenario. The sections of this paper that address the ongoing dispute on Cyprus’s Exclusive Economic Zone illustrate this potential for conflict. Indeed, if the parties have conclusively to reach a settlement under the UN-led talks, there is a strong possibility for Cyprus and Turkey to find themselves in a direct conflict in the regions of the Mediterranean that form the subjects of this dispute.

The current Turkish position, as an extension of the country’s formal recognition of the Turkish Republic of Northern Cyprus (TRNC), is to recognize its EEZ to the south of the island where, on the basis of an agreement with the TRNC, Turkey would be willing to engage in exploration for natural-gas resources. In an interview with the Greek daily *Kathimerini* in early February 2018, Turkish Foreign Minister Çavuşoğlu confirmed that Turkey has a plan to conduct exploration activities in the eastern Mediterranean region soon: ‘It is our sovereign right to seek and explore these resources so we plan to start drilling in the eastern Mediterranean region in the near future’.⁷⁶ In return, Egypt warned Turkey against any infringement of its economic rights in the eastern Mediterranean under a maritime-border-demarkation agreement signed in 2013 with Cyprus that allows exploration for gas in the area – thereby clearly illustrating the potential for conflict.⁷⁷

The evolution of natural-gas prices. Spot prices for natural gas are also considered to be a similar driver to the previously identified one of volume of exploitable offshore gas. Higher natural-gas prices would raise the economic value of these resources and create more economically feasible transport options that preclude Turkey. As such, higher natural-gas prices could lead to a conflict scenario based on dynamics very similar to those explained in the previous paragraph. Again, similarly, lower natural-gas prices would, in return, force the various stakeholders to choose less costly transport options to EU markets – a scenario in which reliance on Turkey’s cooperation would become more necessary. This outcome would raise the prospect of a cooperation or even convergence scenario.

The evolution of the Turkey–Israel political relationship. An improved political atmosphere between Turkey and Israel could potentially allow Turkey to direct the offshore gas under Israeli sovereignty to Turkey through a newly constructed pipeline. This outcome would severely dent the feasibility of the tripartite (Israel, Egypt, Cyprus) pooling of offshore resources to be exported to Europe, bypassing Turkey. Such a development would strengthen the cooperation scenario. The more likely outcome, however, is a continuing deterioration in the Turkey–Israel relationship leading to an increased likelihood of the tripartite effort succeeding in bypassing Turkey for

⁷⁶ <http://aa.com.tr/en/energyterminal/natural-gas/turkey-plans-to-explore-resources-in-e-mediterranean-/18696>

⁷⁷ <https://in.reuters.com/article/egypt-energy-zohr-turkey/egypt-warns-turkey-over-eastern-mediterranean-economic-interests-idINKBN1FR1IT>



exports to Europe. Turkey would then seek to deter these efforts, leading to the scenario of conflict with Europe.

The evolution of the Turkey–Egypt political relationship. A very similar analysis to the one above can be undertaken with respect to this driver, with an even higher likelihood of a continuing deterioration in the bilateral relationship and the emergence of the conflict scenario as an outcome.

The evolution of Cyprus–Egypt–Israel cooperation. The strengthening of this tripartite collaboration – which would either use the Egypt-based LNG facilities (more likely) or build a new pipeline to Greece (less likely) to export gas from the East Med fields to EU markets – would lead to the conflict scenario for reasons explained above. Turkey would want to undermine any such initiative that sought to bypass Turkish territory for exports to Europe.

The growth performance of the Turkish economy is also seen as a driver. A strong and sustainable growth performance would increase natural-gas consumption and the need for additional imports purely for domestic consumption. Ankara would then be more inclined to devise an approach that would help it to leverage the East Med offshore resources – in particular, by fast-tracking the construction of a pipeline to Israel. From Israel’s perspective as well, direct access to a large and growing natural-gas market in close proximity would create a strong incentive to cooperate with Turkey and to direct its exportable natural gas exclusively to Turkey.

Such a development would contribute to Turkey’s strategic vision of improving its position as an energy hub, and enhance the prospects of a cooperation scenario with Europe. At the same time, by exclusively drawing Israel-owned resources, Turkey would undermine the prospects of the tripartite Cyprus–Egypt–Israel cooperation that would have led to a conflict scenario.



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FEUTURE sets out to explore fully different options for further EU-Turkey cooperation in the next decade, including analysis of the challenges and opportunities connected with further integration of Turkey with the EU.

To do so, FEUTURE applies a comprehensive research approach with the following three main objectives:

1. Mapping the dynamics of the EU-Turkey relationship in terms of their underlying historical narratives and thematic key drivers.
2. Testing and substantiating the most likely scenario(s) for the future and assessing the implications (challenges and opportunities) these may have on the EU and Turkey, as well as the neighbourhood and the global scene.
3. Drawing policy recommendations for the EU and Turkey on the basis of a strong evidence-based foundation in the future trajectory of EU-Turkey relations.

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