

IN-DEPTH ANALYSIS

The prospect of Eastern Mediterranean gas production: An alternative energy supplier for the EU?

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Abstract

Israeli gas discoveries in 2009 and 2010 have transformed the Eastern Mediterranean into a natural gas producing region and a potential energy exporter for European and Asian markets.

However, the turbulent political situation in Egypt, the Syrian civil war, the tensions between Israel and Gaza, the long-lasting dispute between Turkey and Cyprus, and the maritime border disputes cast a shadow on this economic opportunity. Moreover, the gas industry in the Eastern Mediterranean is at an infant stage, and the countries concerned seem unable to coordinate their plans for future exports.

Global actors are ready to exploit the Eastern Mediterranean's strategic implications. Russia aims to safeguard its gas monopoly, the United States to support its business interest, and Europe to increase its energy security and reduce dependence on Russia in the light of the Crimean crisis. In this context, the European Union should back the strategic triangle of Israel, Cyprus and Turkey as a first step towards the construction of an Eastern Mediterranean energy corridor.



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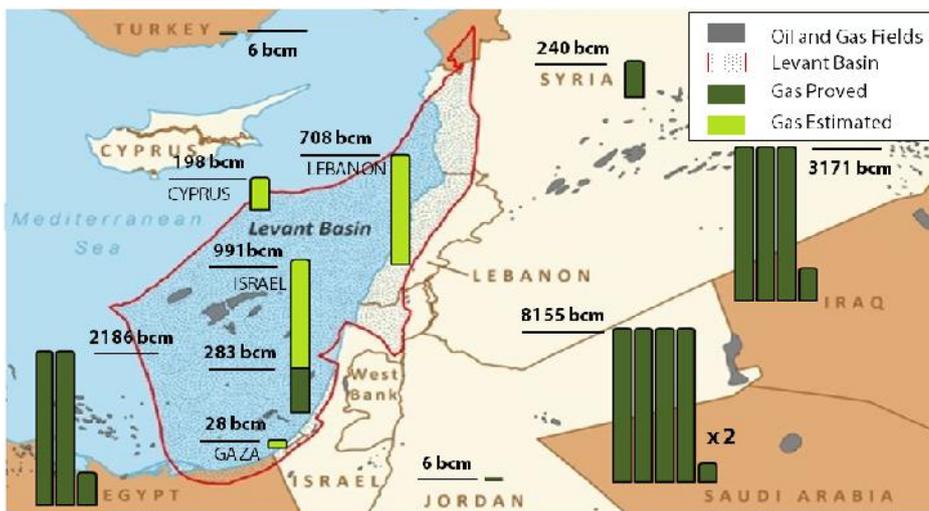
1 Levant Basin energy potential amid political instability

New gas discoveries in the Levant Basin are changing the energy outlook in the Eastern Mediterranean ...

... giving Israel the largest proved reserves of natural gas in the region and the potential to export

In 2010, the US Geological Survey (USGS) estimated that the Levant Basin, one of the eight basins at the Eastern Mediterranean region, may contain natural gas resources exceeding 3455 billion cubic meters (bcm), comparable to the reserves of Iraq. While recent discoveries of large hydrocarbon resources have redefined the energy landscape in the Middle East, and have entailed a natural gas increase of 27 % of the region’s energy mix from 1990 to 2009¹, it was the Israeli gas fields Tamar and Leviathan, discovered in 2009 and 2010 respectively, that transformed the Levant Basin into a potential exporter region. Even though the total of combined proved production reserves of natural gas in the Levant Basin (515 bcm) are insignificant relative to global levels (see figure 1), recent discoveries in the offshore waters of Cyprus and Israel in the Levant Basin have pushed the estimated recoverable natural gas resources in the area to over 1076 bcm. Future explorations may raise the gas reserves in the short term.

Figure 1: Levant Basin proved and estimated gas reserves in relation to the proved gas reserves of neighbouring countries



Source: Own elaboration based on calculations from EIA data (2014).

Natural gas production is constrained by the Israeli-Arab conflict and disagreements over maritime boundaries

If disputes undermine exploration in the Eastern Mediterranean, other global actors may conquer Asian markets

According to the International Energy Agency (IEA), however, prospects for increasing production continue to be hampered by political instability. Long-standing historical grievances across the Eastern Mediterranean, such as the Israeli-Arab conflict, cast a long shadow over the project. Regional political rivalries are made more acute by political disputes regarding the validity of maritime boundaries known as Exclusive Economic Zones (EEZ).

Past and present rivalries in the Middle East are hindering the exploration and production of gas in the East Mediterranean, causing divisions within the countries. Meanwhile, the Levant Basin gas potential under the Mediterranean remains unexploited. Israel, Cyprus and Turkey have

¹ Observatoire Méditerranéen de l’Energie (OME), [Mediterranean Energy Perspectives Egypt](#), France, 2011.

recently shown, however, that economic considerations are beginning to prevail over security and political concerns in the reshaping of global and regional alliances. In addition, in this dispute, timing is a key element. Starting in 2018-20, Australia, Mozambique, the United States, Canada and Russia are all planning to export gas to Asia. If exploration is delayed by the ongoing disputes, Israel and Cyprus – the most advanced countries when it comes to gas exploration – will be forced to sell their gas at a lower price.²

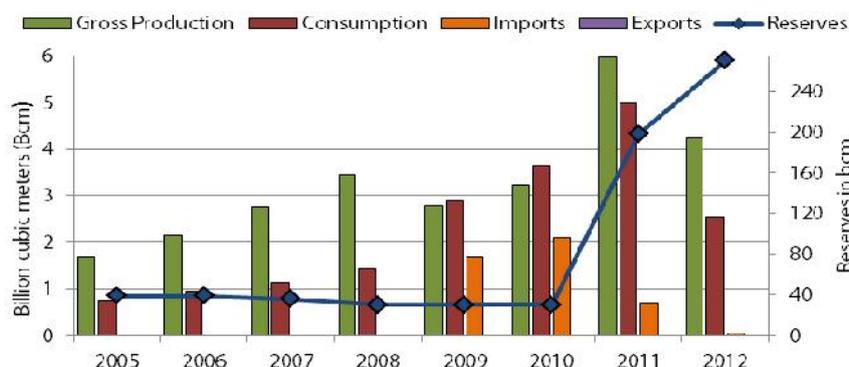
2 Energy outlook of Israel

2.1 Energy assessment

Israeli gas discoveries over the past decade has led to increased gas consumption in recent years

Israel is one of the Eastern Mediterranean’s largest consumers of natural gas. Gas consumption has increased in recent years from an annual average 0.0099 bcm in 2002 to a peak of 5 bcm in 2011, and it is expected to grow to 9.7 bcm by 2015 and to 13.3 bcm by 2020. While much of the natural gas consumed in the past decade came from domestic sources (the Mari-B gas field, discovered in 2000), providing up to 4.25 bcm in 2012, Israel has relied on gas imports from Egypt to meet up to 40 % of the country’s demand in 2010 (see figure 2). This overdependence has meant that Israel has had to face energy blackouts as gas supplies from Egypt have repeatedly been suspended following attacks on the Sinai³ pipeline. This situation changed radically in 2013 when Israel’s Tamar field became operational.

Figure 2: Israeli gas production, consumption, exports, imports and gas reserves, 2005-2012



New gas discoveries are altering Israel’s energy mix towards natural gas ...

The drastic improvement of Israel’s energy outlook brought about by these gas discoveries has prompted the Israeli Ministry of Infrastructure to encourage a transition to natural gas. The share of natural gas in electricity production rose from 20 % in 2008 to 40 % in 2010, and is expected to raise gas consumption to 50 % by 2015.⁴ What is more, the state-owned Israeli

² Established and emerging global gas actors are already planning to export gas to Far Eastern markets, which are the most attractive in terms of price (the market for liquefied natural gas (LNG) being a spot market), with exports to begin in 2018-2020. Israel and Cyprus may find themselves entering an already exploited market, forcing both countries to sell at lower prices and to turn towards the European market, where prices are lower.

³ The Sinai insurgency comprises a series of actions by radical Islamist militants in the Sinai Peninsula, initiated in early 2011 as fallout of the 2011 Egyptian Revolution.

⁴ Israeli Ministry of National Infrastructures, Energy and Water Resources, [The natural gas sector in Israel](#).

... and turning Israel into a potential gas exporter

Electricity Company (IEC) is pursuing initiatives to replace coal and petrol with gas in power plants. As gas supplies are expected to outstrip demand, in June 2013 the Israeli Government confirmed its decision to export 43.2 % of the off-shore natural gas, despite criticism from opposition politicians. At the same time, while acknowledging the energy security and the prospects for industrial growth that the newfound natural gas offers, Israel fears that overdependence on this resource will make natural gas infrastructure (pipelines and LNG plants) more susceptible to terrorist attacks.

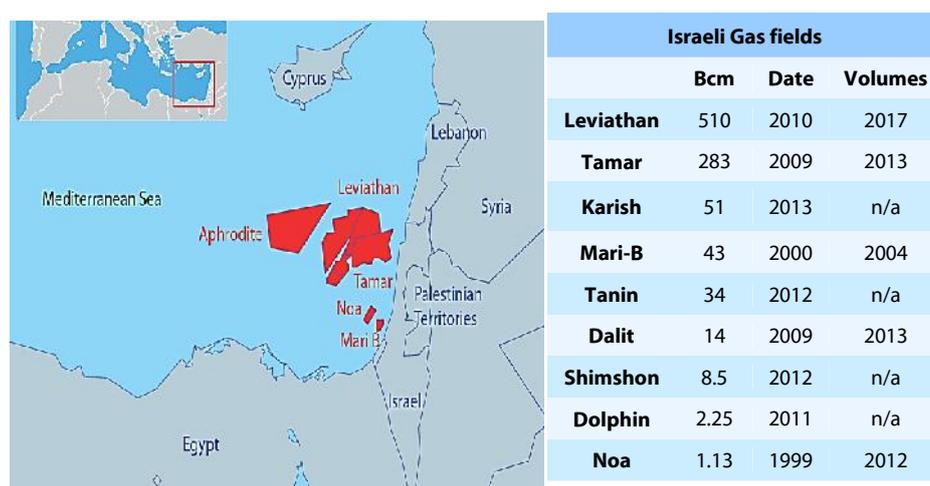
2.2 Israeli gas field discoveries

The Tamar and Leviathan gas fields have revitalised Israel's energy outlook...

... with the Tamar gas field supporting domestic consumption while Leviathan may allow for export

While Israel began to detect untapped gas reserves in the period 2000-2004, it was the gas fields Tamar and Leviathan – discovered in 2009 and 2010, respectively – that transformed Israel into a regional gas exporter, giving it a new means of power in its relations with its neighbours. Production at the Tamar gas field began in April 2013, yielding a proved gas reserve of 283 bcm. The bulk of this gas will be used to satisfy Israel's growing domestic gas demand, a very urgent concern for the country. The partners exploring the Leviathan gas field – the Delek Group (45 %) and Ratio Oil Exploration (15 %), both Israeli companies, and Noble Energy (40 %), a US company – have estimated that the field's capacity is 510 bcm, but production is not expected to start until 2017.⁵ Since Tamar can satisfy a significant part of Israel's gas demand in the near future, output from the Leviathan field is likely to be exported. In total, Israel has verified gas reserves of 950 bcm.⁶ Given the total volume of the proven reserves, and taking into account the government's decision to export 43.2 % export, Israeli reserves available for export will amount to around 410 bcm.

Figure 3:
Eastern Mediterranean gas field discoveries



Source: European Parliament Research Service, based on a map from Oxford Analytica

⁵ See [Noble Energy](#).

⁶ Even, S., Era, O., [The Natural Gas Revolution in Israel](#), INSS, Tel Aviv, 2014.

2.3 New Israeli trade patterns and trends

Israel's future as a gas exporter remains uncertain

The improving energy outlook notwithstanding, it is possible that Israel may find it difficult to export natural gas from the Leviathan natural gas field. Structural issues thwarting the development of the Leviathan field include problems in ensuring gas shipments across the exclusive economic zones of hostile neighbours, disputes within the Israeli Government over possible gas export destinations, and uncertainty over the appropriate level of taxation.

Only one agreement has been signed regarding the exploitation of the Leviathan gas field, and exploitation continues to be hampered by complex tax issues

Future sales of gas from the Leviathan field can only move forward from the single deal signed by the Palestinian Authority, the Israeli Government and the three stakeholders, by which Leviathan is to provide the West Bank with 4.75 bcm of gas for a period of 20 years.⁷ However, this attempt as energy cooperation has been hampered by complex taxation issues: while Israel favours imposing a sales tax on the Palestinian Authority for transferring the gas from the Leviathan field to the West Bank, it still refuses to recognise the Palestinian Authority as a legitimate state.⁸

The shape of the partnership will determine whether Israel's export strategy shifts towards Europe or Asia

The shape of Israel's partnership with neighbouring countries will have a significant impact on whether the gas flows will be directed eastward or westward: the Israeli Government has not yet decided whether to export to Europe or to Asia. While offering major natural gas gaps and higher prices, political relations with Egypt and Jordan make it difficult to export to Asia. Also, while Egypt – politically unstable since Mohammed Morsi's presidency – remains reluctant to allow Israel to use the Suez Canal, treaty obligations guaranteeing free passage notwithstanding, an LNG terminal on the Red Sea would be vulnerable to terrorist attacks in the context of the Arab Spring. Despite such difficulties, a deal signed with Jordan on 19 February 2014 could be seen as a first step towards exporting gas to Asia. According to the deal, around 2 bcm of gas will be supplied annually, for 15 years, via pipeline to Jordanian facilities on the Dead Sea.⁹ Looking westward, Israeli exports to the European Union would face stiff Russian competition, making the Israeli export plan more difficult. However, the recent Ukrainian-Russian crisis may improve this prospect (see section 4.3.2).

Antitrust charges against the Israeli Delek Group and the US firm Noble Energy could allow the Australian company Woodside to export Israeli gas to Asia

Apart from important political barriers such as Israel's poor relations with its Arab neighbours, natural gas exploration in Israel faces strong regulatory challenges, specifically the claim by antitrust authorities that the partnership between the Delek Group and Noble Energy constitutes a monopolistic restraint of trade in the natural gas market. This issue could pave the way for the Australian company Woodside finally to join in the

⁷ Udasin, S., [Leviathan partners sign first gas export agreement with Palestinian firm](#), The Jerusalem Post, January 2014.

⁸ Gutman, L., [Israel reviews gas 'exports' to Palestine](#), Al Monitor, 5 February 2014.

⁹ UPI, [Israel has \\$500M gas deal with Jordan, but wider exports still unclear](#), 20 February 2014.

exploitation of the Leviathan field. Under a memorandum of understanding signed on 7 February 2014, the Australian energy giant is planning to acquire a 25 % stake in Leviathan¹⁰ with the aim of building a floating LNG (FLNG) facility in order to export gas to Asia. However, the costs and security risks of building a LNG plant in Israeli waters may hinder this endeavour, despite the preference of the Israeli Zemach Committee¹¹ for this project.¹²

The type of delivery mechanism chosen by Israeli policymakers will also influence whether Israeli exports head for Asia or Europe

A final challenge facing Israel in its attempts to export natural gas involves the choice between the types of infrastructure to be installed. On the one hand, pipelines could easily be built, in order to supply European consumers eager to increase competitive pressures and to undermine Russia's monopoly. On the other hand, if Israel were to choose to export to Asian markets, policymakers would have to provide suitable infrastructure for shipping large quantities of LNG. Alternatively, Israel could forgo exporting natural gas and focus on exporting electric power. The final decision will impact on the profitability of the Leviathan gas field, with the expected return of investment varying greatly depending on which project is finally chosen.¹³

3 Legal and political regional disputes on the gas exploitation

3.1 Maritime boundaries in the eastern Mediterranean Sea

Accession to the United Nations Convention on the Law of the Sea in the eastern Mediterranean remains uneven, provoking disputes over maritime boundaries

Maritime boundaries in the eastern Mediterranean are made unpredictable by the long-standing political tensions that permeate the region, making it difficult to invest in natural gas exploration. Among the Eastern Mediterranean countries involved in these disputes, Israel, Turkey and Syria have not signed the United Nations Convention on of Sea (UNCLOS), whereas Egypt, Lebanon and Cyprus have done so (in 1983, 1995 and 1988, respectively). UNCLOS, which entered into force in 1994, aims to provide dispute settlement mechanisms for the delimitation of the Exclusive Economic Zones (EEZ) and the exercise of continental shelf jurisdiction.

UNCLOS and customary law confer states the right to declare EEZs of up to 200 nautical miles from a low-water baseline (article 57) and, in some cases,

¹⁰ Global Times, [Australia's Woodside agrees to buy 25 pct of Israel's Leviathan gas field](#), 10 February 2014.

¹¹ State of Israel Inter-Ministerial Committee to Examine the Government's Policy Regarding Natural Gas in Israel.

¹² Barkat, A., [LNG plant is temporary insanity](#), Global Times, 3 December 2013.

¹³ According to some [investment houses](#), the value of the Leviathan gas field depends on which scenario is chosen. In the event of regional exports at USD 8 per unit, the field is valued at USD 8 billion, but if exports require the production of LNG, the value would only be USD 4.5 billion. This fact could shape Israeli export options.

Maritime boundary issues in the eastern Mediterranean must be resolved by mutual agreement between the states

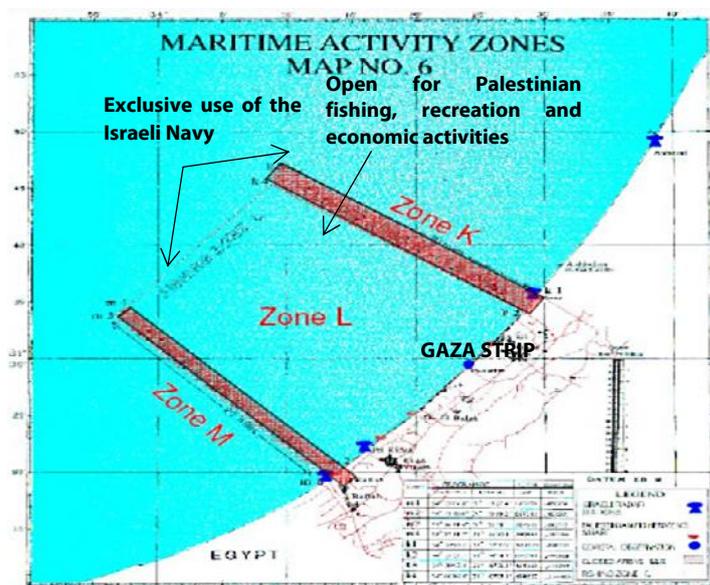
Israeli-Palestinian maritime borders are established under the Oslo Accords ...

... which have been reduced through Israeli encroachment as a result of political instability

Figure 4: Maritime Activity Zones (MAZ) according to the Gaza-Jericho Agreement, Article XI (4 May 1994)

to be entitled to a part of a continental shelf exceeding 200 miles (article 76).¹⁴ In cases where coastal states face each other and their low-water lines are within 400 nautical miles of each other, as is the case in the east Mediterranean, EEZs are to be delimited by bilateral agreement. Five East-Mediterranean countries have already established EEZs in accordance with the UNCLOS. The first to do so were Egypt (1983), Syria (2003) and Cyprus (2004). More recently, Lebanon and Israel followed suit in 2011. EEZs form part of customary law and can therefore be contested by states, such as Israel, that are not party to UNCLOS. Where claims overlap, disputes over unilateral declaration are to be solved bilaterally or by arbitration before an international court.¹⁵

Israel and Palestine: The Oslo Accords, entered into by Israel and the Palestine Liberation Organization regarding the Gaza Strip and the Jericho Area (Cairo, 1994), granted the Palestinian Authority maritime jurisdiction over waters of up to 20 nautical miles from the coast (see figure 4). This includes jurisdiction over economic activities, presumably also drilling. Since the Oslo Agreements, however, Israel has incrementally reduced Gaza's maritime jurisdiction by 85 % (from 20 to 3 nautical miles), with reductions in 2002, under the so-called 'Bertini Commitment' following Hamas' electoral victory in Gaza, in 2006¹⁶ and, finally, in the course of the 2008 Gaza War ('Operation Cast Lead').



Source: International Institute for Counter-Terrorism.

Disagreements between Israel and Lebanon

Israel and Lebanon: In 2011 both Lebanon and Israel submitted claims to the United Nations delimiting their EEZs. This raised an issue of

¹⁴ See [United Nations Convention on the Law of the Sea](#).

¹⁵ Scovazzi, T., [Maritime Boundaries in the Eastern Mediterranean Sea](#), The German Marshall Fund of the United States, June 2012.

¹⁶ Israel declared Gaza a 'hostile entity' after Hamas victory in the 2006 legislative elections.

regarding the boundaries of their respective EEZs stem from the signing of competing agreements with Cyprus

incompatibility stemming from the maritime border agreements that the two countries had negotiated with Cyprus in 2007 and in 2010, respectively. A discrepancy between the agreements resulted in there being a contested area where the Israeli and Lebanese EEZs overlap (see figure 6). The disputed area covers 850 km² and encroaches on drilling areas in the Tamar and Leviathan fields.

To date, Israel and Egypt have not agreed on a maritime boundary

Israel and Cyprus: In 2010 Cyprus and Israel signed an agreement on the delimitation of their respective EEZs. The agreement entered into force on 25 February 2011.

Only the International Court can settle border disputes when asked to by states

Israel and Egypt: There is so far no agreement between the two countries on a maritime boundary. The issue could soon be raised, however, given that Egyptian oil minister Same Fahmi in January 2011 declared that Israel's gas finds lie partly within Egypt's maritime jurisdiction.¹⁷

The United Nations can play an important role in these disputes by intervening with skills and legitimacy to help states resolve maritime border issues. However, the UN General Secretary is not entitled to take any position on maritime borders delimitations. Only the International Court of Justice can do so, and only at the invitation of the states concerned.

Figure 5: Maritime borders and main gas fields in the Levant Basin



Source: International Institute for Strategic Studies 2013 (IISS)

3.2 Gaza gas field development hindered by Israeli and Palestinian dispute

The Gaza gas discovery could be enough to satisfy the electricity demand of the Gaza Strip and the West Bank

In 1999 the British Gas Group (BG) discovered the Gaza Marine gas field, located 17-21 nautical miles from the Gaza coast. This small gas field contains 28 bcm, not enough for export operations, but sufficient to provide electricity for the Gaza Strip and for the West Bank through electricity swaps with Israel.

¹⁷ Machline, H., *L’Egypte pense revendiquer le gaz des gisements Tamar et Leviathan*, Econostrum, 27 January 2011.

Difficulties in reaching a deal with Israel on foreign investment for the exploitation of the Gaza Marine gas field means that the gas deposit remains underdeveloped

The collapse of energy imports from Egypt has highlighted Israel's dependence on the Tamar gas field partnership, encouraging Israel to re-open talks on the Gaza gas field ...

... but Israel will now have to contend with the emergence of Russia as a strategic player

The development of the Gaza Marine gas field represents a win-win solution for Israel and Palestine

The potential windfall for the Palestinian Authority has not yet materialised since the small scale of the deposit makes it unprofitable to develop it for electricity production purposes.¹⁸ To reduce the investment risk, BG (holding 60 % of the exploitations rights) has sought long-term gas contracts with other clients, particularly Israel. To this end, successive negotiations between BG, the Palestinian Authority and the Israeli Government took place in 2000, 2007 and 2012.¹⁹ However, distrust between the latter two parties²⁰, and political divisions on the Palestine side²¹, hindered the negotiations.

Domestic instability in Egypt and unrest on the Sinai Peninsula following the Arab Spring have had a destabilising effect on Egyptian-Israeli relations. This has increased Israel's energy dependency on Noble Energy Delek, forcing Israeli Prime Minister Benjamin Netanyahu to resume negotiations on gas explorations with the Palestinians. In this regard, in October 2013, Netanyahu agreed that the Palestinian Authority may begin to develop the field.²² Preliminary agreements between BG and the Palestinian Consolidated Contractors Company could allow production to start in 2017.²³

Even if the BG group, by means of this agreement, succeeds in gaining access to the Palestinian gas field, it would have to compete with the Russian firm Gazprom. On 23 January 2014 Palestinian President Mahmoud Abbas and Russian President Vladimir Putin discussed a USD 1 billion investment agreement aiming to develop the Gaza offshore gas field.²⁴ Russia, holding the largest proved reserves in the world, estimated at 48 600 bcm, is expected to extract 30 bcm of natural gas from the Gaza gas field.

In the long term, the development of the Gaza Marine gas fields represents a win-win solution for Israel and Palestine. For the Palestinians, exploiting the gas reserves would boost their independence from Israeli electric power,²⁵ and would ease the Palestinian Authority's dependency on foreign aid. Likewise, the Israeli economy would benefit from the development of the Gaza Marine gas fields, given that while Israel satisfies almost all of the

¹⁸ Alternatively, newly extracted gas could lower the costs of water desalination and thereby contribute to reducing the conflicts over water existing in the region.

¹⁹ Antreasyan A., '[Gaza gas finds in the eastern Mediterranean: Gaza, Israel and other conflicts](#)', *Journal of Palestine Studies*, Vol. XLII, No. 3, spring 2013, p. 31.

²⁰ In 2003, Israeli Prime Minister Ariel Sharon refused to allow funds to flow to the Palestinian Authority, lest they be used to support terrorism.

²¹ In the 2006 election, Hamas seized power in the Gaza Strip, which led to the political separation of the West Bank and the Gaza Strip under rival Palestinian governments.

²² Reed, J., Chazan, G., [Gaza Strip gas project poised for approval](#), The FT, October 2013.

²³ Browning, N., [Private Israeli-Palestinian gas deal still hostage to politics](#), Reuters, 2014.

²⁴ Moussa, H., [Russia preparing to develop Gaza gas field](#), AL Monitor, January 2014.

²⁵ Since the 1994 Paris Protocol, the Palestinian energy supply is subject to an Israeli monopoly, with Dor Alon holding exclusive rights for electricity delivery to Palestine.

Gaza Strip's and the West Bank's electricity needs, the payment regime is extremely poor.²⁶ While negotiations with Israel regarding the Gaza gas field remain complex, owing to the involvement of Russia, Hamas and the Palestinian Authority, the possibility for future energy cooperation stems from the agreement signed the 6 January 2014 to provide the West Bank with Leviathan gas (see section 2.3).

3.3 Lebanon gas deposits untapped owing to disputes with Israel

Despite its potential to produce large quantities of natural gas, Lebanon is the least developed gas player in the Eastern Mediterranean ...

... owing to the lack of a legal framework and to maritime boundary disputes

According to industry observers', Lebanon's offshore potential is greater than that of other countries in the area. Indeed, as stated by Lebanese Energy Minister Gebran Bassil, the estimated quantities of gas may rise to 2718 bcm.²⁷ This notwithstanding, among the countries of the Eastern Mediterranean, Lebanon is one of the latest starters in the exploitation of gas deposits.

The prospect of increased gas production in the eastern Mediterranean has forced Lebanon to consider the importance of its potential offshore gas. Despite an increased sensibility to energy security concerns, Lebanon's political instability has hindered the government from passing two decrees (one delimiting offshore blocks, another approving the model exploration and production agreement), and has led to the deferral of the bidding process designed to allocate contracts for gas exploration, which was scheduled to begin on 10 January 2014.²⁸ Furthermore, the establishment of Lebanon's EEZ has proceeded slowly, and the country's unsuccessful attempt to reach an agreement with Cyprus on EEZ delimitation has resulted in a contested area where Israel's and Lebanon's EEZs overlap (see figure 6). These political complications make it more difficult to proceed with gas exploration in the contested area, which is likely to contain as much gas reserves as the Israeli Tamar gas field.²⁹

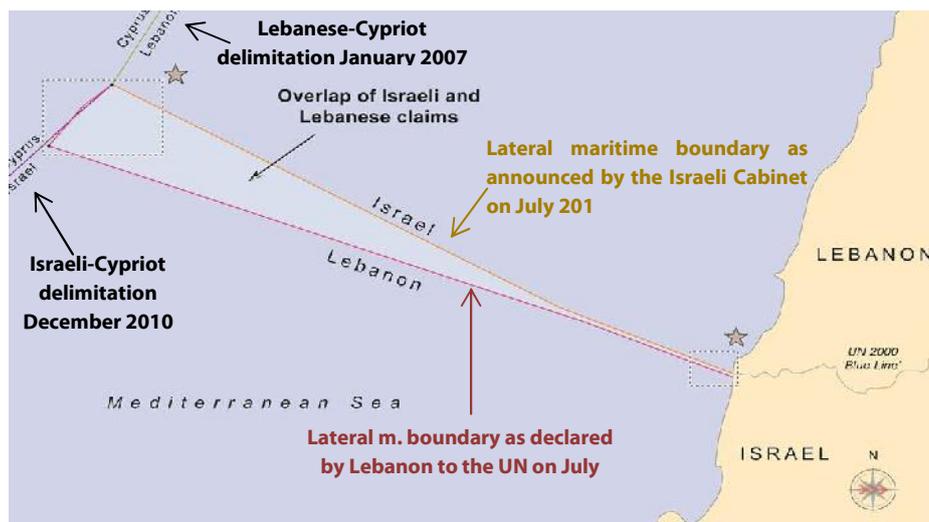
²⁶ Shaffer, B., *Energy Resources and Markets in the Eastern Mediterranean Region*, The German Marshall Fund of the United States, June 2012, p. 7.

²⁷ Natural Gas Europe, *Lebanese Gas Reserves Likely to Be Larger than Expected*, October 2013.

²⁸ Ayat, K., *Lebanon Postpones the Launching of its Bidding Round, Again*, Natural Gas Europe, 9 January 2014.

²⁹ Globes, *Israel rejects Lebanon EEZ compromise*, 29 October 2013.

Figure 6:
Israeli and Lebanese
exclusive economic
zones' overlaps



Source: Menas Associates.

Israel and Lebanon are not bound by the rules of the Montego Bay Convention on dispute settlement

The issue is further complicated by the fact that Israel and Lebanon are not under the jurisdiction of the International Court of Justice and are not bound by the Montego Bay Convention rules and its dispute settlement mechanisms. In terms of international law, it could be argued that Israel is under obligation to recognise Lebanese EEZ delimitations as part of customary law.

3.4 Israeli and Cypriot gas relations and implications for Turkey

Cypriot gas discoveries have rejuvenated Israeli-Cypriot relations while reigniting tensions with Turkey

On 17 December 2010 the foreign ministers of Cyprus and Israel, meeting in Nicosia, signed an agreement on a permanent settlement regarding the delimitation of their respective EEZs. Shortly thereafter, in early 2011, Noble Energy discovered the Aphrodite gas field in the southern part of Cyprus' EEZ, with an estimate capacity range from of 102-170 bcm.³⁰ In fact, according to the Cypriot Energy Department, the country's offshore may contain as much as 1700 bcm of gas.³¹ In the light of this development, Cypriot-Israeli relations have improved while Turkish-Israeli relations have been affected negatively.³²

Turkey's tough stance against Cyprus is reinforcing Turkish diplomatic isolation vis-à-

This conflict is hindering Cyprus from developing the Aphrodite gas field. Turkish-Cypriot tensions were intensified in February 2014 when a Turkish military vessel attacked a Norwegian ship conducting seismic surveys.³³ Turkey has also threatened to blacklist firms taking part in the development

³⁰ Ayat, K., *Cyprus' LNG Project Continues Despite Complicating Factors*, NGE, 21 January 2014.

³¹ Middle East Economic Survey (MEES), *Political Agenda Emerges as Cyprus Kicks off Gas Block Talks*, 19 November 2013.

³² As a consequence of Turkey's long-standing support to the 'Turkish Republic of Northern Cyprus', recognised by no other country, Turkey is unwilling to recognize Cyprus's EEZ. As a consequence, it considers all explorations and drillings by Cyprus to be illegal.

³³ On 1 February 2014, a Turkish military vessel harassed the Norwegian seismic ship *Princess*, which was conducting seismic survey in the Cypriot EEZ to locate underwater hydrocarbons on license granted by the Cypriot Ministry of Agriculture.

vis the EU, the United States and the Persian Gulf states

of Cypriot underwater gas fields, and is, as a consequence of this particular issue, being given the cold shoulder by the European Union, the United States and countries in the Persian Gulf.

Turkey and Cyprus remain Israel's principal gas exporting partners

It could be argued that diplomatic quarrels in the eastern Mediterranean, apart from increasing regional instability, have assumed economic and strategic overtones given the importance of natural gas for economic growth. Unsurprisingly, diplomatic relations between Israel, Cyprus and Turkey are defined by the potential export of natural gas.

3.4.1 Israeli-Cypriot-Greek strategic route

Construction of an energy corridor towards Europe remains at the heart of the Cypriot-Israeli relationship

In 2012 Israel, Greece and Cyprus signed an agreement to set up working groups to discuss an eastern Mediterranean energy corridor for the export of Israeli and Cypriot gas to Europe via Greece.³⁴ The eastern Mediterranean corridor includes three main options:

- a joint Israel-Cyprus LNG plant,
- a pipeline to carry Cypriot and Israeli gas to Europe, or
- an electric cable from Israel and Cyprus to Greece.

The Cypriot Government favours the construction of a liquefaction natural gas plant

For its part, Cyprus has opted on building a LNG plant with an initial capacity of almost 7 bcm/year, as disclosed by Cyprus's Council of Ministers in April 2012. The terminal, which would be built in Vassilikos, would allow Cypriot gas to reach European and East-Asian markets. However, for the LNG plant project to remain economically viable, Cyprus needs both Israeli financial support, to cover costs estimated at USD 10-15 billion, and Israeli gas. The Cypriot gas fields that have been discovered so far (with, according to Noble's 2013 appraisal, an estimated intermediary capacity of 140 bcm) have an enormous strategic importance, but are barely enough to meet long-term local demand, raising questions about the viability of the LNG plant.³⁵ The LNG project requires bringing gas from Israeli and Cypriot offshore gas fields to a liquefaction plant, where it would be shipped to Greece for regasification. Indeed, there are other several LNG regasification terminals in the Mediterranean that could serve as entry points to Europe (see figure 7). As for Israel, the LNG plant offers all the benefits of a flexible LNG strategy centred on a facility on EU soil.

An even more expensive option would to construct, by 2019, a large-scale

³⁴ Tagliapietra, S., *Towards a new eastern Mediterranean Corridor?* Fondazione Eni Enrico Mattei, Italy, December 2013.

³⁵ Given that Cypriot domestic long-term demand is projected to be around 30 bcm for a period of 30 years, 70-110 bcm will be available for exports, amounting to, on average, 4.5 bcm/year for a supposed 20-year period. This is not sufficient for the construction of a single 7bcm/year liquefaction plant.

A pipeline linking the eastern Mediterranean with Italy's Trans Adriatic Pipeline remains a possible alternative ...

... as does the construction of a Euro-Asian electricity interconnector

To avoid tensions with Turkey, Israel's potential gas exporting strategies have not been formalised

Cyprus continues to negotiate with other countries and companies on how to go ahead with its LNG plant project

A floating liquefaction unit is a possible temporary solution for Cyprus

(30-40 bcm/year) pipeline in the east Mediterranean connecting Israel, Cyprus and Greece³⁶ (the three non-Muslim democracies in the Eastern Mediterranean) before joining Italy's Trans Adriatic Pipeline (TAP) network. Even though the pipeline options are usually the cheapest, the technical difficulties (crossing 1150 km of seabed at 6 000 metres depth) may require an investment of around USD 17 billion.³⁷ Indeed, the project would be vulnerable to uncertainties or controversies regarding either the Turkish EEZ or the delimitation of the Egyptian and Greek EEZs.

A third option, explored in a memorandum of understanding signed by Israel, Greece and Cyprus in August 2013, is to construct a Euro-Asian, 2 000 megawatts capacity interconnector capable of reaching the pan-European electricity grid.³⁸ With a cost estimate of around USD 2 billion, it would involve laying a 1 000 km seabed cable for conducting electric power from gas-fired plants. However, like the Euro-Mediterranean pipeline, the Euro-interconnector would have to traverse Turkish³⁹ and Egyptian waters, making raising questions about the project's feasibility.

The proposed Israeli-Cypriot projects are undoubtedly increasing tensions with Turkey. So as not to aggravate them further, Israel has not yet formalised its gas export strategy. Meanwhile, Cyprus continues to push for an agreement with Lebanon,⁴⁰ Israel and Egypt⁴¹ to start exploiting its natural gas. It is also exploring possible partnerships with Noble Energy, the French firm Total, Italian ENI and South Korean KoGas. Noble's second prospect, with a pre-drilling estimate of 28-56 bcm, is expected to be drilled this year. Total and ENI/KoGas are expected to begin explorations off Cyprus' EEZ in late 2014 and early 2015, in the light of finding other deposits.⁴² The results will be decisive for the construction of the LNG plant. To most Cypriot policy-maker, it is a question of time before enough gas is found to support the LNG plant. In fact, Cyprus hopes to begin work on the LNG terminal in 2016, as announced in November 2013 regarding an agreement with Total to develop an LNG plant.⁴³

While negotiations with companies and neighbouring countries to increase investments are on-going, the Cypriot Government is also looking at other alternatives. As recently announced by Cypriot Minister of Energy,

³⁶ Natural Gas Europe, [Greece Hopes for Revival of East Med Pipeline Project](#), 30 October 2013.

³⁷ The New York Times, [Gas field off of Cyprus stokes tensions with Turkey](#), December 2012.

³⁸ See [Euro-Asia interconnector](#).

³⁹ In July 2013, a Turkish gunboat harassed an Italian-flagged research vessel in waters off the Cyprus' EEZ surveying a proposed route for a fibre-optic cable.

⁴⁰ Middle East Strategy Perspectives, [Cyprus gas sector: export strategy, transparency, and revenue management](#), Lebanon, 18 November 2013.

⁴¹ Famagusta Gazette, [Cyprus aims at agreements with Lebanon, Israel and Egypt on natural gas exploitation](#), 12 February 2014.

⁴² Tsakiris, T., [Shifting sands or burning bridges?](#), ELIAMEP, Greece, February 2014, p. 49.

⁴³ Reed, S., [Cyprus in Plan to Develop a Natural Gas Industry](#), The New York Times, London, 7 November 2013.

Commerce, Industry and Tourism, Yiorgos Lakkotrypis, these include a floating liquefaction unit (FLNG), complemented with a pipeline to Egypt.⁴⁴

3.4.2 Israeli-Turkish strategic route

Alternatively, Israel could negotiate the construction of a pipeline with Turkey

The Turkish pipeline would require Cypriot approval to pass through the country's EEZ

Turkish-Israeli relations could also be worsened by a Russia seeking to protect its monopoly on the European gas market

Despite the worsening of Turkish-Israel relations following the Mavi Marmara attack⁴⁵, diplomatic talks on compensation for the victims have recently created a rapprochement. In this context, in early 2013, Israel made a bid to build a pipeline from the Leviathan gas field to Turkey's southern coast and into south-eastern Europe. The plan on building a pipeline from the Leviathan gas fields has been used by Turkey as a way to counterbalance Cypriot-Israeli relations and to export gas off its Mediterranean coast to Europe⁴⁶.

Turkish-Israeli attempts to build a pipeline could prove more profitable than Cyprus' proposed LNG plant because the direct costs are lower. In fact, several international and Turkish firms have already shown an interest in financing this project, the estimated cost of which – USD 5 billion dollars – compares favourably with the USD 15 billion for the LNG plant. However, even though the construction of a Turkish pipeline from the Leviathan field seems conceivable, the pipeline would have to cross Cyprus' continental shelf, making execution of the project impossible. Alternatively, the pipeline could be constructed across the Lebanese and Syrian continental shelf but, given Israel's tense relations with Lebanon and Syria, such a transit deal seems unlikely.

The situation is complicated further by the fact that Russia would oppose the construction of a Turkish pipeline to Israeli gas fields in order not to lose its monopoly on the Turkish and European energy markets. Recently, experts⁴⁷ have argued that the Israeli Government would not condone the construction of a Turkish pipeline lest Israel became dependent on Turkish supply lines. This notwithstanding, and despite the political and strategic disadvantages associated with the Turkish pipeline for the Leviathan gas field, the Turkish energy company Zorlu Enerji (ZOREN) begun talks with Leviathan partners in October 2013.⁴⁸

⁴⁴ Famagusta Gazette, [Cyprus aims at agreements with Lebanon, Israel and Egypt on natural gas exploitation](#), 12 February 2014.

⁴⁵ In May 2010, the Israeli navy stormed the [Mavi Marmara](#); a Turkish flotilla crewed by an alliance of pro-Palestinian activists who had combined to deliver aid to Gaza while crossing through Israeli EEZ, worsening relations between Israel and Turkey.

⁴⁶ Globes, [The prospect of Leviathan field gas are prompting Turkey to normalize Israel ties](#), Israel, 11 February 2014.

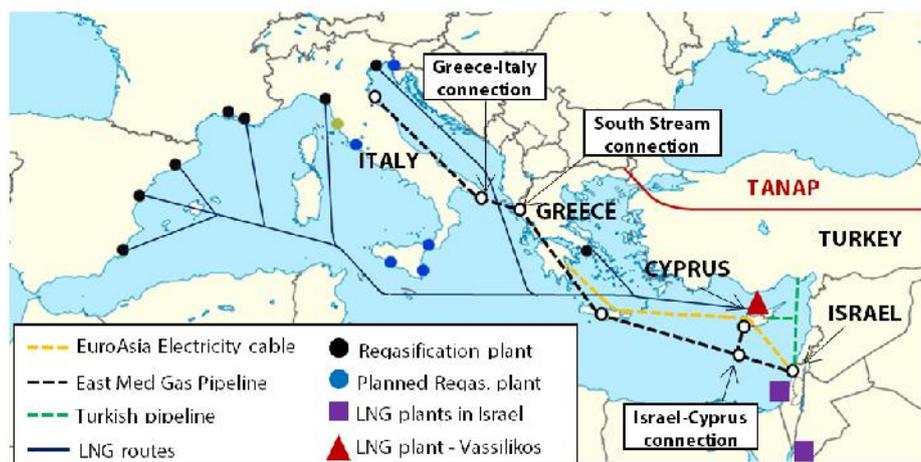
⁴⁷ Simon Henderson, *Natural gas export options for Israel and Cyprus*, The German Marshall Fund of the United States, Mediterranean paper series 2013, and David Wurmser, *The Geopolitics of Israel's offshore gas reserves*, 3 April 2013.

⁴⁸ Ben David, C., Hacaoglu, S., [Turkey-Israel Detente Advances Fueled by Energy Potential](#), Bloomberg, 10 February 2014.

A strategic triangle between Israel, Cyprus and Turkey could offer a solution to conflicts in the eastern Mediterranean

Pursuing successful natural gas exploration in the eastern Mediterranean will require a delicate diplomatic balance between Turkey, Cyprus, Greece and Israel. Despite the immense political, technical and commercial challenges, in early February 2014 Turkey and Cyprus reached an agreement on a joint declaration and on the resumption of negotiations. The declaration emphasises the potential for cooperation on dual-track exports, with a pipeline aimed at exporting Israeli and Cypriot gas to Turkey.⁴⁹ Experts in the field of energy security believe that the economic benefits will persuade Turkey to cooperate with Israel and Cyprus on a Mediterranean energy deal⁵⁰.

Figure 7: Israeli alternatives to export its gas through Cyprus and Turkey: European-Mediterranean corridor and Turkish pipeline



Source: own elaboration based on European Rim Policy and Investment Council and Pytheas.

3.5 Common Egyptian and Israeli interest in gas agreements

Rising political instability in Egypt has led to energy blackouts and failure to meet contractual commitments as a gas exporter

Egypt became Israel's main gas supplier in 2008 as a result of a deal made with deposed Egyptian President Hosni Mubarak. More than 40 % of the natural gas consumed by Israel's used to arrive through a pipeline between the cities of Arish and Ashkelon. The agreement was terminated after Mubarak was overthrown in 2011. The instability that followed led to underutilised plants and chronic energy blackouts. In the short term, political instability could transform Egypt from a gas exporter to a gas importer as it fails to meet its contractual export commitments.⁵¹

Israel has shown a willingness to export gas to Egypt despite the

In this context, Israel's potential could the reverse gas flow with Egypt by taking advantage of the existing infrastructure. In August 2013, the Israeli-US partners Delek and Noble Energy began talks to ship gas to Egypt through the same Ashkelon-el-Arish line that used to feed Israel.⁵² Experts

⁴⁹ Hurriyet Daily News, *Cypriot peace 'to lead the way for energy'*, Ankara, 13 February 2014.

⁵⁰ Bar-Eli, *Cyprus conflict threatens Israel-Turkey offshore gas trade*, Haaretz, 11 February 2014.

⁵¹ In 2013, the Damietta LNG plant, 80 % of which is owned by the Spanish firm Gas Natural and Italian ENI, filed a complaint with the International Chamber of Commerce alleging that Egypt had failed to comply with contracts, being short in the supply of gas following a government decision to keep natural gas for the domestic market owing to fuel shortages.

⁵² Reed, J., *Israel set to become major gas exporter*, The Financial Times, 6 November 2013.

latter's refusal to accept Israeli gas for political reasons

have argued that these on-going gas negotiations may represent an attempt by Israel to exploit underutilised Egyptian infrastructure and successfully to export LNG to foreign markets. Although Egypt's new military government looks favourably at re-establishing energy cooperation, domestic political opposition, violence in the Sinai Peninsula and the will of the Egyptian Natural Gas Holding Company (EGAS)⁵³ to enter the spot market (exporting LNG) combine to make a deal unlikely.

However, Israeli gas could reach Egypt under an Egyptian- Cypriot accord whereby Cyprus would be used as a transit point

A possibility favoured by Egypt, as it would allow it to continue to meet its exporting commitments, includes piping gas from Cyprus to the Egyptian LNG facilities in Edco and Damietta.⁵⁴ However, the Cypriot facilities needed to export natural gas will not be operational until 2020, forcing the country to import gas from Israel. Under the proposed an agreement, Cyprus would export Israeli gas to Egyptian LNG infrastructure, allowing Egypt to meet its export commitments and making it possible to liquefy Israeli gas at Egyptian LNG facilities. This would open markets for Israel in the Far East.

4 Interests of main external stakeholders in the East Mediterranean

4.1 Russia's reaction: the Eastern Mediterranean gas market as a competitor

Russia is cultivating good relations with Israel, Syria and Cyprus in order to maintain its dominance on the European market

...

... and find new ways to export eastward

Russia wants to dominate the East Mediterranean gas market to safeguard its dominant position in Europe while thwarting Turkey's ambitions to become a regional gas exporter. For this reason, the world's biggest natural gas producer is seeking exclusive rights to export LNG produced from fields off the east Mediterranean coast. In pursuit of these objectives, however, Russia could face an internal EU gas market that has been further integrated and diversified following the 2009 Ukrainian gas crisis, making the EU better equipped to face dependency on Russian gas (see section 4.3.2). A dominant position in the Middle East would also give Russia a major role in exporting Mediterranean gas to China, India and Japan, where LNG prices, despite a possible future price convergence in the medium-term, will probably remain more attractive than on the European market.

Gazprom has expressed interest in extracting LNG from Israel's Tamar gas field

As a result, Russia has established close ties with key players in the Eastern Mediterranean gas market such as Israel, Cyprus, and Syria. For example, the Russian state-owned company Gazprom,⁵⁵ together with Trading Switzerland AG and Levant LNG Marketing Corporation, has expressed interest in a 20-year deal to market LNG extracted from Israel's Tamar gas⁵⁶ field, thereby depriving the European market of this new gas source. In

⁵³ Fick, M., *Egypt says not interested in Israeli gas as plans LNG imports*, Reuters, October 2013.

⁵⁴ World Bulletin, *Egypt looks to Greek Cyprus for natural gas*, 12 December 2013.

⁵⁵ Gazprom relies heavily on pipeline supplies to Europe, amounting to around 80 % of its revenues.

⁵⁶ Yigit, I., Andrews, A., *Gazprom Marketing and Trading Switzerland AG signs Heads of Agreement with Tamar upstream consortium*, Gazprom, 26 February 2013.

... and is eyeing the Israeli Leviathan gas field

Russian efforts in the eastern Mediterranean have resulted in access to Syria's EEZ

Russia is taking advantage of the void created by indecisive European and US policies in the Eastern Mediterranean

In addition, Gazprom is already positioning itself to take part in the development of Israel's gigantic Leviathan gas field, which is expected to begin production by 2017.⁵⁷ Not satisfied with building strong bilateral relations with Israel, Russia is also seeking to bolster its standing in the Eastern Mediterranean by supporting Cyprus in its dispute with Turkey and by offering Nicosia support in the financial crisis.⁵⁸ Most importantly, on 25 December 2013, Russia strengthened its relation with Syria in order to gain a foothold in the Eastern Mediterranean energy market.⁵⁹ Under a 25 year deal signed with the Syria Government, Soyuzneftegaz, a group controlled by the Russian Central Bank, would have a controlling interest in an 850-square-mile area of the Syrian EEZ.⁶⁰ Gas reserves are expected to be discovered in the Syrian area of the eastern Mediterranean, which forms the northern part of the Levant Basin⁶¹. Russia's deal with Syria could be a regional game-changer, even if it will take several years before gas can be produced in commercial quantities.

Thus, on examination of Russia's attempts to gain a foothold in the Eastern Mediterranean gas market through strengthened relations with Israel, Cyprus and Syria, it could be argued that Russia means to fill the strategic vacuum left by the EU and the United States. Russia is by many countries in the Eastern Mediterranean widely perceived as a more secure ally than either the USA or the EU. Russia's rising importance in the Eastern Mediterranean was best illustrated on 23 January 2014, when Palestinian President Mahmoud Abbas met with Russian President Vladimir Putin for the signature of a USD 1 billion investment agreement to develop the Gaza offshore gas field.⁶²

4.2 US peace building and economic interest in the Middle East

The United States has sought to support the peace process while safeguarding American business interest

The United States has an interest in maximising the gains and minimising the risks associated with natural gas developments in the eastern Mediterranean. Key elements of US foreign policy in the region are:

- supporting Israel's security,
- providing an incentive for political reconciliation among states in the

⁵⁷ Glover, P., Economides, M., [Russia's new Middle East energy game](#), The Commentator.

⁵⁸ In 2011, Russia lent Cyprus EUR 2.5 billion for five years. In 2013, Russia extended the loan by two years and reduced the interest rate, aiming to ease the debt servicing costs for Nicosia and help it regain financial stability.

⁵⁹ In the context of the Syrian crisis, Moscow has come out in the lead. By supporting Syria in the UN Secretary Council, Russia has signed an agreement with the Syrian Government, making it one of Syria's strongest allies.

⁶⁰ Henderson, S., [Russia-Syria Offshore Gas Deal Injects New Factor into Peace Talks](#), The Washington Institute, 27 December 2013.

⁶¹ Syria's proved gas reserves (241 bcm) are located in the Euphrates river basin, currently controlled by rebels opposing the Assad regime.

⁶² Russian Presidential Executive Office, [Meeting with President of Palestinian National Authority Mahmoud Abbas](#), 23 January 2014.

region, and

- promoting European energy security by supporting diversification.

In order to support Israel's security, the United States has conducted joint military exercises with Greece, Cyprus and Israel, focussed on simulating the defence of deep-water gas drilling installations in the eastern Mediterranean.⁶³ Intervening in the Israeli-Palestinian conflict, US Secretary of State John Kerry announced in May 2013 an economic plan for the occupied Palestinian territories, with former UK Prime Minister Tony Blair overseeing its implementation⁶⁴. The plan, known as the Palestine Economic Initiative (PEI), aims at developing the economy of the West Bank and Gaza over the next three years as a prerequisite for a political settlement to end the Palestinian-Israeli conflict. In this context, a USD 1 billion investment in developing the gas field, led by the BG group, would be the first step in Kerry's USD 4 billion initiative.

To ensure its economic interests, the United States has sought a solution to maritime border disputes between Israel and Lebanon and to better relations between Turkey and Cyprus. Lebanon has repeatedly warned the US firm Noble Energy against drilling in areas contested with Israel. In this regard, US interests in achieving agreements with the Lebanese have so far provided no benefits.⁶⁵ However, despite the numerous failed attempts, US mediation could still be highly useful to both countries. Not only are natural resources at stake, but the already unstable region could be harmed by a renewed military confrontation between the two countries. Regarding the Cyprus-Turkey conflict, the US Company Noble Energy is supporting a dual-track export option (see section 4.3) of gas from the Leviathan fields to Turkey. The United States, which has commercial interest in Cypriot gas and oil exploration, is keenly aware of the difficulty to cooperation between Greece and Turkey that a divided Cyprus represents. For this reason, the United States seeks to hinder Cyprus from becoming involved in the Israeli-Turkey dispute, as this would make the conflict more difficult to resolve. The increasingly tense relationship between Israel and Turkey has in recent years become yet another challenge to US foreign policy.

US Secretary of State Kerry's Palestine Economic Plan could be bolstered by Israeli-Palestinian cooperation in the exploration of the Gaza gas field

Repeated US attempts to continue to explore in the disputed area where the Lebanese and Israeli EZZs overlap have failed

Plans by US companies to export gas to Turkey make the Cypriot-Turkish issue ...

...as well as Israeli-Turkish relations major challenges for Washington

⁶³ Fisher, G., *Joint Israeli-Greek military drill seen by some as rebuff to Turkey*, The Times of Israel, 1 April 2012.

⁶⁴ Tony Blair is the Jerusalem-based representative of the Quartet on the Middle East, a foursome of nations and international and supranational entities – the United States, Russia, the EU and the UN – that oversees efforts to secure an Israeli-Palestinian peace agreement.

⁶⁵ In 2012, the United States proposed to give 2/3 of the contested space to Lebanon, maintaining the rest under the UN supervision. In December 2013, a [US initiative](#) was announced that aimed at establishing a blue line in the contested area to prevent hydrocarbons exploration activity in that area until a binding resolution between both parties has been reached.

4.3 Energy security for the European Union

The increasing importance of gas in the European energy mix raises concerns over diversification

The creation of an Eastern Mediterranean energy corridor would boost both the EU's energy diversification plans and Greek Cypriot interests

The EU could benefit from Turkish gas exports if Turkey took advantage of Levant Basin exploration opposing Eastern Mediterranean energy corridor

Promoting natural gas exploration in the eastern Mediterranean remains a key goal of the European Union, reflecting the increasing importance of gas in the European energy mix⁶⁶ and the need, after the occupation of Crimea, to diversify imports away from Russia. Since the EU depends highly on pipelines from third countries, Cyprus, as a Member State, could prove a valuable asset by serving as a conduit for gas flowing from Israel to the European Union. In this context, a bid to build an Eastern Mediterranean corridor would allow the European Union to achieve a greater degree of energy security. In 2012, the Commission gave its support to the Eastern Mediterranean corridor by including the Euro-Asia interconnector, the LNG storage facility and the offshore pipeline from Cyprus to Greece on the list of Projects of Common Interest (PCI) for the period 2014-2020⁶⁷. However, the Eastern Mediterranean corridor faces political opposition from Turkey, lack of investment, high costs, political uncertainty and technical issues, all of which combine to block construction of the needed infrastructure.

Political opposition from Turkey stems from the fact that the Eastern Mediterranean corridor would compete with another possible pipeline linking the eastern Mediterranean with southeast Turkey. Despite the difficulties involved in transporting Israeli gas through the proposed Trans-Anatolian gas pipeline (TANAP)⁶⁸, including its limited spare transportation capacity, the EU could benefit from a Turkish pipeline linking the eastern Mediterranean. A Turkish pipeline connecting the eastern Mediterranean to Europe would allow Turkey to export a greater amount of natural gas to the European Union.

4.3.1 The EU's position on maritime boundaries' conflict

The European Union has always backed the implementation of the United Nations

The European Union's position as regards the importance of maritime boundaries has remained consistent with that of Parliaments' Foreign Affairs Committee, calling for a European policy on oil and gas drilling based on the United Nations Convention on the Law of the Sea.⁶⁹ In this regard, on July 2013 the Commission published a study entitled *Costs and*

⁶⁶ According to Eurogas, the share of natural gas in EU primary energy consumption is expected to reach 30 % in 2030, while domestic production is expected to decrease.

⁶⁷ See [European Union's Projects of Common Interest for the period 2014-2020](#).

⁶⁸ The transport of Israeli gas via TANAP, a proposed natural gas pipeline from Azerbaijan through Turkey to Europe (with an annual capacity of 31 bcm) would depend on the commercial conditions and on relative gas prices in Turkey as compared to prices in Greece, Albania and Italy. In addition, the Turkish state-owned company BOTAS would need to build the USD 6.7 billion pipeline link between Ceyhan or Mersin to TANAP, which may stretch the economy of the project.

⁶⁹ European Parliament, [Report on a 2030 framework for climate and energy policies](#), 27 January 2014, Article 87.

Convention on the Law of the Sea as a way of creating a stable eastern Mediterranean

*benefits arising from the establishment of maritime zones in the Mediterranean Sea.*⁷⁰ In the report, the Commission describes the eastern Mediterranean as mosaic of fragmented claims and calls on regional actors to respect UNCLOS. With regard to Cyprus' conflict with Turkey over maritime borders and the extent of Cyprus' EEZ, the European Union has resolutely backed Cyprus as a Member State. Members of the European Parliament have asked Turkey to respect Cyprus' sovereign right to conduct natural gas exploration within its delineated maritime border. Recently, in February 2014, the Commission welcomed a joint declaration by Greek and Turkish Cypriot leaders regarding negotiations for a comprehensive settlement of the Cyprus problem under United Nations auspices.⁷¹

4.3.2 Levant Basin gas discoveries: EU energy security away from Russia

The 2009 Russian-Ukrainian gas crisis spurred the EU to look for alternative gas imports and to prepare itself against external threats to its energy supply

The Russian-Ukrainian supply/transit crisis in January 2009 and Russia's occupation of Crimea in 2014 highlight the problem of EU's vulnerability on Russian gas. The first of these crises spurred the EU to seek to reduce its reliance on Russian gas by diversifying its sources. To this end, the EU has backed the Trans Adriatic Pipeline (TAP) project to import Azeri gas via the Trans Anatolian Natural Gas Pipeline (TANAP), with an annual capacity of 31 bcm, and has sought to increase the import of piped gas from Norway (which for a short time in 2012 overtook Russia as the EU's biggest gas supplier).⁷² The second crisis has given the EU reason to look not only at medium-term projects, but also at the question of immediate supply. As regards the latter, Russian gas could partly be replaced with Algerian, Qatari or Nigerian LNG diverted to EU terminals. In the longer term, the LNG reception capacity could be increased thanks to potential US investment in LNG export facilities.

Levant Basin gas discoveries could actively influence major export

In this struggle for the European gas diversification, the Levant Basin gas discoveries could offer potential new sources for diversification. While some energy experts argue that the volume of gas to be found in the eastern Mediterranean is too modest to influence European gas markets unless other major additional discoveries are made (which is highly probably)⁷³, others highlight the Israeli-Cypriot gas export potential⁷⁴. By the end of this decade, east Mediterranean gas could offer Member States in Southeast Europe (being the ones most dependent on Russian gas) the energy security benefits that Nabucco has failed to deliver. Proved Cypriot-Israeli

⁷⁰ European Commission, DG MARE, *Costs and benefits arising from the establishment of maritime zones in the Mediterranean Sea – Final Report*, June 2013, http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/maritime-zones-mediterranean-report_en.pdf.

⁷¹ European press release database, *Statement from the European Union on the agreement reached by the Greek Cypriot and Turkish Cypriot leaders on a joint declaration and on the resumption of the negotiations*, 11 February 2014.

⁷² De Micco, P., *EU and Russian policies on energy security and climate change*, European Parliament, December 2013.

⁷³ Shaffer, B., *Can new energy supplies bring peace?*, The German Marshall Fund, March 2014.

⁷⁴ Tsakiris, T., *Shifting sands or burning bridges?*, ELIAMEP, Greece, February 2014.

markets in Southeast Europe

gas reserves currently available for export would satisfy EU domestic needs (about 500 bcm) for one year. Volumes of eastern Mediterranean gas could range from 7-14 bcm/year, in a LNG plant scenario, to around 14.5 bcm/year, in a pipeline scenario, where Israel and Cyprus commit 60 % of their exports towards Europe and the rest to Asian markets (see table 1). In such an alternative gas market, and considering future potential gas discoveries, even the Russian South Stream pipeline project, with capacity of 63 bcm, would risk losing influence on EU markets.

Table 1:
Levant Basin potential sources of natural gas for the Southern European market until 2020

Current capacity available for exports, excluding possible future contracts and considering already signed agreements (Israel-Jordan and Israel-Palestinian) and domestic long-term demands (Israel 375 bcm and Cyprus 70-110 bcm, for a total of 445-485 bcm).

*Based on a hypothetical commercial 20-year contract in which Cyprus and Israel commit 60 % of their exports to Europe.⁷⁵

**TANAP capacity earmarked to meet Turkey's domestic demand could be freed up for exports to Europe if Turkish domestic consumption were to be satisfied with Israeli gas.

Transport	Partners	Gas capacity achievable for Europe (bcm/year)		Direct cost (USD)	Year	Issues
LNG plant	Cyprus	1 LNG capacity; 7		10-15 billion	2020	<ul style="list-style-type: none"> • Lack of investment and gas • Uncertain Israeli strategy
	Cyprus & Israel	1-2 LNG plants; 7 – 14				
Pipeline		Max. capacity*	Pipeline capac.			<ul style="list-style-type: none"> • Vulnerable to Turkish EEZ or Egyptian-Greek EEZ agreements • Technical issues, 1 000 km pipeline at depths of 3 000 metres • The most expensive option
	Israel-Cyprus-Greece	Israel	11	17-20 billion	Post 2020	
		Cyprus	3			
		Total	14			
		Israel-Cyprus-Turkey	TANAP capacity			
		Spare capacity	5	5-10 billion	2023 - 2025	
	or	Turkish needs**	6			
	Israel-Turkey	Total	5-11			
Electricity cable	Israel-Cyprus-Greece	Electric power from gas-fired plants; 2 000 MW		2 billion	2016	<ul style="list-style-type: none"> • Technical issues, 1 000 km cable at depths of up to 2 000 metres

Source: own elaboration based on data from [ELIAMEP](#).

5 The European Union's policy options

On the one hand, a LNG plant in Cyprus in cooperation with Israel would satisfy the needs of Greece and Cyprus, both Member States ...

To promote its energy security through regional stability across the eastern Mediterranean, the European Union should help mitigate long-standing political conflict through a policy based on the following premises:

1. The EU should outline a strategic vision of export solutions for Eastern Mediterranean gas on the basis of the following potential options:
 - (a) An Israel-Cyprus joint LNG export plant at Vassilikos, Cyprus, involving two-train terminals (7-14 bcm/year), whereby the EU provides a transparent and predictable regulatory environment for

⁷⁵ Tsakiris, T., *Shifting sands or burning bridges?*, ELIAMEP, Greece, February 2014, p. 58.

investors in Cyprus and support in reducing political risk, and shares best practices in the governance of energy resources.

- (b) the Euro-Asia electricity interconnector;
- (c) the East Mediterranean gas pipeline with a spare transportation capacity of up to 30 bcm/year;
- (d) a dual combined export arrangement encompassing a pipeline from Leviathan to Turkey and an LNG terminal in Cyprus, whereby early revenues could finance the Cypriot terminal; this project already enjoys support from the lead companies developing the Leviathan and Aphrodite fields (the US firm Noble Energy and the Israeli Delek group);⁷⁶
- (e) a dual-track solution whereby Cypriot and Israeli gas is transported to Turkey via pipeline (see section 4.3).

Options (d) and (e) may offer a chance for Israel and Turkey to re-launch their strategic partnerships. They also provide incentives for Turkey to reach an agreement on the Cyprus issue. In support of either option, a possible EU initiative could be to convince Cyprus to permit a Turkish-Israeli pipeline through its waters.

2. The EU should use every opportunity to ensure that these newfound resources serve as a peace catalyst in the Middle East, starting with supporting the current peace process between Israel and the Palestinians led by US Secretary of State John Kerry.
3. The EU should continue actively to support the integration of the Euro-Arab Mashreq Gas Market Project (EAMGM). This project is aimed at boosting regional integration of the gas market in order to achieve harmonisation of the legislative and regulatory frameworks in Egypt, Iraq, Jordan, Lebanon, Syria, and Turkey with that of the EU. After a first phase (2005-2009), during which Iraq and Turkey participated as observers, the project has been extended for a second phase (2010-2013)⁷⁷, in which Iraq is a full partner. At present, however, this cooperation effort has come to a complete stop in consequence of the events of the Arab Spring.

... on the other hand, a strategic triangle between Turkey, Cyprus and Israel would open the way for regional peace as well as for the export, in time, of Eastern Mediterranean gas to the EU

The European Union should continue actively to support the integration of the Euro-Arab Mashreq Gas Market Project

⁷⁶ This plan was suggested by former US ambassador [Matthew Bryza](#) who currently sits on the Board of Directors of Turcas Enerji.

⁷⁷ See [EAMGM II – Euro-Arab Mashreq Gas Market Project](#), EU Neighbourhood Info Centre.