

East Mediterranean Hydrocarbons

Geopolitical Perspectives,
Markets, and Regional
Cooperation

Edited by

Ayla Gürel

Harry Tzimitras

Hubert Faustmann



REPORT 3/2014

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A joint Publication by

PRIO Cyprus Centre
Friedrich Ebert Stiftung
Brookings Institution

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ISBN 978-82-7288-567-9 (print)
ISBN 978-82-7288-568-6 (online)

Production and Cover design: Action Global Communications

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INTRODUCTION

By Harry Tzimitras, Ayla Gürel and Hubert Faustmann

This volume presents a comprehensive approach to the geopolitical and commercial aspects of Eastern Mediterranean hydrocarbon resources. It is an attempt to look at the region and the issue of hydrocarbons from a balanced, objective and broad perspective, in the hope of contributing to an informed and mature public debate on the subject. To this end, the PRIO Cyprus Centre, the Friedrich-Ebert-Foundation and the Brookings Institution organized an international conference entitled "East Mediterranean Hydrocarbons", which was held in the UN Buffer Zone in Nicosia in November 2013. The proceedings of that conference comprise the content of the present volume.

The discovery of hydrocarbons in the Eastern Mediterranean holds the potential of being a game changer in the whole region and beyond. It is likely to have important economic, geo-strategic, political and social consequences. It can be a new platform for cooperation between the states and people of the region. If poorly managed, however, it has an equal capacity to exacerbate existing tensions or create new ones. Especially in the case of Cyprus, this seems to have been the case so far, both on the island and with reference to some countries around it. However, the issue of energy development in the region is of paramount importance to all regional states and has far-reaching international implications. It can neither be hijacked by any single actor, nor can it be limited or delayed by sacrificing it to the caprices of diplomacy. Indeed, there is a need for realism; a sense of urgency; an imperative not to take things for granted; and an obligation for all to think outside the box.

The discussion regarding hydrocarbons in the region so far has mostly been a fragmented one. States involved tend to concentrate on their own resources, actual or potential, in a rather narrow-minded and self-centred way. This pertains to modes of extraction, transportation options, and monetization prospects and extends to potential collaborations. In turn, such attitudes have led states to become even more inward-looking, suspicious and dogmatic, in some cases ultimately even more confrontational than usual. This is because hydrocarbons are viewed through the lens of existing conflictual relations and are thus becoming a link in the existing chain of problems. Yet, it needs to be understood that realisation of the potential of East Mediterranean hydrocarbon finds requires a much broader outlook; one that transcends the existing conflicts in the area. This means either that their exploration and extraction absolutely depend on cooperation, or, at any rate, that their optimal development necessitates cooperation.

Further, there is a sense of urgency in the way things need to progress. This is a function of both historical and current political and strategic uncertainties in the region; international price fluctuations; market availability; global competition; industry interest; and geopolitical challenges. Nothing should be taken for granted, including alliances and enmities. Moreover, states should not take the interest of commercial companies for granted either. Ultimately, it is the companies that have to bear the cost of the investment involved and thus need to be incentivized to do so. Political whims, security challenges, difficulties in investment and inflexible or inappropriate regulatory frameworks, combined with changing market conditions, may discourage companies from investing in the region. Hydrocarbons that remain in the ground are of use to no one.

All this indicates the need for prudence and pragmatism. Yet, public debate has suffered, to a large extent, from excessively optimistic assumptions and cultivation of expectations that have often been unrealistic, which in turn have rendered the prospects of collaboration distant. Conversely, realistic expectations based on facts and informed public discussion, will be beneficial to the development of the issue and to all involved. This will allow for an accurate assessment of the potential of the reserves, of modes and options of development from a commercial and political point of view. It is hoped that it would then become clear that cooperation is the optimum, indeed surely the only, way to proceed; and that, specifically in the case of Cyprus, hydrocarbons can serve as a unique platform for cooperation which could subsequently extend to other fields and lead to mutual understanding and ultimately to peace. It is in this spirit that the publication of the present volume was envisaged and the initiative behind it undertaken.

The papers in the first section explore regional perspectives on the geo-political context of the East Mediterranean hydrocarbons. Fiona Mullen's contribution opens the discussion, providing an overview of the positions of the two sides in Cyprus, of Turkey, and of relevant international actors on what might broadly be called the sovereignty question on offshore hydrocarbons (i.e., who has the sovereign right to exploit the natural resources in the exclusive economic zone of Cyprus). Mullen also looks at the attempts to start inter-communal discussion on hydrocarbons within, or parallel to, the comprehensive settlement negotiations. Finally, she discusses some recent developments in the global natural gas market and the commercial viability of potential export options for Cyprus gas, arguing that, given the expected drop in gas prices, time is running against the Greek Cypriots.

Thanos Dokos writes from a Greek perspective on the regional security environment in the Eastern Mediterranean, as he evaluates the prospects, challenges and potential implications of energy cooperation between Israel and Turkey as well as energy and strategic cooperation between Cyprus and Israel. The analysis places these projects in the context of various political, security and energy-related developments in the Eastern Mediterranean and the Middle East region, while it also discusses the prospects and conditions for a Cyprus settlement as a pre-requisite to future cooperation between Turkey and Cyprus.

Bassam Fattouh and Laura El-Katiri outline the political as well as commercial challenges and opportunities for Lebanon in its quest to become an important gas province in the East Mediterranean, and explain why the outlook for the country's exploration and exploitation plans is uncertain. The authors also evaluate Lebanon's options for developing its gas reserves if and when these are confirmed, arguing that Lebanon's key challenges are less below ground (resource and technological constraints) than above ground, that is, in the formulation of appropriate legislative and fiscal policy, effective institutional structures, and efficient management of gas revenues.

Pavel K. Baev's contribution carries its main hypothesis in its title: 'Russia Fakes Interest in Hydrocarbons in the Eastern Mediterranean'. Baev asserts that Russia's real contribution to oil and natural gas exploration in the Eastern Mediterranean and to the early exploitation of these reserves is miniscule. Evaluating the balance of motivations and disincentives, he examines Russia's energy-political relations with Turkey, Cyprus, the EU, and the wider Middle East. He argues that there is hardly any reason to expect that Russia's pattern of under-performance would change; that Moscow is fundamentally not interested in the growth of new sources of gas supply in this remote but sensitive corner of the European market; and, that, in fact, for Russia's Gazprom the only possible interest in taking control over the unexplored but not very promising fields in the Eastern Mediterranean would be in keeping them idle.

Kemal Kirişçi evaluates Turkey's position and calculations vis-à-vis the still emerging Eastern Mediterranean energy prospects and resultant geopolitical shifts in the region. To do this, he examines Turkey's energy profile and supply diversification plans involving Azerbaijan and Northern Iraq; Turkey's relations with the EU and its fading EU-oriented vision; and the impact on Turkish foreign policy of the new political alliances in Turkey's neighbourhood since 2011. Against this background, he argues that the promise of new gas supply from the Eastern Mediterranean is unlikely to increase Turkey's motivation to solve the Cyprus problem.

The second section of the report deals with potential markets for East Mediterranean gas. In the first contribution in this section, Adam Lomas talks about the significance of Eastern Mediterranean gas reserves in the context of the global energy landscape and supply/demand trends. He outlines the steps which would be required to monetize the Cyprus gas. In particular, he analyses the various technical, economic and market challenges the Republic of Cyprus is likely to face in implementing its onshore LNG plant construction plans. Lomas argues that the economic crisis has exacerbated the difficulties of financing this highly complex and capital-intensive venture. He also explains that, with a realistic vision and good strategic planning – which are lacking at the moment – Cyprus offshore discoveries would have long-term benefits, beyond those currently envisaged.

Simone Tagliapietra assesses Europe's potential as a market for Eastern Mediterranean gas, as he presents an overview of the European gas markets, focusing on the implications of the projected increase in Europe's future gas import needs. He also gives an account of Europe's gas supply diversification efforts, especially the Southern Gas Corridor (SGC) (from the failed

Nabucco to the new promise of TANAP-TAP), and evaluates the potential of Turkmenistan, Iraq and Iran as suppliers to the SGC besides Azerbaijan. Based on this, he suggests that Europe could be a good market opportunity for Eastern Mediterranean gas exports, especially as LNG, but also possibly via a pipeline through Turkey.

The contribution to this section by Willy H. Olsen examines the potential of Asian markets' need for gas from the Eastern Mediterranean. Olsen suggests that, given the ample availability of gas (both as LNG and piped) and the projected increase in future gas production in many countries, the world may be entering a "golden age of gas", with gas looking likely to be the fastest growing source of energy globally for the next several decades. He also discusses the impact of the US gas shale boom on the world gas markets, and the growing competition among the world's gas suppliers for markets especially in Asia. He then provides an assessment of the existing important gas markets in Asia and the prospect of India and China becoming the largest global importers of natural gas in the near future. Finally, Olsen discusses the challenges for Cyprus in developing its offshore reserves, especially the fierce competition it will face from other cheaper gas producers, and cautions against rushed development plans when the resource base in the region is still so uncertain.

The third and final section looks at hydrocarbons as an enabler for enhanced dialogue and reconciliation. Siri Aas Rustad, Päivi Lujala and Philippe Le Billon, in a joint paper, investigate the challenges of peacebuilding in the presence of high-value resources, arguing that if they are properly managed, natural resources can reinforce peace-building objectives. They then discuss how to best address important issues that are relevant to post-conflict environments. The authors warn that resource management initiatives in post-conflict countries must take into account a number of factors, including the type of resources involved; past, current and potential future linkages with conflict; both regional and international dynamics and trade patterns; institutional quality and capacity with respect to resource management; and conditions that may have shaped resource management in the past.

David Koranyi evaluates the conditions for regional cooperation on hydrocarbon development in the Eastern Mediterranean. The author argues that despite the challenges to such cooperation, there is a unique alignment of interests in the region that should not be overlooked: a gas-hungry Turkey, the EU's growing need for imported gas, Cyprus's financial woes and hence its need to monetize its resources as soon as possible, and Israel's need for multiple export options. Thus, he maintains, foundations for win-win solutions are there to build on. Koranyi's conclusion is that it is essential that political vision and leadership come from within the region, but these will have to be supported and nurtured by two critical outside actors: the US and the European Union, who both have vested interests in finding win-win solutions in the energy realm with positive spill-over effects on long-frozen regional conflicts.

Alexander Apostolides takes a two-fold approach in his contribution looking at natural gas and the Republic of Cyprus. First, in view of the March 2013 bail-out, he provides a fiscal perspective on the discovery of natural gas in Cyprus. Second, he analyses the potential economic benefits of the gas, particularly in case of reunification, as well as the impact of

these finds on the current efforts for a Cyprus settlement. His conclusion is that natural gas, as a strategic commodity, has deep political connotations; hence, it can only be considered jointly by the two communities after a political settlement. He observes that, at this stage, it is important to convey to both communities that political disagreements still remain the largest stumbling block not only for joint exploitation of natural resources, but also for current exploitation by the Republic of Cyprus, as the on-going division keeps operations involved hostage to delays.

Hugh Pope, in his contribution, explains how the Cyprus problem and the development of offshore Cyprus hydrocarbons are inextricably linked, noting that they both seem trapped in a three-phase vicious circle: 1) deadlock with no solution in sight; 2) an event triggering a sense of hope in an imminent resolution; 3) hope fading while optimists prescribe steps for restoring hope; and then back to phase 1 again. As he takes us through the asynchronous phases of the two circles, he argues that the main difference between them is Israel's presence in the hydrocarbons story, and the positive possibilities associated with this. Pope concludes that when it comes to turning Cyprus's dreams of hydrocarbon riches into reality, the natural gas can only ever be the icing on the cake, since it seems clear that the gas can only be properly developed after a settlement of the Cyprus dispute.

'Cooperation for Stability in Cyprus and Beyond' is the topic of Kudret Özersay's paper. A former chief negotiator for the Turkish Cypriot side in the peace talks, Özersay supports the idea of collaboration between the two communities in hydrocarbon exploration and exploitation even before a comprehensive settlement, as long as it is conceived and carried out as a project attached to the realization of a comprehensive settlement, which should remain the primary goal. He argues that what is needed in Cyprus is concrete evidence that the two communities can indeed work together for their common good; this would, in turn, help build mutual trust and belief in the benefits of inter-communal cooperation and ease the way to a comprehensive settlement. He also discusses the obstacles to such cooperation and how they can be overcome.

Stephan Stetter takes a global approach to energy governance and gas discoveries in the Eastern Mediterranean. He observes that, apart from security-related and economic regional issues, the monetization of Eastern Mediterranean gas resources – or the failure of monetization – will unfold against the backdrop of a global energy horizon, which involves issues such as: How will gas demand in Asia develop? How will Qatar, Russia and Australia as major gas exporters and hence competitors be able to allow or prevent gas exports from the Eastern Mediterranean? Will the US with its massive reserves of natural gas decide to engage in the global gas game? Will spot-market prices in the US, the EU and Asia continue to align or remain at substantially different levels? How will the institutional structure of global gas governance evolve? Stetter argues that the answers to these and many other economic questions will affect the development of trade routes for the Eastern Mediterranean gas at least as much as political and security-related developments.

In his 'Conclusions' to the volume Tim Boersma stresses that it is still early days for Eastern Mediterranean gas. Focusing especially on Israel and Cyprus, he reviews the level of development of the hydrocarbons resources in the region and analyses the gas export options for these countries. Boersma also discusses the determining role of politics in the development of the region's offshore natural gas resources.

We hope that this book will prove to be a valuable source of objective information and sound analysis for experts, policy makers and the interested general public.

Section 1

REGIONAL PERSPECTIVES ON THE GEO-POLITICAL CONTEXT

Cyprus Gas: Positions on Sovereignty and Latest Market Developments

By Fiona Mullen

Sovereignty is probably one of the most sensitive aspects of the conflict in Cyprus. This paper offers an overview of the positions of the two sides in Cyprus, of Turkey, and of relevant international actors on what might broadly be called the sovereignty question on gas. It also briefly discusses some recent developments in the natural gas market that feed into that.¹

Position of the (de facto Greek Cypriot) Republic of Cyprus

Starting with the Greek Cypriots, essentially their position is that they represent the internationally recognized Republic of Cyprus (RoC) and therefore as such they have every sovereign right to explore and exploit the island's natural resources. It is a pretty straightforward position and it is encapsulated in a speech that the RoC Foreign Minister of the time, Erato Kazakou-Marcoullis, gave in Helsinki in 2012:

Decisions and actions of the Republic of Cyprus to explore and exploit its natural resources within its EEZ fall squarely within its sovereign rights, which are in full conformity with international law, as these are recognized by the UN Convention on the Law of the Sea, of which Cyprus is a state party.²

¹ The content of this paper draws substantially on chapter 4 of the PRIO Cyprus Centre report published in early 2013: *The Cyprus Hydrocarbons Issue: Context, Positions and Future Scenarios*, by Ayla Gürel, Fiona Mullen, and Harry Tzimitras, http://file.prio.no/publication_files/Cyprus/Report%202013-1%20Hydrocarbons.pdf.

² Address by the Minister of Foreign Affairs, Dr Erato Kozakou-Marcoullis, on "New Challenges and Prospects in the Eastern Mediterranean: The Cyprus Perspective", at the Paasikivi Society think tank, Helsinki, 10 May 2012, <http://www.mfa.gov.cy/mfa/mfa2006.nsf/All/D84D4728AA0EA83CC22579FB002C0F51?OpenDocument>.

That is the position on exploration and exploitation. When it comes to revenue-sharing with the Turkish Cypriots, there is an understanding that in the event of a solution to the Cyprus problem, the natural gas wealth would be shared. In September 2012 at the UN General Assembly, the then Greek Cypriot leader and President of the Republic of Cyprus, Demetris Christofias, said the following:

In a reunified Cyprus the natural resources, including hydrocarbons, will be common wealth for all Cypriots.³

He even went so far as to say, or was at least quoted as saying, that all of the income would be distributed to the consistent states:

[...] the central government will then distribute all income from the exploitation to the two constituent states.⁴

As an aside, personally I am not sure that distributing all of the revenue to the constituent states and leaving nothing for the federal government is a good idea.

As regards competence for natural resources, it is public knowledge now that natural resources would be a federal competence in the event of a solution. When it comes to *discussing* the subject-matter with the Turkish Cypriots, however, it is very difficult even to get any quotation about it. This is because the Greek Cypriot position is that they do not want to talk about it. They do not talk about gas within the context of the comprehensive settlement negotiations or even parallel to the negotiations. 'Our sovereign right is not negotiable. This is clear.'⁵ This is what the government spokesman of the time, Stefanos Stefanou, said in 2011 in response to a question about it.

On the basis of these stances, the Greek Cypriots have delineated the exclusive economic zone (EEZ), issued licences and allowed exploratory drilling, which has been under way since September 2011.

Turkish Cypriot position

The Turkish Cypriot position is a little more complicated to explain. The central position is that they are the co-founders of the bicomunal RoC that broke down in 1963. Since 1963 there has been no legitimate authority that can represent Cyprus *as a whole*, that is, both Cypriot communities. Therefore, there is no constitutional government that can legitimately repre-

³ Statement by President Christofias before the General Assembly of the UN, 25 September 2012, <http://www.moi.gov.cy/moi/pio/pio.nsf/All/015F3753AA24C8BFC2257A84005566A0?OpenDocument>.

⁴ Cyprus News Agency, 22 September 2012, also available at <http://www.accessmylibrary.com/article-1G1-267701631/cyprus-says-northern-region.html>.

⁵ "Spokesman: Cyprus' sovereign rights are non-negotiable", Cyprus News Agency, 28 September 2011. See also "Downer: my statement was lost in translation", Cyprus News Agency, 28 September 2011.

sent the RoC. Of course, only Turkey supports this position. Nevertheless, on the basis of these arguments the Turkish Cypriots say that not only do the natural resources belong to all Cypriots, they should be jointly explored for and exploited. Thus, if the Greek Cypriots are going ahead exploring for offshore hydrocarbons, then they are doing it unilaterally. It is important to point out, therefore, that this is not just about sharing the money; it is also about joint exploration and exploitation of the resources.

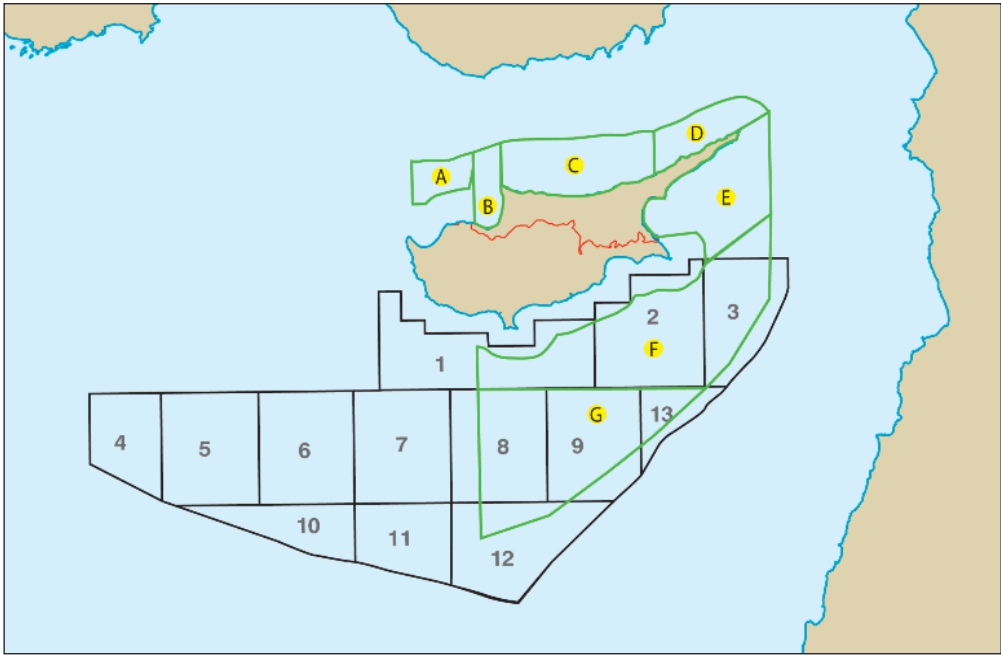
One can see the Turkish Cypriot position reflected in a letter from the Turkish Cypriot leader of the time, Mehmet Ali Talat, to the UN Security Council (distributed via Turkey) in 2007, when the first RoC exploration tender was launched. The letter, referring to the EEZ delimitation agreement signed between the RoC and Lebanon, says:

[...] agreement signed by the Greek Cypriot Administration under its purported capacity as the "Government of the Republic of Cyprus" is null and void and is not, in any way binding on the Turkish Cypriot people or the island as a whole [...] the Turkish Cypriot people [...] who were the equal partners of the 1960 Republic of Cyprus and would again be the political equal of the Greek Cypriot people in a future comprehensive agreement [...] have equal right and say on the natural resources...⁶

This reflects the fact that the Turkish Cypriots do not recognize the government in its current, Greek Cypriot only, form and insists on equal rights over natural resources. It is also why the Turkish Cypriots are essentially saying that the natural resources should not be explored and exploited without them.

On the basis of the argument that Greek Cypriots are unilaterally exploiting what is in fact a shared resource, the Turkish Cypriots have taken their own steps towards exploration and exploitation. This is why they have licensed their own blocks. The eight blocks licensed to the Turkish Petroleum Company (TPAO) overlap around 40% of the 13 blocks delineated by the RoC EEZ (Map 1). The licensed area includes part of the RoC Block 12, in which drilling has begun, but it does not quite reach the Aphrodite field. TPAO has started some seismic exploration and has also conducted a small amount of drilling on land in Famagusta.

⁶ Letter signed by Mehmet Ali Talat as President and transmitted as 'Annex to the letter dated 2 February 2007 from the Permanent Representative of Turkey to the United Nations addressed to the Secretary-General', UN Doc. A/61/727-S/2007/54.



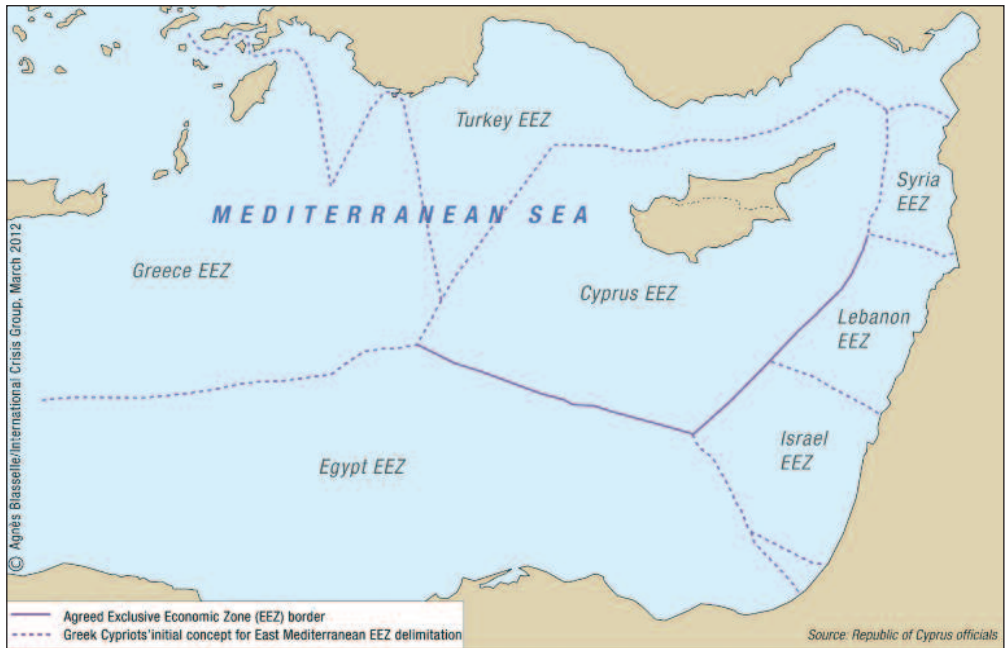
Map 1 “The TRNC licensing blocks overlapping some of the RoC licensing blocks. [Source: Turkish MFA.]”
 Reproduced from Gürel et al, *The Cyprus Hydrocarbons*, Map 5.1.

Turkey’s position

As well as supporting the Turkish Cypriot position, Turkey has its own issues. It is really a by-product of the argument with Greece about Kastelorizo/Meis. One of the arguments raised by Turkey in order to object to the RoC’s EEZ delimitation agreement with Egypt in 2003 was that the area in question also concerned Turkey’s sovereign rights, that under international laws and norms, all affected states should be consulted, and that Turkey was not consulted. Thus, Turkey does not recognise the RoC-Egypt EEZ delimitation agreement. Of course, this Turkish argument is rejected by the RoC.⁷

As noted, this is a by-product of the issue with Greece, which is better explained in a map (Map 2). Turkey says that if Greece gets its way on maritime delineation, then Turkey would have only a tiny amount of access to the sea. Greece would have considerable access, as would Cyprus.

⁷ See “Statement of the position of the Government of Republic of Cyprus, dated 28 December 2004, with respect to the information note by Turkey, concerning the latter’s objection to the Agreement between the Republic of Cyprus and the Arab Republic of Egypt on the Delimitation of the Exclusive Economic Zone of 17 February 2003”, *Law of the Sea Bulletin*, vol. 57, pp. 124-125.



Map 2 “Turkish continental shelf and EEZ boundaries calculated as median lines as proposed by the RoC and Greece. [Source and copyright: International Crisis Group].” Reproduced in Gürel et al, *The Cyprus Hydrocarbons*, Map 2.5.

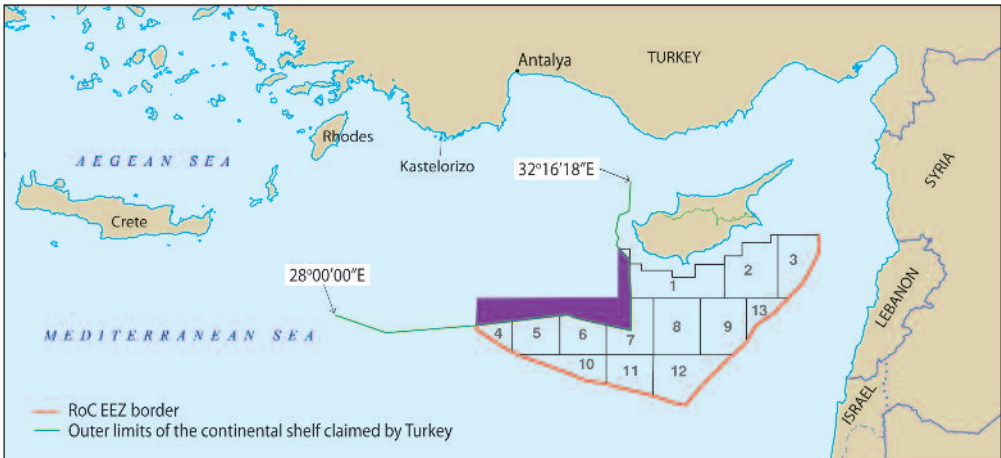
Turkey says that, as the longer coastal state, it should be entitled to a greater proportion of the maritime areas. For this reason its boundaries should drop to the median line with Egypt (Map 3).



Map 3 “Potential Turkish continental shelf/EEZ in the Eastern Mediterranean Sea ‘according to the equitable principles’ as proposed by Turkey. [Source: Turkish Marine Research Foundation at <http://www.tudav.org/>].” Reproduced in Gürel et al, *The Cyprus Hydrocarbons*, Map 2.6.

Turkey's attitudes towards blocks in the west

The median line is important because it cuts into Blocks 1, 4, 5, 6 and 7 of the RoC EEZ (Map 4). And Turkey uses very strong language with respect to these blocks in the west. It is very different from the language it uses when it talks about the Turkish Cypriots' interests.



Map 4 “The overlap between the continental shelf claimed by Turkey and the RoC concession blocks in the south-west of the island. [Source: Erciyas (2012)].” Reproduced in Gürel et al, *The Cyprus Hydrocarbons*, Map 4.1.

As regards the western blocks, Turkey has said it will not allow oil and gas companies to conduct exploration “under any circumstances” and “will take all necessary measures” to prevent it. As regards the other blocks, it has said it will “give every support to the TRNC to prevent possible violations of Turkish Cypriot concession blocks”. According to a Turkish Foreign Ministry press release issued in 2012:

Once the concession blocks geographically described in this so-called tender are examined, it appears that certain sections of some of these blocks namely the so-called 1st, 4th, 5th, 6th and 7th blocks are overlapping with Turkey’s continental shelf areas in the Eastern Mediterranean.

Turkey, as it was [the case] before, will not allow under any circumstances foreign oil companies to conduct unauthorized oil/natural gas exploration and exploitation activities in these overlapping areas and will take all necessary measures to protect its rights and interests in the maritime areas falling within its continental shelf.

[...]

Turkey, in such eventuality, acting upon its responsibilities as a motherland and a guarantor power, *will give every support to the TRNC* to prevent possible violations of Turkish Cypriot concession blocks and *thus to protect their rights and interests in maritime areas*.⁸

My interpretation of “*all necessary measures*” and “*will not allow*” any action, is that this is diplomatic language for saying that they are prepared to take military action if anyone tries to explore the Blocks 1, 4, 5, 6 and 7. Not surprisingly, these are the blocks that have so far not been licensed.

The language is a little softer for the other blocks. But as we noted in our report,⁹ the Turkish Ministry of Foreign Affairs told us that they did not mind spending billions of dollars drilling in these blocks if necessary. In addition, they have sent recent warnings to oil and gas companies.

International actors' positions

Among the relevant international actors, statements about hydrocarbons exploration offshore Cyprus essentially fall into three different categories: those who do not comment, those who comment only about the rights of exploration and those who elaborate about revenue-sharing. By international actors I mean the five permanent members of the UN Security Council: China, France, Russia, the UK, the US (the P5), the UN Secretariat, the European Commission and the European Council.

Russia, France, European Council, European Commission

Among the P5, I have not been able to find any record of China commenting, which is normal. Statements by Russia, France, the European Council and the European Commission have focused only on the sovereign right of the RoC to explore for and exploit hydrocarbons. The key references are as follows:

Russia: “Thus, if the Cypriot side is planning to undertake mineral exploration and production activities within those areas of its EEZ that on the basis of international treaties are delimited with the opposite states, such activities are consistent with international law and the scope of sovereign rights available to the Republic of Cyprus in accordance with the UN Convention on the Law of the Sea.”¹⁰

⁸ Turkish Ministry of Foreign Affairs Press Release Regarding the Second International Tender for Off-Shore Hydrocarbon Exploration Called by the Greek Cypriot Administration (GCA), no: 43, 15 February 2012. Available at http://www.mfa.gov.tr/no_43_15-february-2012_second-international-tender-for-off_shore-hydrocarbon-exploration-called-by-the-greek-cypriot-administration-gca_en.mfa.

⁹ A. Gürel, F. Mullen, H. Tzimitras, *The Cyprus Hydrocarbons Issue: Context, Positions and Future Scenarios*, PRIO Cyprus Centre, Nicosia, 2013, http://file.prio.no/publication_files/Cyprus/Report%202013-1%20Hydrocarbons.pdf.

¹⁰ Russian Foreign Ministry Spokesman Alexander Lukashevich Answers a Media Question Regarding the Republic of Cyprus's Pursuit of Mineral Exploration and Exploitation Activities in Its Exclusive Economic Zone, 1228-19-08-2011, 19 August 2011, http://www.mid.ru/bdomp/brp_4.nsf/e78a48070f128a7b43256999005bcbb3/b104fcc31f6810aec32578f40037701e!OpenDocument.

France: “France shares the position set out, on 27 September last, by the European Commissioner, Stefan Füle, on the litigation concerning gas prospecting rights in the maritime zones of the Mediterranean: the Member States have the sovereign right to sign bilateral agreements with third-party countries, in line with Community acquis of the European Union and international law, including in particular the international convention on maritime law.”¹¹

European Council: “Furthermore, the EU stresses again all the sovereign rights of EU Member States which include, inter alia, entering into bilateral agreements, and to explore and exploit their natural resources in accordance with the EU acquis and international law, including the UN Convention on the Law of the Sea.”¹²

European Commission: “Moreover, as the Council has stressed on several occasions, our Member States have the sovereign right to conclude bilateral agreements with third countries, in accordance with the European Union acquis and international law, including the United Nations Convention on the Law of the Sea.”¹³

UN Secretariat

The UN Secretariat (that is, the Secretary-General, Ban Ki-moon, and those who work with him) does not typically comment on territory in dispute between the member states of the UN. Of course, the UN encourages parties to resolve their disputes and gets involved in trying to resolve those disputes, but it has not commented on the Cyprus sovereignty question as such.

In the context of the negotiations to solve the Cyprus problem, there is the understanding that revenues would be shared after a solution. One can see that in some of the comments that have been made. For example, a few years ago, in answering a question from the press Lisa Buttenheim, Special Representative of the Secretary-General, said:

What I should say is that, while this issue is not directly related to the talks and it has not been discussed in the talks, it should be understood that natural resources, if they are discovered, would be for the benefit of all Cypriots – Greek Cypriots and Turkish Cypriots

¹¹ Cyprus - litigation concerning gas prospecting rights, France Diplomatie, 3 October 2011, <http://www.diplomatie.gouv.fr/en/country-files/cyprus/france-and-cyprus/political-relations-6168/article/cyprus-litigation-concerning-gas>. The original question and answers in French are also available at http://basedoc.diplomatie.gouv.fr/exl-php/cadcgp.php?CMD=CHERCHE&QUERY=1&MODELE=vues/mae_internet_recherche_avancee/home.html&VUE=mae_internet_recherche_avancee&NOM=cadic_anonyme&FROM_LOGIN=1.

¹² European Council Conclusions on enlargement and stabilisation and association process, 3132nd GENERAL AFFAIRS Council meeting Brussels, 5 December 2011, http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/genaff/126577.pdf.

¹³ Stefan Füle European Commissioner for Enlargement and European Neighbourhood Policy Intervention on Turkey-Cyprus in the European Parliament European Parliament Plenary Session Strasbourg, SPEECH/11/610, 27 September 2011, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/11/610&format=HTML&aged=0&language=EN&uiLanguage=en>. Also available as delivered on YouTube, <http://www.youtube.com/watch?v=7p7tWBTELes>.

– under the framework of a federal united Cyprus. The United Nations would appeal to all involved to resolve this matter in a peaceful manner and look beyond the issues to the potential benefits that a united Cyprus can bring to Cypriots and to the region.¹⁴

And in one of his recent Cyprus reports the Secretary-General wrote:

It is important to ensure that any new-found wealth, which belongs to all Cypriots, will benefit both communities.¹⁵

UK and US

The UK and the US positions express to a certain extent both the positions of the other P5 members, the European Council and the European Commission but also that of the UN Secretariat. On the one hand they support the sovereignty of the Republic of Cyprus, but on the other hand they make it clear that they do expect the wealth to be shared in the event of a solution.

UK: “As the Minister has said we support fully and unequivocally the rights of Cyprus to its EEZ. That has been reaffirmed in the Commonwealth and it has been reaffirmed in the EU on many occasions in the past. So, we support that without any qualification and we want that to be well-known and understood in all countries. We support the right to develop such a zone and to enjoy the resources of it. We welcome the statement by President Christofias that measures will be taken to make sure that the proceeds of it can be shared by all Cypriots in the future. We think that this is the right way to approach the matter. And, of course, we will urge on any other countries concerned, a moderate and sensible course of action.”¹⁶

US: “And while we recognize the right of the Republic of Cyprus to explore for natural resources in its exclusive economic zone, including with the assistance of U.S. companies, we look forward to both sides benefiting from shared resources in the context of an overall agreement.”¹⁷

¹⁴ Transcript of Remarks by Lisa M Buttenheim, Special Representative of the Secretary-General in Cyprus, following the meeting of Cyprus Leaders, United Nations Protected Area, Nicosia, 16 September 2011, http://www.uncyprustalks.org/nqcontent.cfm?a_id=4985&tt=graphic&lang=11.

¹⁵ Report of the Secretary-General on the United Nations operation in Cyprus, 5 July 2013, S/2013/392, <http://www.un.org/en/peacekeeping/missions/unficypr/reports.shtml>.

¹⁶ Statements by the Minister of Foreign Affairs Dr Erato Kozakou-Marcoullis and the British Foreign Secretary Mr William Hague, 9 November 2011, <http://www.mfa.gov.cy/mfa/mfa2006.nsf/All/97E40BF97864EBF1C2257944002315C0?OpenDocument&highlight=United Kingdom>.

¹⁷ US Secretary of State Hillary Rodham Clinton, Remarks at the 2011 Annual Conference on U.S.-Turkey Relations, 31 October 2011, <http://www.state.gov/secretary/rm/2011/10/176445.htm>.

Attempts to discuss hydrocarbons within, or parallel to, the negotiations

One can see from other statements that there was a suggestion back in September 2011 that perhaps one way to address the hydrocarbons issue was to bring the issue of revenue-sharing under UN auspices: not necessarily at the negotiating table, but possibly parallel to it. This is reflected in a statement from a US spokesperson:

I would note that there has recently been a request for the UN to engage in some sort of mediation on a revenue-sharing agreement for natural gas developed off of Cyprus, and we understand that the UN is considering that request, and we would consider that it would be quite constructive if the two communities could begin to work on deescalating tensions in a way similar to that. [...] We are interested in this proposal for UN mediation of revenue-sharing.¹⁸

However, one can see how difficult it was to achieve this from a statement by the Special Adviser to the Secretary-General on Cyprus, Alexander Downer:

If the two sides came together and asked us to play some sort of mediating role the Secretary-General would have a look at that and we'd discuss it and look at what we could do. But the two sides would have to come to us; we're not trying to impose ourselves on them.

[...]

[w]e don't want to see anything happen that would derail the talks [...] But I think if they allowed these meetings to be overwhelmed by this issue [...] it would, of course [...] be derailing the talks, because we'd be talking about hydrocarbon instead of talking about the chapters that we are trying to work through [...] we don't want the controversy over hydrocarbons to derail these talks.¹⁹

The main reason it was not possible was because, in the context of the negotiations from 2008, it is not possible to discuss a subject unless both sides agree to it. This is why somewhat vague terms like citizenship and migration are used as a way of talking about people from Turkey. The above statement was essentially saying that the UN could not get both sides to agree.

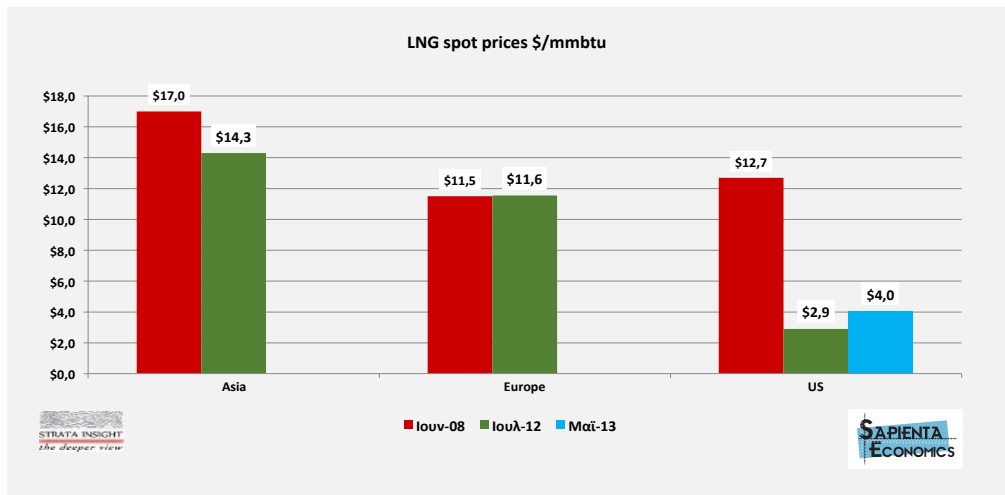
In my personal opinion I do not think one can solve the Cyprus problem if there is no discussion about the sharing of gas revenues. There is an opportunity to do so in the economy negotiations, where they have to date not entered into much detail about how federal government revenue would be distributed. Perhaps when they finally talk about that, it would be an opportunity to include hydrocarbon revenues.

¹⁸ US State Department spokesperson Victoria Nuland, Daily Press Briefing, 9 September 2011, <http://www.state.gov/r/pa/prs/dpb/2011/09/174549.htm>.

¹⁹ Remarks by Alexander Downer, the Special Adviser to the UN Secretary-General on Cyprus, following meeting of Cyprus Leaders, 27 September 2011, United Nations Good Offices Mission, http://www.uncyprustalks.org/nqcontent.cfm?a_id=4998&tt=graphic&lang=11.

Time is against the Greek Cypriots for gas industry development

Meanwhile, among all of these disputes about rights, time is really running against the Greek Cypriots. In the following chart one can see the impact of the so-called shale gas revolution on prices. As volumes produced in the US rose because of shale gas discoveries, the US daily market price (spot price) for liquefied natural gas (LNG) dropped from \$12.7 per million British thermal units (mmbtu) in June 2008 to a low of \$2.9/mmbtu in July 2012. It also seems to have had an impact on prices in Asia as well.



What does shale gas revolution mean for Cyprus? It means that there is a general expectation in the industry that the growing supply of shale gas will bring down prices. And for Cyprus, that means that the threshold for having a viable LNG plant gets higher and higher, the longer you wait. At the moment the estimated 5 trillion cubic feet (tcf) in Block 12 does not seem to be enough.

Thanks to a course I took a few weeks ago,²⁰ I was able to make some calculations on how much one needs, at today's prices, for a commercially viable LNG plant.²¹ Even for Asia, where prices are higher, the threshold is around 7 tcf. If you expect prices to fall, the threshold rises even higher. For Europe, you need 9 tcf and for a pipeline to Greece you also need 9 tcf, although there are those who believe that a pipeline to Greece will never be commercially viable.

²⁰ "Essentials of the Oil and Gas Industry", Levantine Training Centre of ShipCon Limassol Ltd: www.shicon.eu.com, www.levantinetrainingcentre.com.

²¹ Calculations updated to June 2014 from Sapiaenta Country Analysis Cyprus, June 2014, <https://sapiaentaconomics.com/country-analysis-cyprus/> (online link only available to subscribers).

Viability thresholds for export options (updated to June 2014) tcf requirement			
	At today's prices	At today's prices minus 10%	At today's prices minus 20%
CNG	1.5	2	2
Pipeline to Turkey	4	5	5
LNG to Asia	7	8	10
LNG to Europe	9	10	13
Pipeline to Greece	9	10	11

Source: Sapienta Economics calculations based on net present value (NPV).

© Sapienta Economics Ltd.

For a viable LNG plant, therefore, Cyprus needs more volumes. Noble Energy is due to do more drilling in other parts of Block 12. Total will not even start drilling until 2015 and the Eni-Kogas consortium is not due to drill until late 2014. Once drilling is done, it takes a couple of years for the appraisal wells and other requirements to confirm resources. Therefore the volumes will not be verified for several years.

There have been attempts to raise volumes for a land-based LNG plant at Vassilikos by getting Israeli gas on board. This may or may not be possible. Israel has its own very strong security concerns. Another concern for Israelis is the recent financial crisis in Cyprus. As someone pointed out to me in a discussion, what if Israel pours a lot of money and resources into Vassilikos and a bankrupt Cyprus decides to expropriate it? The feeling was that they would rather have a pipeline where they were "in control of the tap".

This is one of the reasons why you see a very strong lobby among private-sector oil and gas companies, both in Israel and Turkey, lobbying their own governments for a pipeline from Israel to Turkey. Is it possible to do that without permission from the RoC? As I understand it, under the UN Convention on the Law of the Sea (UNCLOS),²² Israel might technically not need the permission of the RoC to lay a subsea pipeline through the EEZ, although there is a requirement to obtain the consent of the coastal state regarding the delineation of the course. What happens if the country with the EEZ is not consulted is an open question, as it has never been tested in court.

²² United Nations Convention on the Law of the Sea of 10 December 1982, http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm.

Future scenarios: risk of Cyprus gas remaining in the ground

Given the low volumes, what are the scenarios for offshore Cyprus gas? What if Cyprus has to wait more than five years to reach the required volumes to build the LNG plant? My working assumption is that it would then take ten years to build the plant because this is Cyprus and things take time. We should remember that it took four years to build a small desalination plant.

A Greek pipeline looks like it is not viable. What if Israeli-Turkish relations improve and they say we are going to build a pipeline? My view is that Israel will not choose to have a fight with the RoC and just run a pipeline through its EEZ.

But there is another option, namely that Israel decides to use a floating LNG (FLNG) plant. It is already planning this for the Tamar field. In that scenario Cyprus could simply be left with not enough gas to exploit. The offshore Cyprus resources would then stay in the ground.

Turkey pays for the pipeline, Cyprus repays in gas?

The final alternative of course is that we solve the Cyprus problem. One option suggested to me by a Greek Cypriot is that Turkey pays for the pipeline from Block 12 to Turkey and then the united Cyprus pays Turkey back in gas, rather than cash. This is an attractive idea because it addresses the concern that Greek Cypriots have about the dependence on Turkey. They have this belief that Turkey will somehow switch off the taps, even though this seems highly unlikely given Turkey's gas demand. Nevertheless, one can address Greek Cypriot fears with this option. Turkey would need to ensure that the gas keeps coming, not only for its own needs but also because it wants its money back. Therefore it would have no incentive to "switch off the taps".

Whether or not this ever comes to pass, whether the Cyprus problem is solved and a pipeline built is, of course, something we cannot predict.

The Regional Security Environment in the Eastern Mediterranean: A View From Athens

By Thanos Dokos

Three years after the beginning of the Arab revolts, the Mediterranean and the Middle East have changed considerably and the key words describing the regional security environment are fluidity, instability and unpredictability. There has been regime change in several countries (Tunisia, Egypt, and Libya – in the latter case also as a result of a NATO operation), violent suppression of the protests in Bahrain, continuing instability in Yemen and a brutal civil war in Syria.

The current regional instability is the result of a combination of factors: the turbulence caused by Arab revolts – the result of poverty and lack of democracy (probably in that order) – was added to existing regional conflicts, whereas the extremely unfortunate US policies in Iraq (and secondarily Afghanistan), Islam's struggle to find its position in the modern world and the appearance of sectarian tensions have further destabilized the region. Efforts to reduce Middle Eastern instability have also been affected by changes in the global balance of power, which have also influenced the US decision for the pivot to Asia, in addition to the serious economic and political crises in Europe (and especially Southern Europe), the ambitious agendas of regional powers such as Turkey and Iran and the lack of a regional security architecture. All those factors combined to form an almost perfect storm in the Mediterranean and the Middle East, which served as a painful reminder of the fact that many states in the region are artificial creations of the Sykes-Picot agreement of 1916, and in several cases state foundations proved to be rather weak. It should also be noted that because the causes are so diverse and complex, possible solutions must be highly interdisciplinary and therefore much more difficult to implement and, of course, there is no one size fits all.

Although of critical importance, the Arab revolts are not the only developments shaping regional balances in the Middle East. Events are not taking place in a vacuum in that part of the world (or any other region, for that matter). The impact of the Arab revolts is being added to the impact of other global and regional trends and drivers such as the emergence of non-Western powers and the shifting global balance of power, demographic changes, technological

developments, globalization and climate change. Regional drivers include the proliferation of nuclear weapons (more specifically the Iranian problem), sectarian strife and Salafist violence, the future of the Kurds and, of course, the only variable that has unfortunately remained rather constant in the last 60 years, the Palestinian-Israeli conflict.

Changes in the global balance of power will be reflected in the Middle East as well. China has adopted a policy of close relations with resource-rich states in Africa and the Gulf region. Russia has also been trying – rather successfully, one should add – to re-gain some of its past influence in the region, and India is expected to make its presence more felt in the future. China has limited its regional involvement to the economic sphere, provisionally satisfied with the US guarantee to the safety of supply lines. But this may change given Beijing's growing energy dependency. The EU appears to be losing some of its regional influence because of a variety of reasons. The other transatlantic partner, the United States, is gradually shifting its strategic attention to Asia and has been trying to reduce its military presence in the Mediterranean by delegating responsibility for the western Mediterranean and parts of sub-Saharan Africa to the EU and for the Eastern Mediterranean to regional partners and allies, such as Israel and Turkey.

Returning to the regional level, there are currently two major sources of concern in the Eastern Mediterranean: Syria's civil war and Egypt's domestic political situation after the coup d'état. In the Syrian conflict, in addition to the humanitarian dimension, including the increasing number of civilian casualties and internally displaced persons and refugees, which is threatening to destabilize neighbouring countries, there is increasing uncertainty regarding the outcome of the conflict, as the Assad regime has been gaining ground for quite some time, with strong support from Iran, Russia and Hezbollah. Regime change is no longer looking inevitable, at least not without some kind of external intervention, for which there is limited appetite in the West. Furthermore, Iran and Russia (for different reasons) would like to prevent such a development, or at least have a significant say in the post-Assad period, whereas several regional countries are supporting various groups among the opposition, which remains fragmented, with a strong influence of radical Islamic groups. Several scenarios are theoretically possible and none of them are attractive: the transformation of Syria into a failed state, its fragmentation, protracted civil war, or a new regime dominated by Islamist forces (which looks currently as the least likely). The stabilization of the country and the processes of reconstruction and reconciliation will be extremely difficult challenges for the international community.

Although some analysts have described the Syrian conflict as a confrontation between Iran-led and pro-Western camps, a different narrative suggests a deepening Sunni-Shia rift in the Middle East, with Syria being the main area of competition, with the Assad regime, Iran and Hezbollah on one side and Saudi Arabia, Qatar, Turkey and Egypt on the other. Of course, the Sunni-Shia divide is also seen as running through societies, not just across them. Furthermore, one should not downplay the profound divisions and tensions within the Sunni camp (for example the rivalry between Salafi and more moderate Islamist forces or the different, and often conflicting, agendas and ambitions of the main Sunni states). If there is no diplomatic

solution, the Syrian conflict may have profound consequences for neighbouring countries and the whole region. Concerns include the following:

- More refugees and internally-displaced persons who have stayed either inside Syria or near the borders will look for a more permanent home in neighbouring countries or in Europe, which may not be prepared to accept much higher additional numbers of asylum seekers;
- Whether Assad wins or loses, European countries will have to manage the return of a substantial number – probably in the lower four digit range – of European jihadists who have been fighting in Syria – they will return even more radicalized and mentally unstable;
- The stabilization of the country and the processes of reconstruction and reconciliation will be extremely difficult challenges for the international community.

Moving to another key regional player, Egypt, the major transatlantic concern since the beginning of the Arab revolts has been the possibility that extremist Islamic, anti-Western political parties might rise to power in key countries, such as Egypt, long perceived as a pivotal country for regional stability and a leading power in the Arab world. Although the potential implications should some of these countries adopt a radically different foreign policy vis-à-vis the West and/or Israel would be very important, such a change hasn't taken place yet. The – considerably shortened by the coup d'état launched by the Egyptian military – term in office of Mohamed Morsi, a politician coming from the Muslim Brotherhood, as president of Egypt, did cause only mild concern along the lines described above, although some analysts have argued that it was too early and too short-lived to reach any definite conclusions. Now Egypt is faced with a probably long period of polarization and domestic instability, with unknown consequences for regional stability. Although any prediction would be largely speculative at this stage, one can only hope that we will not witness a repetition of the Algerian civil war of the early 1990s.

A quick word about other security developments in the Eastern Mediterranean and the Middle East:

- Although not as often in the headlines, the Israeli-Palestinian conflict remains the “mother of all conflicts” in the Middle East. Israel may be one of the few “winners” of the Arab revolts, but its belief that the status quo with the Palestinians is viable in the long term is based on a fundamentally flawed analysis;
- There is still considerable concern and uncertainty about Iraq's future as a single, united country;
- Libya is on the brink of civil war and should in effect be considered a failed state; There is also significant concern for the stability of sub-Saharan Africa, which is largely perceived as a European area of responsibility (to an extent by default, because no one else will take the job);
- Perhaps the only good news in the whole region is the conditional rapprochement between Iran and the US/West. There is no guarantee, of course, that the process will be completed as there is significant opposition inside Iran, the US and the region. If it were, however, there may be significant consequences on a number of issues, including European energy security.

There are also some disconcerting developments regarding Turkey's domestic politics and foreign policy. Although the country remains an important regional power, the slowdown of its economy, its image as a fragmented society and the failure of the "zero problems with neighbours" policy have hurt Turkey's image and regional influence. There is also an important question on whether US efforts for a rapprochement between Israel and Turkey will eventually be successful. According to one school of thought, Israel's foreign policy and security institutions are characterized by a degree of – not completely unjustified – "paranoia" and strong mistrust towards third parties in general and Islamic regimes in particular, which will probably prevent the full normalization of relations with an Islamic Turkey. On the other hand, according to a knowledgeable observer of regional dynamics, 'trade between them is booming. With the diplomatic détente, the export of Israeli gas to and through Turkey might become feasible'.¹

Indeed, Israeli foreign policy is highly pragmatic on most issues and, despite its unequivocal statements re-affirming energy cooperation with Cyprus, it could conceivably accept some kind of compromise regarding hydrocarbons in the Eastern Mediterranean, provided its basic objectives are satisfied to a considerable extent. It is difficult to imagine, however, that Israel will entrust its central energy corridor to Europe to a country like Turkey, with a dynamic and rather controversial (at least from an Israeli perspective)² regional agenda, and will make its energy exports conditional on good relations with Ankara and stability in Syria and Lebanon in the – however unlikely – case of a land-pipeline. The resolution of the Cyprus problem, however, would open the way for the construction of an underwater pipeline to Turkey, although again Israel would like to have additional options for economic and political (energy security) reasons.³

Hydrocarbons in the Eastern Mediterranean

The global energy landscape is changing, shaped by shifting demand patterns, new deposits and fields entering the production stage, new players, alignments and evolving rules. The energy dimension will remain extremely important in the wider Middle East geopolitical landscape. Caspian resources could provide an important additional long-term source of energy for world markets, although still much less significant than Middle Eastern sources. European oil dependence on the Middle East will continue, thus providing a strong incentive

1 Michael Leigh, *Cyprus Bailout and Israel-Turkey Détente Present New Opportunities*, Transatlantic Takes, The German Marshall Fund of the United States, March 26, 2013, p. 2.

2 According to a leading Israeli analyst, 'A combination of Turkish nationalism, neo-Ottoman nostalgia and Islamist-Jihadist impulses has placed Turkey into an aggressive stance on several regional issues': see Ephraim Inbar, *The Threats in the Eastern Mediterranean Sea*, Perspectives Papers on Current Affairs, The Begin-Sadat Center for Strategic Studies, 24 November 2011, p. 2.

3 Thanos Dokos, *The prospects for Greek-Israeli relations: the view from Athens*, ELIAMEP Briefing Note 11/2013, April 2013.

for securing the continuous supply of energy products. Of course, shale gas and oil-related developments in the US and its predicted transformation to an energy exporter (in combination with other developments such as the pivot to Asia and a possible rapprochement with Iran) may have a profound impact on US perceptions and policies vis-à-vis the Middle East.

The regional security environment in the Middle East can be described as one where a number of weak states appear to be crumbling under the strain of multiple challenges – political, sectarian and economic – and traditional extra-regional major players are increasingly unable to deal effectively with the new sources of tension. On top of this fluid and unstable situation, a new variable has been inserted to the region's already complex security equation. The discovery of significant natural gas deposits in the exclusive economic zones of Israel and Cyprus and the alleged deposits of the Levant Basin may provide an additional energy source outside the former Soviet space and the Middle East proper and therefore contribute to the diversification of Europe's natural gas suppliers. Although the deposits discovered so far in Cyprus and Israel are not expected to have a transforming effect on Europe's energy situation, they can hardly be ignored as long as Europe continues to voice concerns about its energy security (and especially after the evolving crisis in Ukraine). In any case, the picture may change as there are additional explorations under way in Cyprus, Israel and Greece.

As already mentioned, the evolving energy cooperation between Israel and Cyprus, with Greece as a potential third partner, is a new element in regional politics in the Eastern Mediterranean and, so far, a source of friction with Turkey, which has been strongly opposed to the exploitation of hydrocarbon deposits discovered in the exclusive economic zone (EEZ) of Cyprus. Although it has taken a small step back from its initially very strong rhetoric, Ankara's current policies can still be described as "gunboat diplomacy" and are characterized by rather limited consideration for the related provisions of international law. The situation has the potential to deteriorate further as the Republic of Cyprus, desperately seeking new sources of income to deal with its financial problems, is granting additional exploration licenses to international energy companies and Turkey continues to perceive the problem as a zero sum game situation. Although it looks like all sides understand that the problem cannot be solved with the threat of military force, in cases where military planes and ships crowd maritime areas one cannot dismiss the possibility of an accident.

Although Greece is not a central player in this energy-focused power game, it is more than simply an interested party. Cyprus and – especially – Israel will, of course, make the key decisions regarding energy matters in the Eastern Mediterranean as they own the resources, whereas Greece is not a producer (that may change in due course but there is no certainty). For the time being it can only hope to be a transit country. There are of course potentially important economic stakes if the choice for an export route will be an LNG plant, as there are several Greek ship owners that have invested heavily in LNG carriers. Also LNG terminals, either the existing one in Revuthoussa, near Athens, or the planned ones in Northern Greece may become

part of a natural gas network that will link with TAP and a number of Balkan and Central European interconnectors, thereby making a substantial contribution to the energy security of countries like Bulgaria, Slovakia, etc. In addition to the energy dimension and the traditional ties between Greece and Cyprus, there is also an emerging strategic relationship between Greece, Cyprus and Israel. The three countries are faced with a security equation that has a number of known variables but also multiple unknown ones. The regional security matrix involves a number of influential regional and extra-regional actors, with bilateral and multi-lateral relationships changing, shifting and evolving on an almost continuous basis, hence the need for caution and pragmatism.

Israel's energy choices – and the results of additional energy explorations in all three involved countries – will shape to a considerable degree the nature and depth of the relationship between Israel, Greece and Cyprus. The strategic value of Greece and Cyprus for Israel is still relatively high, but those three countries will have to define the parameters of their strategic cooperation on the basis of common interests and realistic expectations.

As a result of its deep economic and political crisis, Greece has been inward looking for more than four years now, with a foreign policy that has been rather passive (with the exception of strengthening ties with Israel). Greece went through a phase of hydrocarbon hysteria, where the Greek people, exhausted by the austerity policies, were looking for a magic formula, an easy way out of the economic crisis and energy resources fit the description. There are now more realistic expectations and the Greek government has taken all the necessary preliminary steps for research and exploitation of hydrocarbons. There have been no official statements or documents outlining a comprehensive Greek hydrocarbons exploration policy but looking at the Greek debate one could present a rough outline.

First, Greece does not wish to rock the boat of Greek–Turkish relations. Athens needs stability in the foreign policy front to facilitate recovery from the economic crisis. This should not lead to the conclusion that Greece would not react to a move by the other side attempting to change the bilateral status quo.

Second, Greece will play strictly by the rules of international law of the sea and that will include bilateral consultations with other countries with which Greece shares maritime zones. There have been talks under way with Egypt, Albania and Libya, although the domestic situation in that country is rather chaotic and this is also affecting foreign policy issues. It is not clear whether such talks will take place anytime soon with Turkey despite the fact that there have been more than 60 rounds of consultations between high-level diplomats. Although it appears reasonable to assume that all the main ideas, options and scenarios for addressing issues of a bilateral nature have been discussed in the context of such deliberations, Turkey has been adamant in opposing any discussion about the delimitation of the respective exclusive economic zones of the two countries. Turkey's non-recognition of the Republic of Cyprus – whose EEZ borders the respective zones of both Turkey and Greece – further complicates the situation.

Third, the importance in the minds of decision-makers of hydrocarbon deposits in Greek maritime zones for economic recovery and national energy security cannot be emphasized enough. Greece will claim any substantial deposits in her maritime zones, as defined by the international law of the sea, as no Greek government irrespective of its ideological orientation can afford not to pursue that course of action. To achieve that goal, Greece will use a variety of political and diplomatic means, including cooperation with countries and companies with similar interests. In this context, the concept of common EU maritime policy and maritime zones will also be used, despite its – currently – mostly symbolic value. But Greece will also emphasize the importance of potential hydrocarbon discoveries, along with the existing and possible new discoveries in the EEZs of Cyprus and Israel for strengthening European energy security.

Fourth, problems with neighbouring countries related to the exploration of hydrocarbons may only increase if substantial deposits are discovered in disputed areas. Even in that case, however, the international law of the sea offers solutions which could adequately satisfy the objectives of involved sides and, more importantly, allow them to sell such an agreement to their respective publics. A necessary precondition would be, of course, the existence of political will. Greece would not, in principle, be opposed to “win-win” solutions, even including joint exploitation of resources, provided of course that issues of borders and ownership have been settled in advance.

Despite the underlying tension between Cyprus and Turkey on hydrocarbon exploration, a parallel process of negotiations between the two Cypriot communities is taking place, with the US urging for a solution to the Cyprus problem. Not surprisingly, there has been an effort to link hydrocarbons exploration with an overall settlement. A formal link would be a bad idea because it may become an additional obstacle and a complicating factor instead of an incentive and a facilitating factor. This is not to say, of course, that one should not explore the possible positive impact of Cypriot natural gas discoveries in efforts to resolve the Cyprus problem. Seeking cooperative solutions with the participation of Turkey should not be perceived as a taboo subject. However, there would be a number of important preconditions.

I would like to briefly present some thoughts on the prospects for a Cyprus settlement. For quite some time there have been two main obstacles: (a) Turkey’s unwillingness to change its perception of the island’s geostrategic importance and the resulting “need” for direct or indirect control of Cyprus through hard power (interestingly, a view expressed not only by the Kemalist establishment but also by Turkish Prime Minister Ahmet Davutoğlu in his book *Strategic Depth*); (2) the Greek Cypriots’ inability to make a final decision or to state openly what kind of (realistic) solution they wish to have. There seems to be an obvious reluctance to share political and economic power with the Turkish Cypriots. Indeed, to many Greek Cypriots (especially among the younger generation), the status quo looks more appealing than any proposed alternative. The International Crisis Group (ICG), in a report published in the fall of 2009, suggested ‘the island may be accelerating a slide toward permanent partition and that some elements in both communities given 36 years of futility and the wide dif-

ferences of opinion over each item on the table from property rights to Turkish settlers to governance, may be willing to concede the possibility of a permanently divided island.⁴

Currently, the most serious obstacle ahead is not whether the involved parties will agree to a settlement. Although far from guaranteed, it is not impossible to achieve. The most difficult part will be to ensure that a legitimizing majority will vote in favour of a settlement plan in a referendum. How can we address the concerns and fears of both communities? What would it take to convince undecided citizens on both sides that the status quo is not the best option, that the other side is serious about finding a solution and that an acceptable solution is within grasp, with obvious and tangible benefits for all involved? How could the Turkish government be persuaded to take – in turbulent domestic but also regional times – concrete and constructive steps towards a solution, at the same time shielding itself from domestic criticism (as the nationalist “Cyprus lobby” has not lost all power and influence in Turkey)? And can the President of the Republic of Cyprus, Nikos Anastasiades, who supported the Annan Plan in 2004 as well as membership to NATO’s Partnership for Peace (PfP) programme, convince the Greek-Cypriots to support a new solution after being severely weakened as a result of the (mis)management of the financial crisis (which has undoubtedly increased long-held feelings of insecurity among Greek Cypriots)?⁵

I would argue that an interim small “package” might facilitate a settlement. Such a basic “package” would consist of two concessions from each side: the Greek Cypriots would agree to direct trade (through a UN-controlled Ammochostos/Famagusta, as has been suggested by the Greek-Cypriots) of the Turkish-Cypriots with EU countries; and they would not block additional chapters in the EU-Turkey negotiations. In return, Varosha would be returned to the Greek Cypriots, and Ankara would open its ports and airports to Cypriot ships and planes. There is a more ambitious version of this package, put forward by President Anastasiades, which would include a functional linkage between the airports of Larnaka and Erchan and the substantial reduction of the number of Turkish troops on the island. The value of such a “package” would be that it might convince a sufficient number of Greek-Cypriots (but also Turkish-Cypriots) that (a) the other side can be trusted to honour its commitments and (b) a settlement would involve the element of compromise but there would be clear benefits for both communities.

If even an interim package is not sufficient to open the way for a permanent settlement, it is possible that the island may gradually slide towards its “taiwanization”, a highly undesirable development, indeed, for both communities. But before giving up on the preferred solution, all parties involved should make a serious effort. Of course, there is understandable concern about whether a solution would lead to a stable and functional state. The only viable option

⁴ International Crisis Group, *Cyprus: Reunification Or Partition?*, Europe Report no. 201, 30 September 2009.

⁵ T. Dokos, “The difficult relationship between accounting and geopolitics”, *Europe’s World*, April 2013.

is a bizonal, bicomunal state, with a strong dose of EU interference and supervision to smooth some rough edges, especially in the early stages of the implementation of the agreement. The territory that will be held by the Turkish-Cypriots cannot exceed 27-29%, as agreed in the past. The right of external intervention against a member of the EU would be unthinkable in the context of the 21st century international political system and should normally be abolished; if this is, however, the last remaining obstacle, and as a gesture of good will by the Greek-Cypriots, a "political" guarantee under strict conditions and limited to the Turkish-Cypriot sector might be acceptable, but certainly neither a "military", nor unilateral one. A solution should be followed by the swift withdrawal of all foreign troops and demilitarization of the island under UN Security Council (and NATO?) guarantees. Finally, decision-making procedures should not be overly complicated.

In this yet another critical point at the history of the Cyprus conflict, what is urgently needed is the full realization that in the 21st century new ideas about conflict resolution should be sought. All sides involved need to move away from a zero-sum game mentality – which unfortunately still characterizes large segments of the population, but also decision makers in both Turkey and Greece, as well as in the two communities in Cyprus – to a "win-win" situation. Some creative diplomacy will be necessary in order to reach a viable compromise solution, but here the EU can be of assistance as this is what it does on a daily basis to keep the Union functioning.

Lebanon: The Next East Mediterranean Gas Province

By Bassam Fattouh and Laura El-Katiri

Introduction

Lebanon, having launched its first offshore bidding round, is the Levant's most recent candidate to join the ranks of East Mediterranean gas provinces. The country's waters are believed to hold significant hydrocarbon potential, making offshore Lebanon a potentially attractive location for gas explorers. This area also forms part of the Levant basin, one of the world's most promising new gas producing regions, which a recent US Geological Survey estimated as holding the potential for some 3.45 trillion cubic metres (122 trillion cubic feet [tcf]) of recoverable natural gas, in addition to other hydrocarbon deposits which include some 1.7 billion barrels of recoverable oil.¹

A long-term energy importer, Lebanon's faltering economy could benefit tremendously from hydrocarbon wealth. Current plans are to import LNG (to replace oil in power generation), but the successful development of Lebanon's offshore resources could reverse this trend within less than a decade, turning Lebanon into a self-sufficient producer and a potential exporter of natural gas. Lebanon's latecomer status within the East Mediterranean – both as a natural gas importer and as a potential gas producer and exporter – is likely, however, to constrain its future policy choices.

The development of gas projects across the East Mediterranean also faces a large number of geopolitical, regulatory, and commercial challenges which, if unresolved, would undermine the development of these resources, not to mention that of the export projects. Most of the Western media's focus has been on the geopolitical landscape surrounding the development of Lebanon's reserves. This is not surprising. The inter-state conflicts and rivalries that have for so long formed part of the region's complex geopolitical landscape have been revived and in some cases intensified by the recent exploration developments. However, we believe that

¹ US Geological Survey, *Assessment of Undiscovered Oil and Gas Resources of the Levant Basin Province, Eastern Mediterranean*, Factsheet 2010–2014, World Petroleum Resources Project, US Department of Interior, Washington D.C., 2010.

Lebanon's geopolitical landscape is likely to play a secondary role in the development of the country's natural gas resources, though it will affect its export options. Instead, the pace of development of gas reserves will be driven mainly by local political dynamics and domestic energy policies.

Delayed take-off

Lebanon's history as a potential hydrocarbon province has been relatively short. While its first offshore studies were conducted back in 2006, the offshore discovery by neighbouring Israel of its 9 tcf Tamar field in 2009 (which was followed by subsequent large discoveries amounting to some 35 tcf in Israeli and Cypriot waters) probably provided the impetus for Lebanese offshore plans.² With some Israeli discoveries lying in immediate proximity to Lebanese waters, the prospects for Lebanon's own offshore resources suddenly seemed glaringly obvious. With no history of domestic oil and gas production, Lebanon's own industrial hydrocarbon development has been very much in its infancy, and has yet to produce the country's own share in the East Mediterranean's regional gas revolution.

Initial policy hurdles were overcome in August 2010 with the passing of Lebanon's long-awaited hydrocarbon law; this provided the basis for the establishment of a hydrocarbon industry together with the necessary institutional framework. After months of political infighting, the government eventually appointed Lebanon's Petroleum Administration (PA), a key committee constituted by the Offshore Hydrocarbons Law, in December 2012.³ The appointment of the PA paved the way for a prequalification round at the beginning of 2013, which underlined the commercial attractiveness of the Lebanese offshore for international investors: some 50 international companies registered interest, including many of the region's sought-after IOCs. Forty-six companies have now been qualified; this number includes 12 operators. After lukewarm IOC interest in neighbouring offshore Israel and Cyprus – primarily attributed to political sensitivities in these two areas – this is positive news which, if initial interest is followed up by investment bids, may help the prospective hydrocarbon producer monetize its yet unconfirmed hydrocarbon resources relatively rapidly.

Elephants in the room

Despite what can well be considered successful – if much delayed – first steps towards Lebanon's hydrocarbon exploration, the outlook for a smooth road ahead is, however, anything but certain. Lebanon's record of delayed decision-making and a fragile political modus operandi renders its timeline for finalization of a fiscal system aimed at guiding investment into its hydrocarbon sector, and for the award of its first offshore blocks, highly ambitious. The

² See for example, B Schaffer, "Israel – New natural gas producer in the Mediterranean", *Energy Policy*, vol. 39, 2011, pp. 5379–5387; W. Khadduri, "The East Mediterranean Offshore Petroleum Frontier", *MEES*, vol. 53, 1 November 2010 p. 44.

³ "Formation of Lebanon Panel Paves Way for Bid Round", *International Oil Daily*, 12 November 2012.

Lebanese government still needs to issue a final investment framework (which would include a Model Exploration and Production Agreement and the Tender Protocol). A draft proposal, reportedly combining production-sharing contracts with royalties paid to the central government, was presented for consultation with bidding companies in 2013. Consultation will be followed by what seems likely to be a painstaking task of responding to and discussing fiscal amendments, and obtaining approval from the different ministries involved. Before the Lebanese government issues a final binding decree, it also needs to approve the draft decree on block delineation.

At the time of writing, in April 2014, the formation of a Lebanese government in early 2014 has been a welcome step forward, but in the midst of a long priority list of delayed policy decisions, resulting from the past two years of political stalemate, even the current plan – for award of licences in the second quarter of 2014 – may yet be subject to further delays. The country's deep political and sectarian divisions, together with the fragility of the political system, have prevented successive governments from formulating a clear energy policy, while the underlying political and institutional dynamics that delayed the bidding round in the first place are still in full swing. This has been exacerbated by sectarian tensions, even outright violence, in part due to the widespread repercussions on Lebanon of neighbouring Syria's gradual descent into sectarian civil war. Further delays may also impact eventual final investment decisions by foreign bidding companies, which could be discouraged by the considerable political risk Lebanon presents to foreign oil companies.

Yet another elephant in the room is Lebanon's historically strained relationship with neighbouring Israel – a component of the longstanding Arab-Israeli conflict. Of most immediate concern are the overlapping Lebanese and Israeli maritime claims over a territory of some 854 square kilometres along the working line that has, since the 1980s, become the de facto border between the two countries. Negotiations over the territory are unlikely to occur any time soon, given the continued de facto state of war between the two countries. Neither of the two parties has yet announced any suggestion of a resource discovery that straddles the territory in question – a factor that has likely contributed to both sides' apparent lack of interest (apart from some occasional rhetorical attacks on both sides) in an escalation of conflict over the issue. However, Lebanon's decision to include offshore blocks that straddle the disputed territory for exploration under its current bidding round promises a political scenario potentially charged with major complications for the development of Lebanon's offshore reserves, in the event that hydrocarbon resources are eventually discovered in the disputed territory. US diplomatic efforts have, so far, centred on preventing both parties from exploring the disputed area altogether, until a solution is reached.⁴

⁴ "Beirut to Delay Bids", *Middle East Economic Survey*, vol. 57, no. 14, 4 April 2014.

Lebanese long-term options

A key issue likely to be facing Lebanon in the future (post 2020) is whether it should pursue an aggressive export policy to monetize its potential gas reserves – but care should be exercised, as the current debate surrounding Lebanese reserves-to-be is based on no confirmed numbers. Although not a single well has been drilled in Lebanon’s exclusive economic zone (EEZ) so far, this has not prevented some politicians from throwing around some big numbers about the potential size of Lebanon’s hydrocarbon resources. In May 2013 the then-caretaker Minister of Energy and Water, Jibrán Basil, put the estimated reserves of Lebanon’s EEZ at 30 tcf of natural gas (around 850 billion cubic metres [bcm]) and 660 million barrels of oil, hypothesizing that exports could begin in as little as four years. These numbers were hiked to around 95.5 tcf of gas and up to 865 million barrels of oil in October 2013, with no underlying new data or appraisal drilling results.⁵ Norway’s Spectrum, the company in charge of Lebanon’s first 3D seismic survey, by contrast, estimated recoverable dry gas reserves for Phase I of its survey in August 2012 at 11.6 tcf, with an initial estimate of 25.4 tcf for both phases covering Lebanon’s EEZ.

The basis upon which even these estimates have been derived is not clear, and Spectrum has since been criticized for what some observers have called highly speculative estimates for Lebanon’s offshore reserves. More can be said about the credibility of these numbers, although perhaps the extent to which ministries’ own reserve estimates reflect reality does not matter in a country where there is low trust in politicians’ statements anyway. Such statements, however, reveal both the extent of the hype in this resource-poor country and the desire to be part of the “small gas revolution” currently being experienced in Israel and Cyprus, the two East Mediterranean countries with the most advanced plans in offshore gas exploration.

If and when offshore work confirms commercially recoverable offshore resources in Lebanon, the balance between the use of gas to meet domestic demand and gas for export purposes will ultimately determine companies’ profitability and their incentive to develop the reserve base. Meeting domestic demand, especially in the power sector, should assume a top priority in government policy. This, however, requires that Lebanon should have a clear policy regarding the pricing of gas for the domestic market, which has the potential to be a contentious issue in negotiations between government and the companies. Furthermore, since gas demand is strongly interlinked with the evolution of electricity demand, it is essential that the government embark on the reform of the power sector and of electricity prices. The challenge is grave. Électricité Du Liban (EdL) suffers from huge financial and operating losses, which constitute between 20 and 25 per cent of government’s primary expenditure.⁶ EdL

⁵ “Lebanon says gas, oil reserves may be higher than thought”, Reuters, 27 October 2013.

⁶ A recent newspaper report suggests that out of the \$2 billion annual losses incurred by EDL, nearly 15 per cent is due to theft and technical losses and the remainder is due to the high cost of fuel. See “EDL tests smart meters to prevent electricity theft”, *The Daily Star*, 17 September 2013.

also suffers from chronic under-investment, which has, up to now, prevented it from modernizing its grid and expanding power generation capacity.⁷ Also, increasing the penetration of gas in the power mix would require heavy investment in the gas grid, including the planned project to build a coastal gas pipeline from the north to the south of the country. This project has faced many hurdles in the past and there is always the risk that gas could start flowing from the offshore fields without the government having put in place the necessary infrastructure to move it around onshore.

Imports first

It is important to stress that while there is much hype about Lebanon's gas potential, the country is not expected to produce any natural gas by 2020; it would thus have to import all of its gas requirements in the short to medium term if it is to achieve its ambitious objective of increasing the share of natural gas in power generation. The Ministry of Energy estimates that at the very conservative price of \$90 per barrel, Lebanon can make a substantial annual saving of US\$1.9 billion if it switches its power generation to gas.⁸

Historically, Lebanon's main constraint to the penetration of gas in the energy mix has been accessibility to gas supplies. Natural gas entered the energy mix for the first time in 2009 when the Arab Gas Pipeline (AGP), which also supplies Jordan, started supplying some 200 million cubic metres (mcm) of Egyptian gas (in reality, Syrian gas, via a gas swap agreement between Egypt and Syria at the time) to the Beddawi power plant. The appearance of natural gas, however, has been very brief. Since 2009, the flow of Egyptian gas has been subject to frequent disruptions due to delays in payments and, more recently, to a series of explosions targeted at the AGP.⁹ The last delivery of Egyptian gas to Lebanon was made in November 2010, while Jordan has since been subject to frequent delivery cuts, reductions in contract volumes, and parallel price rises.¹⁰ Egypt's unstable political situation and its own growing domestic demand for natural gas have since cast severe doubt over the country's capability, or indeed willingness, to continue to supply regional partners with low-cost pipeline gas over the short and medium term – a matter Israel has already painfully experienced after having seen its separate gas supply contract cancelled in April 2012.¹¹

⁷ See, for example, the World Bank report, "Republic of Lebanon Electricity Sector Public Expenditure Review", Report No. 41421-LB Sustainable Development Department Middle East and North Africa Region, 2008.

⁸ "Lebanon faces Obstacles to LNG Imports", *MEES*, vol.56, no. 29, 19 July 2013.

⁹ In practice, Lebanon received Syrian gas as part of a gas swap agreement between Egypt and Syria.

¹⁰ "Beirut eyes LNG import decision, touts reserves", *Middle East Economic Survey*, vol. 55, no. 12, 19 March 2012; Ministry of Energy and Water Resources Website.

¹¹ H. Darbouche and B. Fattouh, "The Implications of the Arab Uprisings for Oil and Gas Markets", Working Paper MEP2, Oxford Institute for Energy Studies, September 2011, pp. 28–29; Platts, "Egypt's EGPC confirms it has scrapped Israel gas contract", 23 April 2012.

Other neighbouring countries, formerly expected to be gas suppliers, seem increasingly short of gas themselves. In 2003, the Government of Lebanon signed a 25-year contract with Syria to import around 1.5 bcm per year of natural gas at a price representing about two-thirds of the current fuel cost, for power production.¹² The Gasyle pipeline, a 32 km pipeline with a capacity of 3 mcm per day connecting the Syrian border to the Beddawi power plant, was completed in 2005. However, Syria has not been able to supply Lebanon with gas, as its gas production has not been sufficient to meet its domestic consumption, and the country's gradual disintegration into persistent civil conflict at the time of writing has cast substantial doubt over Syria's ability to significantly change its natural gas supply picture within the next decade. Lebanon's lowest-cost option in commercial terms is to secure pipeline gas from Israel. Despite the theoretical availability of adjacent gas reserves earmarked for regional supply, this option is not politically feasible as there are no direct trade ties or diplomatic relations between Lebanon and Israel.¹³

Lebanon's overall latecomer status – securing gas supplies in the wake of larger and more stable markets in Israel, Jordan, and Turkey – as well as its longstanding political indecision when opportunities seemed available, has further diminished the country's realistic choices for regional gas supplies over the coming years. Iran has been discussed as a potential gas supplier to Lebanon,¹⁴ but the international sanctions regime against Iran, coupled with insufficient gas production within Iran to export more natural gas abroad, has cast doubt over this option in recent years.¹⁵ A pipeline project carrying up to 25 bcm of Iranian gas to neighbouring Iraq and Syria (the "Islamic pipeline") could have also turned into a lifeline for Lebanon's gas industry. However, since its announced construction launch in November 2012,¹⁶ the project has suffered from a series of funding issues and practical above-ground issues related to the continuing complicated security situation in Iraq and to the deteriorating political and security situation in Syria.

Given Lebanon's limited opportunities for securing pipeline gas imports from neighbouring countries, LNG remains the country's only realistic option. Lebanon has announced plans to start importing flexible LNG from 2015 onwards, planning for twelve years of imports until its own domestic production, currently earmarked for the 2020s, can replace imported LNG.¹⁷

¹² World Bank, *Republic of Lebanon Hydrocarbon Strategy Study*, Report No. 29579-LE, Finance, Private Sector Development and Infrastructure Group Middle East and North Africa Region, 2004

¹³ The Israeli Cabinet's decree in June 2013 (together with other issues) reserves some 20 bcm of natural gas from Israel's offshore fields for immediate, regional exports; this includes gas from the already producing Tamar field.

¹⁴ "Lebanon approves plans for North–South gas pipeline", *Middle East Economic Survey*, vol. 55, no. 16, 16 April 2012, pp. 18–19.

¹⁵ See, for example, S. Vakhshouri, "Sanctions Raise Questions about Iran's Export Capacity", *Middle East Economic Survey*, vol. 55, no. 46, 9 November 2012.

¹⁶ "Iran starts construction of Iran–Iraq–Syria gas pipeline", *Zawya*, 20 November 2012.

¹⁷ "Lebanon's Economy Hit By Power Crisis and Syrian Turmoil", *MEES*, vol. 55, no. 33, 13 August 2012; "Lebanon Revisits LNG Import Plan", *LNG Intelligence*, 1 April 2013; "Lebanon LNG imports a distant prospect amid bidding confusion", *Middle East Economic Survey*, vol. 56, no. 51/52, 20 December 2013.

These plans are not new; LNG has been considered as an option since the 1990s, but the high (\$3 billion at the time) initial construction costs of an onshore regasification terminal switched policy efforts towards securing lower-cost regional pipeline gas imports.¹⁸ Government forecasts see Lebanese LNG demand amounting to 1.2 million tonnes per annum (MMtpa) by 2015 and 1.7 MMtpa by 2016, soaring to 4.2 MMtpa by 2030, despite there being no indication as yet of how and whether LNG demand by 2015 will indeed be met by building LNG import capacity.¹⁹

Options for Lebanese gas exports

Assuming Lebanon's natural gas reserves materialize, the country faces a large array of choices as to how to monetize its hydrocarbon riches via gas exports. Lebanon's location in the heart of the East Mediterranean with plentiful coastal access, as well as land access via several neighbours, clearly provides the country with something of a natural advantage for any export strategy. Geopolitically, only the border to Israel is closed, but Lebanon's otherwise fairly unproblematic relations with most of its other neighbouring countries provide the country with much more flexibility in its regional trading options than is available to Israel and Cyprus.²⁰

Gas export options will be critical to securing initial interest from foreign investors, where Lebanon aspires to be the East Mediterranean's first country to attract major IOCs to develop its offshore gas sector. LNG is probably the most attractive option for exporting Lebanese gas, both for the government and for international investors, as it offers Lebanon the most flexible way in which to export its natural gas. Such a strategy would allow access to extra-regional markets such as Europe, as well as current premium markets in east Asia where record LNG prices in 2013 promise a multiple of those price ranges achievable via pipeline exports in the East Mediterranean. LNG can be supplied both via long-term contracts and, additionally, on a spot market basis, promising additional returns for producers with some flexible production capacity or seasonal surpluses. In addition, LNG would be an attractive option politically as it would undoubtedly place Lebanon on the map of global gas market suppliers, a geo-strategically desirable position irrespective of the volume of its LNG exports.

Lebanon may also consider a variety of options for exporting LNG, by making use of existing, or likely upcoming, regional export hubs rather than a Lebanese coastal liquefaction facility. The most immediate option to consider is the export of LNG via facilities shared with its regional East Mediterranean gas neighbour Cyprus. Cyprus and Israel have already been

¹⁸ "Lebanon Revisits LNG Import Plan", *LNG Intelligence*, 1 April 2013.

¹⁹ *LNG Intelligence*, 1 April 2013.

²⁰ Israel holds no diplomatic relations with Lebanon and Syria and has experienced strained relations with most other Arab neighbours due to the unresolved question of Palestine–Israel land claims; Cyprus is home to one of the world's longest-standing unresolved boundary conflicts between the internationally recognized Greek-dominated Republic of Cyprus, and the Turkish-backed north of the island. For a more detailed discussion, see L. El-Katiri, B. Fattouh, H. and Darbouche, *East Mediterranean Gas: What Kind of Game Changer?* Oxford: Oxford Institute for Energy Studies, 2012.

engaging in high-level talks over the possibility of sharing, and thereby pooling, regional LNG exports via Cyprus, an option that has also gained large-scale political support from external partners such as the European Union. Original assumptions have suggested that the LNG potential of an Israel–Cyprus hub could reach 10–25 MMtpa (up to 35 bcm) by the mid-2020s; such a regional export hub could exceed the combined market share of separate Cypriot, Israeli, and Lebanese LNG exports.²¹

While appraisal drilling results for Cyprus in October 2013 cast some doubt over the eventual viability of original plans, in the absence of further Cypriot gas discoveries,²² under a best-case scenario Lebanese gas could also form part of this regional LNG option. Sharing LNG export facilities with neighbouring countries could offer Lebanon significant cost saving potential in relation to infrastructure. As desirable as this option would be commercially, political hurdles would limit its likelihood, given continuing strained relations between Lebanon and its neighbour Israel. Ultimately, the complex geopolitical landscape will impact Lebanon's choices over possible monetization options and hence will be pivotal in determining the future direction of gas trade flows.

Lebanon's eventual export strategies, however, will also depend on: the eventual size of its reserves, its production targets, and the cost of its gas production (which will impact the price range it needs to secure); the timing of the first Lebanese gas exports in view of surrounding gas market dynamics; as well as external factors such as gas price levels in potential export markets by the time Lebanon starts production. Lebanon's likely options for cooperation with neighbouring Cyprus over shared LNG facilities, or LNG exports via third-country facilities in Egypt or Jordan, could significantly improve the economics of LNG exports for Lebanon, but whether or not these choices will indeed still be available by the time Lebanese gas production is set to commence remains an open question.

Lebanon's already much-delayed offshore bidding round, the operation of the tendering process, and the time gap between initial exploration, appraisal drilling, production, and eventual export imply that current predictions of Lebanese gas exports being merely some four years away (in other words with start in 2017) seem at best ambitious. The Lebanese government's more recent discussion of an eight-year timeframe, with exports starting during the early 2020s, seems considerably more realistic, but this may be delayed by further political stalemate. By that time Lebanon is likely to find itself in a fundamentally different market situation than today, and it may be the last within the region to choose how and where to market its gas.

²¹ Authors' estimates.

²² Cyprus's appraisal drilling results confirmed recoverable resources in the area of around 5 tcf of gas; the results were to some extent disappointing as the original resource range had been estimated higher, with a higher share of valuable liquids. At the time of writing, an LNG option for Cyprus on its own using only currently confirmed reserves appears increasingly non-commercial. Israel is seen to prioritize its current efforts at the regional neighbourhood, casting further doubt over a regional LNG hub solution under current resource knowledge. See, for example, 'Israeli gas holds promise of better ties with neighbours', Reuters, 14 April 2014.

While many foreign investors may indeed pressure Lebanon to consider LNG exports as a first priority, Lebanon will hence be well advised to consider carefully all available export options, including regional pipeline exports to the Middle East, as well as to Turkey (and possibly onwards to Europe). The latter options may prove of particular value if Lebanon's reserves eventually prove to be significantly below current government estimates, thereby placing limits on the commerciality of LNG exports under long-term contracts. Lebanon is not short of gas-hungry neighbours, and given the MENA region's expected demand growth for natural gas over the coming decade, the country may indeed find itself in the fortuitous position of being able to negotiate with several countries over pipeline gas exports once its gas comes on stream. This is the case even if its gas exports only end up starting during the 2020s, for the expected surge in natural gas demand across the Middle East – as a result of switches from higher cost oil and oil products towards natural gas, together with expected rapid growth in electricity demand – is likely to continue throughout the 2020s well into the 2030s.

An uneasy road ahead

The road leading to Lebanon becoming a gas producer is very long and the government is still at an early stage in the process. Over the next few years, the government will be confronted with many complex decisions. Like other countries, Lebanon will realize – sooner rather than later – that the key challenges in developing its hydrocarbon reserve base are not likely to be found below ground, in the form of resource and technological constraints, but above ground, in the formulation of an appropriate national legislative and fiscal policy, effective institutional structures, and efficient management of gas revenues.

In the current context of political polarization, the regulatory environment is likely to be highly volatile; key policy decisions (and their implementation) are likely to be subject to constant delays. The Energy Ministry has promised 'full transparency in the evaluation process through the bidding round', but given the weak institutions, the lack of a clear governance structure, and the absence of accountability, it is doubtful whether such transparency will be achieved, especially in an industry where the size of the rents can be very large and the competition for rents is fierce. Also, if Lebanon is to meet its ambitious target of joining the family of gas producing countries soon, it has to overhaul its general business practices – such as the processes of obtaining permits and customs and security clearance. These measures are essential in order to shelter the gas industry from the corruption and red tape that currently characterize Lebanon's business environment.

The way in which Lebanon deals with these above-ground challenges will determine whether the promised "gas revolution" will ever materialize, and if it does, whether it will prove to be a revolution for the country as a whole or just for the privileged few.

Russia Fakes Interest in Hydrocarbons in the Eastern Mediterranean

By Pavel K. Baev

As the question about developing hydrocarbon resources in the Eastern Mediterranean moves from the “far-fetched” category to the offshore project development stage, Russia may appear perfectly positioned to claim the role of a major stakeholder. Indeed, President Vladimir Putin has long cultivated personal relations with Turkish Prime Minister Recep Tayyip Erdoğan, focused primarily on expanding economic ties and energy links. Russia enjoys remarkably multi-channel connections with Israel, while at the same time maintaining meaningful dialogue with the Palestinian authority. Russia’s exceptionally special engagement with Syria has acquired additional significance due to the successful initiative on eliminating the chemical arsenal in September 2013, even if the civil war runs its tragic course. Finally, Russia has developed a strong presence in Cyprus, which has become not only a favourite holiday destination for the low-middle classes and property market for the moderately rich, but also a major channel for Russian massive export of corruption.

Nevertheless, Russia’s real contribution to oil and natural gas exploration in the Eastern Mediterranean and to the early exploitation of these reserves is miniscule. This paper argues that there is hardly any reason to expect that this pattern of under-performance would change through a committed effort at projecting “energy power” towards this region. Evaluating the balance of motivations and disincentives, it examines Russia’s energy-political relations with Turkey, Cyprus, the EU, and the wider Middle East. The impact of the currently fast-developing crisis centred on Ukraine is taken into consideration to the degree possible.

Russia, Turkey and pipelines

Of all the energy intrigues in the greater East Mediterranean area, it is the export and transit of natural gas to and through Turkey that is by far the single most important issue for Russia. Turkey constitutes a large and potentially expanding market for gas, and Russia enjoys privileged access to this market supplying up to 55% of the current needs. But the fundamentals of supply and demand give only a one-dimensional measure of the real complexity of these

controversial connections. From the Russian perspective, the key objective is to defend Russia's dominance in this market, and this tends to increase in importance when its position as the European market's dominant supplier comes under pressure, as it did in 2012. This means that *Gazprom* is prepared to compromise on prices and to show flexibility on the "take-or-pay" contract condition, but is reluctant to subscribe to the Turkish proposition for establishing a "gas hub" from which various supply streams would proceed to Southern Europe through a high-capacity "corridor". From the Turkish perspective, *Gazprom* is a reliable partner with useful free capacity for covering demand peaks but with an obsessive idea to construct the *South Stream* pipeline across the Black Sea instead of simply adding extra pipes to the *Blue Stream* (opened in 2003). Ankara was upset over Moscow's opposition to the *Nabucco* project (favoured by the EU Commission but shelved due to problematic feasibility), but insists on expanding energy ties with Azerbaijan.¹

The balance of pros and cons in this controversial trade-and-transit is set through the respect-based personal relations between Putin and Erdoğan, aimed at securing a status boost for their respective regimes through downplaying disagreements in the "strategic partnership" of sorts.² Nuclear cooperation centred on the Akkuyu nuclear power plant project awarded to *Rosatom* constitutes an important element of this top-level deal-making, which Putin values higher than potential profit loss to *Gazprom* due to diminished demand for natural gas for electricity generation. The mutual circumspection also makes it impossible for Putin to ignore Turkey's objections to ventures for developing the natural gas reserves in Cyprus's exclusive economic zone (EEZ) without taking into consideration the interests of Turkish Cypriots.

Political manoeuvring may have a decisive impact on many energy policy decisions, but Russia's primary interest is economic, that is, to defend its position in Turkey's gas market, and this determines its policy preference for delays and procrastinations in developing the Eastern Mediterranean hydrocarbons.

Russia, Cyprus and money

Gaining privileged access to the low-capacity Cyprus gas market (or, for that matter, even for medium-low capacity Greek gas market) is not a priority in Russia's energy policy, but on a higher political plane, Cyprus captures far greater attention than its sheer size warrants. Since the mid-2000s, and particularly after the sharp economic spasm of late 2008 – early 2009, the Republic of Cyprus has become one of the main channels for the massive flight of capital out of Russia. Perhaps almost half of this money has returned to Russia as legitimate "foreign investments", and another almost-half moved further through the EU banking system, so leaving perhaps only a few billion euros actually "parked" in Cyprus. Investigation of these cash

¹ For an interesting view from Russia on the European context of partnership with Turkey, see I. Busygina, "Does Turkey need Greater Europe?", Russian International Affairs Council, 1 April 2014, http://russiancouncil.ru/en/inner/?id_4=3426#top.

² I provide a more in-depth analysis of Russian-Turkish energy-political relations in P.K. Baev, "Russia and Turkey Find a Common Cause in Confronting the Specter of Revolution", *Turkish Policy Quarterly*, Winter 2014, pp. 45-53.

flows is not the subject of this study; but what is relevant here is the fact that the severe financial crisis that hit Cyprus at the start of 2013 made a disproportionate impact on the movement of and investment decisions related to Russian capital.³

As the early signs of the crisis appeared, President Putin signalled to the EU his strong desire to be involved in its management as an equal partner since Russia was perfectly able to assume responsibility corresponding to the role of a part of the solution. He was surprised and offended when the ad hoc “crisis group” in the EU, and first of all Germany, turned down his offer and enforced on Cyprus a far more painful method of debt restructuring than would have likely occurred with a Russian contribution.⁴ An implicit but strong motivation for refusing Putin’s offer was the recognized need to address political risks generated by Russian export of corruption, for which Germany was one of the key “markets”.⁵ Cyprus had benefitted from providing financial services for this money laundering and evacuation of illicit profits, and was punished for that complicity.

Russian oligarchs did not suffer much damage from the enforced taxation on large bank accounts in Cyprus and soon shifted their activities to other channels for their dubious transactions, but in the first months of 2013 they had real concerns about the repercussions of the EU plan.⁶ Those concerns informed not only high-level protestations against “confiscation” but also propositions for undermining the EU plan by advancing an alternative, in which a key element of the collateral for the fat loan was granting effective control over *Aphrodite* and other potential gas-fields to *Gazprom*.⁷ Such geo-economic designs were far from appealing to the Cyprus government, which at that time had grand illusions about the value of the hydrocarbon riches; what is no less important, the proposed plan was very problematic for *Gazprom*, which had no experience or technology for developing deep-water fields – and could hardly expect to attract European partners into such a politicized enterprise. Nevertheless, speculations about the insatiable appetite of the Russian energy super-giant continued for months to come, despite the fact that *Gazprom*’s market value in mid-2013 was barely a third of the maximum reached in spring 2008.⁸

3 One concise assessment is V.L. Inozemtsev, “Cyprus: A Blessing for Russia, in Disguise?,” *New York Times*, 4 April 2013, <http://www.nytimes.com/2013/04/04/opinion/cyprus-a-blessing-for-russia-in-disguise.html?pagewanted=all& r=0>.

4 For further reading, see F. Lukyanov, “Cyprus, the Russian ‘Mafia’, and the Moment of Truth for the European Union,” *Russia in Global Affairs* (in Russian), 22 March 2013, <http://www.globalaffairs.ru/redcol/Kipr-russkaya-mafiya-i-moment-istiny-dlya-Evrosoyuza-15902>.

5 Head of Russian Central Bank Sergei Ignatiev revealed (in the midst of the Cyprus crisis) that fortunes amounting to \$US 50 billion were evacuated out of Russia illegally in 2012, and that up to a half of that cash flow was controlled by one group of people; see D. Busvine, “Russian central banker slams vast criminal cash exports,” *Reuters*, 20 February 2013, <http://www.reuters.com/article/2013/02/20/us-russia-cbank-idUSBRE91J0J020130220>.

6 Assessment of potential losses reached 3.5 billion euro from private accounts and 3.0 billion euro from corporate accounts; see E. Tofanyuk, “Cyprus tax: How Russians lost 3.5 billion euro in one day,” *Forbes.ru* (in Russian), 16 March 2013, <http://www.forbes.ru/finansy/regulirovanie/235754-kiprskaya-desyatina-kak-rossiyane-za-odin-den-lishilis-35-mlrd>.

7 See, for instance, A.E. Kramer, “Protecting their own, Russians offer an alternative to the Cypriot bank tax,” *New York Times*, 19 March 2013, <http://www.nytimes.com/2013/03/20/business/global/protecting-their-own-russians-offer-an-alternative-to-the-cypriot-bank-tax.html?pagewanted=all& r=0>.

8 One example is A. Good, “Gazprom goes to the Middle East,” *The National Interest*, 2 December 2013, <http://nationalinterest.org/commentary/gazprom-goes-the-middle-east-9478>.

The fact of the matter is that for *Gazprom* the only possible interest in taking control over the unexplored but not very promising fields in the Eastern Mediterranean is in keeping them idle. Moscow cannot ignore Turkish objections to their exploration and development under the exclusive sovereignty of the Republic of Cyprus and cannot hope to negotiate a deal that would provide for an engagement of the TRNC (Turkish Republic of Northern Cyprus); what is even more important, it is fundamentally not interested in the growth of new sources of gas supply in this remote but sensitive corner of the European market.

Russia, the EU and diversification

Every gas exploration project presented for approval to the Cyprus government falls into the realm of EU energy policy and, by extension, into the conflict space between this policy and Russia's energy ambitions. By the measure of its economic power, the EU has had every opportunity to dominate this space, but the profound confusion in setting the key guidelines for the joint EU energy policy have left Russia with opportunities for strong counter-play. The main aim of the EU policy has been to reduce the share of fossil fuels in the total energy consumption by increasing the share of renewable "green" sources. However, this economically problematic proposition has turned out to be completely impractical in the era of fiscal austerity that prescribes elimination of subsidies of every possible kind and greater emphasis on the most economically efficient fuels, primarily natural gas but also coal.⁹ Stubborn bureaucratic pursuit of this unworkable aim has slowed down the progress in achieving a more feasible goal of diversifying the sources of gas supply, which could have been a perfect fit with the desperate need of the Cyprus government in developing the hydrocarbon reserves.

Russia has taken full advantage of this misguided policy and focused particularly on the shortcoming of the *Nabucco* pipeline project, which was supposed to be the flagship of the diversification policy but faced issues related to sources of supply, one of which could have been the East-Med gas. The fiasco of the *Nabucco* project (sealed by the decision of the Shah-Deniz consortium to opt for the combination of TANAP and TAP pipelines in June 2013) does not signify a major victory for Russia, however, because its hugely expensive *South Stream* project never gained support in the European Commission, and has graduated from being far-fetched to entirely impractical in the new round of gas conflicts driven by the fast-moving crisis in and around Ukraine.¹⁰ This crisis had been in the making for quite some time before it progressed to the stage of street battles after the failed Vilnius summit of the Eastern

⁹ One sharp analysis of the German role in this problem is J. Kronig, "Energy policy in Germany: Big problems in Europe's powerhouse", *State of the Left*, 27 March 2014, http://www.policy-network.net/pno_detail.aspx?ID=4612&title=Energy-policy-in-Germany-Big-problems-in-Europes-powerhouse.

¹⁰ For an early prediction that neither of the two bitterly competing projects would be implemented, see P. Baev & I. Øverland, "The South Stream versus Nabucco pipeline race", *International Affairs*, vol. 65, no. 5, May 2010, pp. 1075-1090. On Gazprom's plans for correcting the route of the South Stream through Crimea, see S. Tikhonov, "The Crimean vector of the South Stream", *Expert* (in Russian), 15 April 2014, <http://expert.ru/expert/2014/15/kryimskij-vektor-yuzhnogo-potoka/>.

Partnership on 28-29 November 2013. Still, because of its flawed energy policy, the EU is no better prepared (in terms of building inter-connector pipelines or gas storage facilities) for Russian gas blackmail than it was in the previous round of the gas tensions in January 2009.¹¹

Cyprus is a very reluctant participant in the rounds of economic and political sanctions imposed by the EU on Russia in the course of this confrontation, yet it has to follow the common course – and may even discover some bonuses in investigating the networks of Russian corruption. In the energy area, even with the improbable (at the moment of this writing in mid-April) option of bracketing the question of gas transit through Ukraine out of the security context of the crisis, it is plainly clear that *Gazprom* has become an entirely inappropriate partner in any East-Med gas projects. Even Turkey would much prefer to engage more reliable and less politicized IOCs in its exploration projects, and it is negotiating with *Shell* and other US companies about exploring the potential for shale gas development, first of all in the Thrace basin.¹² Diversification is set to become the main operational guideline for EU energy policy, and the emphasis is in no doubt: every source needs to be utilized in order to reduce gas dependency on Russia.

Russia, the wider Middle East and turmoil

One of the main setbacks to the EU policy of diversification in 2013 (resulting in a 20% increase in gas import from Russia comparing with 2012) was the escalation of armed violence in Libya, which derailed the plans for expanding the flow of gas from this potentially major supplier. This market episode illuminates the fundamental connection between Russian energy interests and turmoil in the wider Middle East, which has reached a new high since the arrival of the “Arab Spring” in early 2011. On the most general level, any progress to greater stability in this volatile region could push down oil prices to a more reasonable plateau of \$US 70-80 per barrel, which would destroy the already problematic balance of the Russian state budget. On a sub-regional level, any progress in conflict management in the Eastern Mediterranean would bring to the European market new volumes of natural gas and destroy *Gazprom*’s non-competitive advantage.

Russian diplomacy spares no effort in covering up this profound interest in never-ending conflicts in the wider Middle East and in portraying Moscow as a committed defender of stability against the risks of extremism and public uprisings. However, the remarkable success of the Putin/Lavrov initiative on eliminating the Syrian arsenal of chemical weapons (which is trumpeted as one of the major achievements of Russian foreign policy) has in fact secured for

¹¹ On the EU attempts to produce a joint response to Putin’s divide-and-supply gas policy, see Y. Barsukov, “Powerful gas front”, *Kommersant* (in Russian), 15 April 2014 (<http://kommersant.ru/doc/2452919>); see also John Roberts, “Waiting for the great gas cutoff”, *Natural Gas Europe*, 15 April 2014, <http://www.naturalgaseurope.com/russia-ukraine-natural-gas-cutoff>.

¹² See on that O. Okumus, “On the cusp of discovery: Turkey steps up shale gas development as Russia looks on”, *Oil & Gas Eurasia*, 4 December 2013 (<http://www.oilandgaseurasia.com/en/news/cusp-discovery-turkey-steps-shale-gas-development-russia-looks>).

the al-Assad regime the opportunity to regain the upper-hand in the protracted civil war, and has sheltered it from the intervention necessary to end the humanitarian catastrophe.¹³ This deadlocked war is a major factor complicating and limiting the exploration of hydrocarbon reserves in the Eastern Mediterranean, as well as developing the shale gas in the South-eastern Anatolian basin in Turkey.

Russia has no problem with this procrastination; it half-heartedly tried to get a share in the projects developing the gas fields *Tamar* and *Leviathan* in the Israeli EEZ, but was not particularly upset when the deal was signed with Australian *Woodside Energy*.¹⁴ Instead, *Gazprom* provisionally agreed to invest in the development of the *Marine* gas-field in the EEZ of Gaza hardly expecting to harvest any profit but making it possible for Moscow to underpin its diplomatic claim for a role in the Israeli-Palestinian bargaining with some economic clout.¹⁵ The only other Middle Eastern state where Russia has significant tangible energy interests is Iraq; *Lukoil* and *Gazprom-Neft* are operators in the *West Qurna-2* and *Badra* oil projects, respectively, which have seen many delays but are due to start producing in 2014.¹⁶ Russia tried to establish a cartel-like arrangement with Qatar in the framework of the Gas Exporting Countries Forum (GECF, which is often and incorrectly portrayed as Gas-OPEC), but disagreements over intervening in the civil war in Syria have spoiled the modest progress achieved in this manoeuvring.¹⁷

Russian analysts are struggling to figure out how the Ukrainian crisis might affect Moscow's influence in the Middle East, where it has been hoping to tap into the considerable pool of anti-Americanism.¹⁸ What appears more probable, however, is that competitors will ruthlessly exploit Russia's weakened positions caused by Western initiatives to elbow Russian companies out of lucrative contracts and to squeeze Russian access to the most profitable markets, first of all in Italy.

¹³ For an insightful analysis of that initiative see F. Hill, "Putin scores on Syria: How he got an upper hand – and how he will use it", *Foreign Affairs*, 6 September 2013, <http://www.brookings.edu/research/opinions/2013/09/06-putin-scores-syria-hill>).

¹⁴ The February 2014 deal, a non-binding memorandum of understanding for the sale to Woodside of interest in the Leviathan licences, ended up being scrapped three months later. See J. Reed, "Woodside backs out of \$2.7bn Israel gas project", *Financial Times*, 21 May 2014, <http://www.ft.com/intl/cms/s/0/2ce420d0-e0b5-11e3-a934-00144feabdc0.html#axzz3DTGvHup8>.

¹⁵ The non-binding understanding on this project was reached during the Palestinian president's visit to Moscow in January 2014. See "Gazprom sector: Mahmoud Abbas agreed on a \$US 1 billion deal", *Newsru.com* (in Russian), 24 January 2014, <http://www.newsru.com/finance/24jan2014/gasabbas.html>.

¹⁶ On the lingering problems for *Lukoil* see F. Sergeev, "West Qurna-2 without the glitz", *Polit.ru* (in Russian), 4 April 2014, <http://polit.ru/article/2014/04/04/kurna/>.

¹⁷ On the impact of the Syrian war on the gas markets in Europe, see E. Sultanov, "One more gas", *Kommersant-Vlast* (in Russian), 28 January 2013, <http://www.kommersant.ru/doc/2111080>.

¹⁸ See for example, F. Lukyanov, "US-Russia Mideast cooperation in balance over Ukraine?", *Russia in Global Affairs*, 6 March 2014, <http://eng.globalaffairs.ru/redcol/US-Russia-Mideast-cooperation-in-balance-over-Ukraine-16456>.

Conclusions

Before the sharp escalation of the crisis around Ukraine, Russia had enjoyed plentiful political opportunities for promoting its energy interests in the Eastern Mediterranean – and was remarkably inefficient in this work. The main reason for that underperformance was the conflict between the country's political ambitions to play a more prominent role internationally and its energy policy to slow down the development of new off-shore fields (as well as shale gas reserves) in the region, which inevitably put pressure on *Gazprom's* export to the European market and Turkey. The exploration may have indeed progressed more slowly than in the best possible scenario but several key projects are still coming to the production stage in the second half of this decade, quite probably in synchrony with the restoration of major export capacity in Algeria and Libya, so that Russia stands to lose one position after another.

This pre-determined retreat is a part of the larger trend toward a significant increase in production of natural gas, which is often described as a "golden age of gas" due to the expected benefits for consumers and the environment. Paradoxical as it may seem, Russia with its vast reserves of natural gas and long experience in their development, is a designated loser in this reconfiguration of the gas market, first of all because of its inflexible and modernization-hostile energy policy. Moscow is deeply worried that the US leadership, seeking to undermine Russia's economic base, would collude with Saudi Arabia in order to orchestrate a fall in oil prices. While this may be, improbable as a political conspiracy it is entirely possible as a market-driven development. The continuing expansion in oil production in Iraq is certain to pull the prices down, but it is the forthcoming opening of Iran for investment in the oil-and-gas projects that constitutes the gravest challenge for Russian plans for "more-of-the-same". The East-Med projects are also sensitive to possible contraction of profits in the saturated market, but their sustainability could be secured by the interplay with the as yet uncertain peace processes involving Israel, Turkey and Cyprus.

Can the Prospect of East Mediterranean Gas Make Turkey Rethink its Cyprus Policy?

By Kemal Kirişçi

There are three overlapping realities to consider when thinking about Turkey's position and calculations vis-à-vis the still emerging Eastern Mediterranean energy prospects and resultant geopolitical shifts in the region.

The first reality concerns Turkey's energy needs. About three quarters of the total energy demand of the country is met by imported supplies,¹ primarily oil and gas. For its petroleum/oil, Turkey is 92% dependent on imports, mostly from Iran plus a few other countries including Russia, while for natural gas it is 98% dependent on imports, most of which – about half – presently come from Russia.² So as regards energy Turkey is highly dependent on these two hydrocarbon-exporting neighbours. Moreover, its energy demand is rapidly growing, with natural gas accounting for an increasing share in its energy mix, and the country is already the fourth largest gas market in Europe.³ I highlight these facts to underline the significance of Turkey's energy consumption with regard to government policies.

Leaving aside the geopolitics for a moment, energy is critical for a number of reasons. Turkey increasingly thinks of itself a "trading state".⁴ In other words it has to trade to be able to function; and for the government – or the AKP (Justice and Development Party), the political party that is presently in the government – keeping the economy stable and ticking is very important. However, Turkey is running a dangerously high current account deficit, the largest

¹ Turkish Ministry of Foreign Affairs, "Turkey's Energy Strategy", <http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa>.

² In 2012, the largest share of oil was supplied by Iran (39%) and of natural gas by Russia (56%). Iran also supplied 18% of natural gas and Russia 10% of oil imported by Turkey in the same year; see US Energy Information Administration's report on Turkey, 17 April 2014, <http://www.eia.gov/countries/cab.cfm?fips=TU>.

³ The three biggest are Germany, UK and Italy. See Eurogas, http://www.eurogas.org/uploads/media/Eurogas_Statistical_Report_2013.pdf.

⁴ K. Kirişçi, "The transformation of Turkish foreign policy: The rise of the trading state", *New Perspectives on Turkey*, no. 40, Spring 2009, Istanbul.

among emerging economies.⁵ And a major contributor to this deficit is the country's energy imports. If the government could resolve the challenge of reducing the current account deficit to GDP ratio, Turkey's economic performance would greatly improve. This in turn would vastly help towards keeping the AKP and Prime Minister Erdoğan in power (for good or bad). Against this background, Turkey desperately wants to diversify its sources of imported energy, especially as regards natural gas, and to find alternative and cheaper supplies. It is trying to do this through various means, including the Trans-Anatolian Pipeline (TANAP) project with Azerbaijan which is also part of the EU's "Southern Gas Corridor" for diversification of supplies; developing its relations and particularly energy cooperation with Iraq's Kurdish Regional Government; improving its relations and energy trade with Iran despite the international sanctions against the latter; and maintaining a certain balance in bilateral ties with Russia which enables it to further its energy cooperation with that country.⁶

The second reality that is shaping Turkey's position is its relations with the European Union. The fact that those relations are not what they were about a decade ago, when the Annan Plan⁷ was being discussed, is also critical. Turkey today appears to have an ambivalent vision. The government may argue to the contrary, but the world sees Turkey as a country that is seeking a new direction. This impression is strengthened by Prime Minister Erdoğan's toying with the idea of taking Turkey into the Shanghai Cooperation Organization,⁸ and the more recent debate over Turkey's membership in the Eurasian Economic Union, the Russian-led Customs Union.⁹ Of course, the obvious question is: How could Turkey be in the European Customs Union *and* the Eurasian one at the same time? But when thinking about Turkey and Turkish foreign policy, one should bear in mind that the EU is no longer the anchor it used to be for this country; it is no longer the factor that shapes and motivates Turkey. This also has implications in terms of domestic politics and the country's democratic performance and, in turn, in terms of its foreign policy as the Turkish government looks at its traditional transatlantic allies with less trust.

5 M. Cetingulec, "Can Turkey work miracles on current account deficit?", *Al-Monitor*, 14 April 2014, <http://www.al-monitor.com/pulse/originals/2014/04/turkey-deficit-energy-current-account-economy.html>.

6 For a survey of these issues and critical discussion of Turkey's aspirations to diversify and also become a hub, see G. Winrow, *Realization of Turkey's Energy Aspirations: Pipe Dreams or Real Projects?* Brookings, Turkey Project Policy Paper Series, no. 4, April 2014.

7 The UN's blueprint for a comprehensive settlement of the Cyprus problem was dubbed the "Annan Plan" after the then Secretary-General Kofi Annan.

8 "Turkish PM Erdoğan to Putin: Take us to Shanghai", *Hürriyet Daily News*, 22 November 2013, <http://www.hurriyetdailynews.com/turkish-pm-erdogan-to-putin-take-us-to-shanghai.aspx?pageID=238&nID=58348&NewsCatID=359>.

9 D. Veliyev, "Prospects for Turkey Joining the Russia-Led Customs Union", *Eurasia Daily Monitor* (The Jamestown Foundation), vol. 10, no. 201, http://www.jamestown.org/regions/turkey/single/?no_cache=1&tx_ttnews%5Btt_news%5D=41607&tx_ttnews%5BbackPid%5D=646&cHash=a8237fc9a449a401eb81cbd905a4043e#.U42HwV7IfwI.

The third reality is the fact that in the last few years, new alignments have been taking shape in Turkey's immediate region. Until about 2011 Turkish foreign policy vision centred on the success of the principle of "zero problems with neighbours".¹⁰ The idea was that this "zero problems policy" was serving Turkey's interests as a trading state: that the surrounding region, particularly the Middle East, was going to become a market for Turkish exports, for Turkish foreign direct investment, for Turkish services, and somehow from this was also going to emerge a "win-win" situation for the neighbouring countries and the Middle East. It was against this background that Turkey welcomed the Arab Spring.¹¹ Yet, in the course of the last two years, we watched the Arab Spring turn sour and at the same time give rise to new alignments in the region that have since challenged and undermined Turkey's "zero problems policy". One such alignment that is highly relevant to our present discussion over the Eastern Mediterranean hydrocarbons, of course, is the Greece-Israel-Cyprus alliance that has been steadily developing since about the fall-out between Turkey and Israel.¹² This comes at a time when many observers point to Turkey's recent foreign policy as one of "zero neighbours without problems".¹³

Let us now turn to the question of whether the prospect of hydrocarbons exports from the Eastern Mediterranean region – that is, from Israel and Cyprus – could help the drive towards a political settlement and reconciliation in Cyprus. In providing an answer from the perspective of Turkey, a major actor and stakeholder in the Cyprus imbroglio, it would be useful to make a comparison and ask another question: Could the Eastern Mediterranean energy prospects play a role similar to that the European Union membership vision played vis-à-vis Turkey in the context of the Cyprus issue back in 2003-2004? As everybody knows, at that time starting EU accession negotiations was a top priority for the newly elected AKP government. And it was in this quest for EU membership that Turkey then dramatically changed its Cyprus policy and strongly supported the Annan Plan alongside most of the international community, notably the EU.¹⁴

As regards energy, Turkey is a "hungry" market with a rising demand for imported oil and gas in order to keep its expanding economy running. Moreover, the country is keen to enhance its position as a key transit state/corridor for oil and gas supplies to Europe from the energy-

¹⁰ Turkish Ministry of Foreign Affairs, "Policy of Zero Problems with our Neighbors", <http://www.mfa.gov.tr/policy-of-zero-problems-with-our-neighbors.en.mfa>.

¹¹ D.D. Kirkpatrick, "Premier of Turkey Takes Role in Region", *New York Times*, 12 September 2011, http://www.nytimes.com/2011/09/13/world/middleeast/13egypt.html?_r=0.

¹² S. Tagliapietra, "Towards a New Eastern Mediterranean Energy Corridor", *Nota Di Lavoro* 12/2013, Fondazione Eni Enrico Mattei, <http://www.feem.it/userfiles/attach/2013215105594NDL2013-012.pdf>

¹³ J. Lagendijk, "Zero Neighbors without Problems", *Today's Zaman*, 1 November 2011, http://www.todayszaman.com/columnists/joost-lagendijk_261591-zero-neighbors-without-problems.html; and Piotr Zalewski, "How Turkey Went From 'Zero Problems' to Zero Friends", *Foreign Policy*, 22 August 2013, http://www.foreignpolicy.com/articles/2013/08/21/how_turkey_foreign_policy_went_from_zero_problems_to_zero_friends

¹⁴ In the end the Plan failed because at the simultaneous referendums held in April 2004, while the Turkish Cypriots voted in its favour, the Greek Cypriots rejected it.

rich regions to its east and south.¹⁵ This is a strategic goal for Turkey, through which it could not only become more indispensable to European energy security but also improve its own energy security.

Because of all this and given the proximity of the resources, Turkey is obviously attracted to the idea of becoming a market and/or a transit route for gas exports from Israel and Cyprus.¹⁶ Regarding “monetisation” of Cyprus gas, especially in the short and medium terms, many experts believe that exporting via a pipeline to Turkey is far more commercially viable than other mooted options.¹⁷ Yet, such a project is unlikely to go ahead without the Cyprus problem being resolved and Turkey-Cyprus relations normalised.

So, given the incentives, could the prospect of Eastern Mediterranean energy cooperation increase Turkey’s motivation to solve the Cyprus problem, similar to the way in which the prospect of EU membership did back in 2003-2004? In my view, this is doubtful for a number of reasons. These include, apart from the well-known complexities of the Cyprus problem, the fact that Turkey is working on alternative energy projects that are rather more likely to materialise than the one related to Eastern Mediterranean gas. The Trans-Anatolian Gas Pipeline, or TANAP, project with Azerbaijan, as well as energy pipeline links to resources in Northern Iraq seem increasingly closer to implementation, barring a last minute crisis. Although the chances may still seem remote, there is also some possibility of a deal between Iran and the so-called P5+1 (the five permanent UN Security Council members plus Germany). If this happened it could have a dramatic positive impact on Turkey’s energy formula. Furthermore, as Fiona Mullen explains in her paper in this volume, there is the general pressure on gas prices. Although Turkey is considered as a country that pays a premium price for its gas imports, prices appear to be going down. If this downward pressure prevails in the future, the commercial viability of a pipeline linking Turkey and Cyprus may suffer.

It is clear that Turkish foreign policy makers have many factors to bear in mind as regards the Eastern Mediterranean region, and specifically Cyprus. With the three overlapping realities in the background, referred to earlier, the area presents a flux of challenges, which complicate matters for Turkey as regards regional policy formulation and implementation. In the case of the Cyprus problem, I agree with what many people have been saying in recent years; that is, a solution on the island requires “thinking outside the box”. However, “thinking outside the box” ultimately boils down to something very basic: mutual will/determination of all the parties involved. Unfortunately, this condition does not exist yet and, as I tried to argue, the discovery of natural gas resources alone is not likely to change that.

15 Turkish Ministry of Foreign Affairs, ‘Turkey’s Energy Strategy’, <http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa> (accessed 10 June 2014).

16 Presidency of the Republic of Turkey, ‘President Gül Delivers Speech at Energy and Economy Summit’, 21 November 2013, <http://www.tccb.gov.tr/news/397/87824/president-gul-delivers-speech-at-economy-and-energy-summit.htm>.

17 See, for example, J. Roberts, ‘Offshore Adventures: Promise Or Peril?’, in *A Eurasian Energy Primer: The Transatlantic Perspective*, ed. David Koranyi, Atlantic Council, December 2013, http://www.atlanticcouncil.org/images/publications/EEFI_book_final.pdf; and F. Mullen, A. Apostolides and M. Besim, *The Cyprus Peace Dividend Revisited: A productivity and sectoral approach*, PRIO Cyprus Centre Report 1/2014, Nicosia, <http://cyprus.prio.org/Publications/Publication/?x=1179>.

Section 2

POTENTIAL MARKETS FOR EAST MEDITERRANEAN GAS

Cyprus Hydrocarbons Options: In Search of Peaceful Solutions to a Bonanza

By Adam Lomas

Let me start my contribution to this important and highly sensitive subject by stating that my earnest desire is that Cyprus is able to bring ashore the gas which nature has chosen to deposit just 100 miles to the south of the Island, and my even greater desire is that this gas should be used for the benefit of the people of Cyprus *as a whole*.

The Cyprus offshore discoveries would have long-term benefits, in excess of those currently envisaged from the building of just one train of an LNG plant. I believe that the discovery of gas and the potential for more discoveries in the Eastern Mediterranean will bring with them the hope for regional stability and the development of a hydrocarbon infrastructure based in Cyprus, which will long outlive the potential benefits of just the Aphrodite field. However, in order to realise this vision there is a need for realism and very good strategic planning, and to date this has not been obviously visible.

The recent economic pressures experienced by the Republic of Cyprus make the delivery of the Cypriot gas even more important. But the economic crisis has also exacerbated the difficulties which are likely to be encountered in financing the highly complex and capital-intensive project that is required for this purpose.

This paper concerns: first, the significance of Eastern Mediterranean gas reserves in the context of the global energy landscape and supply/demand trends; and second, the steps which would be required to monetize the Cyprus gas.

For the benefit of the reader who is not an engineer, I will try to stay away from technical terms and discounted cash flows. But one thing is quite clear: on the global scale, the reserves in the Eastern Mediterranean are not huge. Current estimates of global gas reserves are some 6,600 trillion cubic feet (tcf), of which Russia accounts for some 1,700 tcf, Qatar 880 tcf and Turkmenistan 620 tcf.

A 2010 United States Geological Survey report estimates the reserves in the Levant Basin Province of the Eastern Mediterranean at 122 tcf. Of course, these are not yet reserves, because they haven't been "discovered" or "proven". Cyprus's actual reserves are at present zero, despite the recent drilling of an appraisal well at the Aphrodite field. Current estimates place the probable reserves at between 3.6 and 6 tcf.

Close by, Israel has over 26 tcf, including 17 tcf in its Leviathan field, which is some 36 miles from Aphrodite. The gas found in Cyprus *on its own* may not warrant the building of a massive infrastructure, such as an on-shore liquefied natural gas (LNG) plant, but the region *collectively* may well have the potential for the building and maintaining of such an infrastructure, which could outlive the production of any of the hydrocarbons so far discovered.

In this context I would like to draw attention to the position of Cyprus, placed as it is between the gas-producing nations to its south and east and an energy-hungry Europe to its north, and at the same time draw a parallel with the North Sea. The governments involved in the North Sea had the strategic foresight to build an energy backbone there, which long after the major fields have been depleted is still providing revenue to the UK treasury, through transit tariffs. Near the Eastern Mediterranean region, there are very large deposits of "stranded" gas in Iraq. Previous plans were to export these via a pipeline to the north through the presently war-torn Syria. Now, it might be possible to do this through Cyprus. But perhaps I am raising hope and expectation too high by suggesting that the countries in the region could be persuaded to discuss the possible economic benefits that could be achieved if ancient rivalries were put aside.

As regards monetization of the Cyprus gas, currently the plans are focused on building a single train LNG plant. The economics of such a project are complex and require looking at a number of variables. In general there are two ways of selling LNG: one is selling on fixed-term contracts (which in 2012 accounted for some 65 per cent of the world market); the other is selling on the spot market, which is still relatively small but has been growing in recent years (from 10 per cent in 2000 to some 30 per cent in 2012).

Spot-price markets have the potential for higher prices in an upswing market, but the risk of lower returns in a downturn. The majority of spot-price gas is sold to Far Eastern markets (mainly Japan and Korea), and the spot price until recently has been high due to a number of factors, including the recent nuclear catastrophes in Japan. This situation is unlikely to persist, and the likelihood is that the price of gas will drop in the foreseeable future. This is due partly to the emergence of shale gas as an economic source in the United States (which has stated that it would become an exporter in the near future, reducing its energy imports) and partly to the coming online of very significant reserves after completion of a number of projects which are already under construction in the Middle East and Australia in particular, both of which are closer to the Far Eastern markets. This does not in any way preclude the possibility that Cyprus gas has economic potential, but a number of factors will need to be very carefully managed to ensure that any LNG project is economically viable.

The most important variables in any LNG project are:

- (a) The capital cost of the building
- (b) The cost of the feed gas¹
- (c) The plant utilisation or “uptime”
- (d) The timeline for project delivery
- (e) The fiscal regime

Although very little has so far been published about the plans for the LNG plant, we are given to understand that Noble is working in close collaboration with the government to produce a strategic plan.

Current estimates supplied by the authorities have placed the cost of the planned single train LNG facility at some 5-6 billion US\$. This estimate is, in fact, in the low range of projects which have been completed anywhere in the world recently and the current market for capital construction projects is overheated. It is quite unlikely that any long-term contracts would be easily negotiated on the basis of a single train, given the need for maintenance and the possibility of mechanical breakdown. A second train would increase cost, and any delay in the project would increase costs further. The break-even sales cost of the gas could quite quickly be overtaken by the cost of an LNG project that has not been executed with the necessary precision.

The cost of the feed gas, as we understand it, will be determined by the costs of development of the Aphrodite field, which have so far not been disclosed publicly by the operator. Estimates range from \$2 to \$4 per MMbtu (million British thermal units) but the cost of similar offshore development projects elsewhere has been as high as \$6 per MMbtu, depending on water depth and geological complexity.

The uptime of the plant is extremely important, and will be dependent on the skill of those operating the plant. Whilst the skills of the Cypriot workforce are not in question, the experienced skill base required to run a complex LNG plant is not so far apparent in the country and there is so far little evidence of a structured plan to build that skill base. Before deciding to risk building an LNG plant in Vassilikos, an operator would want to see an experienced skill base in place, or at least a credible plan to build that base. Of course, in the early stages the workforce may well have to be mainly expatriate, something that will have knock-on effects on Cypriot employment.

Any project delay will have a significant downside for the economics of the project, and any investor willing to take the relatively large risks involved in delivering a successful LNG project will look to a government and/or national oil company for quick decision making, clarity on the legal infrastructure and the fiscal regime. Last year’s re-structuring of the key departments involved in energy distribution in Cyprus and of the Cyprus National Oil Company (which is now called Cyprus Hydrocarbons Company) will not be seen as evidence of the speed required.

¹ Gas used as the raw material for a liquefied natural gas plant (also called feedstock gas).

In short, the building of an LNG plant looks extremely attractive at face value particularly given the current high spot price of gas in the Far East. However, given that the plant's construction will likely take a minimum of five years, it is the economic value in that time frame which needs to be carefully evaluated. The building of an LNG plant involves significant risk and many variables – all of which need to be stress tested. Any investor will need to assure himself or herself that the downside potential is fully factored in. This concerns, among other things: the cost of the feed gas, the length of time to make decisions and the skills required to build. Taking the best case for the gas price and the lowest possible cost is not a scenario seasoned investors will accept.

Very little has so far been considered by the Cyprus government regarding the benefits of a pipeline as an alternative to an LNG plant. And, whilst I recognise the political difficulties envisaged in building a pipeline to the North, I believe it would be entirely wrong, particularly when discussing monetisation options for Cyprus gas, not to point out the benefits that are potentially to be had.

There are two options for a pipeline that involves a terminal at Vassilikos. Another option, which is not economically attractive for Cyprus, has been suggested: it involves direct transit of gas to Israel and from there to Turkey.

The two alternative pipeline routes with a terminal at Vassilikos are: (a) to the Greek mainland through the Aegean; and (b) across the island and straight to Turkey. The economic costs of both of these options have been evaluated. The cost of a pipeline through the Aegean is high and the technical difficulties great. In addition, the seabed is very irregular and the area prone to earthquakes. In economic evaluations the value of this alternative tends to be lower than the LNG option, although the variables are so uncertain that there is no straightforward comparison.

The second pipeline export option with a terminal at Vassilikos is a link from Cyprus to Turkey, which is less than 100 km north of the island (across the Mediterranean Sea). The capital costs of a pipeline to Turkey would be very significantly lower than the cost of an LNG plant. The pipeline from Aphrodite to Vassilikos can be taken out of the equation since it will be required whichever option is chosen. Whilst it is clear that this option is not feasible without a significant change in the current geopolitical climate, the attractiveness of success should be obvious to everyone. The capital cost of a pipeline to Turkey (excluding the cost of Aphrodite-Vassilikos link) is estimated at less than \$1 billion, which is very significantly less than the cost of a 700 km pipeline to Greece and less than 20 per cent of the capital currently estimated for the proposed single train LNG project.

Whilst there remains significant additional risk in considering such a pipeline to connect the Eastern Mediterranean gas to the European markets via Turkey,² the potential economic

² The risk is two-fold. First, there is the political risk that any pipeline through Turkey would require a settlement of the "Cyprus problem"; at the present time this seems increasingly less likely due to the deadlocks in the settlement negotiations. Second, there is an increased overall regional risk of military confrontation due to geopolitical strains in the region, and Turkey appears to be (even) less likely to want a settlement than it was six months ago.

benefits of success could be very significant. It is to be hoped that the leaders of the various communities involved can find the courage and the breadth of vision to consider such an outcome, or at the very least to undertake a detailed analysis of such a pipeline plan which has so far not been carefully examined.

Given the security risks of protecting LNG cargoes in an area which is not unknown for violent incidents, the international investor might be forgiven for seeing as a very attractive option a subsea pipeline to a market (that is, Turkey) which is hungry for gas as an alternative fuel for its industry and has stipulated that its current dependence on Russian gas should be reduced!

For Cyprus the benefits of securing long-term, fixed-price contracts for gas, compared to the risks of a fluctuating spot price in a potentially downward trending market for gas, should also be carefully considered.

Postscript:

Since the time of writing this paper, there have been significant changes in both the government's position regarding the options available for developing the gas reserves and the political climate.

Despite continuing concerns about the fate of the talks for a settlement of the Cyprus problem, there have been important moves towards establishing some sort of dialogue between Cyprus and its northern neighbour.

Meanwhile the disturbing events in Syria continue to remind us that "to jaw-jaw is always better than to war-war", in the words of Winston Churchill. If and when it is possible to establish more normal relationships, opportunities and options will become a reality.

The economy of the Republic of Cyprus appears to be recovering faster than predicted, though the European economy continues to cause concern, destabilised again by the threat of disruption of gas from Russia. Whilst the latter worries Brussels, it can work to Cyprus's advantage.

The alternative of a source of gas from the Levant transported through Cyprus takes on a new and strategic dimension. It is to be hoped that the Cyprus government can use this window to broker a deal to everyone's advantage.

Meanwhile work continues to source gas for an "interim solution" to the island's relatively high electricity prices – caused by its dependence on oil-fired power stations. This will set the scene for a new economy based on easily available gas, and create the infrastructure required to fuel a new economy for Cyprus. This economy will create many more jobs than those required purely for the extraction and transportation of hydrocarbons. The new economy will potentially provide work for the disillusioned young people currently without a job and provide a springboard for a new "knowledge economy".

All of us hoping for a new era of peace and prosperity for Cyprus must wish that the current talks are successful, leading to an environment in which substantial economic growth becomes a reality.

Europe: A Market for Eastern Mediterranean Gas?

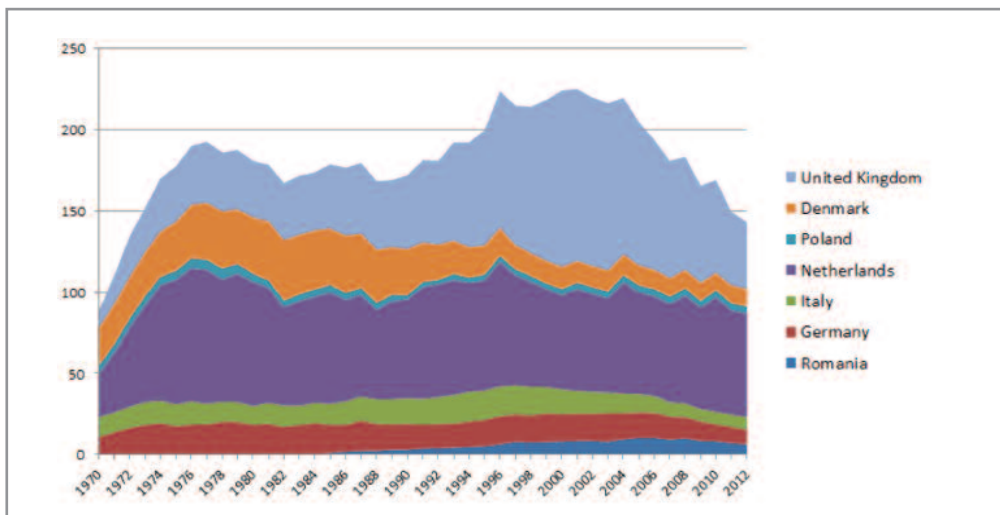
By Simone Tagliapietra

The EU gas market: an overview

Gas is an essential component of the energy mix of the European Union (EU), constituting one quarter of the primary energy supply and contributing mainly to electricity generation, heating, feedstock for industry and fuel for transportation.¹

Since the dawn of the European gas industry in 1959, EU domestic gas production has progressively grown over time. This growth was mainly due to the North Sea reserves, a fact that explains the high domestic production of the Netherlands and the United Kingdom.

Figure 1 Gas production in the EU between 1970 and 2012 (bcm)



Source: OWN ELABORATION ON BP STATISTICAL REVIEW OF WORLD ENERGY (2013).

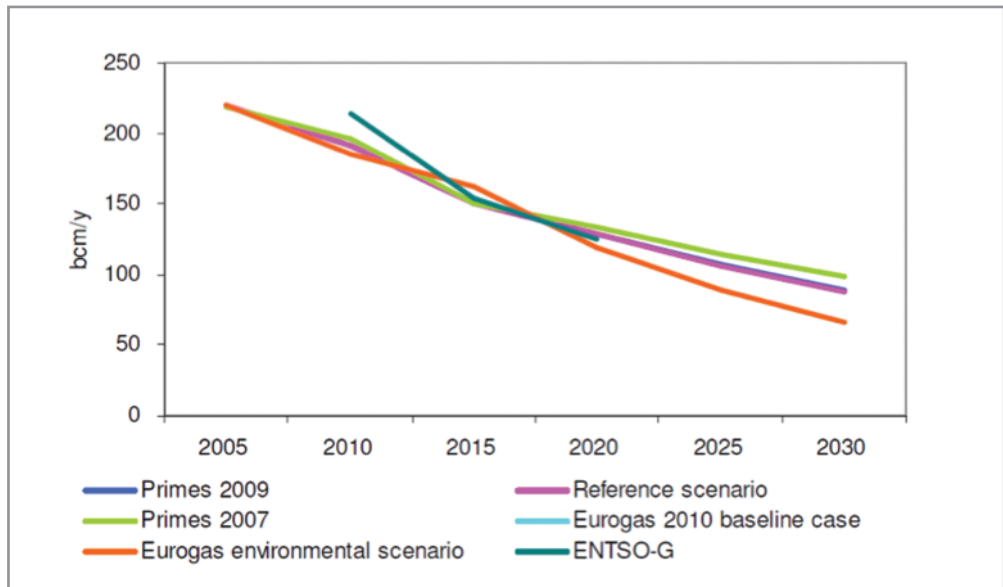
¹ For a comprehensive analysis of the past evolutions and future trends of the European gas industry, please refer to: Hafner and S. Tagliapietra, *The Globalization of Natural Gas Markets. New Challenges and Opportunities for Europe*, Deventer, The Netherlands: Claeys & Casteels, 2013.

In particular, EU domestic gas production has largely benefited from the mid-1990s to the mid-2000s high level of gas production in the UK. However, UK gas production has fallen very dramatically over the last decade, from 108 billion cubic metres (bcm) in 2000 to 41 bcm in 2012.² According to the UK Department of Energy, annual gas production is projected to decline by 2.5% per year between 2012 and 2017 and by 5% per year between 2017 and 2027.³

In the Netherlands gas production dropped from 70 bcm in 2010 to 64 bcm in 2012 and according to the Dutch Ministry of Economic Affairs the country's production will decline by around 2% per year between 2011 and 2020, followed by a much greater decline of more than 9% per year from 2020 to 2030.⁴

Looking at the future, it is thus possible to expect EU gas production to continue its declining trend. However, there is a great uncertainty about the steepness of this decline, as – among other factors – it will ultimately also depend on the potential production of shale gas in the EU and most notably in the UK and Poland.⁵

Figure 2 EU gas production outlook



Source: EUROPEAN COMMISSION, DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT (2010).

* REFERENCE SCENARIO = PRIMES REFERENCE SCENARIO

² Unless otherwise stated, all energy statistics presented in this paper refer to: British Petroleum, *Statistical Review of World Energy*, 2013.

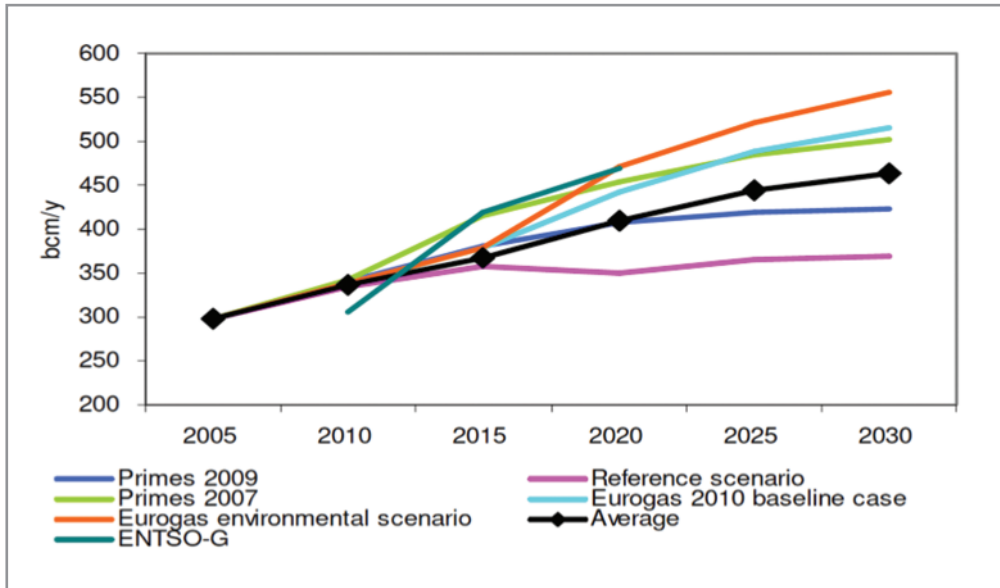
³ <https://www.gov.uk/government/organisations/department-of-energy-climate-change>

⁴ <http://www.government.nl/ministries/ez>

⁵ For a multidisciplinary analysis of the European shale gas potential, please refer to C. Musialski, W. Zittel, S. Lechtenböhmer, M. Altmann, eds, *Shale Gas in Europe*, Deventer, The Netherlands: Claeys & Casteels, 2013.

A declining domestic production will obviously have a direct effect on the outlook of EU gas import requirements. In fact, even if EU gas demand remains stagnant in the future, EU import requirements will continue to grow because of declining production. Of course, this trend will be further accentuated in case EU gas demand recovers from the current stagnation and finally starts to grow again over the next decades.

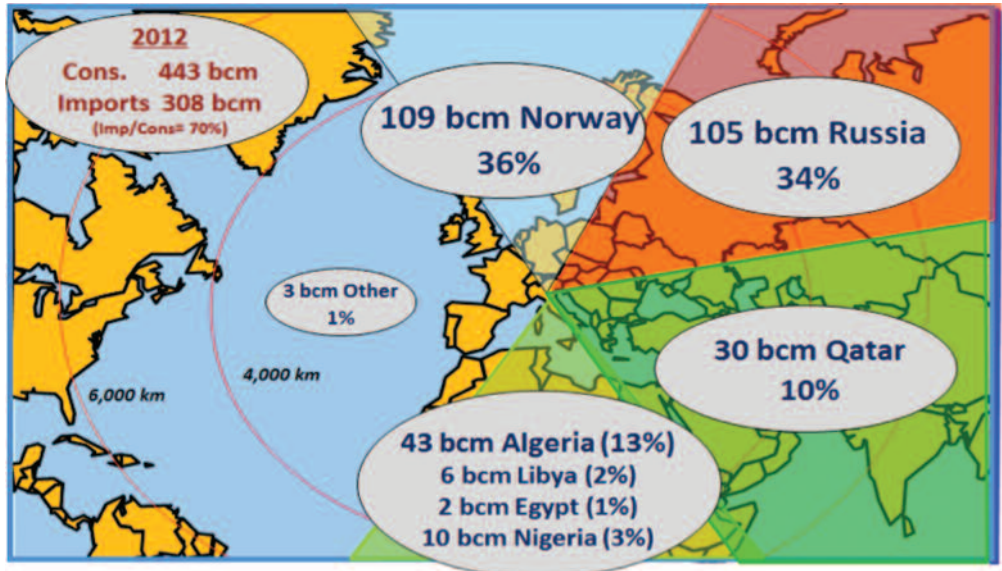
Figure 3 Forecasts on EU gas import requirements



Source: EUROPEAN COMMISSION, DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT (2010).

* REFERENCE SCENARIO = PRIMES REFERENCE SCENARIO

This scenario of increasing gas import requirements is particularly alarming for the EU, as it relies on relatively few suppliers, and furthermore, its dependency on external suppliers – represented by the imports/consumption ratio – stood at 70% in 2012. More specifically, in 2012 the EU imported gas mainly from Norway (109 bcm), Russia (105 bcm), Algeria (43 bcm), Qatar (30 bcm), Nigeria (10 bcm), Trinidad and Tobago (3 bcm), Egypt (2 bcm) and Libya (6 bcm).

Figure 4 EU gas supply - 2012 (and % of imports)

Source: OWN ELABORATION ON BP STATISTICAL REVIEW OF WORLD ENERGY (2013).

This high level of dependency on so few suppliers has generated a wide debate in the EU on the issue of security of gas supply. This debate was particularly strong after the Russia-Ukraine-Europe gas crisis of January 2009, the worst gas crisis that the EU had ever faced.⁶ After that event, the European Parliament and the European Council enacted Regulation No. 994/2010,⁷ which aimed to demonstrate to EU gas customers that all the necessary measures were being taken to ensure their continuous supply, particularly in case of difficult climatic conditions and in the event of disruption. The Regulation outlined the need for solidarity and coordination among EU member states in the response to supply crises, concerning both preventive action and timely response to concrete disruptions of supply. With this Regulation, the EU interpreted the security of gas supply issue according to its broader definition, including both diversification of suppliers and (because of the strong geopolitical issues related to gas infrastructure) diversification of transit countries. In fact, according to the Regulation, the diversification of gas routes and sources of supply for the Union is essential to improve the security of supply to the EU as a whole and its member states individually. As the Regulation outlined,

⁶ For a detailed discussion of this natural gas crisis refer to S. Pirani, J. Stern, and K. Yafimava, *The Russo-Ukrainian Gas Dispute of January 2009: A Comprehensive Assessment*, OIES paper: NG27, Oxford Institute for Energy Studies, 2009.

⁷ European Parliament, *EU Regulation No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC*.

security of supply will depend on the evolution of the fuel mix, the development of production in the Union and in third countries supplying the Union, investments in storage facilities and the diversification of gas routes and sources of supply within and outside the Union including liquefied natural gas (LNG) facilities. With regard to the diversification of energy sources and gas delivery routes, the EU has paid particular attention to priority infrastructure actions as identified in a Commission communication entitled “Second Strategic Energy Review”.⁸ This Communication called for a diversified and adequate LNG supply for Europe (this is why the EU has progressively increased its LNG imports over the last years, notably from Qatar) and the development of a new Southern Gas Corridor.

The EU quest for diversification: the Southern Gas Corridor

The “Second Strategic Energy Review” recognized in the Southern Gas Corridor one of the EU’s highest energy security priorities, highlighting the need for cooperation among the EC, EU member states and the oil-exporting countries concerned (Azerbaijan and Turkmenistan, Iraq and Mashreq countries) with the objective of rapidly securing firm commitments for the supply of gas and the construction of the pipelines necessary for all stages of its development. Uzbekistan and Iran were also mentioned in the Communication as potential partners, albeit only in a long-term scenario.

In May 2009 after the release of this document, the European Commission invited representatives of the countries concerned to a ministerial level meeting aimed at securing concrete progress on the initiative. The summit, held in Prague and named “Southern Corridor - New Silk Road”, served to express political support for the Southern Gas Corridor, recognizing it as an important and mutually beneficial initiative aimed at promoting the common prosperity, stability and security of all countries involved. The countries participating in the summit agreed to consider the Southern Gas Corridor as a modern Silk Road and to give the necessary political support and, where possible, technical and financial assistance towards the construction of the Trans-Caspian energy transportation project and towards the development of Nabucco, a project already designated to be of strategic importance in the Trans-European Networks - Energy (TEN-E) programme.⁹

⁸ European Commission, *Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan* (COM 781 final), 13 November 2008.

⁹ For a wider discussion of the rise and evolution of the Southern Gas Corridor, please refer to S. Tagliapietra, *Turkey as a Regional Natural Gas Hub: Myth or Reality?*, Nota di Lavoro n. 2.2014, Fondazione Eni Enrico Mattei, 2014.

Figure 5 The dawn of the Southern Gas Corridor: the original concept of Nabucco

Source: OWN ELABORATION (2013).

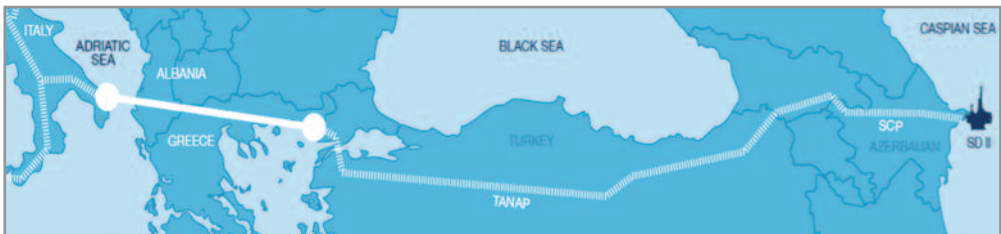
In reality, preparations for the Nabucco project started in February 2002 when first talks took place between Austrian OMV and Turkish BOTAŞ. In June 2002, five companies (OMV of Austria, MOL Group of Hungary, Bulgargaz of Bulgaria, Transgaz of Romania and BOTAŞ of Turkey) signed a protocol of intention to construct Nabucco, a pipeline with a capacity of about 30 bcm/year. The protocol was followed by a cooperation agreement in October 2002. The name Nabucco comes from the title of a Giuseppe Verdi opera that the five partners had listened to at the Vienna State Opera after this meeting. In December 2003, the European Commission awarded a grant in the amount of 50% of the estimated total cost of the feasibility study including market analysis, and technical, economic and financial studies. On 28 June 2005, the joint venture agreement was signed by the five Nabucco partners. In June 2008, the first contract to supply gas from Azerbaijan through the Nabucco pipeline to Bulgaria was signed. The President of Azerbaijan confirmed in early 2009 that Azerbaijan was planning to at least double its gas production in the coming five years to supply the pipeline. Successively, the Minister of Energy of Turkey confirmed that Turkey was ready to sign a deal, provided that Turkey would be allotted 15% of the gas to be carried through the Nabucco pipeline. The inter-governmental agreement between Turkey, Romania, Bulgaria, Hungary and Austria was signed by the five countries' prime ministers on 13 July 2009 in Ankara. In the following months all the countries concerned – Hungary, Bulgaria, Romania, Austria and Turkey – ratified the agreement. At that time everything appeared to be settled for Nabucco, but

before long the project started to show a number of technical, commercial and political weaknesses that finally derailed its potential evolution.¹⁰

Considering these difficulties a great debate evolved with regard to the alternative shapes that the Southern Gas Corridor could have assumed. Azerbaijan was the country most interested in the quick development of the Southern Gas Corridor, due to the investments already made on its Shah Deniz field and the need to reach a final investment decision for Shah Deniz Phase II (a decision that was finally made, as will be explained in the next section, on December 17, 2013). For this reason, Azerbaijan sped up the process and rapidly conceptualized the Trans-Anatolian Pipeline (TANAP), a pipeline designed to carry gas to be produced in Shah Deniz Phase II and other fields of Azerbaijan through Turkey (from the Georgia-Turkey border to the Turkey-Greece border) with a capacity of 16 bcm/year. Moreover, in June 2013 the consortium developing Shah Deniz chose the Trans-Adriatic Pipeline (TAP) project to provide the missing link for gas transportation from the Turkey-Greece border to Italy through Albania and the Adriatic Sea.

In short, the 16 bcm/year of gas that will be produced in Shah Deniz Phase II will flow through the (to-be-expanded) South Caucasus Pipeline across Azerbaijan and Georgia up to the Turkish border. From here, the gas will flow through Turkey via TANAP, as far as the Turkey/Greece border. At this point, the 10 bcm/year of Shah Deniz Phase II gas devoted to the European market (the other 6 bcm/year are devoted to the Turkish market) will flow via TAP through Greece and Albania to Italy, its final destination. The target date for the first gas exports from Shah Deniz Phase II to Turkey is 2018, while for Europe the date projected is 2019.

Figure 6 The “final” shape of the Southern Gas Corridor: TANAP and TAP



Source: TRANS-ADRIATIC PIPELINE (2013).

¹⁰ The Nabucco project failed because of the market uncertainties: a very large-scale pipeline project combined with a hugely uncertain demand outlook, as well as potential supply side competition from South Stream. Also, the project promoters were mainly mid-size companies who had to rely on project financing and bank loans, for which the banks require guarantees, and long-term ship or pay contracts, which the market today cannot deliver. For additional insights please refer to M. Hafner, *Russian Strategy on Infrastructure and Gas Flows to Europe*, POLINARES Working Paper no. 73, 2012.

In addition to the 10 bcm/year from Azerbaijan, the Southern Gas Corridor is generally expected to be able to carry future additional volumes of gas to the EU from Turkmenistan, Iraq and – in the longer term – Iran. But what should we really expect with regard to this potential development? Let's have a closer look at each of these potential suppliers.

a) Turkmenistan

Given its world-class gas reserves, Turkmenistan could well be in a position to supply gas to the EU – in addition to the major volumes already devoted to the Chinese market – but two major obstacles will likely make such a development unfeasible, at least in the medium term: the first is the European gas market's current lack of interest due to its stagnant gas demand, and the second is the infrastructural problem related to disputes between Russia, Iran and Turkmenistan on the legal status of the Caspian Sea and therefore on the construction of the Trans-Caspian Pipeline. For these reasons, EU plans to bring major volumes of Turkmen gas into the Southern Gas Corridor would probably need to be revised, at least until the dispute on the legal status of the Caspian Sea is finally resolved and until the EU gas demand fully recovers, leading the EU to seek substantial volumes of additional gas imports.¹¹

b) Iraq

Iraq's gas scenario is radically changing because of the enormous gas reserves being discovered in the country's semi-autonomous region of the Kurdistan Regional Government (KRG). This northern region is actually paving the way to Iraq's emergence as world-class gas province. The development of these gas reserves in the KRG region will first target the domestic market. In fact, the KRG has already more than tripled its 2015 target for installed gas-fired power generation capacity. However, in a second phase the KRG could well export part of its gas to Turkey and the EU. More specifically, today we can project that the KRG will be able to export about 10 bcm of gas to Turkey by 2020, and eventually (after 2020) additional volumes to Europe.¹²

c) Iran

Iran is the perennial "elephant in the room" of international gas trade, a country which could, one day, become a major game changer in the international gas market, but whose potential remains untapped for a number of geopolitical and commercial reasons. The main reason for the current under-exploitation of Iran's gas resources is clearly linked to the difficult political relations that have evolved over the last decades between Iran and the West. For this reason,

¹¹ For a detailed discussion of Turkmenistan's natural gas market please refer to S. Pirani, *Central Asian and Caspian Gas Production and the Constraints on Export*, OIES Paper: NG 69, Oxford Institute for Energy Studies, 2012.

¹² For a wider discussion on the Kurdistan Region of Iraq's gas market please refer to: S. Elliott and L. Beryl, *Natural Gas Development in Kurdistan: A Financial Assessment*, Belfer Center for Science and International Affairs, Harvard University, 2012.

if the recent interim deal on the nuclear issue has an effective follow-up, great opportunities could open up in Iran, and these could include the gas sector. Considering the geographical location of Iran's gas reserves, such a development will likely interest the global LNG market before it interests the Turkish and European markets via pipeline. Furthermore, the first international pipeline that the country will likely develop will not target the European market, but the Asian market. In fact, Iran is already working on a pipeline to Pakistan, in order to export its gas not only there but also to India. Moreover, the Chinese interest in the country's gas reserves is also very strong and Iranian gas exports to China will likely take place in the future as well. For these reasons it seems that in the medium term Iran will not fit easily into the Southern Gas Corridor concept, as it will first target the global LNG market and Asian markets via pipeline.¹³

To conclude, in the medium term (up to 2020) it will not be possible to expect more than 10 bcm (from Shah Deniz Phase II) to flow through Turkey to the EU. This amount certainly represents an historical step – as it will be the first concretization of the lengthy Southern Gas Corridor odyssey – but it will certainly not radically change the security of gas supplies to the EU. In fact, 10 bcm by 2020–2025 basically represents less than 3% of the EU gas import needs: a level equal to that currently covered by Nigeria.

However, looking at the long-term horizon (after 2020) the situation could well change for the better. In fact, in this (future) timeframe Azerbaijan *could* well be able to supply more volumes of gas to the EU, Turkmenistan *could* be in a position to supply a considerable amount of gas to Turkey and to the EU, Iraq *could* also be in a position to supply some gas volumes to the EU from KRG and Iran *could* well have the potential to supply gas to the EU. As illustrated by the hypothetical tone of these sentences, a number of factors (infrastructural, commercial and political) will determine whether the Southern Gas Corridor may or may not become a real game changer for the secure supply of gas to the EU. Considering that any development in terms of potential further expansion of the Southern Gas Corridor to gas-producing countries other than Azerbaijan will likely take a lot of time, we might well expect the EU to look for new gas supplies elsewhere. At this point the Eastern Mediterranean could well enter the scene.

Towards a new Eastern Mediterranean gas corridor?

Over the last few years the Eastern Mediterranean region has progressively attracted the attention of the world gas industry due to a series of gas discoveries in offshore Israel and Cyprus. In particular, after the discovery of the Leviathan field in 2010 and the Aphrodite field

¹³ For a detailed discussion of the future prospects of Iran's gas market please refer to S. Tagliapietra, *Iran after the (potential) nuclear deal. What's next for the country's natural gas market?*, Nota di Lavoro no.31.2014, Fondazione Eni Enrico Mattei, 2014.

in 2011 a wide debate emerged on the gas export potential of the region and on its consequential infrastructure options. But is this debate justified by the geological realities of the region? Looking at the current volumes of the proven gas reserves, it seems that the Eastern Mediterranean region does not have the potential to become a world-class gas province. The two major gas fields in the region, Leviathan and Aphrodite, respectively enclose 535 bcm and 140 bcm of gas reserves, for a total of 675 bcm. Taking into consideration that, for instance, the only recently discovered gas fields in Mozambique are estimated to enclose about 4,000 bcm of gas reserves, it seems clear that with its current volumes the Eastern Mediterranean is unlikely to become a game changer in world gas markets. However, the gas resources being discovered in the region could well represent a game changer for the region itself, in particular as far as gas cooperation is concerned.¹⁴

Because Israel has the largest gas reserves in the offshore Eastern Mediterranean, this country has a pivotal role in the emerging regional gas architecture. In other words, a large-scale development of Eastern Mediterranean gas would be very difficult without a strong commitment from Israel to export a substantial part of its gas resources. After a lengthy debate, the Israeli government decided in 2013 to keep 540 bcm of gas for the domestic market over a 25-year period, leaving 360 bcm, or 40% of projected supply, for export. This development will certainly enhance the discussion on Israel's gas export options in the near future. In fact, many options are currently on the table, even if not one is yet a frontrunner: a) construction of a pipeline to Turkey (via Lebanon and Syria or via the Republic of Cyprus EEZ); b) construction of a pipeline to Jordan and the Palestinian Territories; c) utilization of the existing pipeline from Ashkelon to Egypt – reversing the flow – and then utilization of the Egyptian LNG plant in Idku; d) construction of a submarine pipeline from the Leviathan field to the Egyptian LNG plant in Idku; e) construction of an onshore LNG plant on Israel's Mediterranean coast; f) construction of an LNG plant on the Israeli shore of the Gulf of Aqaba; g) development of an FLNG plant in the Israeli offshore Mediterranean; h) development of a compressed natural gas (CNG) solution; i) construction of a pipeline to Cyprus and construction of a joint LNG plant in Vasilikos.

As far as Cyprus is concerned, the great expectations regarding the potential gas bonanza, together with the urgent need to find a way out of the deep economic crisis affecting the country, has led the Republic of Cyprus's government to promote an LNG export option to quickly monetize the potential gas resources. The idea is to develop an LNG plant with an initial export capacity of 5 million tonnes of LNG per annum (one liquefaction train), expandable to 15 million tonnes of LNG per annum (three liquefaction trains) in Vasilikos, an area located on the southern coast of Cyprus, around 40 km from the city of Larnaca and 25 km from the city of Limassol.

¹⁴ For a comprehensive discussion of the Eastern Mediterranean natural gas developments please refer to S. Tagliapietra, *Towards a New Eastern Mediterranean Energy Corridor? Natural Gas Developments Between Market Opportunities and Political Risks*, Nota di Lavoro no. 12.2013, Fondazione Eni Enrico Mattei., 2013.

The Republic of Cyprus signed in June 2013 an MoU with Noble Energy, Delek Drilling and Avner Oil Exploration, stating their intent for the development of the LNG plant in Vasilikos. An MoU between the Republic of Cyprus and Total – which is also interested in participating in the development of the LNG plant – was also signed in October 2013. Other options for Cyprus's potential gas exports have been proposed and discussed over the last two years. Some are based on primarily commercial considerations, while others are based on geopolitical issues. In particular, a pipeline to Turkey is an option currently on the table: this solution would certainly make commercial sense in case additional volumes of gas are discovered in offshore Cyprus, but it involves a number of geopolitical problems that are currently far from being resolved (i.e., the long-lasting Cyprus dispute).

As an overall trend, to date it seems too early to fully understand what export option will be finally chosen, and when. In fact, in October 2013 Noble Energy downsized the expected gas reserves in the Aphrodite field from 220 bcm to 140 bcm. Moreover, Total, Eni and Kogas will not be able to provide additional evidence from their respective blocks until 2015-2016, as the exploration drilling is scheduled for late 2014 to mid-2015. These factors suggest the need for more caution in discussing the prospects for Cyprus's potential gas export options, as any project must be based on certain geological realities that are currently still largely unknown.

Europe: a Market for Eastern Mediterranean Gas?

At this point the question is: could the EU represent an export market for potential Eastern Mediterranean gas exports? As this paper has tried to explicate, because of declining domestic production, EU gas import requirements will continue to grow in the future, independently from the evolution of the EU gas demand. This figure, together with the EU quest to diversify its gas supplies away from the Russian Federation (a political target ultimately confirmed in the first months of 2014, in the aftermath of the Ukrainian crisis), certainly suggest a good market opportunity for Eastern Mediterranean gas in Europe. While a pipeline connecting Israel, Cyprus and Greece (the so-called East-Med pipeline) will unlikely be seriously considered because of a number of commercial and political barriers, Eastern Mediterranean gas (and most notably Israeli gas) could easily be shipped to Europe via LNG at a very competitive cost. This LNG trade would not only be positive for the EU but also for Eastern Mediterranean (current or potential) gas producers as well. In fact, although LNG from the Eastern Mediterranean could technically reach Asian markets, this option would be commercially uncertain because of the high shipping costs and geopolitically vulnerable because of the obligatory transit through the Suez Canal.

For these reasons the EU – together with Turkey – theoretically represents the best export option for Eastern Mediterranean gas. However, in order to convert theory into practice, availability will have to be translated into deliverability.

On the one hand, this signifies that – notwithstanding the current situation of stagnant gas demand – the EU market will need to demonstrate its interest in potential imports from the Eastern Mediterranean.

On the other hand, the Eastern Mediterranean potential gas-exporting countries will need to demonstrate the concrete availability of gas exports. If in the case of Israel this prospect seems to be quite close, in the case of Cyprus this prospect looks very uncertain until additional evidence from the current exploration activities in the island's offshore are provided in 2015-2016.

Asian Markets and the Eastern Mediterranean Gas

By Willy H. Olsen

This paper is based on answering two important questions about the natural gas industry: The first question is: Are we entering the golden age of natural gas?¹ And the second question is: Will Asia be the leading market for gas?

To start with the latter question, Asia is currently the only growing market for gas that counts. Demand for natural gas in Europe is stagnating, even going down. Latin America is a growing market, but a distinctly smaller one than Asia. The United States of America has its own gas from shale and is now preparing to export natural gas.

Therefore, companies that find commercial volumes of natural gas in the Eastern Mediterranean will also have to look to Asia.

As for the first question, we may indeed be entering the golden age of gas because at present there is ample gas available, both as piped gas and as liquefied natural gas (LNG). Besides, more gas is being discovered every day. In recent years, for example, East Africa has made huge gas discoveries, larger than any other region in the world. We are seeing very considerable activity in Tanzania and in Mozambique. As a result, we are seeing Asian buyers knocking on doors, queuing outside the offices of ENI and Anadarko, trying to enter into financial deals and to buy upstream interests in East Africa.

Another promising region is British Columbia, where more than ten LNG projects are on the drawing board, and where Petronas from Malaysia is one of the early movers. Here the major issue concerns the terms investors will have to satisfy.

Then there is Australia, which has more than twenty ongoing LNG projects, several of which will be completed in the period 2014-18. There have been delays because investors have pushed back projects to study the future market outlook. Australia has been struggling to get its cost level down. Yet, Australia is also about to deliver the world's first floating LNG-terminal, Prelude FLNG, which Shell is building. Companies are also studying floating LNG solutions for East Africa.

¹ International Energy Agency (IEA), *World Energy Outlook 2011*, http://www.worldenergyoutlook.org/media/weowebsite/2011/WEO2011_GoldenAgeofGasReport.pdf.

Globally, natural gas might well be the fastest growing major energy source for the next twenty to thirty years, and maybe even beyond. Much of it is likely to be unconventional gas. There is a huge growth in shale gas production in the US. Argentina is attracting more and more companies interested in developing its shale gas potential. China has large but complex-to-extract shale resources and is increasing its efforts to develop that resource base. Now even Russia is looking at shale.

We are also seeing an increasing production of gas from coal. A new major source of natural gas in Australia is coal bed methane, which is found in coalmines. The first deliveries of LNG from coal bed methane are expected in 2014-15.

In the US, with the shale gas boom of recent years, President Obama has made gas a pillar of his energy policy. He is the first American president in fifty years who may see the US become independent of energy imports. For the last fifty years, American presidents have been promising their people that the US would someday become independent of foreign oil and gas. President Obama is the first to experience what it could mean for the US to achieve that.

It should be noted that the huge shale resources in the US are as much about oil as gas. Production of liquids from shale has pushed US oil output to its highest level in 28 years. While in 2005 the US imported 60% of the country's total oil domestic consumption, now it looks as though by 2015 the import level will likely fall to 21% – the lowest since 1968.

This means that all those suppliers of US oil will have to look for markets elsewhere. Nigeria, for example, has been the fifth largest supplier of oil to the US for years. However, it has suddenly discovered that the US no longer needs its oil. So Nigeria, as well as many other producers, will be scouting for new markets.

In the US gas is seen as a bridge to the future because its usage helps to reduce the country's emissions of CO₂. Hence it is hoped that the large gas discoveries will allow more time to develop technologies to lower the cost of alternative technology for renewables.

Before the recent surge in shale gas production in the US, a US Department of Energy study in 2006 concluded that the country would need to import 60 billion cubic metres of gas by 2020. This made every country with gas reserves turn to the US with plans to build gas import terminals there. Angola, Nigeria, Norway and Qatar invested in LNG terminals in the US, because they expected the country to become a major buyer of LNG. Instead they found a country starting to plan for export of LNG to world markets.

Already, in fact, some of the import terminals in the US have now been converted to export terminals, and the first cargoes of American LNG could reach global markets by 2016-2017. Several Asian buyers have entered into agreements to secure US gas.

In the US, meanwhile, the price of gas has collapsed; where it was once at the European level it is now one-third of the European price. Because of this turnaround in the US gas market, Qatar has stopped looking to the US as an importer of its gas. It has realised that it has to turn east; it has to look to Asia for buyers of its LNG. Qatar has the lowest cost LNG in the world.

This situation has led many Americans to ask the following question: “Should the US export its gas or should the low cost gas be used to meet the domestic demand?” Domestic use of the gas could help revitalise the country’s petrochemical industry and thus create more jobs. We have to remember that the shale gas discoveries have already had a major impact on the US economy, producing two million new jobs in addition to the wealth created.

Turning to Russia, it is clear that President Putin would like to have a role in the Asian gas market. He has realised that Russia has been “sleeping” and has not worked hard enough to sell Russian gas to customers in Asia, especially China. Russia has been concentrating far too much on the European market. However, we are now seeing a dramatic shift in Putin’s strategy. He seems determined to secure a place in the Asian gas markets. Putin is going east, which is a huge geopolitical shift in his strategy.²

China, the most populated country in Asia and the world, has an ambitious gas policy. But the Chinese leaders have not been willing to pay the current high Asian price. China can become a major market for imported LNG, but whether it actually will is quite uncertain and depends very much on its getting the price it is prepared to pay. Meanwhile, China will do its utmost to develop its own resource base. It is, for example, the global front-runner in building wind power.

Another important development is that gas has replaced nuclear power in Asia. Japan closed down its nuclear power plants after the 2011 Fukushima disaster. The country has been slow in re-starting its nuclear sector and is using natural gas to replace the nuclear shortfall.

The role of natural gas as an environmentally friendly fuel is a point often emphasized by experts. Natural gas can replace coal, but the problem is that it is more expensive than coal. For this reason many countries continue using coal for energy generation. Even Europe has been turning to American coal rather than using gas.³ Needless to say, this is a step in the wrong direction if we are concerned about the climate change issues. Natural gas is the most attractive fossil fuel if we want to reduce fuel emissions and slow down climate change.

Asia has been an important market for natural gas and it can only grow in importance in the next couple of decades. Japan, South Korea and Taiwan are the main gas (LNG) markets today, and while they will continue to buy large volumes of gas in the future, they will also look at expansion of renewable energy sources. Japan and South Korea will remain among the largest and most important markets for exporters of LNG in Australia, Qatar, East Africa, the US, British Columbia and Russia.

How much gas will Malaysia and Indonesia need to import in the years to come as their own resource bases decline and their demand grows? Both countries are among the first LNG

2 Russia and China signed a major gas agreement in 2014. Gazprom will deliver large gas resources to the Chinese market. Russia will build pipelines from its huge gas fields to the Chinese consumers.

3 Cheap American coal flooded the markets after coal use in the US declined due to the switch to gas and renewables.

exporters in the world. Yet, Indonesia has just converted its first LNG plant into an import terminal for LNG, and Malaysia, while expanding its export terminal capacity, is also building receiving terminals for imported LNG. Petronas, Malaysia's national oil company, is engaged in several gas projects around the world, including Australia, Argentina and British Columbia in Canada.

Thailand and Pakistan are two other Asian markets with potential to grow. Thailand has been a major gas producer for decades, but has recently entered into several contracts to secure more gas for the future.

So we find ourselves asking an important question: "Will India and China become the largest global importers of natural gas in the next decade?"

At present the share of gas in the Chinese energy mix is around 4 per cent, whilst it is around 8 per cent in India. The share of gas in the European energy mix, on the other hand, is around 20 per cent. China and India, the two biggest nations in the world, evidently have a huge potential for gas consumption growth.

The Chinese government has adopted gas as a major part of its energy strategy. It is highly focused on developing its own shale reserves; it has concluded a large gas deal with Russia; and Chinese oil companies are increasingly getting involved in future natural gas production in East Africa and Argentina.

In recent years, China has expanded its gas pipeline capacity across the country. It has built pipelines to access the large gas reserves in Turkmenistan, and has just finished building a gas pipeline to tap into the resources in Myanmar. China prefers piped gas. The deal with Russia is based on gas transported in large pipelines. The Chinese see piped gas as safe and also as a way to build strong relationships.

Chinese domestic supply is likely to grow significantly after 2020, but not fast enough to meet the demand. The share of natural gas in the energy mix is likely to grow, reaching 10-12 per cent over the next ten to fifteen years.

India is still lagging behind. The Indian national oil company, ONGC, is expanding into the global gas industry with investments in East Africa. But India has been slow to develop its own offshore gas resources. Gas pricing has been a major issue that has slowed down development of domestic resources.

On the whole, China's and India's reluctance to pay the price for LNG in Asia, which is higher than in other global regions, have kept them from a fast-track conversion to use of natural gas in the domestic economy.

Finally, let us look at what Cyprus can and should do with its gas discoveries under these circumstances.

Cyprus has high ambitions for development of its deep-water gas discoveries offshore. Since awarding Noble Energy a concession in 2008, the government has awarded more licenses to new oil companies, including ENI and Total. Both are experienced companies with a long track record in developing gas discoveries.

We are likely to see further gas discoveries in the years to come, but development of these resources may take longer than hoped for by the local authorities. Investments in Cyprus will be huge once the discoveries are declared commercially viable, the markets for the gas are identified and contracts are signed with potential buyers.

Cyprus may experience a large inflow of people if the companies go ahead with developing the resources and decide to build a land-based LNG plant in Cyprus for exports to world markets. In the beginning, the country might need as many as seven thousand people involved in the project. In the longer term, however, only a few hundred employees will be required to operate the plant.

We might compare the (potential) situation to that of Angola, which has just put in place its first LNG plant. At the peak of the construction it employed seven thousand people, six thousand of whom were from outside Angola because the country did not have enough skilled labourers. Angolans were mostly involved in logistics, catering and other services.

Is Cyprus ready for this? Cyprus would likely need at least five thousand people from abroad to build the facilities – a population that would leave as soon as the job was done. There would be a need to set up camps for the people arriving to work in the plant's construction, most of whom would likely come from Asian countries.

The major issue in the Eastern Mediterranean region is still the resource base. Exploration activity will grow in the years to come in Cyprus, Lebanon, Turkey and Israel. Egypt has awarded concessions in blocks in deep water close to its maritime border with Cyprus. Although Cyprus has made significant discoveries, more needs to be found if the country is to move ahead with its planned LNG project. Exploratory and appraisal drillings will confirm the resource base, which is a critical factor to consider before making the huge investments in LNG export facilities.

It is also important to bear in mind that the discoveries in Cyprus are not going to supply the cheapest gas in the world. Given the fierce competition among exporters in the gas market, this is a major challenge for Cyprus. Therefore, it is important to think clearly and not to rush into things.

Indeed, management of expectations is critical because the time from exploration success to monetisation of the gas resources can be quite long. From the time gas is discovered it could easily take twenty years for the revenues to start flowing into the government's budget (that is, after the investment costs are paid back). The process involved is really long and arduous, and reducing the expectation levels is an extremely important part of it.

Section 3

HYDROCARBONS AS AN ENABLER FOR ENHANCED DIALOGUE AND RECONCILIATION

Challenging the Peace: Valuable Natural Resources and Peacebuilding

By Siri Aas Rustad, Päivi Lujala and Philippe Le Billon

High-value natural resources have historically been associated with dozens of armed conflicts, millions of deaths and the collapse of several peace processes, and both case studies and statistical evidence confirm that such resources play a role in sparking and fuelling armed civil conflict.¹ According to recent research, between 1970 and 2008 the portion of armed civil conflicts that were in some way related to high-value natural resources ranged from 30-60 per cent each year.²

Why is peace so difficult to achieve and sustain in the presence of these resources? High-value natural resources can directly increase the risk of conflict in a number of ways – when access to revenues motivates or finances belligerent movements, for instance, or when griev-

This is a reprint of an article published in the World Political Review, 6 August 2013, <http://www.worldpoliticsreview.com/authors/1003/siri-aas-rustad>.

- ¹ P. Collier & A. Hoeffler, "Greed and grievance in civil war", Oxford Economic Papers, vol. 56, no. 4, 2004, pp 563–596. I. de Soysa & E. Neumayer, "Resource wealth and the risk of civil war onset: Results from a new dataset on natural resource rents, 1970–99", Conflict Management and Peace Science, vol. 24, no. 3, 2007, pp. 201–218. P. Lujala, "The spoils of nature: Armed civil conflict and rebel access to natural resources", Journal of Peace Research, vol. 47, no. 1, 2010, pp. 15–28. P. Lujala, "Deadly combat over natural resources: Gems, petroleum, drugs, and the severity of armed civil conflict", Journal of Conflict Resolution, vol. 53, no. 1, 2009, pp. 50–71.
- ² P. Lujala & S. A. Rustad, "High-value natural resources: A blessing or a curse for peace?", in High-value natural resources and post-conflict peacebuilding, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012. S.A Rustad & M. Binningsbø, "A price worth fighting for? Natural resources and conflict recurrence", Journal of Peace Research, vol. 49, no. 4, 2012, pp. 531–546.

ances are created by unmet expectations or inequalities in the distribution of revenues, jobs and other benefits. The negative side effects of resource exploitation can also play a direct role. The risk of conflict can be indirectly increased when resource sectors undermine economic performance and the quality of governance institutions. Thus, the three main avenues that lead from natural resources to armed conflict are resource capture, resource-related grievances and adverse effects on the economy and institutions.

In conflict-ridden countries endowed with high-value natural resources such as oil, gemstones, timber and valuable minerals, peace brings high expectations for development and prosperity. When conflict dies down, governments are expected to get mining and exploitation underway to boost the economy and provide incentives for keeping the peace. Done right, managing high-value natural resources can reinforce peace-building objectives by improving livelihoods, creating jobs, rebuilding infrastructure, fostering democratization, strengthening civil society, compensating victims, and supporting disarmament, demobilization and reintegration. Revenue from natural resources can also become an important source of foreign currency for cash-strapped governments, helping them become less dependent on international assistance.

However, valuable natural resources too often make the path to sustainable peace long and hazardous. The promise of a brighter and more peaceful future can be spoiled by deep-rooted corruption and patronage, and by short-sighted management of the resources and the revenues they generate. Sometimes the mere presence of high-value resources can jeopardize peace, if the resources become the focus of violent disputes or if they finance groups that seek to ignite – or resume – armed conflict. The harsh truth is that when it comes to sustaining peace and long-term development, resource-rich countries tend to fare worse than others.³

In recent years several initiatives, both internationally and nationally, have been undertaken to address these issues. The most prominent is the Kimberley Process Certification Scheme (KPCS). The implementation of the KPCS has been facilitated by the collaboration of both governments and non-state actors, including diamond firms, industry associations and non-governmental organizations (NGOs).⁴ The KPCS aims at reducing the trade of conflict diamonds through a global regulatory framework that is supported by stringent national legislation governing the export and import of rough diamonds. A different strategy is the Extractive Industry Transparency Initiative (EITI), which sets a global standard for transparency in the management of oil, gas and mining revenues. The EITI aims at reducing the mistrust that often builds up between the local population, the extractive industry and the host government, particularly surrounding issues related to revenue distribution.⁵

³ Lujala & Rustad, "High-value resources: blessing or curse?"

⁴ J. A. Grant, "The Kimberley Process at ten: Reflections on a decade of efforts to end the trade in conflict diamonds", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012

⁵ E. Rich & T. N. Warner, "Addressing the roots of Liberia's conflict through the Extractive Industries Transparency Initiative", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012.

However, while the KPCS and the EITI address important issues that are relevant to post-conflict environments, there is a long way to go. Improved management of high-value natural resources and the associated revenues is thus fundamental to peace-building. So the question then becomes, what more can be done?

Review contracts to maximize revenues

Contracts and concessions dating from the pre-war and conflict years may be unfair or outdated. Interim and transitional governments may be tempted to grant exploration and exploitation rights – often at cut-rate prices – to reap rents before more accountable governments are established by elections, or to build financial reserves and political power for the upcoming polls. For foreign investors, tempting opportunities and the advantages of being among the first to secure lucrative rights can lead companies to sidestep transparency and corporate social responsibility, or give them lip service only, in order to obtain operating licenses and concessions.⁶

In a chaotic post-conflict environment, managing both existing and new contracts and concessions can be difficult. However, failure to adequately address processes related to exploration, exploitation rights, contracts and concessions can deprive the state of a considerable amount of revenue, fuel corruption, cause unnecessary environmental damage and undermine the state's legitimacy – all of which can undermine post-war economic recovery and general peace-building. Monitoring contracts and concessions to keep track of how much revenue extractive industries generate is essential for ensuring that governments receive a fair share of revenues and that revenues are properly accounted for.

The government needs to review not only existing contracts and concessions, but also the process for granting future contracts and concessions. The review should be based on an agreed-upon set of criteria, such as legality, conditions, benefits to the country and so on. Noncompliant contracts and concessions should be cancelled or renegotiated. Requiring regular audits is a good way to make sure existing contracts are legal and fair. Compliance with this requirement could be monitored through different types of oversight from government agencies, international organizations and businesses.

Several post-conflict governments have reviewed, reassessed and renegotiated resource contracts and concessions, with varying degrees of success. One of the most complex sets of reassessments took place in the Democratic Republic of the Congo (DRC) in 2004 and 2007, but that process failed to bring the desired results because the president did not act on the most important recommendations. In contrast, in Liberia, President Ellen Johnson Sirleaf cancelled all timber concessions in 2006 when a review revealed that not a single concession

⁶ P. Le Billon, "Contract renegotiation and asset recovery in post-conflict settings," in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012.

met the minimum standards for legality. Johnson Sirleaf was also able to renegotiate – and significantly improve – an iron-ore mining contract that had been signed by the transitional government, securing better income and more control over the mine for the government, and better working conditions for the miners.

A review and strengthening of the legal framework, both for managing natural resources and for monitoring and enforcing contractual requirements, may also be needed. This may include training of local law enforcement officials or judicial authorities. It can be in a country's best interests to impose a temporary moratorium on new contracts and concessions until processes that secure negotiations, awards, revenue-sharing and follow-up are in place. Experiences in Liberia and elsewhere illustrate the utility of such temporary moratoriums.⁷ Unfortunately, contract reviews and reappraisals have proved to be slow and contentious processes, as in the case of the DRC. The meagre outcomes of contract reviews can be partly explained by limited expertise and capacity. Other constraints on contract review include asymmetric information, political fragility and outright corruption.

To encourage and support contract reviews, donors and governments should provide review committees with sufficient technical and financial assistance. They should also support domestic nongovernmental organizations and community service organizations, which often play a direct role in monitoring contract negotiation processes and monitoring company operations once contracts have been granted. Another strategy could be for donors to help compensate for potential revenue losses during review and reform periods, especially in the cases when a moratorium is imposed. In the case of Liberia, sanctions on all timber exports, imposed by the U.N. Security Council, helped motivate the country to conduct a review. Johnson Sirleaf, recognizing the importance of timber to the Liberian economy, used her first executive order to cancel all existing timber concessions after the review and then supported the development of a new forestry law, contributing to the lifting of the sanctions.⁸

Assess the resource base and local resource economies

Developing effective recovery policies requires reliable estimates of the resource base and a thorough understanding of the role resources play in local livelihoods. Both policy decisions and public opinion are shaped by the accuracy of this understanding, and reliable estimates of reserves are a prerequisite for negotiations with often better-informed extraction companies. However, a number of factors related to conflict – including the death or flight of staff, illegal or undocumented exploitation and a lapse in surveys – may make such information hard to come by.⁹

⁷ R. Kaul & A. Heuty, *Getting a better deal from the extractive sector: Concession negotiation in Liberia, 2006–2008*, New York: Revenue Watch Institute, 2009.

⁸ Le Billon, "Contract renegotiation and asset recovery".

⁹ P. Lujala, S. A. Rustad & P. Le Billon, "Building or spoiling peace? Lessons from the management of high-value natural resources", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012.

Inaccurate or missing information can put peace and development initiatives at risk. Importantly, not only governments and companies, but also citizens, have high hopes regarding revenues from resource exploitation, and they are likely to be disappointed and aggrieved if their sometimes unrealistic expectations do not materialize. Unrealized expectations may provoke accusations of corruption or failure to adhere to promises made during peace negotiations or the early recovery period, and even if such accusations are unjust, they can exacerbate historical grievances and may destabilize the entire peace process. Collecting and publishing information on the size of the resource base can help to create more realistic expectations among all actors.

A common understanding of the scope and value of resources can help all parties to see clearly what is at stake. One option is to use experts to provide impartial information on the resource base. In 2004, for example, to facilitate the Agreement on Wealth-Sharing between Sudan and South Sudan, experts on oil reserves and oil field development were called in to develop a common understanding on the extent of the oil reserves.¹⁰ Similarly, realistic assessments of resource reserves may help a region seeking autonomy realize that it cannot rely on resource extraction alone as a viable basis for the economy of the new political entity. An accurate assessment of the resource base may also render a central government more willing to grant autonomy, a larger share of resource revenues or both to a region whose resources are relatively small in comparison to those of the nation as a whole, or whose resources are already seriously depleted.

Just as important as assessing the resource base is understanding the local resource economies: resources that have fuelled conflict may also be central to the survival of local communities. The success of any peace-building effort will be measured, in part, against the past and current benefits derived from the local resource economy. In many countries, resource exploitation for the purpose of supporting or providing a livelihood, such as the artisanal mining of minerals, existed before a given conflict began, or developed as a coping strategy during the conflict. In the post-conflict period, these resources can represent employment opportunities and access to hard currency and construction material – for example, from forests – among other things. In the DRC, for example, about 15 per cent of the population depends on artisanal mining for their livelihoods. Similarly, in the Central African Republic, the artisanal diamond sector provides work for between 50,000 and 80,000 people, and almost 15 per cent of the population depends on the sector for survival. Interfering with the extraction of such resources may create new grievances and conflicts.¹¹

¹⁰ A. Wennmann, "Sharing natural resource wealth during war-to-peace transitions", in *High value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad. London: Earthscan, 2012.

¹¹ S. Spittaels & F. Hilgert, "Mapping conflict motives: Central African Republic. Fatal Transactions", International Peace Information Service, 2009, http://reliefweb.int/sites/reliefweb.int/files/resources/3889CF0B221B33268525756300534ED9-Full_Report.pdf.

Nevertheless, because small-scale exploitation of high-value natural resources is often perceived as a source of financing for conflict, livelihood needs are likely to be forgotten in the rush to curtail rebels' or peace spoilers' access to resources. Where exploitation and trade to support livelihoods are the backbone of the local economy, attempts to regulate unofficial or illegal exploitation may severely disturb that economy, causing local populations to view such interference as destructive. It is thus critical, as early in the post-conflict period as possible, to determine how to protect local livelihood opportunities.

In these situations it is important for the international society to be aware of the harm that any conflict-era sanctions or constraints may cause the local population through hindering local livelihood development. For example the Dobb-Frank act prohibiting Wall Street companies from conducting trade in conflict minerals from the DRC has made companies reluctant to trade in minerals in general from the DRC, as it is difficult to know the origin of the minerals. In the conflict-ridden eastern DRC, the local population, which to a large degree depends on artisanal mining, has suffered as a result of this unintended consequence of the act.

Buy peace by allocating revenue

Natural resource revenues are often used to "buy" peace. This can take the form of revenue-sharing, payments and other compensation to ex-rebels in exchange for their laying down arms. But it can also mean providing immediate peace dividends such as clean water, food and other tangible benefits for the population. Natural resource revenues frequently provide incentives to bring warring parties to the negotiating table, whether for the personal interests of belligerents or as part of a broad political agenda seeking to address past grievances, redistribute entitlements to resource sectors, or redefine the regulatory framework of these sectors. An effective agreement on revenue-sharing may facilitate a positive conclusion of peace negotiations, as seen in Aceh, Indonesia, Bougainville in Papua New Guinea, and South Sudan.¹²

There are different ways to allocate resource revenues. The most common way is to set up a system through which the local government receives a set proportion of revenues originating from resource exploitation in its region. Alternatively, local governments may be granted the right to levy taxes directly on the extractive industry, as was the case in Sudan, where the 2005 peace agreement gave the states the right to levy property taxes, royalties and excise taxes – an opportunity that is also enshrined in the post-war Iraqi Constitution adopted in 2005. Direct revenue distribution to people in the form of cash could provide a tangible "peace dividend" for the population and remove the source of conflict where dispute over resource distribution has been a root cause of the conflict.¹³ Revenues may also be used to compensate

¹² Lujala et al, "Building or spoiling peace?"

¹³ M.L. Ross, P. Lujala, and S. A. Rustad, "Horizontal inequality, decentralizing the distribution of natural resource revenues, and peace", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012.

groups or regions that have disproportionately suffered prior to the conflict or during it. The 2005 Iraqi Constitution, for example, recognizes the need to compensate those ethnic and religious groups that suffered systematic abuse under Saddam Hussein's regime.¹⁴

In practice, setting up a revenue disbursement system often means balancing between the requests set forward by the producing regions and the needs of the country as a whole, since large transfers to the producing regions may undermine national development in the absence of alternative revenues. It also often entails balancing between long-term development needs and more immediate needs such as healthcare, sanitation and nutrition, which are often paramount in the early peace-building phase.

Coordinate and sequence institution building

Because high-value natural resource management engages so many actors, often with differing agendas, priorities and definitions of best practice, coordination is essential to avoid unintended outcomes. For example, in September 2010, President Joseph Kabila banned artisanal mining in eastern DRC; this took the Ministry of Mines by surprise and disrupted a minerals traceability pilot project that was being conducted by the International Tin Research Institute.¹⁵ Coordination is required not only among domestic authorities, NGOs, community service organizations, peacekeeping missions and foreign aid agencies, but must also include domestic and international private sector entities.

When coordination fails, the best-intended projects may undermine each other. For example, sanctions and drastic regulations can help prevent peace spoilers from gaining access to resource revenues, but they can also undermine economic recovery and local livelihoods. Similarly, foreign direct investment may help boost the economy, but its positive effects may be blunted in the absence of effective management institutions, support from local communities and fairly negotiated contracts.

In addition to coordinating the activities of various actors, it is also necessary to properly time and sequence management strategies so that they support and build on each other. For example, resource sector management can draw on general governmental capacity building. Alternatively, as in Liberia, reforms in the natural resource sector may provide a model for reform in other sectors and non-resource-related governmental institutions.¹⁶

Robust institutions are the backbone of resource management and of peace-building. Institution building is difficult under any circumstances, but in post-conflict countries it can

¹⁴ M. Al Moumin, "The high cost of ambiguity: Conflict, violence, and the legal framework for managing oil in Iraq", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012

¹⁵ Economist Intelligence Unit, *Report on the Democratic Republic of Congo*, London, 2012

¹⁶ S. L. Altman, S. S. Nichols & J. T. Woods, "Leveraging high-value natural resources to restore the rule of law: The role of the Liberia Forest Initiative in Liberia's transition to stability", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012.

seem like an impossible task. Some scholars have observed that implementing peace-building tasks is inherently difficult. Specifically, what must be done in the short term to create peace may become a long-term hindrance to economic development and institution building. When it comes to implementing institution-building initiatives, the decision to take a long-term view may be accompanied by the notion that institution building cannot, or should not, be prioritized in the short term, but should instead be addressed once peace is more firmly established. It is important to realize, however, that institution building is a long-term process because it requires a great deal of time, not because it can be postponed to meet the more immediate goal of consolidating peace.

Failure to take immediate action on long-term goals risks missing the window of opportunity that opens immediately after the end of conflict, when the regime is weak and outside leverage is greatest. This is a particular concern in resource-rich countries, in which governments may be able to rely on resource revenues relatively quickly, once conflict ends, and where the goal of consolidating power, in order to acquire control over natural resources and the associated revenues, is often high on the agenda.¹⁷

Ideally, institution building should precede resource exploitation. Unfortunately, donor nations and international agencies often fail to perceive the need to consolidate institutions until contracts have already been signed. Even when preventive interventions take place, they may be too slow in relation to the rapid pace of resource project development. This was the case in Chad, where a pipeline and oil fields were developed ahead of schedule, but institutional capacity-building was delayed. Thus, in most cases, a strong regulatory framework should be set up as early as possible, when transparency, participation by civil society and donor leverage are at their height, and the political field is open.¹⁸

Final remarks

Resource management initiatives in post-conflict countries must take into account a number of factors, including the type of resources involved; past, current and potential future linkages with conflict; both regional and international dynamics and trade patterns; institutional quality and capacity with respect to resource management; and conditions that may have shaped resource management in the past. For example, where pre-conflict patronage systems and

¹⁷ A. K. Jarstad, "Dilemmas of war-to-democracy transitions: Theories and concepts", in *War to democracy: Dilemmas of peacebuilding*, ed. A. K. Jarstad and T. Sisk, Cambridge, UK: Cambridge University Press, 2008. T. Sisk, "Sustaining peace: Renegotiating postwar settlements", in *Strengthening peace in post-civil war states: Transforming spoilers into stakeholders*, ed. M. Hoddie and C. A. Hartzell, Chicago: University of Chicago Press, 2010.

¹⁸ J. A. Gould & M. S. Winters, "Petroleum blues: The political economy of resources and conflict in Chad", in *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad, London: Earthscan, 2012. S. Pegg, "Chronicle of a death foretold: The collapse of the Chad-Cameroon pipeline project", *African Affairs* vol. 108, no. 431, pp. 311–320.

customary rules still exert strong influence, they should be attended to. Similarly, institutional capacity may limit the types of approaches that can be adopted; there may be little point, for instance, in putting time, money and effort into comprehensive contract reviews when the political will to act on the results is lacking.

Most importantly, decisions about how to improve the management of high-value natural resources in post-conflict settings require, first and foremost, thorough knowledge of the context, including the limitations of institutional capacity and political will. Only then is it possible to choose the appropriate strategies, determine how they will be implemented and assign them priority within the overall post-conflict peace-building process.

Where There is a Will There is a Way: Regional Cooperation on Hydrocarbon Development in the Eastern Mediterranean

By David Koranyi

Cyprus can be characterised as the land of missed opportunities, and by a deep-seated victimhood mentality similar to that in Eastern Europe and especially Hungary, my home country. This enables me to relate to some of the more gloomy analyses regarding the prospects for cooperation and reconciliation in the Eastern Mediterranean. What I will try to do in this paper, however, is to strike a balance between my pessimistic Hungarian upbringing and my optimistic Americanised think-tank approach to seek a sensible middle ground.

On the one hand, I fully sympathise with all the difficulties and challenges that are often pointed out by observers of this region.¹ The challenges are indeed daunting, for both historical and political reasons. On the other hand, what I take away from the analyses of many experts, as well as from numerous discussions in which I have participated on this very issue, is that there is a unique alignment of interests in the region that should not be overlooked. There is a gas-hungry Turkey, a country with a dynamic and growing economy.² There is the growing need of the European Union for imported gas in the medium and long term.³ Cyprus is financially insolvent, hence it needs to monetize its resources as soon as possible. And Israel needs multiple export options. Therefore, I believe that the opportunities are too good to be missed and I also believe that the foundations for win-win solutions are there to build on.

With all this in mind, let me make some observations on the East Mediterranean energy development from a geostrategic point of view as well as in the context of changes in the global energy markets.

1 These were also enumerated by some of the panellists at the 14 November 2013 PRIO Cyprus Centre conference on East Mediterranean Hydrocarbons, where an earlier version of this paper was read.

2 See K. Kirişçi, "Can the Prospect of East Mediterranean Gas Make Turkey Rethink Its Cyprus Policy?" in this volume.

3 See S. Tagliapietra, "Europe: A Market for Eastern Mediterranean Gas?" in this volume.

First, from a geostrategic perspective, resources found so far in the East Mediterranean are not that significant. In fact, as regards their potential impact on the global natural gas markets, they are, so far at least, rather small, compared, for example, with the recent discoveries in East Africa, like offshore Mozambique.⁴ This is something we should bear in mind. But that also means that, by definition, the proportional impact of these resources could be much larger locally and regionally. Conversely, if the actors involved do not manage to build on the regional synergies, the opportunity cost would be very high in a commercial sense and, even more so, in a political sense.

A second key point is that the commercial window of opportunity is rather narrow in terms of exploiting these synergies in an optimal way. That doesn't mean that these resources will not be developed later on, but all signals point to the direction that the earlier the actors cooperate the more they would be able to capitalize on these resources.

In other words, from a commercial perspective, time is of the essence. The reasons for this are numerous, but let me cite just a few. On the demand side, although there are many uncertainties about the regional and European markets, it is clear that Europe will remain a major importer of gas, with supply diversification as a priority for the foreseeable future. On the supply side though, there will be, in all likelihood, an increasing competition approaching the end of this decade and especially the first half of the next decade. Gas from various sources will become available for Turkey as well as the European Union: from multiple fields in Azerbaijan⁵ and possibly also from Turkmenistan.⁶ Many uncertainties exist around the latter, especially as far as the timeline and the feasibility of a Trans-Caspian pipeline is concerned, but it is certain that there will be additional quantities from the Caspian. Iraq, especially Northern Iraq, also has a resource base that could be in competition with the East Mediterranean for the European market. Conditional on the resolution of the nuclear dossier, Iran could become another major producer and exporter of gas as early as the second half of this decade.⁷

As regards export options from the East Mediterranean, a floating Liquefied Natural Gas solution seems increasingly commercially viable as time passes. Until recently this option tended to be dismissed by many experts as untested, uncharted technology, hence too expensive. But over time it will surely become commercially more viable. FLNG could be an attractive solution because it can be implemented without having to deal with the complex geopolitical challenges. From a political perspective, however, this would represent a lost opportunity, because it would have little impact in terms of enhancing regional political reconciliation and cooperation. Moreover, FLNG would not produce many of the wider economic benefits associated with onshore LNG or pipelines, e.g., through job creation and wealth generation for the local economies.

4 See W. Olsen, "Eastern Mediterranean gas: will Asia be the market?" in this volume and Tagliapietra.

5 See Shah Deniz, http://www.bp.com/en_az/caspian/operationsprojects/Shahdeniz.html.

6 See D. Koranyi, "The Southern Gas Corridor: Europe's Lifeline?", IAI Working Papers 14-7, April 2014, <http://www.iai.it/pdf/DocIAI/iaiw1407.pdf>.

7 See Tagliapietra.

Another important dimension concerns the political room for manoeuvre of the key players in the region, local as well as external. In the region, the Turkish election cycle of 2014 resulted in Recep Tayyip Erdoğan's accession from prime minister to head of state, from where he is expected to continue ruling Turkey as the ultimate decision-maker. Political relations between Israel and Turkey have yet to recover, and the Cyprus settlement negotiations must start moving forward in earnest.

Moreover, the ability and willingness of the European Union and the United States to press for the resolution of political disputes that hinder energy cooperation in the region is far from clear. In relation to the EU, there are serious limitations as regards its institutional capabilities in the area of external energy relations. For example, in the European External Action Service,⁸ which is a pretty new institution in itself, approximately one and a half persons deal with external energy security issues at the moment. In the European Commission's Directorate-General for Energy there are many more personnel with extensive expertise and experience. But internal coordination within the European Commission over external energy issues is abysmal, at least so far. This situation seriously limits what the EU can do. In addition, the EU is perceived as a biased actor in the context of the Cyprus peace process, because the Republic of Cyprus is one of its member states. That limits its overall ability to act as an honest and efficient broker in the East Mediterranean energy conundrum.

The US, in contrast, has been very active in that space. Yet, Washington is bogged down with so many other – from its own perspective, more pressing – crises, such as Ukraine, Iran, Iraq/Syria and so on. There is also an inherent caution – that some describe as a lack of ambition – in the actions of the US, which tends to focus more on keeping tensions at bay and avoiding any flare-ups in the region as opposed to actually putting bold and concrete proposals on the table. While one could argue that this is true in the Turkey-Cyprus-Israel triangle, the US has been critical in engineering a breakthrough in the Israeli-Jordanian energy relationship and is well on course to do the same in the Israeli-Egyptian dimension.

In summary: it is essential that political vision and leadership come from within the region; but these will then have to be supported and nurtured by the two critical outside actors, the US and the European Union, as both Washington and Brussels have vested interests in finding win-win solutions in the energy realm with positive spill-over effects on long-frozen regional conflicts. As the saying goes, "where there is a will there is a way". There are plenty of bold and visionary ideas originating from the region's commercial and political players.⁹ We should urgently seize upon the momentum.

⁸ See http://eeas.europa.eu/background/index_en.htm.

⁹ See for example, Matthew Bryza, "Israel-Turkey Pipeline Can Fix Eastern Mediterranean", Bloomberg View, 20 January 2014, <http://www.bloombergvew.com/articles/2014-01-20/israel-turkey-pipeline-can-fix-eastern-mediterranean>.

Natural Gas and the Republic of Cyprus: Thoughts from an Immediate Fiscal Perspective

By Alexander Apostolides

Given the March 2013 bail-out of the Republic of Cyprus and bail-in of the two largest banks of the island, it is important to give a fiscal perspective on the discovery of natural gas in Cyprus. However other issues do remain, including the impact of the gas find in the current efforts for re-unification.

Current fiscal issues and how they relate to the gas find

The current financial situation of the Republic of Cyprus has collateral consequences on the discovery of the natural gas. The Republic of Cyprus has recently undergone a bail-in of its banking system to the tune of 9.4 billion euros, an amount that represents over 50% of its gross domestic product (GDP). The elimination of wealth through the deposit haircut, in combination with the general malaise of the Cypriot banking system as expressed by the growth of non-performing loans, means that the local financial institutions can have only minimal involvement in any large infrastructure projects related to the natural gas. Financing will have to be secured primarily through international markets and foreign investors with active interest in the field of energy. Although this situation occurs frequently in resource rich nations that are not highly developed, this is unusual for Cyprus; in the summer of 2010 the Cypriot banking system held over 240 billion euros in deposits.

Thus the collapse of the banking system has removed the possibility of the majority of infrastructure financing coming from local stakeholders. This is important because the need for international investors, combined with the government's lack of resources, puts the Republic of Cyprus in a weak bargaining position in terms of negotiations with companies for the devel-

I would like to thank Ayla Gürel and most of all Fiona Mullen, whose help, patience and hard work allowed me to contribute to this edition.

opment of natural gas finds. The weakened bargaining power of the government is reduced even further by its very limited ability to borrow from international markets at sustainable rates (and hence the need for a bail-out in 2013). This means it is highly unlikely that the Republic of Cyprus would contribute to any financing of the export infrastructure for the gas find.

At the same time, the economic situation has created an urgency to convert the gas find into a revenue stream. The decline in the economy has not been as severe as expected despite the calamitous consequences of the bail-in and closure of the banking system for twelve days (a world record), but the 5.4 per cent decline of GDP in 2013 makes Cyprus one of the worst economic performers globally.¹ The Republic of Cyprus (RoC or Republic) is experiencing unprecedented unemployment of over 16 per cent, with a substantial youth unemployment component (over 35 per cent). This is serious since, as a nation with historically low unemployment, the Republic of Cyprus simply does not have the infrastructure or know-how to retrain people and bring them back into employment.

Natural gas is therefore seen as a potential pillar of economic recovery, both in terms of income and in terms of employment, yet it is still unclear if there is a unified strategy as to how the natural resources will help the RoC achieve this aim. There has been an effort to undertake research and understand priorities, but not in any systematic way: it is not an effort that is led by a minister or a body which can convert suggestions to effective policy. The Human Resources Development Authority of Cyprus recently published an estimate on the employment possibilities that could derive from the gas resources, and found them ranging from 240 jobs at the exploration stage (of which a very limited number is for Cypriots) to 4,400 at the peak of infrastructure development and creation of a transmission system.²

It is natural for the public to see the gas as a way out of the current fiscal difficulties of the Republic of Cyprus. Government fiscal restraints are severe: until early 2014 the Republic was excluded from borrowing in international markets; it has since issued local and international sovereign rate, yet its ability to do so again is put to risk by global credit developments. Its international borrowing through its bail-out program has stalled in the fourth quarter of 2014. This emphasised that even successful sovereign borrowing in international markets was premised by the fact that the RoC was in a strict bailout programme. Despite over-achieving fiscal targets imposed by the bail-out, the 2014 anticipated budget deficit is very high (at over 5 per cent of the GDP). The RoC finances are in a positive correcting path, but are far from healthy. Even if the RoC finances were in better shape, the imposition of strict fiscal discipline of the new European Fiscal Compact will limit the ability of the Government to borrow to finance natural gas projects for the foreseeable future as the economy is small and the projects are large, triggering fiscal “red flags”.

¹ A. Apostolides, “Beware of German gifts near elections: how Cyprus got here and why it is currently more out than in the Eurozone”, *Capital Markets Law Journal*, July 2013, vol. 8, no. 3, pp. 300-318.

² Human Resource Development Authority of Cyprus [HRDA – Αρχή Ανάπτυξης Ανθρώπινου Δυναμικού Κύπρου], “Έγκαιρος Εντοπισμός Αναγκών Απασχόλησης και Κατάρτισης για Αποτελεσματική Διαχείριση του Φυσικού Αερίου στην Κύπρο”, 2014, as accessed 29th November 2014
<http://www.hrdauth.org.cy/images/assetfile/UtilizationOfNaturalGas0001.pdf>

All these issues make the public finances very tight, and quite inflexible. Yet the bail-out program cannot account for all future expected income needs for the government. As a result the government has granted numerous prospecting licences (such as the licence granted in 2014 to TOTAL) in the exclusive economic area. The revenue that resulted from licensing gave the government some flexibility in funding current expenditure or covering unexpected liabilities (such as the honouring of government guarantees).

Within the bail-out program of the Republic, there is a realistic assessment (others would say far too pessimistic) on the time-frame for converting the natural gas find into revenue for the state: in terms of the RoC repayment of the IMF-EU loans, gas revenue is not a factor. The reasons for this are vague, and here I can propose different (which can be at times conflicting) hypotheses. Either the bail-out partners – the European Stability Mechanism (ESM) and International Monetary Fund (IMF) – consider that monetization of the gas resources will not take place until after 2035, by which time the Republic will have already repaid its debt to them; or the IMF/ESM felt it is impossible to predict when such revenue stream will be in place, and thus they have excluded it from the debt repayment schedule. A third possible explanation is that the RoC refused to link the future gas revenue to the bail-out package, as such a linkage would have been perceived politically as “surrendering the gas” to international creditors and as a sign of lessened national sovereignty, and thus would have been open to criticism by the nationalist media. For whatever reason, the removal of possible gas revenue from the fiscal calculations is very positive for the Cyprus peace talks, as there is no set date for when the gas find will be commercially exploited.

We must give credit to the RoC for resisting demands to leverage the gas find in order to secure better international financing in 2013-2014, as well as using the gas find as a way of compensating those affected by the decision to bail-in Cypriot banks. The government was under intense pressure to compensate those whose deposits were bailed in with eventual gas revenues; at the same time the Ministry of Finance refused to pledge future gas revenues when issuing new international debt. This gives the government time to decide how best to use the discovery. Others claimed that the lack of using gas-backed sovereign bonds led to the Republic borrowing internationally at relatively high cost, but the lack of borrowing on gas-backed sovereign bonds preserves the independence of action to the Republic of Cyprus.

The resistance to “cashing-in” the gas find today is in part due to calculations regarding the net present value vis-à-vis its future possible benefit: any granting of future rights to the revenue stream today will come at an opportunity cost of lower gas-related revenue for the government in the future. At the same time, leveraging the gas today could lead to legal complications with the international lenders of the RoC. This is because the ESM and the IMF granted loans to the Republic of Cyprus on two conditions:

- a) Strict adherence to the bail-out programme reforms and fiscal targets
- b) ESM and IMF are granted super senior repayment status, whereby their loans will be the first to be repaid relative to all other creditors of the Republic.

The condition of the “super senior” priority status for ESM and IMF loans can lead to complications if the Republic decides to issue sovereign bonds that promise a share of the revenue in the future when gas revenues come on stream. The agreement with the ESM and the IMF forbids the Republic from extending to new creditors special terms that were not offered to prior creditors. As a result both the ESM and the IMF, but also possibly the other international lenders who purchased the Euro Medium Term Note (EMTN) sovereign paper of the Republic, could claim part of the gas revenue if the Republic decided to monetize the future gas revenues through a new gas-backed sovereign bond. Cypriot EMTN paper includes negative pledge clauses that prohibit the borrower from pledging any of its assets, if doing so gives the lenders less security. Thus the RoC’s decision not to leverage the gas find makes sense from a long-term fiscal perspective, and minimises the influence of international lenders on the decisions about how and when to exploit the gas.

On top of that, the restructured terms of the 2.5 billion euro loan that the RoC secured from the Russian Federation has not been disclosed. If there is a *pari-passu* clause that places Russia on equal footing with the ESM and the IMF, then any issuing of gas-backed bonds could lead to the need to extend such revenue to the Russian Republic as well as the IMF and the ESM, greatly reducing the attractiveness of any gas backed sovereign bond for the international credit market. Thus any issuing of gas-backed bonds by the Republic of Cyprus, or even perhaps a forward sale of future gas revenue, could lead to legal complications were the revenue to end up in the hands of existing creditors rather than going to the government.

This, however, is an over-simplification of the options available to a nation that decides to use future revenues to borrow for infrastructure development. There are legal ways through which the Republic could try to circumvent the above problems, from issuing bonds of a private company fully owned by the state that will be in charge of the infrastructure (a soft approach), to the hard approach of challenging in court the legality of the above. In this way the RoC could avoid legal complications with the ESM, IMF, the Russian Federation and other international creditors. Yet it is felt that the political cost of such decisions makes an early exploitation of future gas finds too pricy for the RoC.

To summarize, the Ministry of Finance has resisted all of the suggestion to sell future gas revenues in order to be financed today, despite the RoC being in a severe fiscal situation: it has wisely decided not to transform the future revenue into current debt. This allows the president of the RoC to remain in control of the decisions relative to the gas find. This has collateral positive effects in terms of re-unification under a settlement, as the prevention of entry of additional actors (international creditors) into the issue of natural resource sharing can only be seen as a very positive move.

The delay in taking definitive decisions about how to send the gas to the market (or even about which markets are to be preferred) has led to a paradox. The Republic is very eager to have revenue streams from its natural resources, especially during the period 2016-2018, which will be the peak period of debt repayment and when the need for growth enhancing polices will be critical due to upcoming elections. At the same time, however, the government

is avoiding steps that would tie it up in the future exploitation of the gas; and moreover, acting conservatively, it has created a medium-term financing plan that excludes gas revenues. This somewhat paradoxical situation cannot continue, and it only exists due to the lack of a central agency or actor to plan the policy direction in a comprehensive and coherent way. It is only hoped that when a policy direction is determined, the decisions made will not have negative repercussions on the negotiations to re-unify Cyprus.

Future of Cyprus and the gas find: focus on lower electricity costs

As regards the economic benefits of natural gas, its exploitation even just for the local economy can only be good. I will not talk about the aspects discussed above (revenue and employment), but will highlight the positive effect it will have on electricity generation, especially regarding prices. Electricity, as a general-purpose technology, affects all sectors of the economy. The sudden increase in electricity prices after the Mari explosion in 2011 decimated start-ups and small and medium size enterprises; this was reflected in the first real jump in unemployment, which occurred soon after the explosion. Even today, the price of electricity in Cyprus is among the highest, if not the highest, in Europe, and this is holding back growth and employment and it reduces the rate of new start-ups. Given that the price of electricity is indexed (by at least 50 per cent) to the price of the expensive heavy fuel oil and diesel that are used to generate electricity, the use of natural gas in electricity generation can benefit all sectors of the economy through cheaper electricity prices. This is not theoretical: in the USA, the current relocation of its manufacturing from China back to its own soil is in part due to the reduction in electricity and energy costs in the US as a result of its shale gas discoveries and exploitation.

In Cyprus even in service-oriented export industries such as the hotel and restaurant sector, the cost of energy is close to 8-10 per cent of the total expenditure (once you factor in the indirect costs of energy). Thus a 50 per cent reduction in electricity prices can reduce costs to the hotel and restaurant sector by 4 per cent, enabling the sector to gain competitive advantages without reducing employee wages. In terms of a solution/peace perspective, cheaper electricity might bring greater direct benefit to the Turkish and Greek communities as the growth in business and job opportunities that will result from lower electricity costs far outweigh the fiscal revenue that the government will receive.

Gas and solution: a poisoned chalice?

Can gas act as a catalyst for a Cyprus solution? Economic history is very pessimistic on this. It has been argued that the existence of natural resources, combined with an increase in prices of such resources, can lead to a greater possibility of conflict and civil war as groups try to dominate the revenue and wealth that such resources can give.³

³ T.J. Besley and T. Persson, "The Incidence of Civil War: Theory and Evidence," NBER Working Papers 14585, National Bureau of Economic Research, Inc., 2008; and T.J. Besley and T. Persson, "Repression or Civil War?," *American Economic Review*, vol. 99, no. 2, May 2009, pp. 292-297.

Sadly, I share the view that the discovery of natural gas cannot help to foster peace and reconciliation. In 1960, when the Republic of Cyprus was founded, the two communities agreed on almost everything except taxation and how such revenue would be shared. Then in 1963, although there were also many problems related to nationalism, the Republic broke down precisely over the question of how tax revenue was going to be divided between the two communities. In the unification negotiations that started in 2008, there was great progress on technical economic matters, but the issue of revenue sharing was not agreed. We have to bear this in mind, and also that the two communities have a negative track record as regards showing ability to find peaceful ways to share revenue. That being said, this does not mean that a correctly structured agreement would not allow the gas revenue to act as a unifying force: gas revenues, when they occur, could provide initial capital for rebuilding the social infrastructure for unification, as well as the initial capital to create the federal government superstructure.

The devil is in the detail and, unfortunately, the way that revenue sharing has been discussed until now (especially in the period 1960-1963) has tended to deepen divisions rather than build bridges of understanding. I predict that the gas revenue issue might create an additional stumbling block in the Cyprus peace negotiations.

However, if the negotiations are concluded successfully, then the natural gas revenue can be a huge catalyst for peace, ensuring that the political solution will proceed as agreed. In a recent report,⁴ it was observed that any type of unification solution will need an initial monetary boost for the first two years, when the peace dividend is not large enough to generate revenues for rebuilding. Here the natural gas revenue would be a very positive development. If gas revenues can help to ensure that all buildings, houses and utilities are there on the time-frame agreed in the solution, this will prevent any unravelling of a political solution to the Cyprus problem. It is estimated that after the first two years in the implementation of a solution the peace dividend generated will be high enough so that post-solution reconstruction initiatives can be funded jointly by the private and government sector. Gas revenues, however, can help provide the capital needed during those crucial initial years of unification.

Can we keep the natural resources out of politics?

The future of natural gas resources, in terms of its exploitation and its role in the Cyprus problem, is becoming increasingly political. Despite the ever-growing economic interdependence of the Greek Cypriot and the Turkish Cypriot communities since 2003, the discovery of offshore natural gas has led to nationalist positions on both sides that make a gas revenue sharing agreement difficult. Any such agreement can easily be portrayed as a "betrayal" of the potential unilateral exploitation, which will be difficult for any Greek Cypriot politician to

⁴ F. Mullen, A. Apostolides and M. Besim, *The Cyprus Peace Dividend Revisited: A Productivity and Sectoral Approach*, PRIO Cyprus Centre, Nicosia, 2013, <http://cyprus.prio.org/Publications/Publication/?x=1179>.

counter. To address this problem, my suggestion is that any unification solution includes clear provisions in terms of gas resources development, export and revenue sharing, so that the benefits (from faster gas exploitation and good prices for the Cypriot gas) are clear. This could potentially counter the suggestion that a unilateral exploitation (that would delay exploitation) would be better for the Greek-Cypriot community.

It is important to see that when politics is removed from utility projects, bi-communal cooperation exists even without a political settlement. It is often forgotten that the two communities on the island have a history of working together (or at least in parallel, with strong cooperation on information and best practice) on infrastructure projects such as the Nicosia Master Plan (that aims to maintain the city infrastructure) and sewerage and other utility projects. Such projects, however, have been sporadic (i.e., not part of policy of either community) and on a much smaller scale than anything that natural gas would need in terms of infrastructure.

In conclusion, in the event of a solution the possibility of a unified natural gas pipeline is something that is feasible. However it is increasingly clear that natural gas, as a strategic commodity, has deep political connotations; hence, it can only be considered jointly by the two communities after a political settlement to the Cyprus problem. However, at this stage it is important to convey to both communities that political disagreements still remain the largest stumbling block – and not just for the exploitation of natural resources by and for the benefit of both communities, but, I would argue, also for current exploitation by the Republic of Cyprus, as the on-going division of Cyprus keeps the exploitation of the natural gas resources hostage to delays.

The Cyprus Problem Trumps Cyprus Hydrocarbons

By Hugh Pope

At first, many Cypriots felt the discovery of hydrocarbons was like winning a lottery. The reports of natural gas deposits quickly acquired many qualities, above all an apparent ability to free Cyprus from the country's special law of gravity: the five-decade-old Cyprus problem. Greek Cypriots dreamed of a powerful new resource that would give them a strong new card in all matters. Turkish Cypriots thought that their share of any natural gas income could help fund their obligations to Greek Cypriots in the big property compensation package that will have to be part of any Cyprus settlement.

However, as it turned out, the Cyprus problem and the development of hydrocarbons in Cypriot territorial waters are inextricably linked. Indeed, any exploitation of this potential wealth looks increasingly bound to a three-phase vicious circle similar to the one through which the Cyprus problem circulates.

The phases of the cycle are simple: the first is the one where everything seems completely stuck with no solution in sight; the second where an event triggers a sense of real hope in an imminent resolution, often with much attendant fanfare; the third where that hope grows old but optimists set out lists of steps that would restore hope. And then it's back to phase one again.

In 2007, when I began working on the Cyprus problem for the International Crisis Group, efforts to resolve it appeared completely stalled. The excitement that preceded the Annan Plan in 2004 had given way to a deep despondency. There was no enthusiasm and very few conferences. The title of ICG's January 2008 report therefore signalled gloom: "Cyprus: Reversing the Drift to Partition".

In February 2008, however, the unexpected election of Demetris Christofias gave hope that there could be a breakthrough, mostly because he seemed so ideologically aligned with his Turkish Cypriot counterpart. The title of ICG's new report reflected the change of mood: "Reunifying Cyprus: the Best Chance Yet".

Christofias proved a disappointment, however. As early as 2009, ICG's optimism had faded, as evidenced in a report entitled "Cyprus: Reunification or Partition?" In 2010, the Turkish

Cypriots showed their own preferences by electing as president someone entirely associated with a two-state settlement on the island. Phase three had arrived, and only long-term optimists took time to consider the unilateral confidence-building measures suggested in Crisis Group's 2011 paper: "Six Steps Towards a Settlement", including the new idea of cross-talks between Greek Cypriot and Turkish Cypriot chief negotiators in Ankara and Athens, respectively.

By late 2013, things had come full circle back to phase one: the Greek Cypriot side said talks were in progress but they were pessimistic; the Turkish Cypriot side said there were no talks, but they voiced optimism. Nothing stays still, and the UN-facilitated negotiations on a settlement resumed in February 2014, importantly accompanied by one round of those cross-talks. But this time phase two was weak and enthusiasm on the island was almost entirely lacking. In March 2014, Crisis Group went so far as to suggest in a report that the whole goal of the talks should be changed to an island reunified within the European Union, but with two independent states, the Republic of Cyprus and a Turkish Cypriot republic. Phase three beckons.

The phases of the Cyprus hydrocarbon story are out of synch with those of the Cyprus problem, but seem to be following the same pattern. Until 2011, few were aware of the possibility of hydrocarbon riches for Cyprus. Then in December of that year, operator Noble Energy announced a "significant" find with a with a gross mean potential reserve volume of 7 trillion cubic feet. The idea of commercial exploitation quickly raised hopes, not just in new future prosperity but that gas riches would help the Cyprus problem too. Crisis Group followed the trend with an April 2012 report "Aphrodite's Gift: Can Cypriot Gas Power a New Dialogue?"

Interest in how the natural gas would be developed hit a phase two peak of optimism in 2013. In the autumn of that year, there were three different conferences on three days on the island, one a commercial one organized by the same company that had led the way in opening up Central Asia's new oil possibilities to Western oil companies, one organized by the island's Liberal Democrat Party and one held by the Peace Research Institute-Oslo (PRIO) Cyprus Centre.

The linkage to the Cyprus problem was not slow in asserting itself, however. Greek Cypriots had proceeded unilaterally, arrogating to themselves the right to take action in the name of the whole island. Turkish Cypriots began demanding that at least there should be a working group within the Cyprus settlement talks on the issue if they were indeed to be politically equal partners in a future state. Turkey began making threats, signed new boundary arrangements with the Turkish Cypriots, and initiated its own hydrocarbon exploration, moving naval ships not far from where the oil companies were working. Greece stayed aloof, implausibly offering its territory as an independent export route, even though it is unlikely Ankara will settle its chronic quarrel with Athens over Aegean Sea maritime boundaries until there is a settlement of the Cyprus problem – and thus also of the many complications of Cyprus-Turkey-Greece boundaries in the Eastern Mediterranean.

Of course, an undersea pipeline with natural gas from the East Mediterranean would solve one of Turkey's energy quandaries: an alternative to its overwhelming reliance on Russian gas imports. Hopes did rise that joint profits from the gas would be an attractive prize for the

Cypriot and Turkish leaderships, if they could only learn to trust each other. However, working together on natural gas seems as snookered as the other “win-win” white elephants of the Cyprus negotiations, for instance, in various combinations, the return to its mainly Greek Cypriot owners of the Turkish-occupied ghost resort of Varosha/Marash near Famagusta; the Greek Cypriot-blocked Direct Trade issue of tax-free access to European markets for Turkish Cypriots; the international legalisation of the Turkish Cypriots’ busy Ercan airport; Ankara’s long-delayed ratification of the ‘Additional Protocol’ that would extend Turkey’s EU customs union with Nicosia, and so on. Much has already got better over the last thirty years in Cyprus, as creeping normalisation slowly breaks down barriers to progress. But it became increasingly clear that Ankara was far more focused on the hopes of cheaper alternative gas supplies from northern Iraq. Turkish policy makers were simply unable to believe that the Cyprus problem could be settled and that this energy route could work. Indeed, there are few in Ankara who believe it is worth spending any time on more than symbolic statements about Cyprus.

The one big difference between the Cyprus problem and Cyprus hydrocarbons is the involvement of Israel in the East Mediterranean natural gas story, as the country that has so far proven to have by the far the most natural gas in its territory. Israel’s presence is not necessarily a plus, given the anti-Israel populism often brandished by the AK Party government in Turkey. But it does bring up the positive possibility of natural gas development forging a new network of interest between Israel, Cyprus, Turkey, and even Greece. Theoretically, this could anchor the southeastern edge of Europe and build a dynamic of peaceful economic cooperation in a region which is absolutely chronically unstable. It also gives Israel a chance to present itself as a peace maker.

However, even in 2013 there were signs that the hydrocarbon story was moving into the stalemate of phase three. The difficulties began to mount: the lack of Cypriot experience; the total focus on an LNG plant, which seemed economically beyond the country’s means; increasingly entrenched unilateral approaches in Nicosia and Ankara. Israel has started looking more serious about alternatives that mostly exclude Cyprus and Turkey – even through a pipeline to Turkey would be cheaper, safer, more profitable and geo-strategically more desirable. All that has been missing so far from the hydrocarbon narrative is the classic Cyprus problem op-ed: *Has the Last Chance Been Missed?*

Of course, the main missed opportunity for Cyprus remains the failure to resolve the Cyprus problem, which holds back its development on all fronts, not just natural gas. The PRIO Cyprus Centre’s steady drumbeat of reports show how much Greek Cypriots and Turkish Cypriots will benefit economically as well as politically from a settlement and full normalisation – certainly much more quickly and visibly than from the development of gas fields known to exist in Cypriot waters today.

Indeed, when it comes to the turning of Cyprus’s dreams of hydrocarbon riches into reality, the natural gas can only ever be the icing on the cake, since it seems ever more clear that the gas can only be properly developed after a settlement of the Cyprus dispute.

Cooperation for Stability in Cyprus and Beyond

By Kudret Özersay

Cyprus's hydrocarbon resource potential is obviously still quite uncertain, but in this paper I am assuming that there is a sufficient amount of gas – and perhaps even of oil – for these resources to become a “game-changer”.

Two general observations can be made when thinking about ‘Hydrocarbons as an Enabler for Enhanced Dialogue and Reconciliation’¹ in the Cyprus context. The first observation concerns the extent to which the existing status quo has become entrenched in the course of the many decades without a political settlement. After numerous rounds of unsuccessful negotiations there has grown an assumption in Cyprus that a settlement is unlikely in the foreseeable future. The two Cypriot communities are now so used to operating separately, often in pursuit of mutually antagonistic aims, that it is very difficult to convince them of the benefits of mutual cooperation in a united Cyprus. Efforts in this direction habitually come in the form of research looking at the opportunities a federal solution in Cyprus would potentially give rise to. Such studies are no doubt useful as food for thought. However, they are no more than speculations based on a critical but completely untested assumption that the two communities would start cooperating adequately once bound together in a federation.

Therefore, it seems to me that we need something to show in practice that the two communities can indeed work together for their common good. For example, the two communities could try to find a way of cooperating even before a comprehensive settlement in some important area, such as hydrocarbon development. This, if successful, would help build mutual trust, convince people that inter-communal cooperation is possible and beneficial for all and thus ease the way to a comprehensive settlement. Therefore, I support the idea of

¹ The topic of the panel where an earlier version of the present paper was originally delivered at the PRIO Cyprus Centre Annual Conference on “Eastern Mediterranean Hydrocarbons: Geopolitical and Industry Perspectives, Market and Export Routes, and Regional Cooperation”, 14 November 2013.

collaboration between the two communities in hydrocarbon exploration and exploitation even before a comprehensive settlement, as long as it is conceived and carried out as a project attached to the realization of a comprehensive settlement.

The second observation is about the way in which we could learn from the history of Europe, of which we are, of course, a part. The creation of the European Coal and Steel Community in 1951 was a critical step that neutralised competition over natural resources, and thus helped eliminate the possibility of war between Germany and France, ultimately leading the way to integration in Europe. This supranational cooperation in the aftermath of World War II is often given as an illustration of what could happen in the Eastern Mediterranean with the newly discovered offshore hydrocarbon resources.² That is indeed a possibility but, in my view, requires an adequate grasp of the exact meaning and potential positive consequences of *interdependence*. Unfortunately, however, that kind of understanding is still not very common in our region. For example, within the Greek Cypriot community there is – understandably – a general concern that exporting the island's natural gas via a pipeline to Turkey would make Cyprus dependent on Turkey. Yet one should bear in mind that in a situation like this dependence is *mutual*; in other words, Turkey too would become dependent on Cyprus. This is the idea of interdependence, which I believe is very helpful.

These observations make me conclude that cooperation on offshore hydrocarbons development, which everybody assumes will happen after a comprehensive settlement, is worth a try even before reaching a settlement. However, there is a serious difficulty here; namely, the Greek Cypriot unwillingness to cooperate and share revenues with the Turkish Cypriots as long as the Cyprus problem remains unresolved. Indeed, this brings to mind a statement in a 2004 report by the UN Secretary-General.³ Yet the situation we have at the moment has a rather different basis.

Within Cyprus, two major obstacles – one primary, the other secondary – stand in the way of getting the two communities to cooperate on offshore resources today.

Included in this volume is a paper by Fiona Mullen, in which she explains that the Greek Cypriot side describe their unilateral activities related to exploration and development of offshore natural resources as falling within their sovereign rights – which are non-negotiable.

² For example, in her remarks delivered at the Atlantic Council on 12 November 2013, US Assistant Secretary of State for European and Eurasian Affairs, Victoria Nuland, observed: 'With the discovery of significant gas resources off Cyprus, [...] Kasoulides has publicly predicted that gas could play as important a role in healing the island's divisions as the coal and steel industry played in 1949 between France and Germany.' See at <http://www.atlanticcouncil.org/news/transcripts/prepared-remarks-by-victoria-nuland-on-a-transatlantic-renaissance>.

³ I am referring to the report, written in the wake of the April 2004 referenda on reunification of Cyprus based on the Annan Plan, which said: 'If the Greek Cypriots are ready to share power and prosperity with the Turkish Cypriots in a federal structure based on political equality, this needs to be demonstrated, not just by word, but by action.' Report of the Secretary-General on his mission of good offices in Cyprus, S/2004/437, 8 May 2004, paragraph 86.

So the position is this: if an issue involves a sovereign right, if it is an issue related to the concept of sovereignty and territory, then there can be no negotiation or cooperation over that issue before a settlement. Is this attitude also evident on the Turkish Cypriot side? Yes, there is a similar attitude on the Turkish-Cypriot side as well, for example, regarding the issues related to the territorial adjustment chapter of the comprehensive settlement negotiations, which are also connected with sovereignty.

I believe this attitude, which is common to both sides, is the main obstacle to potential cooperation in the present circumstances. So the next question is: can anything be done to overcome this obstacle? There are a number of things that might help. One of these is to point out the likely advantages of such cooperation, for example, lower costs, increased viability, faster implementation, etc., as discussed elsewhere in this volume. And I think, to a certain extent, the international community is trying to do that. The two PRIO Cyprus Centre conferences dedicated to regional hydrocarbons⁴ have also been useful contributions in that sense. Another way is to show the disadvantages of the lack of cooperation, such as the risks involved in the LNG terminal project (which the Greek Cypriots prefer to pursue unilaterally) due to high cost of construction and uncertainty of gas prices under the impact of shale gas development. That discussion has been taking place for some time too.

Yet another way is to use the “carrot-and-stick” approach (instead of the “carrot-only” approach). Here I am referring to motivation, not blackmail, of course. For example, in the present environment Israel could play a key role in encouraging cooperation between the two Cypriot sides. As everybody knows, an on-shore LNG facility in Cyprus cannot be built anytime soon unless Israel decides to send some of its own gas to that facility. This gives Israel a leverage which it could use to persuade the Greek Cypriot community to talk about a specific type of energy cooperation in the region, even in the absence of a settlement of the Cyprus problem. There is also the idea of the Troika of international lenders⁵ playing a similar role: it could consider the gas discovered as a kind of government asset within the framework of its post-bail-out economic programme negotiations with the Greek Cypriot government. In discussions about how that asset is going to be exploited, the Troika could use its leverage to encourage cooperative approaches. Alternatively, the Turkish Cypriot side supported by Turkey could start drilling in the same plots explored by the Greek Cypriots. In case of any military escalation or conflict, diplomatic efforts to calm the situation may prompt negotiations for possible regional cooperation as a way to maintain security and stability and hence to protect the commercial interests involved.

4 PRIO Cyprus Centre conferences: “Cyprus Offshore Hydrocarbons: Wealth Distribution and Regional Politics”, 26 November 2011; and “Eastern Mediterranean Hydrocarbons: Geopolitical and Industry Perspectives; Market and Export Routes; and Regional Cooperation”, 14 November 2013.

5 The European Commission, the International Monetary Fund and the European Central Bank.

Creating incentives to make the proposed cooperation more attractive could also help in tackling the obstacle that stems from the parties' preoccupation with sovereignty. For example, we may consider establishing a link between compensating dispossessed owners for loss of use and/or for value of their properties (a major issue in the settlement negotiations) and the potential income that would be generated from development of natural gas resources. This is an important matter that we need to discuss. Another proposal to think about is trade in electricity between the two sides. The Turkish Cypriot side depends on expensive and highly polluting fuel oil for electricity generation. This is obviously detrimental to the economy as well as the environment. In dealing with this problem, one option is to transfer electricity from Turkey. But there is an obvious alternative to purchasing electricity from Turkey. The two sides could try to find an arrangement, even in the absence of a comprehensive settlement, whereby electricity used everywhere on the island is generated by using the natural gas, which is presumed to belong to both communities. Such an arrangement would not only help to reduce the Turkish Cypriots' dependence on Turkey; the consequent bi-communal interdependence would also be a big concrete step on the way to creating a united Cyprus.

Now, let us look at the other – what I call secondary – obstacle to potential energy cooperation in the region. This is the fear, which both parties share, that the modality of that cooperation may somehow result in the other side's "inadvertent" recognition (the Greek Cypriot side by Turkey and the Turkish Cypriot side by the rest of the world) or, an "upgrading" of its political status (in the Turkish Cypriot case). This seems irrational but each side has its own historical reasons to worry about such an eventuality. So, what can be done in order to deal with this secondary obstacle?

One practical tool that may help is the "without prejudice" provision.⁶ This clause can be used in a way that allows the parties to cooperate while they continue to maintain their official positions on issues related to that cooperation. Besides, there is an existing modality/protocol, which the two sides successfully employed in their cooperation over electricity in the wake of the Vasilikos explosion back in July 2011. We did manage to cooperate back then when there was a need on the Greek Cypriot side. Also, let us remember that even after 1974 the two sides somehow managed to collaborate and the Greek Cypriot side continued to provide electricity to the Turkish Cypriot side for many years. As everybody knows, none of this led either to an "upgrading" of the status of the Turkish Cypriot state or to recognition of the TRNC by any other country. Another example is the relationship between Turkey and the Greek Cypriot side within the framework of the EU customs union. Turkey has been in a customs union with the EU and despite this she still does not recognise the Greek Cypriot administered Cyprus.

⁶ "Without prejudice" is a legal phrase, which is defined in Black's Law Dictionary as 'without abandonment of claim, right, privilege and without implied admission of liability'.

All this illustrates that it is possible to find modalities that will allow the two sides to cooperate without causing any kind of political “upgrading” or recognition. In addition, international energy companies, which are the essential actors in any hydrocarbons development, could be utilised in devising these modalities of cooperation. A joint company of Turkish Cypriots and Greek Cypriots could also be established to enable operations and/or transactions without any direct involvement of formal authorities.

Again, as mentioned in the beginning, these ideas are all based on the presumption that Cyprus has sufficiently large hydrocarbons deposits.

In conclusion, while a comprehensive settlement must remain our primary goal at the inter-communal negotiations, at the same time we should not hesitate, whenever possible, to take a topic and try to deal with it separately as part of a parallel negotiation. The island’s subsea hydrocarbon resources could become an area of cooperation if the local obstacles discussed earlier could be overcome. This is not easy, however, primarily because of the stance taken by influential external actors, notably the US and the EU. For example, the specific US view, as outlined by US Ambassador John Koenig, is that ‘the [*de facto* Greek Cypriot-run] Republic of Cyprus has the right to develop the resources in its internationally recognized Exclusive Economic Zone’ and ‘the revenue produced in developing those resources should be shared equitably by all Cypriots in the context of a comprehensive solution to the Cyprus Problem.’⁷ This policy is hardly conducive to the kind of cooperation I am proposing. It is assuring one side – namely, the Greek Cypriot side – that they have the sovereign right to explore for and exploit the resources in the island’s EEZ and that it is perfectly all right for them to exercise this right even in the absence of a comprehensive settlement. But if that is true, then why should the Greek Cypriot side bother with the hassle of involving the other shareholder?

⁷ Remarks by U.S. Ambassador John M. Koenig at the PRIO Cyprus Centre Annual Conference on “Eastern Mediterranean Hydrocarbons: Geopolitical and Industry Perspectives; Market and Export Routes; and Regional Cooperation”, 14 November 2013.

Global Energy Governance and Gas Discoveries in the Eastern Mediterranean

By Stephan Stetter

Introductory remarks

In this overview article I present some initial analytical insights regarding the gas discoveries in the Eastern Mediterranean and how these discoveries, often referred to somewhat vaguely and mysteriously as a “game changer” in and for this region, affect the geopolitics and geo-economics in this part of the world.

The discovery of gas resources in a way sits uneasily with the traditional focus on security, power politics and conflicts in this region. While there are certainly a lot of these conflictive dynamics in the region, extracting profits from resources brings about a much wider range of issues, such as cooperation, governance, market forces, and so on. It is thus a topic that is at least to some degree different from the “traditional” conflict lines that shape the region.

One of the key issues to consider here, therefore, is what happens if a region characterized by a lack of inter-state governance structures – and indeed entrenched in ethno-national conflicts on the regional, international and transnational level – finds itself more or less overnight parachuted into the realm of global energy governance and into a global(izing) gas market? This is a governance arena that emerged more than 100 years ago and which has since then developed sophisticated but also tremendously complex institutional mechanisms that regulate the global flow of resources – primarily oil and gas – and capital. Who is part of the current gas bonanza in the Eastern Mediterranean? The perspective of global energy governance helps us to understand that it is not only the states in the region but also political and economic actors from outside the region that are part of that process. This relates *inter alia* to the EU, which of course it is not really an outside actor. A part of the EU’s territory and realm of jurisdiction, Cyprus, is located in the Eastern Mediterranean. But there are also Russia and Qatar and, potentially the US, as key producers and exporters of natural gas who will become key players in that process. And then there are the many EU states, and many countries in Southeast Asia – first and foremost China – which enter the scene because they are giant

importers of natural gas. But it is not only about states. Global energy governance is not only about security and big politics, and neither is it a playing field only for states, contrary to what is often argued by politicians and more classical geopolitical and security-concerned opinion-shapers. The game includes important international organizations too, such as the International Energy Agency (IEA) and the new Gas Exporting Countries Forum (GECF), the gas equivalent and younger sibling of the oil-based OPEC. It also is a governance arena that is fundamentally transnational, involving private business that has not state interest but profits and investment returns in mind. And, finally, global energy governance includes transnational NGOs, primarily those active in the field of environmental and climate politics. Without some form of trust and cooperation between these four groups of governance actors – states, international organizations, private businesses and transnational NGOs – it will be very difficult to establish a workable governance structure for effectively managing gas in the Eastern Mediterranean. And without effective management, the huge expectations about the liquidity the extraction of natural gas will produce for states and people in this region could very well fall short, being not much more than a *fata morgana* on the high sea. Politicians and publics thus have to be careful not to overestimate the value of their resources and to consequently promise and expect welfare gains that might never materialize to that extent. Cyprus already has to struggle with such problems.

One of the main impediments for effective energy governance is, of course, that there is no lack of conflicts in the Eastern Mediterranean. It is thus unlikely that actors in this region will do what followers of liberal institutionalist theories in international relations would probably expect. Namely, that high interdependence in terms of energy security combined with mutual vulnerability and sensitivity in inter-state relations would trigger the establishment of a cooperative, transnational energy governance regime in the Eastern Mediterranean. It is difficult to establish such institutional structures in a region characterized by myriad interrelated ethno-national and inter-state conflicts, be it the Greek-Turkish conflict, the Cyprus conflict, the Syrian war and the post-war situation in Lebanon, the Israeli-Palestinian conflict, the crisis in Israeli-Turkish relations, the Iranian-Israeli conflict, the Arab-Iranian conflict, the Shia-Sunni divide, or the post-revolutionary disorder in Egypt. If there is one thing that this high intensity of conflicts in the Eastern Mediterranean does, it is to render unlikely the establishment of efficient transnational and inter-governmental energy governance structures. But then again: welfare gains resulting from selling gas to national and global markets, and energy security more generally speaking, depend to some degree on such cooperative governance structures. They might simply be forfeited by unresolved conflicts.

This paper is divided into two parts. In the first part I will present what I consider the five key economic and political consequences that stem from the discovery of gas resources. In the second part I will present four factors linked to security and conflict issues that work to the detriment of effective energy governance in the region.

Economic and political consequences resulting from the gas finds

During the last few years the Eastern Mediterranean has changed. It has turned into a region that is, at least potentially, rich in natural resources. This changes the global geo-economic and geopolitical positioning of the Eastern Mediterranean, and it affects the distribution of wealth and power within this region too. The Eastern Mediterranean has long been considered to be poor in natural resources, maybe since the Romans deforested its coastal areas in need of massive amounts of wood to sustain their imperial fleet. But while, at least in the modern era, the region has been poor in natural resources and has depended to a large degree on energy imports, it has been very rich in conflicts.

The discovery of natural gas resources in offshore locations in the Eastern Mediterranean, on the high sea yet within the exclusive economic zones (EEZs) of adjacent states, has changed that equation. The region is, without any doubt, still rich in conflicts, but it is now rich in natural resources too. The Eastern Mediterranean, almost within the blink of an eye, is now also a region of considerable relevance when it comes to inter-regional and global energy governance. Natural gas means trade, capital investment and governance; this not only integrates this region within an emerging global gas market, it also renders relevant actors such as the EU, Russia, the Gulf states, China and many big money private businesses in the gas sector.

The world looks now at the Eastern Mediterranean from a new angle: it is no longer synonymous with ancient civilizations alone, or heralded as the origin of world religions and the alphabet. It not only calls to mind images of incredible world cultural heritage, nice beaches, or Levantine food and music. And it is no longer only about being associated with some of the world's more serious contemporary conflicts. The Eastern Mediterranean is now relevant as a region that has an active role to play in the global energy market and in global energy politics. Let me now highlight what I consider to be the five most important economic and political consequences that stem from the discovery of natural gas.

First, as is well known, the gas resources are located within the EEZs of the various coastal states. They are in the territorial waters of almost all or maybe even all states in the Eastern Mediterranean. The most significant fields have so far been found within the EEZs of Cyprus and Israel. Apart from Egypt's natural gas fields in the Nile Basin, the Israeli share is by far the largest reservoir so far discovered and certainly the best explored. The names of the two largest fields of Cyprus and Israel stem from the Tanakh and Ancient Greek mythology. Israel's Leviathan field has an estimated volume of 20 trillion cubic feet, or tcf, while Cyprus's Aphrodite field holds approximately 5 tcf, although this figure has recently been reduced to 4.1 tcf. Leviathan, Aphrodite – can there be a more prosaic way to highlight that the gas fields offer ample opportunities for both conflict and cooperation?

Both Cyprus and Israel have historically been countries that depended on the import of energy, generally speaking, and oil and gas, in particular. Both sides now want to change their status from buyer to supplier. Cyprus's entry into the supply-side of the global gas market is, however, severely restricted by the unresolved conflict between the Greek-dominated Republic

of Cyprus and the Turkish Republic of Northern Cyprus (TRNC). But that notwithstanding, the Levantine Basin of the Eastern Mediterranean is certainly the 'hot new exploration region' at the intersection of Europe, Africa, and the Middle East, as an energy expert recently put it.¹ But Cyprus and Israel are not alone. All other coastal states in the Eastern Mediterranean possess or are believed to possess quite significant offshore gas resources. This relates first of all to Egypt and Lebanon. However, the political turmoil in Egypt following the ouster of Hosni Mubarak has prevented the country from further exploring its offshore resources in the Nile Basin, which borders the Levantine Basin. In Lebanon it is the political deadlock between the main national parties that has prevented the government from devising a regulatory framework for gas field explorations, let alone engaging in the downstream processing of the resource. The lack of such a regulatory framework has prevented private capital from investing in offshore explorations. Yet without massive private investments the exploration of the gas field in the Eastern Mediterranean is simply not possible. This is because of the need for the technological know-how of the big oil and gas producers and also the immense costs involved in offshore exploration, drilling and transportation. The individual states alone are not able to carry the risk and financial burden that comes with such investments. Seismic explorations by geologists suggest that Syria, too, holds offshore gas resources. Yet, the war in Syria has prevented any systematic specification of the size of their fields. Off the Palestinian coast, in the EEZ extending from Gaza, gas fields have been located as well, but due to the Israeli-Palestinian conflict and the Gaza blockade they have so far not been explored. Finally, while Turkey has not entered the supply-side of the equation yet, there is the likelihood that Turkey might have offshore gas fields as well, off the Iskenderun coast. In total, it is currently estimated that the Levantine and Nile Basin contain more than 350 tcf natural gas, with the share of the Levantine basin being roughly 125 tcf, and the Leviathan being the biggest field with an estimated 20 tcf.² The total Levantine Basin holds estimated reserves the size of Iraq's gas reserves. Another comparison: the yearly consumption in Europe – EU, Switzerland, Norway and non-EU Balkan states – and Turkey stands at 19 tcf.³ Turkey and Egypt consume roughly 1.5 tcf each, the other states in the Eastern Mediterranean much smaller amounts.

Second, the economic significance of the gas discoveries has to be analysed against the background of the so-called gas revolution that is currently taking place in the global general energy market, and also more specifically in the global gas market. There are two factors that underpin a likely long-term trend of a growing global demand for natural gas well into the

1 D. Peace, "Eastern Mediterranean – The Hot New Exploration Region", *GeoExPro*, vol. 8, no. 1, 2011, <http://www.geoexpro.com/articles/2011/01/eastern-mediterranean-the-hot-new-exploration-region>.

2 N. Newman, "Levant Basin Holds Massive Energy Potential", *Hart Energy*, 5 November 2013, http://www.epmag.com/Exploration/Levant-Basin-Holds-Massive-Energy-Potential_125367.

3 "16% of Natural Gas Consumed in Europe Flows Through Ukraine", *Peak Oil*, 15 March 2014, <http://peak-oil.org/news/2014/03/16-of-natural-gas-consumed-in-europe-flows-through-ukraine/>.

second half of the 21st century. The first is climate change, and the various governance regimes that aim to limit the emission of greenhouse gases. Amongst fossil fuels, gas is much cleaner in comparison to coal and oil and there is a great abundance of gas as well. While we might have already reached peak oil – at least in terms of conventional oil – conservative estimates of natural gas reserves, both conventional and unconventional, suggest that there will be sufficient global supply of gas for at least the next 200 years. This has triggered a massive growth in demand for natural gas in recent years, not least in the EU, the world's greatest importer of gas, with Japan, South Korea and China following suit. The EU is also a central player in the context of global climate change policies. The reduction of greenhouse gas emissions is a central pillar of the EU's energy policy as defined in the various energy legislation packages the EU has put forward during the last decade.

The second change is the so-called shale gas revolution. While fracking is, potentially, a global undertaking, albeit a highly contested one, it has really taken off in the US. Fracking – i.e., the extraction of gas and oil from rocks and rock formations – has been a major game changer for the US and the global energy market. Literally overnight, the US has become independent from oil and gas imports. This has led to a reshuffling of global energy trade. Gas that was destined to reach US ports and hubs, in particular liquified natural gas (LNG), had to be relocated to new markets. There was a sudden over-supply of free-floating LNG much of it from Qatar, a small state but an energy giant. Instead of being distributed to the US, it now hit the EU market. And it did so at a much cheaper price than the comparatively expensive Russian gas that traditionally dominates in EU energy imports. One has to be aware here that Russian gas is sold on the basis of long-term contracts (LTCs), which demand a relatively high price but guarantee energy security. The new LNG that reached the EU was traded at spot-market prices, which were much lower than the price for Russian gas. As a result, this recent revolution in the global gas market also was the final nail in the coffin for the gas pricing system which links gas prices to oil prices. Increasingly, it is so-called gas fundamentals, i.e., the costs of bringing gas to the market rather than the oil price that shapes the price of gas on the market, at least as long as it is not bound by LTCs. This new supply of, in particular Qatari, gas has met European demand since one consequence of the EU energy packages I just mentioned is the liberalization of its internal energy market. This liberalization aims to prevent an over-concentration in the market and the dominance of a few energy giants in the EU. It aims to allow smaller buyers to sell successfully in the market too. This policy accidentally created an increase in demand-side actors in the EU that were not bound by LTCs with Russia. So-called gas-to-gas competition became the new game in town and this even without the US having decided whether it wants to throw its immense over-supply of natural gas onto the world market or embark on a policy of energy isolationism. And it is not only the EU that is central here as a key importer, but also Southeast Asia, and in particular China, as the second main import region on the globe.

Third, this changing outlook of the global energy market is not only a potential asset for current and would-be exporters – both traditional and newcomers such as states in the Eastern

Mediterranean or some states in Africa – it is also welcomed by demand-side actors, who aim to diversify the sources of their energy imports. This is particularly true for the EU and for Turkey, the two biggest economies and most important importers of energy in the (wider) Mediterranean region. Both the EU and Turkey have made clear in various energy strategies and in energy legislation that they consider gas the key component of their future energy mix, and superior to coal, oil and nuclear energy. And both the EU and Turkey want to diversify their energy exports in order to reduce dependence on others, Russia in particular. On the supply-side and as far as the Eastern Mediterranean is concerned, Cyprus and Israel especially face a new strategic situation, since the exploration of gas resources is most advanced in these two countries. Both countries can become self-sufficient in terms of energy, although Israel has the easier road compared to Cyprus where translating this potential into reality depends to a large degree on making some sort of agreement with the Turkish Cypriots and, consequently, Turkey as the protector state of the TRNC. Israel is the first state in the region to use natural gas for commercial purposes, with the Tamar field already operating. And this includes issues of governance, such as for example, enacting national legislation that stipulates the extent and the way that this resource will figure into the nation's trading strategy. This is a decision that every resource state must take. The Israeli parliament has recently decided to earmark 40 per cent of available gas for export. The revenues earned will be channelled into a special fund and not flow into the general budget. Israel thus aims to avoid the well-known resource curse, and instead follow the Norwegian model, which is also now practiced by many states, e.g., those in the Gulf region. But where will gas from Israel, and one day, maybe, Cyprus and Egypt as well as Lebanon, Palestine and Syria be exported too? Clearly not only to the EU and Turkey. Part of the big money game is being played out in China and other parts of Asia, where demand is high and growing, while spot-market prices are still considerably higher than in the EU, let alone the US. However, bringing gas to Southeast Asia requires – since there are no pipelines connecting the Eastern Mediterranean with hubs in China or Korea - converting natural gas into LNG and shipping it on huge and super-expensive LNG-tankers (preferably) through the Suez Canal to destinations in Asia. But not only are LNG tankers needed, but also equally expensive LNG terminals. There are plans for building such an LNG terminal in Vassilikos, Cyprus, and linking Vassilikos with Cypriot and Israeli gas fields. Israel is playing around with the idea of building its own offshore LNG terminal on the high sea, but this is a very expensive undertaking.

Fourth, while Turkey has so far not found gas fields, its geographic location and its political and economic weight make it one of the key players in the Eastern Mediterranean energy bonanza, independent of that. As a major energy consumer and as an important country for energy transit to the huge EU market, Turkey holds at least some of the power for deciding whether the gas fields throughout the Levantine Basin will ever become economically viable. Since the failure of the Nabucco pipeline project, Turkey has become the central pillar for energy trade from destinations other than Russia to both the EU and Turkey. Note that both the EU and Turkey are highly dependent on expensive Russian gas. This is one reason why

both sides aim to strengthen the Southern Energy Corridor, as the European Commission calls it. This relates in particular to gas exports via Turkey from Azerbaijan and potentially the Kurdish autonomous region in Iraq and maybe even Turkmenistan. Pending an agreement between the P3+EU3⁴ and Iran on the latter's nuclear program, the Southern Energy Corridor might also one day become a central hub for gas exports from Iran to Turkey and the EU. The pipelines are currently being built. TANAP and TAP will link Azerbaijan via Georgia and Turkey with southern Italy. It is to this pipeline-system that gas from the Levantine Basin can be easily linked, technically speaking. Politically speaking it is more complicated. Making use of this option is dependent on improved relations between Cyprus and Israel, on the one hand, and Turkey, on the other. While there is a lot of talk about other alternatives, e.g., LNG trade to EU ports and energy hubs, or a pipeline that circumvents Turkey and delivers Israeli and Cypriot gas through a pipeline that connects Cyprus with Crete and then the EU mainland, the connection to the TANAP/TAP system is technically and economically speaking in my view the only viable option.

Fifth, global energy governance is not just about the efficient economic management of upstream and downstream processes and monetizing the resource. It is about the politics of energy governance too. I have already referred to resource funds, through which states aim to avoid the resource curse, as well as to national and supranational legislation and global governance rules meant to set regulatory frameworks without which abundant resources will not be extracted and traded. In short, we are talking about energy governance that involves a wide range of political, economic and technocratic actors. This concerns the EU in particular. The EU is not only an economic giant – although one that lacks sufficient domestic energy resources and therefore has to import energy, gas included. The EU is also a political power that projects its regulatory frameworks to nearby countries, a dynamic referred to as external governance. The EU imports energy but exports its regulatory system of energy governance. Take, for example, Turkey. Whether or not Turkey becomes an EU member state, Turkey is bound to liberalize its heavily regulated domestic energy market. Due to its economic interdependence with the EU and its potential role as a key energy transit state between the EU and gas exporters in the East, liberalizing its energy market means first of all translating the energy- and climate-related EU *acquis communautaire* (i.e., the body of legislation and regulations of the EU) into Turkish law. And this includes legislation and regulations concerning climate policy. But it is not only about Turkey. Cyprus is part of the EU and part of the regulatory order of the EU. And if the integration of Israel into the EU single market and EU programmes continues, as it did over the last decade, then Israel will not set its legislative and regulatory frameworks for energy and climate policies in an autonomous manner but will be compelled to align with EU law.

⁴ This is a group of states comprising US, Russia, China, UK, France and Germany, also referred to as E3+3 or E3/EU+3.

Conflict and security as impediments to the exploration of gas

Imagine for a moment that the gas fields discussed in the previous section were not located in the Eastern Mediterranean but, say, in the Baltic Sea, off the coasts of Denmark, Finland, Germany, Lithuania, Poland and Sweden. In that case it would not be difficult to think about a single regulatory framework and single legislative standards that would allow dealing with the resource in an economically, socially and environmentally more or less integrated manner and within a framework of political cooperation. All these states just mentioned are part of the same supranational polity, the EU. The geopolitical outlook in the Eastern Mediterranean in 2014, however, is very different compared to the Baltic Sea basin. Pursuing energy and climate governance that is economically and environmentally viable is much more difficult in this region due to the lack of deep political cooperation and integration. I want to highlight four factors that complicate the equation.

First, intensive conflicts throughout the Eastern Mediterranean hamper upstream and downstream processing of offshore gas. As far as Syria is concerned this is very obvious. The war in Syria renders systematic geological explorations, let alone investments in gas extraction and distribution by private capital, impossible. A similar situation affects Palestine. The Israeli blockade of the Gaza strip and the unresolved Israeli-Palestinian conflict more generally speaking, but also the intra-Palestinian tensions between Fatah and Hamas render investments in offshore Gaza currently inconceivable. As a result of this unexplored potential of offshore Gaza, Palestinians have started to buy gas from the Israeli Tamar field, as did Jordan recently and for the first time. One might see here analogies to the situation of water in Israel/Palestine, where huge quantities are located in Palestine but processed and sold by Israel, raising suspicion that Israel might also extract gas from the Palestinian Marine A and B fields. While this comparison certainly makes sense as far as power inequalities in the context of the Israeli occupation are concerned, which currently prevent Palestinians from exploring their natural resources, it has to be noted that in contrast to water, offshore Palestinian gas is not a strategic asset to Israel. The Leviathan field alone contains roughly 20 times more gas than the Marine fields off Gaza.

There is then, to continue the list of conflicts that impede smooth energy governance, the case of Cyprus. Turkey does not recognize the Greek-dominated Republic of Cyprus and has already resorted to military action, namely sending its navy into Cypriot waters to protest Cypriot upstream operations. The bone of contention here is mainly about sovereignty, since exploration right in Cyprus's seas are claimed by Turkey to belong to the Turkish Cypriots as well as Greek Cypriots. But the second major Turkish objection is that as long as a regulatory scheme that assures an equitable distribution of gas revenues to both communities on the island is not in place, Turkey will not accept that the South of the island can profit. Turkey has issued a stop sign: we will not accept that Cyprus becomes an energy producer until the Cyprus conflict is solved. Turkey objected when the Republic of Cyprus concluded bilateral agreements on the delineation of EEZs with Egypt, Israel and Lebanon. Also, Turkey boycotts any firms that invest in the Cypriot upstream sector, thus hitting the Cypriot dream of "blue

gold" right at the source. That is because global energy governance is not only a geopolitical game. It is not only about states. You cannot run the business without massive investment and capital as well as technological knowledge from the private business sector.

While we currently witness a concentration of national oil companies in oil and gas development in many parts of the world, so many of the strategic decisions to be taken in the energy sector are and will be driven by the economic logic guiding private profit-oriented firms. This relates to national energy majors too, but more so to private energy companies that are transnational in outlook, and interested in maximizing profits and returning that to their transnational shareholders. Without capital investments from these actors, seismic explorations, drilling, building of LNG terminals and many other big-money investments are inconceivable. And private investors in the energy sector, where the investment return rate often is 30 years, are reluctant to invest in areas marked by intense conflicts. Turkey thus holds a powerful key to block Cyprus's economic salvation through the shortcut of generating massive revenues by quickly exploiting its gas discoveries. Big money is hesitant to flow into Cyprus as long as Turkey can credibly threaten the success of such investments.

There is also the conflict between Israel and Lebanon. Both states – or to be more precise, Israel and the Hezbollah as Lebanon's dominant domestic party – disagree over the delineation of the border between both states. And this means here: the extension of this border at sea. This is relevant insofar as these different interpretations affect the territorial status of some gas fields on the high sea, north of Tamar.

Finally, I have already noted that deadlocks in domestic politics are a further obstacle to effective energy management. Thus, private capital only comes in if proper regulatory frameworks are in place. This is what has happened in Lebanon, where the domestic political crisis led to a deadlock in government and parliament as they were attempting to enact energy legislation. Yet without a national framework states cannot conduct negotiations with private investors, who need to know the terms of their engagement. Tensions and even violent conflict in domestic politics are not only a problem for Lebanon. They obviously affect other states in the region that have witnessed or currently are experiencing war and episodes of intense violence. These include Syria in particular, to a lesser degree Egypt during the last few years and Palestine where – pending the implementation of the current reconciliation agreement – Gaza is governed by Hamas and the West Bank by Fatah.

Second, the crisis in Israeli-Turkish relations is important too. Note that these are the two states in the region that are economically, politically and militarily speaking the strongest. They are in my reading also the two states in the region that will profit monetarily and politically the most from the discovery of gas resources; Israel because it has the largest field and most advanced commercialization of resources, Turkey because of its geostrategic location as an important consumer and energy transit state, and its role as a guarantor power vis-à-vis Cyprus. But this also means that the two states, Israel and Turkey, can hurt each other. To some degree, whether the high hopes associated with gas discoveries in the Eastern Mediterranean

actually materialize will be decided by the future of Israeli-Turkish relations. The political crisis in bilateral relations has already put the economically and technologically most viable downstream option on shelf, namely exporting Israeli and Cypriot gas through a pipeline that links, inter alia, Leviathan and Aphrodite with the TANAP/TAP system. If there is one reason for the clearly very cautious rapprochement between the Erdoğan and Netanyahu governments, then it is the understanding that both states can *individually* profit from such a deal, while its non-realization hurts both states, economically speaking. But it also is a strategic concern insofar as Turkey and the EU will remain, notwithstanding the relevance of trade of gas to Asian destinations, a key asset for the export of Israeli and maybe Cypriot and Arab gas. And for the EU and Turkey this matters too, because gas from the Mediterranean can contribute to greater diversification of European and Turkish energy imports. For Turkey, importing gas from the Eastern Mediterranean would also increase its strategic leverage as a potential energy transit giant in between the EU, Russia, the Southern Mediterranean, the Gulf, the Caspian, Iran and Central Asia.

Third, political tensions between the EU and Turkey are a problem for the set-up of coherent energy governance structures in the Eastern Mediterranean. This shared governance space is important since Turkey and the EU are highly energy independent, and if Turkey becomes the energy transit giant it wishes to be, it will be even more important in the future. While Turkey will have the pipeline system, the EU has a regulatory framework on energy and climate governance it wishes to export. In that context the EU has tried to convince Turkey for some years now to join the Treaty on Energy Community, a multilateral treaty to which the EU and many of its adjacent states are party. This treaty regulates energy policies in the wider European space and aligns non-EU states to EU legislation and regulation. The EU insists that this offer does not prejudice Turkey's accession negotiations to the EU. However, Turkey thinks this gift is poisoned and part of a tacit European strategy for a "special partnership", meaning instead of Turkish membership in the EU. So, tensions in EU-Turkish relations are an impediment to developing the Eastern Mediterranean into an arena of efficient energy governance regulated by commonly shared frameworks, a problem further underlined by the fact that in contrast to the Western Mediterranean, the EU has until recently considered the Eastern Mediterranean rather a blank spot when it comes to cross-border cooperation in energy and energy security.

Also tensions between the EU and Israel have grown in recent years. Whereas the 2000s were marked by an increasing integration of Israel into the European single market and participation in EU programs, the last few years have witnessed a deterioration in political relations due to the on-going Israeli settlement policy in the Occupied Palestinian Territory (OPT). The decision of the European Commission, in 2013, that only Israeli entities located in Israel within its pre-1967 borders are entitled to receive EU funding or prizes, thereby excluding private and public Israeli institutions in the OPT or those operating there, has been a central decision in that context. In the context of an EU increasingly weary of the Israeli settlement policy, in particular after the failure of the US-led peace talks, one cannot rule out the possi-

bility that the EU (but also Turkey) would decide to disinvest from Israeli gas, especially since this would not be a very costly decision given the huge supply of gas that is currently available on the market, which is likely to continue in the years to come.

Fourth, I have emphasized several times that it would be a great mistake to discuss the gas revolution in the Eastern Mediterranean from geopolitical and geostrategic perspectives and/or from a state-centred or conflict-related viewpoint alone. While states, politics and conflict matter, global energy governance is not only, and maybe even not predominantly, about strategic political interests of state actors. Energy in general and gas specifically are economic goods that are traded in an increasingly globalized energy /gas market. Therefore, as far as investors and firms involved in the business are concerned, what it comes down to is resource monetization. This monetization works in two ways. Resources do not generate profits by simply being there, they have to be extracted and sold for a profit, i.e., monetized. The “blue gold” has to turn “green”. At the same time, and as I have highlighted several times, this requires such huge investments that private capital – with its own interests and its own set of rules – enters the equation as a central player. That has been true of global energy policy since the first wildcatters began digging for oil in Ohio in the second half of the 19th century. With the partial exception of Israel, where the monetization of gas is well underway, private investors such as ENI-KOGAS, Noble Energy and Woodside, as well as nationalized companies like Gazprom seem to consider the geopolitical risks in the region serious enough to be cautious when it comes to massively investing in the gas business here – especially considering all the other alternatives around the globe. Another reason that the big companies are cautious to enter the Eastern Mediterranean market is the Eastern Mediterranean states’ non-participation in major global energy institutions, which set the framework and coordinate action. These include the demand-side oriented International Energy Agency (IEA) (of which Turkey is actually a member), and the newly founded Forum of Gas Exporting Countries (FGEC) on the suppliers’ side, possibly suppliers that aim to control the global gas market in the future as OPEC dominates in the oil market.

Concluding remarks

Energy policy is, as I have stressed repeatedly, not just run by states and not dictated by political interests alone. Resources are goods that are traded in an increasingly globalizing market, and this is particularly true for gas. Apart from the regional issues – both security-related and economic – that have been the focus of this paper and that dominate the of debates about the Eastern Mediterranean natural gas resources in the region itself, the monetization of these gas resources – or the failure of monetization – will unfold against the backdrop of a global energy horizon. This involves several issues. How will demand in Asia develop? How will Qatar, Russia and Australia as major gas exporters be able to allow or prevent gas exports from the Eastern Mediterranean, not for political but for economic reasons? Will the US with its massive reserves of natural gas decide to engage in the global gas game or prefer to follow an isolationist policy? Will spot-market prices in the US, the EU and Asia continue to align or

remain at substantially different levels? Will climate change cause the international community to enact dramatic measures in the decades to come? Will the institutional structure of global gas governance be divided into global organizations for buyers and suppliers as this happened in the oil market, thereby effectively limiting the space for manoeuvre for newcomers, in particular if they will not integrate into these organizations? The answers to these and many other economic questions will affect the development of trade routes for gas and the gas revenues here in the Eastern Mediterranean at least as much as political and security-related developments.

CONCLUSIONS

By Tim Boersma

Several papers in this volume have hinted at this, though surely it cannot be said often enough: it is still early days for Eastern Mediterranean natural gas.

The positive news so far is that despite the relatively modest amount of drilling activities, three substantial natural gas deposits have been confirmed, two offshore Israel (Tamar and Leviathan) and one offshore Cyprus (Aphrodite). In addition, one of the Israeli fields (Tamar) started producing in March 2013, and is expected to supply Israel with natural gas for at least two decades. Moreover, despite some setbacks, it seems only a matter of time before the larger Leviathan field starts producing as well (the most recent estimate for this is 2017). For a country like Israel, becoming self-sufficient in its energy needs, and moreover, backing out of coal as a feedstock for electricity generation to replace it with comparatively clean natural gas, is of tremendous importance. Exporting some of the newly found riches though is not as straightforward as one may initially think, and this has all to do with the delicate intergovernmental relations in the region.

In June 2014 we observed an important change of tone amongst policy makers in Israel, who were no longer strongly in favour of exporting natural gas in the form of liquefied natural gas (LNG). Instead, the focus has shifted to regional opportunities for collaboration, and as several papers in this volume indicated, commercially this may make much more sense. Spot market prices for LNG in late 2013 and early 2014 surely looked appealing, undoubtedly tempting policy makers to openly dream about lucrative sales of natural gas to buyers in Japan and South Korea. These numbers however tell us little if anything about the LNG market in several years' time, which most experts expect to change fairly dramatically, with new supplies coming on stream from Australia, Papua New Guinea, East Africa, Russia, and North America. In addition, global demand for LNG is difficult to predict, as several countries, most notably China, are expected to tap into their unconventional gas resources sometime after 2020. These developments will most likely make financial institutions increasingly cautious when it comes to making means available for multi-billion dollar investments, and so, also taking into account the comparatively modest proven reserves so far, it seems like a salient approach to first explore the opportunities to sell Eastern Mediterranean natural gas regionally. For Cyprus this modest approach makes even more sense, as the currently proven reserves do not seem to validate a multi-billion dollar investment in an LNG terminal. Yet again, it is early days, and planned exploration activities for 2014 and 2015 may change this equation.

Throughout this volume we have seen that energy economics are only a part of the story, and in most, if not all, cases politics in fact play a decisive role.¹ In Lebanon political infighting has to date prevented any initial exploration activities, whereas in both Cyprus and Israel some of the most obvious opportunities to monetize the natural gas findings are hampered by political twists. In Cyprus the Republic of Cyprus authorities have repeatedly made clear that, despite Turkey's rapidly growing natural gas demand, no resources will be sold to Turkey without solving the Cyprus issue first. Turkish officials on the other hand have been rather indifferent about Cypriot natural gas, surely fuelled by the limited amount of proven reserves, and also because it has several alternatives (e.g., Azerbaijan, Iran, Iraq, and Israel) that could materialize. At the same time the Turkish government has indicated in very strong terms that it expects potential revenues of natural gas to be shared by all Cypriots, including those in what it calls the Turkish Republic of Northern Cyprus. In the case of Israel, notwithstanding a strong private sector push on both sides a – fairly obvious – collaboration with Turkey has not come to fruition. Nor has any deal been reached with Egypt, which is in dire need of additional natural gas supplies. The eruption of violence in Gaza and Israel in July 2014 seems to have further complicated an effective partnership between Israel and Turkey, with Turkish Prime Minister Erdoğan repeatedly comparing Israel's use of force against the Palestinians with Hitler's barbarism during the Second World War.² The extremely fluid situation in Iraq further contributes to regional uncertainty.

At the same time there are occasional glimpses of light. In the case of Turkey and Israel the former has used harsh rhetoric when condemning the latter's actions in Gaza, but then almost casually adds that if the violence stops, things can return to normal almost immediately.³ In recent years "normal" in fact has meant that business between the two countries has been quietly booming to record highs, though a large gas deal would require explicit government-to-government agreement.⁴ In the case of Cyprus, in February there was new hope of solving the division of the country when talks restarted after a two-year hiatus, and supported by the U.S. administration. For a number of months, this process seemed to be progressing fairly positively, and in May U.S. Vice President Joe Biden even visited Cyprus and announced that

1 See also our brief conference write-up from 2013: D. Arbell, T. Boersma, K. Kirişçi, and N. Sachs, "Politics trump economics in the complex game of Eastern Mediterranean hydrocarbons", Brookings, 20 December 2013, <http://www.brookings.edu/research/opinions/2013/12/20-politics-trump-economics-eastern-mediterranean-hydrocarbons>.

2 "Turkish PM Erdogan: Israelis have 'surpassed Hitler in barbarism'", Al Arabiya News, 20 July 2014, <http://english.alarabiya.net/en/News/middle-east/2014/07/20/Erdogan-launches-new-attack-on-Israel-with-Hitler-comparison.html>

3 "Turkey refuses joint energy policy with Israel", Yeni Şafak, 4 August 2014, <http://english.yenisafak.com/news/turkey-refuses-joint-energy-policy-with—2021916>.

4 O. Coren, "Israeli trade with Turkey on track to reach record", *Haaretz*, 4 July 2014, <http://www.haaretz.com/business/.premium-1.603035>.

the two sides were going to speed up the pace of negotiations. Unfortunately though, in late May the chief negotiator of the Turkish Cypriot side indicated that obstacles remained, and was quoted saying that natural gas findings in Cypriot territorial waters may only complicate matters further.⁵

For Cyprus, the sum of it all seems to be that there will be no quick fixes, and no quick wins either. The excitement about the newly found riches has understandably been large, yet Cypriot politicians are better off carefully managing expectations. First and foremost, more exploration activities are required to get a reliable sense of what the resource base truly is. The next question is what can be economically extracted. And then political dilemmas have to be resolved or at least addressed to pave the way for private sector investment. This will not be easy, but there is an opportunity to do so.

⁵ M. Pannetier, "Prudent on talks, Turkish Cypriots say gas find could be obstacle," Reuters, 28 May 2014, <http://www.reuters.com/article/2014/05/28/us-cyprus-talks-idUSKBN0E81Q420140528>.

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This volume presents a comprehensive approach to the geopolitical and commercial aspects of Eastern Mediterranean hydrocarbon resources. It is an attempt to look at the region and the issue of hydrocarbons from a balanced, objective and broad perspective, in the hope of contributing to an informed and mature public debate on the subject.

The book comprises revised and extended versions of the papers read at the conference on 'Eastern Mediterranean Hydrocarbons' held on 14 November 2013 in the Nicosia Buffer Zone. The event was organised by the PRIO Cyprus Centre, in cooperation with the Friedrich-Ebert-Stiftung and the Brookings Institution. The volume is divided into three sections, each dedicated to one of the three conference themes: the geo-political context of the East Mediterranean hydrocarbons; potential markets for East Mediterranean gas; and hydrocarbons as an enabler for enhanced dialogue and reconciliation.

ISBN 978-82-7288-567-9 (print)
ISBN 978-82-7288-568-6 (online)



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