Cyprus Offshore Hydrocarbons: Regional Politics and Wealth Distribution

Edited by
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PRIO Cyprus Centre

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INTRODUCTION

Hubert Faustmann, Ayla Gürel and Gregory M. Reichberg

On 26 November 2011 the Friedrich Ebert Foundation (FES) and the PRIO Cyprus Centre (PCC) jointly organized a one-day conference entitled 'Cyprus Offshore Hydrocarbons: Wealth Distribution and Regional Politics' in the Nicosia Buffer Zone. The conference brought together international specialists and local experts from both communities in Cyprus. This report is based on the papers read at that conference.

The idea behind the conference was twofold. Obviously, anticipated hydrocarbon finds in the maritime areas to the south of Cyprus have the potential to act as a game changer – for the better or for the worse – in the protracted Cyprus dispute. Since 2003, the Greek Cypriot-led Republic of Cyprus (RoC) has signed EEZ delimitation agreements with Egypt, Lebanon and Israel. It has given a US based company, Noble Energy, a license to explore for oil and gas in a parcel of its declared EEZ, and recently authorized the first drilling operation there. A second round of tendering for exploration contracts has recently been held and the process is pending conclusion in the coming months. In this pursuit to exploit its offshore resources the RoC has maintained that it is exercising its sovereign rights as recognized by the international community.

Both the Turkish leadership in Ankara and the Turkish Cypriot leadership in Nicosia have strongly voiced their opposition to these offshore initiatives. Exclusion of Turkish Cypriots from this process is inconsistent, they maintain, with the international accords that established the RoC in 1960. Without the constitutionally mandated participation of Turkish Cypriots in the exploitation of the island's shared patrimony of natural resources, these hydrocarbon initiatives are, they say, unilateral, hence illegal. Adopting a retaliatory response, Turkey and the Turkish Cypriots have entered into a continental shelf delimitation agreement of their own. They have begun searching for oil and gas at an onshore location within the Turkish Cypriot-controlled part of Cyprus and have stated their intent to do so within several offshore parcels, some of which sit within the EEZ declared by the RoC. At the same time, Turkey has been pressing the governments and parliaments in Cairo, Beirut and Jerusalem to reconsider their agreements with the RoC. Warnings have been issued by Turkey (some would say "threats") that continuation of offshore drilling and related activities would result in serious consequences. Turkish naval vessels have been sent to patrol in these disputed waters.

In light of these developments, the PRIO Cyprus Centre, with its partner the Friedrich Ebert Foundation, decided to organize a one-day conference that would examine the political dimensions of the search for hydrocarbons in offshore Cyprus. Special attention was directed to the impact of these developments on the negotiations to solve the Cyprus problem. By extension, the conference also examined the broader implications of hydrocarbon politics for the countries of the Eastern Mediterranean. This region has the potential to turn into a powder-keg, and not only because of Cyprus. Contributing to the potential for conflict are Turkey's regional ambitions and the deterioration of its relations with Israel. Further complicating this regional picture, Israel and the RoC have warmed their once cool relations, signing collaboration agreements on energy and security. Israel and Greece have likewise undergone a rapprochement. At the same time, a dispute continues to fester between Israel and Lebanon (which have no diplomatic relations and are officially in a state of war) over the demarcation of their respective maritime borders and hence ownership of hydrocarbon reserves therein. Indeed this dispute also involves Cyprus because Lebanon considers a section at the northern end of the Cyprus-Israeli EEZ boundary to be part of the line separating the Cypriot and Lebanese EEZs.

An equally important dimension of the hydrocarbon issue concerns wealth management and distribution. Thus the conference was also designed to contribute to the debate that was just starting in Cyprus on good and bad practice in natural resource revenue management. It was thought useful to examine how Cyprus could benefit from the lessons learned by other countries. Sudan and Norway served as case studies for this purpose. By the same token, options for wealth distribution in Cyprus, both within and between the two main communities on the island, were also explored.

This report does not reproduce verbatim the presentations that were given at the conference. The authors were asked to expand and update their contributions for publication. Admittedly, the absence of a paper about Israel's role in the hydrocarbon politics of the region represents an obvious lacuna. Unfortunately, the speaker who had been invited to discuss this topic could not attend the conference due to an emergency, and was subsequently unable to submit a paper within the short period available for preparation of this report.

This report does not endorse any particular viewpoint regarding the political challenges which lie ahead. Rather its purpose is to present multiple perspectives on the internal political aspects of Cyprus' offshore hydrocarbons, and the implications for the broader region. To reach the widest possible audience in Cyprus and abroad, this report has been issued in English, Greek and Turkish.

PROJECTING FOR CONTROL OF WARM WATERS: TURKEY'S POSTURING FOR HYDROCARBON HEGEMONY IN THE EASTERN MEDITERRANEAN

Yiorghos Leventis

One thing is certain: the Eastern Mediterranean is going through interesting times. Historically, we have always been living in such times. The Mediterranean, as the etymology of the geographical name denotes, constitutes the middle of the earth, the place where multiple trade routes meet and intersect. The battle for the control of such trade routes is perennial, from ancient to modern times. In modern times Cyprus's political legacy stems to a large extent from its acquisition by the British Empire. Importantly, the Eastern Mediterranean Sea lies at the crossroads of three continents: Europe, Asia and Africa and as of recently at the heart of substantial reserves of natural resources.

Benjamin Disraeli got hold of the island in an effort to thwart the advancing Russian Empire from entering into the Mediterranean Sea. That was the reasoning behind the British decision at the Congress of Berlin, 1878, of propping up the Ottomans, the collapsing empire of the time, described at the time as 'Europe's sick man'. Disraeli's decision in 1878 was to be vindicated time and again. As oil started to be pumped out of the Middle East, Cyprus served as London's outpost securing the uninterrupted flow of the vital energy resource for the formidable industrial machine of the British Isles. It is no coincidence that Sir Anthony Eden explained in strong and unyielding words the British government's position in Cyprus clear and flat. Without bothering to clothe it in the familiar language of imperialistic idealism, Sir Anthony defined Britain's stake in one word: *oil*. He stressed:

> Our country's industrial life and that of Western Europe, depend today, and must depend for many years, on oil supplies from the Middle East. If ever our oil resources were imperilled, we should be compelled to defend them. The facilities we need in Cyprus are part of that. No Cyprus, no certain facilities to protect our supply of oil. No oil, unemployment and hunger in Britain. It is as simple as that.[1]

1 Conservative Party Convention, Norwich, UK, 11 June 1956.

Before the ink of the signatures under the text of the three Treaties (Establishment, Guarantee, Alliance: 1960) which established the Republic of Cyprus under the guardianship of the UK, Greece and Turkey, dried, Eden underlines: 'The value of the compromise will depend upon the spirit in which it is worked and upon acceptable arrangements for our military bases.'[2] Once again, with his remark, the visionary British statesman places emphasis on the importance for his own country of the guaranteed, uninterrupted and unfettered use of the British military bases in order that Middle Eastern oil flows without disruption to the British Isles. To be sure, Eden's emphasis on the Cyprus bases comes at a peak time of British decolonization.

2011: Discovery of Natural Gas Reserves - New Geostrategic Alliances?

Time honoured Eden's assessment of the strategic value of Cyprus and his determination to maintain strategic control over it as an indispensable station post towards the energy rich Middle East. In fact, fifty-five years after the creation of the Cyprus British bases, the island's geo-energy value received an extra boost: at the end of 2011, it became clear that the Exclusive Economic Zone (EEZ) the Republic of Cyprus is entitled to, is blessed with substantial natural gas if not also oil reserves. On November 15, Noble Energy of Texas USA, under license to drill for gas in both Cyprus's and Israel's EEZ, announced that *Cyprus's Block 12 has an estimated gross mean resource range of 3 to 9 trillion cubic feet of natural gas and a 60% probability of geological success*.

To put matters into perspective: three trillion cubic feet (tcf), which is the lower estimate, is enough gas to cover the needs of the one million or so islanders (on both sides of the island) for over one hundred years (some energy analysts argue for two centuries). However, exploitable gas reserves may actually stand at the upper end estimate of nine tcf for Block 12 while the Cyprus government, as these lines are being drawn, is auctioning the remaining twelve parcels calling for interested parties to submit tenders within ninety days. Already drilling, Noble Energy announced that it is keen to bid for a second block.

Fifty kilometres away from Cyprus's Block 12 lies the rich Israeli gas field *Leviathan* carrying an estimated sixteen tcf of gas which is also drilled by Noble. The importance of the gas reserves in the Cypro-Israeli maritime interface is underlined by the first-ever visit of an Israeli Head of Government to Nicosia. Benjamin Netanyahu paid a one-day visit to the Republic on 16 February 2012. Energy cooperation was at the top of his agenda whereas some political observers talk also about a burgeoning but rapidly expanding defence cooperation in the face of Turkish threats.

In September 2011, two Israeli Air Force (IAF) fighter jets flew conspicuously along the south coast of Turkey, at the northern limits of the Nicosia FIR[3] as recognized internationally — save for Ankara. The two fighters flew through St. Andrew Bay of Mersin and from there to Phoenicia, near the Greek island of Kastellorizo, in some cases approaching the Turkish coast

2 Anthony Eden: Full Circle, London, 1960.

3 Flight information region

at a distance of fifteen miles. The control tower of the Ercan (Tymbou) airport (recognized only by Turkey), tried to contact them, but the Israeli pilots ignored their attempts showing that they recognize the sovereignty of Cyprus in the entire Nicosia FIR.[4]

In January 2012, both the Commerce and Industry Minister and the Defence Minister of Cyprus shuttled to Tel Aviv. The much-acclaimed at the time of its construction in the late 1990s Andreas Papandreou Air Base, in Pafos, on the southwest coast of the island, fell into neglect as the Greece-Cyprus Defence Pact degenerated. Apparently, the air base will come out of its disuse with Israeli fighter jets using it on the basis of a 'touch and go' arrangement.[5] Furthermore, according to some Israeli sources, Ehud Barak, the Israeli Defence Minister, has asked Cyprus [RoC] to allow Israel to station military aircraft at the Papandreou Air Base.[6] As defence cooperation got off the ground the two countries are expected to engage in regular exercises.[7]

From now on the question is whether Christofias and Netanyahu will go the extra mile to agree on the stationing of a squadron of Israeli fighter jets at the Pafos Air Base. Lacking an Air Force, the National Guard, Cyprus's Armed Forces, have had to make operational defence plans bound in the limits of this serious handicap, for half a century. In the past, within the space of ten years, they bitterly learnt twice (1964 and 1974) that they had to put up inferior land forces resistance while the Turkish Air Force, practically unobstructed, pounded their positions whilst also dropping on Cypriot land hundreds of airborne troops.[8] Naturally, Greek Cypriots have today all the reason to seek to reverse the air superiority of the Turkish Air Force by entering into an air defence pact with Israel, the region's heavyweight and latter-day bitter adversary of Turkey.

The final outcome of the exploitation, the degree to which this vital natural resource will prove to be a blessing and not a curse, will depend upon the spirit in which it is worked, to borrow the all-too-relevant remark of Anthony Eden half a century ago. There is little doubt that the discovery of vital natural resources in the Eastern Mediterranean Sea is already producing far reaching geo-political consequences. In the limited space of the current paper, let us examine the main ones:

4 *Ο Φιλελεύθερος (O Phileleftheros)*, Greek Cypriot daily, 29 Sep. 2011.

5 Conversations with a former Cyprus Minister of Defence and the Israeli Ambassador in Nicosia, January to March 2012.

6 http://israelmatzav.blogspot.com/2012/02/israel-to-station-fighter-jets-in.html (accessed 23 March 2012). Nevertheless, according to information obtained confidentially by Hubert Faustmann it is denied that any IAF fighter touched down or refueled at the base. Some other Greek Cypriot source who did not wish to be indentified told the author that Netanyahu touched down at the Pafos base before officially landing at Larnaka International Airport.

7 http://www.cyprus.gov.cy/MOI/pio/pio.nsf/All/7B6E8CBF2B8CE13EC2257981002F8CC0?OpenDocument: The press release issued by the Republic of Cyprus Press and Information Office after the conclusion of Demetris Eliades', the Cypriot Minister of Defence, first official visit to Israel, talks of the signing of "two agreements for defence cooperation and for protection and exchange of classified information" (accessed 23 March 2012).

8 Turkish Armed Forces (TAF) Attila I & II Operations of invasion of Cyprus, 20 July - 16 August 1974. Earlier, in the first incursion of August 1964, the Turkish Air Force dropped napalm bombs causing Greek Cypriot civilian casualties in the northwest part of the island.

First, as soon as Texas-based Noble Energy announced the discovery in November 2011, the US Department of State created the Bureau of Energy Resources (ENR) reflecting the emphasis the US places on energy in the wider region in general and in Cyprus in particular. Karen Enstrom, the regional officer of the new ENR, is now assigned to establish her headquarters in the US Embassy, Nicosia, for the diplomatic involvement of the US in energy developments in the Mediterranean, South Europe and North Africa. The US Bureau of Energy Resources is headed by Carlos Pascual, State Department Special Envoy and Coordinator for International Energy Affairs. Mr. Pascual is former US Ambassador to Mexico and Ukraine.

Enstrom's mission will, reportedly, be to help facilitate and manage geopolitical developments as regards energy by enhancing diplomatic relations with the main energy producers and consumers in the region and by promoting US access to energy in developing countries. She will also be expected to boost the energy market forces by differentiating the current policies concerning alternative energy, electricity and energy development.[9]

Second, the gas bonanza may potentially be a catalyst for the settlement of the sad political-cum-geographical division of Cyprus, a result of the Turkish invasion and continuing occupation of the northern third of the island since 1974. We may recall that the donors' conference called in Brussels in order to voluntarily finance the UN plan of 2004 failed dismally to secure the necessary funds to finance the proposed settlement. The so-called Annan plan was in any case rejected by an overwhelming majority of the Greek Cypriots — 76 per cent was the vote against. Seven years later, with the discovery and prospective exploitation of natural resources, one can easily infer that the prospects are coming into place for Cypriots to self-finance a just and thus viable settlement of the so-far intractable Cyprus problem.

Having said that, it is my humble opinion that the settlement of the Cyprus imbroglio hinges upon a constructive stance by Ankara, the rising regional power with high stakes not only in the island but in the region at large.

On the one hand, efforts to reach a Cyprus settlement are heightened. First, we witness a more active involvement of the UN Secretary General. Ban Ki-moon appears to be fully engaged in the negotiating process: he has urged the two leaders to iron out their remaining differences, to use the UN jargon, in two recent meetings in New York, the first in October 2011 and the second in January 2012. Second, we equally witness an all too compromising stance of the Cyprus government: the Christofias administration, despite the internal opposition criticism that he comes up with premature offers to the Turkish side, has pledged that any prospective proceeds out of the natural resources exploitation are guaranteed to be used for the interests of both Cypriot communities — a promise,[10] it should be noted, that comes on top of a raft of post-2004 measures in favour of the Turkish Cypriot community.

9 "US Appoints Energy Officer to Nicosia Embassy to cover the region", *Cyprus Mail*, 9 February 2012, page 5.

10 *Today's Zaman* with *Reuters*, 22 September 2011, Istanbul (Constantinople): http://www.todayszaman.com/news-257606-greek-cyprus-promises-to-share-gas-proceeds-with-turkish-cypriots.html (accessed 23 March 2012).

On the other hand, Turkey, in the guise of a 'hydrocarbon hegemon', issues threats and provocative statements regarding not only the Republic of Cyprus, which she stubbornly refuses to recognize, but also vis-a-vis the European Union, the very club that Ankara seeks to join in a futile effort that dates back to the 1960s. Abdullah Gül, the Turkish President, calls Cyprus 'half a country' and the EU 'a miserable union'. Slip of the tongue or truthful admission of the Turkish steadfast perception of the island? Even if we accept that it was Gül's slip of the tongue, it tells the truth. Gül's comments do not augur well, all the more so for having been uttered in London at the conclusion of an official visit (23 November 2011). For a long time, the UK has assumed the role of the champion, *par excellence*, of Turkish full participation in the 'miserable' European Union. One wonders why? To make the EU even more miserable? Interestingly, David Cameron, the British Prime Minister, steered clear of any statement on the Cyprus front, avoiding at the same time a response to Gül's arrogant remarks on the EU.

In the light of the increased UN efforts to reach a settlement and the compromising stance of the Greek Cypriot side, one would have expected at least the avoidance of derogatory if not inflammatory statements which are bound to be perceived as unacceptable interference in the internal affairs of the European Union, if not by all, certainly by the absolute majority of its member-states; more so by the two heavyweight Turko-sceptics, Germany and France. I would seriously doubt that Gül's London remarks would gain any ground for his country's EU membership chances in the corridors of power in Paris or Berlin.

It is incumbent upon Turkey as the rising regional power, already a major energy hub, member of the G20 (16th biggest economy in the world), staunch NATO ally equipped with the second biggest army in the Alliance, boasting a military manpower equivalent more or less to the demographic size of the entire Greek Cypriot community, to show a measure of compromising attitude if not straightforward magnanimity with a view to a lasting settlement in Cyprus.

However, one would ask: what are Ankara's objectives with respect to Cyprus? Are these related to the promotion of a solution beneficial to the people of Cyprus, Greek and Turkish Cypriots, or is Turkey seeking the perpetuation of the system of a vassal half-baked state, half-a-country, to use Gül's derogatory remark?

Lest we forget, it is the whole of Cyprus that acceded by the Treaty of Accession to the EU in 2004. Implementation of the *acquis communautaire* is suspended in the northern part of the island pending a political settlement: that is to say, the internal restructuring and re-distribution of power *within* the Republic of Cyprus.

Treating UNCLOS A La Carte: *Turkey's Double Standards*

Cyprus has reached and ratified EEZ delimitation agreements with its eastern and southern neighbours: Israel and Egypt. Agreement with Lebanon has also been reached, pending ratification before the Lebanese parliament. Under the provisions of the United Nations

Convention on the Law of the Sea (UNCLOS) III, an EEZ is a sea zone over which a state has special rights regarding exploration and use of marine sources, including production of energy from water and wind.[11]

What is Turkey's posture on this crucial question regarding the agreed distribution of natural wealth in the Eastern Mediterranean? Steadfastly following its consistent yet unproductive, if not provocative, policy of non-acceptance of the undeniable fact of the internationally recognized state status of the Republic of Cyprus (full member of the UN and of the EU and a signatory to UNCLOS to which Turkey is not), Ankara *effectively* questions the Republic of Cyprus's entitlement to drill in its own EEZ. Hence the overtures to Cyprus's neighbours in the first instance not to sign, and after the signature to repeal their EEZ delimitation agreements with the RoC.

It is worth noting in this connection the importance of the aforementioned agreements on the delimitation of the EEZ between, on the one hand Cyprus, an island state, and on the other hand, Egypt, Lebanon and Israel which are coastal states in the Eastern Mediterranean Sea. Importantly, these treaties send certain signals to Ankara.

First, the concluded EEZ bilateral agreements prove that a fundamental and principled practice forms their basis: namely that the coastal states south and east of Cyprus treat the latter as an equal and equitable partner in the delimitation of their respective EEZs, exactly as the UNCLOS III provides regarding the regime of islands: ' ... the territorial sea, the contiguous zone, the EEZ and the continental shelf of an island are determined *in accordance with the provisions of this Convention applicable to other land territory'*.[12] It is abundantly clear that the UNCLOS does not differentiate between 'colossal' coastal states and small island states with regard to their maritime rights. Accordingly, the EEZ boundary with Cyprus was delimitated along the median sea water line. This is particularly significant in the case of the conclusion of the bilateral EEZ delimitation with Egypt. The Arab Republic of Egypt (ARE) has over a million square kilometres of territory, 2450 kilometres of coastline of which roughly 900 kilometres lies on the Mediterranean Sea and a population of 84 million.[13] Cyprus has 9,251 square kilometres of land, a total coastline of 648 kilometres of which less than half forms the south coast facing Egypt and a population of just a million.[14] In other words, Egypt is the region's top heavyweight — surpassing Turkey itself in all three counts of sizes — next to which Cyprus is dwarfed. However, the ARE abides by international law and treats the RoC as an equal partner delimitating their respective EEZs equidistantly.[15]

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11 UNCLOS III, Part V: Exclusive Economic Zone, Article 56.

12 UNCLOS III, Part VIII, Article 121: Regime of Islands (emphasis added to illustrate this crucial point).

13 CIA Factbook: https://www.cia.gov/library/publications/the-world-factbook/geos/eg.html (accessed 27 March 2012).

14 CIA Factbook: https://www.cia.gov/library/publications/the-world-factbook/geos/cy.html (accessed 27 March 2012).

15 The Cyprus-Egypt EEZ delimitation agreement was negotiated over a period of some years, signed on 17 February 2003 and ratified on 7 March 2004. (Amb. A. Jacovides: *Some Aspects of the Law of the Sea: Islands, Delimitation and Dispute Settlement Revisited*, Rhodes, Greece, 9 July 2004, p. 26).

Second, of even more importance, is the fact that Israel, another of the region's heavyweights, in terms of economic might and military strength, also concluded an EEZ with the RoC on the basis of equality of rights. Once more the median line was the yardstick. Israel, Turkey's rival for regional influence, like Ankara, has not signed the dotted line on the internationally agreed text of UNCLOS III. However, the recent (December 2010) conclusion of an agreement for the sea demarcation line between Cyprus and Israel[16] constitutes on the one hand corroboration of the RoC's sovereignty, while on the other hand, shows that in practice Israel, though a non-signatory, abides by the UNCLOS provisions.

The above two discussed EEZ agreements, along with the third one, the agreed but yet to be ratified agreement of Cyprus with Lebanon, have far-reaching implications for the stability and the rule of international law in the turbulent Eastern Mediterranean region. If anything, the provisions of UNCLOS increasingly become customary international law for state signatories and non-signatories alike.

Nevertheless, Turkish maritime policy seeks to limit the islands' entitlement to their own EEZ, territorial waters and continental shelf.[17] The Turkish line has serious repercussions vis-à-vis the potential delimitation of all three zones with Greece in the Aegean and the Mediterranean Sea (*vide: the case of Kastellorizo*) and of course in the case of Cyprus. Although entitled to do so under the UNCLOS III provisions — to which it is a signatory — Athens refrains so far from claiming its own EEZ in the face of Turkish threats on Greece's right to extension of territorial waters to twelve nautical miles (22 kms). Turkey has yet to lift its *casus belli* issued against Greece if the latter goes ahead with extension of its territorial waters. In a remarkably hypocritical and pharisaic fashion, Ankara has extended its own territorial waters to the limit allowed by UNCLOS in the Black and in the Mediterranean Sea.[18] Yet successive Turkish governments refuse to sign up to UNCLOS III, preferring to treat international law, as in the case of Cyprus, as an a la carte menu.

As stated above, the UN Convention on the Law of the Sea provides that *every state, island or coastal,* is entitled to special rights over the exploration and use of marine sources in its own EEZ.

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16 *Cyprus and Israel sign deal demarcating sea borders*: http://www.haaretz.com/news/diplomacy-defense/cyprus-and-israel-sign-deal-demarcating-sea-borders-1.331160 (accessed 27 March 2012).

17 The Turkish position, reportedly, supports that negotiations on the delimitations need to take into account the particular geographic and demographic circumstances. The clear implication being that Ankara claims a larger share both in the Aegean and the Mediterranean Sea on the basis of the argument that it has an extensive coastline and a large population size (80 million: est. July 2012, CIA Factbook). If the international community accepts such a dangerous argument, the world will no doubt experience more, possibly armed, conflicts than solve the existing ones on a global scale. For instance, China, which is ten times larger than Japan in population size, will be seeking to 'devour' the natural resources of the Sea of Japan which divides the two Far Eastern giants.

18 CIA Factbook asserts that "the Turkish Navy is a regional naval power that wants to develop the capability to project power beyond Turkey's coastal waters; the [Turkish] Navy is heavily involved in NATO, multinational, and UN operations; its roles include control of territorial waters and security for sea lines of communications": https://www.cia.gov/library/publications/the-world-factbook/geos/tu.html (accessed 26 March 2012).

Feeding Turkish Pipelines Carries Danger of Feeding Hydrocarbon Hegemony

Taken at its face value the Turkish argument implies that Cyprus is non-existent on the map of EEZ delimitations in the Eastern Mediterranean. In other words, according to Ankara's logic, the sea zones in the region for the purposes of exploration and use of natural resources should be divided between Turkey, Syria, Lebanon, Egypt and Israel. Thus Ankara seeks to exclude Cyprus and Greece, the southeastern-most island of which, Kastellorizo, with 430 inhabitants lies 170 miles west of Cyprus but just one mile off the Turkish coast. However, under UNCLOS provisions, any populated island with human economic activity on it, is entitled to full rights in its own EEZ.[19]

Some Turkish Cypriot analysts argue that the Turkish position vis-a-vis Cyprus, at least, stems from Ankara's policy of non-recognition of the RoC. That it is a by-product of the protracted non-settlement phase of the Cyprus conflict.[20] This may be true. However, it is equally true that the RoC is a fully recognized state that exists under international law and as such exercises its sovereign rights, one of which is the demarcation of its sea borders with neighbouring states and the subsequent exploitation of its bilaterally demarcated EEZ natural resources.

Given the limited confines of this short paper, it suffices to state that the RoC is recognized by all UN member-states save for Turkey. And more central to the debate on hydrocarbons and regional politics, to which this paper aspires to contribute: it is of great significance that the sovereign status of the RoC is not a dead letter as far as its neighbours are concerned — save once more for Turkey. Israel, Egypt and Lebanon, as amply explained above, have entered negotiations and concluded EEZ agreements with Nicosia, demonstrating in practice that they abide by international law — in this case UNCLOS — and respect the sovereignty of the RoC. In order to conclude the region's EEZs picture: discussions have also been under way for the sea demarcation with Syria. However, as the country is increasingly plunging into the abyss of civil war it is unlikely that these will continue until Syria pacifies and a freshly legitimized regime comes into place in Damascus. As for Greece, as explained above, Athens has not yet entered into the phase of negotiating the EEZ demarcation line with Cyprus, for the Turkish *casus belli* is still holding. Heavily struck by the worst debt crisis in its modern history, Athens, naturally, keeps the lowest possible profile on any issue that may exacerbate confrontation with its eastern neighbour.[21]

19 UNCLOS III, Part IV, Article 121: Regime of Islands makes clear that only 'rocks which cannot sustain human habitation or economic life of their own shall have no EEZ or continental shelf.'

20 Discussion with Dr. Ayla Gürel, PRIO Cyprus Centre, March 2012.

21 However, Greek New Democracy leader, Antonis Samaras, in a recent visit to Nicosia (February 2012) stated that Greece should follow Cyprus's path in delimitating its EEZ. According to the most recent polls Samaras is widely expected to win the forthcoming elections in May and take power.

Turkey's hegemonic approach, bypassing international law, may be explained in the context of the rising ambitions of regional power — the neo-Ottoman grand scheme projecting a blend of soft and hard power from the Balkans to Western Asia to North Africa — it is not too difficult to infer what Ankara is driving at: in all probability to tap on the island's sea and land resources — as last November's Famagusta drilling agreement reveals - and to feed her own pipelines easily and cost effectively in order to field herself as the region's unrivalled *hydro-carbon hegemon*. What would such an ambitious Turkish scenario mean for Turko-European and regional balances in turbulent western Asia? If Turkey gets away with devouring the Eastern Mediterranean basin energy resources, circumventing international law, Ankara will be holding a disproportional leverage: a) over the EU at a time of an ongoing and deepening internal European crisis; and b) over its regional rivals at a time of enormous fluidity, instability and uncertainty about the political future in the Arab countries — and exceptionally in Syria with which it shares a 900-kilometre long common border. Moreover, it will empower Ankara to manipulate Europe and the West as they are always engaged in a rather endless search for a powerful, purportedly West-oriented proxy, who would be willing to perform the role of the region's strategic ally, the western democracy and stability model exporter. Probably, in the eyes of certain policy-makers in Brussels and Washington, Ankara fits the bill. However, we should remind ourselves, that in the recent past (for example: US invasion of Iraq in 2003) Ankara proved to be a recalcitrant partner — if not an altogether independent player — in the West's designs for the Arab and Muslim world.

Feeding an already hydro-cum-hydrocarbon hegemon Turkey with the prospective Eastern Mediterranean energy resources, which, in any case, mostly, she is not entitled to, will run the risk of Ankara holding both the EU and the wider Western Asia and North Africa hostage to its neo-Ottoman designs since the former will be in control of the supply of probably the greater part of the region's energy resources. In such a Turkish-inspired self-serving scenario it is next to impossible to identify room for small regional partners like Cyprus to play a new important role in the EU's and Western Asia's energy security.

In such a hydrocarbon hegemon scenario where Turkey gets the upper hand in the exploitation of our island's natural resources, the indigenous Turkish Cypriot community, eager to free itself from the chronic patronization of Ankara, stands little chance to achieve this noble emancipation goal. As attested by the UN Secretary General as well as Turkish Cypriot press reports, Ankara has effectively turned northern Cyprus into its largest military base to the dislike of the autochthonous Turkish Cypriot population. Last year, in repeated mass demonstrations in North Nicosia, the Turkish Cypriots demonstrated in their thousands, their fervent desire to throw away the yoke of Ankara.

WEALTH SHARING AND GEOPOLITICAL STRATEGIES: EXCLUDING HYDROCARBONS FROM THE CYPRUS NEGOTIATIONS

Erol Kaymak

Since the summer of 2011 the issue of hydrocarbons has cast a shadow over the formal negotiations to reach a comprehensive settlement to the Cyprus problem. In recent months a series of unilateral moves, played out in tit for tat fashion, underscore the obvious need to incorporate hydrocarbons into the negotiation framework since the matter serves simultaneously as an incentive for peace and a harbinger of regional geopolitical rifts. Given the stakes, it behoves interested parties to explore the means of arriving at mutual accommodation.

Until fairly recently, the Cyprus problem festered as a manageable sore in EU-Turkey relations. Whereas it impeded the pace of Turkish accession talks, the Greek Cypriot leadership could not effectively leverage the Republic of Cyprus's membership to extract concessions from Turkey. The ensuing diplomatic stalemate rather served to consolidate the division of the island as intra-island efforts at normalization were also effectively sabotaged. While the uncertainty associated with this state of affairs remained relatively acute among Turkish Cypriots, conventional wisdom held that minus a catalyst neither Turkey nor the Greek Cypriot-led Republic of Cyprus (RoC) were likely to make conciliatory moves.

Despite this, for a limited period of time guarded optimism prevailed that peace negotiations between the respective sides on the island would generate sufficient momentum to consolidate a compromise settlement package in Cyprus. When the current round of formal talks commenced in 2008 with two moderates - Mehmet Ali Talat and Demetris Christofias - at the helm of intercommunal negotiations the international community supported a process of building gradual convergences.

By contrast, today pessimism is warranted as negotiations flounder and are effectively deadlocked on some key dossiers. The erstwhile Turkish Cypriot leader, Talat, failed in his bid to secure re-election in 2010. And while his successor, Derviş Eroğlu, remains formally committed to building on previous convergences between the sides, the fact of the matter is that the progress in the talks has been negligible in recent months. As of writing, the United Nations Secretary General was awaiting a report from his Special Adviser running his good offices mission in Cyprus. At stake is the commitment of the UN to continue working with the Cypriot sides or not. As the Republic of Cyprus is to assume the EU presidency in July 2012, this constituted a virtual diplomatic deadline to consolidate whatever progress had been made in the talks to date. Failing this, a break down in the talks could have far reaching consequences, not only in terms of the basis for Cyprus peace talks, but also in terms of regional geopolitics.

In this context the efforts of the Republic of Cyprus to enter into agreements with eastern Mediterranean coastal states to delineate maritime borders proved to be of more consequence than that of EU accession. This 'game changer' had already been in evidence during the period of 'Annan Plan' negotiations and had been contested by Turkey on a variety of grounds throughout, yet it was not until the commencement of offshore drilling in September 2011 that unilateral moves gathered momentum, potentially risking stability in the region. Since then the game of brinkmanship has continued. Upping the ante, Turkey signed an agreement with the internationally unrecognized Turkish Republic of Northern Cyprus (TRNC) delineating their respective continental shelves in the eastern Mediterranean.

The positions taken by various international actors in favour of the RoC's EEZs has had some effect on Turkey's initial calculus. Whereas Turkey has many intricate legal claims regarding the status of Cyprus and its EEZs and is not a signatory to the 1982 Law of the Sea convention, most states regard this now a part of customary international law. Thus the Greek Cypriots were not deterred from taking further steps to consolidate EEZ blocks to the south and west of the island. Moreover, Noble Energy, the American firm that is authorized to drill in Block 12, has announced estimates of commercial quantities of gas. This has piqued interest among other potential investors to bid for licenses in other blocks. Given the strategic dilemma with Turkey, plans are being drawn up to construct a Liquefied Natural Gas (LNG) facility on the southern coast of Cyprus that would allow for the export of gas extracted from either the Cypriot EEZ or in Israel's neighbouring Leviathan field. In conjunction Israel and the RoC have been developing bilateral relations in security. It may take years, but the means to 'monetize' the natural resource exist.

In the coming months a series of unilateral acts may shape the strategic politics in the eastern Mediterranean. Turkey has much experience with disputes on the application of the law of the sea. The Aegean dispute has held the potential in the past to lead to a war between Greece and Turkey. Although improving bilateral relations between Greece and Turkey has partially delinked the Cyprus problem from the Aegean issue, an unravelling of Cyprus negotiations in conjunction with diminishing prospects for Turkey's EU accession talks may serve to undermine stability more broadly.

After all, the dispute between Greece and Turkey regarding maritime zones owes much to tension regarding Cyprus. Since 1974 there have been a series of crises that ultimately led to militarization of islands in the Aegean, threatening war on three separate occasions between the two NATO allies. As with Cyprus, the problem was a lack of negotiation to accommodate the interests of both sides, partly because Greece and Turkey approached the matter from legally divergent vantage points.

Essentially, Greece has maintained that the 1982 United Nations Convention on the Law of the Sea (UNCLOS) provided it with the right to unilaterally extend its territorial seas to twelve nautical miles from the six that is the basis of the Lausanne Treaty. As a matter of law, Greece has argued that delimitation of the continental shelf between Greece and Turkey should be settled legally, through the International Court of Justice (ICJ), ruling out bilateral negotiations. While not ruling out the ICJ alternative, Turkey has insisted on bilateral talks, and has expressed concerns for access to high seas shipping routes and the continental shelf. Moreover, the Turkish parliament has even threatened war, declaring any unilateral extension of Greece's territorial seas *casus belli*.

In recent years the two countries have engaged in 'exploratory talks', thus effectively dealing with the matter bilaterally. Privately the sides acknowledge that the dispute could be settled although there would be domestic audience costs for the respective governments. Efforts at normalizing relations between Greece and Turkey held the key to the successful conclusion of Turkey's EU accession talks. As Cyprus's fate is also linked to Turkey's accession course, Greek-Turkish rapprochement is at stake both in the case of the Aegean and through the Cyprus negotiations. To date political will in both Greece and Turkey has been insufficient to overcome domestic politics, so no real progress has been made and the sides stick to their maximalist positions.

Whereas the failure to conclude the Cyprus talks is often portrayed as an obstacle to progress in the Aegean, the reverse can also be argued. Without Turkey's commitment to ratify UNCLOS there is the very real potential of Aegean-based rationales affecting the extraction of hydrocarbons in the Mediterranean. Turkey will rely on its own legal interpretation of the law of the sea, referencing the 1958 Geneva Convention that establishes the 'median line' concept as the basis of continental shelf delimitation. Moreover, Turkey will argue that ICJ jurisprudence in the matter of the application of continental shelf to islands (including Cyprus) is problematic. Additionally, the Aegean dispute has the effect of convincing Turkish strategists that a straightforward implementation of UNCLOS principles would render Turkey being shut out of the Aegean while being encircled to the south via Cyprus.

Therefore, the dual lack of progress and diplomatic urgency on both the Aegean dispute and the emerging tensions regarding Cyprus's EEZs are co-dependent. These issues, in turn, affect Greece and Turkey's ability to negotiate their own EEZs in the Mediterranean.

Greece's weakened hand due to its financial liabilities limits its ability to either take unilateral action or push for ICJ arbitration. This implies that Turkey could push for a bilateral settlement, but this has yet to come to fruition. The stalemate continues. But as there is limited prospect of finding commercially viable reserves of oil and gas in the Aegean, the failure to agree may have less overall consequence. Yet, in Cyprus the future is fraught with potentially greater tension due to the existence of significant resources and nascent strategic alignments. In Cyprus the communities have acquiesced to bilateral negotiations as the basis of resolving the Cyprus problem, but despite UN involvement a manifest lack of urgency makes a near term compromise settlement unlikely. Moreover, the hydrocarbons issue has been purposefully excluded from negotiations.

Consequently, hydrocarbons in the Mediterranean will require normalization of relations between the Cypriot sides, but also between Turkey and (divided) Cyprus. Part and parcel to a comprehensive settlement will be the necessity for an agreement between a (reunified) Cyprus and Turkey on the delimitation of the continental shelf followed by EEZ negotiations.

Minus normalization, hence a settlement, Cyprus and Turkey are left with taking unilateral steps. Following the December 2010 agreement between Israel and Cyprus to delimit EEZs, Turkey complained to Israel and implied physical intervention to challenge Cyprus's extraction of natural gas. Deterring the Greek Cypriots and Israelis from extraction where significant resources have been verified and where Turkey's legal position is less tenable will prove challenging for Ankara. Moreover, there is the real risk of contagion, if Cyprus's contiguous EEZs are negotiated to the detriment of Turkey's interests. Consequently Cyprus will serve to complicate the resolution of continental shelf issues in the eastern Mediterranean.

However, the changing political geography in the Middle East may favour Turkey in the overall balance. For instance, there can be little doubt that Ankara will hope that a resolution of the crisis in Syria will usher in a post-Assad government that works with Ankara on the strategic front. Similarly, Israel's inability to negotiate its own EEZs directly with its neighbours, including Lebanon, implies that EEZ boundaries may be contested. Turkey has not been able to persuade Egypt to reconsider its EEZ agreement with Cyprus, but there can be little doubt that contestation will continue. Moreover, the way in which hydrocarbons exploitation has been positioned as a matter of inviolable sovereignty has accentuated the crisis in emphasizing the mutual exclusivity of territorial claims. Turkey is determined to demonstrate its resolve in the 'tit-for-tat' game, having completed its own seismic survey and commenced a drilling project in the TRNC.

Ironically, the extent to which the Greek Cypriots successfully exploit natural gas reserves may be inversely related to the chances of reaching a settlement with the Turkish Cypriots. The crisis has raised the stakes and affected perspectives regarding the TRNC. Whereas the unrecognized entity has adversely affected Turkish diplomacy for decades and has been a financial drain, Turkey is apparently determined to reposition the TRNC internationally and to render it economically viable in the process. Hence, whereas the TRNC remains a drain on resources, the emphasis is now on productivity rather than welfare. As a result, Turkish infrastructural investments in the TRNC have increased, paving the way to position the northern part of Cyprus as a hub for trade in fossil fuels.

Meanwhile, though somewhat contradictory with the TRNC argument for separatism, communal rights asserted by Turkish Cypriots as rightly heirs to the wealth of all of Cyprus serves to undermine attempts by Israel and Cyprus to deny Turkey access to natural resources. The TRNC and the essential rights of Turkish Cypriots may yet serve to be a means to an end.

In the crisis the Turkish Cypriots, for their part, have made attempts to position and present themselves as actors. Indeed, in their contacts with international actors, including the EU, the Turkish Cypriot side maintained that it was not a mere 'observer' and had a share and say in the distributional aspect of wealth management and in devising viable means of exportation.

If Turkish Cypriots were excluded they would take 'reciprocal' actions. As always, the problem has been discerning the will of the TRNC from that of Turkey, thus it has been relatively easy to discount Turkish Cypriot rhetorical stances. Thus, Turkish Cypriot subordination to Ankara's strategic moves limits the authenticity of Turkish Cypriot claims to autonomy.

The Turkish Cypriot leadership has attempted to raise the matter of hydrocarbons in the context of the formal negotiations proposing the establishment of a mutually administered fund, but the Greek Cypriot side has deemed the discussion of wealth sharing as contingent on a political settlement and not as part and parcel to that process. Significantly, the Greek Cypriot leadership has declared its commitment to sharing, but these assurances remain verbal and are not embedded in the negotiations. The upshot is that while Turkey does not recognize the Greek Cypriot government, hence will not negotiate the demarcation of EEZs with it, neither will Greek Cypriots negotiate with Turkish Cypriots, either in engaging them as Turkey's proxy or as a means of encouraging Turkish Cypriots to reconsider their strategic orientation. Subsequently Turkish Cypriots have been pushed into the margins. Yet, in the end, the Turkish Cypriots hold the key to any potential pipeline via Turkey as an alternative to comparatively expensive LNG plants.

Yet, in all this there lies a kernel of truth that Turkish Cypriots are a crucial key to reconciling the Greek Cypriots and Turkey, as well as other interested parties. Most of Turkey's legal objections to the RoC and its EEZs would be nullified in the event of a settlement. After all, much of the formal Turkish objection is based on the exclusion of Turkish Cypriots, hence Turkey's right to assert its role as a guarantor state. With the interests of Turkish Cypriots accounted for Turkey would be obliged to conclude a comprehensive settlement package with Cyprus, replete with a recognition of international treaties binding on Cyprus, including its EEZs.

The best case scenario would entail a comprehensive settlement so that all outstanding matters are dealt with. But even a partial agreement between Greek Cypriots and Turkish Cypriots, in return for normalization of relations with Turkey, is feasible with natural gas as the sweetener in any deal.

Of course, the negotiations themselves are complex and there is little utility in having a settlement to expedite an agreement on EEZs alone. Similarly, there is a need to recognize that a settlement can never be a clear break from the past. For instance, the Turkish side has also been working to include Turkey-TRNC agreements, so it may be an overstatement to claim that a settlement will comprehensively close the door on this particular crisis, but the implications are clear enough: a settlement will by and large allow for the normalization of relations and provide the basis for sustained cooperation. Without this the current tit-for-tat strategy is likely to lead in the other direction.

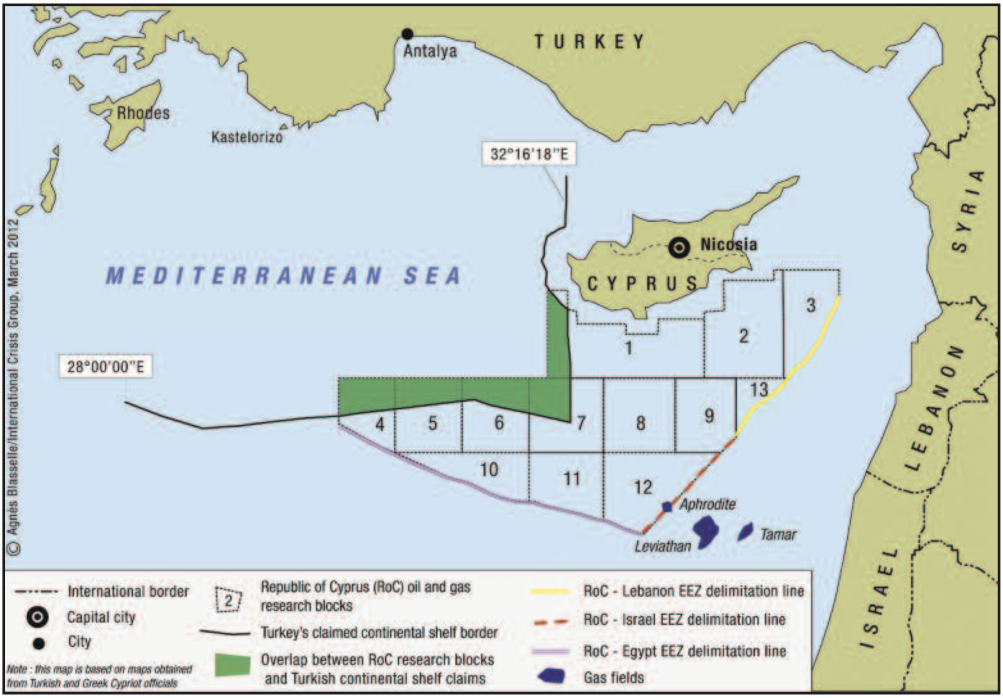
EASTERN MEDITERRANEAN GAS AND TURKEY'S POSITION

Didem Akyel Collinsworth

Since 2003, Turkey has been contesting the Republic of Cyprus's (RoC) right to enter into agreements with coastal states of the Mediterranean Sea to delineate maritime boundaries.[1] Ankara argues that the Greek Cypriot-led government of Cyprus does not represent the Turkish Cypriots of the divided island, and also says that some areas claimed by Greek Cypriots to the west of the island overlap with the Turkish continental shelf.

In 2007 Turkey objected to the RoC's division of a 51,000 sq km area within its declared exclusive economic zone (EEZ) into licensing blocks, and the latter's launching of an international tender for three-year oil and gas exploration licences in eleven of these blocks. In November 2008, the RoC protested to the UN that Turkish warships had repeatedly harassed Norwegian research vessels off the southern coast of the island over blocks marked for exploration. In response, Turkey claimed that the research ships had violated its continental shelf, and also called on the RoC government to end its calls for an international tender. In defiance of Turkey's warnings, the RoC licensed the Texas-based American firm Noble Energy Inc., which also has rights in nearby Israeli blocks, to explore for hydrocarbons in the southernmost 'Block 12' inside its EEZ, close to the median line with Israel and not in the area contested by Turkey (see Map 1).

1 Turkey's first objection was about the 17 February 2003 EEZ delimitation agreement between the RoC and Egypt. The relevant Turkish information note was submitted to the UN on 2 March 2004. See UN Law of the Sea Bulletin, No: 54, p. 127.

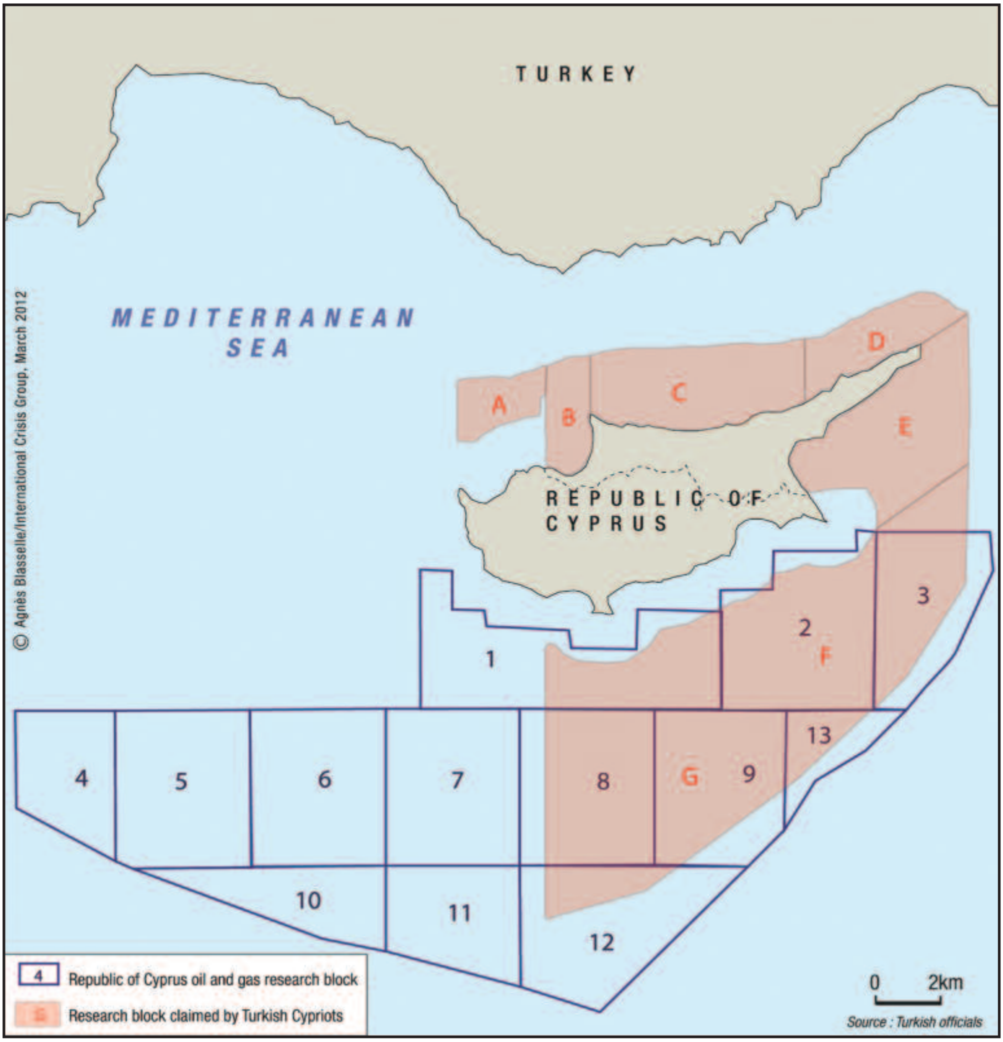


Map 1: The Republic of Cyprus EEZ delimitations and hydrocarbon research blocks, and Turkey's continental shelf claims

Tensions escalated anew in August 2011 when the RoC announced that drilling would start soon in its offshore Block 12. The Turkish foreign ministry issued a statement on 5 August 2011 saying if the Greek Cypriots went ahead, Turkey would take whatever measures necessary. This developed into a tit-for-tat strategy after the RoC authorized Noble Energy to start exploratory drilling off the southern coast of the island on 19 September 2011. Turkey signed an agreement with the Turkish Cypriots on 21 September, delineating their respective continental shelves with a line constructed by 27 coordinates 'determined on the basis of international law and equitable principles.'[2] On 22 September 2011, the Turkish Cypriot administration took a decision allowing oil and gas exploration by the Turkish state oil company (TPAO) in certain areas onshore and offshore Cyprus. In November 2011, TPAO signed a 'Petroleum Services and Production Sharing Contract' for these areas with the Turkish Cypriot authorities.[3] Some of the areas in this agreement overlap with the RoC licensing blocks in the south (see Map 2). The Greek Cypriots did not back down, announcing shortly afterwards that a new round of licensing would start, covering all of the remaining research blocks to the south of the island.

2 Announcement of the Turkish Consulate in New York, 22 September 2011.

3 See http://www.tpao.gov.tr/tp2/sub_en/sub_news.aspx?id=28.



Map 2: The Turkish Cypriots' claimed hydrocarbon research blocks

The conflict heated up when the RoC announced its second international tender for hydrocarbon exploration in February 2012. Turkey's reaction was to issue a harsh warning that Greek Cypriot blocks 1, 4, 5, 6, and 7 overlap with its continental shelf areas in the eastern Mediterranean, adding it '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.'[4]

4 Turkish Ministry of Foreign Affairs Press Release (No. 43) 'Regarding the Second International Tender for Off-Shore Hydrocarbon Exploration Called by the Greek Cypriot Administration (GCA)', 15 February 2012.

Even though Turkish Prime Minister Erdoğan has publicly ruled out the use of force, and Turkish officials underline they have no intention of getting physical, any perceived aggression on the part of a newly assertive Turkey against EU member Cyprus further damages its already-stalled EU process, and hurts its image among its neighbours. This complex dispute over maritime boundaries also affects Turkey's relations with Greece (particularly with regard to problems in the Aegean Sea),[5] as well as other regional states such as Israel, Egypt, Lebanon and Syria. Most importantly, unilateral moves by Greek Cypriots, Turkish Cypriots, or Turkey set back already fading hopes of reunification for Cyprus. On the other hand, a new gas find can be beneficial to all sides if it could be used to encourage normalization, most notably between Turkey and Greek Cypriots.

According to the 1982 UN Convention on the Law of the Sea (UNCLOS), a coastal state has the right to declare an EEZ up to 200 nautical miles from the edge of its territorial waters. Turkey, a rare non-signatory to the Convention, thinks this limit is not automatically applicable in the crowded neighbourhood of the Eastern Mediterranean where delimitation of maritime boundaries has to be done through negotiations among all coastal states based on equitable principles. Turkey underlines the general principle of UNCLOS requesting states bordering an enclosed or semi-enclosed sea such as the Mediterranean to 'cooperate with each other in the exercise of their rights and in the performance of their duties'.[6]

As a result, Turkey challenges EEZ agreements that the RoC signed with Egypt in 2003, Lebanon in 2007 and Israel in 2010. It has two levels of objection to Cypriot maritime boundaries. The first concerns the legitimacy of the all-Greek Cypriot RoC government, which Turkey argues is not 'competent to represent jointly the Turkish Cypriots and Greek Cypriots, consequently Cyprus as a whole'.[7] Turkey therefore says that it had no legal right to enter into EEZ agreements at all. Here, Turkey brings up its status as a guarantor state based on the 1960 Treaty of Guarantee and says it is looking out for the interests of the Turkish Cypriots. Consequently, Turkey wants the Greek Cypriots to halt all offshore exploration and exploitation activities while the current UN-mediated reunification talks continue. With regard to the 2010 agreement with Israel, however, Ankara underlines that its objections are not to what happens in the Israeli portion of the EEZ,[8] although it admits to having concerns about freedom of navigation in this portion of the sea.[9]

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5 See International Crisis Group Policy Briefing Nº 64, *Turkey and Greece: Time to Settle the Aegean Dispute*.

6 Note verbale dated 4 October 2005 from the Permanent Mission of Turkey to the UN (UN Law of the Sea Bulletin, No: 59, p. 34).

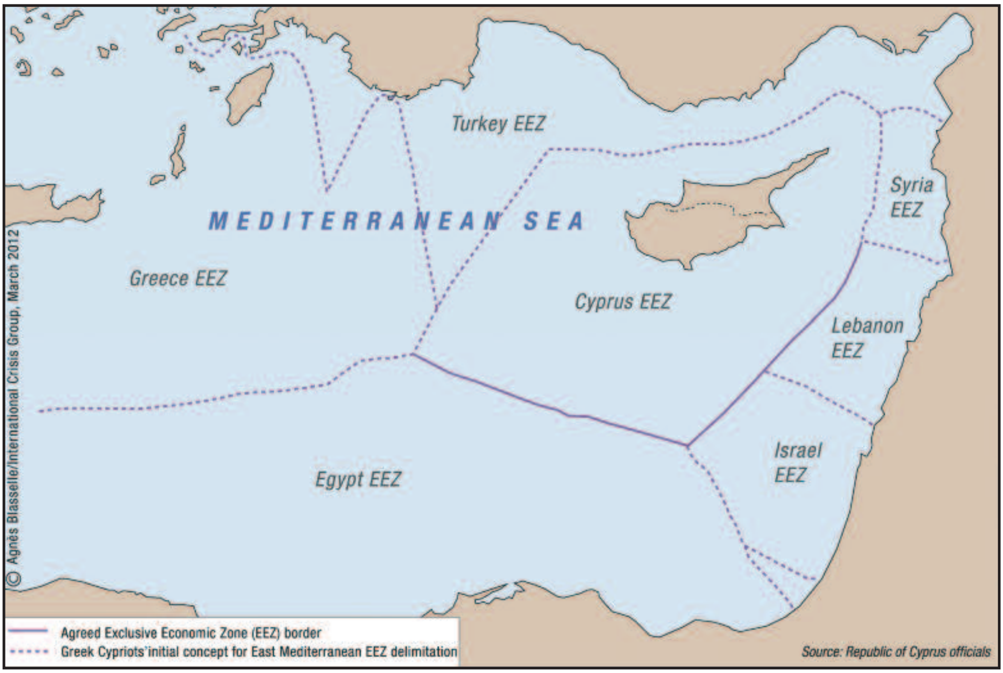
7 Information note by Turkey concerning its objection to the RoC-Egypt Agreement submitted to the UN on 2 March 2004 (UN Law of the Sea Bulletin, No: 54, p. 127).

8 'Turkey does not have any claim regarding the maritime areas subject to the said EEZ delimitation agreement. Turkey approaches this issue within the context of the Cyprus problem', Turkish Ministry of Foreign Affairs Press Release (No. 228) 'Regarding the Exclusive Economic Zone (EEZ) Delimitation Agreement Signed Between Greek Cypriot Administration and Israel', 21 December 2010.

9 See press statement by Turkish Foreign Minister Ahmet Davutoğlu regarding Turkish-Israeli relations, 2 September 2011.

Turkey's second official objection is a technical one, involving areas overlapping its continental shelf claims in the EEZ between Egypt and Cyprus, which covers all points off the western coast of Cyprus to the west of geographic coordinates of longitude 32 degrees 16 minutes and 18 seconds (see Map 1). Turkey says delimitation of EEZ west of this longitude should be achieved by means of agreements between the affected states.

On a greater scale, Turkey also has genuine concerns about being shut out of a large share of the Eastern Mediterranean, to which it has claims due to its long coastline, as the Republic of Cyprus and possibly Greece establish maritime zones without entering into negotiations with Ankara (see Map 3).



Map 3: The initial Greek Cypriot concept for East Mediterranean EEZ delimitation

As always, all sides have legal arguments to defend their positions. More pressing, however, is the fact that at a time when the latest round of UN-mediated talks to reunify the Greek Cypriot and Turkish Cypriot communities of the island are limping along, unilateral acts on the hydrocarbons issue give the impression that the sides are not planning a future together and further erode trust.

Moving forward, all parties should focus on using this gas as an opportunity. The gas finds could give a boost to the dwindling reunification process whereas unilateral actions make a mutually agreed settlement even more difficult and further raise tensions. A comprehensive settlement would be the surest way to end the conflict over hydrocarbons and maritime boundaries but even in its absence, the parties can still take independent confidence-building steps. Both Greek Cypriots and Turkish Cypriots should commit to sharing any gains from their unilateral hydrocarbon exploitation. They should also agree on jointly establishing an advisory committee to discuss ideas for joint use and distribution of the gas already discovered in Block 12. In the meantime, Turkey and Turkish Cypriots should stop their actions inside Cyprus's EEZ.

The newly discovered reserves can also be a tool for rapprochement between the RoC and Turkey, if the sides can cooperate in finding a way to send this gas to the large Turkish market, and from there onwards to Europe. This would certainly increase Turkey's interest in a solution on the island. For this to happen, Ankara needs to find creative ways to engage Greek Cypriot officials, and consider entering into a dialogue with them to discuss its claims in the Eastern Mediterranean. Greek Cypriots, for their part, should not condition any talks with Turkey on first reaching a settlement on the island.

The reward of a healthy development of a major gas field is a rare, clear example of how working together would be to the benefit of all, and the failure to do so will mean that no one gets to fully enjoy the riches.

THE PROSPECTS FOR EXPLORATION AND EXPLOITATION OF OIL AND GAS IN THE AEGEAN AND THE EASTERN MEDITERRANEAN: SOME OBSERVATIONS

Harry Tzimitras

Exclusive Economic Zone or continental shelf? The recent discussion on natural resources in the South-Eastern Mediterranean not only introduces a host of political, strategic and economic issues, but further revitalizes the debate on the legal framework within which such resources can be explored and exploited. Moreover, it touches upon the more general legal discussion on such frameworks and their pertinence, regarding the options available to littoral states or the best ways for them to safeguard their rights.

This paper will review some of the key legal issues raised within the framework of the current discussion pertaining to the Aegean Sea and the Eastern Mediterranean. Conventional and customary legal provisions will be connected to key international judicial decisions and awards to facilitate an understanding of the likely or expected outcomes of a potential judicial settlement of the relevant disputes pending.

Greek-Turkish disputes in the Aegean are part of the broader spectrum of bilateral issues involving, on the one hand, a wider geographical area such as parts of the Eastern Mediterranean and, on the other, indirectly interconnected issues such as minority rights, etc. The more concrete Aegean disputes arose in the early 1970s within the context of Cold War antagonism, the1973 oil crisis, and the relevant uncertainty, at the time, regarding the emerging Law of the Sea. Since then, both countries have engaged in maximalist claims and a selective invocation of international legal principles. Although from different standpoints, they appeared inflexible in their understanding of the substance of the disputes, even when it became evident that the law was changing, or at least that past interpretations could not hold ground anymore.

Since the emergence of the Aegean disputes, Greece has insisted that the only bilateral dispute in the Aegean pertains to the delimitation of the continental shelf and understands this dispute to be of a purely legal nature and therefore only amenable to a judicial solution. This stance has become exceedingly difficult to sustain, given the number of interconnected issues at play. For even if one were to accept this line of argumentation, the International Court of Justice (I.C.J.) itself has stated that there is no international legal dispute which does not entail a political element.[1] Additionally, when the opportunity arose in 2004 for the dispute to be submitted to the I.C.J. in conjunction with the European Council's Helsinki Summit Conclusions of 1999, Greece decided, contrary to its frequently stated position, not to pursue this option. Turkey, for its part, has always suggested a political solution to the disputes through negotiation. This stance emanated from its stated understanding that the disputes are essentially political in nature but arguably was also prompted by its belief that a political settlement held better chances for its interests.

Recently, a discussion on Exclusive Economic Zones has emerged in Greece, both in connection with and to some extent as an outcome of the developments with regard to EEZ delimitation agreements in the region. This discussion, which has gone beyond academic exchange, deviates from the traditionally held Greek position that the only dispute between the two Aegean neighbours pertains to the continental shelf. It is built on the logic of establishment of a wider legal framework, in the form of EEZ, which consumes the continental shelf regime and further strengthens the country's position. Proponents of the declaration of an EEZ by Greece capitalize on the perceived added advantages for the country from such a declaration and downplay the potential side effects that this might have. On the other hand, those more sceptical, in Greece and beyond, raise doubts and argue that an EEZ would introduce more problems than it would solve.

The central question of continental shelf vs. Exclusive Economic Zone is of course a wider one, referring in general to provisions, guarantees, rights and duties that are better served by each. In the case of the Aegean, the issues involved might schematically take the form of four questions:

- What is Greece losing while not declaring an EEZ? Or, conversely, why would it be in Greece's interest to proclaim an EEZ, beyond just maximalism? What would it offer?
- If Greece declared an EEZ without a solution of the Aegean disputes, could it proceed with exploitation of oil and gas in the Aegean, if such deposits were to be found?
- Does the declaration of EEZ solve once and for all the Turkish-Greek problems (including territorial sea, etc.)?
- What would the best mechanism be for dispute settlement in this case? Is the International Court of Justice the preferred forum?

1 *Anglo-Norwegian Fisheries Case (United Kingdom/Norway)*, Judgment, I.C.J. Reports 1951. See also the text of the speech delivered by H.E. Judge Gilbert Guillaume, President of the I.C.J., at the Lauterpacht Research Centre for International Law, University of Cambridge, on 9/11/2001, where he stated that '[t]here is no such thing as a purely legal dispute: those which arise between States always have a political aspect'. See also Gilbert Guillaume, 'The Future of International Judicial Institutions', *International and Comparative Law Quarterly*, vol. 44, no. 4, 1995, pp. 848–862; D.W. Greig, 'The Advisory Jurisdiction of the International Court and the Settlement of Disputes between States', *International and Comparative Law Quarterly*, vol. 15, no. 2–3, 1955, pp. 325–368; International Law Commission, Law of the Sea—régime of the territorial sea, Doc. a/cn.4/sr.363, Summary Record of the 363rd meeting, extract from the *Yearbook of the International Law Commission*, vol. 1, 1956.

Supporters of EEZ proclamation claim that the zone would be beneficial to Greece because it would ensure the political and economic unity of the Greek space (continental and insular territories); it would help the better maintenance of the marine environment; it would help manage overfishing beyond the 6-mile limit; and it would offer opportunities for exploitation like energy production from the air.[2]

This account presents the perceived advantages from the adoption of an EEZ. However, according to the Law of the Sea Convention, declaration of EEZ by a state gives it only three kinds of rights, in addition to the ones covered by the legal regime of the continental shelf: sovereign rights for fishing; exclusive jurisdiction for the protection of the marine environment; and sovereign rights over the superjacent airspace (wind for the production of energy). This is an exhaustive list and no other rights emanate from it. Thus, if it is only oil and gas rights that are in question or at stake, the continental shelf regime is more than enough[3] and provides better guarantees, as a more established regime, both in absolute terms and comparatively speaking, as Greece stands a better chance of securing its interests. Hydrocarbons are always located on the continental shelf. Thus, the EEZ discussion is disorienting.[4] Here, the rights involved are functional. They don't constitute sovereignty and are to be exercised with due regard to the rights and obligations of other states engaged in usage of the specific marine area. Further, according to the Convention, delimitation has to precede exploitation.

The institution of the continental shelf is not consumed by the institution of the EEZ; on the contrary, it remains valid and vivid, regulating seabed usage by the littoral states. Further, as Turkey is not a party to the Law of the Sea Convention (LOSC), the applicable treaty law is the 1958 Convention and there is no EEZ provision there. Indeed, the continental shelf regime is a more established concept; the rights associated with it belong to the state *ipso facto* and *ab initio* by virtue of being a coastal state. The coastal state has exclusive rights of exploration and exploitation of the natural resources of its continental shelf. These rights belong to the state irrespective of their exercise which is at the absolute discretion of the state. In contradistinction to this, the EEZ brings rights to the state only if it is declared.

The EEZ is a more recent concept; a younger and more uncertain institution of a complementary nature. Additionally, it includes a wider landscape (superjacent waters) thus there is more leeway for balancing by a court. And, of course, the EEZ does not expand a state's

2 See, *inter alia*, T. Karyotis, "Ifalokripida kai AOZ – Mythoi kai Pragmatikotita" ["Continental Shelf and EEZ - Myths and reality"] in http://infognomonpolitics.blogspot.com/2011/10/blog-post_4331.html#.Tr1CZFZd2zo (in Greek); A. Syrigos, "I AOZ einai mia 'moda' pou symferei tin Ellada" ["The EEZ is a 'fashion' that is in the Interest of Greece"], in http://www.makthes.gr/news/politics/73279 (in Greek).

3 G. Tsaltas, "I Ifalokripida einai Yperarketi gia na Ekmetalleytoume to Petrelaio" ["The Continental Shelf is More than Adequate for Oil Exploitation"], http://www.makthes.gr/news/politics/73279 (in Greek).

4 On this issue see also E. Gounaris, "Politikes Ekmetalleysis ton Ydrogonanthrakon" ["Hydrocarbon Exploitation Policies"], *Kathimerini* 12/10/2011 (in Greek).

sovereignty but only introduces sovereign rights. This is often the source or outcome of misunderstanding or misinterpretation. Indeed, the EEZ's philosophy was exactly about limiting, rather than expanding, rights and was devised in order to do so. Indeed, here it would be helpful to recall its historical basis or logic, as a compromise regime for the excessive claims to territorial seas by some Latin American states. So the EEZ was designed as a specific legal regime, where rights and jurisdiction of coastal states and rights and freedoms of other states are governed by the relevant provisions of the Convention. Thus, states must exercise their rights acting in a manner compatible with the provisions of the Convention (Articles 55 and 56). Therefore, rights of exclusivity and exploration and exploitation rights must comply with both the letter and the spirit of the Convention's social character, evident in provisions regarding dispute settlement, equity, sharing, common heritage, equitable principles, distributive justice, etc. Indeed, equity and equitable principles introduced in various court decisions go hand in hand with the social character of the LOSC and probably served as the inspiration for it. Along similar lines, the LOSC is characterized by a spirit of distributive justice in favour of the financially weaker or disadvantaged and this is also the outcome of relevant jurisprudence. For instance, Article 74 prioritizing equitable solutions crystallizes international jurisprudence or at least goes along similar lines with it.

Finally, rights or claims of passage and usage are potentially affected. In this respect, great sea-faring states with large merchant marine fleets and regular engagement in military uses of the sea, like the United States, the United Kingdom or Russia, which have been keen on the freedom of high seas and don't favour apportionment of high seas areas to coastal states, are expected to raise objections. Thus, especially in the case of Greece, it would seem more important and secure to delimit what is legally much clearer and already belongs to the country rather than what could potentially be claimed. Additionally, rights always carry obligations as well. It is not certain if Greece is in a position to explore, exploit, but more importantly secure and control, what it already has the relevant responsibility to control. The addition of more areas of control would introduce extended responsibilities that would be exceedingly difficult to meet. For instance, becoming exclusively responsible for environmental issues suggests the problem of coping with potential environmental challenges as well. Moreover, the addition to natural rights over the continental shelf of declared rights over an EEZ would aggravate an already conflictual situation and render the prospects of settlement even more remote.

Further, generation of title and delimitation are two different things. The right vs. the delimitation of the right has been a central theme in all international judicial and arbitral decisions to this day. There is a distinction between entitlement in principle and delimitation of this right. In the case of the Aegean, delimitation would have to be effected between the Anatolian coast and the eastern Aegean islands. In this connection, it is crucial to note that the totality of international jurisprudence dealing with or including continental shelf delimitation is negative for the rights of islands. This would be reasonably expected to emerge in similar cases involving delimitation of EEZ. Indeed more so, given the greater uncertainty of the legal terrain and the greater scope for evaluation and balancing of more factors. For instance, as argued here, even the International Court of Justice has been striking balances in continental shelf delimitation issues this day; it would be expected to act similarly in EEZ delimitation cases. Greece is certainly in principle entitled to declare an EEZ, as it is in principle entitled to extend its territorial sea to 12 nautical miles. Having said that, first the political, legal, financial, strategic, etc. effects of this, vis-à-vis not only Turkey but other states in the Mediterranean and beyond, including states with considerable maritime interests, should be taken seriously into account; and secondly, delimitation must be effected in cooperation with states with opposite or adjacent coasts (in this case Turkey).[5]

There is no doubt that EEZs can be unilaterally proclaimed. However, they cannot be unilaterally delimited. If there is another opposite state within 400 nautical miles, then the EEZ between the states needs to be properly delimited before any of the states can proceed with the exploration and exploitation of their EEZ-related sovereign rights. According to the Convention this can be done through agreement or by recourse to one of the mechanisms provided, such as judicial or arbitral settlement. This is why, for instance, the Republic of Cyprus proceeded with the signature of bilateral delimitation agreements with neighbouring Egypt, Israel and Lebanon. And yet, even in this case, although the agreements would cover the areas to the south and southeast of the island, areas to the north and northeast would have to be delimited through agreement with Turkey or adjudication thereof (notwithstanding of course the discussion regarding the rights of Turkish Cypriots).

Similarly, in the case of the Aegean, before either Greece or Turkey could exercise sovereign rights as the outcome of a potential EEZ proclamation, they would have to delimit their EEZs through agreement within a reasonable period of time or seek adjudication according to Part XV of the Convention (Articles 279-299) and customary international law. Rhetoric on unilateral proclamations without need for cooperation or in disregard to other states' interests is not in line with the international conventional and customary legal provisions and must thus be the products of limited understanding or *mala fide* approach. Thus, claims made by states should be evaluated regarding their validity in law and politics. For instance, it would appear problematic to claim that the island of Kastelorizo should be totally excluded from any delimitation agreement, as it is not situated in the Aegean proper.[6] The island might not be part of the Aegean islands group per se, but it certainly is part of the bilateral disputes framework. It would be equally unrealistic to expect that it would be given full effect in view of its geographical position and the proportionality criterion between the coastlines of

5 See also H. Dipla, "Ifalokripida kai Apokleistiki Oikonomiki Zoni sto Aigaio kai tin Anatoliki Mesogeio" ["Continental Shelf and Exclusive Economic Zone in the Aegean and the Eastern Mediterranean"], *To Vima tis Kyriakis*, 16/01/2011 (in Greek).

6 See C. Rozakis, "I Ennoia tis Apokleistikis Oikonomikis Zonis kai i Elliniki Exoteriki Politiki" ["The Notion of the Exclusive Economic Zone and Greek Foreign Policy"], http://www.protagon.gr (in Greek).

Anatolia and the island. Or, discussions revolving around the notion of "common EEZ" between Greece and the Republic of Cyprus are also unfounded in law and practice. There is no notion of "merged EEZs"; additionally, the only way for the two states' EEZs to meet would be if not only Kastelorizo would be given full effect but also Strongyli, an islet situated further out. Even if full effect could be generated by the islet, both Egypt and Turkey have declared their disagreement and unwillingness to recognize this.

Perhaps the inclusion in the discussion of arguments of an extra-legal nature would be necessary in order to evaluate the prospects for a potential EEZ declaration. Briefly, political evaluation of the prospects of EEZ declaration would have to include Greece's potentially diminished negotiating capacity due to the prolonged economic crisis and its political and strategic consequences; the European Union's crisis in both absolute terms and comparative ones vis-à-vis Turkey, where the EU incentive seems to be (temporarily?) lost; and Turkey's prosperity and upgraded role. Thus, politically speaking, an EEZ declaration not only does not solve Greek-Turkish problems, but on the contrary adds more to the agenda, because further to the seabed and subsoil, the water column above is added. In this case, Turkey is bound to react even more. Bilateral dialogue in the form of exploratory talks has been constructive for the last decade and continues to be so; it would seem to be imprudent to endanger the prospects of a settlement through the inclusion of further issues.

At this point, it would be useful to evaluate the prospects for and expected outcome of a possible judicial settlement. Both the International Court of Justice and various international arbitral tribunals dealing with cases of continental shelf delimitation have produced controversial jurisprudence blurring, rather than clarifying, the legal terrain and rendering the prospect of a clear and predictable outcome in the case of adjudication exceedingly uncertain.

A close study of the international jurisprudence in the field of maritime delimitations leads to the conclusion that in cases of judicial or arbitral delimitation of continental shelf the rights of islands in particular have been sacrificed to the end of delimitation.[7] Islands suffered an injustice in virtually all of the relevant cases of maritime delimitation. In short, the islands in question were stripped of their entitlement to continental shelf, a right recognized and established under international law in no uncertain terms. This right appears to have been subordinated to the secondary and technical matter of delimitation.[8]

7 For an extensive analysis see H. Tzimitras, *The Continental Shelf of Islands in International Jurisprudence* (Athens: Sakkoulas Law Publishers, 1997) (in Greek); H. Tzimitras, 'Peaceful Settlement of International Disputes and the Development of the Law of the Sea: The Role of the International Court of Justice', *Cambridge Review of International Affairs*, vol. 10, no. 2, 1997, pp. 298–312.

8 This section of the present text draws from a previous study on the subject and is in part to be found in H. Tzimitras, "Europe, Nationalism and Turkish-Greek Aegean Disputes", in K. Nikolaidis, O. Anastasakis & K. Oktem (eds.) *Under the Long Shadow of Europe: Greeks and Turks in the Era of Post-Nationalism* (Leiden & Boston: Brill/ Martinus Nijhoff, 2009).

Of the multitude of cases in existence, three examples are cited as characteristic of the treatment of islands and indicative of potential future outcomes in similar cases. In the *North Sea Continental Shelf Cases* of 1969,[9] the International Court of Justice ignored, during the delimitation process, a large number of important islands of the Federal Republic of Germany—ones that form a chain-like configuration which resembles that of islands in the Aegean. In the *Tunisia-Libya* case of 1982,[10] the rights of the main Tunisian island with a land surface of 700 sq. km., permanent population, and significant economic activity, located in close proximity to the continental coast—in fact nearly connected to the coast at low tide—were totally disregarded. Another Tunisian archipelago with a permanent population and economic life situated just 11 nautical miles from the Tunisian mainland coast was awarded only limited rights. In the *Libya-Malta* case of 1985,[11] the I.C.J., in a controversial move, chose to widen the framework within which delimitation would be effected. In this way, it demoted the sovereign island state of Malta to the category of a minor geographical feature of a wider maritime area, and arbitrarily treated Malta as part of a neighbouring state (Italy). The Court thus committed a triple legal and substantive fault: it disregarded the geographical and political realities of an entire area; it did not respect state sovereignty and independence; and it ignored the principle of equality of states. On grounds of Malta's insular nature, the Court deprived a sovereign state of its inalienable right to enjoy full measurement of its coastline for the purposes of continental shelf delimitation.

There are no guarantees that a similar questionable approach might not be taken in the case of the island of Cyprus. This problematic precedent, coupled with the overall stance adopted by international jurisprudence on achieving an equitable result as an outcome of balancing an indeterminate number of factors, raises concern regarding the possible outcome of a potential delimitation exercise in the area. For instance, on the basis of previous cases, at least the ratio between the coastlines of Turkey and Cyprus is likely to be taken into consideration as a key factor and this will probably prove disadvantageous for Cyprus. Moreover, this case is further confused given the complicated political situation on the island where it is unclear even who the parties to a possible delimitation would be.

To say the least, the treatment of islands in the overwhelming majority of cases has been problematic. The opaque element of "special circumstances"—used excessively in the jurisprudence—found its way into the text of the Convention and thereby opened the door to the courts for alternative arrangements. In fact, there does not seem to be a limit to the factors that can be taken into consideration for delimitation purposes. In any given situation,

9 *North Sea Continental Shelf (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands)*, Judgment, I.C.J. Reports, 1969.

10 *Continental Shelf (Tunisia/Libyan Arab Jamahiriya)*, Judgment, I.C.J. Reports, 1982.

11 *Continental Shelf (Libyan Arab Jamahiriya/Malta)*, Judgment, I.C.J. Reports, 1985.

elements particular to a case can potentially be characterized as "special circumstances" and be used to justify almost any result. Within this framework, consideration of special circumstances has led to many cases of unjust treatment of geographical entities like islands. On occasion, no justification has been offered for such decisions, raising questions as to the possible existence of procedural illegality.

Consequently, it seems that the approach has been one of apportionment—not delimitation. This approach is arbitrary and highly problematic, as it lacks legal footing. The I.C.J. seems, in such cases, to be ignoring the fact that delimitation is not an act of distributive justice or awarding of continental shelf title anew, but refers to a pre-existing right. Yet, the Court has not hesitated to embark on exercises of allocation of areas of continental shelf. As a result, it has awarded to certain states areas of continental shelf which rightfully belong to another state. It may therefore be concluded that with respect to the rights of islands, nearly all of the decisions of the International Court of Justice have been controversial to some degree. The unjustified recognition of limited rights to islands within the framework of an unclear benchmark of "fairness", and the inexplicable disregard of the rights of some states for the purpose of delimitation, not to mention the non-recognition of the right of islands to continental shelf constitute, at the least, unfortunate precedents in the relevant international jurisprudence.

The discussion thus far makes it clear that adjudication by the International Court of Justice involves a high degree of uncertainty since the jurisprudence in question can be criticized and there is no clear pattern to outcomes. There are no grounds to believe that the Greco-Turkish case would be any different. Indeed, there is no clear indication, let alone certainty, that the Court would be ready and willing today to alter its position, moving away from the vague criteria it introduced in its past jurisprudence and towards a more systematic application of clear-cut legal principles. Therefore, a possible referral of the Turkish-Greek dispute concerning the continental shelf in the Aegean would likely be adjudicated on the basis of the existing jurisprudence and it is highly doubtful whether the result would be close to the expectations which have been cultivated in Greece for decades. Ultimately, much of the discussion today on the more technical aspects of the Aegean question reflects a limited or flawed understanding of the issues and a failure to deal with the underlying source of conflict.

Sovereignty, on the other hand, is being critically revisited in light of the barrier it presents to the enforcement of human rights and realization of democracy, not to mention the obstacles it poses to the attainment of regional or global market and environmental goals. Such concerns today dominate the agenda, and both Greece and Turkey are in dire need of moving beyond rigid conceptualizations of sovereignty. It is likely that environmental concerns also and soon will constitute grounds for questioning absolute state sovereignty. Such issues are increasingly at the forefront of the international and EU agenda. So is regional stability, which is a prerequisite for the promotion of other political and strategic ends. This—in tandem with the variety of new criteria employed, the growing need for balancing law and non-legal considerations, and the rising resistance to absolutist conceptions of sovereignty—points to the possible conclusion that referring Greek-Turkish disputes to the I.C.J. could lead to a decision influenced more by functional criteria. This would probably facilitate or justify a splitting of the contested areas. Consider that Article 123 of the Law of the Sea Convention referring to semi-enclosed seas, such as the Aegean, stipulates that states bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties regarding, *inter alia*, the management and conservation of living resources and the protection and preservation of the marine environment. Admittedly, *stricto sensu,* there is no legal obligation here for cooperation. But, clearly, the spirit of the law reflected in the Article concerns cooperation between coastal states for a common good. This proposition is much more likely to be enforced today than in the past, due to environmental considerations.[12]

On the basis of the preceding analysis, it becomes evident that the discussion in Greece on the continental shelf and the EEZ does not appear to paint an accurate picture of the situation and creates animosity. It is suggested that the first step to deconstruct hostility and disputes could be the decreasing of unproductive discussion that falls victim to, is hijacked by and becomes hostage to nationalistic discourse. This captures governments in the web of rhetoric that renders the seeking of solutions more difficult. Secondly, the repeated declared position on the I.C.J. as the preferred forum creates favourable outcomes expectations. However, given its jurisprudence, it is highly unlikely that such expectations are going to be met. It is submitted that a more balanced account of potential outcomes should be gradually introduced in public discourse. Thirdly, a unilateral EEZ declaration at present would not seem to be opportune: not only would it fail to solve bilateral disputes but it would most probably further complicate the situation and jeopardize the prospects for a peaceful settlement based on progress made this far. Finally, despite the hardship it introduces, the current economic crisis could also be seen as an opportunity. Stubborn positions of non-sharing in the exploration and exploitation of physical resources, so much needed during this time of crisis, just in order for the other state not to get anything become very difficult to defend. And of course, a broader purpose could be served. Cooperation, rather than conflict, would yield two additional concrete results: a sharp decrease in defence expenditure; and harmonization in this area potentially paving the way to more cooperation in other fields as well.[13]

12 On the issue of the environment see *inter alia* P. Grigoriou, "Oi Neoteristikes Proteraiotites tou Dikaiou tis Thalassas os pros tin Prostasia tou Perivallontos" ["The Innovative Priorities of the New Law of the Sea Regarding the Protection of the Environment"] (in Greek); and E. Dousi, "I Prostasia tou Perivallontos sti Mesogeio kai ti Mavri Thalassa" ["The Protection of the Environment in the Mediterranean and the Black Sea"] (in Greek), both in S. Perrakis (ed.), *I Symvasi gia to Dikaio tis Thalassas. Efarmoges kai Exelixeis 20 Xronia apo tin Ypografi tis* [*The Convention on the Law of the Sea. Applications and Developments 20 Years after its Signature*, (Athens: Sakkoulas Law Publishers, 2005) (in Greek).

13 On suggestions regarding possible steps to be taken towards normalization of bilateral relations see International Crisis Group, *Turkey and Greece: Time to Settle the Aegean Dispute,* Crisis Group Europe Briefing N°64, 19 July 2011.

LEBANON: EFFORTS TO ESTABLISH A HYDROCARBON SECTOR

Gary Lakes

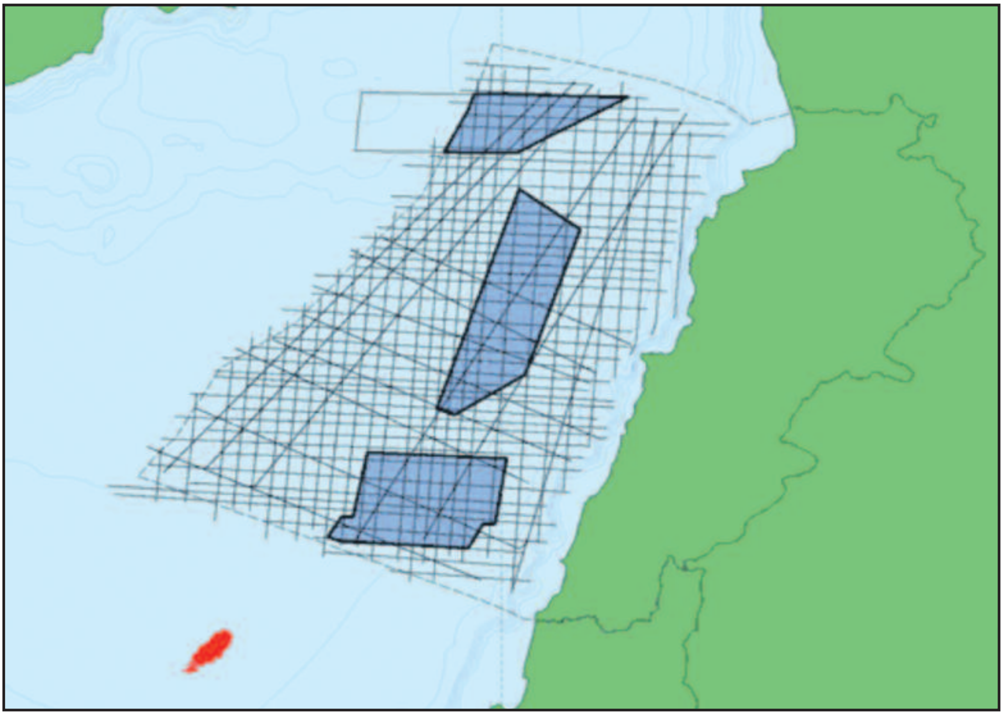
The discovery of sizeable deposits of natural gas off the coast of Israel in 2009 and 2010 has created a new political dynamic in the Eastern Mediterranean Sea. The discoveries, in a geological region identified as the Levant Basin, will have an enormous economic impact in Israel and probably also in Cyprus, where the first discovery of natural gas was made in December 2011. Noble Energy of the USA made the discoveries in both the Israeli and Cyprus offshore and this has led to the emergence of a new relationship between the two East Mediterranean countries.

The exploration and development work now underway in the region by Noble Energy has given rise to a new dimension of long-standing political differences, with Lebanese politicians claiming that the discoveries made offshore Israel are within its own exclusive economic zone (EEZ) and Turkey demanding that exploration work offshore Cyprus stop until a political settlement is found for the 'Cyprus Problem'.

Until Noble Energy discovered the Tamar gas field in 2009, the international energy exploration industry had paid little attention to the Eastern Mediterranean. The region had been thought to hold little promise for hydrocarbon discoveries, but the advent of deep-water drilling technology has made it possible to carry out exploration work that has proved successful.

The US Geological Survey has estimated that there exists within the Levant Basin 122 trillion cubic feet of recoverable reserves of natural gas and some 1.7 billion barrels of recoverable crude oil. At this point in time (January 2012), some 33 trillion cubic feet of natural gas have been discovered by Noble Energy. While crude oil has yet to be discovered in the Eastern Mediterranean, there is no doubt that efforts will be made to do so in the future.

The natural gas discoveries offshore Israel prompted the parliament of Lebanon to step outside its usually fractious politics and pass in August 2010 a hydrocarbon law for the purpose of developing its own offshore territory (see Map 1). Contained within the law was a provision to establish a Petroleum Administration that would take responsibility over Lebanon's hydrocarbon development that would begin with the launching of an offshore licensing round to be held at the soonest opportunity.



Map 1: Potential deposits offshore Lebanon (source: Petroleum Geo-Services)

In October of 2010 the Lebanese parliament sent a letter to UN Secretary General Ban Ki-moon identifying the points along its maritime border with Israel. The southern maritime boundary claimed by Lebanon extended further south than the maritime border that Israel had claimed for itself, thus creating a new point of contention between Lebanon and Israel, which are technically at war.

In January 2007, Lebanon and Cyprus signed a maritime delimitation agreement. The deal has been ratified by the Cyprus parliament, but not by the Lebanese parliament. In November 2010, Lebanon's former Prime Minister Saad Hariri visited Cyprus to discuss the offshore boundary between Lebanon and Cyprus and the formation of exclusive economic zones. Lebanon was keen to discuss changes to the 2007 agreement.

Throughout this, some of Lebanon's political parties were exploiting the politics of the situation by focusing on the difference in the offshore maritime borders claimed by Lebanon and Israel with accusations that Israel was exploring within Lebanon's offshore territory and stealing its hydrocarbon reserves.

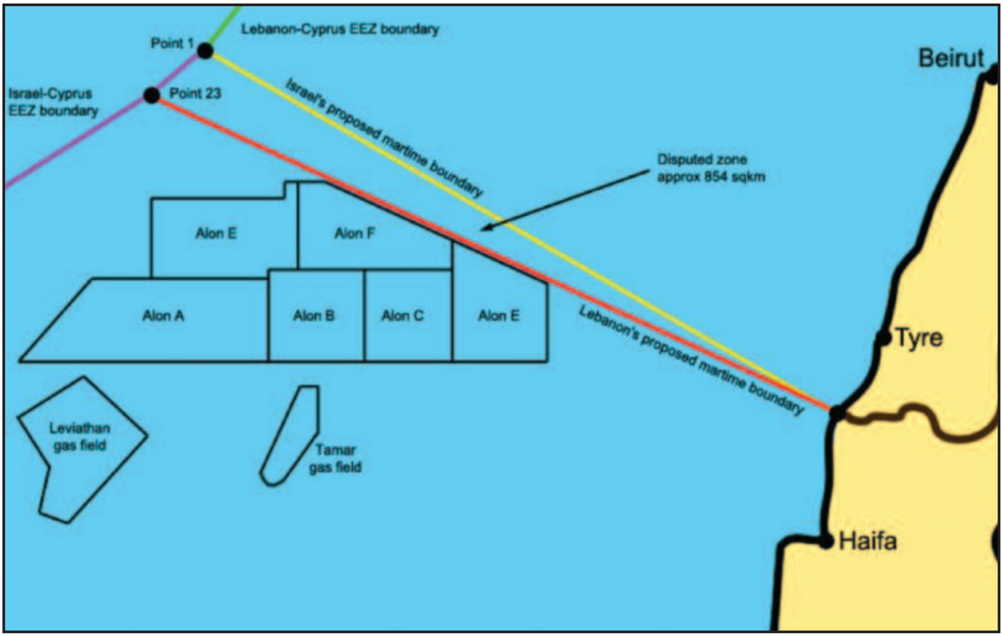
The Lebanon-Cyprus meeting in Nicosia was followed in December 2010 by an agreement between Cyprus and Israel on a maritime delimitation agreement for their respective EEZs. The parliaments of both Cyprus and Israel have ratified that agreement. Furthermore, Cyprus and Israel (as of January 2012) are in the process of finalizing a unitization agreement that will allow the exploitation of hydrocarbons resources that extend across their common offshore border.

In February 2011, Lebanon asked the UN to broaden the UNIFIL mandate for offshore demarcation, but it was told that this is not possible since the UNIFIL mandate is restricted to the onshore area of Lebanon and cannot be extended to the offshore. Lebanon then initiated contacts with individual members of UNIFIL in order to have their navies assist in demarcating the offshore area with Israel. Furthermore, Lebanese Prime Minister Najib Miqati asked UK Prime Minister David Cameron during a visit to London for the UK Admiralty to assist in the offshore demarcation with Israel, as it had done so during the Palestine Mandate, even though the UK is not a member of UNIFIL.

There was also an attempt by Lebanon to draw Cyprus into the disagreement. In June 2011, Lebanese Foreign Minister Adnan Mansur sent a letter to UN Secretary General Ban stating that Lebanon considered the offshore delimitation agreement signed by Cyprus and Israel to be "a violation of Lebanon's sovereignty and economic rights", and a threat to "peace and security in the area".

During an energy conference in Nicosia in July 2011 covering the topic of hydrocarbon deposits in the Levant Basin, former Lebanese Prime Minister Fuad Sinioria said that Lebanon had unilaterally determined its northern and southern offshore borders. "We [Lebanon] need to make sure that we are safeguarding our sovereign rights over our offshore resources and, simultaneously, closely working with Cyprus and other international bodies to ensure that each country's rights are protected, no more no less," Mr Sinioria said.

In July 2011, Israel identified in a letter to the UN the points in the Eastern Mediterranean that it considers to be the maritime boundary between its territory and Lebanon's offshore. The claim made by Israel, which terminates at the western-most point of Point 1, overlaps that claimed by Lebanon, placing in dispute an offshore area of 850 square kilometres (see Map 2).



Map 2: Israel-Lebanon Maritime Border Dispute (source: Lebanonwire)

In August 2011, the Lebanese parliament passed a law endorsing the coordinates of Lebanon's delimitation line with Israel as those previously filed with the UN. Throughout 2011, politicians in Lebanon and Israel continued to make threatening comments regarding claims of encroachment and warnings against the possible future exploitation of the other's offshore oil and gas resources.

Delegations representing the energy interests of Lebanon and Cyprus met in Nicosia in November 2011 to discuss a request put forward by Lebanon to amend the 2007 delimitation agreement.

During the meeting, Lebanon requested that the median line between the two countries be extended southward to a point identified as Point 23. Lebanon wants this to be the tripartite point where the territories of Cyprus, Lebanon and Israel would meet. However, Cyprus declined the request and explained its position to the Lebanese delegation. The two sides agreed to keep the matter open for discussion, but an adjustment to the median line agreed in 2007 is not expected. Lebanon and Cyprus have agreed to continue to cooperate in the future on maritime policies and energy.

But it needs to be emphasized that Cyprus is not in a position to agree to move the southern point of its median line with Lebanon. For Cyprus to agree to Lebanon's request would mean that in effect Nicosia would recognize Lebanon's claimed southern border with Israel, a step that would impact the delimitation agreement that Cyprus has signed and ratified with Israel.

The maritime delimitation agreement reached by Cyprus and Lebanon in January 2007 makes no reference to Point 23; rather, it identifies the points along the median line between the two countries as Point 1 to Point 6.

Essentially, an agreement by Cyprus to extend its delimitation line with Lebanon southward to Point 23 would be recognition of Lebanon's claimed southern maritime delimitation line with Israel, an act that would have severe repercussions on Cyprus's steadily widening energy relations with Israel. With the terms of the Cyprus-Lebanon agreement initialled by both sides on paper, it is now not possible for Cyprus to comply with Lebanon's request, as it would change the terms of the delimitation agreement with Israel, which has been ratified by the two country's respective parliaments.

Also, attempting to change the agreement with Cyprus may have an impact on Lebanon's own plans to establish its hydrocarbon sector. Since the advent of hydrocarbon discoveries in the Levant Basin, Lebanon has become increasingly aware of its own energy potentials and is keen to get its hydrocarbon sector rolling despite the political complications in which the region is immersed.

As the maritime border is now arranged, the Lebanon-Israel line is perpendicular to the Cypriot border and it makes little difference to Cyprus how the Lebanon-Israeli line would shift as it would have no impact on the Cypriot EEZ. Therefore, the matter remains one for Lebanon and Israel to resolve.

Since the November 2011 meeting in Nicosia, the subject of adjustment to the Lebanon-Cyprus delimitation agreement has faded. It appears that Lebanon will rely on international diplomatic sources to resolve the issue of its southern border with Israel, and it could be that the contentious issue may go unresolved for an indefinite period. Although Israel has awarded blocks that lie near its own claimed delimitation line, none of them are known to extend into the 850 square kilometre disputed area. Israel has identified several as yet unexplored deposits within its offshore territory and is unlikely to risk a confrontation with Lebanon by attempting to conduct a seismic survey or drill in the area claimed by Lebanon.

Following the passage of Lebanon's hydrocarbon law in 2010 and subsequent announcements by the government that a licensing round would be launched sometime during the first quarter of 2012, there has been considerable interest shown by international oil companies in the prospect of exploration and development in the Lebanon offshore. However, the Petroleum Administration has yet to be established, largely due to the inability of Lebanon's political parties to agree on its composition and the representation of political interests in the Administration. The government had set a deadline to form the Administration by the end of 2011. The failure to form the group has inevitably led to the delay in the launch of a licensing round. The Lebanese government has recently announced that it should launch the licensing round during the first half of 2012.

OPTIMAL NATURAL WEALTH MANAGEMENT

Leonor Coutinho

Recent discoveries of natural gas reserves, and continued exploration in the Eastern Mediterranean, have attracted the attention of foreign investors in the region, as well as of governments and several interest groups eagerly waiting to utilize such resources and extract rents. Following Israel's discovery of large stocks of natural gas in the Leviathan field off its northern coast, Cyprus has now initiated explorations in neighbouring areas, which are thought to be also likely to possess considerable natural gas reserves. Interestingly, many studies have highlighted that, in general, resource rich countries grow more slowly than their resource poor neighbours, rather than growing faster as would be expected. In the literature, this has been labelled the "resource curse". In this study,[1] we briefly analyse how natural-resource revenues should be managed, by looking first at the prescriptions of the theoretical literature, and then at what has been done in practice in a selected range of countries, including both failure stories, and success stories. These case studies help to highlight the pitfalls that should be avoided and the practices that have proved successful, and should be of particular interest for countries like Israel and Cyprus, which have unveiled or may be in all likelihood about to unveil new stocks.

The "Curse" in a Nutshell

There have been several studies trying to identify the reasons behind the "resource curse" in endowment-rich economies. These can be grouped into six categories: (i) the "Dutch disease"; (ii) deterioration of governance and conflict; (iii) overinvestment in physical capital; (iv) under-investment in human capital; (v) under-developed financial markets; and (vi) increased macroeconomic volatility.

1 This article draws on an extended article by the author: L. Coutinho (2011), "The Resource Curse and Fiscal Policy", *Cyprus Economic Policy Review*, Vol. 5, No. 1, pp. 43-70. A previous version of this commentary has been published by Europrism Research in June 2011 on its website: www.europrism.eu.

i. The "Dutch Disease"

The first symptoms of a resource curse were identified in the Netherlands, after the discovery of natural gas deposits off its North Sea coast, in the late 1950s. The "Dutch disease", as it became known, refers to the contraction of the rest of the tradable sector (e.g., manufacturing, agriculture, tourism), following an increase in profits in the resource abundant sector (e.g., oil, natural gas, coal, or minerals). This contraction occurs mainly through a real exchange rate appreciation, which typically follows the discovery of natural resources, resulting from a combination of nominal appreciation and domestic price inflation. The influx of foreign exchange reserves prompts an increase in the demand for domestic currency, causing a nominal appreciation (in fixed exchange rate regimes the real appreciation will be prompted by an increase in the money supply and inflation). This is accompanied by an increase in the demand for goods and services, which exerts upward pressure on the domestic non-tradable prices and therefore on domestic inflation. This real exchange rate appreciation lowers exports in the non-resource abundant sectors and increases imports. These effects can be further exacerbated by foreign borrowing, since resource rich countries have more access to capital markets when resource prices are high. The foreign borrowing that in many cases accompanies the resource price boom adds to the influx of foreign exchange, reinforcing the upward pressure on the real exchange rate.

ii. Deterioration of Governance and Conflict

More recently, the resource curse has also been attributed to weak institutions. Natural resource windfalls allow a government to appropriate large rents that can be re-distributed, and give rise to rent-seeking behaviour on the part of various economic groups. Rent-seeking activities divert resources from productive uses and represent a dead-weight loss for the society. Pressure on the part of different interest groups, combined with weak institutions, leads to a misallocation of revenues. Previous studies show that the submission of national governments to rent seeking behaviour by various interest groups gives rise to what they call the "voracity effect", whereby the growth benefits of revenue windfalls are wasted.[2] The deterioration of institutions in this case does not favour the peaceful resolution of this type of conflict, with loss to all parties involved.

iii. Overinvestment in Physical Capital

Another negative aspect which has often been observed in resource-rich countries is that revenue windfalls tend to be channelled to low-return, overambitious projects, which crowd-out private investment, and are often downsized or even abandoned when revenues fall (as

2 P. Lane and A. Tornell. (1996), "Power, Growth and the Voracity Effect", *Journal of Economic Growth*, 1, pp. 213-41.

was the case in Mexico or Saudi Arabia). The uncertainty in revenues creates a boom and bust cycle in government investment, associated with very high investment adjustment costs, like for instance costs of training new workers when investment levels are unexpectedly high and laying off workers when investment levels are unexpectedly cut.[3]

iv. Underinvestment in Human Capital

The underperformance of resource rich countries has also been associated with underinvestment in human capital. It is often found that alternative measures of education (e.g., school enrolment), are inversely related to natural resource abundance.[4] A possible explanation is that natural capital crowds out human capital, by raising the opportunity cost of investing in education. Natural resource-based activities, such as mining, generally require relatively low skill levels. The relative abundance of work in such sectors means that the return in higher education is relatively low (given that the probability of unemployment in skilled jobs is relatively high and the wage differential relatively low). At the same time, a large pool of unskilled workers does not encourage investment in activities that require skilled labour, which are usually those that can boost economic growth through technological progress.

v. Underdeveloped Financial Markets

In some countries resource abundance is also associated with underdeveloped financial markets, which hamper the efficient allocation of resources across potential investments; the mobilization of higher levels of savings; and the development of financial instruments to deal with resource price volatility. The poor functioning of financial markets in resource rich countries is probably associated with the dominant role of government in total investment and the weakness of the private sector.[5]

vi. Macroeconomic Instability

Resource rich countries typically experience amplified business cycles compared with the cycles typically experienced by resource poor countries.[6] One of the main reasons for this is that pro-cyclical fiscal policies often translate the ups and downs in natural resource prices into macroeconomic instability. This tendency can be further aggravated by access to cheap credit in international capital markets, during price booms. These cycles and the resulting

3 J. Sachs and A. Warner (2001), "The Curse of Natural Resources", *European Economic Review,* 45, pp. 827-838.

4 T. Gylfason (2001), "Natural Resources, Education, and Economic Development", *European Economic Review*, 45, pp. 847-859.

5 M. Nili and M. Rastad (2007), "Addressing the Growth Failure of the Oil Economies: The Role of Financial Development", *The Quarterly Review of Economics and Finance*, 46, 726–740.

6 J. Frankel (2011), "A Solution to Fiscal Pro-cyclicality: The Structural Budget Institutions Pioneered by Chile," forthcoming, *Fiscal Policy & Macroeconomic Performance*, edited by Luis Felipe Céspedes, Jordi Galí, and Yan Carrière Swallow; see also NBER working paper N.16945.

inflation caused by an overheating economy, aggravate the problem of local currency real overvaluation, and undermine the credibility of monetary or exchange rate policies to contain it. In addition, the accumulation of high levels of debt leads to high interest rate spreads during periods of lower natural resource prices. In fact, the growth literature has attributed the resource curse of oil rich countries, such as Nigeria, to the "debt overhang" which occurred in the 1970s when these countries used commodities as collateral to take on excessive debt when oil prices were high. A collapse in oil prices in the 1980s left these countries with no ability to service their debts.[7]

The poor management of windfall revenues may indeed be one of the most important causes of the resource curse, to which other causes of the curse can be tracked down (e.g., real exchange rate appreciation can be exacerbated by government borrowing, and macroeconomic instability can be intensified by pro-cyclical fiscal policies). For this reason it is useful to review what the theory prescribes as best practices in the use of resource revenue windfalls.

2. Optimal Use of Revenues: The Theory

Consumption Smoothing

If consumption smoothing improves welfare as postulated in the permanent income theory of consumption of Friedman and Modigliani, current spending should be based on an estimate of permanent rather than current income.[8] Most natural resources (such as oil) are exhaustible and may become obsolete, and natural resource prices are volatile. Measures of permanent income in resource rich countries have to take these characteristics into account. Spending must therefore be based on the present value of expected revenues, taking into account price uncertainty, and uncertainty about the time of resource depletion or redundancy. This means that revenues should be saved and invested in good times, so that returns on investment constitute a permanent stream of income and even dis-saving can take place in bad times to sustain consumption and investment.

Inter-Generational Equity

Another reason for saving windfall revenues is to ensure intergenerational equity: that is, one must take into account the welfare of future generations, as property rights on existing stocks of assets do not necessarily pertain only to the current generation. Since resources are exhaustible long-term optimality requires that some of the current revenues be saved for future generations, which will inherit declining amounts of the resource endowment.

7 O. Manzano and R. Rigobon (2008), "Resource Curse or Debt Overhang," *Economia 9*, no. 1, Fall; NBER WP 8390.

8 R, E. Hall (1978), "Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence", *Journal of Political Economy*, 86:6, pp. 971-87.

Binding Fiscal Rules

In this context, binding fiscal rules can be used to limit the use of windfall revenues, and guarantee an optimal level of savings. There are different types of rules which can be adopted. Ecuador, for instance defines limits for the non-natural resource deficit, while Chile defines limits for the structural budget deficit. The key point is to insulate government expenditure from fluctuations in natural resource prices. Decoupling fiscal policy from revenue fluctuations works to minimize the "Dutch disease", through the containment of fiscal spending. This will contain the increase in domestic absorption, and inflation. In addition, fiscal policy can also help to sterilize part of the windfall by repaying public foreign debt, taking away some of the pressure on the real exchange rate. This will also strengthen the fiscal position and give the government room for manoeuvre during revenue downfalls. The key challenge with the implementation of fiscal rules, however, is that they must refer to some measures of permanent income (to define the optimal accumulation of government savings) which can be easily subject to error and political manipulation. A recent study advocates the importance of setting up a system which avoids persistently optimistic forecasts on the part of the government with, for instance, the appointment of independent experts in charge of estimating long-term trends for natural resource prices and GDP.[9]

National Revenue Funds

In addition to fiscal rules, National Revenue Funds (NRF) have also been prescribed in the literature as a good vehicle for both expenditure smoothing (stabilization funds or rainy-day funds), and inter-generational transfer (savings funds or future generation funds), when transparent and well designed, as in the case of Norway. NRFs can also be used to sterilize some of the revenues in offshore investments — taking away the pressure on the domestic exchange rate to appreciate — and to accumulate savings for future investments.

Financial Instruments

Institutional provisions will not insulate economic forecasts from the effects of unanticipated information about natural resource depletion, and from the volatility of natural resource prices. Given this type of uncertainty, there is a case for combining stabilization funds and fiscal rules with the use of hedging financial instruments. Derivative instruments like futures and options, forwards and swaps, allow a country to sell their production forward, locking in a known price for a given period, and/or buy insurance against significant price declines. But

9 J. Frankel (2011), "A Solution to Fiscal Pro-cyclicality: The Structural Budget Institutions Pioneered by Chile," forthcoming, *Fiscal Policy & Macroeconomic Performance*, edited by Luis Felipe Céspedes, Jordi Galí, and Yan Carrière Swallow; also NBER working paper N.16945.

despite the benefits of market-based instruments to manage oil/mineral price risk, the use of these instruments is not widespread, possibly due to the fact that the amounts to be hedged are very large.[10]

Investment Choices

Fiscal rules, national revenue funds, and hedging instruments address the problems of price volatility and natural resource exhaustibility, but do not guarantee that oil revenues are used to foster growth and development. Growth and development can be achieved through sensible and credible fiscal policy choices. Government spending on social (e.g., health and education) and physical infrastructure can raise productivity and private investment, benefitting both current and future generations. Government investment and incentives directed towards the resource rich sector, however, can exacerbate "Dutch disease" effects. On the other hand, directing government spending and subsidies towards infrastructure, capital deepening, human capital, and adoption of new technologies in non-natural resource traded sectors can help maintain a diversified export base (e.g., in Indonesia public investment in agriculture did help the country maintain a diversified export base, and at the same time it reduced poverty and inequality).

A possible solution for improving investment choices is the establishment of an independent public investment evaluation unit that would compare projected rates of return of offshore assets with those of proposed public investments in human capital, economic infrastructure, or productive activities.[11] It is important to have in mind though that in the long run, the sustainability of growth will hinge on the ability of the economy to diversify its economic base away from natural resources. Whatever the institutional solution, the key is to achieve a design that guarantees a system of checks and balances – internal and external (e.g., civil society) – that can ensure the optimal use of funds, as, for instance, in the case of Norway.

Alternative Appropriation Schemes

One fundamental question remains however, of whether governments can be trusted to use revenue windfalls in the most effective way. This debate is not specific to resource revenue windfalls, but relates to the overall discussion about the role of Government in the economy. There is no evidence, however, that private appropriation (e.g., Alaska's dividend program) would be welfare improving. In addition, windfall profits are generated by public assets, thus direct appropriation by private agents could raise a series of problems.

10 J. Devlin, and S. Titman (2004), "Managing Oil Price Risk in Developing Countries", *The World Bank Research Observer*, 19:1, pp. 119-139.

11 R. Auty (2007), "Natural Resources, Capital Accumulation and the Resource Curse", *Ecological Economics,* 61, pp. 627–634.

In summary, economic theory does not have one single recipe to deal with natural resource revenues, which can be applied under all circumstances. But one way to envisage possible solutions for specific cases is to look at different countries' experiences, having the theory in mind. We proceed to do so in the next section. We will start by summarizing the don'ts that can be extracted from a few stories of failures. Failure stories are unfortunately abundant and to give an overview of experiences in different continents, we will refer to the cases of Nigeria, Saudi Arabia, and Mexico.

Success stories will give examples of how the theory can be put into practice. It is important to analyze these cases in more detail to understand whether the strategies followed can constitute best practices to be replicated in other countries or regions, or whether they would pose risks if transplanted to other economic, institutional, and social environments. Here we will review the cases of Botswana, Chile, and Indonesia.

3. The don'ts

Nigeria, Saudi Arabia, and Mexico are often cited as failure stories. In the case of Nigeria, between 1981 and 1989 the average growth rate in the aftermath of the two oil shocks of the 1970s was about 0.6 percent a year, and the country now ranks among the 15 poorest countries in the world, despite being a major oil exporter since 1965. Saudi Arabia has also performed poorly, with an average annual per capita growth rate of about 1.8 percent per year, between 1981 and 2007 (Table 1). In Mexico, after the oil booms of the 1970s, growth collapsed from about 7 percent to about 1.5 percent (Table 1).

Table 1: GDP Growth (Average Growth Rates, Percent)

	1970-1980	*1981-1989*	*1990-2007*	*1981-2007*
Botswana	15.4	11.4	5.8	7.7
Chile	3.0	4.0	5.5	5.0
Indonesia	7.9	6.1	4.9	5.3
Mexico	6.7	1.5	3.2	2.6
Nigeria	6.7	0.6	4.4	3.1
Saudi Arabia	13.5	-1.4	3.4	1.8

Source: World Development Indicators 2008, World Bank

Although experiences vary, there are common patterns in these stories of failure. In most cases the share of windfall revenues allocated to domestic absorption was too high, and consequently there was no effective strategy for sterilizing the effect of oil price shocks on the real exchange rate. Windfall revenues were appropriated by the government and used in overly ambitious investment projects with low rates of return, and to expand the public sector. Government policies led in most cases to the collapse of the agricultural sector, without a counterbalancing development of industry. There was a lack of investment in training and education to improve labour productivity, and entrepreneurship. Government investment crowded out private investment. Poor macroeconomic management led in most cases to over-indebtedness, inflation, and real exchange rate appreciation.

In Mexico, for instance, government over-borrowing resulted in the debt crisis of 1982, when a sharp rise in international interest rates prompted by disinflationary monetary policies in the US and across Europe and the decline in oil prices forced Mexico to default on its debts. The crisis forced drastic cutbacks in government expenditure and a new currency devaluation, which further increased the debt burden and prompted further capital flight, on fears of continuing government defaults and devaluations. In summary, the crisis forced the Mexican economy to contract sharply after the oil boom, due to a poor investment strategy and imprudent fiscal policy.

4. The Do's: selected country experiences

Only a few oil/mineral-rich countries have managed to sustain relatively high per capita GDP growth rates following resource booms. Some of the most cited of these success stories are Botswana, Indonesia, and Chile. The oil-rich Indonesia has achieved this success by diversifying its economy and by industrializing; Botswana, rich in diamonds, by prudent revenue management policies. Chile, rich in copper, achieved sustainability with the use of fiscal constraints and by fostering private investment through market liberalization. There are of course other success cases, notably Norway, but this study will concentrate mainly on the three cases mentioned above.

Botswana

The success of Botswana has been mainly attributed to its use of sovereign funds as a transparent vehicle for saving, and to the adoption of long-term investment horizons. In 1972, when the first diamond mine was being constructed, Botswana created a Revenue Stabilization Fund and a Public Debt Service Fund.[12] Government current and capital expenditure plans started to be approved by parliament for the medium-term, based on long-term projections of future resource revenues. Financial reserves increased rapidly in Botswana, and by 1998 the accumulated financial reserves of the country amounted to US$5.9 billion, approximately US$3000 per capita, or 125% of the country's GDP. Two-fifths of these rents were sterilized in offshore investments, and the interest earned has constituted a steady and significant annual

12 R. Auty (2001), "The political state and the management of mineral rents in capital-surplus economies: Botswana and Saudi Arabia", Resources Policy, Vol. 27, Issue 2, pp. 77-86.

contribution to government revenue. The remaining three-fifths of the rents were used to increase public investment in infrastructure, education, and health provision; although some overambitious investment programs in 1987-1991 had to be scaled back later. State enterprises did expand in Botswana in the 1980s boom period, but by far less than in other resource rich countries, with most of the country's state-owned enterprises remaining profitable.[13]

In terms of exchange rate policy, Botswana's currency has been pegged to the South African rand. This peg has worked as a good anchor for inflation, and has led to a relatively stable exchange rate and even real depreciation from the end of the 1990s with the nominal depreciation of the South African rand. The containment of real appreciation in Botswana allowed for some economic diversification through import substitution development in manufacturing, and allowed the country to run a relatively open trade policy.

While the scope for economic diversification in Botswana through the expansion of agriculture is limited by poor resources (including limited rainfall and poor soil), the country achieved some diversification through import substitution policies aimed at fostering manufacturing, with its share rising from 8% in 1974 to 15% in 2007. This created some base for sustaining growth in periods of resource revenue shortfalls.

Indonesia

Between 1981 and 2007 Indonesia sustained an average growth rate of GDP of about 5%, significantly above the average growth rate of GDP of industrial countries over the same period, and with poverty and income inequality considerably lower than in other less-industrialized countries, according to World Bank indicators. Indonesia has also managed to keep a relatively diversified traded sector.

The relative success of the Indonesian economy has been attributed to its use of oil revenues to support the non-oil exporting sector, especially agriculture, an activity in which the largest share of the population was engaged, and to expand education. The containment of real exchange rate appreciation was also important, and has been achieved by nominal devaluation coupled with control over the growth of domestic absorption and restrictions on foreign borrowing.

The government budget in Indonesia follows a "balanced budget" rule. This rule could have prompted sharp increases in government expenditure during oil boom periods. The government, however, managed to run de-facto budget surpluses by registering fictitious spending in its accounts, while depositing the money in government deposit accounts in the banking system.[14]

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13 IMF (1999), "Botswana: Selected Issues and Statistical Appendix", *Staff Country Report* N.99/132.

14 N. Usui (1996), "Policy Adjustments to the Oil Boom and their Evaluation: The Dutch Disease in Indonesia", *World Development*, Vol. 24, No. 5, pp. 887-900.

The containment of foreign borrowing was very important in determining the success of real exchange rate stabilization policies, in the sense that it helped contain the growth of aggregate demand and inflation. To avoid foreign borrowing by state-owned oil companies, which had particularly easy access to foreign credit, the government introduced new regulations requiring these enterprises to obtain approval from the authorities before contracting medium and long-term debt to finance projects. These restrictions were later strengthened in response to defaults by the Pertamina state-owned oil company on its short-term foreign debt (which was not subject to regulation).

It is important to note that the management of domestic absorption and inflation and the re-direction of funds from the oil to non-oil sectors were possible in Indonesia for institutional reasons. One of these reasons was the prominent role of economic advisors ("technocrats") in the design of economic strategies, imposed by an authoritarian regime. The second institutional reason was the existence of strong non-oil tradable sector interest groups, in agriculture and labour intensive industry, which would monitor how oil was spent and were concerned with developments in the real exchange rate.

Chile

Chile is one of the world's leading copper and iodine producers. Chile's economy grew at an average annual rate of 5% from 1981 to 2007. This growth has been sustained by growth in a well-diversified and competitive exporting sector, in parallel with the experience of the East Asian Tigers.

The Chilean success can also be in part attributed to the role of technocrats in policy making. During the 1970s, in the context of economic recession and high inflation, the Chilean government sought the technocrat guidance of a group of economists, trained in Chicago, who became known as the "Chicago boys". In this period, several anti-inflationary measures and exchange rate devaluation were undertaken to stabilize the economy, bringing inflation down from around 200 percent in the 1970s to 20 percent in the 1980s. Liberal market reforms were also implemented in this period to foster productivity growth and competitiveness.

The second key to success was private sector development. Since the mid-1970s, the copper sector in Chile has been characterized by mixed public and private ownership. The public ownership ensures that a significant part of the mineral revenues is retained and re-invested in the country, while the possibility of private ownership attracts foreign direct investment into the country, with positive spillover effects, which include the transfer of technology. Contained inflation and exchange rate stability, and a relatively safe investment climate (guaranteeing property rights and transparent legislation) have also supported private sector development in other economic activities, like fisheries, cellulose, fruit, salmon, wines, methanol, and services, including tourism, creating a diversified export base. The agricultural sector, including the wine sector, and fish farming, have been particularly dynamic, using increasingly sophisticated technology and management methods, leading to higher productivity and higher incomes, as well as backward and forward linkages for economic expansion (e.g., research and development, distribution). As a result, the percentage participation of mining and copper in total exports (in volume terms) fell from nearly 70 percent in 1976 to less than 50 percent in 2007.

Finally, fiscal rules and a revenue fund were also key factors of success in this case. In 1985, Chile established a Copper Stabilization Fund (CSF) designed to smooth the impact of copper price fluctuations on the real exchange rate, and on government revenues: a share of the copper revenues must be deposited into the fund when prices rise above a certain threshold. This fund has worked to limit the funds available for public spending. In 2004, for instance, when copper prices soared, real government spending growth was limited to 5.3%, yielding a fiscal surplus and a reduction in the public sector debt. In 2000 budget rules were further introduced to impose countercyclical fiscal policy.[15] The rules consist mainly of a target for the structural budget balance (1% during 2000-2006 due to the need for recapitalizing the central bank, funding pension-related liabilities, and servicing external debt; 0.5% in 2007; and 0% in 2009 given that it was determined that the external debt had been essentially paid off). To insulate the estimates of the two inputs that determine the breakdown of the deficit between structural and cyclical – the long-term trend for output and the trend price of copper - from the political process, these estimates are commissioned to a panel of independent experts drawn from mining companies, the financial sector, research centres, and academia.

5. Conclusions

Previous empirical studies reveal that in the medium to long run, natural resource rich countries in general do not enjoy significantly higher per capita GDP. This is explained in great part by the absence of long-run planning and of an appropriate policy framework in these countries that ensures an efficient allocation of these resources, and avoids other side effects which tend to constrain further growth.

Thus, the key policy recommendations for natural resource rich countries relate to the sound management of natural resource revenues to ensure the long-term sustainability of public finances, the highest possible return on investments, and inter-generational equity. In this regard, investment policies should take into account the fact that the resources are exhaustible and thus the benefits should be spread across generations. All this implies: (a) a solid institutional framework; (b) sound investment policies; and (c) appropriate fiscal policy rules that insulate fiscal policy from fluctuations in revenues.

15 J. Frankel (2011), "A Solution to Fiscal Pro-cyclicality: The Structural Budget Institutions Pioneered by Chile," forthcoming, *Fiscal Policy & Macroeconomic Performance*, edited by Luis Felipe Céspedes, Jordi Galí, and Yan Carrière Swallow; also NBER working paper N.16945.

To ensure fiscal discipline, fiscal rules may be desirable, but they must be designed so as to decouple expenditure policy and the non-natural resource deficit from short-run fluctuations in natural resource prices. One of the options is to establish rules for the structural deficit, as in Chile. One important difficulty with such and other accumulation rules, however, is that they should rely on some measure of permanent income to determine the optimal level of savings. It is important to set up a system which avoids persistently optimistic forecasts on the part of the government, with, for instance, the appointment of independent experts in charge of estimating long-term trends for natural resource prices and GDP.

Fiscal policy can also contribute to minimize Dutch Disease effects by containing expenditure directed at the natural resource sector and at non-tradables. Instead, expenditure aimed at supporting tradable non-natural resource sectors and increasing productivity in non-tradable sectors would be beneficial for diversifying the export base, and containing the rise in the price of non-tradables.

HYDROCARBON RESOURCES AND REVENUE MANAGEMENT: CASE OF NORWAY

Lars Even Andersen

Introduction

This paper describes the Norwegian model for management of hydrocarbon resources and of revenue generated from their extraction.

Norway is situated at the north end of Europe. The Norwegian continental shelf covers one and a half million square kilometers, almost five times the size of the mainland, as per Figure 1 below. The first drilling on the shelf started in 1965, and the first production was initiated in 1971. To date, most of the production has taken place in the North Sea, and in the Norwegian Sea further north. Following the recent resolution of a long-standing dispute over the sea border with Russia, activities have now also started in the Barents region. Vast areas are not yet opened for activity; in some cases for environmental protection purposes, as is the case for the region around the Lofoten islands. To date, production of oil and gas has amounted to more than 5 billion standard cubic meters of oil equivalents (Sm^3 OE), while proven reserves amount to 4 billion Sm^3 OE, and it is estimated another 3 billion is still undiscovered.

Norway is commonly described as one of the few resource-abundant countries that have consistently performed well in economic, political and social terms. A combination of incidental factors and 'best practices' has led to the country acquiring growth and wealth from its hydrocarbon resources, while avoiding the pitfalls that natural resource-intensive economies are often seen to run into.

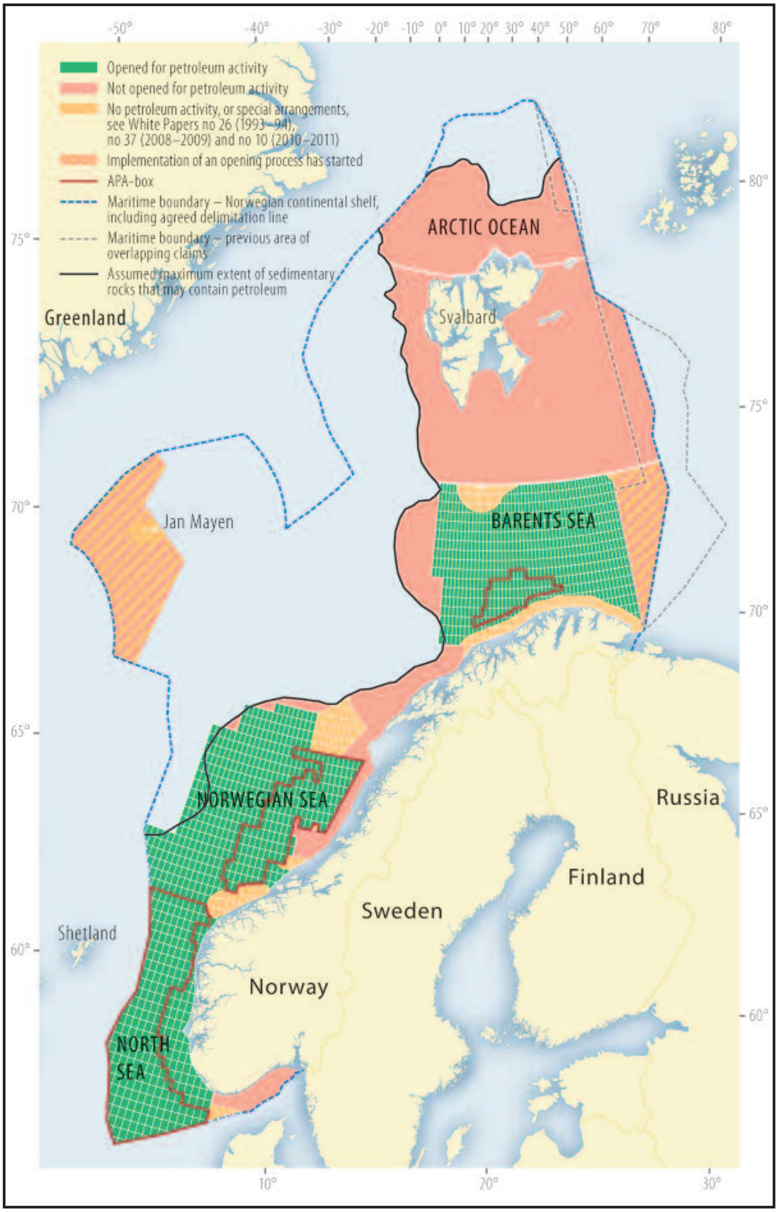

Figure 1: The Norwegian continental shelf.

Source: http://www.npd.no/Publikasjoner/Faktahefter/Fakta-2011/Kap-5/

Production and revenue

Some facts and figures

Norwegian per capita energy consumption is among the world's highest, being mainly due to transport and heating. However, with only 5 million inhabitants, the overall consumption of energy is relatively low, and hence more than 90% of the oil and gas produced is being exported. Norway is currently the world's 5th largest producer and the second largest exporter (only Russia is larger) of gas. When it comes to oil, Norway is the world's 6th largest exporter, with slightly more than 2 million barrels per day. The largest market is the EU; in fact, Norway supplies 15% of the total gas consumed in the EU. The yearly export of petroleum products amounts to some 75 billion euro, subject to the market price.

Figure 2 below shows oil and gas production per year since the startup in 1971. Whereas oil has traditionally been the largest product, the recent trend seems to suggest gas is about to replace it.

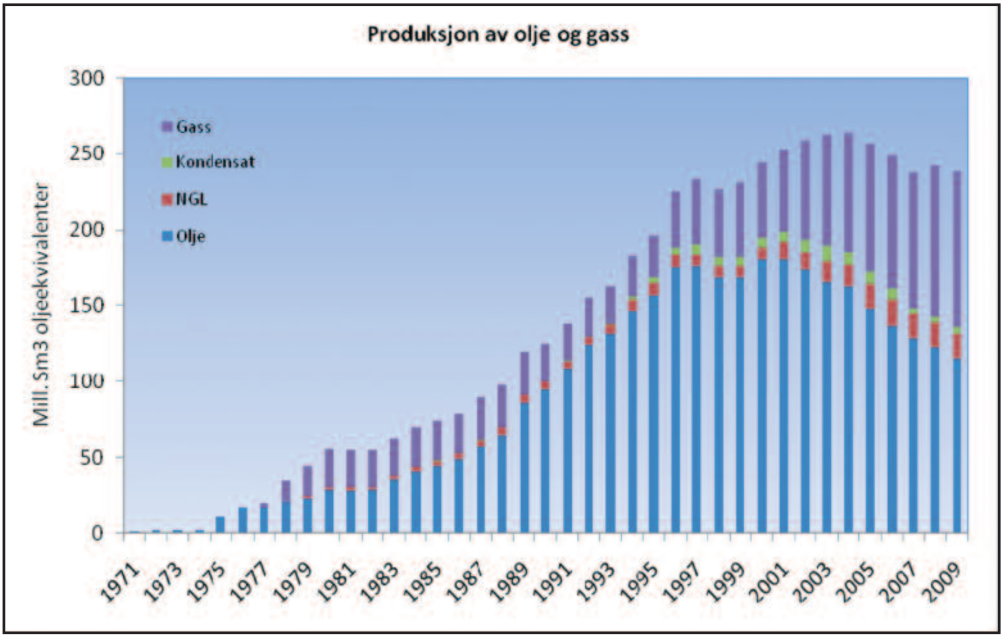

Figure 2: Production of gas, condensate, natural gas liquids and oil per year (unit: million standard cubic metres of oil equivalents).

Source: The Norwegian Oil Directorate, http://www.npd.no

This activity is obviously having a great influence on the Norwegian economy, as shown by some sample figures from the peak year 2008:

- The petroleum sector is responsible for 25% of GDP.
- It generates approximately one third of the total annual public revenue (mainly taxes, as well as direct engagement by the state).
- About 30% of total investments occur in the petroleum sector.
- Petroleum products represent slightly more than half of total exports.

The dimension of public revenue generated by the sector of course fluctuates greatly with the market price for oil and gas. The state's net cash flow from the petroleum activity (taxes collected, as well as revenue from direct engagement) did in fact drop from over 50 billion euro in 2008 to about 35 billion in 2009. However, the oil price has during the last year been reasonably stable just above US$100 per barrel, which should generate a cash flow somewhere closer to the higher of the two figures. The average break-even oil price (i.e., production cost) on the Norwegian shelf seems to be somewhere around US$20 per barrel,[1] but can vary greatly depending on the distance from the shore, the success rate and hence costs of drilling, the size of the oil field (smaller fields have higher unit costs of production), how much of the field's resources have been extracted (costs normally increase towards the end of a field's life cycle), weather conditions, and viscosity and general quality characteristics of the product.[2]

The involvement of the state

From its inception, the Norwegian petroleum adventure has been characterized by the state assuming an active role – as owner, decision-maker, licenser and developer.

As there was hardly any domestic competence available in the beginning, most actors on the shelf were foreigners. However, they were required by law to establish Norwegian subsidiaries for their operations, making tax-wise residence mandatory. Furthermore, a minimum of 50% state ownership was prescribed in such subsidiaries. The state also set up *Statoil* in 1972 for its direct engagement.

Only in the early 1990s was the law on minimum 50% state ownership lifted, and the state simultaneously started to scale down its direct engagement. This also included a privatization of *Statoil*, although the state has retained the majority of the shares. A new vehicle, *Petoro*, was established in 2001 for the remaining direct engagement of the state.

1 This figure can be as low as US$5 in some onshore fields in the Middle East.

2 The source of most facts and figures in this section is the Norwegian Petroleum Directorate, http://www.npd.no/en/Publications/Facts/Facts-2011/

This does not mean anyone can engage in drilling and production at will. Activity is heavily regulated. From time to time, the government announces that new blocks are opened for exploration. Licenses for such are then put out to tender. In those cases where the subsequent drilling yields findings, the actor may obtain an extension of the license, allowing it to engage in production.[3] The tender criteria include not only a plan for technical and financial sustainability of the activity, but also strict rules for safety and environmental protection.

The tax regime

While the ordinary tax rate for corporate as well as personal income is 28% in Norway, the petroleum sector is subject to a special corporate tax rate of 78%.

The argument for such a high tax rate is that the Norwegian hydrocarbon resources don't belong to British Petroleum or whichever other actor that manages to come up with a convincing plan for profitable and safe operation. They are seen as part of the natural heritage of you and me, *the people*, who are represented by the government. It is thus considered only fair that – whereas the corporate actor shall indeed be rewarded for the work it performs – the main share of the revenue shall go back to the people, especially given the large operational margins that exist in the sector.

Thus, because one is speaking of *a limited natural resource, which belongs to the people, and where the margins in production are particularly large,* the extraordinary tax rate seems justified, and there appears to be wide consensus about it across the Norwegian political spectrum.

It should also be kept in mind that all actors on the shelf are required to be tax-wise resident in Norway (this requirement was *not* lifted along with the liberalization measures in the early 1990s). Tax flight, which can otherwise easily occur (it seems, for example, fashionable for Norwegian shipping companies to move to Cyprus), is hence not an issue.

Is this special corporate tax rate so high that it unduly puts off investors? The most relevant indicator to examine in that regard is probably the turnout for license tenders, and such turnout has historically been quite sufficient to cement, rather than to challenge, the notion that the tax rate is only most appropriate. (But even if turnout should drop, the worst thing that can happen is that the resources remain under the ocean, where they are safe enough, and their extraction is deferred for later generations.)

Similarly, the 78% tax rate also applies when it comes to deduction for costs, notably those of depreciation and drilling. This provides a powerful incentive for investments in the petroleum sector, as well as exploration, and facilitates a high level of activity.

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3 In the interest of pre-empting any corruption, or speculations about such, the selection proceedings are fully transparent, see for instance http://www.npd.no/en/Topics/Production-licences/Theme-articles/Licensing-rounds/APA-2010/Offers-for-ownership-interests-in-APA-2010/

Enforcement of distinction

The discriminatory tax regime entails certain practical challenges. Actors will have tax-motivated incentives for misplacing costs or income. A dedicated petroleum tax authority, *Oljeskattekontoret*, has been established in order to detect any attempt at such, the most common examples of which are (quite a creative bunch):

- *Transfer mispricing*. The actor on the shelf sells its products to a branch on shore or abroad at an artificially low price, hence the profit is allocated outside the 78% tax jurisdiction. To prevent this, the said authority establishes *norm prices* for sales of oil, which shall tax-wise apply to the transaction, regardless of the price actually paid. The norm prices are based on the market price. Determining such norm prices for gas is more complicated than for oil, as the value of a gas contract is likely to vary with a number of factors not applicable to oil contracts, but the authority will in either case react if the price of a transaction appears to be fictional. (Details of all sales are to be reported to the authority.)
- *Overpricing of internal services*. Often, services are purchased by the shelf actor from a subsidiary on shore, or opposite. This could be technical expertise, accounting services, etc. Tax-wise, there exists an incentive to overprice such services delivered to the shelf, and underprice those delivered from the shelf to on-shore subsidiaries. The authority examines whether the services have been delivered as invoiced, that they were genuinely needed, and that the price was reasonable.
- *Debt overfinancing*. A corporate group may choose to present the branch on the shelf as overly financed by debt, while branches subject to lower-tax regimes are financed from the group's net assets. This of course has to do with where interest costs are allocated and hence the deduction that can be claimed for them. In prevention, the authority examines the extent to which capitalization of the shelf branch is too thin compared to the rest of the corporate group.
- *Overpriced premiums on internal captives*. For corporations that operate in risk-exposed sectors, it is common to have internal insurance arrangements. The insurance premium is often set unreasonably high for subsidiaries on the shelf.

The obvious incentives to unduly allocate costs on the shelf and income on shore, means a very thorough reporting regime needs to be maintained for the actors in question.[4]

4 For more details on the petroleum tax regime, see http://www.regjeringen.no/en/dep/fin/Selected-topics/taxes-and-duties/bedriftsbeskatning/Taxation-of-petroleum-activities.html?id=417318

Asset management

Figure 3 below shows the government's net cash flow from petroleum operations on the continental shelf over time. The 22% share of revenue retained by corporate actors is not included.[5]

The huge income stream generated by the petroleum adventure necessitates a strategy for its use. The creation of such strategy is anything but uncomplicated. The most obvious danger that comes to mind is the *Dutch disease*. What happened in the Netherlands in the 1960s was that the government obtained large earnings from extraction and export of its offshore hydrocarbon resources. It was decided the earnings should be used for the purpose of increasing the current welfare level, so all the revenue was immediately added to the general state budget. The two symptoms of the Dutch disease then quickly emerged:

- First, all the earnings, which were in USD (the global currency for oil trade), had to be exchanged into domestic currency, which created a large demand for the latter and made it appreciate quickly. Although good news in the short term for importers (and consumers of imported goods), such appreciation was, of course, very bad news for the export industry, which rapidly lost a great deal of competitiveness and experienced immense layoffs and bankruptcies.[6]
- Secondly, as a consequence of the greatly expanded state budget came an increased domestic demand for goods and services. As there was no simultaneous increase in domestic production of such, inflation rose sharply. Some inflation is natural and healthy, but too high an inflation generally provides a discouraging climate for investors, as it leads to a drop in the real value of cash and other monetary items, pushes the interest rate upwards, and affects the balance of trade negatively as non-petroleum exports lose further competitiveness on the external market.

Norway is indeed a high-cost country. Recent surveys tend to suggest that the cost of labour in Norway is about 140% of the average in EU-27,[7] obviously representing an obstacle for the competitiveness of Norwegian export agents in the manufacturing sector. The fact that inflation is clearly below the central bank's target of 2.5% (currently around 1%),[8] is being viewed by some as an indication that the economy is nowhere near overheating, but this is

5 Source: the Norwegian Petroleum Directorate, http://www.npd.no/en/Publications/Facts/Facts-2011/

6 If Cyprus sells its hydrocarbon products to the EU, the fixed exchange rate regime obviously functions as a vaccination against currency appreciation caused by expansive spending. In this case, such spending would instead have an exacerbating effect on the rise in domestic inflation.

7 See for instance *Eurostat Regional Yearbook 2011*, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-HA-11-001-03/EN/KS-HA-11-001-03-EN.PDF

8 http://www.inflation.eu/inflation-rates/norway/inflation-norway.aspx

more likely due to the general downturn in the current global economy, rather than lack of domestic demand. However, a careful spending profile has contributed to avoiding undue shocks to exchange rates and price levels since the income stream really started to take off towards the end of the nineties.

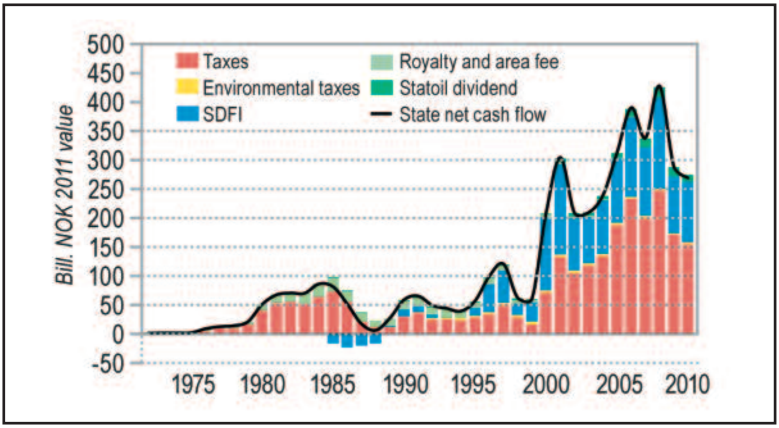

Figure 3: The government's net cash flow from the petroleum sector.[9]
Source: The Norwegian Oil Directorate, http://www.npd.no

The sovereign wealth fund

To begin with, the government prioritized paying off foreign debt, while resisting the temptation to expand the state budget unduly. All debt was eliminated by 1995. Thereafter, a sovereign wealth fund was created. Each year, all the state's revenue from the petroleum sector is added to the fund. The fund invests in shares and bonds abroad, hence not driving demand for domestic currency. About 60% is currently (as of end 2011) invested in equity instruments; the remaining in fixed income instruments such as bonds and money market products. The fund has just recently also started to invest in real estate.

As the dimension of the fund quickly grew to be vast, the government set up a professional investment team, reporting to the central bank which is responsible for the fund's management. The investment team has an ethics section which discusses ethical guidelines for the investment profile, and monitors the fund's compliance with the said guidelines. The fund may sanction companies which, for instance, engage in the production of illegal weapons or human rights violations.[10]

9 The euro is worth about 7.60 NOK as of February 2012.

10 See http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund/responsible-investments/companies-excluded-from-the-investment-u.html?id=447122 for a full list of all 'black-listed' companies.

This Norwegian 'oil fund' by now has a market value of 400 billion euro (80 000 per capita), equal to more than one full annual GDP (see Figure 4 below). As of end 2011, it is the world's largest individual investor. However, it is not an instrument for Norwegian foreign policy, and shall not be used for advancing political or strategic objectives. It takes a long-term perspective on its investments, aiming to maximize its rate of return while minimizing risk through appropriate diversification.[11]

The oil fund's investments are of course exposed to the general risk that exists in international markets. For example, it suffered an unrealized loss of about one quarter of GDP during the last few months of 2008. Moreover, due to the ever increasing volume at stake, it is not so easy to find hedging instruments to secure the assets when the waters are rough. Hence one can always discuss whether the resources would have been safer staying at the bottom of the ocean until the revenue is needed, rather than converted into a sovereign wealth fund.[12]

However, the idea is that the latter will *forever* enable future generations to harvest a stable share of the resources. The *budgetary rule* is essential in that regard, as discussed next.

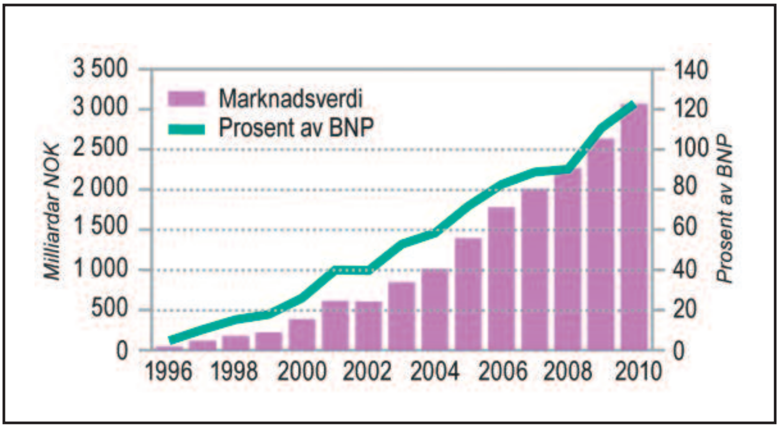

Figure 4: The Norwegian oil fund: Market value and size as % of GDP.
Source: *http://www.npd.no/Publikasjoner/Faktahefter/Fakta-2011/Kap-3/*

11 For more information about the fund, such as its mandate, ethical guidelines, placements, and market value, see http://www.nbim.no/en/About-us/Government-Pension-Fund-Global/

12 The extent to which one expects hydrocarbons to be replaced by alternative sources of energy, influencing the future price of oil and gas, must also be factored in when a strategic decision is made on how quickly the resources should be extracted.

The budgetary rule

Revenue is allocated to investments or consumption as per the following guidelines.

Each year, the state budget is created without the revenue from the petroleum sector, but including instead an injection from the oil fund equal to 4% of the fund's market value. This ensures a reasonably stable inflow of the revenue into the economy, irrespective of fluctuations in the market prices of oil and gas.

This golden rule for use of the revenue is respected by all responsible political parties, and has since its establishment in 2001 generally been followed by all governments.

Assuming that 4% is also a reasonable estimate of the average real (after inflation) rate of return that one can expect to obtain from the fund's investments, this will in principle allow for yearly state budgets to receive stable injections of petroleum revenue *forever*. Future generations, who also have ownership to the resources, will thus benefit as much as the current one, despite the resources having been fully depleted.

There exists some flexibility to the budgetary rule pursuant to economic cycles. When there is an economic downturn, one may choose to take out more than 4%. For example, in 2009, the government suddenly found itself obliged to provide stimulation packages, funded from the oil fund beyond the budgetary rule. When the general economy on the other hand is particularly good, less than 4% is taken out. Hence, the fund *de facto* also functions as a tool for reducing the effect of economic cycles.

When the net revenue from the petroleum sector thereafter is added to the national accounts at year end, recent years have seen emerging a surplus in the vicinity of 10% of GDP.

Distribution of revenue and absence of resource conflict

The basic principle is simple: All public revenue from the petroleum activity goes to the state level. The general state budget, with allocation of such revenue as per the *budgetary rule*, thereafter distributes it to the municipal level as per the agreed degree of (de)centralization in public service provision. There is hence no earmarking of the revenue consequent to the extent to which specific groups or regions have contributed to it. Neither does anyone seem to demand such.

This greatly depoliticizes the use of the revenue.

It is most likely easier to get general acceptance for this principle when the resources are situated offshore. Were the resources, and consequently production, situated on land, then one might be able to make the case that they belong to the individual municipalities. But such ownership can hardly be claimed by anyone when the resources are picked up from the bottom of the ocean hundreds of kilometers away. True enough, all products are transferred onto the shore through receiving facilities. Municipalities hosting such facilities get their reward in the form of employment and associated personal income taxes, as well as the general demand for goods and services generated by the facility, contributing to the local economic activity. Local authorities are also in principle able to charge a tax on fixed assets, in theory up to 1% of the value of the facility per year, though in practice, individual municipalities hardly ever make use of this option, which is often negotiated already before it is decided where the facility is going to be placed.

Contributing to the absence of conflict over the revenue may be the fact that the state budget has traditionally upheld a strong regional profile, with significant measures for stimulation of economic activity at the municipal level, including development of infrastructure such as roads and broadband in rural areas. It should be noted that this entails benefits for the general manufacturing (i.e., non-petroleum) sector, which is often seen to suffer in natural resource intensive economies.

An additional factor is that Norway is at the outset an ethnically homogenous country; hence no distinct ethnic groups claim particular ownership of any of the resources, such as can easily be the case in Sudan, Israel or Cyprus. There are an indigenous people in the north, the *Sami*, but they clearly have no basis for any special claim when it comes to hydrocarbons ownership, as is also the case for the general immigrant population. Any provisions in the state budget for the special interests of any of these groups are hence negotiated independently of aspects related to hydrocarbons.

Finally, it should be noted that the long-standing close to perfect track record of Norwegian governments when it comes to non-corruption as well as transparency efforts has brought about a general culture of political trust, which pre-empts conflict over resource management and revenue spending. As part of the transparency efforts, both the state budget[13] and the national accounts[14] are available online in great detail, as is information about the oil fund's guidelines and placements.[15]

It has been suggested[16] that the question of *resource blessing* vs. *resource curse* greatly depends on the initial conditions and degree of democratization, on which the introduction of a significant natural resource sector in the economy will have an amplifying effect. Good things get better, while bad things get worse.[17] If this holds true, then it was fortunate that democratic structures and institutions were of reasonably good quality in Norway already before the resources were discovered and production commenced.

The spending profile: a view forward

From time to time, there are populists in the media demanding a more aggressive spending profile for the oil fund. The demands are normally for larger allocations towards the building of roads, elderly care, and the educational sector.

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13 http://www.statsbudsjettet.no/Statsbudsjettet-2012/English/

14 http://www.ssb.no/english/subjects/09/01/regnskap_en/

15 http://www.nbim.no/en/Investments/

16 See Mehlum et al. (2006), 'Institutions and the Resource Curse', *The Economic Journal*, 116, pp. 1-20.

17 For instance, if the country at the outset has a high level of corruption or political mistrust, those problems are likely to get worse as revenue pours into the system, effectively raising the stakes.

To begin with, one should remember that the government imposed the 4% budgetary rule at a time when the size of the fund, as well as the revenue, was much lower than today. The size of the fund has increased by much more than the general state budget. This in itself is an argument for *lowering* the percentage, as the value of the injection from the oil fund *as a portion of the state budget* is greater today, as is its contribution towards Dutch disease symptoms and heating of the economy. This will only become more obvious as the oil fund continues to grow rapidly.

There should also be some concern over the possible over-dependency on the petroleum sector. The sector is responsible for 25% of GDP, and employs (directly and indirectly) some 10% of the total workforce, *and growing*, while the conventional export industry experiences a somewhat declining trend.[18] At the same time, and while ranking among the world's largest producers, Norway does not rank so high when it comes to resources not yet extracted; Saudi-Arabia's estimated oil reserves are for example 25 times as large as Norway's.[19] The estimated reserves at end 2010 are 7.3 billion Sm^3 OE, whereas production in 2010 was 250 million, suggesting that with the current production, resources will be depleted within 30 years.[20] Hence Norway will need to be prepared for a reduced income stream from its petroleum industry sooner than most other big producers, relatively encouraging results of the first exploratory drillings in the Barents region notwithstanding. This should only serve further to underline the importance of proper compliance with the budgetary rule.[21]

On the other hand, the demographic curve (Figure 5 below) testifies to the fact that, consequent to high fertility rates in the years after WWII, a wave of pensioners is going to emerge shortly. Hence, this might indeed be the right and necessary time for investments in infrastructure for health- and elderly care. And it should be acknowledged that investing sovereign wealth assets into *infrastructure* projects has a tendency to be less Dutch disease-driving than what would be the case if the assets are used for direct consumption. This is particularly the case if foreign contractors are used for the creation of such infrastructure, as such will contribute less to the demand for, and consequent appreciation of, domestic currency.

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18 See http://www.norges-bank.no/en/about/published/press-releases/2012/1/. Both the high cost level and a strengthening trend of the NOK against the euro and other major currencies pose difficult challenges for the conventional export industry.

19 Source: *BP Statistical Review of World Energy 2005.*

20 See http://www.npd.no/en/Topics/Resource-accounts-and—analysis/. In reality, production volume is likely to drop gradually, rather than coming to an abrupt end in 30 years. As production costs typically are higher on almost empty oil fields (due to lower reservoir pressure), revenue per produced unit is also likely to decrease towards the end.

21 It also shows the need to maintain a decent investment climate and living conditions for other industrial sectors, as these will be gaining importance when the oil rush comes to an end.

However, two challenges emerge in conjunction with the *operation* of such an expanded infrastructure:

- One would be the Dutch disease symptoms likely to emerge from the increased level of spending, just at the most inconvenient moment when the oil and gas boom comes to an end and the non-petroleum export industry needs a 'revival'.
- Unemployment levels are currently so low (about 3%),[22] that it might be difficult to find labour for operation of the infrastructure. A transfer of labour from the petroleum sector, as the latter scales down, is intuitive; however, it is worth keeping in mind the nature of this labour, where specialization is often achieved 'on the job' and the mobility of this workforce may therefore be somewhat limited.

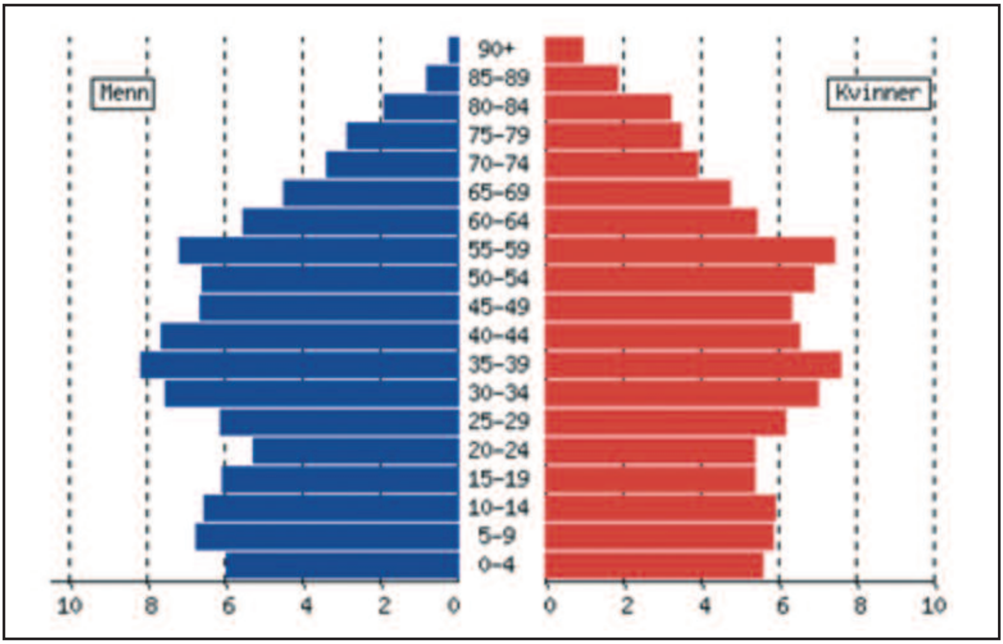

Figure 5: Demographics by gender and age. Source: Statistics Norway.

22 Source: *Statistics Norway*, http://www.ssb.no/english/subjects/00/minifakta_en/en/main_03.html

Conclusion

The following conditions have contributed to the thus far positive experience of the Norwegian petroleum adventure (absence of conflict, a healthy economy, and safe operation):

- It was at the outset established that the resources belong to *the people*. No special groups are in the position to claim any particular ownership to the resources. A high corporate tax has ensured that most of the revenue comes back to the people.
- The level of political trust was high at the outset, and has continued to be so, thanks to transparency efforts and absence of corruption incidents.
- A healthy degree of state involvement has ensured compliance with safety and environmental standards, while avoiding putting profitability at risk.
- The temptation to unduly expand consumption as revenue increased has been resisted, avoiding contagion of the Dutch disease and maintaining reasonable competitiveness of the non-petroleum export industry.
- The consequent accumulated unspent revenue is placed in a sovereign wealth fund, for investment abroad. The budgetary rule ensures a stable flow of the revenue into the state budget, while also functioning as a cushion against economic cycles and shocks.

While this is all very nice, Norway does face certain medium- and long-term challenges:

- One will eventually need to prepare for a scaling down of the petroleum adventure, as the resources will be running out. We are speaking of a considerable portion of the workforce (10% and growing), and a quarter of GDP. The transition into other industries will entail many challenges, not least given the sheer volume one is speaking of.
- An 'elderly wave' will emerge shortly, necessitating an expansion of infrastructure for health- and elderly care. This could have a heating effect on the economy, and hands for the operation of this infrastructure may be difficult to find.
- The risk and continued insecurity in international markets is a stress factor for the sovereign wealth fund, with the potential damage of a setback getting ever higher as the fund's market value increases.

Epilogue: a suggestion for Cyprus

As described above at the end of the section discussing the absence of resource conflict in Norway, natural resources can have an amplifying effect on the initial degree of democratization and climate of political trust.

In this respect, I imagine the Cyprus problem, with its inherent economic inefficiency, will become more difficult to resolve and have an increased potential for conflict 'heating', if certain principal agreements are not reached beforehand in relation to the management of the island's resources and the revenue ultimately to be harvested from them.

Distribution across the Green Line of authority (e.g., for licensing), responsibility, costs of investment, and eventual revenue should preferably be decided upon before investments start, or even before the size of the reserves on, respectively, the northern and the southern part of the island's continental shelf has been established. Although a positive revenue stream is still far away, any such agreement will be more difficult to reach once unilateral operations are initiated, licenses are granted, risk is taken, money is being spent/invested, and, as it might happen, it is revealed that the northern part has more resources than the southern part, or vice versa.

Such agreement would also contribute to minimizing the (profit-draining) risk premium associated with investments.

If no partition is desired, the two communities should carry their proportional weight of the necessary investments (perhaps according to the population size), and harvest the same share of the revenue if/when an income stream ultimately comes about, recognizing that all resources belong to the people of Cyprus in its entirety. A joint *Ministry of Hydrocarbons* would be useful for this purpose.

The only other viable option would be for the two sides to operate entirely separately, but such would in effect only represent another obstacle against any future reunification of the island.

VICTIMS OF THE RESOURCE CURSE: THE CASE OF THE TWO SUDANS

Øystein H. Rolandsen

Introduction

This chapter assesses the influence of the resource curse on major political events and processes in Sudan and South Sudan, and indicates how their experience may be relevant for future exploitation of hydrocarbons in the eastern Mediterranean. Sudan and the recently independent South Sudan have been hard hit by the resource curse. Since 2000 Sudan's national income has leapt because of oil revenues. Yet the majority of the people of Sudan and South Sudan have not benefitted. A superficial oil economy has emerged whereby a minority has become rich but the oil dollars quickly circulate out of the country, creating few if any ripple effects. When the economic impact is seen together with the political consequences, the full effect of the oil curse becomes evident. The political consequences of the oil revenues are pervasive. More than merely altering state-society relations, the oil factor has exacerbated already-existing negative dynamics and tendencies. Oil revenues constitute a stress factor on the economy and on the political system that complicates and makes governance more difficult.

The oil economy of the two Sudans

Oil was discovered in Sudan in 1978, but oil development ceased during the first decade of the civil war (1983-2005).[1] Oil activities resumed in the mid-1990s, while full-scale production started in 1999/2000 and by the mid-2000s Sudan produced 350 000 barrels per day.[2] Before South Sudan's secession in 2011 this made Sudan the third largest oil producer in Africa, trailing only Angola and Nigeria. It is difficult to estimate the extent and value of the remaining oil reserves in the two Sudans. A considerable share of the promising oil areas has not yet been sufficiently explored, particularly in South Sudan. Sudan, on the other hand, has accelerated exploration activities and a number of new blocks will be investigated in the years to come.

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1 European Coalition on Oil in Sudan (ECOS), *Sudan, Whose Oil: Sudan's Oil Industry Facts and Analysis* ([S.l.]: IKV Pax Christi, April 2008).

2 Ibid.

Uncertainty about the quality of the crude also makes it difficult to estimate the value of the two Sudans' deposits. The local oil is of two different "blends", one of fair quality, the other is waxy and more difficult and expensive to transport; the latter fetches a significantly lower price on the international market.[3] This means that even if new deposits are discovered, revenues might be low or even insufficiently profitable to start production. Still, it is fair to assume that as long as neither country experiences long halts in production, oil revenue will dwarf any other state income for the foreseeable future.

Sudan's and South Sudan's state finances and official economies are utterly dependent on oil revenues. Oil income is estimated at 98% of state revenue in South Sudan and 50-60% in Sudan.[4] Sudan's average annual income from oil in the period 2005-2010 was probably in the range of 3-5 billion USD.[5] During this period the Government of South Sudan received an annual average of approximately 2 billion USD.[6] The oil industry's share of the two countries' actual GDP is unknown, since the informal and subsistent sectors in each country are large and uncharted. Lack of reliable information is a major challenge when assessing the economic impact of oil in the two Sudans. We may, however, surmise that oil revenues are the major foreign currency earner for both countries even though state finances lack transparency and reliable surveys of even the official economic sector are scarce.

The extent to which the infusion of oil money into the local economy has any ripple or multiplying effect also belongs to the realm of conjecture. Still, it is not inconceivable that a major share of this money is spent on imported items such as military equipment, cars, foreign-owned hospitality services, construction or is simply transferred to foreign bank accounts. Combined with the absence of domestic production for sale and poor marketing infrastructure, it is fair to assume that the circulation of oil revenue within the domestic economy of the two countries is slight.

Cursed with oil

A straightforward definition of the resource curse is that a state and its population are economically and politically worse off after a natural-resource windfall.[7] In the Sudans, oil production and oil revenues have poisoned politics and deformed the economy. Politically oil has put further strains on an already antagonistic discourse and fragile governance system.

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3 Ibid.

4 Jill Shankleman, *Oil and State Building in South Sudan: New Country, Old Industry* (Washington, DC: U.S. Institute of Peace, 2011); African Economic Outlook, *Sudan 2011*, n.d.

5 European Coalition on Oil in Sudan (ECOS), *Sudan, Whose Oil*.

6 Shankleman, *Oil and State Building in South Sudan: New Country, Old Industry*.

7 Philippe Le Billon, "The Political Ecology of War: Natural Resources and Armed Conflicts," *Political Geography.* 20, no. 5 (2001): 561.

Politicians quarrel over the distribution of oil wealth, popular expectations are raised, and friction occurs over environmental effects between people in oil producing areas and the central government. More subtly, oil wealth strengthens an informal system of political and military patronage, which makes political stability dependent on a continuing high level of oil income and its distribution to echelons of clients. The economic impact of the resource curse is first and foremost a confluence of government revenues dependent on oil and the lack of a multiplying effect of the infusion of oil money into the economy.

Oil and war

Analysis of the beginning of wars and of their subsequent trajectory is complex and can seldom, if ever, be based satisfactorily on only one factor. It is anyway outside the scope of this chapter to give a full account of the war between the Government of Sudan and the Sudan People's Liberation Movement/Army. It suffices to say that this war was no less complex than others, and it is likely that the multiplicity of conflict factors would have ensured that war started regardless of the discovery of oil. The political handling of the discovery was controversial, however, and widened the gap between President Jafar Nimeri and his Southern Sudanese opposition. A point of contention was Nimeri's revision of the internal border between North and South in the early 1980s, when, at a stroke, he transferred a significant share of the promising oilfield areas to the north. He named the province thus created 'Unity'. Nevertheless, oil was one issue among several that brought about a collapse of the 1972 settlement.

The decision to resume oil development in the mid-1990s without a peace agreement did arguably intensify the war in the oil areas of South Sudan, and appears to have been related to the Khartoum government's military strategy.[8] After a major split within the Southern rebel group in 1991, the conflict developed into a war of attrition and the Sudanese government, with new Southern allies, took over the oil areas which then were out of reach for the rebels. Through what has been characterised as a "scorched earth" strategy, the local population was driven out and US, Canadian and Swedish oil companies started building the necessary infrastructure. These activities centred on the north-south border areas. These companies soon had to withdraw, as a result of Western countries' sanctions on Sudan and pressure generated by documentation of widespread human rights abuses in the oil production areas. The Western oil companies' shares were sold to Chinese, Malaysian and Indian state companies. A pipeline was built to the Red Sea at Port Sudan.[9]

8 European Coalition on Oil in Sudan (ECOS), *Sudan, Whose Oil*.

9 Ibid.

Undoubtedly the beginning of oil production in the context of a civil war was a curse for the local people murdered or driven from their homes, but it is difficult to assess whether it prolonged the conflict. Entering the realm of the contra-factual one may, on the one hand, argue that the Government of Sudan would at an earlier stage have been more interested in reaching a peace deal that included the option of secession if it had not stood to lose oil revenues. They might also have reckoned that oil revenues would help them to win the war. But, conversely, it is plausible that the rebels took into consideration that the South would never have access to the oil revenues until after a favourable peace agreement was signed. This could then have motivated the Sudan People's Liberation Movement to strike a deal sooner rather than later.

Wealth-Sharing and South Sudan's Independence

The civil war ended in 2005 with the so-called Comprehensive Peace Agreement. This came about after a lengthy negotiation process that gathered momentum in 2002. Oil made the negotiations longer and more complicated, but it was not the make-or-break issue. South Sudan's right to self-determination, the status of Sharia law in the North, security arrangements, and the future of border areas proved more difficult than points related to oil. The government of Sudan and the Sudan People's Liberation Movement/Army agreed that the autonomous Government of South Sudan would receive 50% of the revenues from oil production in South Sudan. The states where production was taking place, Unity and Upper Nile, would receive another 2% of the revenue from oil in their territory. The effect of these wealth-sharing agreements will be discussed further below.

The relative ease with which the oil issue was solved may be ascribed to two factors. Firstly, the parties negotiated only a temporary deal which lasted until the 2011 referendum over South Sudan's future status. This meant that the thorny issue of ownership of the resources could be postponed and the parties could focus on revenue-sharing. Secondly, this was not a winner-take-all game: the temporary deal showed that revenue could be shared.[10]

It is possible to see oil as a positive factor in the negotiations: the peace agreement might not have been possible without oil revenue to share. The agreement granted South Sudan a relatively high degree of autonomy, but such autonomy would have been worthless without adequate funding. Although the vast majority of South Sudanese may not have benefited from the wealth-sharing agreement, it did at least provide the elite with the necessary means of political manoeuvring and provided a sense of reward for twenty-two years of struggle. Even more important, the prospects of oil income made secession feasible. Government

10 Øystein H. Rolandsen, "A Quick Fix? A Retrospective Analysis of the Sudan Comprehensive Peace Agreement," *Review of African Political Economy* 38, no. 130 (2011): 551–64.

revenues excluding oil are a paltry USD 40 million.[11] The government in Juba would not stand a chance without oil revenue, and in that event few countries would have recognised a new South Sudan state. With readily available oil revenue a sovereign South Sudan entered the realm of the possible.

The impact of oil issues after the 2005 peace deal

After the 2005 peace agreement the resource curse had multiple consequences on Sudan and South Sudan: oil production and oil revenue affected relations between the governments in Khartoum and Juba; oil revenue had a sudden and decisive impact on the South's politics and economy; environmental problems and unrest occurred in oil-producing areas; and, although oil enabled secession, it also complicated the negotiations that brought that secession about.[12]

A number of issues caused friction between the Khartoum-based Government of National Unity and the Government of Southern Sudan in Juba during the period 2005-2011. Oil added a layer of complexity. When the distribution of government posts was negotiated in 2005, it was important for South Sudan to obtain key positions within the administration of the oil sector. This would facilitate southerners' access to the contracts and records of oil production, ensuring that they received their rightful share of revenue. Participation in oil governance would also enhance southern capacity to handle and administer the oil sector, which in turn would help to provide a smooth transition in the event of secession. Southerners were, however, effectively shut out of the management of oil. Lack of openness was a constant point of friction between the parties, and the South consistently claimed that they were being short-changed in the sharing of oil revenue. Despite Khartoum's opaque handling of revenue transfers, implementation of the wealth-sharing agreement exceeded expectations: the agreement secured a relatively steady flow of revenue into the coffers of the Government of Southern Sudan during the transitional period of 2005-2010.

In both Sudans, and in particular South Sudan, it is difficult to account for the use of oil revenue and to prove any significant social or developmental effect.[13] As already indicated, oil money is first and foremost spent on personal enrichment, the military, and private and unofficial patronage networks emanating from the national leadership. These tendencies pre-dated oil: sudden riches accelerated and exacerbated them. This was particularly the case in South Sudan, where there was hardly a monetary economy at all before the signing of the peace agreement and where oil income has dwarfed all other economic activity, including the impact of international aid.

11 Zeru Gebre Selassie, *Non-oil Revenue Study: Southern Sudan*, October 2009.

12 L. A. Patey, "Crude Days Ahead? Oil and the Resource Curse in Sudan," *African Affairs* 109, no. 437 (2010): 617–36.

13 Ibid.

Oil revenue increases incentives for state capture both in Sudan and South Sudan, as it gives access to yet more wealth and political power than would otherwise be the case. In the absence of opportunities for peaceful and democratic regime change, coup d'état, violent rebellion or popular non-violent uprisings are the only options for ambitious political contenders. At the same time, the cost of opposition increases because when fuelled with oil money groups and individuals outside the patronage systems have to forsake their pieces of a much larger cake. Oil also affects the interests of neighbouring countries, increasing or reducing their willingness to support oppositional groups and to arm rebels.[14] The combination of oil income and weak governance and control structures makes corruption more feasible and difficult to resist. Conspicuous display of ill-gotten wealth is demoralizing and increases a sense of relative deprivation of the people outside the corrupt system. Management of the oil sector and of political controversies related to it also divert attention and resources from a thin layer of competent politicians and administrators so that other sectors are concomitantly neglected.

As their economies and government finances depend on oil revenue, the two countries' stability has become closely linked to fluctuation and changes in the production rate and global oil prices and therefore exceedingly unpredictable. This is one reason why it is difficult to discern the impact of South Sudan's secession: in Sudan there has been a significant loss of revenue, while South Sudan has received a further windfall into an already stressed economy. Yet, the recent halt in South Sudan's oil production and consequent loss of revenue (recounted below) will most likely affect the stability of the informal patron-client network and security sector.[15]

Even in peacetime, people living in oil-producing areas in both Sudan and South Sudan have continued to be adversely affected by the industry. Water is polluted, oil spills take place, and the fragile local ecology is upset by the construction of roads without proper drainage.[16] It must be remembered that these people have considerable military capacity, and the oil-producing areas are relatively remote and difficult to control by the central governments. Mismanagement of the local share of the wealth-sharing agreement reproduces locally many national political and economic problems. In consequence, the current management of the oil sector in the two Sudans constitutes a considerable security risk.

14 Roland Marchal, "The Regional Dimension of Sudanese Politics," in *Sudan - No Easy Ways Ahead*, vol. 18, Heinrich Böll Foundation Publication Series on Democracy (Berlin: Heinrich Böll Foundation, 2007), http://www.boell.org/web/index-531.html; Harry Verhoeven, *Black Gold for Blue Gold? Sudan's Oil, Ethiopia's Water and Regional Integration* (London: Chatham House, 2011), http://www.chathamhouse.org.uk/files/19482_0611bp_verhoeven.pdf.

15 Wolfram Lacher, *South Sudan: International State-Building and Its Limits*, SWP Research Paper (Berlin: German Institute for International and Security Affairs, February 2012).

16 Sara Pantuliano, "Oil, Land and Conflict: The Decline of Misseriyya Pastoralism in Sudan," *Review of African Political Economy* 37, no. 123 (2010): 7; European Coalition on Oil in Sudan (ECOS), *Sudan, Whose Oil*.

In January 2011 a vast majority voted in favour of secession, and on 9 July 2011 South Sudan became an independent state. The prospects of secession had required new negotiations between the former warring parties on a number of outstanding issues. Most important were borders – including a local referendum on the status of the disputed Abyei area; the transport of oil from South Sudan through the pipeline to Port Sudan; and the status of each country's citizens residing in the other's territory, notably including between 500 000 and 1 000 000 Southerners displaced – and increasingly rooted – in Sudan.

Although the outcome of the 2011 referendum was predictable, negotiations over the terms of secession could not start until after it took place. This gave the parties only six months to negotiate, even as political relations were souring. The parties failed to reach any agreement, and negotiations continued during the autumn of 2011. In December, in a negative turn of events, the government of Sudan confiscated USD 850 million worth of South Sudan's crude oil as compensation for disputed transport costs. South Sudan retaliated in January 2012 by stopping the flow of oil altogether. The impact of these events, at the time of writing (March 2012), is unclear, but the situation is unsustainable and must be resolved in the near future: without oil revenue both parties would be hard pressed to maintain their extensive patronage networks and control over regional and local allies.

Conclusion: Relevance for Cyprus

The oil experience of the two Sudans is relevant to any country expecting a hydrocarbon windfall, including Cyprus and other Eastern Mediterranean countries. The resource curse first and foremost enhances whatever negative trends already exist within a country and between its neighbours involved in the exploitations of natural resources. The curse, and in particular the negative consequences of hydrocarbon production and revenue, can put considerable stress on a country's political system and financial sector. The impact varies of course; the relative size of the hydrocarbon sector is the most important factor in determining this impact. Other issues are also relevant, including government capacity to regulate the industry and handle a sudden flow of revenue, as well as a country's geopolitical position and relations with neighbouring states.

The case of the two Sudans presents several instructive parallels to that of Cyprus. The Horn of Africa and the Eastern Mediterranean are both areas of considerable international tension. Disputed areas and disagreement over sovereignty and zones of control are parts of both regions' politics. Discovery of hydrocarbons has exacerbated tensions between Turkey and Cyprus, as well as adding another layer of controversy between Israel and its maritime neighbours. However, instead of an additional source of tension, prospects for hydrocarbon production should in this context be seen as an opportunity to solve old problems. It is important to acknowledge that hydrocarbon issues are part of a larger complex of issues and that the new dynamic created by the need to cooperate and share resources should be addressed within a larger setting.

Domestic politics in Cyprus is likely to be affected by the hydrocarbon issue even before any gas starts flowing. These issues are likely to dominate the political agenda, and suspicion and distrust of politicians in power will lead to closer monitoring by the opposition, media and civil society organisations. The hydrocarbon issue will infiltrate policy and governance arenas where current relations of interested parties will be upset and a new equilibrium must be reached. Handling such a process requires not only statesmanship, but also a fundamental trust and agreement on shared objectives among involved parties. If these conditions are not met, as was the case with the two Sudans, political friction and conflict will be increased by the influx of resource revenue. If the management of government funds lacks transparency, oppositional groups may try to capitalise by creating a sense of deprivation among groups perceiving themselves as cheated of the benefits they were led to expect.

Cyprus's economy is likely to be severely affected by the expanding energy sector, and existing problems and negative trends may be exacerbated. Once revenue flows into the economy and into state coffers, the dangers of dependency, inflation and the marginalisation of other sectors will come into conflict with the temptation to spend the newly won resources. Experience from the two Sudans suggests that a weak and undiversified economy will be unable to absorb large amounts of revenue. Instead, funds are spent on imports and benefit foreign entrepreneurs and companies. Cypriot politicians and civil servants will need to take direct and comprehensive steps to regulate the influx of hydrocarbon revenue and strive towards a high degree of transparency in handling it. This is particularly important in dealing with international oil companies, which have a reputation of bribery, corruption, and the bullying of weak states.

CYPRUS HYDROCARBONS: THE DILEMMAS OF EARLY DEVELOPMENT

Gary Lakes

There has been a great sensation in Cyprus for the last few months over the drilling operation undertaken by Noble Energy in Block 12. The discovery of a large amount of gas offshore Israel and the proposal to set up a Liquefied Natural Gas (LNG) facility on the southern coast of the island for the purpose of exporting both Israeli and Cypriot natural gas has been met with great anticipation – and great expectations. Indeed, if there are commercial quantities of gas found in the Cyprus EEZ – and that has yet to be determined – then Cyprus could find itself in a fortunate position.

In late December 2011, Noble Energy announced the discovery of 5 to 8 trillion cubic feet (tcf) of natural gas in the Aphrodite structure in Block 12. That is the equivalent of 141 to 226 billion cubic meters (bcm) of gas. Considering the fact that Cyprus's current energy demand is less than 1 bcm per year, the discovery in the Aphrodite field is enough to power Cyprus for well over 100 years.

Another thing to consider is that this is just the first well in the Cyprus EEZ. The Energy Department has said that there are as many as 14 possible structures worthy of exploration. And once a second licensing round has been carried out and the other blocks assigned and further exploration begins, the real energy potential of Cyprus and the Eastern Mediterranean will become clear.

Over the last two years, Noble Energy has made some significant discoveries offshore Israel and it looks like they could make a few more. In 2009 Noble discovered the Tamar gas field where reserves are now estimated at over 9.1 tcf and a year ago it discovered the Leviathan field with reserves now estimated near 20 tcf. Respectively, those reserves are the equivalent of 257 bcm and 566 bcm. Currently, Israel's demand for gas is around 5 bcm/year and that is expected to rise quickly to around 15 bcm/year in the future once the Tamar field is brought on stream for Israel's domestic use and natural gas becomes widely available.

Noble's discovery in Block 12 is indeed a sign of good fortune for Cyprus. If nothing else it will mean that the island will have a natural gas resource that it will be able to draw upon for domestic power generation – and there will be other benefits once the island can pay down infrastructure costs and have a cheap source of energy.

But if in the future there is a big discovery, then the possibilities for the people of Cyprus are significant. Ten to 15 years from now but *not* earlier, the economic situation in Cyprus could be significantly improved, especially if there is a combined effort with Israel to develop and export hydrocarbons discovered in the southeast Mediterranean Sea.

But all this is conditional – it depends on how the Republic of Cyprus proceeds with opening what will be an entirely new economic sector. So far Cyprus is only at the very early stages, but it would behove the island to proceed towards the creation of an energy sector swiftly. Policy creation and contingency plans are needed.

If hydrocarbons are discovered offshore Cyprus in commercial quantities, it will very likely give a significant boost to the island's GDP (gross domestic product) and its per capita income.

The advent of an energy sector in Cyprus will mean self-sufficiency in energy requirements; it will create industries; it will bring foreign direct investment; it will create new jobs and expand jobs in those sectors that already exist. This sector will exist on the basis of a real, valuable natural resource, not services or sunshine.

But before everybody runs out to buy luxury goods, we need to understand that any real financial gain – the kind of financial gain that comes to mind when we think about energy exporting countries like Qatar or Norway – is indeed 10 to 15 years away.

It will take that long to make deals, reach agreements, negotiate financing, sign numerous documents, carry out field development, construct infrastructure and find markets before any Cyprus-based hydrocarbon export company can begin to cover its investments and for profits to accumulate.

Only after that will the so-called "money" become available for the government to invest in things like infrastructure, social programs or investment funds for future generations.

It must be emphasized that the entire success of this scheme depends on commercialization – finding a market where the gas and other products that result from gas production and processing can be sold. That is called "monetize" – turning the resource, the work, the costs, etc., into money. But first a great deal of money is going to have to be invested in the project and those investments will need to be paid back to whoever provides the financing.

Noble Energy has stated that it can bring natural gas by pipeline to Cyprus perhaps by 2015-16, if work proceeds quickly. This would be of considerable benefit to the Electricity Authority of Cyprus, which is still using diesel and heavy fuel oil to generate electricity. Furthermore, it would be excellent timing with regard to restoring generation capacity at Vassilikos.

The Natural Gas Public Company (DEFA) has drawn up plans for an onshore gas pipeline distribution network that would supply gas first of all to the power generation facilities and perhaps later to industrial and commercial entities.

Noble Energy and its main partner in Israel, the Delek Group, have proposed the construction of a Liquefied Natural Gas (LNG) facility with a capacity to eventually produce 15mn tons/year. That is a larger capacity than what exists now in Egypt at the Damietta and Idku plants combined.

The idea is that natural gas from the Leviathan field and gas from Block 12 would be brought to the island by pipeline and processed at a LNG facility at Vassilikos and exported to world markets. During processing, a number of other products would also be produced that could either be put to use domestically or sold for export. This LNG facility is likely to require an investment of well over the initial cost estimate of $10 billion.

At a presentation in Nicosia in November 2011, Engineer Peter Wallace, who has extensive experience in designing and building LNG plants, explained to a gathering of the European Rim Policy and Investment Council just how complicated, time consuming and expensive building an LNG facility can be (see www.erpic.org).

The Republic of Cyprus is considering the proposal to build an LNG facility. So while the initial proposal put forward by Noble and Delek in 2011 said the plant could be operational by the end of this decade, the longer it takes to start talking about it, the longer it will be before Cyprus sees any financial reward.

The LNG proposal might appear expensive and lengthy, but under the current circumstances it is the only way for Cyprus and Israel to export gas from the Eastern Mediterranean, and I expect that it will become the primary way that gas is exported from the region, although other options could arise.

How Do Cyprus and the Greek-Cypriots and Turkish-Cypriots Benefit?

An issue that needs to be addressed is wealth distribution, including especially how that applies to the Turkish-Cypriot community if Cyprus should happen to wind up with any wealth to distribute.

Perhaps the most important thing that the authorities of Cyprus must do is set up a Sovereign Wealth Fund into which all earnings from hydrocarbon-related industries must be deposited. The fund would need to be 100% transparent and administrated by an independent body of people who have demonstrated competence. Failure to do this could result in an abuse of the country's hydrocarbon revenues and Cyprus would then experience its very own "oil curse".

The President of the Republic of Cyprus and several officials in the government have stated on a number of occasions that any wealth generated by hydrocarbon discoveries offshore southern Cyprus would be used to the benefit of all Cypriots. But one should bear in mind that these statements are couched in terms with references to 'Turkish-Cypriots' or 'citizens of Cyprus'.

And this is where we get into the messiness of the Cyprus Problem.

Without a viable and lasting solution that incorporates the entirety of this island under one sovereign government, I'm not sure how this would work. Without a viable and lasting solution, how would one side benefit from resources that exist within the territory of the other side?

This is something like the situation of Sudan and South Sudan, where there is a serious dispute over oil. South Sudan exports crude oil through Sudan by pipeline to the Red Sea. Sudan earns a transit fee from the pipeline throughput. How much it will earn is in dispute.

To my mind, I cannot see how the residents of the Turkish Republic of Northern Cyprus can fully benefit from the development of hydrocarbon reserves in the southeast Mediterranean Sea if things remain as they are.

If revenues were materializing now, how would the north be able to substantiate a claim? And what would any transfer of revenue represent?

I am not trying to be provocative here, I am just asking a question that needs to be asked. And I want to emphasize that so far we are talking about something that does not exist.

As said earlier, it is estimated that development of an energy sector for Cyprus could take 10 years or more. It may take that long before the island begins to see a return on the large investments that will be needed. Is it going to take that much longer to solve the Cyprus Problem?

First, revenues from exports will go to service the financing for the billions of dollars in loans that will go into building export facilities and launching this sector. In the meantime, the residents in the south will have to pay for the development of this new resource and infrastructure through their electricity bills.

It is necessary to point out that in order to reap the benefits, the government in the south is going to have to invest quite a lot of money. I would think that for the northern side of the island to reap benefits, the government in the north would need to share the cost of investment as well.

That is just one predicament.

Some of the essence of the issue depends on what one considers wealth to be. Jobs and social services like health care, education, pensions, public infrastructure can be considered wealth. The advent of a new economic sector based on energy is going to give rise to numerous spin-off businesses.

An energy sector will create a need for everything from oil service companies, financial service companies, construction companies, supply companies as well as restaurants and barber shops. This sector will need scientists, technically skilled people, IT technicians, secretaries, laborers and truck drivers. Whatever their level of skill and training, Greek- and Turkish-Cypriots could get jobs emanating from this sector and probably receive not just a paycheck, but training that could be put to use in the future.

Even without LNG exports, the situation needs to be examined. There may be the option that the gas distribution network could be extended into northern Cyprus for power generation and perhaps petrochemical industries. Electrical power cables could be extended into northern Cyprus. There are a lot of possibilities for the northern side of Cyprus to benefit.

But I think these possibilities are in jeopardy if there is not some understanding reached between the Greek-Cypriots and Turkish-Cypriots, exclusively.

Regional Energy Politics

There is a great deal of politics in energy. Energy is politics. It is money. It is power. It is geostrategic. In short, it is "The Prize", because energy makes things happen. It gives a country power and influence.

History shows that this little island has always been at the mercy of some exterior power because of its geostrategic location. This new development regarding the discovery of hydrocarbons only exacerbates that circumstance.

Yet on the other hand, the discovery of hydrocarbons could bring the situation to a successful conclusion – depending on what the definition of success turns out to be for Cyprus.

There has been a lot of talk about sending gas from Cyprus through Turkey to Europe. Under the current political circumstances, that is impossible, even though Turkey is the most convenient market for Eastern Mediterranean gas.

There exists in Turkey an extensive domestic gas pipeline network that is spread throughout the country, but a designated pipeline designed to carry natural gas across Turkey from the Caspian region and the Middle East to Europe does not yet exist.

There are several ideas about transporting gas by pipeline across Turkey to Europe, but construction has not begun on any of them. The likely situation is that a gas pipeline will be timed to come into operation in 2017, when Azerbaijan's Shah Deniz Stage 2 project comes on-stream – if it does come on-stream then.

Turkey has an important role in the movement of oil and gas from East to West, but essentially Turkey is a transit state. The route that major international companies plan to use to move natural gas from the Caspian, through Turkey, to Southeast Europe is called the Southern Corridor. Meanwhile, several Middle Eastern countries speak of eventually routing gas exports through Turkey, but for the time being those plans are not feasible.

As said, Turkey's role in the energy scene, for now, is that of a transit state. It has no sizeable oil or gas reserves of its own and it must import practically all of its oil and gas needs.

Turkey has a large energy exploration program, most of which is onshore because it lacks the expertise to drill offshore without the partnership of an international oil company with experience. So far, 3-4 wells have been drilled in the Black Sea, but there has been no significant discovery, and some 6-8 years ago, the American firm El Paso drilled three offshore wells in the area near Iskenderun.

There is some gas produced in the Black Sea north of Istanbul and in the area of Thrace. Most of Turkey's hydrocarbon production occurs in the area of southeast Turkey near the Syrian and Iraqi borders.

In November 2011 Turkish Petroleum (TPAO) signed an agreement with Shell covering offshore blocks 4154, 4319 and 4320 off the coast of Antalya. These blocks are entirely within Turkey's legitimate offshore zone in the Mediterranean Sea. And this is the first "farm-in" agreement in the Mediterranean that TPAO has reached with a major oil company in recent years.

According to a report issued in May 2011 by Turkey's General Directorate for Petroleum Affairs (PIGM), Turkey produced a total of 17.32 million tons of crude oil during 2010 from 128 active wells. That is approximately 47,452 barrels per day (b/d). By contrast, according to the *BP Statistical Review of World Energy 2010*, Turkey consumed 624,000 b/d of crude oil last year.

With regard to gas, the Directorate said Turkey produced 726 million cubic meters in 2010, compared with BP's figures that reported Turkey's demand for natural gas amounted to 39 billion cubic meters. All of this energy needs to be imported and recent media reports say that Turkey is spending US$50 billion a year on energy.

This poses a problem for Turkey. Right now, Turkey's economy is doing well, but it needs energy to continue its economic growth. Currently, Turkey imports gas by pipeline from Russia, Iran and Azerbaijan, plus small amounts of LNG.

Furthermore, Turkey has ambitions as a regional power. It has made this very clear through the words of its politicians. But how is Turkey going to fulfill these ambitions if it has to depend on other countries for all of its energy requirements?

That brings us to Turkey's opposition to hydrocarbon exploration in the Cyprus EEZ and the Israeli EEZ. In November 2011 Turkish Energy Minister Taner Yıldız said this exploration activity was illegal.

Many states and international bodies have expressed their recognition of the right of the Republic of Cyprus to explore for and develop hydrocarbons in its EEZ in accordance with international law.

I would like to think that it is every bit as much in the interest of the Turkish-Cypriots as it is in the interest of Greek-Cypriots, that the Republic of Cyprus pursues the exploration and development of hydrocarbons deliberately and without any further attempts of intimidation, as is its sovereign right.

Considering the fact that exploration and development is a lengthy endeavour, I see no reason to postpone the creation of a new energy industry in Cyprus that could ultimately serve to improve the lives of this island's citizens as well as those of us who reside here as guests.

OFFSHORE HYDROCARBONS AND WEALTH DISTRIBUTION IN CYPRUS: INTERVIEWS WITH MICHAEL SARRIS AND MUSTAFA BESIM

Elias Hazou

Both communities in Cyprus agree, in the context of the peace negotiations, on the broad strokes of managing the revenues from gas prospecting. The common denominator is this: that clear rules should be established at the outset defining who controls what and spelling out the allocation of revenues. They agree that revenue management should come under the posited federal government in a united Cyprus. But that is where the convergences end and the disagreements begin. The Turkish Cypriots want the funds to be allocated based on consumption and population, and have devised a formula for this. They say that the tax revenues (including from gas projects) should be invested in sectors in the north in order to minimize the income disparity between the two sides in a reunified island. The Greek Cypriots do not dismiss this, but counter that there is an inconsistency in the Turkish Cypriot approach, and point to the latter's insistence on separate institutions except when it comes to the transfer of revenues, most of which would come from the larger and wealthier Greek Cypriot community. On the other hand, Turkish Cypriots appear extremely sceptical of Greek Cypriot pledges to share the gas wealth, and as Mustafa Besim says, the Turkish Cypriots are not after hand-outs. Besim proposes joint hydrocarbon projects now, prior to a political settlement. By contrast, the Greek Cypriot side thinks the possibility of energy cooperation (perhaps even with Turkey itself) could be held as a trump card, an incentive nudging the Turkish side to soften its position on the Cyprus issue and thus facilitating a political settlement. On the Turkish Cypriot side, this is dismissed as playing for time; they believe the Greek Cypriots, perhaps buoyed by the fact that their offshore gas reserves are now proved, are insincere about sharing and are going it alone. Ultimately, one observation emerges: both sides all but rule out the possibility of energy collaboration prior to reunification.

Michalis Sarris, former Finance Minister of the Republic of Cyprus and member of the Working Group on Economic Matters in the Cyprus reunification talks

Q: What would be the impact on the economy from the exploitation of natural gas? We have heard various estimates on the value of the gas find.

A: One of the points that need to be underlined is that we are not yet in a position to be definite about exact numbers. The second point to be underscored is that this is an opportunity for any country. But we have had examples of countries which have taken full advantage of this opportunity, and countries which have wasted the opportunity. So the challenge is to first create the conditions that will ensure that we make best use of this opportunity. And this involves the timely establishment of clear rules, especially on how agreements are reached and how revenues are managed. It involves the presence of a private-sector approach to the whole initiative. And I underscore 'approach', because the government will need to be present, but it needs to be present not in its traditional bureaucratic way, but protecting the interests of the public, of all Cypriots, but in ways that are commercially and economically sound. This probably means that prominent people from the private sector would need to be present on the committee that is managing this process. One could set up a national company, and make sure that enough revenues of course go to government. But that does not mean that you put it in the Ministry of Energy or in some other ministry that will inevitably go the typical way that government handles affairs. So that's one set of issues.

The other issue is that we know that the discovery of hydrocarbons can dominate the rest of the economy and lead other sectors into decline, which is known as the Dutch Disease because it first occurred in the Netherlands. Which means that we have to be careful not to allow inflation to run amok, in an economy that is already a high-cost economy and is uncompetitive in many other sectors in any case. We have to keep labour costs at bay, and we have to make sure that our educational system is geared more to science and engineering, in an economy that traditionally has been mostly into accounting and legal services. It doesn't mean we abandon those sectors, but that we get a better balance. And that begins from early years, young people need to be put into that kind of frame of mind with respect to the education system, and there is also the guidance that you give to young students on what areas of studies to select. So there is a whole area there that needs to be handled with care.

In addition, and I emphasize it because one hears it very often, having your own natural gas does not mean cheap energy. Energy has to be priced at its international price. If you think about it, you can export your natural gas and import whatever you like, but the message to people who use energy, whether for industry or for domestic use, is that this is a scarce resource. It's a resource that is expensive, it commands an international price, and therefore it should not be used as a pretext for inefficient use of energy.

And the last point is that we think this will be a unifying factor, since the challenge to a solution of the Cyprus problem has economic aspects to it. If one can look forward to revenues that will help the reconstruction effort, and also create both psychologically and in real terms the prospects for a better future, it will further underpin the stability of a political solution.

Q: What kind of structure do you have in mind for managing the gas revenues?

A: Though one cannot know at this time the full details, I'm thinking of an independent national company that is run with private-sector principles; and a good revenue-sharing scheme that gives the incentive for cost-saving, for efficiency, for the right pace of exploiting the natural gas. The broad strokes of how to go about these things are pretty well known, for instance how to structure deals with oil companies, how to share the revenue and so forth. So with the help of people who have done it before, with the help of experts, and under the scrutiny of public debate, I think we should be able to get the right answer.

Q: What about the establishment of a special fund, as in the case of Norway?

A: Sure, that would be a part of it - a special fund that would be for generations to come, with a small part being invested in infrastructure projects every year. But I would not use it for consumption purposes.

Q: How long would you estimate it would take Cyprus to start generating income from the gas, assuming all preparatory work is in place?

A: My own conservative estimate is about eight years. I don't think we can realistically expect revenues any sooner. One hears about faster ways to build the required plants or the pipelines, etc. We have important decisions to make and it will take time for those decisions. We have to make sure they are the best. Do you have a pipeline, do you treat the gas, do you export it by boat, do you liquefy it...? And then, by the time everything is constructed and is operational...so I think that a conservative but realistic estimate would be about eight years.

Q: I ask you this also because the latest European Commission forecast for Cyprus made no mention of the prospect of gas revenues. Some commentators here said that the EU and the rating agencies are not even taking that into account. But should they take it into account, or is it far too early?

A: There are two dimensions to this actually. One is: they need to be convinced that we will handle it properly. And that goes back to my earlier point. And we have a credibility gap now as a people. So they are reluctant to factor it in as a positive. You would have thought they would have factored it in on the other side of the balance sheet, with an ageing population. They will say the Cypriots have long-term liabilities to the social insurance and the health care of older generations, because Cypriots are becoming older and fewer younger people are joining the workforce. So that is on the negative side. And that accounts for the fact that they downgrade us, as they see us not running enough surpluses now. Normally they would have put the natural gas prospects on the other side of the ledger, but they don't yet. They need to be convinced, they need to see the structures we mentioned earlier, the organisation, the frame of mind that points in the direction of correct economic management. You know, what is sometimes known as the Norwegian model of management. We may or may not be as mature as the Norwegians, but that is beside the point. We need to find mechanisms that are consistent with our own idiosyncrasies and our character but which follow sound principles. You don't copy from somebody exactly, but you follow the principle, the underlying philosophy that has brought about good management and good results, in the case of Norway for example. In other cases, there have been poor results, such as Venezuela, Nigeria and Sudan, just to give a few examples. I don't want to point fingers, but I think one has to be realistic: there is the right way to do things, and the not-so-right way.

Q: Are there any plans in Cyprus on how to use and/or distribute the revenues?

A: There are no concrete plans yet. But as I said earlier, in the negotiations for the solution of the Cyprus problem we discussed a number of formulas that had clear objectives. They entailed a convergence of income per capita across the country, and that meant a development budget with a focus on the north. And the areas subject to territorial adjustment would also benefit from a development budget. And to the extent that a small percentage of these revenues can be used to support such a budget, that would underpin to a certain extent that kind of [reunification] agreement.

Q: But that would be in the event of an agreement. You being a member of the Working Group on Economic Matters in the ongoing talks, is the idea of sharing the gas wealth being discussed in earnest, if at all? As you are aware, President Christofias said a few months ago that we would share the wealth with the Turkish Cypriots irrespective of a solution. Has this idea been talked about since?

A: No, it has not been discussed really, because it was not an issue when we were doing this. But I think we need to be honest about this. The Turkish Cypriot side, not so much at the technocratic level but rather at the political level, has always insisted on separate institutions. The only time that they talk about doing something together is when they talk about the redistribution of taxes raised on the Greek side, and when we talk about the gas. So one has to be consistent: do you want to be together, or do you want to be separate except when it comes to some revenue transfer from one side to the other?

Q: But since the gas belongs to the Greek Cypriots, irrespective of the Turkish Cypriot stance, are we discussing this sharing of wealth?

A: First of all, it is premature. As I said earlier, this will take several years. If we don't solve the Cyprus problem in the timeframe I mentioned, we will never solve it. So my own take on this is that it should be a catalyst to finding a solution, more than something that we should be discussing now, for example how the wealth should be distributed before a solution. If the various analyses are correct, there is plenty of gas for Cyprus, for Turkey, for Greek and Turkish Cypriots, for the Israelis. So it should be a strong incentive to redress somewhat the current balance of power that has Turkey being extremely powerful and therefore not willing to compromise, in an environment where being a little more magnanimous with what the other side believes is a fairer solution can bring economic benefits to everybody and underpin a fair and sustainable solution.

Q: In what areas would the Turkish side become less intransigent, or give way, so to speak?

A: In every area. There is not a single thing where you can say the Turkish side has agreed to something that is short of their ideal solution. Except for the rhetoric, that 'we believe in a federation', while there are those who are more militant and who say outright that they want separate states. I challenge anyone to tell me: Where is it that the ideal outcome for Turkey diverges, from Turkey's current point of view, from their own position now? Be it property, territory, security, be it governance . . . in all areas.

Q: So the President's comment that we would share wealth irrespective of a solution, what's your reaction to that? Was it just a tactical manoeuvre?

A: I'm not sure. But I think what it meant is that it sought to underscore the point that this wealth belongs to all Cypriots, that if Cypriots were left to determine their own future then they would find a solution, and that the faster we find a solution, the more the economic benefits will begin to flow in for everybody. I think that's how I would translate that message.

Q: You are obviously familiar with the idea of a pipeline running from Cypriot waters and into Turkey and then linking to the proposed Nabucco conveyor. What is your view on that?

A: Though I am not familiar with the technical and engineering side, clearly I see that close cooperation with Turkey, not only in energy, but in everything, is one of the better reasons why we should find a solution. Turkey is probably the strongest, the most serious-minded economy in the region. And there are lots of complementarities which would lead us to a better economic future because of our economic links with Turkey. We should try to be a friend of Turkey and vice versa.

Q: How would the Turkish Cypriot community benefit from the gas in the absence of a political solution?

A: Frankly I don't see it. That's why I've said it should be an incentive for a solution for everybody, for all sides.

Q: And in the event of a solution?

A: If there is a solution, I think a unified economy will first of all signal an elimination of a lot of wasteful expenditure, such as on armaments. There will be a so-called 'peace dividend'. There will also be investment and employment opportunities created throughout the island, complementarities in tourism, joint projects in a number of areas.

Q: Obviously some of the cash would be used for reconstruction in the event of a settlement?

A: Yes. Prudently and with a good timetable. The revenues would be used to strengthen infrastructure in areas requiring improvement, they would help with the relocation of people, which is an important dimension for both sides.

Q: Going back to the Greek Cypriot side: are you aware of plans, if any, regarding the mechanisms to be set up to manage the gas wealth? There are a great deal of ideas being floated, for example, about the establishment of a national oil and gas company, but is there anything tangible?

A: Well, there are a lot of public discussions going on, public lectures, public debates. I think knowledgeable people from abroad are being consulted. I believe there is a genuine search for the right solutions. And there is a balance, I'm sure, between what is economically correct and what is also politically sensible. Again, as long as those moves are of the kind that would enhance the prospects of finding a solution, then I think they are in the right direction.

Q: How do you view the Turkish sabre-rattling against Cyprus, the despatching of Turkish research vessels such as the Piri Reis to Cyprus's Exclusive Economic Zone?

A: Well, there was no follow-up to that. It was an initial reaction. Once you realise that you are not up against just Cyprus, but there is also Israel, the United States and other countries involved, it is not very realistic to think that you (Turkey) are going to pick a fight with this set of countries over something of which the legal aspect is open and shut.

Q: Do you think we Cypriots are wise enough to put the prospective gas wealth to good use?

A: Well, if you take a look at the economic history of the Republic of Cyprus, we have not, until recently, made many serious mistakes. We have generally followed a good course. That's to be contrasted with the political side, where we made terrible mistakes. On the economic side, by joining the EU and the World Trade Organisation, by adopting sound policies with respect to the stability of the Cyprus pound and the exchange rate over the years, we have managed pretty well. In fact, after 1974 Cyprus pulled off an economic miracle. So we have a good record. So with the gas issue now, if we can show the maturity that we displayed with regard to economics, to take those political decisions that will result in the sound economic management of natural gas and possibly oil, then I think yes we can put it to good use. It's not going to be easy, because we are not completely mature in terms of institutions and sophistication, but we also have a lot of educated people, a lot of sensible people, and provided we unleash forces in the right direction there is no reason why we should not achieve a positive outcome.

Mustafa Besim, Associate Professor at the Eastern Mediterranean University and member of the Working Group on Economic Matters in the Cyprus reunification talks

Q: What are the prospects from the exploitation of natural gas, and how should Cypriots proceed?

A: The management of natural resources has seen some success stories, and some failures. But resource management has been a source of conflict also. It is the 'bless-or-curse' issue. The curse occurs in cases where there is mismanagement, or where the wealth raised from these activities is shared unfairly. In communities or societies where we have division, like Cyprus, this is going to be more difficult as it may fuel the community-based conflicts. So it will really be a challenge for the Cypriots to be able to share this wealth in a way that is managed fairly. On the other hand, proper management can be a catalyst for a solution; it may become a glue, if you will, for the proposed federation.

The facts on the island cannot be ignored. On the one hand, there are the Greek Cypriots who have started exploration of hydrocarbons. On the surface, it may look like a blessing for the Greek Cypriots, and perhaps later for the whole island. On the other hand, the Turkish Cypriots have started doing something similar. For example, there is an agreement between the Turkish Cypriot administration and the Turkish government to undertake seismic surveys, and to explore for hydrocarbons both offshore and onshore. The onshore prospecting is taking place in the area of Sygkrasi/Sınırüstü, near Famagusta, where they have already started preparing the ground for exploration. So all this activity on the two sides is as if the division is being cemented. These are the facts. You may also call it a pessimistic scenario.

Greek and Turkish Cypriots are not undertaking projects together, for instance the venture of joining the EU together — which has not happened for one reason or another — or exploring for hydrocarbons — which again they're not doing together. Also, the Turkish Cypriots are getting their water from Turkey. We are each carrying out projects separately, so how are we going to live together? We have to start thinking about ways of doing things jointly; if we do that, we can also live together. If we do things on our own and for our own sakes, and we don't think island-wide, then I think we're going to have a problem in terms of finding a solution. Ultimately, everything on the island or around it should be done to contribute to the process of a solution. I would expect such mega-projects which can really change the face of the island and also the dynamics in the region, to be carried out jointly.

There is one fact that cannot be ignored: Turkey has a current account deficit of US$77 billion, out of which US$55 billion is for energy. Turkey is a country that needs energy desperately. Now, due to the international sanctions on Iran — a major exporter of oil to Turkey — there is an added strain. So Turkey would be more than willing to put a great deal of money in energy projects given its energy shortage.

Having stated the facts, we move on to the united federal Cyprus, the optimistic scenario that we — and I personally — envision. Joint hydrocarbon projects could serve as a catalyst for reunification, and perhaps minimize the cost of a solution. But again, in the negotiations between the parties, there is no understanding of the fact that these things should be done together and that this is the way forward for achieving a federation. That's what really worries me. Each party tries to do things in the way they think is right for their own community.

The way we should approach this, as far as I'm concerned, is that we should develop a strategy for natural resources (NR) management. This should have a long-term perspective, and should not be limited to just natural gas, but rather should include all natural resources, such as water. For that to happen, we need to have proper policies and laws, and we need to think about the institutional setup. Generally speaking, the approach towards NR management has to be transparent, clear for all the stakeholders, including the governments and the communities. That's the way to minimize conflict because otherwise it may become a source of conflict.

If you look at the world experience regarding NR sharing and management — Nigeria is a good example, or Sudan — there are some glaring cases where things have gone bad. You also have the case of Abu Dhabi and Dubai, which are far richer compared to the other Emirates. There is a huge disparity among the United Arab Emirates. So there needs to be a kind of balance.

There are three key issues, in my view: who should own the natural resources, what power-sharing arrangements should be in place, and the treatment or management of NR revenues. You have a stock that is currently underwater. It is wealth, and moreover it's a heritage. The wealth does not belong so much to this generation, but more so to future generations. So you have to think long-term.

As far as ownership goes, the federal government should be the owner of the natural wealth, in the name of all the citizens of Cyprus. That should be very clear. We should not say that the gas is in the territory of the Greek Cypriots, or that the petrol that may be found in the north is in the territory of the Turkish Cypriots. No, it should belong to everyone. And that's extremely important, not only for the Cypriots themselves, but also for the investors.

The second issue, which is in fact more important than ownership, is power-sharing and governance. Now here we really need to have proper legislative and executive authority with the ability to make proper laws and enforce them in a way that would give the right signals to investors, to the people of the island and to all the stakeholders. Bottom line, the federal government should have the exclusive remit for the control and management of natural resources. We cannot, especially in Cyprus's case, think of giving such powers or executive authority to regional governments or constituent states or what have you. Rather, it should be explicitly under the competencies of the federal government.

Lastly, the issue of managing NR revenues has both political as well as economic aspects to it. We have to ensure that the revenues are managed in a way that would be economically efficient. The raising, collection and sharing of revenues should be based on economic best practice rather than political practice. That means that the income disparity between the two constituent states does not widen but rather converges in time. So for instance, rather than saying 'we will subsidise the Turkish Cypriots', it is better to make investments in the Turkish Cypriot economy in order to upgrade the infrastructures, the human capital, or whatever is missing or deficient, so that the region becomes one for investment and development. So the funds should be allocated based on the premise of economic growth and oriented towards encouraging business. We don't want this: 'There are so many Turkish Cypriots, here is a cheque for them.' The allocation should be based on economic fundamentals. The revenues should be spent on infrastructure — physical, legal and human — on both sides, whichever needs more. After all, as an isolated island we face certain disadvantages, so we should really think about ways of using these resources for minimizing the costs of being an island. Also, care must be taken to ensure that the money is not spent on current budgets, for example raising the salaries of civil servants. At first sight, that may sound like a good idea: raising salaries would result in increased spending.

Rather, the challenge is to take this stock that is now under the water, and turn into wealth. We should allocate funds to sectors earmarked for development, not in the form of subsidies, but rather to boost sectors that are competitive and productive and that hold future potential for the island. Also, if the rate of return is higher abroad than at home, we should not invest the funds at home but should direct them towards investments abroad, generating higher returns. Like Norway has done, for example. Looking at Azerbaijan, the prices of non-tradables there, such as hotel services, restaurant and taxi services, have been increasing tremendously. There is a bulk of money injected into the economy due to the oil revenues, and this is leading to what is called the Dutch disease problem: inflation. That's happening because the funds generated from petroleum are not being spent towards investments to upgrade the aforesaid sectors of the economy. So in the event we here in Cyprus succeed in generating revenues from hydrocarbons, it is crucial we avoid similar pitfalls. Inflation could lead to a loss of competitiveness for the island. Another thing to consider: when you have a source of income that's an easy way of making money, this discourages people from being productive and efficient.

Moreover, the gas revenues should not be used to create a bloated federal government, with wanton hiring of civil servants and what not.

But having said all that, our top priority should be to get on with solving the Cyprus issue. If we do not, all this talk is just academic.

However, the present situation is not very helpful. The Republic of Cyprus is assuming the presidency of the EU, which is going to act as a constraint on the negotiations. Also, Greek Cypriots are gearing up for elections next year. These dynamics do not really contribute to the peace process. So I'm not very optimistic these days. Delaying a solution benefits neither community. I think the people of Cyprus should be more informed on what is going on, and their leaders should be encouraged to reach agreement as soon as possible.

On the international scene, relations between Turkey and Israel have turned frosty, and meanwhile the Greek Cypriots are undertaking joint gas projects with Israel. So that is unhelpful both for the local dispute as well as for regional peace. In addition, with the discovery of gas here, many foreign powers — the United States, Russia — are taking an interest in the region. All these developments, I think, may become a source of future conflicts, whereas we here are trying to minimize such complications so that we can find a solution on our own. I doubt that bringing more parties onto the stage will contribute to the peace process. Meanwhile, in April the north will inaugurate the plant that will be processing water imported from Turkey. By March 2014, it's expected that the water will be arriving from Turkey. So the face of the island will change. Another example: last year the north established fibre-optic connections to the Turkish mainland.

Now as for the talk on the Greek Cypriot side about setting up a heritage fund for the gas revenues, with the proceeds to be shared with the Turkish Cypriots in the event of a solution; that's not the real issue, in my opinion. Money is not the issue. Today, Turkish Cypriots get sufficient financing from Turkey, and will continue to do so. So what matters is to generate the wealth together and live together. Having a heritage fund or not, or giving a share to the Turkish Cypriots or not — that's not really germane.

Q: Has the issue of natural gas wealth management been discussed within the economic committee for the Cyprus talks?

A: We have not discussed that. But both under the 2003-2004 comprehensive settlement plan, but also in the current negotiations, there is no dispute on the management of natural resources. Both sides agree that it should be under the federal government. The dispute concerns revenue-sharing under the federal government, although recently there has been considerable convergence of the positions of the two sides. The Turkish Cypriot position is that the revenues of the federal government, mainly the indirect taxes (VAT, tariffs, etc.), should be allocated based on both consumption and population. We argue that the income gap between the two communities should be eliminated as soon as possible. Obviously we know that Greek Cypriots' purchasing power is higher, they consume more and they pay more tax. We have devised a formula for the allocation of federal government revenues taking both sides' concerns into account.

Q: What do you make of President Christofias's remark that the gas wealth would be shared with Turkish Cypriots whether or not a solution is found?

A: Well, one way of looking at it: Mr. Christofias means that we will not have a solution soon, but the share of Turkish Cypriots will be kept safe. For instance [former] Greek Cypriot Commerce Minister Praxoulla Antoniadou had spoken of a similar approach; a heritage fund where a share would be set aside for the Turkish Cypriots. This is not really what the Turkish Cypriots would want: a transfer from the fund now or in the future. The expectation of Turkish Cypriots is to see such wealth being directed towards a solution. The concentration should be on thinking to find a solution. But unfortunately that doesn't seem to be on the agenda these days. It appears that the Greek Cypriots are going full steam ahead with the gas exploitation. This brings us to the same argument made at the beginning. If each community undertakes such mega projects on their own and does not think of doing mutual projects, this does nothing but cement the division on the island.

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On 26 November 2011 the Friedrich Ebert Foundation (FES) and the PRIO Cyprus Centre (PCC) jointly organized a one-day conference in Nicosia "Cyprus Offshore Hydrocarbons: Wealth Distribution and Regional Politics." The conference brought together international specialists and local experts from both communities in Cyprus. This report is based on expanded and updated versions of the papers presented at the conference.

The conference examined the political dimensions of the search for hydrocarbons in offshore Cyprus, especially the impact of these developments on the negotiations to solve the Cyprus problem. By extension, the conference also surveyed the broader implications of hydrocarbon politics for the countries of the Eastern Mediterranean.

An equally important dimension of the hydrocarbon issue concerns wealth management and distribution. Thus part of the conference was designed to contribute to the debate that is just starting in Cyprus on natural resource revenue management. Case studies of resource management in Norway and Sudan enabled a comparison of good and practices in this domain. By the same token, options for wealth distribution in Cyprus, both within and between the two main communities on the island, were also explored.

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