

CYPRUS AS AN EMERGING PLAYER IN THE EASTERN MEDITERRANEAN NATURAL GAS MARKET: REGIONAL COOPERATION AND PROSPECTS

A Master's Thesis

by

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Graduate Program in
Energy Economics, Policy, and Security
İhsan Doğramacı Bilkent University
Ankara
August 2018

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The Graduate School of Economics and Social Sciences
of

İhsan Doğramacı Bilkent University

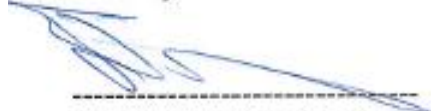
by

Sophie Poteau

In partial fulfillments of the Requirements for the Degree of
MASTER OF ARTS IN ENERGY ECONOMICS, POLICY & SECURITY

Graduate Program in
Energy Economics, Policy and Security
İhsan Doğramacı Bilkent University
Ankara
August 2018

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Energy Economics, Policy & Security



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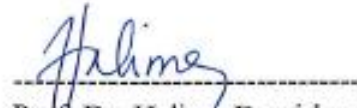
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ABSTRACT

CYPRUS AS AN EMERGING PLAYER IN THE EASTERN MEDITERRANEAN NATURAL GAS MARKET: REGIONAL COOPERATION AND PROSPECTS

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August 2018

This thesis analyzes the development of the Eastern Mediterranean natural gas market and the impact of regional conflicts on it. It will argue that the region is not stable enough to optimize its natural gas trade. As a matter of fact, the Cypriot conflict, as well as the Israeli-Lebanese conflict are preventing the region from fulfilling its economic potential and ambitions. Therefore, it is important for the region to solve its internal conflicts in order to make the natural gas benefit fairly to all the states involved in the market. The best way for the Eastern Mediterranean states to solve their conflicts is through regional cooperation. The European Union holds the power to influence the Eastern Mediterranean states towards regional cooperation. Indeed, the EU can provide incentives through the initiation of dialogue between countries, common projects and investments. In the Eastern Mediterranean natural gas trade from the producing states to Europe, Egypt could play the pivotal role of natural gas distribution platform at the crossroad between producing and consuming countries. The success of this project could lead to the economic development of Eastern Mediterranean states while providing the EU with a stronger energy security.

Keywords: Cyprus, Eastern Mediterranean, Energy Security, Natural Gas, Regional Cooperation

ÖZET

DOĞU AKDENİZ DOĞALGAZ PIYASASINDA YÜKSELEN BİR AKTÖR OLARAK KIBRIS: BÖLGESEL İŞ BİRLİĞİ VE BEKLENTİLER

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Bu tez, Doğu Akdeniz doğalgaz piyasasını ve bölgesel ihtilafların bu piyasa üzerindeki etkilerini analiz etmekle birlikte, bölgenin doğalgaz ticaretini en verimli hale getirmek için gereken istikrardan uzak olduğu savını öne sürecektir. Nitekim Kıbrıs sorunu ve İsrail-Lübnan ihtilafı, bölgeyi ekonomik potansiyelinden ve hedeflerinden alıkoymaktadır. Bu yüzden, doğal gazdan piyasada yer alan tüm ülkelerin adil şekilde faydalanması için bölgedeki ihtilafların çözülmesi önem arz etmektedir. Doğu Akdeniz ülkelerinin bu ihtilafları çözmesi için izlenmesi gereken en iyi yol ise bölgesel iş birliğinden geçmektedir. Avrupa Birliği, Doğu Akdeniz ülkelerini bölgesel iş birliğine yöneltmeye gerekli güce sahiptir. Esasında AB; ülkeler, müşterek projeler ve yatırımlar arasında diyalog başlatarak teşvik sağlayabilir. Doğu Akdeniz’de doğalgaz üreticisi ülkeler ve Avrupa arasındaki ticarete, Mısır, üreten ve tüketen ülkeler arasında bir kavşak noktası olarak doğalgaz dağıtımında merkezi bir rol oynayabilir. Böyle bir projenin başarılı olması, Doğu Akdeniz ülkelerinin ekonomik kalkınmasına öncülük ederken Avrupa Birliği’ne daha güçlü bir enerji güvenliği sağlayabilir.

Anahtar Kelimeler: Bölgesel İş Birliği, Doğal Gaz, Doğu Akdeniz, Enerji Güvenliği, Kıbrıs

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CHAPTER I

INTRODUCTION

1.1 Introduction

The Eastern Mediterranean region is well known for its booming tourism sector, its beautiful landscapes, climate, and cuisine. However, recently, the region became attractive for another type of lucrative trade: hydrocarbons. As a matter of fact, in January 2009 the international oil company Noble Energy discovered natural gas in the Tamar field in Israel. It was Noble Energy's largest discovery. Yet, less than two years later, Noble Energy discovered the even bigger Leviathan gas field. These events led Israel's neighbor, Cyprus, to start its drilling program. In 2011, Noble Energy found natural gas in the Aphrodite field. Later in 2015, the Italian major ENI broke Noble Energy's record by finding even more natural gas in the Zohr field than Noble Energy had found in the Leviathan field. The Zohr field is still the largest gas discovery in the region. This event attracted investments. Total, ENI, and BP have all decided to invest in the Eastern Mediterranean Sea and pursue explorations there, hoping to find another Zohr- like natural gas field. According to a 2010 US Geological Survey, the Eastern Mediterranean Sea is estimated to contain up to 340 trillion cubic feet (tcf) of gas, (Lo, 2017). Such a production and trade could significantly affect the region by providing gas for states' domestic market, but also by making it an "energy hub", here meaning a crossroad for the natural gas trade to Europe.

However, the region is the territory of several long-lasting conflicts that may interfere with its "energy hub" ambitions. One of the main conflicts of the region is

the Cypriot conflict. Cyprus is an island that has been divided since 1974, separating the territory in two parts: The North where the Turkish community lives, and the South where the Greek community lives. Between them, a buffer zone kept by the United Nations. The Southern part of the island, known as the Republic of Cyprus, is recognized as a legitimate by all the other states except Turkey. Moreover, it is part of the EU since 2004. The Northern part of the island however is only recognized by Turkey under the name of Turkish Republic of Northern Cyprus (TRNC). Both parts of the conflict are fighting over the ownership of the island and its surrounding waters since the 1900s. There were several negotiations in an attempt to reunite the country but all of them failed. The conflict is entangled. When natural gas was discovered around Cyprus, it has rekindled hopes for the island to finally start a fruitful dialogue and reach successful negotiations. However, the natural gas only fueled the tensions. The conflict between Israel and Lebanon followed the same scheme: They were fighting over Lebanon's alleged support to groups of Palestinian militants, and natural gas brought the Exclusive Economic Zone (EEZ) delineation as a new topic for conflicts between the two countries.

Meanwhile, the European Union is aiming at enhancing its energy security. According to the International Energy Agency (IEA)¹, energy security is “the uninterrupted availability of energy sources at an affordable price”. The EU's main obstacle to its energy security is its dependency to the Russian natural gas supply. Russia having proved that it would not hesitate to disrupt the natural gas supply in case of political conflict, it has become urgent for the EU to find other sources from which it could import its natural gas. Therefore, the Eastern Mediterranean region appears as an opportunity for the EU to reinforce its energy security. Indeed, it could then import its natural gas from Israel, Egypt, or even better, an EU member state: Cyprus. Europe represents a huge share of the demand side of the natural gas market and its demand keeps growing. In 2017, the EU's total imports were of 408.7bcm, representing 5.5% year on year growth, (Czajkowski, 2018). That is why, the EU is betting on the Eastern Mediterranean natural gas market development through

¹ The International Energy Agency (IEA) is a Paris- based international organization founded in the framework of the (Organization for Economic Cooperation and Development (OECD) in 1974. It is recognized worldwide for its yearly publication “The World Energy Outlook” and its reports on the mid-term perspectives for the oil and gas markets, as well as for the renewable energies and the energy efficiency.

several investments and bilateral agreements with the region's states. The ideal development of the Eastern Mediterranean natural gas market would be that it could allow states composing the region to supply their own domestic market, while being able to unite their forces to supply the European market.

This paper aims at providing the reader with an idea of the economic and political impact of the natural gas discoveries in the Eastern Mediterranean region and in the EU. The main question is to determine whether or not it is necessary for conflicts to be solved first in order to optimize the natural gas trade potential of the region.

I will argue that it is, indeed, essential for the region to be politically stable and economically reliable in order to fulfill its natural gas ambitions.

Therefore, the first chapter will introduce a global view of the issue. The second chapter will discuss the diplomatic and security implications of the natural gas discoveries in the region. The third chapter will further develop on the place of the Eastern Mediterranean natural gas in the European Union foreign and energy policy. Last but not least, the fourth chapter will explain the economic aspect of the issue, with an emphasis on the investments that were made in the region in order for it to reach its natural gas trade potential.

CHAPTER II

HISTORICAL BACKGROUND AND CURRENT CONTEXT

Introduction

Being an energy source that is still highly available and less polluting than oil and coal, natural gas has become the gravity center of the global energy market.

According to the June 2018 BP Statistical Review of World Energy, on the natural gas market the traditional key player is Russia, providing the biggest amount of natural gas to the world. Russia is then followed by Qatar and Norway ("UNFICYP Fact Sheet," 2018). Another key player is the European Union as it is one of the world's main natural gas importers. However, the large natural gas discoveries occurring in the eastern Mediterranean could re-organize the natural gas scene. Indeed, the U.S Geological survey estimates that the Mediterranean region from Cyprus to Lebanon, Israel and Egypt hosts probably more than 340 trillion cubic feet of natural gas, (Lavinder, 2018). This number represents more than the U.S. natural gas proven reserves, which was of 308.5 trillion cubic feet in 2017, ("UNFICYP Fact Sheet," 2018). This would make the Mediterranean area the new fourth largest natural gas region after Russia, Iran and Qatar. Among the actors on the eastern Mediterranean natural gas scene, Cyprus is raising expectations for further energy discoveries that could lead to the launch of a wider natural gas trade. The region holds a high potential for its own internal natural gas market as well as for the European Union's energy strategy. However, the optimization of the Mediterranean natural gas is threatened by tensions within the region. As a matter of fact, in addition to the Israeli conflict, the region faces Cyprus' historical conflict and its tensed relationship with Turkey. The island is at the heart of a long-lasting conflict, splitting its territory in two parts. This political issue could be a serious impediment

for the monetization of the region's energy. So far, it is unclear whether the island's energy discoveries could help solving the issue, or if the issue has to be solved for the energy to be properly exploited. What is certain however is that there is a link between the eastern Mediterranean conflicts and the struggle to build a strong energy network in the region. Therefore, as the author and CEO of the Cyprus- based energy consultancy e- CNHC, Charles Ellinas argues in his article for the Atlantic Council "Hydrocarbon Developments in the Eastern Mediterranean: The Case for Pragmatism", it seems to be necessary to develop regional cooperation in the region.

Through this paper, I will argue that the good development of the eastern Mediterranean natural gas trade, and the resolution of the Cyprus conflict work as a system. Therefore, both issues have to be led all together through a solid regional cooperation. This very complex topic requires to be tackled all along through its diplomatic, economic, geographic and technical aspect. The entanglement of these historical conflicts, whose meaning becomes blurrier with the time, facing the urge of coming to an agreement in order to meet concrete needs has prompted my interest in this research. Moreover, the eastern Mediterranean region is in constant political movement and economic development, which makes it even more interesting to observe. This first chapter will give the necessary explanation on the historical background and current context of the issue. Then, this paper will build on it to analyze whether the regional Cypriot conflict should be solved in order to develop the regional natural gas market, or if the natural gas market should serve as a first step towards conflict resolution.

The first section of this chapter will explain why the EU has an important role to play in the Eastern Mediterranean region. Then, it will examine the historical outlines of the Cypriot conflict, it will go on to the Law of the Sea with an analysis of Turkey's standpoint on Cyprus' EEZ. Then, it will provide an overlook on the EU energy policies and its role in the eastern Mediterranean region. A thorough discussion on natural gas' future in a world more and more concerned by the climate change will end this chapter.

This study focuses on the Cypriot conflict and the island's natural gas discoveries' impact in the eastern Mediterranean region as well as in the EU. However, one

cannot address the eastern Mediterranean natural gas without mentioning Egypt and Israel, therefore, these two countries' energy strategies will be analyzed as well.

2.1 The EU, Cyprus, and international relations theories

After the devastating World Wars, the European Union was built through a long process of integration in order to install sustainable peace in the region. This process has started in 1951 with the creation of the European Coal and Steel Community. The mechanism was then engaged, the ECSC was followed by a series of new treaties that would further deepen the cooperation between member states. Behind this success lies two main theories on the EU integration process: neofunctionalism and intergovernmentalism. On one hand, neofunctionalism argues that cooperation between several states on one specific sector automatically create incentives for further cooperation in related sectors. This is called the spillover effect. Therefore, economic integration leads to more interactions between actors involved. Borders are erased through diverse actions of cooperation between economic and political organizations. It encourages the development of interest groups at the regional level. States are weakened by this process. They delegate a part of their power to a supranational institution. The supranational institution's role will be to further integrate already integrated sectors and expand integration to new sectors, (Dunn, 2012). On the other hand, intergovernmentalism emphasizes the state and its importance in the European integration process. This theory sees the European Union as an accumulation of states cooperating together for their own national interests. The existence of a supranational body serves national interests of state that have delegated their power to it, (Eilstrup-Sangiovanni, 2006). May it be through one or the other theory, the EU had been successful in reuniting conflicting states thanks to the creation of political and economic institutions making them interdependent.

Therefore, it would be interesting to see if it could serve as a model to reunite the conflicting communities of Cyprus. Also, theories of international relations can be used to imagine a way to solve conflicts in the Eastern Mediterranean region. The EU could then create appropriate and effective tools to bring peace into the region. As a matter of fact, The EU has the power to positively influence the actors of the Cypriot conflict thanks to its ability to create mutual interests between conflicting parties through economic and political cooperation. As it has done for itself, the EU

could help Cypriot communities to build interdependence and institutionalize common norms and values. Moreover, the southern part of Cyprus being a member of the European Union, the EU has a strong enough leverage on this community to incentivize peace with its northern counterpart. The EU could, for instance, use financial or political incentives, as well as a system of sanctions to push towards reconciliation of both parts. In fact, the EU should intervene in the Eastern Mediterranean region because it would both serve its and the regions' interests. It would serve the EU's interests because having a peaceful neighborhood would help it strengthening its security. It would also allow the EU to deepen its commercial ties with the Eastern Mediterranean region. In particular, the EU's tourism, shipping, professional services, and energy sector would benefit from a more peaceful environment within Cyprus. The EU is concerned about its energy security and is looking for further diversification of its energy resources. Therefore, the recently discovered Cypriot natural gas would be more than welcomed in the European energy market. Furthermore, a reunification of Cyprus would allow the 18 billion-euro Greek Cypriot economy to do business with the 700-billion-euro Turkish economy. Also, the Turkish Cypriot would be able to do business with the 14 trillion-euro EU economy, (Claudet, 2017). Diplomatically, Cyprus could help the EU communicate with its Mediterranean neighbors. An appropriate EU intervention should be able to participate in the solution of the Cypriot conflict. Also, it could lead to further economic and political integration of Cyprus in the Eastern Mediterranean region, which could benefit all of its actors. If the island can solve its internal conflicts, Cyprus could better benefit from the feeling of "economic security" that brings the EU: it would attract more investments and tourists, create jobs.

Thus, the European Union could be taken as a model and as mean to solve conflicts in the Eastern Mediterranean region. Also, the EU is important in the region in the way that it holds the potential to incentivize peace between conflicting parties by pushing for changes at the domestic level. It is up to both communities in Cyprus to get over their historical conflicts to reach new economic and political opportunities.

2.2 An overlook of the Cypriot conflict

Cyprus has been *de facto* divided between the Republic of Cyprus in the South and the internationally unrecognized "Turkish Republic of Northern Cyprus". There is a

180km long “green line” at the border of the two regions where 1106 UNFICYP (United Nations Peacekeeping Force in Cyprus) members of the personnel supervise the ceasefire lines and maintain a buffer zone. The Republic of Cyprus, hosting the Greek Cypriot community, is the only authority recognized by the international community except by Turkey. In May 2004 the Republic of Cyprus acceded to the European Union. In the North, the Turkish Republic of North Cyprus (TRNC), self-proclaimed in 1983, is only recognized by Turkey. The two communities were both living together peacefully. In 1878-1914, Cyprus became a British colony after having been under Ottoman rule for more than 300 years. Nationalism has first started in the Greek community, and later in Turkish community. Colonization eventually developed the ambition for self-determination in both communities: Greek Cypriots want to be attached to Greece, while Turkish Cypriots want the partition of the Island. In 1955 The Greek Cypriots started a guerilla war for independence and against the colonial rulers. The guerilla was led by the National Organization of Cypriot Fighters (EOKA). The British colonial administration refused the Greek Cypriot will for the “Enosis” (the word referring to the Cyprus union with Greece).

In the 1950s, the British colonial administration established a constitution giving 30% of parliamentary seats to the Turkish community, while the community only has 18% of the total population. The Turkish community was therefore over-represented in regard to its demographic weight. The anti-colonization conflict slid into community conflict, from which violence erupted. In 1958 Turkish Cypriots established the Turkish Resistance Organization (TMT) as a counterweight to the EOKA. The TMT called for “taksim” (the word for partition). After centuries of Ottoman and then British domination, the island’s independence was proclaimed in 1960. This agreement on independence for Cyprus was the conclusion of negotiations in Zurich and London between Turkey, Greece, the UK, as well as the Cypriot communities. The president was Greek and the vice-president Turkish Cypriot. The same year, Cyprus became a UN member state. In 1963 a constitutional crisis erupted from both Greek and Turkish Cypriot communities. The president Makarios proposed 13 amendments to the constitution, which led to the withdrawal of Turkish Cypriots from state positions. This event triggered a violent intercommunal conflict involving bombings. In 1964, the United Nations sent a

peacekeeping force to cope with the still on-going violence between the two communities. One year later, the general assembly adopted a resolution (that mostly targeted Turkey) to prompt states to respect the sovereignty, unity, independence and territorial integrity of the island and to prevent foreign intervention on its territory. The inter-communal fighting later resumed after a military junta in Greece overthrew the civilian government ("2030 Energy Strategy,"). In July 1974, the colonels' regime governing Greece prepared a coup d'État in order to annex the island. In response, Turkey sent soldiers in the North of Cyprus. Both the coup d'État and the Turkish military response were extremely violent. In the Times on the 23rd of July 1974, the Turkish prime minister Ecevit qualified the Greek Cypriot's attacks on the Turkish Cypriot population as a "Genocide" and a "massacre", . The same day, the Greek military regime collapsed and was replaced by a civilian administration. The 1974 Turkish invasion of Cyprus was later qualified as illegal by the European Court of Human Rights (ECHR), (Borger, 2014). This period in Cyprus' history practically split communities. After the coup collapsed, Turkey enforced the partition of the island roughly separated in two parts by a 300km "Green line". The "Green line" is an expanded version of the ceasefire line drew up by Peter Young, the commander of British forces in Cyprus in 1962. Today the "Green line", or "buffer zone", is controlled by the UN, (Kleovoulou) (See figure 1).



Figure 1. The UN buffer zone or "Green line" delineation, (GlobalSecurity.org, 2017)

In 1977, both communities adopted a four- point agreement in favor of an independent, on-aligned, bi- communal federal republic. There would be a central government to guarantee the unity of the state. This agreement was completed in 1979 with a ten-point initiative and additional provisions, notably on the status of Varosha and the concept of bi- communality. Unfortunately, the parties disagreed on these two concepts and the agreement could never be implemented. It is only later, in 1983 that the Turkish Republic of North Cyprus (TRNC) was self-proclaimed and declared illegal by the United Nations Security Council in resolution 541, ("2030 Energy Strategy,").

The TRNC territory represents 38% of Cyprus' total territory. The TRNC is only recognized by Turkey, is under an embargo, and is three times poorer than the south part of the island. Also, it is interesting to note that up until the nineteen seventies most Turkish Cypriot citizen fluently or partly spoke Greek, (Beckingham, 1957). This is part of their identity. Greek Cypriot refugees in the south of the island are expropriated. These expropriations and the compensation of those who were forced to move out from the North are one of the most difficult issues to resolve for the reunification of the island. Another issue is the presence of the Turkish army. Today, the Republic of Cyprus is a member of the European Union and mainly takes its incomes from the tourism and banking sector. Natural Gas deposits have recently been discovered in the area. The United Kingdom has kept two military bases on the island. The occupation of the north of the island by Turkey is one of the points that was slowing down Turkey's membership of the European Union. On 1 May 2004, right after the failure, a few days earlier, of the "Annan plan", the Republic of Cyprus joined the European Union.

The "Annan plan" was presented to both parts of Cyprus by the Secretary General of the UN from 1997 to 2006, Kofi Annan. This plan projected the reunification of both parts of the island in the same fashion as it has been done with Bosnia. It planned the creation of a federation in which each community would be able to administrate its own territory in an autonomous way. In a referendum, this project was approved by 64,91% of the Turkish Cypriots but rejected by 75,83% of the Greek Cypriots. Despite many meetings between the representative of the communities, Tassos Papadopoulos and Mehmet Ali Talat, and despite the signing of the discussions' re-

opening in July 2006, the negotiation process stagnated for two years. In February 2008 the communist candidate Demetris Christofias came to power in the Republic of Cyprus thanks to a program favoring the negotiations with the Turkish community. On 3rd April 2008, the lifting of roadblocks in Ledra Street, which runs through the heart of Nicosia, symbolized the willingness of both parties to reach a reunification of the island. The 3rd of September 2008, direct negotiations have been reengaged. However, while the agreement remained on the need for a federal solution with two separate entities, progress was hampered by the recurrent problems of power-sharing, land ownership of refugees, the presence of nearly 40,000 Turkish troops in the North, and the status of guaranteeing state that Turkey has held since 1960, which it has used to legitimize the 1974 operation. Negotiations between Christofias and new Turkish Cypriot leader Dervis Eroglu, who was elected on 18 April, 2010 continued. The two men began, in 2010, a series of discussions aiming at the reconciliation and the peaceful reunification of the two sides of Cyprus under the shape of a federal state.

In September 2011 Cyprus began to explore its seas aiming at finding oil and gas. This triggered a diplomatic row with Turkey. As a response, Turkey sent an oil vessel to waters off the TRNC. As the situation between the two parts of the island was not evolving significantly enough, the UN canceled plans for Cyprus conferences in April 2012. At the same period, Turkish Petroleum Corporation began drilling for oil and gas onshore in the TRNC. This, despite protests from the Cypriot government claiming that the action was illegal. Moreover, in June 2012, the financial crisis started. The crisis was due the Cypriot' banks failing en masse, the Greek government's debt crisis, and the downgrading of the Cypriot government's bond credit rating to junk status by international credit agencies leading to Cyprus' inability to refund its state expenses from the international markets. Cyprus called the EU for assistance in order to shore up its banks, which were pressured by the precarious state of the Greek economy. In February 2013, the Democratic Rally conservative candidate Nicos Anastasiades won the presidential elections. In March 2013, the President Anastasiades secured 10 billion euros bank bailout from the European Union and International Monetary Fund. The country's second-biggest bank, Laiki bank, was wounded down and deposit-holders with more than 100,000 euros faced big losses. Later, in October 2014, tensions between Turkish and Greek

Cypriots were rekindled. The Republic of Cyprus suspended peace talks with its Turkish counterpart. This decision was a protest against attempts from Turkey to prevent the Republic of Cyprus from exploring potential gas fields in the south of the island. Those tensions were closely observed by the EU and the US. In 2015, the president Anastasiades met the Russian president Vladimir Putin. As an outcome, the Russian navy was granted the access to Cypriot ports. In May 2015, the government and Turkish negotiators resumed UN- Sponsored reunification talks. In January 2017, both Greek and Turkish Cypriot leaders met for direct talk on reunification at the UN in Geneva. The purpose is to create a “bi- zonal” and “bi- communitarian” federation. In February 2018, the president Anastasiades won a second term in the elections.

Greece and Turkey have both been founding members of the United Nations and members of NATO since 1952. The United Nations is concerned by the Cypriot situation and is actively looking for a solution to the problem. The UN security Council regularly vote a resolution on the Cyprus situation to reach a bi-zonal and bi-communitarian federation as well as the political equality between the two parts. The UN’s main tool on the Cypriot territory is the UNFICYP. The UNFICYP was set up by the Security Council in 1964 to stabilize the situation between Greek Cypriot and Turkish Cypriot communities. Despite this measure, in 1974 the hostilities rose again and the UNFICYP was granted additional functions. There is still no political settlement since then. Therefore, the UNFICYP remains on the island to supervise ceasefire lines, maintain a buffer zone, undertake humanitarian activities and support the good offices mission of the Secretary- General, (2018c; Lavinder, 2018). In December 2017 there was 1106 members of the UNFICYP personnel. Among them are counted civilians, contingent troops, police and staff officers. The three top countries contributing to the troops are the United Kingdom, Argentina and Slovakia. Whereas Ireland, Bosnia and Herzegovina and Ukraine are the three top contributors to the police section.

In February 2010, the UN Secretary- General (from January 2007 to December 2016) Ban Ki Moon paid a visit to Cyprus to re-launch the negotiations after the 2004 failure of the Annan plan. The European Union was confused after the rejection of the Annan plan in 2004. There was a feeling of betrayal in the EU as the Greek

community massively voted against the project. Also, as any attempt to reconcile both parties has to be approved by Ankara on behalf of the TRNC, Turkey's accession to the EU is highly connected to the Cyprus conflict. The probability of for Turkey to join the EU without recognizing all of its member states is inexistent. Turkey is a long-time partner of the EU. It has signed an association agreement called the "Ankara agreement" in 1963. Turkey then officially applied to the EU in 1987. In 1989 the European Commission rejected Turkey for the first time as it estimated that Turkey was not politically nor economically ready to integrate the EU. The EU has also remembered Turkey that it demanded a unified, independent and sovereign Cyprus. The occupation by the Turkish army of the third of the island also weighed in the decision of the 1997 European Council to open accession negotiations to all candidate countries, except Turkey, which was asked to provide stronger support for the UN-led negotiations to reach a political settlement of the Cyprus issue. In December 1999, Greece lifted its veto against Turkey and the Helsinki European Council finally recognized Turkey's vocation to join the European Union once the Copenhagen accession criteria had been met. Turkey has embarked on an ambitious program of reforms, including through several constitutional revisions. In 2004, the Turkish government chose, against the advice of the army, to support the Annan plan. Considering these advances and on the advice of the Commission, the 2004 Brussels European Council therefore decided to open the negotiations in October 2005, provided that Turkey signs the Additional Protocol to the Ankara Agreement to extend the latter to new members, including Cyprus. Turkey reacted by issuing a unilateral declaration in which it stated that this extension was not tantamount to recognition of the Republic of Cyprus. As a result, in December 2006, the European Council announced the freezing of eight chapters of the accession negotiations relating to the implementation of the protocol. Cyprus also blocks two chapters, "energy" and "education and culture".

Officially, Cyprus does not oppose the entry of Turkey into the European Union. Ankara's position on the subject remains ambiguous and many Turkish political leaders agree that between the European Union and the TRNC, Turkey would choose the latter, (Ellis, 2010). Among the Member states of the Union, the position with regard to Cyprus is often correlated with the relations with Ankara. In general, states in favor of Turkish accession support a quick solution, when the more reluctant

countries are more attentive to the Greek Cypriot demands, especially regarding the withdrawal of Turkish troops from the island. Greece, for its part, is in a delicate position since, although historically and culturally related to Cyprus, it is now trying to be less involved in the Cyprus issue in order to facilitate the improvement of its relations with Turkey. The case of the United Kingdom is also singular since the country is militarily present on the island thanks to the two sovereign bases of Akrotiri and Dhekelia which it preserved after the independence. Many British nationals are also settled in the former Crown colony, in the South but also more and more in the North of the island. They sometimes illegally invest. For instance, the *Apostolides v. Orams* judgment delivered by the European Court of Justice on 28th of April 2009 condemned foreign purchasers of property from which the Greek Cypriots were stolen in 1974. Relations are therefore not always simple between the two countries; the British are often considered pro-Turks by the Greek Cypriots. Like the United States, the United Kingdom tends to argue for a quick solution of the Cyprus problem that would facilitate Turkey's entry into the European Union.

Within the United Nations Security Council, the interests of Cyprus were mostly defended by Russia, with whom the ties are closer because of the orthodox religion common to both countries, the presence in the current political class of leaders trained in the countries of the former USSR, but also because large Russian capital is invested in the island where lives a substantial Russian community (See figure 2). This is this Russian diaspora that is mostly responsible for Cyprus being the third largest foreign investor in Russia. As a matter of fact, most foreign direct investments coming from Cyprus emanate from the wealthy Russian population living on the island. Even before the USSR collapsed the Soviet Union already strongly defended Cyprus' independence first against Turkey's influence, then more against Greek's potential interference in Cyprus' internal affairs. Indeed, the Soviet Union held military and economic strategic interests in Cyprus. In the 1974 war, the Soviet Union declared that it would defend Cyprus' freedom and independence in case of a foreign armed invasion occurred. In fact, following this statement the Soviet Union delivered to the extent of \$70 million worth of Soviet arms and equipment. By the end of 1960, Cyprus and the Soviet Union further developed their relationship, establishing close diplomatic, commercial and cultural ties. It can

notably be seen through the Soviet cultural center in Nicosia and the large number of Cypriot students in the Soviet Union's universities (John Sakkas, 2013).

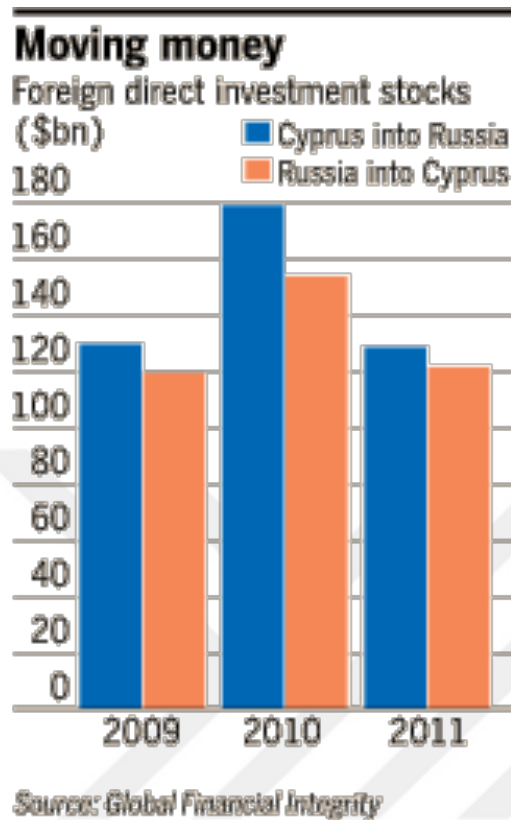


Figure 2. Foreign direct investment stocks in billion dollars from Cyprus to Russia, and from Russia to Cyprus, (Global Financial Integrity, 2013)

2.3 The Eastern Mediterranean natural gas: From Egypt to Cyprus

Thanks to its promising indigenous resources, Egypt finds itself at the core of the Eastern Mediterranean natural gas activities. As a matter of fact, in 2015 the Italian energy company Eni found around 850 bcm of natural gas in carbonate rock formations in the Egyptian Shorouk Block. This is the Zohr field, (Ellinas, 2016). The amount and the quality of this field's resources makes it the most interesting of the region. Egypt has the goal to become self-sufficient in energy by 2020 and to resume its liquefied natural gas (LNG) exports by 2022. To achieve so, Egypt invested in its natural gas liquefaction capacity, which makes it an interesting transition point from the Middle Eastern natural gas to Europe, but it also steals some strategic interest away from Cyprus. Nonetheless, this discovery triggered more interest from the Cypriot government to better explore its EEZ's energy potential. As

the other big actor on the eastern Mediterranean natural gas scene, Israel controls 620 bcm of proven reserves in Leviathan field. It now has to figure out which measures to take to safely exploit it to meet up both the domestic and export requirements. In parallel, Israel has recently started to prospect for new resources. Indeed, Israel has to make sure it justifies the initial investment costs. Coming after Egypt and Israel, Cyprus is the newcomer on the Eastern Mediterranean natural gas scene. Therefore, it has to cooperate with its predecessors and neighbors, as well as find ways to finance the 128 bcm of proven reserves of the Aphrodite field and the new discoveries in the Calypso field. Cyprus is an island that has always been considered as being in a backwater. Therefore, the natural gas resources in Cyprus have raised hope for the island to find the right tools to reach the end of its internal conflict. As a matter of fact, solving this issue has often been seen as the necessary condition to develop the most required solid master plan with the energy companies to map the way towards next developments of the Cypriot natural gas. Cyprus also needs to find a way to secure natural gas sales in regard of the economic environment, to plan investments and field development at the right timing. The monetization of the natural gas sales in Cyprus will depend on many factors: selling prices, the cost, the bankability, the size and features of the exploitable fields, the time to market, the return to local economy, the political risk, security, as well as environmental and regulatory obstacles (Papanastasiou). Both parts of the island will, on the long-term have to determine how their domestic natural gas resources will fairly benefit all its inhabitants. According to estimations, Cyprus' energy discoveries would overcome the country's dependence on oil and, regarding its low energy consumption, would leave a significant amount of natural gas for exports. However, these discoveries are taking place in a period of low oil and gas price. Low prices mean potential losses for producers and investors. Therefore, it hinders the production, investments and marketability of the region's hydrocarbons. Also, the new technologies are triggering wider means and resources of energy production such as shale oil and gas and renewable energies. Meanwhile, the demand for energy is growing with the developing countries and the growing population. Those factors combined announce a very long forthcoming period of low prices. The countries mentioned above are not all equal in the field. As Egypt and Israel's natural gas domestic market are captive (there are only a very limited number of competitive suppliers), they are less dependent on the global market prices and thus, can better make it through the low

prices' context. On the demand side, Turkey has insignificant domestic hydrocarbon production and is largely dependent on its imports mainly from Russia, and Iran, ("UNFICYP Fact Sheet," 2018). Turkey is a viable market for Eastern Mediterranean natural gas exports. Nonetheless, such an achievement cannot occur as long as the Cyprus issue is not efficiently dealt with.

The economic climate is not favorable. Especially in Egypt, tourism revenues significantly dropped and foreign government grants decreased because of the oil price crisis. Egypt now faces foreign exchange shortages and fiscal deficits. The strategy for energy producers of the region will be to focus on safer projects that have quick and decent paybacks such as Zohr, while limiting exploration and longer-term developments. As Cyprus holds less proven reserves of a lesser quality, expensive drillings around the island will be deferred as long as possible (Ellinas, 2016). Egypt is under pressure for keeping up with its payments for LNG imports as well as for paying its debts to oil and gas companies. If there is a default of payment from Egypt, its financial credibility will suffer and will push potential investors away.

Discoverer of the Zohr field in Egypt and owner of the most drilling licenses on the Cyprus EEZ, the Italian energy company Eni is undoubtedly the main player on the Eastern Mediterranean natural gas scene. While drillings in block 9 and 11 have been disappointing, Eni recently discovered important source of lean natural gas in Cyprus's block 6 called in a zone Calypso. Lean gas, also known as dry gas, consists of more than 95 per cent methane and ethane as opposed to wet or rich gas, which contains more propane and butane. The purity in ethane and methane of the natural gas discovered in Calypso exceeds 99%, (Orphanides, 2018). Eni equally shares block 6 with the French energy company Total. These new discoveries have now to be studied further in order to assess the gas volume, the upcoming exploration and appraisal operations. So far, estimations determined that Calypso would hold a bigger amount of natural gas than its neighbor Aphrodite. Aphrodite is the first gas field discovered in Cyprus in 2011. It contains 4.5 trillion cubic feet of natural gas. The discovery of Calypso revives the hopes to find a similar field as Zohr in Cyprus's EEZ. The Italian hydrocarbon company has also 100 per cent of the rights for block 8. It is part of a consortium with Total for block 11 and with South Korea's

KoGas for blocks 2, 3 and 9 of the EEZ. Eni is now planning exploratory drillings in the block 3. Later in the year, US ExxonMobil and Qatar Petroleum plan to carry out two drillings in the block 10.

Concerning the monetization of these natural gas discoveries, there are many options: There is the EastMed pipeline option that could gather Leviathan's and Aphrodite' natural gas together to bring it to the European market, pipeline could bring the Cypriot natural gas to Egypt's liquefaction plants. Also, the EU has invested in the construction of LNG plants in Cyprus. However, all of these options present either high financial, political or technical risks that need to be closely evaluated. Any of these options, once picked, will have to overcome the numerous challenges brought by latent conflicts in the region. Among them, conflicts about maritime zones' ownership.

2.4 Law of the sea, continental shelves and EEZ

The law of the Sea is a body of international law that states all the principles and rules of which public entities (especially states) interact in maritime matters, including navigational rights, sea mineral rights, and coastal waters jurisdiction. The law of the Sea displays the rules that regulate the entitlement of coastal states to maritime zones, their rights and duties within those zones and how the boundaries of each zone should be established. Much of its law is codified in the United Nations Convention on the Law of the Sea, signed on the 10th of December 1982. The convention is often described as the "Constitution for the oceans" and it is aiming at codifying international laws regarding territorial waters, sea lanes and ocean resources ("United Nations Convention on the Law of the Sea," 1982). This body of international law is important as it is setting a framework for the exploitation rights on the reservoirs of resources that can be found in the oceans and seas. The fundamental principle of it is that the land dominates the sea. This means that, it is the land's territorial situation that determines the maritime rights of a coastal state. The determination of the maritime rights is of utter strategic importance as the outer continental shelf hosts more than 50% of the world's remaining yet- to- be- discovered natural gas resources.

As legally stated in the UNCLOS, the exclusive economic zone is “an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal state and the rights and freedoms of other states are governed by the relevant provisions of this Convention.” , ("United Nations Convention on the Law of the Sea," 1982). That is to say that an EEZ is a zone of coastal water and seabed distanced from 200 nautical miles (370 km) from the shore (baseline) of the country claiming the rights on this zone notably for commercial activities, fishing, drilling. Also, it is adjacent to the 12-nautical mile territorial sea (See figure 3). A state benefiting from the EEZ owns the right to exploit and regulate fisheries, construct artificial islands and installations, use the zone for other economic purposes, and regulate scientific researches by foreign vessels. Without such regulations, foreign vessels and aircrafts have the right to move freely through the zone.

Also, still defined by the UNCLOS, the continental shelf is constituted of the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance, ("United Nations Convention on the Law of the Sea," 1982). That is to say, the continental shelf is the first zone of water coming right after the coastal plain ends (See figure 3). The coastal state possesses exclusive sovereign rights concerning the exploitation of its continental shelf's natural resources. Other states cannot explore nor exploits those natural resources without the express consent of the coastal state. Therefore, the coastal state is entitled to lay and maintain submarine cables and pipelines (a system of pipes, often underground, using pumps and valves for flow control, used to transport crude oil, natural gas, water etc. on great distances) on the continental shelf.

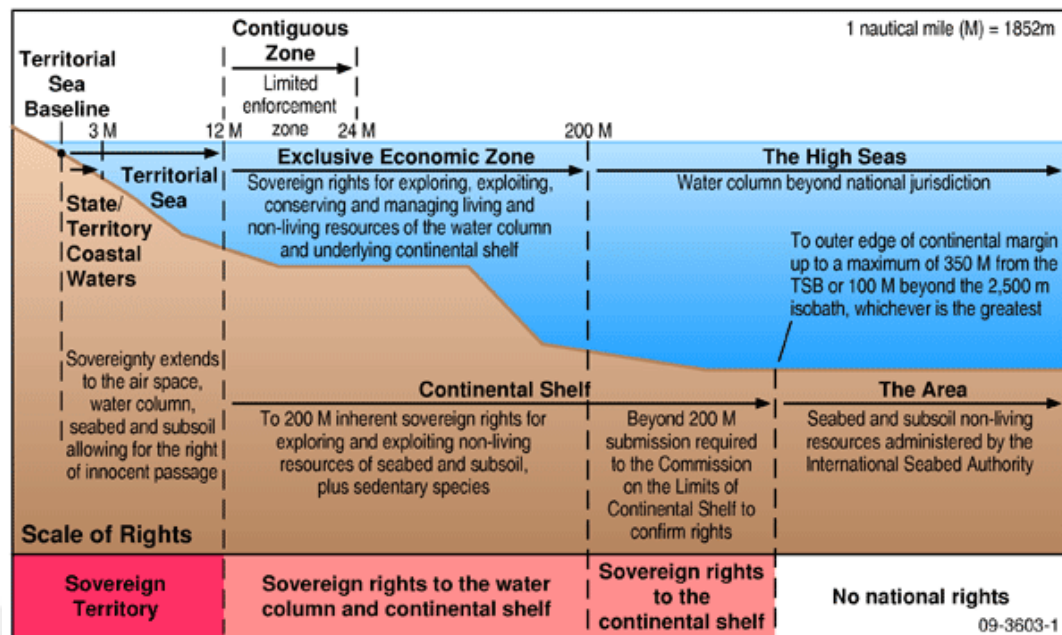


Figure 3. Maritime zones and rights under the 1982 UNCLOS, (Symonds, 2009)

As a reaction to what Turkey saw as a unilateral declaration of the Greek Cypriot's "licensing blocks", in September 2011 Turkey and the TRNC signed a bilateral agreement on the delineation of their continental shelves. Since around 50 years, Turkey and Greece have different views on the design of their respective maritime zones, territorial waters, air space and continental shelves. Turkey did not sign the United Nations Convention on the Law of the Sea and therefore, does not recognize the concept of EEZ. Indeed, Turkey calls what the UNCLOS calls EEZ is called "Licensing blocks". As Turkey and Greece were about to discuss the resolution of the dispute, the creation of the EEZ and the energy discoveries around Cyprus woke up those latent tensions. Greece threatened to unilaterally determine its EEZ both in the Aegean and the Eastern Mediterranean. Meanwhile, Turkey went against the delineation treaties between Cyprus and Egypt, Israel and Lebanon. Indeed, according to Turkey, Cyprus being divided, it should not be able to possess an EEZ without the consent and the respect of the interests of its northern part. Turkey first declared that islands such as Cyprus are not entitled to a full EEZ, and that the capacity of Cyprus, as an island, to possess an EEZ should then be limited by the coastal states' continental shelf. Turkey also claimed that the Greek islands of Megisti (Kastellorizo), Agios Georgios (Ro) and Strongyli should not be taken into account in the delineation of the Greek EEZ in the Eastern Mediterranean

(Grigoriadis, 2014). Last but not least, Turkey suggested Turkish Cypriots citizens to claim the half of Cyprus' EEZ (namely blocks 1,2,3,8,9,12 and 13), therefore leaving the Republic of Cyprus with little or nothing of its original EEZ outside its 12- mile territorial waters. Turkey even drew its continental shelf delimitation with what it believes should be the Northern Cyprus' EEZ (despite Northern Cyprus being part of an island). Turkey claims that it has the sovereign and legitimate rights to declare its own EEZ that are coextensive with its continental shelf and this, even though it includes overlapping regions of the Republic of Cyprus' EEZ such as parts of the EEZ 1, 7, 6, 5, and 4 (Ellinas, 2017). Turkey estimates that it can intervene in those blocks, delimited by what it calls its "red lines". However, the country still has not officially declared its EEZ to the UN. Turkey's position on the topic is based on the equity principle. The equity principle states that one should take special circumstances into consideration in order to respect proportionality and non-encroachment rules. According to C. Ellinas (2017), Turkey claiming such contradictory, sometimes even implausible, rights comes as another paradox. As a matter of fact, Turkey did not sign the UNCLOS treaty. Therefore, its claims cannot be enforced. It seems as though Turkey was using those declaration to raise attention and reaffirm its leverage on the wider problem of the Cyprus partition.

Nonetheless, some authors argue that the southern Cyprus' decision to explore for energy in the island' s territorial waters without the consent of the Turkish Cypriots cannot be valid. This is the case of the Turkish energy expert A. Necdet Pamir. A. N. Pamir highlights that, as they are located on the same island and Turkey does not recognize the Republic of Cyprus nor its so-called "EEZ" , both parts of Cyprus should at least have cooperated to decide on the island' s EEZ. According to the Turkish Ministry of Foreign Affairs, Turkish Cypriots are the co- owners of the Cyprus island and its natural resources. In addition to this, some Cypriot EEZ blocks are overlapping with Turkey's own EEZ and therefore, there should at least be discussions on the drillings occurring in these zones. He also considers that, regarding the limited quantities of natural gas proven reserve so far, Greek Cypriots seem to forget that the Turkish market is yet the most feasible for Cypriot natural gas exportations. The author reminds Greek Cypriots that for the same reason, without support from its neighborhood or an agreement with Northern Cyprus, Greek Cypriot

have no chance to by-pass Turkey neither via LNG transportations nor via pipelines. Last but not least, A.N. Pamir affirms that the Greek Cypriot administration utilizes its current power position in terms of energy discoveries as part of a “carrot and stick” strategy for negotiations. (Pamir, 2018).

In this context of natural gas discoveries in the Eastern Mediterranean, unilateral declarations only have the potential to raise further tensions. It seems to be in the interest of both sides of the conflict to organize efficient discussions and get ready to compromise on the topic.

Meanwhile, oil and gas companies were legally entitled to drill in Cyprus’ EEZ. They are backed up and supported by their countries (such as France, Italy, and the US). The Republic of Cyprus’ EEZ and delimitation agreements were created along with the UNCLOS agreement and their recognition by its neighbors, as well as by the international community. The UNCLOS is so widely recognized that maritime boundaries and undersea resources are now considered as being part of customary international law. Therefore, the UNCLOS is de facto binding on all states, even the non-signatory one. Turkey utilized this law already when determining its Black Sea continental shelf and EEZ along with Bulgaria and Ukraine, or when arguing that the northern part of Cyprus should be entitled with EEZ.

Despite Turkey’ s attempts to prevent the Republic of Cyprus to benefit further alone from the natural gas discoveries, there aren’ t any international court arbitration thus far. As mentioned above, the Cyprus situation vis-à-vis Turkey is very complex. Turkey is the only country not recognizing the Republic of Cyprus. However, from the Greek Cypriot standpoint, Turkey’ s claims are not always consistent. There is a sort of duplicity as Turkey also considers that it has right over the Turkish Cypriot community, and the Republic of Cyprus cannot take the initiative to explore nor exploits energy off its southern coast without Turkish Cypriot’ s explicit consent. The paradox lies in the fact that Turkey refuses to recognize the Republic of Cyprus, but still treats it as a country when it comes to claiming the validity of its 1959-1960 founding treaties. Moreover, Turkey affirms that since its recognition of the TRNC in 1983, Greek Cypriots have lost all their

rights over the northern part of the island. Therefore, Turkey's claim for rights on the Republic of Cyprus's energy exploration is difficult to support, (Grigoriadis, 2014). By claiming its right to control the energy activities in southern Cyprus, Turkey tries to take what is claims to be its share of the region's energy discoveries.

As a matter of fact, in November 2011 and after signing a contract with the TRNC, Turkey's national petroleum corporation conducted energy exploration in the sea between Turkey and Cyprus. But Turkey did not stop there. At the same time, Turkey conducted other explorations in the southern shore of Cyprus, claiming it is legitimate to do so, though at the expense of the Republic of Cyprus already exploring there. Meanwhile, Greek Cypriot benefit from the support of the EU and its neighborhood with whom it has already concluded agreements on its EEZ. Turkey's contradictory statements may actually play in favor of Greek Cypriots by raising support from the other actors of the region.

However, facing both parts of the island's attitude towards Cyprus' EEZ, the EU remains relatively quiet. On February 12, 2018, the European Council President Donald Tusk expressed his will for Turkey to “avoid threats or actions against any EU member and to commit to good- neighborly relations, peaceful settlement of disputes and respect of territorial sovereignty.” (Maurice, 2018). Despite the EU not supporting Turkey's offensive behavior, it does not take any step further than verbally warning Turkey. No member states appear to be willing to oppose Turkey.

2.5 The European energy security

According to the International Energy Agency (IEA)², energy security is “the uninterrupted availability of energy sources at an affordable price”. Also, in order to better fit the current political environment going through the threat of climate change and terrorism, the concept of reliability and sustainability was added to the definition. There is not only long-term energy security, which mainly deals with timely investments to supply energy in line with economic developments and environmental needs, but also short-term energy security focuses on the ability of the

² The International Energy Agency (IEA) is a Paris- based international organization founded in the framework of the (Organization for Economic Cooperation and Development (OECD) in 1974. It is recognized worldwide for its yearly publication “The World Energy Outlook” and its reports on the mid-term perspectives for the oil and gas markets, as well as for the renewable energies and the energy efficiency.

energy system to react promptly to sudden changes in the supply-demand balance. Energy security can be either used as a goal or as an instrument to shape foreign policy. Foreign policy defines the policy pursued by a nation in its dealings with other nations, designed to achieve national objectives.

The European Union energy policies are an essential part of the European Union's strategy. They are meant to secure energy supplies, ensure there is competition for affordable prices, and to make sure the EU's energy consumption is sustainable. This way the EU aims at being less dependent on its energy imports. As a matter of fact, the EU is currently importing more than the half of its energy (54%) costing more than €1 billion per day. Energy represents 20% of the total EU imports. The EU imports 90% of its crude oil and 69% of its natural gas. The EU imports a third of its natural gas from Russia. Germany, Italy, France, Belgium, and Spain are the countries importing the most their natural gas from Russia, Norway, Algeria and Qatar. However, Norway's natural gas supply is declining and Algeria's natural gas future exports to the EU are uncertain as their natural gas contracts will come to an end in 2019 and 2020. Qatar will most likely remain an important natural gas supplier for the EU countries in its capacity to sell LNG. In fact, the EU countries that are the most dependent on Russian gas owe it to their own domestic production, the share of natural gas in their energy mix, geographic location, political relationships, and the possibility for them to find alternative supply countries. Estonia, Finland, Latvia, and Lithuania, importing all their natural gas supply from Russia, are thus more exposed to energy supply disruptions.

Despite the fact that one of the EU's main purpose is to become less dependent on Russia, according to Gazprom's delivery statistics, the Russian energy company has delivered its highest natural quantity to the European Countries in 2017, representing 192.2 billion cubic meters of natural gas. 81% of Gazprom's 2017 natural gas was delivered to the Western European countries while 19% was delivered to the central European states (*Turkish Republic of Northern Cyprus*, 2018). According to Valery Nesterov, an oil and gas analyst at Russian bank Sberbank, this rise in the EU demand for gas is due to the European economic recovery, gas prices being more competitive than those of other energy resources (notably the price of coal), the cold

winter, the decrease of the Dutch natural gas output, and the ending of nuclear energy production in Germany (Reuters).

The EU is seeking to diversify its energy sources to avoid issues such as the series of gas crisis between Moscow and Kiev that has impacted negatively Russia's natural gas deliveries to Europe. As a matter of fact, in 2014 Gazprom cut off its exports to Ukraine. This resonated as a call for the EU to secure its energy supply through the European Energy Security Strategy. Nowadays, tensions with Russia being at their highest since the Cold War, the EU has good reason to fear that Russia uses its natural gas leverage as political means. Therefore, the EU Energy Security Strategy first consists of meliorating the cooperation of the EU countries in terms of natural gas distribution. If a natural gas disruption from Russia was to come, the cooperation between the EU countries could cope with it and be able to provide energy to its consumers for around six months. Also, part of the EU Energy Security Strategy is to increase energy efficiency, increase the energy production in the EU and diversify suppliers and routes, completing the internal energy market and building missing infrastructures, coordinating the member states' external energy policy, and strengthening emergency and solidarity mechanisms and protecting critical infrastructures, ("Energy Security Strategy," 2014).

The EU countries also agreed on a 2030 Energy Strategy framework for climate and energy. This framework is made of targets and objectives in order to achieve a more competitive, secure and sustainable energy system for the period of 2020 to 2030. This strategy shows that the EU aims at attracting private investments in new pipelines, electricity networks, and low carbon technologies. The targets for 2030 are to reach a 40% cut in greenhouse gases emissions compared to 1990 levels, at least a 27% share of the renewable energy consumption, and at least a 27% energy savings compared with the business-as-usual scenario. In order to reach this purpose, the European Commission proposes a reformed EU emissions trading scheme, new indicators for the competitiveness and security of the energy system, as well as a new governance system following a common EU approach and based on national plans for competitive, secure, and sustainable energy ("Israel, Cyprus, and Greece push East Med gas pipeline to Europe," 2018).

The EU shows more and more its interest for the eastern Mediterranean natural gas. The EU expressed its will to assist the countries in the region in the exploitation of their energy resources, as well as to develop commercial cooperation with those countries. As an example, the EU commission developed the CyprusGas2EU project due to begin on June 2018. This project consists of integrating the Republic of Cyprus at the core of the European Union energy strategy by installing the required infrastructure to send the eastern Mediterranean natural gas to its member states. The project's investments include establishing "a floating storage and regasification unit (FSRU), a jetty for the unit's safe mooring, a shelter for the FSRU and LNG carrier, a jetty borne pipeline and an onshore gas pipeline, an onshore storage array and a metering station at the Limassol port, terminal 2 (Vassilikos)", (2018). However, this EU project to invest more in the Mediterranean natural gas is not to the taste of environmentalist groups. The EU therefore seems to balance it with a communication strategy highlighting the potential growth and creation of jobs these projects would bring. Also, the EU commission's press release on the project took some liberties with the definition of clean energy: "More growth and jobs: EU invests €873 million in clean energy infrastructure". As a matter of fact, natural gas remains in the category of fossil fuels and releases greenhouse gases, it thus cannot be considered as a clean energy. Cyprus is holding a great potential in solar and wind energy. We can also question why the EU did not decide on investing further money on renewable energies in Cyprus.

Through the exploitation and use of the eastern Mediterranean discoveries, the EU has the opportunity to promote its internal cohesion, and its energy integration, which are especially important for the southern and eastern EU member states. Nonetheless, escaping the dependence from the Russian gas may be more complicated than it seems. Indeed, Russia's natural gas is the cheapest. As Russia also hold interests in keeping the EU countries as its importers, it may even follow the competition and further reduce its prices. The EU will probably have to pick a side between cheaper natural gas and its energy security. It is the EU's regulatory frameworks and policies that will shaping the competitiveness of the natural gas market that will later determine whether the EU will succeed to meet its energy security objectives.

When the first energy discoveries in Cyprus have occurred, many argued that it would be a catalyst for successful negotiations between Turkey and Cyprus. However, what seems to be happening is in fact the opposite. Both Cyprus and Turkey are standing still on their position and are not yet ready to discuss or compromise. The ending of the Cyprus issue through regional cooperation may actually be the catalyst for the successful development of the natural gas market in the region. In order to facilitate the natural gas market development in the eastern Mediterranean, the EU could take the role of an ambassador to help building regional cooperation. As a secure and reliable actor in the natural gas market, the EU can facilitate and set incentives for the other actors in the region to better negotiate and come to necessary agreements. On the economic side as well, the EU could help the region stakeholders to attract investors. The EU is already engaging multilateral discussions through the Union for the Mediterranean (UfM). However, this institution is yet solely used as a discussion platform, and it may be interesting to further develop its concept and build on it to take active measures towards regional cooperation on energy.

2.6 The LNG and the future of natural gas

Natural gas is an energy mostly used to produce electricity and generate heat for domestic or industrial purposes. It can also be compressed to be used for vehicles, as a feedstock for fertilizers, etc. It is composed of methane and smaller quantities of other hydrocarbons. Natural gas is the result of dead marine organisms lying in the bottom of the ocean, buried under deposits of sedimentary rocks. These rocks provide pressure and heat to the organisms, which turn into gas over millions of years. The place underground where natural gas is found is called a reservoir. Like humans, rocks have pores, and natural gas or oil is trapped in them. If it is conventional natural gas, just like in Cyprus' EEZs, it can be extracted through drilling wells. Natural gas is then sent to processing plants through gathering lines (small pipelines). By doing so, it purifies the product in order to reach the "pipeline quality" dry natural gas so that it can be transported. The next step is to transport the gas to distribution centers or to store it. Natural gas, at this step of the process can be further liquefied. It is called Liquefied Natural Gas (LNG). LNG is used to be shipped in large tankers across the ocean. LNG is advantageous in the sense that

route it takes can be changed, and it allows the consumers to buy its natural gas from anywhere in the world. Nonetheless, the use of LNG requires a country to own a certain amount of liquefaction units to liquefy the natural gas and transport it. Qatar is the largest producer of LNG and holds the best liquefaction capacity (IEA, 2015). Natural gas is considered a better option than fossil fuels as, when burnt, it releases fewer greenhouse gases and air pollutant. Natural gas greenhouse gas emissions represent the half of the carbon emission of coal. However, if it is to be preferred compared to other fossil fuels, natural gas still emits greenhouse gases and is still a nonrenewable energy resource. Also, natural gas' s main component is methane, which is in itself thirty times more harmful for the environment than CO₂, (Rutherford, 2018). During the whole process of extracting the product there are high risks of leaks in the atmosphere or in the soil, contributing to high environmental impacts and the climate change.

In Europe, the main natural gas market, the use of natural gas has slowed down. As a matter of fact, Europe witnessed the comeback of cheap coal and natural gas has to compete with subsidized renewable energies. Also, even if the natural gas demand rises, the EU commission having liberalized the market, EU countries would turn to the cheapest offer, meaning the Russian natural gas. It would be then to the eastern Mediterranean producers to make their natural gas attractive for the EU. The EU could also choose to make its energy security of supply prevail over its affordability, and to do so, set up policies for a competitive framework of the natural gas market.

Therefore, it would be difficult and unrealistic to entirely give up natural gas. On a long-term period, it is conceivable to slow down its consumption until it only becomes a support to back up renewable energies. Nonetheless, natural gas being very cheap at the moment, it could compete with or even assist the development of renewable energies. Pushing for the optimization of cleaner energies in order to meet the environmental objectives requires the EU to implement adequate policies.

Conclusion

This chapter aimed at assessing the background of the natural gas market development in the eastern Mediterranean region. It focused on the Cyprus conflict,

considered here as one of the main impediments against a successful natural gas trade. Several reports and studies have highlighted the importance of regional cooperation to solve the Cypriot conflict along with developing a solid network for the natural gas trade. However, as it is still a recent topic, there are ongoing addition to the literature on the issue. Also, many authors are attempting to make predictions on the matter. Predictions being by definition uncertain, it had to be taken for what it's worth and be carefully selected. Moreover, very little was found in the literature on the question of the relationship of Turkey with the EU member states on the Cyprus issue. As a matter of fact, Turkey seems to be neither supported nor threatened for its statements and actions towards Cyprus by any of the EU member states. The EU took the stand to ignore Turkey but there are no studies yet on the reasons and interests laying behind this silence. However, it is emphasized that the EU has an important role to play in the region.

The prosperity of this region with its growing natural gas market is an important issue for future research. More broadly, it would be interesting research whether EU natural gas imports from the eastern Mediterranean region hold the potential relieve the Eastern European countries from their heavy dependence on Russia or if it would mostly benefit the western European countries. In order to better analyze the issues concerning the region, the following chapter will show the Eastern Mediterranean conflicting countries through the international relations theories' spectrum.

CHAPTER III

EASTERN MEDITERRANEAN NATURAL GAS DISCOVERIES - DIPLOMACY AND SECURITY

Introduction

After the World Wars II, European countries tried to combat nationalisms and avoid future wars by uniting their power in a community. There was no clear way on how it should happen, but the creation of the European Coal and Steel Community launched the European integration process up until what we call now the European Union. Though it happened several times in the past, it is now difficult to imagine a war occurring between France and Germany. Many theories were developed to analyze this process that led to peace among the Western European countries. The main ones are neofunctionalism and intergovernmentalism.

In the Eastern Mediterranean, conflicts seem to be ever-lasting. The Cypriot conflict officially separates two neighboring communities since 1974. Now, another feature appears on the picture: the natural gas. It would then be interesting to see if, as it was the case for the European countries, a reconciliation around a common energy institution could be possible in the region. Understanding the way Eastern Mediterranean conflicts could be solved is also a way to understand how the EU could intervene in the region to help the peace process, as well as the development of the natural gas market.

In this chapter, I will argue that the European integration process is specific to Western European countries and cannot be applied as such in the Eastern

Mediterranean countries. As much as neofunctionalism and intergovernmentalism fits the European integration process, realists' theories better fit the countries of Eastern Mediterranean region.

Therefore, this chapter aims at showing through international relations theories the diplomatic and security framework in which the Eastern Mediterranean natural gas has to develop.

In order to tackle this topic, this chapter will start by demonstrating why the European integration theories cannot be applied in the Eastern Mediterranean region. Then, I will explain the relationship and long-lasting conflict between Lebanon and Israel. This part will be followed the second part on the Cypriot EEZ conflict with Turkey. The conclusion will discuss whether a natural gas common institution in the region holds the potential to be a conflict solver or, on the opposite, would be a conflict amplifier.

3.1 The European integration model

European integration theories were developed to analyze the integration process of the Western European countries that led to peace in this area. There are several European integration theories: Neofunctionalism and Intergovernmentalism are the main ones. As they go through the way conflicting countries were reunited to become a community, it is interesting to see if the same process could be applied in the Eastern Mediterranean region, especially in Cyprus.

Functionalism is an international relations theory defended by David Mitrany³ as a reaction against federalism. The purpose of it is the maximization of human welfare by, if necessary, overcoming the limits of states' borders. If functionalism has to be placed in a larger category of international relations theories, it would be close to the liberal tradition. Nonetheless, functionalism wasn't primarily designed for the European integration. In fact, David Mitrany saw regional cooperation as problematic in the sense that it would only enlarge the existing borders. This is where

³ David Mitrany (1888 – 1975), British journalist adviser and foreign policy analyst. Funding father of the functionalist approach, he aimed at theorizing the conditions that would put an end to situations of war.

neofunctionalism intervenes. This theory has been developed notably by Ernst Haas⁴ on the basis of the functionalism brought by David Mitrany. Neofunctionalism was designed around the concept of regional cooperation by studying the European integration process. Neofunctionalism takes its roots in functionalism's central concepts of technocratic decision-making, incremental change and learning process.

According to Ernst Haas (neo-functionalism's principal theorist) integration was the process 'whereby political actors in several distinct national settings are persuaded to shift their loyalties and activities towards a new center, whose institutions possess or demand jurisdiction over the pre-existing national states', (Haas, 1958, p.16). That is to say, that states decide on pushing some of their economic sectors to the international level by creating a supranational organization to administer and implement a common policy, (*Energy: a shaping factor for regional stability in the Eastern Mediterranean?*, 2017).⁵ E. Haas tried to explain the mechanisms and reasons behind states voluntarily cooperating with their neighbors so as to lose part of their sovereignty, but also by acquiring new techniques to solve pre-existing conflicts between themselves.

Neofunctionalism describes the process of regional integration through the combinations a growing economic interdependence between the states, the building of an organizational capacity to solve conflicts and build international legal regimes, and the creation of supranational market regulations instead of the traditional national regulatory regimes. Departing from this original supranational organization, states will then progressively attach more of their economic sectors to it. Then, the integration dynamic will be further consolidated through governmental and non-governmental actions towards the supranational organization's development. This is the spillover effect, (Eilstrup-Sangiovanni, 2006). Once the integration process has begun, it fulfills itself thanks to new sectors being brought in. Following this process, supranational institutions are strengthened. They will then employ a specific kind of functionaries that are interested in and will push for further integration. When

⁴ Ernst Haas (1924 – 2003), German-American political scientist. Founder of neofunctionalism in international relations.

⁵ David Mitrany (1888 – 1975), British journalist adviser and foreign policy analyst. Funding father of the functionalist approach, he aimed at theorizing the conditions that would put an end to situations of war.

regional integration occurs, there is a transfer of loyalty. States entrust their most specific problems to supranational institutions so that they can focus on researching regional/international solutions to their problems. This theory has been largely used in the field of European integration. It was mostly represented through the economic and politic goals, and the strategies behind the creation of the European Coal and Steel Community pushed by Jean Monnet. The European Coal and Steel Community was created thanks to the Schuman plan in 1951. This “community” was thought to be the first step towards more integration in other sectors through the need for common agreements concerning taxes and trade. States that are involved in the integration process tend to do it to serve their own national interests, but in fact they end up serving the whole region’s interests by transferring some of its power to the regional level. Unlike realism in international relations theories, neofunctionalism doesn’t consider an anarchical system: there is a hierarchy with supranational organizations above the states. If it considers states as being actors of the system, institutions are strong actors too. Also, it doesn’t place power as the state’s national interest. In fact, in this case states find it in their national interest to transfer some of their power to the regional level. Integration weakens the state. If power was their main national interest, they wouldn’t give some of it in to a regional institution. However, regional institutions are gathering more power thanks to the cumulation of states’ transfers of loyalty. Hence, power appears as the supranational institutions’ interest. The more power they get, the more spillover effect they generate, the more regional integration there is, the better they can serve the welfare of the states composing the region. For the current European Union, neofunctionalism is thought to have led to the creation of several other supranational organizations. For instance, in 1957 was created the European Economic Community (EEC) and the European Atomic Energy Community (EURATOM).

However, neofunctionalism cannot fully explain the process of European integration. This theory doesn’t differentiate low politics from high politics. In fact, it argues that the rules of interaction define social actors’ behavior at all levels. Therefore, it doesn’t explain the creation by member states of an intergovernmental pillar under the EU umbrella for “Common Foreign and Security Policy”. Also, neofunctionalism doesn’t justify the “empty chair crisis” in 1965. The “empty chair crisis” occurred when the then French president Charles De Gaulle has objected the majority voting

method in the Council because it would lead to supranationalist implications. The president C. De Gaulle has also recalled all French representatives from the European Economic Community (EEC). This crisis has highly participated to set the limits of the community with the creation of the “Luxembourg compromise” allowing member states to put a veto on decisions that would go against their perceived vital national interests. It showed that the spillover effect isn’t automatic and that supranational institutions could be overruled. The theory of neofunctionalism was developed specifically through the European integration process, nonetheless the author Ernst Haas has led researches on whether this theory could be applied elsewhere in the world. It turned out that neofunctionalism couldn’t prove itself effective outside Europe. E. Haas has then thought of all the factors that could have made his theory work in Europe only. These factors were that European states were all democracies with the same degree of social pluralism. Also, all of those states were presenting high economic level of development. All of them shared common major elite values, (Eilstrup-Sangiovanni, 2006). Last but not least, the security of the entire region was already safeguarded by another international institution. If neofunctionalism can explain a big part of the European integration, it is due to some characteristics of this specific region. This theory is of highly contingent nature and, therefore, cannot be applied outside Europe, (Dunn, 2012). In the case of Cyprus, both Turkish and Greek communities couldn’t be reunited by neofunctionalism. As a matter of fact, both parts of the island are not equal in economic development. Also, both parts do not consider its counterpart as an equal, legitimate, reliable state. There is a lack of clear leadership in these communities. Northern and southern Cyprus, as they do not recognize each other, do not share any common institution and their main security concerns are targeted toward each other.

Neofunctionalism’s main concepts are close to liberalism in international relations theory. The main figures of Liberalism are the American president Woodrow

Wilson⁶, John Locke⁷, Alexis de Tocqueville⁸, and above all, Emmanuel Kant⁹.

Liberalism in international relations emphasizes individuals' right for property and freedom. It deals with what actors of international relations should do to avoid war. The main actor is the individual. The wellbeing of the individual is what leads to a greater and fairer political system. Liberalism accepts institutions as protectors of individual liberty by checking and limiting the political power. Liberalism is important in IR because states' relations between each other can affect the way citizens are treated on the domestic level. This theory is normative and is based on the belief in progress. Liberals don't see war as a legitimate mean of action, it has to be avoided thanks to an efficient political system and a greater economic interdependence between states. The key of such a system is to implement fair elections and limitation on political power through its division between several branches and levels of government. For liberals, thanks to this system democracies are unlikely to use their military power between each other. This is also the case because democracies consider other democracies as legitimate. As for neofunctionalism, economic institutions are important because they create cooperation between economic actors of different states and therefore develop a fruitful economic interdependence between them. There are four main concepts of liberalism: sociological liberalism, interdependence liberalism, institutional liberalism, and republican liberalism.

Sociological liberalism defines international relations as made of relations between individuals, groups, organizations of different countries. Interdependence liberalism implies that individuals and states are influenced by the actions of other individuals and states. Economic interdependence is the key to less military actions and violent conflicts. Then, states can better focus on individuals' welfare.

⁶ Thomas Woodrow Wilson (1856 – 1924), 28th president of the United States of America from 1913 to 1921. International relations theories' liberalism advocate.

⁷ John Locke (1632 – 1704), English philosopher. One of the founders of liberalism in international relations theories.

⁸ Alexis de Tocqueville (1805 – 1859) French political philosopher and historian, famous for his analysis of the French revolution, of the American democracy, and occidental democracies in general. Liberal. International relations theories' liberalism advocate.

⁹ Emmanuel Kant (1724 – 1804), German philosopher, believed that perpetual peace could be attained by installing universal democracy and international cooperation. International relations theories' liberalism advocate.

Institutional liberalism is the theory that promotes international organizations as the best way to create cooperation between states. International institutions are used as a mediator, a medium between states that helps states overcoming their lack of trust toward one another.

Republican liberalism is the branch of liberalism that believes in the fact that democracies are unlikely to go to war against one another. By their very nature, democracies would tend towards peaceful conflict resolutions. Here also, economic cooperation is said to reinforce this will of democracies to have peaceful relationships with its counterparts.

Neoliberalism came as a reviewed version of liberalism and as a critique of neorealism. This theory makes absolute gains prevail on relative gains to other states. While liberalism fully accepts the concept of an anarchical system, neoliberalism belittles its influence on international relations. Anarchy can be countered thanks to the power of cooperation, common norms, institution, and trust between states. Nonetheless, liberalism has its limits. This theory isolates individuals from their communities. However, communities and social bonds often helps individuals reaching their personal interests and goals. Also, in practice, economic actors of different economic classes would not always cooperate for mutual benefits. Last but not least, this system does not fit those who are unable to compete. Liberty prevails over equality. Also, liberalism is unlikely to be applied as such in Cyprus. Indeed, it would be problematic for the same reasons as it is for neofunctionalism. Both parts of the conflict don't recognize each other as legitimate. There is a lack of trust between them and not enough institutions to cope with it.

Another big school of thoughts in international relations, realism, can also be used to describe the situation of Cyprus. Realist theories are less optimistic than liberal theories. They emphasize "the irresistible strength of existing forces and the inevitable character of existing tendencies" and "insist that the highest wisdom lies in accepting and adapting oneself to these forces and these tendencies." (Carr, 1962).

There are several School of thoughts in realism: Classical realism, Neorealism (or structural realism), and neo classical realism (See table 1). Realism's main figures

are Kenneth Waltz¹⁰ (structural realism, or neorealism), John Mearsheimer¹¹ (structural realism, or neorealism), and Raymond Aron¹² (neoclassical realism). These theories best fit the situation in the context of the Eastern Mediterranean's natural gas development. As a matter of fact, realism is based upon the anarchical character of the international relations' system. Only nation states are considered as actors. There is no higher authority, and the system is in a constant state of war.

For classical realists and neoclassical realists, states have for ultimate purpose to maximize their national interest, which is power. Structural realists see the state's main concern in survival. The balance of power is considered as the sole way to ensure stability and order in such a system. Balance of power can be found through less powerful states building alliances with the main power to ensure its own survival and protect its assets. Balance of power can also be achieved through bandwagoning, which is building an alliance with the most threatening state with the purpose of expanding its assets, gaining more capacity. For realists, war is a legitimate means to reach the national interest. According to Max Weber¹³, only states possess the monopoly of legitimate physical violence. Inter- states organizations are not considered as legitimate autonomous actors because they only act via states. International politics (high politics) takes precedence over national politics (low politics). Only neoclassical realists accept the influence of low politics in high politics but still make high politics prevail over low politics. In this context of anarchy, International Law was created by and according to the interests of the main powerful states.

¹⁰ Kenneth Waltz (1924 – 2013), American political scientist. Founder of Neorealism, or structural realism in International Relations theory.

¹¹ John Mearsheimer (1947 -...), American political sciences professor at the University of Chicago. Considered as Neorealist in the field of International Relations Theory.

¹² Raymond Aron (1905 – 1983), French philosopher, sociologist, historian and journalist. R. Aron belongs to the classic realism school of thought in International Relations Theory.

¹³ Max Weber (1864- 1920), German economist, sociologist, and philosophe. Max Weber is also qualified as the foundational figure of the 20th century realism in international relations theory. Weber, M. (1919). *Politik als Beruf*: Julien Freund.

Table 1. The three main realist theories of international relations

	Classical realism	Neorealism or structural realism	Neoclassical realism
Date of appearance	1950/1960	End of 1970	1990
Main authors	T. Hobbes, N. Machiavel, E. Carr, H.J. Morgenthau	K. Waltz	R. Aron
Main actor	States: Unitary and rational	States: Unitary and rational	States: Non-unitary
Structure of the international relations	Anarchy	Anarchy defines the states' behavior	Anarchy
National interest	Power	Survival	Power
High/Low politics	Separated	Strictly separated	Influence each other
Means to attain national interest	Legitimate violence, all means to gain power	Gathering more capacities than the other states to obtain more influence	Constant relative material power to be able to impose preferences to other states

We can find all these features in the diplomatic relations and the security strategies of Lebanon, Israel, Cyprus, Greece, and Turkey. All those countries are located in the Eastern Mediterranean region. They are neighbors and their diplomatic relations are constantly tense. Since the appearing of the natural gas, existing issues in those countries have been reignited and now have to be reconsidered. All of those states recognize no superior power in the capacity to decide of their actions. They act according to their own interests as states, and they do not fear from using threats of violence to reach their goals. Nowadays, Israel, Lebanon, Cyprus, and Turkey are under pressure to keep what they claim as their own maritime space safe. States composing the region are competing between each other instead of cooperating to

make the best use of their natural gas. That is why, realists' theories seem more appropriate to analyze Eastern Mediterranean conflicts. Concerning Cyprus, the theory is once again confronted to the fact that the island is divided by two communities and no clearly separated states. Nonetheless, the theory works if we admit the island's both parts as they perceive themselves: the northern part of the island as the TRNC and the southern part as the RoC. However, traditional realism as such wouldn't apply to the European integration process because, in this case, low politics cannot be detached from high politics. Indeed, some national policies are emanating from supranational institutions. Also, realism emphasizes the need for a strong national security, which is a field that is not well addressed in the European integration process.

The closest theory from realism that could be applied to the EU integration process is intergovernmentalism. Intergovernmentalism is a theory that came as a reaction to neofunctionalism. This theory relies on the realists' conception of the state, its roles, and its place in the international relations. According to the intergovernmentalism theorist S. Hoffmann¹⁴, integration had to be seen on a global scale. Hoffmann critiques neofunctionalism's assumption that there will always be further integration without considering potential changes in the international background's situation, (Bache, 2006). Also, for him, national security will always remain in the hand of the national government. Intergovernmentalism gives the power back to state by arguing that this is states that are controlling the pace of the integration process, not interests groups. Interests groups exist, they have power, but government officials and offices have power too in influencing governments' decisions. As for realists, national governments remain the key actors because of they own their country's legal sovereignty and legitimacy from their people. In this theory, if states are seeking power it isn't the result of the human nature, but it is the consequence the structure of the international system. Intergovernmentalism was then completed by Andrew Moravcsik¹⁵ who considered the EU as an interstate organization. Here, states calculate the costs and the benefits of each step they can take towards further

¹⁴ Stanley Hoffmann (1928 – 2015) is an Austrian political sciences professor at Harvard University. He is a key thinker of the intergovernmentalism theory.

¹⁵ Andrew Moravcsik (1957 - ...) is a professor of politics and the director of the European Union Program at Princeton University. He is famous for his research on European integration and for developing the theory of liberal intergovernmentalism.

interdependence. According to Moravcsik, negotiations between states would always serve the interests of the economically bigger states involved. States that agree on being directed by supranational organizations would only do it because it serves their national economic interests that other states follow these directions too, (Bache, 2006). Intergovernmentalism parts from realism as it emphasizes the power of law politics. Domestic power is the result of power struggles between all the actors composing it, may them be political parties or private organizations. Interstate organization reinforces national governments by better serving their economic interest, and by enhancing the interstate bargaining power.

Where intergovernmentalism differs again from realism is on the security issue. As a matter of fact, intergovernmentalism doesn't seem to attach much importance to this field, (Bache, 2006). But intergovernmentalism is criticized for the fact that it separates politics and economics. Also, some argue that the economic interest doesn't drive the integration process. For instance, the 1950 Schuman Declaration and the creation of the European Coal and Steel Community was made in a political purpose: avoid war between members of the community.

The main difference between the post- World War I France and Germany with the current Cypriot conflict is that France and Germany were recognizing each other's legitimacy and institutions. In all European integration theories, this is the essential and common factor for peace and cooperation between communities. Also, the economic interest alone of both northern and southern Cyprus is not sufficient to drive them through the reconciliation process. Therefore, both regions cannot be seen through the same lens. If neofunctionalism or intergovernmentalism could explain the development of the EU, one cannot expect the same process to occur outside Europe. In the case of the Eastern Mediterranean region, realism appeared as the theory that would best apply to analyze conflicts.

3.2 Lebanon and Israel

In 2010, natural gas findings in Israel revived tensions with Lebanon. As a matter of fact, ever since its creation, Israel has been in conflict with its neighbor, Lebanon. The fact that Lebanon became the host for some Palestine Liberation Organization (PLO) militants who have fled at the creation of Israel has started the conflict. Israel

first invaded Lebanon in 1978, then in 1982, which led to the PLO being expelled from Lebanon. Israel withdrew from most of the country by 1985. However, the same year and with the help of the South Lebanon Army (SLA), an Iran-sponsored Shia radical movement called the Hezbollah called for war against the last Israeli occupants. The fights for Lebanon's territory led to the collapse of the SLA and the Israeli withdrawal in 2000. The UN designed their borders, nonetheless, the Hezbollah repeatedly launched attacks throughout the border to obtain the release of Lebanese citizens being detained in Israeli prisons. In 2004, driven by this aim, the Hezbollah captured two Israeli soldiers for a prisoner exchange. This is what ignited the 2006 Lebanon war. This war last for a month and caused the death of around 1200 people in Lebanon, mostly civilians, as well as around 160 Israelis, most of them part of the troops, (Lisa Barrington, 2018). The war slowed down with the ceasefire calling for the disarmament of the Hezbollah and the respect of the Lebanese territorial integrity by Israel.

However, both parts have violated the ceasefire agreement: the Hezbollah did not disarm and Israel regularly overflights Lebanon. In fact, the two countries already had a disagreement on their common border. The "Blue line" was traced by the United Nations after the withdrawal of Israel's troop from the south of Lebanon in 2000. Both parties ended up accepting only a quarter of this delineation. On the 17th of January 2007, Lebanon signed a maritime border agreement with Cyprus. The agreement was submitted to the UN, which followed the UNCLOS' equidistance principle to determine the points determining the Lebanese/Cypriot EEZ border. The equidistance principle consists of drawing a maritime boundary according to a median line that is equidistant from the shores of the countries involved. Nonetheless, it was clear that these delimitations were dependent on the future determination of the EEZ with the other neighboring countries. Indeed, a bilateral agreement cannot determine the borders of a third country. However, due to the pressure of Turkey, Lebanon refused to ratify the agreement. As mentioned in the previous chapter, Turkey denies all maritime borders agreement signed by the Greek Administration of Southern Cyprus (GASC). Therefore, the Lebanese/Cypriot maritime border agreement did not enter into force.

Later, in April 2009, The Lebanese government designed a commission to precisely determine the conception of its EEZ. The commission submitted its final work to the UN in November 2011. As it is a unilateral, this submission does not apply as the official delimitations of the Lebanese maritime borders. Israel disagreed with Lebanon's submitted southernmost coordinates. Syria also objected this unilateral delimitation.

In 2010, Noble energy company discovered some of the eastern Mediterranean's biggest natural gas fields, the Tamar and the Leviathan field, both located on the disputed delineation between Lebanon and Israel. There are 3 blocks over which Lebanon and Israel are competing for the ownership. It is important to notice that there wasn't any clearly determined EEZ for Lebanon, Israel, and Cyprus yet when the natural gas was discovered, (Antreasyan, 2013). In December 2010, Cyprus and Israel signed an agreement on the delineation of their maritime borders. This agreement between Cyprus and Israel was going against the previously determined, but failed, maritime border agreement of Israel with Lebanon. As it was considered as trespassing parts of its EEZ, this agreement was denied by Lebanon. On the following July, the Israeli mission to the UN sent its conception of the delimitation of the northern limit of its territorial sea and EEZ. The UN noticed the overlapping points of the Cypriot- Israeli agreement with the Lebanese EEZ. However, as mentioned earlier, these agreements include a standard clause specifying that the determined geographical delineations established by one or two countries were subject to changes according to the future delineation of a third neighboring countries' EEZ. All the agreements and maritime borders delimitations were designed according to calculations consistently with the customary international practice.

To this point, those common disputes seem to highlight lacking points in the UNCLOS that could help states precisely determine their maritime borders. Israel did not sign the UNCLOS. Also, its conflict with Lebanon called for the intervention of a third party. Cyprus offered its help, but it is the Americans who were chosen to serve as a mediator between the two states. In 2012, Frederic Hof, the first mediator submitted a plan including a provisional but legally binding maritime separation line

as well as a buffer zone with no petroleum activities. The plan also granted 500km² of the disputed zone to Lebanon. Beirut did not approve nor reject this plan.

By the end of 2012, the Deputy U.S. Assistant Secretary of State for Energy Diplomacy Amos J. Hochstein re-designed the previous mediation attempt and submitted its own proposal to Lebanese officials in November 2013. His plan was to draw a new maritime “blue line” to delineate the border between Israel and Lebanon. This line was designed to temporarily limit tensions between the two states. Also, it was satisfying Lebanon’s will to have a greater involvement of the U.N. on the issue. As anticipated, Lebanon saw this project as a potential solution, whereas Israel did not welcome the project with enthusiasm. Also, Lebanon’s unstable politics added to the transition between the Obama administration and the Trump administration brought an end to the mediation.

In December 2017, Lebanon granted France’s Total, Italy’s Eni, and Russia’s Novatek, two of the five blocks (blocks 4 and 9) put up for tender in the country’s first natural gas offshore licensing round, (Khraiche, 2017). The block 9 happens to be on the disputed area claimed by both Lebanon and Israel. Drillings were expected to begin in 2019. Referring to the ongoing tensions with its neighbors, as well as to Cyprus, Egypt and Israel exploring already the eastern Mediterranean, the Lebanese Foreign Minister Gebran Bassil sent a letter to the UN to affirm Lebanon’s right to defend itself and its economic interests. The Lebanese political figures launched a “media war” on the natural gas issue, (Cohen, 2018). As a matter of fact, there is a lot at stake for Lebanon, which is counting on discoveries to shore up its finances, (Khraiche, 2017). The dispute between the two states is escalating. According to Reuters, (Lisa Barrington, 2018), the Lebanese Prime Minister Saad al- Hariri considers Israel as an enemy state, which was regularly sending threats to Lebanon. Moreover, the Lebanese political and military group Hezbollah declared that it would defend Lebanon’s natural gas against Israel. Israel accuses Lebanon of having provocatively issued a tender for the block 9 of Israel’s EEZ. Israel had not issued a tender for the block 9 yet. Its strategy seemed to be to first focus on the non- disputed blocks (See figure 4).

On January 2018, Israel's Defense Minister Avigdor Liberman held a conference at Tel Aviv that spread anger in Lebanon. The conference tackled the dispute on Israel's common maritime borders with Lebanon. This speech caught Washington's attention back. As a matter of fact, before the conference Lebanon had stopped to take steps towards mediation. The U.S. embassy in Lebanon remembered its commitment to a "secure and stable Lebanon", providing it with weapons, equipment, and training to better defend itself. The U.S. are clearly aiming at deepening their relationship with Lebanon through the military sector. The U.S. and Lebanon's converging interests seem to have a positive effect stabilizing Lebanon and therefore, benefit the regional and global security, (Mouchantaf, 2018).

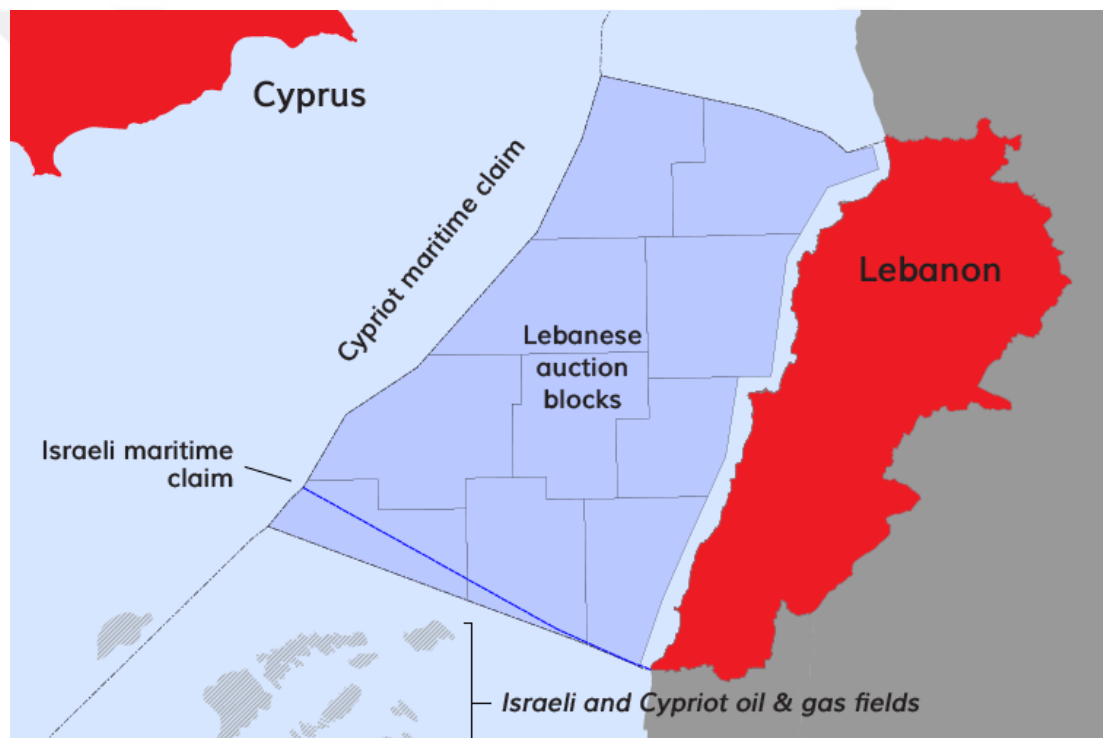


Figure 4. Lebanese auction blocks and the Israeli maritime claim, (ZeroHedge, 2018)

On the other side, Israel is now seeking for routes to export its natural gas along with the Cypriot natural gas to Europe. Israel negotiates agreements with European governments that would potentially buy its natural gas. According to Israel's energy minister, the agreements should be finalized for the end of the year. For the transportation, Israel foresees Greece as the potential Europe access entrance to export its natural gas. Greece, Cyprus, Italy and Israel want to build a cross-

Mediterranean pipeline to fulfil this project. Egypt would also be concerned by the pipeline as an exporter.

However, if the project sees the light of the day, it won't be before 2025. Also, at almost 2000kms long and at its deepest point 3kms below the sea level, it would be the longest and deepest submarine pipeline. Also, it is said to cost 6 billion euros, that is to say 7.3 billion dollars to transport about 10 billion cubic meters of natural gas, (Benmeleh, 2018). The European Union has already invested around \$100 million in the project to fund the feasibility studies.

Also, Israel shows the will to maintain a peaceful and stable relationship with Egypt. As mentioned earlier, the country holds a strategic position in the region as it could buy its natural gas and help for its exportation to European countries. Israel and Egypt have an agreement on exportations but due to technical reasons, it has not yet been materialized, (Dimou, 2017). If the Royal Dutch Shell Plc, that owns the Aphrodite field's rights, and the companies developing the Leviathan field manage their negotiations, Israel and Cyprus would combine their natural gas from the Aphrodite field and the Leviathan field and sell it to Shell's LNG plant in Egypt. Therefore, Israel is working on its relationship with Cyprus. However, Turkey's position on the Cyprus issue turns this potential arrangement with Cyprus into a problem for Turkey's already precarious relationship with Israel. Turkey and Israel recently developed a tense relationship, but the Israeli natural gas could change the situation. As a matter of fact, Turkey has a rapidly growing need for natural gas, which it mainly imports from Russian and Iran. Apart from being a promising field for renewable energies, the country doesn't hold any domestic energies and is extremely dependent on the Russian natural gas. Therefore, the natural gas discoveries in Israel, but also in the whole eastern Mediterranean region, attracts Turkey's attention. Turkey needs to diversify its sources of energy imports to enhance its energy security. Last but not least, by exploiting its own natural gas resources, Israel will potentially take a share of the Iranian energy exportations. As a matter of fact, Iran so far held the position of the almost exclusive natural gas provider to countries in the area. Hence, Israel's relationship with Iran is once again challenged, (Cohen, 2018).

Therefore, when it comes analyzing the Israeli-Lebanese conflict, international relations' Realist theories fit the best. As explained in the introduction of this chapter, realists believe in an anarchical international system in a permanent state of conflict. This is the anarchy, there is no hierarchical political rule, no central authority. We can observe that the only potential "higher authority", here represented by the UN, was unable to arbitrate the conflict nor to make sure its advices would be respected on the field. For realists, interstates organization are actually created by, for, and according to the national interests of the powers in place and thus, represent those states. In all realist theories, states are the only relevant actors. According to classical realism, states are unitary and rational actors. There is a thick barrier between low politics and high politics. For the neoclassical realists however, states are non-unitary, there are internal factors influencing a state's foreign policy. States have to rely on themselves only for survival, security and prosperity. This is the structural realist's (or neorealist) Kenneth Waltz's¹⁶ concept of "self-help":

A self-help system is one in which those who do not help themselves, or who do so less effectively than others, will fail to prosper, will lay themselves open to dangers, will suffer. Fear of such unwanted consequences stimulates states to behave in ways that tend toward the creation of balances of power. (Waltz, 1979).

We can also apply Mearsheimer's¹⁷ concept of "egoismo sacro" to it, meaning that a state would always put its own interest first, (Battistella, 2015). Even in the case that they have allies, if there is a war, the state would make sure its allies take the higher risk compared to them. Indeed, in the structural realism to which Mearsheimer belongs, the ordering principle is the anarchical structure of the international relations.

Therefore, the functional principle of states is the survival before any other interests. The classical realist theory however, explains the international relations by states' pursuit of their own unique national interest: power. Power serves the states' primary concern: Survival. Israel being a recent state, freshly designed by the powers in place, its will for survival is understandably enhanced, and its behavior rather

¹⁶ Kenneth Waltz (1924 – 2013), Political scientist at the University of California, Berkeley and Columbia University, USA. One of the founding fathers of defensive neorealism.

¹⁷ John Mearsheimer (1947), Political Sciences Professor at the University of Chicago, USA. Offensive neorealist.

aggressive. States develop their military assets to survive. War is a legitimate means of action for states to reach their national interest, (Battistella, 2015). Power also passes through the accumulation of as many resources as possible. This is what Neo-classical realists call the search for relative material power. Structural realists will explain it thanks to its third principle: the capacities' repartition between the units. For them, a state is strong if it influences the other states more than the other states influence it. Accumulating "capacities" (such as the population size, the size of the territory, natural resources, economic capacity, military force, ...) will make a state gain more influence on the other states. Conflicts often take their sources in or simply burst because of disagreements over the allocation of scarce resources.

This is the case for the Israeli – Lebanese current conflict, the Cypriot – Turkish conflict over their EEZ, but this is also the case in other regions of the world such as in the South China Sea. China's foreign policies are oriented towards defending and reclaiming the islands in its South Sea. According to classical realists, by aggressively claiming those islands China protects its national interest and asserts its dominance as a rising hegemon (Berger, 2012). It also ensures its place as the main power in the region through a very active foreign policy activity. China does not annex territories but rather heavily invests in foreign countries, reinforces its military power, and show support to its allies in international organizations. For Israel and Lebanon, this is where the natural gas discoveries intervene. According to classical realists, by fighting for the ownership and protection of their EEZ, both Lebanon and Israel seek more security to ensure their power, hence, their survival. The more a state has power over a region, the better its ability to defend its national interests. Neoclassical realists and structural realists would argue that the more natural resources a state possesses, the more relative material power (or capacity) it gets over the other states, the more influence the state has on the others. This influence is the real power as it allows survival and power.

This chapter's following parts will continue to demonstrate the reasons why regional cooperation is in the interest of Eastern Mediterranean natural gas producing countries to serve their national interest (survival, power) and develop their global influence.

3.3 Cyprus and Turkey

As developed in the previous chapter, Turkey and Cyprus are entangled in a dispute since the end of the 1900s. As a result, Turkey doesn't recognize the Republic of Cyprus, and therefore doesn't recognize its sovereignty and its EEZ. The country qualifies the southern part of Cyprus as the "Greek Cypriot Administration of Southern Cyprus" (GCASC or GKRY in Turkish¹⁸). In part due to its dispute with Greece on the Aegean, Turkey did not sign the UNCLOS, and does not recognize the term of EEZ: It refers to it as "licensing blocks". In facts, Turkey estimates that zones of maritime jurisdiction should be determined by the size, population, geomorphology of a state (Legislative History, Article 121, UN secretariat). However, a majority of states signed and ratified the UNCLOS. Therefore, the UNCLOS' provisions can now be thought as part of the customary law, meaning that it would be applicable to non-states parties such as Turkey. Paradoxically, Turkey did conclude a continental shelf delimitation agreement with its neighboring countries in the Black Sea. Turkey also attempted to obtain a shelf delimitation agreement with the TRNC in September 2011 as regard to the entire maritime zone surrounding Cyprus. Nonetheless, this contract isn't considered valid by the UN as the TRNC is only recognized by Turkey. This contract, if it exists for Turkey and the TRNC, has no power according to the international law.

At the beginning of the natural gas explorations, the expectations for the whole region's energy potential were unrealistically high. Some even compared it to Qatar's. Licensed were rapidly given to the major oil companies such as Total (France), ENI (Italy), and Exxon Mobil (USA), among others like Qatar Petroleum, KoGas, or Noble Energy. In the same fashion and as it sees itself as the "co-owner" of Cyprus, the TRNC has granted exploration licenses to Turkish Petroleum. This move was right away condemned by the Greek community of Cyprus, qualifying the Turkish community as "an ethnic minority" and therefore, it would be "as if Copts in Egypt or Kurds in Turkey were entitled to develop their own EEZ and to grant licenses to oil companies", (Jacovides, 2018). The Greek Cypriot community sees Turkey's will for influence on the Northern part of the island as a "Neo Ottoman pursuit to make Cyprus a Turkish protectorate, with the permanent stationing of

¹⁸ Güney Kıbrıs Rum Yönetimi

Turkish troops and their rights of intervention”, (Jacovides, 2018). Meanwhile, Turkish Cypriots would like to obtain an equal right with the Greek Cypriots in the control of the energy- related activities, including the negotiations and attributions of licenses to the International Oil Companies (IOCs). In order to appease tensions, Turkish Cypriots also demanded the freezing of those hydrocarbon exploration and exploitation activities until their concerns are addressed. Nicosia signed with Egypt in 2003, with Lebanon in 2007 (this contract is not yet ratified), and Israel in 2010. Turkey doesn’t recognize any of these EEZ agreements and keeps supporting Lebanon on its disagreement over its EEZ boundary with Israel.

As an alternative to the current UNCLOS delineation of EEZs, Turkey would prefer maritime zones to be determined by adjusting an equidistant line from its adjacent coastlines with Egypt. In this situation, the Turkish potential continental shelf limits would overlap with parts of blocks 1, 4, 5, 6 and 7 of Cyprus’ continental shelf and, also, encroach upon segments of the Greek continental shelf. However, Egypt negotiated EEZ agreements with Cyprus already. Turkey would like to convince Egypt to give it up so that it could profit from a wider maritime territory. Turkey takes the example of cases such as the one of France and England, both signatories of the UNCLOS. France and England have found their maritime zone through the equidistant line system taking into account the isles of Scilly, (Colson, 2017)¹⁹. But in such case, Turkey denies maritime zones to Cyprus and Greece. According to Turkey, the equidistance principle should be applied as it is supporting the equity principle. Nonetheless, islands do not generate full maritime zones when they are competing directly against continental land areas. Thus, the median or equidistance line cannot be applied. As a matter of fact, Turkey claims that a solution to its issues with Cyprus could be found following equity principles. It is difficult to define what the equity principles concretely are made of. According to Turkey, equity principle states that one should take special circumstances into consideration in order to respect proportionality and non-encroachment rules. If Turkey was a signatory of the UNCLOS, the issue could have been brought to the International Court of Justice (ICJ) for arbitration.

¹⁹ Decision of 30 June 1977 by the Court of Arbitration established by the United Kingdom of Great Britain and Northern Ireland and the French Republic on Delimitations of the Continental Shelf.

However, Turkey is not ready to sign it as it would dismantle its whole logic of thoughts so far, as well as make it lose some pieces of territory over Greece in the Aegean. Moreover, there is a high suspicion in Turkey concerning the impartiality of this institution. According to Turkey, in order solve the issue the ICJ would have to take into account the legitimacy of the TRNC, (Çubukçuoğlu, 2014).

If we analyze the situation through the realist spectrum, regional cooperation through the intervention of one or several powerful state would hold the potential to solve the issues of the region. The realist theories admit no higher power above the states. States are evolving in an anarchical system. This anarchical system finds its balance in a hegemonic system, in bipolarity or multipolarity: There are one, two or more powerful states imposing their own national interests to the other states. In a bipolar or multipolar system, as one powerful state's influence grows, the other powerful states would enhance theirs as well, hence counterbalancing the first one and minimizing risks of war. In this framework, international organizations such as the United Nations have been created by and according to the national interests of the main powers in place. Following this theory, the UNCLOS was created by and for the USA and the USSR (and then Russia). It has only limited power over the other states and cannot impose itself over the other states' national interests. This is the case as Turkey simply refuses to recognize the UNCLOS, whereas Greece and most other countries did recognize it. Turkey's national interest, its power or survival, will be more difficult to attain if it respects the UNCLOS with the Southern part of Cyprus. Therefore, technically Turkey cautiously acts in accordance with the realists' international relations theories. However, to date there are 138 states that have adopted the concept of EEZ. All of them have declared some EEZs or have declared some exclusive fishing zones (EFZs).

In order for the EEZ conflict in the region (See figure 5) to be appeased, it seems like more powerful states should be picking a side and then pushing for more regional cooperation. By backing up states of higher potential in the Eastern Mediterranean, main powers can help create a stronger system of balance in the region. According to classical realists, only balance of power can lead to a better stability. Once the region

will be stable and coordinated from within, the natural gas will be more likely to further develop and reach the EU.

However, up to now main power states have kept distance over the EEZ issues. It seems like neither the USA nor the EU countries individually can visualize enough the region's potential to serve their national interest. It would be of general interest that states from the Eastern Mediterranean region concretely call for an intervention from a specific power in place such as the EU through France or Italy. Israel, Lebanon, Turkey, Greece, or Cyprus should better advertise the EU's interests in the region's assets.

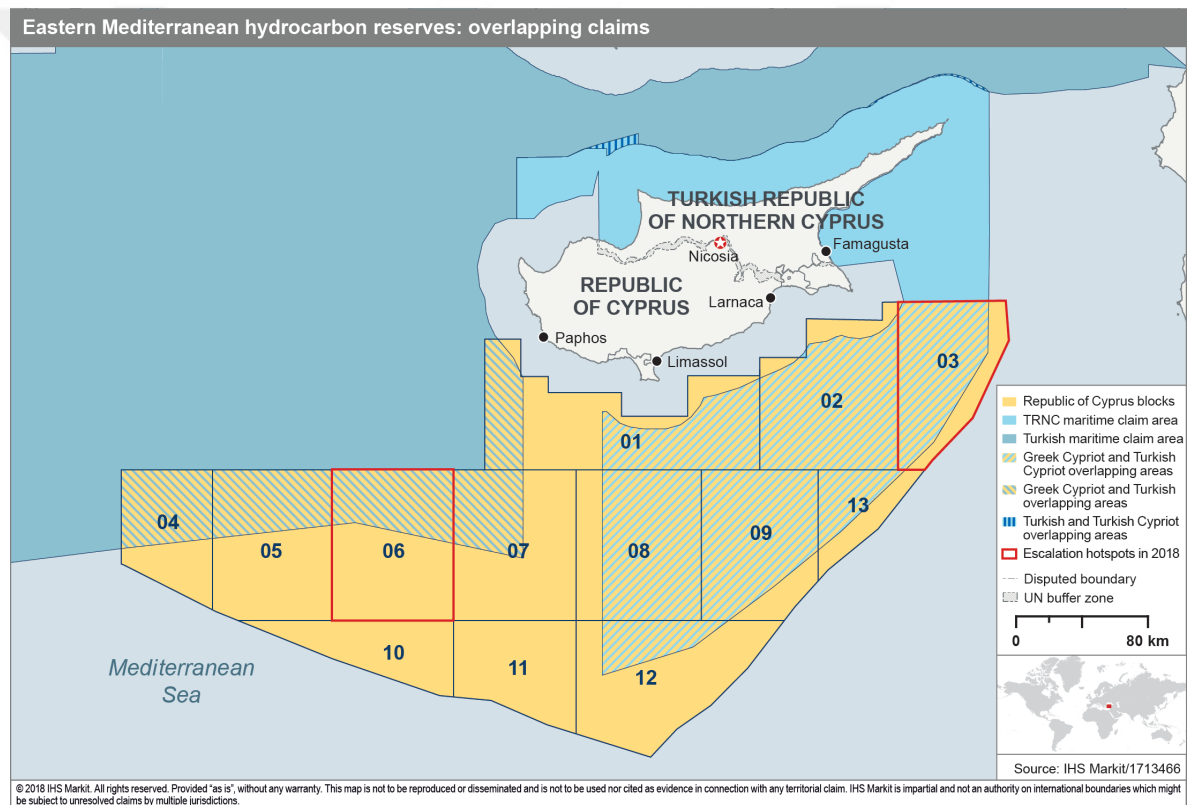


Figure 5. Eastern Mediterranean hydrocarbon reserves: overlapping claims, (Akkad, 2018)

Conclusion

May it be Israel's natural gas or Cyprus' natural gas, the energy discoveries in the eastern Mediterranean region are both a blessing and a curse. On one hand, they hold the potential to be used as means to help solving the pre-existing conflicts. Indeed, conflicting countries such as Turkey and the southern part of Cyprus, have found in

natural gas a new topic on which they can negotiate. In this case, natural gas first served as an incentive to start talks on a potential reunification of the island.

Nonetheless, it would be too optimistic to imagine that the regional conflicts could be solved through the creation of a common energy institution. As a matter of fact, if it was the case for the Western European countries, it was specific to these countries characteristics and would be unlikely to occur in Cyprus. If growing interdependence between countries of the region seems already difficult but essential, it will be otherwise difficult to build the necessary organization and international legal regime, supranational market rule between those countries. The World War European conflicts were not about the appropriation of scarce resources, they were not about ethnicity either. The European conflicts were about ideas, ideas led by specific men on power in the European countries of that specific time. Today and in the Eastern Mediterranean region, it appears as too optimistic to think that such a theory could apply. It is a conflict between states in the name of power through land and scarce resources possession: Turkey, Israel, Cyprus, Greece are not ready to delegate some of their current power as they are too busy to claim more of it already. Ideally, there would be a supranational entity regulating the Eastern Mediterranean natural gas market, but how can it be so if all the countries involved are not all recognizing each other already? In order to be successful in helping the resolution of Eastern Mediterranean conflicts, and the development of its natural gas market, the EU must choose another strategy that would better fit the region's features.

However, both parties of the conflicts hold interests in developing a partnership. For instance, Cyprus and Israel have not enough natural gas on their own to be able to export it. Therefore, both countries would gain from gathering their resources. Meanwhile, Turkey needs to vary its natural gas resources. Thus, the three countries would clearly benefit from an alliance in the energy field. On the other hand, natural gas discoveries are also exacerbating or even triggering new conflicts. The main source of conflicts triggered by natural gas concerns the ownership of the offshore natural gas fields. The fact that the EEZ have been designed after the natural gas discoveries encourages countries to exploit the International law of the Sea's lacking points and weaknesses to define maritime borders according to their own interests. Natural gas discoveries therefore hold the potential for those conflicts to be

detangled only if all parts of the conflict have the will to take a step towards each other already. A part of the solution would be that the EU or the EU member states that are involved in the region (namely France and Italy) give enough incentives to both parts to reach a successful agreement. There are reasons to be optimistic with such an option, in the case of Turkey and Cyprus both parts of the conflict showed the will to make concessions at some point. The next chapter will show what is the EU's strategy and where are its interests in the region.



CHAPTER IV

THE EASTERN MEDITERRANEAN IN THE EUROPEAN UNION FOREIGN AND ENERGY POLICY

Introduction

This chapter deals with the European Union's interests, strategy and policy regarding the Eastern Mediterranean region. The European Union deserves a whole section as it is the main actor on the demand side of the Eastern Mediterranean natural gas scene. In other words, the EU holds the potential to balance the region's conflicts and launch, or not, its natural gas market on a continental scale.

As a matter of fact, the EU is actively seeking to increase its energy security. According to the International Energy Agency (IEA), energy security is “*the uninterrupted availability of energy sources at an affordable price*”, (IEA, 2018). However, the EU has long been dependent on its Russian natural gas' importations. Being dependent on Russia, the EU risks to undergo natural gas disruptions. It has now become urgent for the EU to diversify its energy supply resources and the recent evolutions on the Eastern Mediterranean natural gas market may allow it to do so. In order to optimize its potential Eastern Mediterranean natural gas' imports, the EU has to find the best routes to channel it to its member states. Among all the probable routes, Egypt stands out as the most interesting option. Indeed, Egypt owns LNG plants that remain idle since the country stopped exporting its natural gas. The use of these plants would allow the EU to enhance its energy security as it would lower its dependence to Russia, decrease the needed infrastructures investments, and it would also grant the EU with more flexibility regarding its natural gas contracts. The idea would be to make Egypt become the crossroad of all the natural gas flowing from

Israel and Cyprus, to the European countries. However, the latent atmosphere of conflict in the region questions the feasibility of this project.

This chapter will argue that the EU could set more, and better, incentives to develop the Eastern Mediterranean natural gas market and be able to serve its own interests through it. Also, it will show under another angle than on the previous chapter that the region needs to become stable, hence reliable, before the launch of its energy market. The stability of the region appears as the condition to the development of an efficient network of natural gas trade may it be within the region or, on a larger scale, with the EU.

Therefore, the first part shows the EU interests in the Eastern Mediterranean region. It will then explain the EU's strategy as well as the tools the EU can use to benefit from the Mediterranean natural gas. Lastly, the second part will develop on the role of Egypt as the platform that could lead the natural gas from its suppliers to the EU member states.

4.1 The EU's energy strategy in the Eastern Mediterranean region

Even though the EU has slightly reduced its needs in natural gas importations (The share of natural gas imports fell from one percentage point between 2016 and 2017), the EU imports of natural gas in a gaseous shape still represented 20% of its total energy imports in 2017. 69% of its natural gas is imported. The EU has a long tradition of being highly dependent on its Russian natural gas imports. In 2017, the EU has imported 37% of its natural gas from Russia. Concerning the Russian natural gas dependence, not all EU member states are equal. In 2017, the most dependent states are Bulgaria, the Czech Republic, Estonia, Latvia, Austria, Poland, Romania, Slovenia, Slovakia and Finland, which all import more than 75 % of total national imports of natural gas from Russia. The dependence of those countries is explained by their proximity with Russia. There are also Russian natural gas dependent countries in the Western Europe. Germany imports between 50% and 75% of its natural gas imports from Russia, Italy and the Netherlands both import between 25% and 50% of their natural gas imports from Russia. Germany, Italy, and the Netherlands are followed notably by Spain and the UK, which both import less than 25% of their natural gas imports from Russia, (Eurostat, 2018). The Russian natural

gas dependence is a problem for the EU as it gives too much political leverage to Russia. Russia has the power to disrupt the natural gas flow from the EU, which directly threatens the EU members' energy security. The energy security is, as defined by the International Energy Agency (IEA), "*the uninterrupted availability of energy sources at an affordable price*", (IEA, 2018). The long-term way to install energy security is to invest in order to reach an energy supply that will both promote economic developments and meet sustainable environmental needs. The short-term way to ensure energy security is the ability to deal with sudden changes in the supply or in the demand. The purpose of the energy security concept is to give some tools to avoid negative socio-economic impacts of an energy disruption or unavailability for instance. That is why, it is strongly recommended to vary the sources of energy supply.

Therefore, the EU's energy security strategy consists of:

- Developing the energy efficiency in order to reach the proposed 2030 energy and climate goals.
- Increasing energy production in the EU and diversifying energy sources, energy supplier countries and routes. The EU wants to further deploy the renewables sector, as well as sustainable production of fossil fuels, and a safe nuclear energy where this option is chosen. Moreover, there will be negotiations with the current main energy partners such as Russia, Norway, and Saudi Arabia. The EU will also negotiate new energy contracts to diversify its energy sources with countries in the Caspian Basin region for instance.
- Meliorating the internal energy market and creating the needed infrastructure links to be able to react quickly to supply disruptions and to be able to reconduct energy to where it is needed.
- Informing the EU member states on the new developments and agreements of the EU with non-EU states. Also, the EU wants all its member states to speak with one voice when it comes to external energy policy. This is a tough goal to reach as, as mentioned earlier, all EU countries do not have same energy needs or dependence level, therefore, interests are different from one country to another.

- Developing the solidarity between EU member states and an EU common strategy if there is an emergency to protect critical infrastructures. There should be more coordination between EU countries to use existing storage facilities, develop reverse flows, conduct risk assessments, and put in place security of supply plans at regional and EU level, (EU, 2018).

Hence, putting a hand on the Eastern Mediterranean natural gas market is completely in line with the EU energy security strategy. The European indigenous gas production (from Russia and Norway) is declining but the demand is rising. Concretely, Europe is eager to add new sources of natural gas supply through the South Gas Corridor (“Fourth corridor”) in the Caspian Sea for the Azerbaijani and Turkmen gas, as well as through the “Fifth corridor” in the Eastern Mediterranean. The EU aims at first importing 10bcm of natural gas per year by 2019-2020, then up to 100bcm of natural gas in the future, (Tilliros, 2018). The EU will need the Eastern Mediterranean natural gas to be added to the Caspian gas in order to diversify its resources sufficiently.

Also, the LNG is forecast to become competitive enough to take a much larger part in the European natural gas resources. The use of LNG would highly increase the EU energy security. Moreover, it would allow the EU members to benefit from the global LNG market. Indeed, it is important for the EU’s energy security to avoid being dependent on pipelines only. Pipelines creates high dependency on the long-term between the exporters, the transition countries, and the importers. In such a relation, trust is necessary. Pipelines therefore multiply the risk of gas disruption because of political dispute, terrorism, or commercial disputes with any of the numerous states located on the pipeline’s way. LNG would give the EU access to better competitiveness and flexibility regarding natural gas trade. Additional natural gas resources are essential for the EU’s economic development on the long-term. The Eastern European countries are suffering from the Russian natural gas dependence and such an event would allow them to further develop economically and to catch up the Western European countries’ economy.

When it was Cyprus’ turn to obtain a place among the European Union member states, the EU had to deal with the peculiar features of the split island. As a matter of

fact, the EU does not recognize the Turkish Republic of Northern Cyprus, which is only recognized by Turkey. However, the EU recognizes the Republic of Cyprus, located in the Southern part of Cyprus, as the only legitimate government of the island. This is problematic as the Republic of Cyprus only controls the Southern part of the island, while the government of the Turkish Cypriots, the TRNC controls the Northern part. The Republic of Cyprus is an EU member state since 2004. The EU regards the northern part of Cyprus as *de jure*, an EU member state as it considers it to be a part of the Republic of Cyprus. The accession of the Republic of Cyprus to the EU was seen as an opportunity for the island to be reunified. When a referendum on the Annan plan in 2004 asked both communities whether the North and the South should be brought back together, seeing it as an opportunity to reach the EU, the Turkish community voted in favor of it. However, the Greek community voted it down.

The Annan plan was a strategy to reconcile the Northern part of Cyprus with its Southern part. This plan was brought by the, at the time, UN Secretary General Kofi Annan. The strategy developed by this plan was to create the United Republic of Cyprus covering the whole island with the exception of the British Sovereign Base Area. That is to say that Cyprus would be ruled by a federal government composed of two constituent states: The Turkish Cypriot state and the Greek Cypriot state. The federal system was imagined on the basis of the Swiss federal model. There would have been a collective presidential council in which members would be allocated according to the percentage of the state's population. A president and a vice president would have been appointed by the presidential council. This system also included a bicameral structure: a senate and a chamber of deputies, and there would have been a supreme court composed by an equal number of Turkish Cypriot and Greek Cypriot judges. The refusal of this plan by the Greek Cypriots was a huge disappointment for the European Union, (Smith, 2004). The Republic of Cyprus' president Tassos Papadopoulos emphasized that the Greek Cypriots did not vote against the Turkish Cypriots' community, but rather against the Annan plan as a solution to the separation of the island. As the EU had agreed on the Republic of Cyprus (RoC) becoming an EU member regardless of the votes' results, the RoC indeed became an EU member with nine other countries on the 1st of May 2004. On the protocol N°10 on Cyprus, the act concerning the accession's conditions of the

Republic of Cyprus and the nine other countries to the EU, the European Union affirms its wish for the RoC's membership to the EU will benefit all Cypriots citizen and will favor civil peace and reconciliation²⁰. This document states that the Cyprus has entered the EU as a whole, only the *acquis* is suspended for the Northern part of the island, which is not ruled in effect by the government of the Republic of Cyprus, ("Protocol n°10 on Cyprus," 2003). Translated in practice for the daily life: Turkish Cypriots possess, or are eligible for EU documents and are EU citizens. However, the TRNC is not under the EU law, only the RoC is. This situation is frustrating for the Turkish Cypriot community who has voted for the Annan plan but is now left at the doorstep of the European Union. Also, the Republic of Cyprus has hardly met the requirement for its accession to the EU, mostly thanks to the Russian investments on the island. This decision installed confusion among some EU elites, who showed regrets to have let a split Cyprus enter the EU, (Kyriss, 2015).

Nonetheless, the EU's commercial relations in Cyprus are quite strong, Intra EU trade accounts for 45% of Cyprus' exports, most of them heading to Greece (12%) and the UK (8%). When it comes to imports, 74% come from EU member states, namely Greece (21%), and Germany (17%). Italy comes third with 7%, (2018). Politically, the Republic of Cyprus is represented by 6 members of the European parliament. Also, the RoC held the Council of the EU presidency from July to December 2012. In 2016, the EU spent €0.185 billion in Cyprus, which represents 1.06% of the Cypriot gross national income (GNI). The same year, Cyprus contributed to the EU budget by €0.152 billion, which represent a contribution to the EU budget of 0.87% of its GNI, (2018).

The EU says that it is willing to set incentives for both parts to take steps towards each other, but for now, it seems like the RoC would have more to lose than the TRNC in the case of a reunification. In order to be efficient in solving the Cypriot conflict, the EU should empower the TRNC and rebalance the power in the region. Even in terms of finances, the cost of reunification would be tremendous, especially for the Turkish Cypriot community, since it doesn't yet benefit from the same

²⁰ « DESIRING that the accession of Cyprus to the European Union shall benefit all Cypriot citizens and promote civil peace and reconciliation », ("Protocol n°10 on Cyprus," 2003).

standards of living as the Greek Cypriot community living in the RoC. For example, the average per capita income of those living in the north is \$12,701²¹, while the Greek Cypriots in the Southern part of the island have an average income per capita over twice that at \$25,233. 571²². The TRNC still depends heavily on Turkey for financial, political, and military support. Another potential solution to appease tensions on the island and to unlock the situation regarding the maritime rights of both parts, would be to give up on a potential reconciliation and start working with the RoC and the TRNC two separate states. Recognizing the TRNC would be a way to better control its actions. Furthermore, it would install its legitimacy as a state and allow the TRNC to escape a bit of Turkey's influence.

The EU's EEZ is composed by the sum of its member states' EEZ. Each member state continues to exercise its power on its own EEZ. Nonetheless, there exist shared competences such as the control of fisheries on European EEZ, which is exclusively controlled by the EU. Therefore, the boat of a certain EU member state, can legally, under the EU law, sail into another member state's EEZ. The whole surface of the current EU's EEZs represents approximately 20 millions of square kilometers, ("Israel, Cyprus, and Greece push East Med gas pipeline to Europe,"). This figure makes the EU's EEZs the worlds' largest EEZ. Also, the EU's maritime zone is 380% larger than the whole EU land territory (See figure 6). The maritime space is important for the EU as the maritime trade represents 40% of the total EU trade. Therefore, it is in the interest of the EU and of its member states to cooperate together. It would be interesting for the EU to define a stronger and more precise common maritime law and maritime strategy.

Concretely, the EU has a way to positively affect the Eastern Mediterranean region notably through the Union for the Mediterranean (UfM). The UfM is composed of the 28 EU member states and of the 18 Southern and Eastern Mediterranean countries. The UfM was created to reinforce the cooperation between the organization's member states and the regional dialogue. Also, it aims at being a

²¹ In US dollars of 2017, data source: Turkish Republic of Northern Cyprus. (2018). Republic of Turkey, Ministry of Trade. Retrieved from <https://www.economy.gov.tr>

²² In current US dollars, data source: GDP per Capita - Cyprus. (2018). Retrieved from: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CY>

platform to incentivize and push the creation of regional projects to meliorate the citizen's lives. These goals are encompassed by three bigger objectives: human development, stability, and regional integration, (UfM, 2018). Concretely, the UfM is composed of three platforms: The UfM Regional Electricity Market platform, the UfM Renewable Energy and Energy Efficiency platform, and the UfM Gas platform. The UfM gas platform's purpose is to structure the necessary dialogue in the Eastern Mediterranean region to better develop its natural gas market by promoting security, transparency, and predictability of changes in demand and supply. All of it, in order to maximize the interests of both the producing and consuming countries. There are already the same kind of organization in the Western Mediterranean namely, EU-Algeria and EU-Libya. Therefore, the UfM can further focus on the Eastern Mediterranean natural gas sector. In fact, the UfM Gas platform could contribute to the development of a regional cooperation in this area, (*Energy: a shaping factor for regional stability in the Eastern Mediterranean?*, 2017).

The EU also disposes of the EU Neighborhood Policy, launched in 2004 to support stability, security and prosperity in Southern and Eastern parts of the EU. In order to appease tensions, the EU set the objectives of supporting the regional economies' development and scaling up security cooperation with countries in the area. Therefore, energy security is at the core of the issue. More precisely, the EU aims at offering cooperation on the basis of case-by-case assessment, to give a solid framework for production, distribution, trade and energy efficiency. On May, the 4th 2016 in Washington was held a US- EU Energy Council. On this occasion, the council declared that it "recognizes the potential of the new gas resources in the Eastern Mediterranean for the energy security of the EU and the wider region." It also "stressed the need to respect the sovereignty and sovereign rights of EU Member states to explore and exploit their natural resources and stands ready to facilitate the development of these resources and corresponding infrastructure, underlining the need to respect international law"²³.

²³ Review of the European Neighbourhood Policy. (2015). Brussels: The European Commission.

Nonetheless, apart through a few rare and careful statements notably when the Turkish ship had intercepted the Italian vessel off Cyprus²⁴, the European Union does not seem willing yet to take a stand in the Cyprus conflict. As a matter of fact, in the beginning of 2018, Turkey sent a vessel off the Cypriot coasts to prevent an Italian vessel belonging to the firm ENI to drill in this zone, the EU warned Turkey to not threaten Cyprus. In fact, Turkey told ENI it had booked the area for military activities. According to the Republic of Cyprus, this area was part of its EEZ. As explained in the previous chapter, Turkey does not recognize the existence of EEZ, and estimates that it is its rights to conduct any activities in this area. Turkey immediately called the Greek Cypriot government out for its “unilateral drilling”, which, according to Turkey, undermined Turkish Cypriots’ right to dispose from the island’s natural resources. Meanwhile, the new Greek Cypriot president Nicos Anastasiades stated, one week after his election, that Turkey had violated the international law and that the government would take the “necessary steps”, (Maurice, 2018). Nonetheless, the president added that he did not want to add fuel to the fire regarding the conflict between the two communities. One of the reasons behind the EU’s silence and refusal to take a stand may be that Greek Cypriots were not benevolent in the Annan plan. Also, we can assume that this period of so called “refugee crisis” granted Turkey with some political leverage over the EU countries such as Italy, France, and Germany, all three being founding members of the EU itself.

²⁴ On Monday the 13th of February, the European Council President Donald Tusk called on Turkey to not use threats and “refrain from any actions that might damage good neighborly” ties, (Euractiv, 2018).

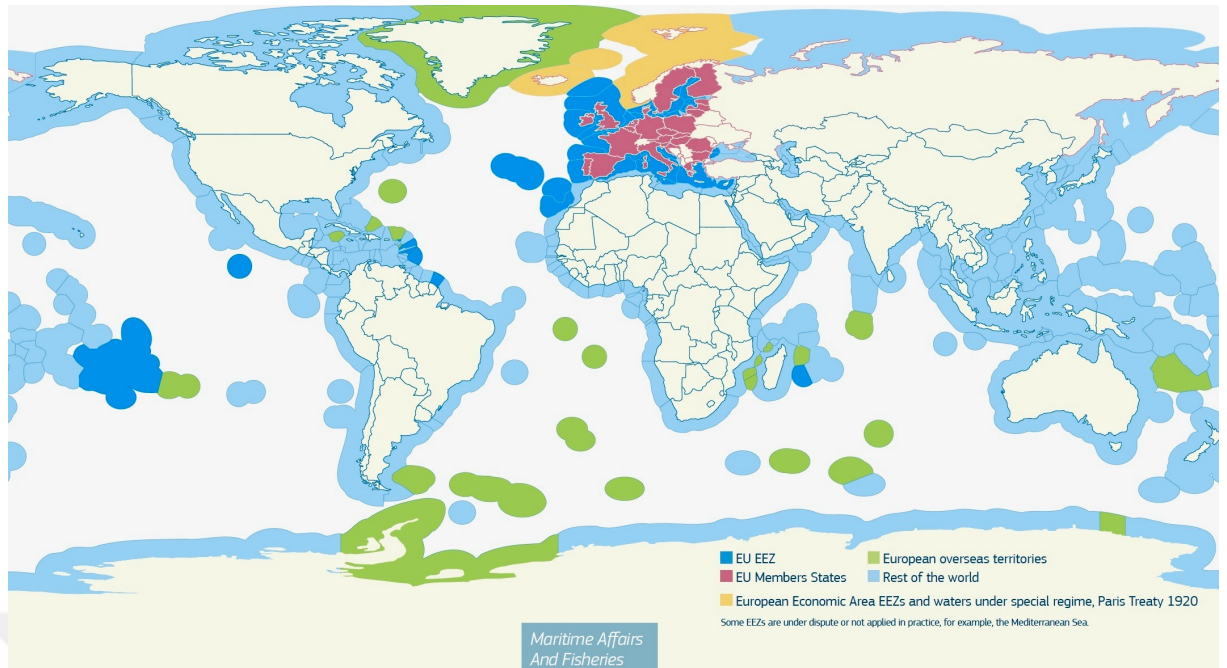


Figure 6. The European Union's total Exclusive Economic Zones²⁵, ("Israel, Cyprus, and Greece push East Med gas pipeline to Europe," 2018)

4.2 The EU's interests in Egypt

The initial excitement generated by the energy discoveries in the Eastern Mediterranean was rapidly tempered by the continuous investments delays along with the downward revision of natural gas quantities in the region. Now it is difficult to conceive the Eastern Mediterranean as a big gas- exporting region for the EU. However, the Zohr field in Egypt revived the excitement. Because of the 2011 turmoil, Egypt had undergone rapid decline in natural gas production and had to increase its importations from other countries to meet its domestic needs. Egypt imported 4.3 bcm of gas through a floating storage and regasification unit (FSRA off the Red Sea coast in 2015. It went up to 8 bcm in 2016. Therefore, Egypt's exports were nonexistent in 2014, leaving its LNG plants (such as those in Idku and Damietta) inactive (See figure 7). The exploitation of Zohr was a major relief for Egypt's domestic natural gas market.

²⁵ This map is interesting to have an idea of what the EU EEZs look like, However, we can notice that the whole Mediterranean Sea is included as an EU EEZ. This is not officially the case. Therefore, this map is to be taken as a big picture more than as a detailed and accurate piece of data.



Figure 7. Egypt's idle LNG plants and its proximity with the biggest Eastern Mediterranean natural gas fields, ("The Eastern Mediterranean gas landscape and a focus on Egypt," 2017)

Also, the major oil and gas international company don't intend to stop there: They are exploring around the Zohr field in the hope to find new exploitable energy fields. The more natural as there is, the more profitable it becomes for IOCs, Egypt, neighboring energy exporting countries, and the EU. If Zohr and its surrounding area reach their full potential in the coming years, Egypt may resume its exports of energy. Zohr is all the more interesting for the natural gas industry that it is located at 90km away from the Aphrodite field in Cyprus, which is located 7km away from the Leviathan field in Israel. Egypt's LNG capacity is of 19 bcm per year, which is enough to allow the exportation of any volume that remains after the distribution of gas to the domestic market, (*Energy: a shaping factor for regional stability in the Eastern Mediterranean?*, 2017).

As mentioned earlier, if all the fields' owners manage to coordinate, they could be brought together in export infrastructures. Egypt's domestic demand is growing fast, therefore there will be some exports capacity left in Egypt's infrastructures for Israel and Cyprus. Also, as both Egyptian LNG plants could be expanded, Israel and Cyprus would be able to enjoy the LNG plants availability in Egypt as flexible

outlets. This flexibility in energy infrastructures could be used to balance the risks generated by a potential escalation of conflict in the region. Thanks to the economy of scale, cooperation between the three countries would make the Eastern Mediterranean natural gas a competitive energy resources for the demand side. Once again, what prevents these countries to unite their assets to better take advantage of them, are their latent political conflicts. Any installation in the energy industry is highly expensive. No firm would take the financial risk to see its investments and plans being delayed by a political or commercial conflict. All infrastructures must be wisely used and produce an optimal profit. The appeasement of the involved countries' conflicts as well as their unification on such project would help lower the cost of any mishap. However, on the short-term, Egypt seems to hold the potential to unlock the Eastern Mediterranean natural gas development. Choosing Egypt's existing LNG plants to export Eastern Mediterranean natural gas would avoid heavy and risky investments. This option seems to be the most reasonable and attractive. The EU would be one of the first to benefit from the Eastern Mediterranean becoming a crossroad of the natural gas flow. As a matter of fact, most of the EU buyers' long-term gas contracts will come to expiration by 2021,(DGEnergy, 2018b).

In April 2018, a Memorandum of Understanding (MoU) for a Strategic Cooperation in Energy was signed between the EU and Egypt, (DGEnergy, 2018a). Signed in the context of the EU- Egypt energy forum in Cairo, this Memorandum emphasized the benefits from an EU- Egypt Cooperation in the field of energy. The forum was focused on Egypt's future as an energy import/export platform (referred as "energy hub"), on its potential to reinforce the field of renewable energies, as well as to enhance its energy efficiency, (DGEnergy, 2018a). This new agreement updates on cooperation with Egypt reaffirms the EU's choice to select Egypt as its "entrance gate" to the Eastern Mediterranean natural gas market.

Conclusion

The development of the Eastern Mediterranean natural gas industry and its exportation to the EU countries through Egypt are subject to the condition that there are further natural gas findings in the region. In addition to this, the Cypriot and Israeli conflicts need to be appeased. These are the conditions to attract investments in the region. A successful development of these energy findings would benefit the

EU by providing it with intra-EU long-term gas supply, which is helping with the “natural gas resources diversification” part of the EU’s energy security. Also, the natural gas potential of the region holds the potential for the EU to open a dialogue with these conflicting neighboring countries. Lastly, this chapter confirms that, as far as the Eastern Mediterranean region is concerned, regional stability on the basis of political and economic discussions is more likely to generate the necessary energy development than the development of the energy market is to generate regional stability.

The following chapter will go through the economic investments, agreements and other forms of cooperation that have occurred or that are planned in the region in order to develop its natural gas market in a peaceful environment.

CHAPTER V

THE ECONOMIC ASPECTS OF THE EASTERN MEDITERRANEAN NATURAL GAS DISCOVERIES

Introduction

Despite its political conflicts and turmoil, the Eastern Mediterranean region raises the interests of the major international oil and gas companies. The oil and gas companies involved in the region have to deal with all countries' ambitions for their own domestic market and for their potential imports/exports by trying not to be entangled in a conflict. The purpose for major companies and other investors such as the EU, is to fully develop and adapt the region's hydrocarbon potential. For any infrastructure, there is a heavy investment. Any change in the natural gas physical or financial trade is costly for all parts involved. Investments are what make an evolution possible. For instance, the European market shifts from almost exclusively importing natural gas through pipelines, to considering the use of liquefied natural gas (LNG) to a greater extent, (*Gas and oil supply routes*, 2018). Such a change requires new facilities and transportation network to be built. However, any investment comes with the goal of generating an income or a positive appreciation in the future. Considering the complexity of the region, the investments are risky and may generate heavy losses.

Therefore, this chapter will give an answer to the following question: Are the Eastern Mediterranean natural gas market's investments on track to be efficient and make all of its actors benefit from it?

The first part explains the concrete functioning of the natural gas market and of its main actors. Then, it will show the investments that were made so far in the Eastern Mediterranean natural gas industry by the states that are involved.

5.1 Keys to understand the functioning of the Eastern-Mediterranean natural gas industry: Energy companies and natural gas contracts

The oil and gas industry are made of various types of actors. There can be (among others): International Oil Companies, National Oil Companies, or even large emerging- market companies. International Oil Companies (IOCs, also called “majors”) are vertically integrated companies. Their actions encompass all the steps that are part of the global oil and gas business: upstream and downstream activities. IOCs are among the companies generating the world’s highest revenue.

The big five in terms of oil companies are:

- The Royal Dutch/Shell, both English and Dutch
- Exxon Mobil, American
- BP, British
- Chevron, American
- Total, French

There are other big IOCs in Europe such as ENI in Italy and Statoil in Norway for instance. Due to the current evolution of mentalities, as well as the awareness of the limits of the oil and gas industry, those companies are now diversifying their energy production with renewable energies. The national oil and gas companies are slightly different. They are in majority owned by the government. Also, they are often function of a leader state in the oil and gas production. This company is managed by the government in order to serve its national interests and generate an income from its energy production. May it be in the OPEC (The Organization of the Petroleum Exporting Countries)²⁶ countries or in some countries that aren’t part of the organization, national oil companies own the control of oil production. For instance,

²⁶ The Organization of the Petroleum Exporting Countries (OPEC) is a permanent intergovernmental organization created in September 1960 at the Bagdad Conference. Its founding members were Iran, Kuwait, Saudi Arabia, and Venezuela. The organization’s objective is to coordinate policies in the petroleum sector among the member states in order to preserve a fair and stable price for the petroleum producers, to secure the petroleum supply in consuming countries, as well as to attract investments in the sector, (Khraiche, 2017).

Saudi Aramco (Saudi Arabia), Nigerian National Petroleum (Nigeria), National Iranian Oil Company (Iran), are all national oil companies. In the third category of oil and gas companies, we can find companies coming from emerging economies or former Communist countries. They are actively trying to expand their activity outside their domestic market in order to compete with the IOCs. For instance, in Russia, privatizations have created Lukoil, Gazprom, and Rosneft. In China, there are PetroChina and Sinopec, ("Different Types of Oil and Gas Company," 2015).

This is the Texas-based IOC Noble energy that found and exploited the first field of natural gas in the Eastern Mediterranean. Then, Total and ENI decided to cooperate to further explore the region, along with BP, ExxonMobil, Kogas (South Korea), Delek (Israel), Avner Oil (Israel), and other oil and gas companies (see figure 8). These companies were awarded blocks by governments that own the EEZs where they are located. As a matter of fact, national laws of these countries give them control over all hydrocarbons and general mineral rights, on the land and offshore, within the country's EEZ. Thanks to particular types of contracts, a state can decide to give a piece of its hydrocarbon field to an IOC in order for it to develop and exploit its resources within a certain period of time. These contracts can take the form of licenses, concessions, or royalties or tax systems, as well as of PSCs (Production sharing contracts), otherwise called PSAs (production sharing agreements). Once an IOC was granted with concessions of licenses, if the explorations are unsuccessful, the IOC will have lost its own investments in the field. However, if the explorations are successful and leads to the production of hydrocarbons, the government will earn part of the income it generates through royalties and tax payments, (Tamvakis, 2015).

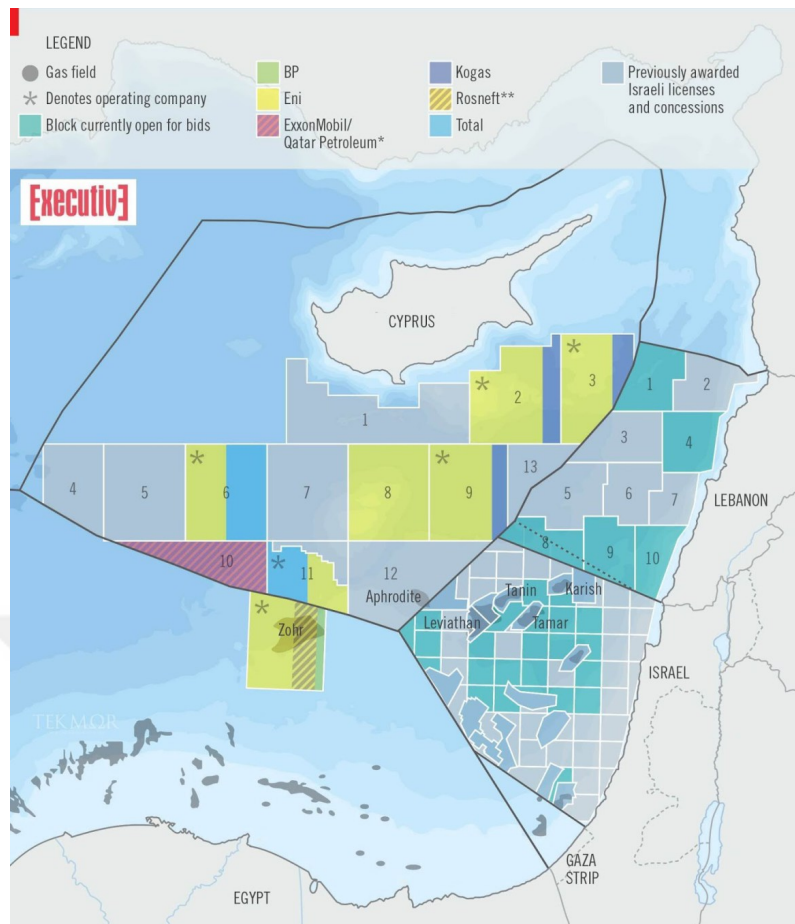


Figure 8. The oil and gas companies intervening in the Eastern Mediterranean, (Eran, 2018)

Once the hydrocarbons have been discovered, exploited, and produced, they have to be distributed. The producing country will then build contracts with the consuming country. Contracts can be on the short-term or on the long-term. Typically, the EU has been using mostly long-term contracts so far as it mainly brought its natural gas from Russia through pipelines. However, now that the LNG sector is expanding, the EU may start using short-term contracts that would allow a better flexibility to its natural gas imports. As a matter of fact, Long-term take-or-pay contracts connect sellers and buyers for a long period in an exclusive bilateral relation of 15 to 20 years, during which both of the contractors have strictly detailed obligations. More specifically, take-or-pay contracts require purchasers to pay for a previously established minimum quantity of natural gas whether or not that gas will actually be taken, the producer has to deliver this precise quantity, (Masten, 1988). Whereas short-term contracts are carried out without the necessity to build strong relations between the buyer and the seller. For short-term contracts, it is often the case that

neither the buyer nor the seller has to deliver or receive a certain amount of natural gas. That is why, this type of contract is useful especially if the seller or the buyer happens to be unreliable. Also, since it is much more destination-dependent than pipelines, the use of LNG brings flexibility concerning the transportation. Hence, one can choose the destination of the LNG according to the prices.

The way the contractors decide on which way they will fix prices varies. There are two main ways to decide on the natural gas prices: Using the spot market or using the futures market system. The spot market can be described as the daily market. It is opposed to the futures market. In the spot market system, natural gas is bought and sold immediately according to the natural gas price of that specific day. The futures market system consists of building up a contract to buy or sell natural gas for a minimum of one month and up to 36 months in advance. That is to say, using the futures market system equals buying at the price that no one knows when the contract is signed.

The fluctuation of natural gas prices widely affects the developments of the natural gas industry. If gas prices are low, producers will have to decrease their expenditures and investments in future explorations. Also, lower prices will increase the natural gas demand, which will create a pressure on the natural gas market and therefore lead to higher prices. This is sometimes called the “natural gas market cycle”. However, any adaptation to the market has to occur on the mid to long-term as producers won’t shut in wells or cut the production as soon as the gas prices decrease, (Weber, 1919). On a more concrete aspect, times of low prices negatively affect the development of the natural gas market in the Eastern Mediterranean as it pushes investments away. Price is “the Key limiting factor”, (Ellinas, 2018c). In fact, Cyprus had to postpone several drilling operations and it was difficult for Israel to find investors for the Leviathan field, (Taliotis, 2015). In this context of global low prices, even if they manage to export their natural gas, Eastern Mediterranean countries won’t be able to meet the average prices that the EU countries are currently paying for their natural gas supply. In order to reverse this tendency, there should be higher global natural gas prices. Also, as political risk is also at stake when it comes to the selling of natural gas, all the states involved in the market should focus on their own stability, as well as on further cooperating with each other, (Ellinas, 2018c).

5.2 Investments and expectations in the Eastern Mediterranean natural gas market

Egypt and Cyprus are jointly working on building a pipeline to bring the Aphrodite field's natural gas to Egypt's liquefaction plants. According to the Cypriot energy minister Giorgos Lakkotrypis, this project could be achieved for 2022, (Psyllides, 2018). However, this project is said to be slowed down by the current low natural gas prices. The Cypriot government and the energy companies involved have to negotiate financial terms and conditions to enable this project. As a matter of fact, in August 2018, the companies Noble, Delek, and Shell have expressed the wish to renegotiate the block 12 and Aphrodite's Production Sharing Contract. The contract was based on the Brent oil price of \$60 per barrel and 60 percent the profit generated was destined to the government, while 40 percent was destined to the companies. However, the companies estimate that it isn't enough for them to properly invest in the project. Therefore, they ask for 60 per cent of the profit generated, while the 40% remaining would be for the Cypriot government. This renegotiation is estimated to potentially lead to \$2 billion losses for the Cypriot government at the term of this 18 years long sales contract, (Ellinas, 2018b). These demands can be considered as surprising because the oil and natural gas prices were relatively the same in October 2008 when the contract was signed as they are now. Also, the cost of offshore infrastructures is lower now than what it was at the time when the development of the Aphrodite field was in discussion in 2013. The Cypriot Council of Minister qualifies these demands as unjustified. Also, companies Noble and Delek are involved in the Israeli Tamar field under similar terms. However, probably fearing Israel's reaction, both companies didn't attempt to renegotiate the contract with the Israeli government. Indeed, in 2014, Israel has increased its taxes on natural gas. If the Noble, Delek and Shell demands in Cyprus are met, it could lead to similar demand from companies in other licensed blocks, all potentially generating further losses for the Cypriot government (See table 2).

Meanwhile, expectations are high for the coming drilling in the block 10 located nearby the Egyptian Zohr field. If the block 10 fulfills its promises, ExxonMobil will consider building an LNG terminal in Cyprus (See table 2). This holds the potential to reunite both the Aphrodite and the Calypso field in the same terminal to export

their natural gas to Europe. Such an event would largely meet the European demand for diversification of its energy sources. Also, it would allow the Cyprus' economy to better benefit from its natural gas' profit than if its natural gas exports would pass by Egypt before reaching Europe.

In August 2018, the Egyptian government opened its natural gas sector to private investments. This law will bring a new regulatory body to control the Egyptian natural gas' liberalization, hoping that it will allow Egypt to fulfil its ambitions in the sector. Also, for the same purpose, Egypt bets on its energy system with marine platforms, its storage facilities, its extensive transmission system and infrastructures, its gas liquefaction plants (See figure 9), and the potential new natural gas discoveries on its territory, (Ellinas, 2018a). Egypt is determined to supply Europe with its natural gas. In 2014, Egypt went through power cuts due to a decrease of gas production, which created disruptions of supply to gas-fired plants generating most of Egypt's electricity. Also, the country had to import expensive LNG to compensate the disruptions. Natural gas shortages led to the exacerbation of Egypt's economic problems. Past this Egyptian natural gas crisis, there is now an approval between the Israeli government and Egypt for natural gas exports. The Israeli Tamar natural gas field's partners signed a deal with the Egyptian Dolphinus Holdings for the purchase of \$15 billions of natural gas, representing around 64 bcm for over 10 years. However, due to indecisions concerning the exports options, and Israel's deprivation of an outlet for its natural gas resources to the Egyptian LNG facilities, this deal has not yet been materialized. Since Egypt and Israel have made peace, they had primarily set security agreements focused on cooperation to fight Islamic extremism. Israel needs Egypt to export its natural gas and to help attracting more investments for its own fields. Israel and Egypt cooperating together would add an economic dimension to their recent partnership. Nonetheless, there is still a security issue for both countries to deal with. When Egypt was transporting natural gas to Israel through the Sinai pipeline, the pipeline has often been victim of terrorist acts. In 2012, Egypt stopped supplying Israel. The case was brought to an international arbitration court that ruled that Israel should be given compensations for the disruptions, (Chazan, 2018). Therefore, in order for the next economic deal between the two countries, this dispute needs to be solved. Both Israel and Egypt seem to be willing to cooperate on this matter. As a matter of fact, using a pipeline to transport

the Israeli natural gas to Egypt still appears as being their most cost-effective option (See table 2). Also, Egypt's cooperation with Israel is likely to help it becoming the region's "energy hub". In this case, both countries are effectively using energy to boost their mutual relations.

Israel could also transport its natural gas through a pipeline to Turkey for Turkey as well as for the European countries. However, the political tensions between the two countries are not in favor of this project (See table 2).

Another option is the controversial 2,200km long East Med gas pipeline. As a matter of fact, this pipeline would require Cyprus and Israel to cooperate together in order to bring the Leviathan and the Aphrodite fields' natural gas together and carry it to Europe (See figure 9). All states involved in the project aim at signing an agreement to further encourage the project within the year 2018. However, when it comes to the topic of their EEZs' ownership, the two countries have not shown anything but hostility towards each other. Moreover, the pipeline has often been qualified as "a pipe-dream" meaning, non- commercially viable, (Ellinas, 2018c). The East Med project will indeed be both a technical and financial challenge for the countries involved, not mentioning the fact that it would take about 7 years to be built, ("Israel, Cyprus, and Greece push East Med gas pipeline to Europe," 2018) (See table 2).

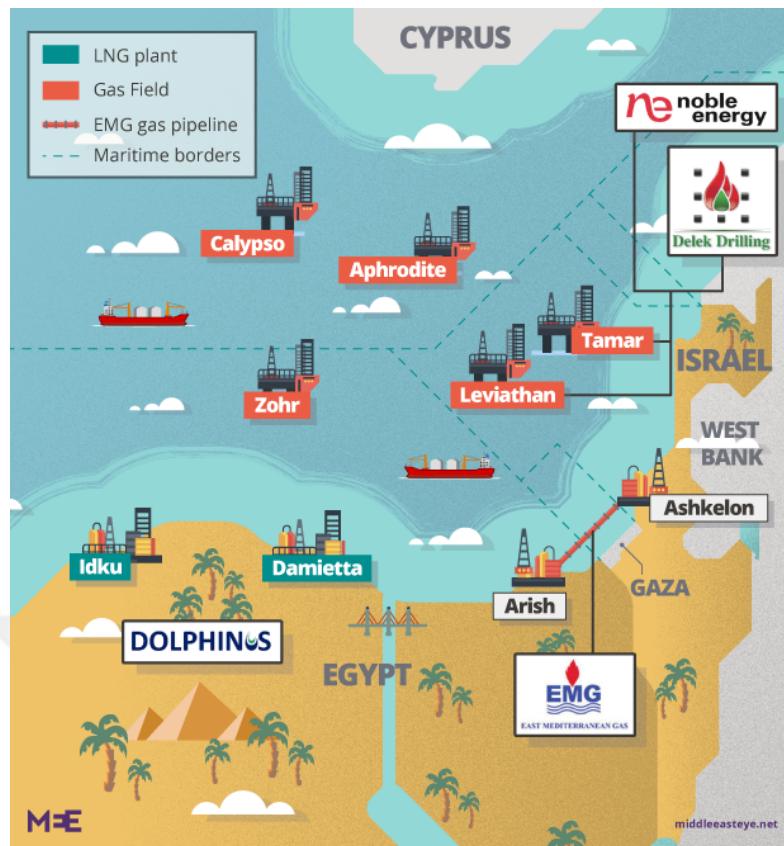


Figure 9. The Eastern Mediterranean natural gas exports potential through Egypt, (Akkad, 2018)

Last but not least, the EU has invested in LNG facilities in Cyprus in order to “Remove internal bottlenecks in Cyprus to end isolation and to allow the transmission of gas from the Eastern Mediterranean region”, (Colson, 2017). This project is part of the EU’s energy strategy in the Eastern Mediterranean along with the further cooperation with Egypt and the suppliers of the Southern Gas corridor, (*Gas and oil supply routes*, 2018). The purpose of the investment is to import natural gas on the island in order to use it for its domestic market. The infrastructures investments consist of the creation of an offshore LNG facility (Floating Storage and Regasification Unit – FSRU), and of the deployment of onshore natural gas facilities in the port of Limassol. Through the realization of these infrastructures, Cyprus will be able to serve as an entry point of natural gas for the EU (See table 2). Also, if other member states manage to gather their natural gas supply it will create an economy of scale in the region and enhance regional cooperation. Concretely, the EU has invested €101,255,320, representing 40% of the project’s estimated cost. This investment was directed towards the Republic of Cyprus’ Ministry of Energy,

Commerce, industry and Tourism in the framework of the EU's projects of common interests. This project will be implemented between March 2018 to December 2020, (Colson, 2017).

Table 2. Prospects for Eastern Mediterranean natural gas exports to Europe, (Baconi, 2017)

Prospects for bringing gas-to-market in the eastern Mediterranean

Options/Issues	Structure	Technical issues	Commercial issues	Political issues
Cyprus LNG export	LNG terminal onshore or offshore Cyprus	●	●	●
Cyprus-Israel FLNG/ LNG	Joint LNG export plant for both Aphrodite and Leviathan	●	●	●
Israel pipeline to Turkey	Pipeline from Leviathan to Turkey through Cypriot EEZ	●	●	●
Cyprus-Israel EastMed pipeline	Pipeline from Leviathan/Aphrodite to Greece	●	●	●
Egypt LNG export	Ikdu and Damietta exports from Zohr	●	●	●
Egypt-Cypriot LNG export	Pipeline from Aphrodite to Ikdu. LNG exports from Aphrodite and Zohr	●	●	●
Egypt regional hub	Pipelines from Israel and Cyprus to Egypt. LNG exports from Aphrodite, Leviathan and Zohr	●	●	●

Conclusion

The natural gas sector is a difficult area to comprehend as there are many commercial parameters, actors, sorts of contracts, way to fix prices, and even different states of natural gas that are involved in the process and that have to be tackled all together but with precision, case by case.

If it isn't clear yet whether or not the Eastern Mediterranean natural gas will further develop in the region, there are high investments from the actors involved. For instance, the EU mostly remained silent when it came to the region's ongoing conflicts but on the commercial aspect however, it is investing and negotiating in order to fulfil its ambitions in the region. Through its energy strategy in the Eastern

Mediterranean, the EU may hold the power to balance the pressure of low natural gas prices and incentivize further investments in the region.

To put it in a nutshell, all actors in the Eastern Mediterranean natural gas market have shown their will to develop their interests through the trade of their energy supply. They all have invested in the market and deepened their relationship with one of their neighboring country to obtain an agreement: Israel and Egypt for instance. However, bilateral agreements are not enough to reach the region's potential in terms of energy trade. The region's natural gas market's actors have the financial mean to develop but they are blocked by their lack of global cooperation.



CHAPTER VI

RECOMMENDATIONS AND CONCLUSION

6.1 Recommendations

- The EU as such or the EU member States should better incentivize cooperation between the Eastern Mediterranean countries. This could be done through the establishment of a strong institution dedicated to the European energy diplomacy. The European energy ambassador could help negotiate, mediate, introduce a way of solving issues between conflicting countries. The EU could also achieve this goal through the Union for the Mediterranean. It would be interesting to develop this institution's capacities.
- The EU should keep up and even deepen its relations with Egypt supporting its economic development through energy. Thanks to its proximity with Europe, Egypt's economic growth through energy would benefit both its domestic market and the European market. The prosperity and stabilization of Egypt is an asset for the EU's energy security.
- The EU could encourage investments in the Eastern Mediterranean region through the creation of more "projects of common interests". It would send a message of "trust" from the EU to the states of the region.
- The UNCLOS should be reviewed in order to cover its lacking points and to give no room for misunderstanding (concerning the EEZ delineation for instance).
- Regional stability being primordial, the EU should either further accompany the resolution of the Cypriot conflict through the reunification of both communities or, on the opposite, the EU should acknowledge the existence of the TRNC as a state in itself. The first option could be managed by giving political incentives to both sides to reunite or resume negotiations. In order to make it possible, the EU should support

the northern part of Cyprus and the Turkish community in order to cancel the differences of economic development and differences of EU citizenship “level” with the southern part of the island.

6.2 Conclusion

As shown above, if it is clear that the Eastern Mediterranean region holds a high potential in term of natural gas trade, the region’s latent turmoil is preventing its natural gas market to develop in an optimal way. All countries involved in the region have, at some point, shown willingness in appeasing their conflicts, however, none of these attempts have been successful. In facts, there is a lack of cooperation and of global vision from all the actors that are part of the Eastern Mediterranean natural gas industry. The region’s natural gas trade looks more like the sum of unilateral decisions and bilateral agreements all competing with each other. However, regional cooperation is a requirement to reach energy security as well as prosperity on the long-term. As seen through this paper, peaceful relationships between the actors of this new natural gas market is necessary in order for it to reach an optimal development. All countries should agree to make compromises to build a strong relationship with its neighbors. Indeed, stability won’t be reached if one part of the deal is feeling that its interests have not been heard and respected. Each part should get its fair share of benefits from the regional natural gas trade.

The EU, also through its projects and investments, has the potential to rekindle interests for solving conflicts in the region. However, the EU’s actions in this purpose are still too shy relatively to the extent of the issue.

The challenge is mostly diplomatic: It is to reinstitute a constructive dialogue between all states in the region. Also, it deals with giving enough incentives for the stabilization of the region by any means to be able to take full advantage of the natural gas discoveries as soon as possible.

Last but not least, along with the natural gas, it would be advisable for the region and for the EU to consider pushing the development of renewable energies. The Mediterranean climate is ideal to consider such a project, there is a high potential for solar energy for instance, ("Renewable Energy in the Mediterranean," 2011). The use

of renewable energies backed up with natural gas, in the region would allow it to enhance its economic development. It would also be interesting to observe if regional cooperation could be better reached through renewable energies. As a matter of fact, the accessibility of renewable energies would not fuel territorial disputes as much as hydrocarbon does. There is no such thing as “the renewable energy producer curse” yet. The renewable energy sector is booming and is highly attractive to investors. Furthermore, it would be beneficial on the long-term as it would be participating to the global efforts required to fight the climate change.



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