“Energy Hubs and Geopolitics: Investigation on a Greek Natural Gas Hub for the EU Energy Strategy”

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I hereby declare that the work submitted is mine and that where I have made use of another’s work, I have attributed the source(s) according to the Regulations set in the Student’s Handbook.

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ABSTRACT

This dissertation was written as part of the “MSc in Energy Law, Business, Regulation & Policy” at the International Hellenic University of Thessaloniki, Greece.

It examines the parameters that have to be taken into account for Greece to become a European energy hub for natural gas. The addition of the Eastern-Mediterranean pipeline to the existing Greek gas network will attain this goal. However, the significance of the project may destabilize the balance of power enjoyed until now by Greece’s neighbouring countries. Geopolitics will help us estimate the chances of consent for undisturbed construction, operation and exploitation of the project. The perspective benefits for all the involved countries, i.e. Greece, Cyprus, Israel and EU are definitely multiple. East-Med will enhance gas diversification for EU and help upgrade its energy role globally.

By the present note I would like to express my gratitude to Professor Sandro Furlan, whose valuable assistance, contribution and suggestions enabled me to write this thesis.

Keywords: energy hub, geopolitics, East-Med, Greece, energy security.

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PREFACE

Geopolitics is a methodology that allows us to define, analyze and understand the interactions between geography, demography, economics and international relations. It is a useful tool for every country to investigate its advantages and disadvantages against other countries, mostly neighbouring ones, i.e. to see its role in a wider framework of political and diplomatic actions or omissions.

In the Middle East the world is divided in strong and weak states that influence or endure the power of the stronger ones under retention of sovereignty. Energy resources are one cause for this distinction between producer countries and the ones that need energy supplies. This dependence usually creates international relations that are based on long – lasting balance of power that hardly changes. Energy abundance or scarcity has played the role of a modern armor that accordingly discriminates states in strong (producer) and weak ones (those who luck energy resources).

New reserves of natural gas have been found in the off-shore area of Israel which wishes to be connected with EU through the Eastern – Mediterranean (East-Med) pipeline to supply it with natural gas. The route of the project will pass through Cyprus and Greece. Given the fact that Greece is financially dependent from external lending, it surely wants to strengthen its significance and power towards its European partners by providing them the energy security that they need. Does geopolitics favour this connection? What does the EU energy policy foresees regarding this project? Does Greece meet the preconditions for becoming an energy hub of natural gas for the European Union? Is there an alternative transmission route to the original course of the East-Med? What is the role of Turkey? Will it implicitly provide its consent or will it set preconditions to the construction of the project?
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I.- INTRODUCTION

The present study envisages in examining how feasible is the construction of the Eastern – Mediterranean (East-Med) pipeline which will bring natural gas from the reserves of the Levantine Basin (Israel) to the Cypriot and afterwards Greek National Natural Gas System (NNGS), and finally to Italy and other South East European countries\(^1\). The realization of East – Med in combination with other projects already in function or drafted is studies of the EU as PCIs, will turn Greece into a transit energy hub of significant importance for the energy efficiency of the EU in the eastern Mediterranean.

However, there are deep asymmetric threats regarding the deep economic recession which ravages the country since 2009, forcing it to ask for huge external financing in order to survive insolvency proceedings and an exit from the European Zone. Moreover, tax evasion hinders investors’ interest weakening Greece’s position in relation to its neighbours, who attract the interest of big exploration companies that compete against each other for finding and exploiting natural resources in eastern Mediterranean.

East – Med’s construction and unobstructed operation definitely requires adjacent countries’ consent, such as Turkey and Russia, as the balance of power in the region will eventually change in favour of Greece and Cyprus. Historically, both the latter retain a fragile relationship with Turkey which at times culminates into becoming unabatedly hostile even until today. Additionally, the level of political and economic relations of Russia with Greece and Cyprus must be investigated, particularly after Russia’s long-lasting turmoil with both EU and Turkey. Furthermore, Israel for its own geopolitical reasons needs to remain a valuable partner for EU in eastern Mediterranean and maintain cooperation with it in as much as possible different fields.

There are also strong emerging gas supplier countries, such as Iran, that pursue EU's collaboration for trading their own natural gas.

The analysis of all the above issues requires constant briefing, as bilateral and international relations are a live organism that keeps changing constantly.

\(^1\) [http://www.igi-Poseidon.com/en/eastmed](http://www.igi-Poseidon.com/en/eastmed)
II.- BRIEF INTRODUCTION ON GREECE

Greece is located at the south east extreme of the European Union, at the crossroads of Europe, Asia and Africa. It is one of the geostrategic junctions of Eurasia, the “World Island” according to the “Theory of Heartland” of Halford Mackinder. It is the European connecting point between the east and the west, the north and the south. Its location transformed it into a bridge for transnational sea commerce and favoured the development of one of the most powerful merchant fleets of the world. It belongs to Eurasia which consists of strong civilizations, fundamental religions, abundant energy resources and powerful industries of Europe, Russia, China, Japan and Korea. Its geostrategic value has been the cause of foreign territorial claims since ancient times and moreover the reason for financing it from Troika (later renamed as “Institutions”) in order to exclude a possibility of a Grexit.

Geographically it consists of long mountainous volumes, long coastline of 13,676 km in length, large peninsulas and numerous islands in the Aegean and the Ionian seas. This geomorphology allows it to be protected from the north from possible external intrusions whereas its seas grant it the advantage to stay connected with Asian and African countries. Geography offers Greece mild climate conditions where survival for people has been easy and thus, has favoured civilization to grow and develop. Greeks easily naturalized in mainland and island geomorphology and adopted an open minded view towards mankind and the best possible political and social conditions for organizing its life.

Greece’s political mentality and democratic principles inevitably led the county to join in the European Community in 1979 and later the EU. Its national believes are

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2 https://en.wikipedia.org/wiki/Greece
3 Greece’s geostrategic importance for NATO is established through the US and NATO military bases to refuel their operations in the Middle East; retrieved from: http://www.atlanticcouncil.org/blogs/natosource/the-geostrategic-value-of-greece-and-sweden-in-the-current-struggle-between-russia-and-nato
4 The European Commission, the European Central Bank and the International Monetary Fund
5 Ibid 2
7 They have been strongly emphasized by the American President Obama during his two day trip in Greece in November 15-16, 2016
8 The act of accession was ratified by the Greek Parliament in 28-6-1979 and began its enforcement in 11-1-1981.
thoroughly aligned with the objectives of the European Union as stated in the treaties of the Union. Greece transposes primary and secondary European law into national legal order. In this framework it has also adopted the EU energy policy as stated in the articles of the Treaty on the Functioning of the EU (TFEU) for the security of supply (Article 122 TFEU), energy networks (Article 170-172 TFEU), the internal energy market (Article 114 TFEU) and the external energy policy (Articles 216-218 TFEU). Specifically, it has introduced the Regulations and Directives concerning the liberalization of the energy market that was stated by three Energy Packages regarding electricity, natural gas and renewable energy sources. From the Third Energy Package, Directives 2009/72/EC and 2009/73/EC were introduced to the Greek legislation by Law 4001/2011 (in force from 22-8-2011), whereas Regulations (EC) 713/2009, 714/2009 and 715/2009 apply directly. Finally, the National Regulatory Authority was established by Law 2773/1999 in compliance to Directives 2003/54/EC and 2003/55/EC.

Since 2009 Greece suffers an economic crisis which forced it to sign three loan agreements (memorandums for the support of the economy) for heavy financing of approximately 280 euro coming from the European Commission, the European Central Bank and the International Monetary Fund. Huge public and private sector indebtedness, overinvestment in housing and overconsumption are indicatively a few of the factors that led Greek economy to a collapse. The economy shrank by a quarter in five years, severe austerity measures and excessive taxation was imposed upon taxpayers, employees and pensioners were harshly attacked by cut down wages and pensions, which reduced consumption power for the wide majority of the population. The shrinking of both wholesale and retail market along with the limited access to bank financing did not allow small and medium size enterprises (mostly in commerce and construction sector) to cover fixed operating expenses and taxes. During the last seven years 229.000 enterprises closed producing unemployment for

10 http://www.rae.gr/site/categories_new/about_rae/intro.csp
11 Which were voted by the Greek Parliament in May 6, 2010, February 2, 2012 and August 14, 2015
12 http://www.kathimerini.gr/824685/article/oikonomia/epixeirhseis/se-mia-eptaetia-ekleisan-229000-
mikres-kai-mesaias-epixeirhseis-sthn-ellada
14 Up to 50 employees
15 Up to 250 employees
700,000 people\textsuperscript{16} affecting gradually but severely the social structure of the society by merely extinguishing the middle class. Excessive taxation and deregulation of the economy continue until today to create a toxic economic environment as new tax laws are constantly introduced discouraging domestic entrepreneurs and foreign investors to create business opportunities in Greece. For once more in the history of the country economic immigration abroad has been a social phenomenon of mainly young and middle aged work force in search of a better life.

Finally, Greece has 11.3 million inhabitants\textsuperscript{17} most of whom live in two major cities, Athens and Thessaloniki. According to recent demographic statistics its population is aging due to limited birth rate\textsuperscript{18} stressing even more state economy by higher public expenditure for the health system. The demographic problem is causally linked with the economic crisis, salary reduction, and over-taxation. The latter in conjunction with huge unemployment and economic immigration create pessimistic perspectives for future financial recovery. In any situation, Greece has officially declared and her creditors have largely acknowledged that the country's debt is not sustainable.

III.- EVOLUTION OF NATURAL GAS SECTOR AT EUROPEAN LEVEL –
EUROPEAN ENERGY SECURITY STRATEGY

A) Historically, after the construction through vertically integrated monopolistic companies, of the primary national energy networks that served energy supply and demand within national borders in Western Europe, United States, Canada etc. and the turbulent international situation that was created in 1970s with the Yom Kippur War and the Iranian Revolution which caused long fluctuations in oil supplies coming from the traditional producer countries of the Middle East, it became clear that

\textsuperscript{16} Ibid 12


\textsuperscript{18} http://www.iefimerida.gr/news/134124/new-york-times-%CF%84%CE%B5%CF%81%CE%AC%CF%83 %CF%84%CE%B9%CE%BF-%CF%84%CE%BF-%CE%B4%CE%B7%CE%BC%CE%BF%CE%B3%CF%81%CE% B1%CF%86%CE%B9%CE%BA%CF%8C-%CF%80%CF%B1%CF%8C%CE%B2%CE%B8%CE%B7%CE%BC%CE %B1-%CF%B3%CF%84%CE%BD-%CE%B5%CE%B8%CE%AC%CE%B4%CE%B1-%CF%83 %CE%B5-%CE%B9%CE%AF%CE%B3%CE%B1-%CF%87%CF%81%CF%8C%CE%BD%CE%B9%CE%B1-%CE %AF%CF%B3%CF%89%CF%82-%CE%BD%CE%B1-%CE%BC%CE%B7%CE%BD-%CE%B5
security of supply was the most significant factor for the operation of countries’ economies worldwide, which became more vulnerable to interruptions of energy supplies for the production of electricity. Very soon along with oil and coal, natural gas was categorized as a basic source for the production of electricity, heating and transportation.

At European level after both the first and the second World Wars a huge reconstruction period followed turning Europe into a global player that needed to retain its decisive role on the world chessboard. After the two oil crises of 1973-1974 and 1978-1979 and their multilevel effects on global demand and supply of oil, as well as due to the OPEC’s decision to cut oil production and increase market prices, Europe realized that maintaining a secure energy system was an issue of international dimensions as it was dependent on external suppliers. Therefore, it chose to reduce its oil dependency. Diversifying its energy resources and expanding its infrastructure towards abundant reserves of fossil-fuels became an end in itself. This strategy led causally to the option of natural gas, whose resources could be easily found in the adjacent Algeria, Norway and Russia that transported gas to the heart of Europe through off-shore and on-shore pipelines and long-term contracts of bound capacity.

Additionally to the traditional (merely national) transportation system of natural gas, LNG terminals, re-gasification and storage facilities were introduced to the European gas network and reinforced it. The EU adopted a clear “gas first strategy” perspective on the basis of which the need for new gas infrastructure was promoted through funding coming from the Future European Fund for Strategic Investments.

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21 Gas supplies to EU in 2006 accounted for 42% for Russia, 27% for Norway and 18% for Algeria. According to future forecasts for the year 2030 these figures are estimated to be 29% for Russia, 16% for Algeria and 15% for Norway; Ghiles Francis, “Algeria: A Strategic Gas Partner for Europe”, 19-2- 2009, retrieved from http://www.ensec.org/index.php?option=com_content&view=article&id=176: algeria-a-strategic-gas-partner-for-europe&catid=92:issuecontent&Itemid=341
23 According to Gas Infrastructure European data, around the whole Europe, there are 203 LNG operational terminals, 23 under construction and 146 planned; Pr. Furlan Sandro, “Energy Union and LNG Strategy” slides from the course “Energy, Transport & Storage”, of the Master “MSc in Energy Law, Business, Regulation and Policy”, International Hellenic University
(EFSI), as well as from European financial institutions. In order to set the legal basis of expanding natural gas networks outside national borders to be interconnected and transformed into a European transnational gas network that could better cover increasing demand caused both by rapid economic and demographic growth, the European Parliament and the Council established Regulation (EU) 994/2010 concerning measures to safeguard security of gas supply that repealed the former Council Directive 2004/67/ec. This legislation was enacted in the framework of the EU energy policies for the provision of secure energy supplies.

New infrastructure projects increased energy security and diversity for EU that soon became the world’s second largest consumer of natural gas with a share of 16.3% which in 2011 was equivalent of 50% imports. Although economic recession and switch to renewable energy sources for the production of electricity led to a declining trend of gas consumption since 2009, reaching the lower levels of 1995, EU future consumption is expected to range from 472bcm to 652bcm by 2030 according to the European Commission’s demand scenario, as EU is a fast growing economy whose needs demand further energy consumption to be satisfied.

Initially, the operation of the gas market was based on traditional long-term contracts. However, reduced consumption created a surplus of gas capacity that was channeled by suppliers and traded in gas hubs. Competition favoured increased participation of energy players in these transactions that in its own turn led to a renegotiation (regarding the longitude and the prices) of long-term gas contracts and the gradual decoupling of gas prices from the oil ones. Nonetheless, decoupling was limited to a certain percentage, leaving space for a further future decline in contract gas prices from the oil-based price dependence. All these factors ended in gas producers becoming gradually isolated from the liberalized functioning of the gas

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25 Ibid 24, p. 13
26 https://ec.europa.eu/energy/en/topics/energy-strategy
28 Taylor Pamela, Clifton Suzanne “EU Gas Market Liberalization”; retrieved from: www.fticonsulting.com
market between suppliers and distributors, whose increased trade raised the need for new infrastructure. However, producers cannot afford to make capital intense investments due to decreased revenues. Divergent trends emerged, i.e. demand for more gas increased, prices dropped and infrastructure became more expensive for producers. Additionally to the above, the recent political instability in EU relations with Russia after the Ukrainian crisis of 2009 threatened the flow of gas supplies to Europe and spread again significant uncertainty in the Community about the level of future EU gas demand and the possibility of satisfying it. The issue of energy security, namely, the unstoppable, reliable, safe and accessible supply at affordable prices in a competitive environment for suppliers’ operation, became imminent.

In order to respond to the crisis the EU opted for expanding imports of European gas apart from Norway, North Africa and Russia, to other producer countries from which gas in huge quantities can be easily transmitted to the existing market.

B) To better serve the European Energy Security Strategy and energy policy objectives, namely to increase competitiveness, reinforce security of supply, protect the environment, and safeguard each Member-State’s access to gas, the European Commission conducted studies for new pipelines to be connected with the already operating EU gas network. The role of Trans European Energy Networks was reviewed and considered integral for the overall development of the EU network. Moreover, the Energy Union was established to further serve a gas integrated market in order to include the import of supplies from new resources for even more diversification. Investments of 126 billion euro were approved for the construction of new infrastructure of gas pipelines and LNG terminals connecting EU to Middle

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32 Ibid 30, p. 4
34 Ibid 26
35 Ibid 30, p. 15
38 Ibid 26
39 Ibid 30, p. 7
East⁴⁰, as well as storage facilities, liquefaction and gasification terminals. Regulation 347/2013 of the European Parliament and the Council (the “new TEN-E Regulation) on guidelines for trans-European energy infrastructure⁴¹ set rules to mobilize joint cooperation of both national TSOs and European organs⁴² for the implementation of 12 strategic trans-European energy infrastructure priorities⁴³ for the construction of Projects of Common Interest (PCIs) for the period up to 2020⁴⁴, each one of which may be comprised by several lines, pipelines, facilities, equipments or installations⁴⁵. Finally, the Union developed a list⁴⁶ of PCIs that met the criteria of being necessary for at least one of the energy infrastructure priority corridors and areas⁴⁷ that their potential benefits outweigh the costs⁴⁸ for their construction.

IV.- THE EASTERN-MEDITERRANEAN GAS PIPELINE

A) The Eastern-Mediterranean natural gas pipeline (known as “East-Med Pipeline” with the code number No 7.3.1.⁴⁹), has been included in the European Union’s updated⁵⁰ second⁵¹ list of Projects of Common Interest (PCIs)⁵² to guarantee the EU’s energy supply needs, to boost its diversification of energy resources and transport routes⁵³ and to help it achieve its goals for climate change and lower

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⁴⁰ Ibid 30, p. 7
⁴¹ OJ L 115, 25.4.2013, p.39, as applicable under REGULATION (EU) No 1391/2013
⁴² The Agency for the Cooperation of Energy Regulators (the “Agency”), the European Network of Transmission System Operators for Gas (ENTSO-G), and the European Commission
⁴³ Regulation 347/2013, preamble 20
⁴⁴ Regulation 1391/2013, preamble 1
⁴⁵ Regulation 347/2013, Article 2, par. 3
⁴⁶ According to Regulation 347/2013, preamble 24 “the Union list should be established every two years”
⁴⁷ According to Annex I, Regulation 347/2013, a priority gas corridor is the Southern Gas Corridor (SGC) which includes, inter alia, infrastructure for the transmission of gas from the Middle East and Eastern Mediterranean to the Union. Two of the Member States concerned are Cyprus and Greece
⁴⁸ Regulation 347/2013, Article 4, par. 1
⁵⁰ The EU adopted a list of 195 PCIs which is updated from the one adopted in October 2013; https://ec.europa.eu/energy/en/news/commission-unveils-list-195-key-energy-infrastructure-projects
⁵¹ “A direct link to new sources for Europe”; retrieved from http://www.igi-poseidon.com/en/eastmed
emission targets\textsuperscript{54}. Being a PCI, East-Med consists an integral part in the implementation of Regulation (EU) No 347/2013, as it meets the general criteria stated in Article 4 of the Regulation and is considered being a part\textsuperscript{55} of the Priority corridor Southern Gas Corridor (‘SGC’) of the EU. It pertains to the EU’s plan for the optimization of the European market of gas, and particularly to the projects that will link EU with its neighbouring countries, in the specific case Israel\textsuperscript{56}, for the strengthening of security and stability\textsuperscript{57} by creating ties of political cooperation and deep economic integration\textsuperscript{58}. It has also been included in the last Ten Years Development Plan (TYNDP)\textsuperscript{59}.

B) East-Med will be constructed in the Levantine Basin\textsuperscript{60} near the shores of Israel. Its delivery capacity to Europe will range from 8bcm to 14bcm per year\textsuperscript{61}. Gas will be extracted from the Leviathan field of 3-5Tcm explored natural gas\textsuperscript{62} in the southeastern part of the Mediterranean, and transported through 1.200 km offshore and 500 km on-shore pipelines to Cyprus (Vassilikos), Crete and from Greece (it will be imported in Peloponnese\textsuperscript{63} and transported to the northwestern District of Epirus) to Italy\textsuperscript{64} through the IGI Poseidon pipeline\textsuperscript{65}. According to the Pre-FEED (Front-End-Engineering Design) studies\textsuperscript{66, 67}, which are already completed by

\textsuperscript{54} The EU is committed to reduce the greenhouse gas emissions for a rate of 80-95% at the levels of 1990 until 2050; “Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions”, Brussels, 15.12.2011 COM (2011) 885 final, p. 2
\textsuperscript{56} Israel belongs to the European Neighbourhood Policy (ENP)
\textsuperscript{57} http://ec.europa.eu/economy_finance/international/neighbourhood_policy/index_en.htm
\textsuperscript{59} http://www.igi-poseidon.com/en/eastmed
\textsuperscript{60} The Levantine Sea is bordered by Turkey in the north, Syria, Lebanon, Israel and the Gaza Strip in the east, Egypt and Libya in the south, and the Aegean Sea in the northwest: retrieved from https://en.wikipedia.org/wiki/Libyan_Sea.
\textsuperscript{61} http://www.depa.gr/index3.php/content/article/002005008/552.html
\textsuperscript{62} http://www.igi-poseidon.com/
\textsuperscript{63} However alternative routes have also been proposed. For further details please see: http://drrichswier.com/2016/01/29/greece-cyprus-and-israel-to-build-eastern-mediterranean-gas-pipeline/
\textsuperscript{64} “EU looking towards East Med gas reserves” retrieved April 25, 2016 from Newswire
\textsuperscript{65} IGI Poseidon pipeline will be 207 km long, with a capacity of 14-20bcm per year and the possibility of reverse flow. In June 9, 2016 a Cooperation Agreement was signed between US Noble Energy International Ltd and IGI Poseidon S.A for its construction
\textsuperscript{66} Namely the Technical Feasibility Studies, the Reconnaissance Marine Survey, the Economic, Financial and Competitiveness Studies; retrieved from: https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/7.3.1-0025-elcy-s-m-15
\textsuperscript{67} According to DEPA, in May 11, 2015 the IGI Poseidon S.A. assigned a consortium of major engineering companies (IntecSea and C&M Engineering) to conduct the technical studies Pre-FEED
IntecSea, C & M Engineering and HIS-CERA\textsuperscript{68}, despite the main challenges of the project, namely the long length and the deep water\textsuperscript{69}, East-Med is technically feasible\textsuperscript{70},\textsuperscript{71} and economically viable\textsuperscript{72}. Financially, it will be supported by the EU through the Connect Europe Facility (CEF) co-financing programme\textsuperscript{73} which has already granted 2 million euro (the 50\%) for the studies’ cost. The project construction cost is estimated to be over 20 billion USD\textsuperscript{74}. The pipeline is expected to be fully operational in 2020\textsuperscript{75} despite the initial estimation for delivery in December 2017\textsuperscript{76}.

\textsuperscript{68}http://www.igi-poseidon.com/en/media/main-outcomes-seminar-%E2%80%9Cstrategic-value-eastern-mediterranean-gas-resources-and-eastmed
\textsuperscript{70}The Greek Public Gas Company (DEPA) reached the same conclusion in the studies it conducted in 2011-2012
\textsuperscript{71}Similar pipelines will be built up in the Mediterranean. Edison will build up GALSI pipeline to connect Algeria to Sardinia and then to Italy (Piombino) and carry out 8bcm of natural gas per year. Galsi will be the deepest underwater pipeline. Another comparable pipeline is the Medgaz that has been constructed by company Medgaz to connect through deepwater of 2,160 meters from Algeria to Spain and transport 8bcm of natural gas per year. Both the prior mentioned projects were characterized of their strategic importance for the safe supply of Europe and comprised gas hubs in Italy and Spain respectively.
\textsuperscript{72}Ibid 51
\textsuperscript{73}http://www.igi-poseidon.com/en/media/igi-poseidon-and-noble-sign-cooperation-agreement-relation-finalization-pre-feed-activities
\textsuperscript{74}Ibid 63
\textsuperscript{75}http://www.depa.gr/index3.php/content/article/002005008/552.html
\textsuperscript{76}Eastern Mediterranean Natural Gas Pipeline-Pre-FEED Studies, European Commission
C) The project is strongly promoted from all the involved parties, namely the European Union, Greece, Cyprus, Israel and Italy, as the benefits of the project will be a reliable connection with the European market, diversification of gas supplies, and furthermore economic development from the incoming revenues for the involved countries. Confirmation has been repetitively renewed on the highest political level.

V.- THE GREEK ENERGY GAS PROFILE

At the end of the 1980s Greece intensified legislative reformation for the establishment of the proper legal framework regarding energy institutions and organs in order to comply with European energy rules. It adopted a natural gas perspective to diversify its energy resources and reduce pollution coming from oil and coal.

In 1988 the Greek Public Gas Company (DEPA), a state majority company, was founded to execute and manage the Bilateral Agreement for the supply of Greece with natural gas from the Soviet Union\(^77\). In 1999 the National Regulatory Authority (NRA/RAE in Greek) for energy was founded (Law 2773/1999) as an independent authority with the competence to monitor the national energy market, propose to the State the proper measures for the operation and the liberalization of electricity and natural gas markets, etc\(^78\). Law 4001/2011 upgraded the role of NRA (RAE) by granting it a distinct legal personality and financial autonomy\(^79\), transposed into national legislation the Third Energy Package Directives of electricity and natural gas and liberalized the market from the monopoly regime to the competition market conditions\(^80\). However there is still more liberalization to be done on the Greek energy markets.

During the 1990s Greece was connected to the European gas-grid\(^81\). The National Natural Gas System (NNGS)/ESFA in Greek) consists of 512 km on-shore high

\(^{77}\) [http://www.depa.gr/content/article/002001008/64.html](http://www.depa.gr/content/article/002001008/64.html)

\(^{78}\) [http://www.rae.gr/site/categories_new/about_rae/intro.csp](http://www.rae.gr/site/categories_new/about_rae/intro.csp)


\(^{80}\) Panagos C. Theodore, “Handbook of Energy Law”, International Hellenic University, Thessaloniki 2015, p. 40, par. 159

\(^{81}\) Ibid 22, p. 8
pressure (36” and 30” diameter\textsuperscript{82}) pipelines, plus 947 km of transmission branches of medium and low pressure that transport gas from the Greek-Bulgarian (TSO BULGARTRANSGAZ) and Greek-Turkish (TSO BOTAS) borders to consumers\textsuperscript{83}. ESFA has 3 entry stations for natural gas. The first entry point of 3.6 bcm technical capacity is located in Promachonas village (Sidirokastro, District of Central Macedonia) where gas coming from Russia is transposed to ESFA through the Bulgarian NNGS; the second is located in Agia Triada (Megara gulf\textsuperscript{84}, District of Athens) where LNG coming from Algeria is regasified and inserted from Revithoussa island through off-shore pipelines; and the third of 1 bcm technical capacity, is situated at Kipi (Alexandroupolis, District of West Thrace) where gas is imported from the Turkish NNGS coming from the Middle East and the Caspian region\textsuperscript{85}. ESFA has 41 exit points that connect the main backbone pipeline with Distribution Networks in the regions of Attica, Magnisia, Central and Eastern Macedonia and Thrace. Apart from the pipelines, ESFA comprises of metering, compression and regulating stations and other complementary infrastructure. The Hellenic Gas Transmission System Operator (DESFA in Greek)\textsuperscript{86} is responsible for the Greek NNGS (ESFA) operation, expansion, maintenance etc.

DEPA dominates the market\textsuperscript{87} and supplies ESFA with natural gas\textsuperscript{88} from Russia (54%) through the Trans-Balkan pipeline\textsuperscript{89}, Turkey (17%) through the Greek-Turkish Interconnector\textsuperscript{90} and Algeria (20%)\textsuperscript{91} through long-term contracts and spot LNG purchases\textsuperscript{92}. Greece depends exclusively on gas imports to cover its gas needs; this fact renders the whole gas system dependent on unpredictable external factors that can cause its collapse should a crisis break up\textsuperscript{93}. Diversification for LNG has been achieved to the level that DEPA has signed agreements with ENI, BP, Shell and also a
Memorandum of Understanding (MoU) with Qatar\textsuperscript{94}. According to 2012 EU’s statistics for Greece, in 2012 gas consumption reached 14.1\%\textsuperscript{95} from the overall 27.04Mt\oe of domestic consumption, namely 3,7856Mt\oe, showing a decrease of 2.9\% compared to 2011\textsuperscript{96}. From this amount a percentage of 23.5\% was used for the production of electricity.

Natural gas has gained Greek consumers’ confidence for its economic fees and its better heating performance in comparison to oil. Since May 2011 new suppliers and large consumers entered the gas market\textsuperscript{97} and competition conditions developed. Natural gas is used for power generation 64\%, industry 22\%, residential 9\%, services and transport 5\%\textsuperscript{98}. Finally, DESFA forecasts that demand will increase in the future reaching 6.6bcm in 2019, mostly for electricity generation\textsuperscript{99}.

\section*{VI.- THE NATIONAL NATURAL GAS SYSTEM (NNGS)}

Nowadays Greece has a significant network of gas transmission, mostly located at the northern part of the country (Macedonia and Thrace), which is indicatively composed of:

a) The Trans-Adriatic Pipeline (TAP) which gained the consent all of the involved parties. Russia approved TAP for having low capacity (10 to maximum 20bcm) and will be able to cover a limited percentage of European gas needs (7 million households) that in 2014 amounted to 500bcm\textsuperscript{100}, in comparison to the Nabucco pipeline (31 bcm) which was strongly promoted by the US\textsuperscript{101} to reduce EU dependency on Russian gas. TAP will transport gas from the Shah Deniz 2 off-shore gas field in Azerbaijan that through Turkey and the Trans-Anatolian gas pipeline (TANAP) will be imported to Greece and transported to Italy via Albania and the Adriatic Sea\textsuperscript{102}. TAP is the European leg of the Southern Gas Corridor; it is 878km long and comprises of a 48 inches on-shore and a 36 inches off-shore width. Its construction was inaugurated by the Greek government in May 17, 2016. It is

\begin{thebibliography}{99}
\bibitem{94} Ibid 79, p. 72
\bibitem{96} Ibid 95
\bibitem{97} Ibid 79, p. 10
\bibitem{98} Ibid 79, p. 71
\bibitem{99} Ibid 79, p. 71
\bibitem{100} Ibid 89
\bibitem{101} Ibid 89
\bibitem{102} https://vimeo.com/158329267
\end{thebibliography}
expected to be fully operational at the beginning of 2020.

b) The Gas Interconnector Greece-Bulgaria (IGB pipeline) will provide a direct link\textsuperscript{103} between the national grid of Greece and Bulgaria\textsuperscript{104}; it will be 180 km long and transport annually about 3bcm\textsuperscript{105} natural gas from Greece to Bulgaria with the potential to reach 5bcm per year. It will be further upgraded to offer physical and commercial reverse flow\textsuperscript{106}. Being a Project of Common Interest it will be financed with 45 million euro from the European Energy Program for Recovery (EEPR), whereas the rest of the investment will be covered by the shareholders in “ICGB AD” consisting of Bulgarian Energy Holding EAD with 50% and IGI Poseidon with 50%\textsuperscript{107}. The pipeline is strongly promoted by both countries\textsuperscript{108}. Its estimated cost will be 250 million euro\textsuperscript{109} and it is expected to be commercially operational by 2018\textsuperscript{110}.

c) The Independent Natural Gas System (INGS) of Alexandroupolis is an off-shore permanent floating unit of four LNG storage tanks\textsuperscript{111} for the reception and regasification of LNG\textsuperscript{112} that connects with the on-shore Greek National Natural Gas System (NNGS) importing 6.1 billion cubic metres per year; it also has storage capacity of 170.000 cubic metres of LNG\textsuperscript{113} and its maximum regasification capacity reaches to 700.00 nm\textsuperscript{3}/h\textsuperscript{114}. The whole project will also consist of subsea and onshore pipeline, metering and regulating station\textsuperscript{115} to be constructed by a joint venture scheme comprised by the Greek National Enterprise of Supply of Gas, the American Cheniere Energy and GASTRADE S.A.\textsuperscript{116}; the project will transport American liquefied shale gas into the Bulgarian market through the Gas Interconnector Greece-Bulgaria (IGB) pipeline, and consequently in the trans-European gas networks.

d) An LNG terminal located in Revithoussa Island located in the south sea area

\textsuperscript{103} http://www.icgb.eu/about/igb_project
\textsuperscript{104} Ibid 89
\textsuperscript{105} http://www.igi-poseidon.com/en/igb
\textsuperscript{106} Ibid 105
\textsuperscript{107} http://www.icgb.eu/final-investment-decision
\textsuperscript{108} http://www.icgb.eu/about/igb_project
\textsuperscript{109} Ibid 103
\textsuperscript{110} http://www.icgb.eu/about/shareholders
\textsuperscript{112} http://www.gastrade.gr/en
\textsuperscript{113} http://www.gastrade.gr/en/the-company/the-project.aspx
\textsuperscript{116} Which received a license by the 29/25-7-2011decision of the Greek National Regulatory Authority (NRA); http://www.gastrade.gr/en/the-company/Scope-and-Objectives.aspx
of Athens that was completed in 1999 and became operational in February 2000. It consists of two already functioning storage reservoirs of total capacity 130,000 cm to be expanded by a third reservoir to 225 cm; it has also unloading and gasification installations. Liquefied natural gas coming from Algeria is inserted through two underwater pipelines, each one a back-up of the other, of 24” diameter each and of 620 metres and 510 metres length, that connect the Revythoussa LNG Station through the mainland on-shore pipeline to the national gas grid (NNGS/ESFA) in the Pachi Gulf of Megara. The Greek National Authority of the Supply of Gas (DEPA) has already held discussions with the US Cheniere for the transportation of American LNG to Revythoussa.

e) According to the latest September 8-9, 2016 document of the high level meeting group on Central and South-Eastern European Gas Connectivity there is a plan for an additional LNG terminal in Northern Greece at the city of Kavala.

Finally, early in 2015 the Greek government made conducts with Russian president V. Putin to achieve an extension of the “Turkish Stream” pipeline that is designed to have capacity of 64bcm of natural gas, the 16bcm of which will be retained from Turkey. “Turkish Stream” will transport Russian gas from Krasnodar through the Black Sea to the shores of Turkey, and then to FYROM, Serbia and Europe where it will be connected with “Tesla” pipeline. In October 2016 presidents Putin and Erdogan signed in Istanbul a construction agreement during the World Energy Congress. Greece aspires for a 450 km diversion of the pipeline that will traverse through the northern Greek Macedonia (the “Greek Stream”) before it is connected with Tesla in Hungary.

118 Ibid 82, p. 4
119 Ibid 82, p. 4
120 http://whesoe.co.uk/experience/lng-tanks/revithoussa-expansion-project-greece/
124 Ibid 89
125 Maceas Bruno, “New Putin-Erdogan meeting paves the way for big changes”, October 13, 2016, retrieved from: http://www.russia-direct.org/opinion/new-putin-erdogan-meeting-paves-way-big-changes
Greek National Natural Gas Pipeline System – Geophysical Map

http://www.desfa.gr/?page_id=3278&lang=en
VII.- GREECE AS AN ENERGY HUB – BENEFITS FOR: THE EUROPEAN UNION, GREECE, CYPRUS & ISRAEL

A) BENEFITS FOR THE EUROPEAN UNION

East-Med will help EU diversify its energy sources, achieve energy security of gas flow, make climate-change goals attainable, and reduce dependence from Russia. The imported gas will enhance market competition among engaged players.

Last but not least, East-Med will provide natural gas to consumers in affordable prices, as transmission of gas through pipelines is cheaper in relation to LNG purchasing costs which consist of fuel cost, harbor fees, insurance charges etc.¹²⁸

B) BENEFITS FOR GREECE

The specific project will favour Greece in the following multiple ways:

a) It will create a gas hub in the north east Peloponnese (District of Korinthos), where in the adjacent village Spathovouni there is currently a (DESFA) gas operation and maintenance centre¹²⁹ which is connected with a 58 km of 30” and a 156 km of 24” diameter high pressure pipelines of the Greek NNGS. The centre consists of various supplementary infrastructures for normalizing the transmission of gas to consumers¹³⁰.

b) The overall impact of abundance of gas will cause chain reactions pursuant to the Greek gas market rules. Competition will increase, more players will enter the market to trade, more investments for infrastructure will be attracted, and direct or indirect employment will be created for approximately 2.000 people (engineers, technicians, workers)¹³¹ during the construction and the operation of the pipeline. New, supplementary to the backbone pipeline, projects will be constructed to interconnect to the on-shore parts of East-Med more towns of the provinces of Peloponnese, Sterea Ellada and Epirus, namely the west side of the country, which until today has no access to gas networks. These projects will bring more commercial activity to these areas and enhance their economies.

c) Revenue coming from access fees to the national gas network (NNGS), from fees for the transportation of gas to Italian and European markets, as well as from

¹²⁸ Zajdler Robert, “The importance of LNG transport costs”; retrieved from https://www.linkedin.com/pulse/importance-lng-transport-costs-robert-zajdler-ph-d-
¹²⁹ http://www.desfa.gr/?page_id=3278&lang=en
¹³⁰ Retrieved from Greek Sunday newspaper “Ethnos”, August 3, 2014
¹³¹ Ibid 130
taxes, will influx the national treasury. Increased competition among suppliers will also
benefit consumers who will enjoy cheaper gas prices and help raise their standard of
living.

d) The position of Greece will be upgraded within its European partners on
geopolitical terms. The European Union will enhance its interest in peace and stability in
the south-eastern Mediterranean. It is essential for example that Greece and EU
cooperate politically and diplomatically to draw a security strategy in order to defend
European borders against Turkish volatile stance towards relations of good
neighbouring. Stability and peace will further promote energy trade in the eastern
Mediterranean basin.

e) Greece is a member of the EU, United Nations, NATO, the Organization for
Economic Co-operation and Development etc. Simultaneously it is located between the
east and the west where trade and international relations have been tightened due to
globalization, and technological evolution which makes feasible the connection of
distant energy producer countries of the Middle East, such as Iran\textsuperscript{132} and Qatar\textsuperscript{133} with
the European Union.

East-Med is not just another pipeline for Greece; on the contrary it is one of the
most significant ones, as it will play a vital role for both the European Energy Strategy
realization and the European Neighborhood Policy (ENP), because it will enable the
interconnection of Europe with present and future gas reserves (of Israel, Cyprus and
Lebanon) that are found in Eastern Mediterranean\textsuperscript{134}.

Should East-Med be aided to the aforementioned Greek gas network, it will
enable Greece to become a producer of competition, security of supply and market
integration in the southern Europe and the Balkans, namely a significant regional gas
hub\textsuperscript{135} that will enhance the imported capacity of natural gas in the region and diversify
its energy sources, suppliers and routes. Furthermore, it will oblige Greece to improve
its foreign policy perspective into operating as a guarantor and a valuable ally of the

\textsuperscript{132} The Iran-Iraq-Syria pipeline to transport 110 cubic metres of natural gas per day to Europe; retrieved from: https://en.wikipedia.org/wiki/Iran-Iraq-Syria_pipeline

\textsuperscript{133} The Qatar-Turkey pipeline is designed to transport natural gas from Qatar via Saudi Arabian, Jordan, Syria (Al-Assad inhibits the realization of the project) and Turkey to Europe

\textsuperscript{134} Lagakos Alex and Tsakiridis Eryipidis, “East Med Pipeline: The “Game-Changer” Europe chooses to

nations and international oil and gas companies that want to combat terrorism from threatening the safety of, among others, pipeline networks constructed to transport energy to the west.

C) BENEFITS FOR CYPRUS

Cyprus needs to strengthen its political significance for the EU in order to mobilize its active interest in supporting a fair and equitable solution against Turkey’s territorial claims. Turkish illegal occupation of the northern part of the island remains an unresolved issue until today.

Moreover, Cyprus has suffered economic recession and it was forced to ask for external financing of 10 billion euro from the European Commission, the European Central Bank and the International Monetary Fund\(^\text{136}\), in exchange for various structural reforms. An Economic Adjustment Programme was agreed on March 2013 and despite the fact that Cyprus three years later (on March 2016) exited the Programme, it remains under a Post-Surveillance Programme until the repayment of the 75% of its financing\(^\text{137}\). Although economic growth and optimization of the banking sector’s operation have been significant, additional revenues from the exploitation of its natural resources (namely the Aphrodite offshore gas field located in the southern coast of Cyprus at the exploratory drilling block 12 in the country’s maritime Exclusive Economic Zone\(^\text{138}\)) and the transportation of natural gas through East-Med will further boost its trade and energy market.

East-Med will turn Cyprus into a gateway for the security of energy supplies for Europe and an anchor for more future flows of natural gas from eastern Mediterranean Basin.

D) BENEFITS FOR ISRAEL

East-Med reinforces Israel’s strategic importance for Cyprus, Greece and the European Union. An alliance between them is already an undisputed fact. The project has also attracted the attention of Turkey who seeks to resolve its old hostilities with Israel and conclude a construction agreement for a pipeline that will traverse its own

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\(^{137}\) Ibid 136

territory to end up to EU borders. Israel keeps political contacts on the highest official level with all the aforementioned countries, as well as with Egypt and Jordan\textsuperscript{139}.

Long-lasting conflicts with the east made Israel redirect its foreign policy in order to gain multiple collaboration of the west and armor its territorial integrity in case of external dangers coming from adjacent countries.

Additionally, unlike the past when Israel had a demographic problem of decreasing population that threatened to risk its future territorial integrity, due to Israeli - Palestinian conflict that kept producing human victims, during the last years there has been an annual population growth rate of 1.9%, according to 2015 statistics\textsuperscript{140}. This fact enforces Israeli government to fully exploit its energy resources in order to be able to cover national energy demand and to find new import markets to channel its gas production.

Greece, as well as Cyprus, have maintained a good relationship with Israel over the years on many grounds, such as military, tourism and real estate projects\textsuperscript{141}. In the future the three countries’ electricity grids will be connected by the “EuroAsia Interconnector” via a 1518km submarine power cable that EU has already characterized as a Project of Common Interest (PCI).

All the tree countries (Greece, Cyprus and Israel) promote East-Med through bilateral or multilateral communications. In January 2016, after a Trilateral Summit held in Nicosia, the Prime Ministries of Cyprus, Israel and Greece issued a joint Declaration by which they confirmed their strong support to the East-Med project for the export of eastern Mediterranean gas to continental Europe\textsuperscript{142}. Later on, the same determination was repeated in Athens, by the Greek and Israeli Defense Ministers, Panos Kammenos and Moshe Ya’alon, as well as by the Prime Ministers of the two countries in Jerusalem\textsuperscript{143}.

\textsuperscript{139} http://www.bbc.com/news/world-europe-37692753
\textsuperscript{140} https://en.wikipedia.org/wiki/Demographics_of_Israel
\textsuperscript{141} “Cyprus-Israel relations”; retrieved from: https://en.wikipedia.org/wiki/Cyprus%E2%80%93Israel_relations
\textsuperscript{142} Ibid 51
\textsuperscript{143} http://www.linkedin.com/pulse/israel-greece-cyprus-alliance-new-mideasteastmed-game-ari-rusila
VIII.- CHALLENGES TO BE ADDRESSED

Greece is at the heart of rapid evolutions that take place in the Middle East during the last years and threaten peace, stability and even the geomorphology of existing states. The need for more access to energy resources and the finding of huge reserves in the region have intrigued tensions between states that either belong to the ones who have the luck to own the reserves, for example Syria\(^\text{144}\) or to those who desperately need access to them. This is the reason for reconsidering and re-establishing bilateral or multilateral relations among traditional enemies\(^\text{145}\) to form otherwise unthinkable alliances in exchange of mutual withdrawals of power.

Religion has also become a factor of either diversification from the west or reunification among Muslim countries, such as Turkey and Iran\(^\text{146}\) which, as arising middle-class countries\(^\text{147}\), want to demonstrate their power to the powerful west world. Religion is the cause and the motive to express dissatisfaction, rejection and disappointment for western rules, ethics, way of living and formulating societies, in which distinction between good and evil is loosened by allegedly civilized manners that repeatedly disqualify any notion of respect towards traditional values. Thus, Muslims feel confused, isolated, weak and unable to assimilate into the western societies, mostly because they are literally rejected. In the Muslim conscience religion becomes a reference point and turns into a weapon that distinguishes the believers from the atheists. It ends up being the reason to eradicate Muslims to change their fate and the course of the world. Punishment for the atheists comes through terrorist attacks that have caused hundreds of human casualties in European countries, Turkey etc.

In addition to the above, radical conflicts from Muslim brotherhood, organized crime, trafficking in arms and drugs\(^\text{148}\) and the ongoing devastating war in Syria have caused movements of large amounts of immigrants to safer territories, such as Turkey, Greece and other EU countries.

\(^{144}\) According to the Oil& Gas Journal estimate Syria possessed 2.5 billion barrels of crude oil as of January 2013; retrieved from: http://www.ibtimes.com/syrian-oil-gas-little-known-facts-syrias-energy-resources-russias-help-1402405

\(^{145}\) Israel and Turkey have been trying to re-establish a trade relation concerning natural gas due to the immense reserves found in the off-shore area of Israel


\(^{147}\) Ibid 146

All these challenges formulate an extremely dangerous and fragile blend whose political and diplomatic mismanagement could provoke a serious of events with unprecedented outcomes.

IX.- GEOPOLITIC GAMBLING – GEOSTRATEGIC DECISIONS

In order to consider whether East-Med will challenge the existing balance of power in the eastern Mediterranean, we have to estimate each country’s special geopolitical gravity and in particular its international relations with Greece.

Should East-Med be constructed, Greece’s role will be upgraded to a valuable for EU regional transit energy hub that will diminish Turkey’s primary energy role as energy hub in the region, and downsize its prospective importance to be able to guarantee security of supply for Europe and the Balkans. In the long run this situation will alter the balance of power between traditional rivals, i.e. the Turkish and the Greek side (namely Greece and Cyprus). Until today Turkey has shown a rather authoritative stance in the evolutions that happen in the region, which often escalates to its military presence over the Aegean and against Greece, who keeps a low political and diplomatic profile to maintain a measure of peaceful co-existence with its neighbour. As long as Turkey is detained to complete isolation from the decision making field as regards the construction of East-Med, it is clearly predictable that it will not grant its consent freely and without asking a share of the benefits in exchange; otherwise, it will reject the project as completely unthinkable.

Historically Greece and Turkey have maintained a turbulent relationship which ranged from mutual hostility\textsuperscript{149} to (temporal) reconciliation\textsuperscript{150}, as none of the two has ever really accepted the autonomous existence of the other, mostly, on the waterside of the Aegean Sea. The geomorphology of the region around the Aegean Sea, since ancient times, has been extremely significant for economic prosperity and reign upon dependent regions from the north (Russia) that needed access to the Mediterranean, as well as from the east (Asia) and south (Africa) that looked for new markets to trade.

\textsuperscript{149} http://www.foundalis.com/soc/Why_Greeks_and_Turks_hate_each_other.html
\textsuperscript{150} https://en.wikipedia.org/wiki/Greek%E2%80%93Turkish_relations
The international Treaty of Lausanne of July 24, 1923, put an end at military conflicts between Greece and Turkey and recognized Turkish sovereignty over specific borders, as they are known today, in exchange of its resignation for all other claims for the rest territories of the ex Ottoman Empire. The Treaty obliged 1,3 million Greeks to abandon their real estate in Turkey and immigrate to Greece and 400,000 Turks to follow the opposite direction. The Treaty resolved all pending issues finally and irrevocably, and was ratified a month later by both Turkey and Greece. It is in force until today and according to international law, its provisions cannot be altered unless all signatories agree.

In the years that followed 1923 the Aegean Dispute arose regarding the delimitation of territorial waters, national airspace, exclusive economic zones, use of continental shelf etc., namely the exercise of sovereignty (territorial waters) and jurisdiction (continental shelf and exclusive economic zone). By an Act of September 1936 Greece extended the breadth of its territorial waters from 3 nautical miles (3.6 km) to 6 nautical miles (11 km). In continuation, the April 29, 1958 Convention on the Continental Shelf, recognized the right for exploiting hydrocarbons in the continental shelf beyond the limit of territorial waters (Article 1, section a). Later, the United Nations Convention on the Law of the Sea (UNCLOS) that was signed in 1982 and came into force in 1994, provided that the limit of territorial waters can be extended to 12 nautical miles (Article 3) and acknowledged for each (signatory) state the right of an exclusive economic zone (EEZ) of 200 nm to which a special legal regime applies (Part V, Article 55 and following), i.e. the right to utilize and explore maritime resources. In the case of Greece, an extension of territorial waters to 12 nm in the Aegean Sea would give it almost its full control, reducing the area of high sea to only 19.7%, leaving Turkey with a small passage of sea to transport its ships. Turkey claims that the exercise of this right by Greece in the

151 Apart from the Kingdom of Greece and the Ottoman Empire, the Treaty was signed by the British Empire, the French Republic, the Kingdom of Italy, the Empire of Japan and the Kingdom of Romania; retrieved from: https://en.wikipedia.org/wiki/Treaty_of_Lausanne
152 Ibid 151, reference
153 https://en.m.wikipedia.org/wiki/Aegean_dispute
155 Limit stated as practice since eighteenth century; Ibid 154, reference
156 Greece ratified the UNCLOS in 1995. Turkey refuses to become a member of the Convention and declares that it is not bound by it; retrieved from: https://en.m.wikipedia.org/wiki/Aegean_dispute
157 Ibid 154
Aegean is illicit, and will be considered as a “casus belli”\textsuperscript{158}, whereas the former has extended its territorial waters to 12 nm outside the Aegean Sea\textsuperscript{159}. Greece contends that an extension to 12 nm is not only a treaty right but also a right of customary law, however it does not risk the exercise of this right due to fear for military conflict and war supremacy of Turkey, leaving unanswered the distinction between sovereignty and independence. Finally, Turkey claims that the insular shelf of the islands should be considered as an extension of the continental shelf of Asia Minor\textsuperscript{160} whereas Greece counter argues that each island has its own continental shelf, and the frontiers with Turkey should be defined on the basis of the median lines\textsuperscript{161}.

To intercept Turkish challenging of territorial and aerial borders that could easily escalate into armed conflict, such as in 1987 and 1996, Greece adopted the strategy of favouring Turkey’s accession prospects to the EU. In theory this strategy would expedite the urgent resolution of the Cypriot issue that Turkey’s joining of the EU would entail. In practice, it revealed other countries’ strong opposition to such a possibility\textsuperscript{162} and ceased to incriminate Greece as the number one opponent for Turkey’s EU membership. Moreover, it satisfied Greek economic, military and geopolitical interests, as Greek entrepreneurs have had long-lasting and strong economic ties with Turkey in all the three industries of agriculture, tourism and shipping. The development of a peaceful relation between the two countries definitely opened new market routes for mutual prosperity and wealth, and supposedly decreased military spending\textsuperscript{163} for both Greece and Turkey, that have been competing with each other in military supplies by consuming big portions of their GDPs\textsuperscript{164}, instead of saving money to cover other unavoidable expenses for education, immigration, etc. Finally, Turkish integration in the EU would oblige it to

\textsuperscript{159} Polychroniou C.J. “Turkey formally challenges in UN Cyprus’ right to exclusive economic zone”; retrieved from: http://greece_greekreporter.com/2016/03/25/turkey-formally-challenges-in-un-cyprus-right-to-exclusive-economic-zone/,' p. 4
\textsuperscript{160} Quoted in translation from the Greek language: Veremis Thanos, “The History of Greco-Turkish Relations from 1453 until 2005”, special edition for newspaper “To Vima”, Journalistic Organization Labraki S.A.
\textsuperscript{161} Ibid 153
\textsuperscript{162} France under the leadership of Nicolas Sarkozy heavily resented Turkey’s entrance to the EU; retrieved from Lambdin Alexandros, “Greek-Turkish Relations: Why Greece supports Turkey’s European Union candidacy bid”, University of Arizona, College of Letters, Arts and Sciences, Department of Global Studies, p. 10
\textsuperscript{163} Ibid 162, p. 12
\textsuperscript{164} Ibid 162, p. 13
comply with international and European law and obligations, accept the European borders and consequently the Greek ones and withdraw from territorial claims regarding the Aegean islands and from arguments relating to the rights of Turkish minority groups of West Thrace. This geopolitical gambling has been drugged through the years on the basis of accepting or rejecting, respectively, international treaties, such as the United Nations Convention on the Law of the Sea (UNCLOS) that was signed in 1982 and came into force in 1994.

Despite Greece’s support for a prospect Turkish EU membership and the relevant EU-Turkey discussions that were intensified since 2005, reality proved that Turkey was virtually rejected by the EU\textsuperscript{165}. The European counter-argumentation was based on Turkey’s violations of human rights with the Kurds being the most exemplary of all\textsuperscript{166}, and illegal occupation of the northern part of Cyprus which the international community condemned jointly\textsuperscript{167}. Additionally, Turkey was turned down for being a Muslim country. Yet, the lately announced possibility of introducing the death penalty as punishment in its judicial system has estranged even more the country from its European perspective.

Since 2010, in response to EU’s rejection, Turkey adopted the policy of “zero problems” with its neighbours\textsuperscript{168} and headed towards the east, and mostly Iran, to form a collision against EU and USA. For the latter Turkey has been the counterbalance for Iranian military expansion, namely an obstacle against nuclear weapons, that could turn it into the dominant power in the Middle East. However, after suspension of talks with the EU, Turkey decided to support the nuclear plans of Iran in order to conclude agreements for oil and natural gas supplies\textsuperscript{169}.

Turkey’s political role in the region expanded further since president Recep Tayyip Erdoğan decided to lead evolutions and impact on the political stance of the formerly subject to ex Ottoman Empire counties. This planning came as a sequence of its former Prime Minister’s (Ahmet Davutoğlu) strategy to increase Turkish influence.

\begin{itemize}
\item \textsuperscript{165} Ibid 146
\item \textsuperscript{166} Condemnation for thousands of human rights violations has been done by the European Court of Human Rights; retrieved from: https://en.wikipedia.org/wiki/Human_rights_of_Kurdish_people_in_Turkey
\item \textsuperscript{167} The United Nations Security Council Resolution 353/20-7-1974, demanded among others, the immediate end to foreign military intervention in the Republic of Cyprus
\item \textsuperscript{168} Sotnichenko Alexander “Why can’t Turkey and Russia get along in Syria?”, Nov 1, 2015, retrieved from: http://www.russia-direct.org/opinion/why-cant-turkey-and-russia-get-along-syria
\item \textsuperscript{169} Ibid 146
\end{itemize}
and transform Constantinople (Istanbul) into a political centre of Muslim countries. Since 2011 Turkey supported revolutionary regime changes in Tunisia, Egypt, Libya and Yemen, and last but not least, rebels against the government of President Bashar al-Assad\textsuperscript{170} in Syria. Pr. Erdoğan’s goal was to establish a transnational international organization of democratic states in the Middle East and North Africa\textsuperscript{171} under his auspices, in analogy of the European Union. However, Turkish plans for Syria found strong opposition of the legal regime of the country. After the long-lasting Syrian war, thousands of casualties and persecuted unarmed citizens, thousands of refugee floods to safer countries, etc., Turkish role in the devastation of Syria was exposed and Erdoğan’s popularity was diminished. Instead of serving its role as a geopolitical factor of stability, Turkey proved to the world that it prefers eradication and conflict refuting the “zero problems” policy and caused by itself irrevocable damage to its trustworthiness towards the international community.

After the failed July 2016 coup d’etat, Turkey entered a three month state of emergency during which extended clearings of thousands of government officials, military officers, etc. were ordered, leaving national military practically headless and weak. Imbalance seems to jeopardize even the delivery of aerial military equipment in 2018. Over time Turkish regime becomes profoundly authoritarian, Islamic and less secular\textsuperscript{172} with the concentration of more executive power in the hands of Pr. Erdoğan by constitutional reform.

In the interior Turkey suffers a thorough societal division, as proven betrayers or possible disputants are treated as “enemies”. The country is plagued by constant confrontation with the Kurdish party and the Kurdish insurgent groups that demand separation from Turkey\textsuperscript{173}. These petitions cause hectic tensions to the government headquarters for a possible change of the country’s territorial borders and its consequent deprivation from huge energy resources\textsuperscript{174}. Nationalism through territorial claims against neighbouring countries has been knowingly used to distract public opinion from the looming economic crisis that will soon affect the economy.

\textsuperscript{170} Ibid 168
\textsuperscript{171} Ibid 168
\textsuperscript{173} https://en.wikipedia.org/wiki/Kurdish%E2%80%93Turkish_conflict_(1978%E2%80%93present)
\textsuperscript{174} In 2007 exploitation of 45 billion barrels of oil found in Iraqi Kurdistan started; retrieved from: https://en.wikipedia.org/wiki/Kurdistan
These facts, along with the ambivalent implementation of the March 20, 2016 refugees’ agreement with the EU have decreased even more Turkey’s chances to accede to the EU. Finally, Turkish persistent demand’ from the US to deport Fethullah Gülen as the main instigator of the July 2016 coup d’etat, the cutting down of power to the US Incirlik airbase has further alienated Turkey-US relations after a long-lasting and multilevel supportive US stance for Turkey\textsuperscript{175}.

Turkey’s energy role has been significant for the European energy needs because it concentrates on its territory a network of natural gas pipelines such as Blue Stream, Turkey-Greece Interconnector, TANAP, Qatar-Turkey pipeline, etc. which connect it with Europe. Until now it enjoys being a primary energy gas hub for the latter and opposes every other possibility.

To cover its own energy gas demand it imports the 99% in natural gas, depending on Russia for 55,3%, whereas the rest of its supplies come from Iran, Azerbaijan, Algeria and Nigeria\textsuperscript{176}; it also represents a rapid demand growth\textsuperscript{177}, which forces it to diversify its resources. Turkish Stream has been the cause of Turkey’s efforts (consultations with VI. Putin were held in Istanbul, in October 2016 in the World Energy Congress) to optimize its relations with Russia for accomplishing the construction of the enormous pipeline, after the unfortunate incident of bombarding and shooting down the Russian military jet on November 2015 on – alleged - violation of Turkish airspace\textsuperscript{178} near the Syrian-Turkish borders\textsuperscript{179}. The Russian economic embargo and restriction of trade and business transactions deprived Turkey from almost US 6bn in 2014 and 3.5bn in 2015\textsuperscript{180}.

However, Turkey dislikes dependence from Russian gas and thus looks with anticipation at the discoveries in Israel’s EEZ. Despite its traditionally hostile relations with the latter, Turkey recently began a diplomatic strategy to bridge differences with Israel in order to attain the construction of a pipeline that will connect the rich Leviathan reserves with its soil and in continuation with Europe. Consultations

\textsuperscript{175} Ibid 146
\textsuperscript{176} http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa
\textsuperscript{177} https://en.wikipedia.org/wiki/Economy_of_Turkey
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between high officials of the two countries took place in June 2016. A normalization of their relations seems to bear fruit after years of tension that followed the Israeli raid on May 22, 2010 against Turkish humanitarian supplies to Gaza-Strip for Hamas that ended up in 10 human casualties. However, restoration seems to be fragile since President Erdoğan’s last declarations (November 2016) for resembling the aforementioned Gaza incident with the atrocities of Hitler during World War II.

Regarding Cyprus, Turkish policy of contentions and claims escalated since 1970s to end up in the 1974 Turkish invasion and conquest of the northern part of the island of Cyprus which was divided by the “Atilla line”. This was the calculated Turkish response to the Greek Cypriots’ petition to be unified with Greece since 1931. The invasion was followed by the establishment of the Turkish Republic of Northern Cyprus, namely a self-declared state recognized only by Turkey. This state was condemned by the international community which recognizes the northern part of Cyprus as territory of the (Greek) Republic of Cyprus. In the years that passed since 1974 Cyprus became (in May 2004) a member of the European Union that can exercise the right of veto to oppose Turkey’s entry in the EU, but still, the issue of the illegal conquest of northern Cyprus has not been resolved. In January 12, 2017, the Geneva Conference that was held under the auspices of United Nations has been a minor step towards resolution and simultaneously another indication of fundamental differences between Cypriots and Turks on issues such as, territorial space, role of the guarantors, type of governance of the island, etc.

In 2010 the United States Geological Survey (USGS) made an announcement for an estimated discovery of 345 trillion cubic feet of gas reserves in eastern

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181 Abughaida Dareen, What’s behind the new deal between Turkey and Israel?”, June 27, 2016, Aljazeera; retrieved from: http://www.aljazeera.com/programmes/insidestory/2016/06/deal-turkey-israel-160627164810_968.html
183 The strategic policy of Turkey towards Cyprus was stated since 1956 by a Turkish Constitutional Law Professor and politician called Nichat Erim, who delivered to the Prime Minister of Turkey Adnan Menderes an essay of five specific steps explaining which should be the future political planning of all Turkish governments towards Cyprus: quoted in translation from the Greek language: Μάηθος Θ. Ιωάννης, Μπαλαφοτά Βιργινία, «Γεωπολιτική Πραγματικότθτα στο δίπολο Ελλάδος-Κύπρου – Λύσεις και Άλλοθ», εκδόσεις Παπαϊθης, Αθήνα 2014, σελ. 122-123
184 https://en.wikipedia.org/wiki/Greek%E2%80%93Turkish_relations
185 https://en.wikipedia.org/wiki/Northern_Cyprus
186 Cyprus blocked 35 EU-Turkey negotiation chapters since 2009; see reference in supra note 162, p. 10
Mediterranean and in December 28, 2011 Cyprus verified natural gas findings of 5-8 trillion cubic feet and its decision to exploit the reserves jointly with Israel\textsuperscript{187}. Rivalry broke among riparian states for contesting over the exploitation of the reserves. Turkey had already extended its EEZ to a limit that it overlaps with the EEZ of Cyprus\textsuperscript{188}, and rejected the legitimacy of the EEZ agreements of Cyprus\textsuperscript{189}. On October 2014 Turkey dispatched the “Barbaros” vessel to enter the Cyprus’ EEZ to conduct surveys of the subsea\textsuperscript{190}. Turkey claims that Cyprus has no right to exploit its natural resources without its (Turkish) permission and before the Cypriot issue is resolved. In response, the Republic of Cyprus demands the reunification of the island before any sharing of gas revenues can be discussed\textsuperscript{191}. East-Med’s route through Cyprus and Greece is not supported by the US that prefers a connection of the reserves through Turkey (namely through an alternative route from the original) and argue for “equity” instead for “equidistance”\textsuperscript{192}.

Until today, under the UNCLOS, Greece has signed a delimitation agreement on continental shelf with Italy (signed in May 24, 1977\textsuperscript{193}) and, has participated in the delimitation agreements on the exclusive economic zone that Cyprus signed with Egypt in February 17, 2003, which was renewed in April 19, 2004 for an equal share of economic waters. By their 29\textsuperscript{th} April 2014 joint declaration Greece, Cyprus and Egypt re-demarked their maritime borders and agreed on joint amendments, should there be any\textsuperscript{194}. Finally, Cyprus signed EEZ agreements with Lebanon in January 17, 2007, and with Israel in December 17, 2010\textsuperscript{195}.

\textsuperscript{187} Ibid 183, map 23
\textsuperscript{188} Ibid 183, maps 21 and 22
\textsuperscript{189} http://greece.greekreporter.com/2016/03/25/turkey-formally-challenges-in-un-cyprus-right-to-exclusive-economic-zone/
\textsuperscript{190} In October 28, 2014 a Parliamentary Question regarding this issue was submitted to the European Parliament by the Greek Member of the European Parliament Elissavet Vozemberg; retrieved from: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+P-2014-008438+0+DOC+XML+V0//EN
\textsuperscript{191} Hadjicostis Menelaos, “Cyprus, Egypt sign deal paving way for Gas Pipeline”, Associated Press, August 31, 2016
\textsuperscript{192} Quoted in translation from the Greek language from the article under the title “Το καταραμένο φοβικό σύνδρομο: Η ΑΟΖ, η Ελλάδα και η πρόταση του Ισραήλ", Θεόδωρου Καρυώτη, http://mignatiou.com/2016/07/to-katarameno-fovikosindromo-i-az-iellada-ke-i-protasi-tou-israil/
\textsuperscript{195} Ibid 183, map 23
In order for the exploitation of the Israeli reserves to be attained and the unobstructed construction and operation of East-Med to be done, Greece, Cyprus, Egypt and Israel should jointly form a coalition for geopolitical cooperation on economic and military issues. Greece should also delimit its EEZ without unilaterally declaring it, in order not come up against legal considerations.

X.- CONCLUSIONS

The present study envisaged in presenting the past and the present geopolitical relations between Greece and its neighbour countries in eastern Mediterranean. Unfortunately, the limited extent of the thesis did not enable the writer to make a profound investigation of all related aspects, some of which are the emerging importance of a Greek-Cypriot alliance with Egypt and Israel, the American perspective relations with Greece under the leadership of the newly elected President Donald Trump and how they may impact on East-Med, the Russian attitude for the project, its interests for the region after the melting of the ice in the North Pole due to climate change and the opening of new sea exits for Russian trade, the geopolitical interests of the US in the Middle East energy reserves, the Iranian resources and how feasible it is that they access Europe.

History entails that the significance of East-Med for European energy security will probably replenish old tensions and hostilities challenging peace and stability, as the balance of powers will eventually change in favour of Cyprus and Greece. The latter should “decouple” their foreign policy from old haunted strategies that constrained them into defensive manipulation against neighbouring threats. Strategic coalitions, the delimitation of the Greek EEZ, the synergy of the Greek and Cypriot academic community for common foreign policymaking with a long-term perspective, are some suggestions that will bear positive results in the very near future.

Turkey’s specific gravity as a factor of stability and peace has been impaired. For the time being it cannot be considered as a reliable partner for secure investments as the one of the magnitude of the Eastern-Mediterranean pipeline. Internal conflicts with Kurdish minorities and terrorist attacks on Turkish soil are practical indicators of a destabilizing situation which despite appearances, it is highly unlikely that it can be controlled by the Turkish government. Therefore, both the construction and the
operation of the project will probably be under constant official or extremist threat for unpredictable flow interruption of gas transmission with immense financial impacts on the investors.

On the other hand, Greece is a peaceful and democratic country whose energy gas needs is much less than Turkey’s (therefore more gas will be available for the EU in case the pipeline is constructed according to its original course), whose main problem is the on-going economic recession. Apart from a controversial political strategy that keeps stalling its economic recovery, it maintains good relations with its EU partners and respects European and international law and order. During the last decade all Greek governments, independently of ideological background, have acknowledged the significance of East-Med and have official supported its construction.

In conclusion, Greece combines the geostrategic position, the political will, the legal background, and the technical ability to become an energy gas hub for Europe.
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