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The *ENERPO Journal* was established in 2013 and is published by the Energy Politics in Eurasia (ENERPO) program at European University at St. Petersburg. The goal of *ENERPO Journal* is to bring exposure to the ENERPO program and to shed light on the latest developments in the oil, gas, and renewables industries in a way befitting both expert and casual readership. Contributing authors are primarily students and faculty with the occasional outside expert writer.

*Workshop Series* is a program hosted by European University in which leading energy professionals are invited to present on a specific aspect of their work. These professionals include energy think-tank experts, policy makers, representatives from major energy companies, and ranking members of international organizations. *Workshop Review* is a subsection of *ENERPO Journal* where students relay the content of these presentations and provide commentary.



*The topic of each article is chosen at the discretion of the author and its content does not necessarily reflect the views of European University at St. Petersburg.*

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## The History and Impact of U.S. and EU Energy-related Sanctions Against Iran

—Trey Giesen

The designation of the Islamic Republic of Iran as a state sponsor of terrorism by the United States on January 23, 1984 began a thirty-year long sanctions regime against the Islamic nation. Initially serving the twofold purpose of pressuring the Islamic republic to discontinue its support of terrorism and curbing Iran's growth as a regional power, the sanctions regime in the mid-1990's evolved into an initiative to limit the development of the Iranian nuclear program. The advancement of this program became the primary impetus for the complex, multi-lateral sanctions system which exists today. These sanctions mainly focus on the nation's energy and financial sectors. The energy sector plays a particularly significant role in the Iranian economy, contributing a large percentage of export and budgetary revenues, 80% and 50-60% respectively. However, the United States' sanctions saw limited success. Only in 2010, after successive resolutions by the United Nations Security Council (UNSC), did the European Union itself begin to impose sanctions, and sanctions saw more success. This culminated in an agreement being signed in November 2013 between Iran, the United States, and the other member of the United Nations Security Council (P5+1) which provides for an "easing" of sanctions for six months. These sanctions seem to have more greatly hindered the development of Iran's energy sector than its nuclear program.

### Iran's Hydrocarbon Reserves

Sanctions on Iran may have been meant to force change in the short-term, but they also have consequences not so directly related to Iran itself. After all, Iran is endowed with significant hydrocarbon resources. According to the U.S. Energy Information Administration (EIA), with 157.3 billion bar-

rels of proven crude oil reserves, Iran constitutes the fourth largest holder of crude oil in the world, with only Canada, Saudi Arabia, and Venezuela holding more. In addition, the proven conventional natural gas reserves of the Islamic nation, at 33.4 trillion cubic meters (TCM) (17.3% share of world total), make Iran the second largest holder worldwide. Only Russia has larger reserves with 47.26 TCM (24.7% share of world total). These reserves, coupled with the strategic location of the nation, ensure Iran is capable of being a large-scale oil and natural gas provider to major hydrocarbon consumers nearby, specifically Europe, India, and China. In this context, Iran's hydrocarbon capabilities provide it with the potential to become a strong, influential player regionally as well as on global energy market. Hurting Iran's energy industry through sanctions, therefore, allows for a measure of Western control over this potential influence.

*The energy sector plays a particularly significant role in the Iranian economy, contributing a large percentage of export and budgetary revenues, 80% and 50-60% respectively.*

### Sanctions Related to Energy

As previously mentioned, United States' sanctions against Iran began in the 1980's and the UNSC and the European Union did not get involved in sanctions until two decades later. Given the extensive list of imposed sanctions, I will not list each individual sanction. Instead, I have chosen to include below a number of energy-related U.S. sanctions as well as those of the European Union. The UNSC, though sanctioning Iran through four resolutions, has not targeted the energy sector specifically, but concentrated on nuclear-related sanctions. U.S. sanctions are the most comprehensive; however, when applied unilaterally,



they are not very effective. It should be noted that the European Union in the 1990's "opposed the Iran Sanctions Act as an extraterritorial application of U.S. law." Nevertheless, the EU followed the U.S. in implementing sanctions against Iran, but only after a 2010 UNSC resolution.

***It should be noted that the European Union in the 1990's "opposed the Iran Sanctions Act as an extraterritorial application of U.S. law."***

#### **List of U.S. Sanctions**

- Iran Sanctions Act (ISA) (formerly known as the Iran and Libya Sanctions Act) (1996) - Addresses key energy-sector activities which will "trigger" U.S. sanctions against non-Iranian entities. Includes:
  - Investment of more than \$20 million/year in Iran's energy sector
- Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA) (2010) - Codifies and amends ISA.
  - Adds to ISA definition of energy sector to include pipelines to or through Iran and contracts related to the construction, upgrading, or expansions of energy projects, liquefied natural gas (LNG), oil or LNG tankers, and products to make or transport pipelines that transport oil or LNG
  - Sales of gasoline over \$1 million (\$5 million/year) and related equipment and services
- Executive Order 13590 (2011) - Allows imposition of sanctions on persons involved in certain activities in Iran's energy and petrochemical sectors.
- Executive Order 13622 (Iran Threat Reduction and Syria Human Rights Act, ITRSHA) (2012) - Further amends and codifies CISADA, Executive

Order 13590.

- Sales of energy sector equipment, services, and petrochemicals
- Purchasing of Iranian crude oil and petrochemical products
- Insurance Iranian oil entities and purchases of Iranian bonds
- Iran Freedom and Counter-Proliferation Act (IFCA) (2013)
  - Dealings with energy, shipbuilding, or shipping sector
  - Dealings in precious metals in exchange for oil or any other product(Starr and Ighani, 2014), (CRS, 2014)

#### **List of European Union Sanctions**

- Council Regulation (EU) 961/2010 (2010) - Enacts a number of restrictive measures against Iran, particularly related to Iranian energy sector, including:
  - Selling, supplying, or transferring key equipment or technology in relation to crude oil and natural gas sectors to Iran
  - Provision of insurance, reinsurance, and transportation of Iranian crude oil, primarily concerned with shipping of oil and Iranian tankers
  - Grants, financial assistance, and concessional loans to Iranian persons or entities related to exploration of crude oil, natural gas, refining of fuels, or the liquefaction of natural gas
- Council Regulation (EU) 267/2012 (2012) - Repeals and replaces Council Regulation (EU) 961/2010, amending restrictions to include:
  - Import of Iranian crude oil, petroleum products and petrochemical products
  - Investment in the petrochemical industry
  - Cooperation with Iranian person or entity engaged in the transmission of natural gas, including investing in liquefied natural gas facilities(Council of the European Union, 2010) (Council of the European Union, 2012)

#### **Joint Plan Agreement: Easing of Sanctions**

A six-month easing of sanctions began on January 20th, 2014 after a Joint Plan of Action (JPA) agree-



ment between Iran and the P5+1 (the United States, Russia, China, France, United Kingdom, and Germany) was signed on November 24, 2013. The main measures of the JPA require Iran to cease the development of its uranium enrichment program, to neutralize specific aspects of its program, including diluting half its stockpile of 20%-enriched uranium hexafluoride to 5% and converting the rest into fuel, to allow for increased international monitoring of Iran's nuclear program, and to halt its activities at the Arak reactor. In return for Iran's cooperation, the P5+1 will grant a number of concessions for the agreement's duration. These concessions pertain primarily to Iran's energy sector. The agreement allows Iran to maintain an export maximum of one million barrels per day throughout the duration of the sanctions. This stems from importing countries no longer being required to decrease their imports during this duration. However, an increase in imports is also prohibited. Also, as part of the JPA, approximately \$4.2 billion in frozen oil funds will become available to Iran over the course of the six-month sanctions ease. In this regard, by April 17th, South Korea and Japan accounted for a combined total of \$2.55 billion in five payments, one from South Korea and four from Japan. Soon, Indian refiners, owing \$3.6 billion, will allocate \$1.65 billion in three installments from May-July 2014. Another major measure suspends U.S. and EU sanctions on Iran's petrochemical exports, gold, and precious metals as well as on their respective associated services. The EU includes a measure which suspends sanctions against the provisions of insurance, reinsurance, and transportation of Iranian crude oil. Furthermore, the UN Security Council and EU will not enact new nuclear-related sanctions. The U.S. Administration will abstain from imposing new nuclear-related sanctions. Other P5+1 concessions in the agreement include licensing the supply and installation in Iran of spare parts for Iranian civil aviation and associated services, and developing a financial medium to allow humanitarian trade needed in Iran domestically.

### **Damaged Iranian Energy Sector in Need of Investment**

The impacts of sanctions on Iran's energy sector are varied and considerable. What follows is only a small illustration of the sanctions' major impacts. More specifically, briefly detailed are crude oil production and export levels, crude oil export revenues, current importers of Iranian oil and their import amounts, the effects on foreign direct investment in Iran's energy sector, and the lack of significant international gas pipelines and LNG facilities.

***The European Union's July 2012 embargo on oil imports and insurance coverage for Iranian oil carriers had a significant impact because, by July 2013, Iran's exports totaled only 1.1 million bbl/d.***

According to EIA statistics, Iran's crude oil production peaked in 2005 at 4.14 million bbl/d, but remained around the 4 million bbl/d mark until 2012. The 2011 production level constituted 4.05 million bbl/d. Following sanctions in 2012, and a decline of almost 700,000 bbl/d, the total stood at 3.37 million bbl/d. In 2013 crude oil production averaged 3.2 million bbl/d. Oil exports have been similarly affected. Iran's crude oil exports in June 2011 reached almost 3 million bbl/d. Sanctions implemented throughout 2011 and 2012 by the United States and Europe, however, caused a sharp decline. The European Union's July 2012 embargo on oil imports and insurance coverage for Iranian oil carriers had a significant impact because, by July 2013, Iran's exports totaled only 1.1 million bbl/d. By the time the joint plan agreement between Iran and the P5+1 was signed in November 2013, crude oil exports resided at approximately 800,000 bbl/d.



Iran's export levels dropped because importers were required to stop buying Iranian oil or risk the U.S. sanctioning them. Europe averaged approximately 600,000 bbl/d imports in 2011, but a subsequent ban on oil imports in 2012 decreased imports to a negligible amount by January 2014. Many countries no longer import Iranian oil. Several countries were able to obtain exceptions to the ban. However, they are required to take substantive measures to decrease their imports. Those countries include South Korea, China, Japan, Turkey, India, and Taiwan. China, a major importer of Iranian crude, decreased its imports almost 25% from 550,000 bbl/d to 420,000 bbl/d by January 2014. Sanctioning imports of Iranian has cost Iran its European market and is pushing it out of several others.

***According to the Iranian Deputy Oil Minister for International Affairs and Commerce Ali Majedi, Iran's oil and gas industries will need \$230 billion in investment, with \$150 billion for the upstream oil sector to increase development of the production of oil and gas fields.***

As a consequence of consumer countries decreasing their imports, Iran's revenues have suffered. As just mentioned, the enacted sanctions require Iran's major energy traders to decrease their oil imports or face sanctions themselves. Iran's oil exports constitute 50-60% of its budgetary revenue; therefore, sanctions on oil trading have been particularly effective. In 2010, revenue from Iranian crude oil and oil products amounted to \$150 billion. This total fell in 2011 to \$95 billion and fell once more in 2012 to \$69 billion. Within the first nine months of 2013,

before the JPA was signed, oil revenues only constituted \$32 billion. Decreasing oil exports cost Iran approximately \$5 billion a month, and within the duration of the JPA, Iran will have lost \$30 billion in potential revenue. Indeed, the U.S. Department of State emphasized succinctly the impact of oil sanctions on the Iranian economy in a teleconference on January 20, 2014. Specifically noted was the comparatively small amount of \$6-7 billion that Iran will earn during the JPA - \$4.2 billion in oil revenue and a potential \$2 billion more from trade - in comparison to what sanctions are costing the nation economically. "Iran needs between \$60 to \$70 billion a year to finance its foreign imports...\$6 to \$7 billion will not fill that hole. Inflation in Iran remains near 40 percent, one of the highest inflation rates in the world, and its economy, which contracted 6 percent in the last Persian year, is expected to contract again this year". (U.S. Department of State, 2014) As well as contributing to the economic development of the nation, these revenues provide funds for needed energy sector investment. With less revenue comes a smaller capability to re-invest in its own energy sector - a gap not being filled by foreigners either, due to sanctions.

In addition to export sanction losses, Iran is losing out on foreign direct investment in its energy sector. If we assume that one intention of sanctions is to curb the nation's global strategic importance, then controlling foreign investment in its energy sector is an extremely effective means of doing so. A U.S. Congressional Research Service report about Iranian sanctions updated recently states that Iran needs \$130-145 billion in investment by 2020 to keep its crude oil production capacity from falling. Also, the total potential investments the Islamic nation could have received by 2011 amounted to \$60 billion. According to the Iranian Deputy Oil Minister for International Affairs and Commerce Ali Majedi, Iran's oil and gas industries will need \$230 billion in investment, with \$150 billion for the upstream oil sector to increase development of the production of oil and



gas fields. \$15-20 billion of the remainder will be needed to upgrade Iran's domestic natural gas pipeline network in order to build a spare pipeline and to expand its carrying capacity to account for domestic consumption and exports simultaneously. As a response to the need for investment, a new petroleum contract has been designed to interest foreign companies in investing. This contract depends on the success of negotiations between Iran and P5+1 and the continuing easing of sanctions, but it could potentially bring in about \$100 billion over the next four years. Unfortunately, even if the Iranian energy sector acquires the projected \$100 billion investment, the sector will be short \$30-130 billion. In this case, the country would need to increase its oil exports substantially to offset the imbalance.

***Assuming sanctions continue to lighten and Iran continues to cooperate, foreigners' enthusiasm to invest will increase, and this, coupled with the Iranian petroleum contract changes and the industry's own readiness to accept foreign involvement, will help the Iranian energy bounce back significantly in the coming decades.***

Sanctions against investment in Iran's energy sector have also hindered the development of Iran's natural gas industry. As crude oil pipelines are unnecessary given the nation's location between other large oil-producing countries, natural gas pipelines could have been an asset to the Iranian energy sector and its revenues. Iran is located between several regions which require natural gas imports, including Europe, Pakistan, India, and China. Therefore, con-

struction of a large-capacity natural gas pipeline would be greatly beneficial to Iran. Having the second largest reserves of natural gas in the world, Iran has significant potential for exporting natural gas regionally and globally. However, the nation's export amount from 2008-2012 averaged a minuscule 7.35 billion cubic meters (bcm) and its natural gas imports over the same period totaled 7.25 bcm (U.S. Energy Information Administration, 2014b). Such a small disparity can be construed as a telling indication of the impact sanctions have had on Iran's gas industry. One aspect of the gas industry's development that has been hindered particularly is the nation's lack of a complete LNG liquefaction facility. One project, Iran LNG, is at varying stages of construction, according to the website of the Iranian Liquefied Natural Gas Company. This project has been in the works for several years and should have been completed in 2012; however, the lack of LNG technology has delayed its completion. Due to sanctions, LNG technology, which would have come from foreign investors, particularly European, has been difficult to come by. At least two other LNG projects, Persian LNG and Pars LNG, were ultimately dropped due to sanctions. Thus, while nearby countries in the Persian Gulf have developed facilities and are thriving, the Iranian LNG market is still in its infancy.

### **Conclusion**

The impacts of sanctions on the Iranian energy sector go beyond the limited scope just previously mentioned. These represent only a brief, shallow examination of some of sanctions' consequences. Overall, the energy sector has taken a huge setback in its development. Production is down. Export revenues are decreasing. Investment is low when it should be high. Iran lacks a well-developed natural gas industry, including LNG capabilities. Sanctions have certainly made it difficult for Iran's energy sector to function. The United States earlier sanctions brought only minor success. Only in the 2000's, when Europe also became involved, did sanctions become extensively effective. Given Iran's energy endowment, the sanc-





tions only hinder development of the sector in the short to mid-term. Assuming sanctions continue to lighten and Iran continues to cooperate, foreigners' enthusiasm to invest will increase, and this, coupled with the Iranian petroleum contract changes and the industry's own readiness to accept foreign involvement, will help the Iranian energy bounce back significantly in the coming decades. ♦

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May. 2014]



## Future Development of South-east European and Mediterranean Natural Gas Reserves

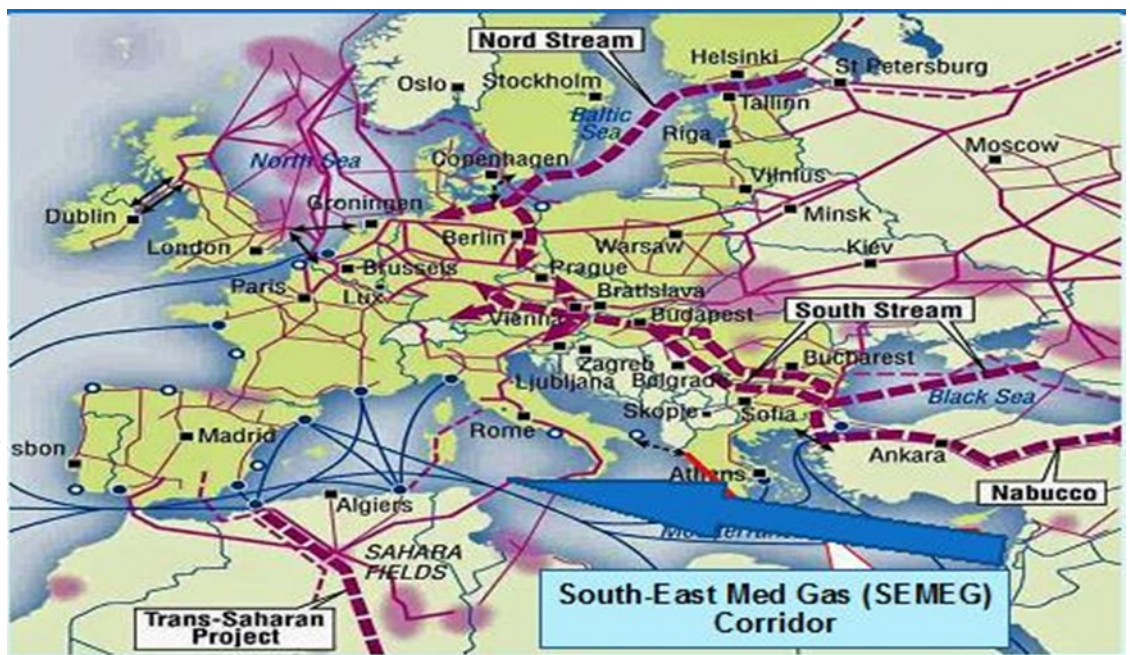
—Athina Sylaidy

Energy security is a multifaceted issue, and one no longer restricted solely to the domain of the viability of energy supply, price appreciation and preservation of the environment, issues which are included in the 'energy policy' triangle. "Energy security", as defined by the IEA, means "adequate, affordable, and reliable supplies of energy." Energy efficiency, stock-holding, alternative fuels, substitution options, diversification of supply sources, spare capacity, the need to create alliances, and to change energy 'mixes' particularly in times of energy crisis are all important concepts in energy security thinking, as well as including the security of supply and security of demand.

Due to the facts that the EU gets 25%

(2012) of its gas imports from Russia, two-thirds of Russia's gas exports go to the EU countries (EU's imports are of 8% of Russia's GDP + EU is a regular customer with growing needs), and that Russia is the source of almost a third of the EU's oil and a quarter of its coal imports, their relationship is based on interdependence. As a result, each of them aims to secure its supply and demand. Recently, the sensitive issue of energy security has been raised, particularly from the gas crises of 2006

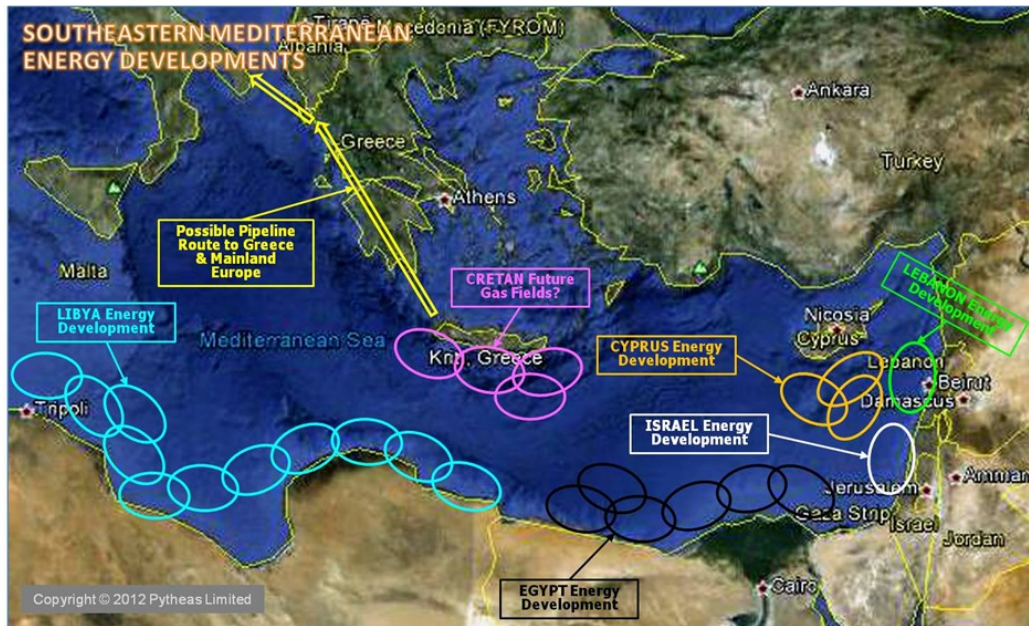
and 2008-2009, because of the different energy policies (third energy package, Gazprom's pricing policy and that Russia had signed the ECT but never ratified and has later withdrawn from it) and recently, Russia's invasion of Crimea. So, currently on the one side, Russia is trying to find alternative routes (South Stream) to supply European countries, thus diversifying from unstable Ukraine and protecting supply security. On the other side, the EU is trying to find alternative sources, routes and suppliers to secure its supply (TAP, LNG, RES, Shale gas, Nuclear power). While the Eastern Mediterranean is unlikely to completely replace Russia as a major supplier of energy to Europe, it can at least contribute in loosening Russia's grip over the European market.



Gas supply routes to the EU. *Cyprus National Hydrocarbons Company*

### Cyprus-Israel

Given that in the last decade the first two largest discoveries of hydrocarbons were made off the coast of Israel (Tamar field-280 bcm, Leviathan field 530 bcm) and the third largest discovery was in the coast of Cyprus (Block 12), we can understand that the upcoming development of the Mediterranean countries and Mediterranean Sea will contribute as alternative routes and sources for the EU. On 28 December



Southeastern Mediterranean Energy Developments. ESCP.

knowledge-based industry.

### Cyprus & Greece Dilemma in Energy infrastructure – Geopolitical Strategies and Economical Perspectives

Already, the European Commission has adopted and announced its “Project of Common Interest” to be the pipeline that will link the Greek and Cypriot deposits (East Med Pipeline). This pipeline will connect the Leviathan field offshore Israel to Cyprus and then the eastern part of the Island of Crete in Greece. Here are three possible routes that could then connect this to other European gas markets: from Crete to TAP, the Interconnector Greece – Bulgaria and the Revythousa LNG terminal close to Athens. The capacity of the East Med Pipeline will be around 8-10 bcm per annum and the cost estimates at least \$20bn (as ENI suggests).

2011, Noble Energy announced a natural gas discovery at the Cyprus “Aphrodite field-Block 12” prospect, offshore the Republic of Cyprus. Noble Energy operates Block 12 of Cyprus EEZ (exclusive economic zone) with a 70% working interest - Deltek Drilling Limited Partnership and Avner Oil Exploration Limited Partnership each owns 15%. According to Noble Energy, the finally resource potential from the field is 5 tcf/145 bcm. The Cyprus Block 12 field covers approximately 40 square miles and will require additional appraisal drilling prior to development. Cyprus owns 12 Blocks, which all appear to be promising in gas and oil reserves, and the exploration activity in the Cypriot exclusive economic zone will continue in the summer of 2014 (The ENI - KOGAS consortium has signed a contract for hydrocarbons exploration in blocks 2, 3 and 9 within Cyprus’ EEZ, while Total has signed a contract for blocks 10 and 11). These have given Cyprus the ability to cover its own energy needs for many years and, moreover, become a supplier for EU. According to the Cypriot government’s aims, the short-term benefits will come from hydrocarbon operating in the energy industry, the mid-term from the exploitation of hydrocarbons reserves and the third and long-term vision will emerge from the creation and export of a

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**The IGB constitutes a gateway, providing access of diversified sources of gas to the SEE markets and creates synergies with smaller interconnectors in the region (e.g. Bulgaria-Romania).**

Furthermore, there is on the table of discussions a proposal to build an LNG facility in Cyprus with the cooperation and support of Israel, with both countries aiming to supply equivalent quantities. Estimates



The East Med Pipeline and possible connections. [Defencegreece.com](http://Defencegreece.com)

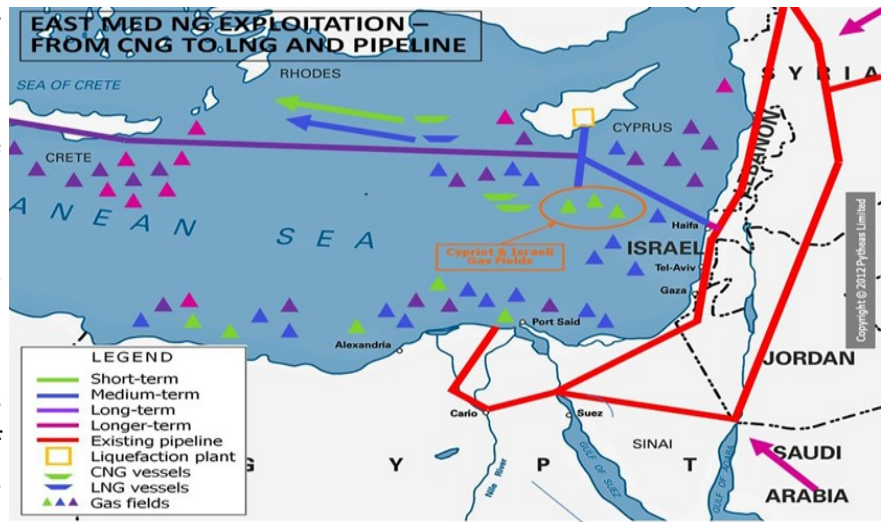
for the cost for a new LNG terminal is \$10bn, with the cost of building up to \$8bn and \$6bn, if there is a 2nd and 3rd unit added, respectively. The choice between the East Med Pipeline and LNG facility will directly affect the long term pricing structure and distribution options of the energy triangle Greece-Cyprus- Israel to the rest of EU and the regional markets, as well. Before making the final decision, the included parties have to calculate also the cost and compare it to the final selling price (the price for buyer).

***If the LNG option means direct competition with the LNG coming from the Middle East and Africa, then Cyprus, as a participant in the Eurozone with lower transportation costs, will secure for itself a significant advantage over its competitors.***

It seems that with LNG (liquefaction + regasification), the cost will be higher compared to the pipeline. Also, the pipeline supply route will be predetermined to exclude the possibility of targeting alternative markets. In any case, the main goal is to strengthen the energy security and region's energy independence, possibly in combination with an increase of RES. In parallel with the EU's institutional framework (European Roadmap 2050, 3rd Energy Packet and ECT), the European Commission could exploit the abilities of RES of Southern Europe, strengthening its alternative proposals for its energy supply.

From Cyprus' perspective, selling LNG, instead of piped gas, will allow the country to sell gas to other markets when demand in the EU drops. Moreover, if this option means direct competition with LNG coming from the Middle East and Africa, then Cyprus, as a participant in the Eurozone with lower transportation costs, will secure for itself a significant advantage over its competitors. Furthermore, indirectly, in the long term, the LNG option will increase the activity

of shipping, engineering and servicing companies in the region. As the LNG option is more favorable from Cyprus' side, we conclude that the dilemma is more political and geostrategic than economical. From an economical perspective, from one side, the pipeline could bring cheaper gas in the long term not only for Greece (as it pays the 2nd most expensive price of any EU country) but for the European gas market as well, but from the other side, the LNG terminal



East Med Natural Gas Exploitation—from CNG to LNG and Pipeline. [nealrauhauser.wordpress.com](http://nealrauhauser.wordpress.com).

could bring more short term benefits for the economy of Cyprus and Greece.

In any case, large amounts of gas need to be proven first before the multi-billion dollar project can be brought to fruition. The current estimates of the Aphrodite field (5 tcf/145 bcm) do not commercially justify the onshore LNG terminal. Further exploratory activities off Cyprus' coast in the two years to come will be key in determining the fate of the project.

**While today 20% of the EU's gas supplies is transported through shipping, the EU is now encouraging investments in LNG as a means to boost liquidity.**

**Greece: Gas Supplies Options and Alternative Routes**

From the Greek perspective, its geographical position and the new, alternative routes that offer diversification for the EU have resulted in the increase of European Commission interests and support in the country and the greater South East European area. Benefiting Greece are the TAP pro-

ject, which consolidates Greece's position as the EU gateway for Caspian gas and could boost the development of further infrastructure and the market, the possibilities for more supplies from the Caspian, the new explorations in Mediterranean Sea, specifically Cyprus and Israel's sea and the possibilities for indigenous production of Mediterranean Member States. In addition to these routes and discussions, on the table is also the previously mentioned Interconnector Greece – Bulgaria (IGB), which will strongly impact the South East European market. The two governments have recognized it as a project of national interest. Moreover, the IGB constitutes a gateway, providing access of diversified sources of gas to the SEE markets and creates synergies with smaller interconnectors in the region (e.g. Bulgaria-Romania). Also, by working in reverse flow it significantly enhances the region's energy security. Finally, it is ideally located to carry gas from the existing Revithousa LNG and planned Aegean LNG regasification terminals in Greece. The final investment decision is scheduled to be taken within 2014.

While today 20% of the EU's gas supplies are transported through shipping, the EU is now encouraging investments in LNG as a means to boost liquidity. The Aegean LNG terminal (floating storage and regasification unit) is under construction from DEPA. DEPA holds the existing natural gas infrastructure,

consisting of the main high pressure pipeline and its branches, and has the exclusive right to import and supply natural gas in Greece. It's a 100% subsidiary company of DESFA-owner and operator of Greek National Natural Gas System. This project will facilitate the SEE (South Eastern Europe) region's access to more LNG capacities and working in conjunction with the IGB has the potential to make a real contribution to the market's integration and development. In order to benefit from the advantages of a competitive and liquid market - as it has many bid and ask offers, low



Greece, Turkey, Cyprus map.

spreads and low volatility - which prevail in North West Europe, the Balkans need to urgently develop infrastructure to increase market integration and deliver diverse supplies of natural gas.

### The Role of Gas in SEE Countries' Geopolitical Strategies and Relations

Through these discoveries and the continuing of exploratory activities off the coast of Cyprus, as well as the possible exploitation of hydrocarbons in Greece and generally in the Mediterranean Sea, the issue of agreements and corporations with neighbors' countries has arisen. Cyprus and Greece could become an energy hub of the Mediterranean Area, and as EU member-states, contribute to the EU's energy diversification.

A Turkish-Israeli rapprochement in March 2013 has also hinted that the two countries may be considering an energy partnership. A pipeline from the Leviathan to Turkey would allow Eastern Mediterranean gas to reach Europe with Turkey playing the role of a transit route. Such a pipeline would have to pass by Cypriot waters and a resolution of the Cyp-

riot-Turkish conflict is hence a prerequisite.

Cyprus has been divided since the invasion of troops from Turkey in 1974. The Greek Cypriots control the southern two-thirds of the island and the Turkish Cypriots the northern third. The sovereignty of the

Republic of Cyprus over the whole island of Cyprus is recognized internationally by the UN and all foreign governments except Turkey. One more significant issue is that Turkey is not a member of UNCLOS (United Nations Convention on the Law of the Sea), thus it

doesn't recognize the rules and borders of Mediterranean Sea and countries. This makes it more difficult to achieve a resolution to the differences between these countries, according to different positions on their sea borders. Efforts to solve the dispute have all failed in the past.

**Although natural gas is now a major incentive in resolving the Cypriot dispute, changes may not happen overnight. Both Turkey and Cyprus must come to an agreement through their separate and common interests.**

The gas factor now comes as a new element that could play a tremendous role in altering the equation. Turkey could also eventually play the role of a transit route for Cypriot gas should the division of the island end. Turkey, with an energy consumption expected to double in the next decade is in desperate need of



energy from alternate sources. Like the rest of Europe, Turkey is looking to diversify its energy portfolio away from Russia. Although natural gas is now a major incentive in resolving the Cypriot dispute, changes may not happen overnight. Both Turkey and Cyprus must come to an agreement through their separate and common interests. This needs time and much effort from both sides as the conflicts between them have been in turmoil the last four decades.

The discoveries of natural gas and oil reserves create huge prospects in Cyprus, Greece and SEE countries generally: economic, political, national, geopolitical and investment opportunities from companies all over the world (Russia, China, Asia, Europe and America have shown interest in drilling and exploring NG). Taking into consideration the current uncertainty created by the financial-institutional crisis in Europe and worldwide, this perspective becomes the best possible option and should be fully exploited without delays and with suitable approaches. Specifically, Greece and Cyprus, aiming to achieve the goal of becoming a European energy hub and the EU's gate to energy diversification as an alternative route supplier, have to focus on their national interests through transparency, no speculation and without delays to do their best for the future of their nations. Today's "vulnerable" EU, by strengthening its cross-border interconnections with isolated national networks and serving the main pillars of European energy policy, would fulfill its target of an internal liberalized energy market and hence, further its position in international events and play a leading role as a calculable global power. ♦

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## Russia, Ukraine, and Europe are Tied by Gas Dependency

—Jack D. Sharples

The German energy giant RWE has begun to “reverse flow” supplies of gas from Europe back to Ukraine via Poland, a process first arranged in 2012, with an agreement to deliver up to 10 billion cubic metres (bcm) of gas per year.

The question for the Ukrainian interim government and state-owned energy firm Naftogaz is how this gas will be delivered, how soon, and whether it will be enough. Hungary has the capacity to deliver 5.5 bcm, Poland could deliver 1.5 bcm, and Romania could potentially provide 1.8 bcm capacity, but not before 2016-17 at the earliest.

Talks between Ukraine and Slovakia have renewed in an effort to tap into its capacity to deliver 9 bcm of gas, but the Slovak government and pipeline operator, Eustream, are anxious to ensure that feeding gas back to Ukraine does not breach its contracts with Russian state-owned energy giant Gazprom. Given that Ukraine imports around half of its annual 55 bcm of gas consumption, even with these new suppliers it will remain dependent on Russian gas.

The current situation comes as Kiev faces price hikes from US\$285 to US\$485 per thousand cubic metres of Russian gas, after Gazprom cancelled discounts offered in April 2010 and December 2013. The new price is significantly higher than, for example, the price of US\$399 paid for Russian gas at the German border.

Naftogaz has struggled to pay for its Russian gas imports since late 2013, and now owes Gazprom more than US\$2 billion. The combination of Naftogaz’s debts and unwillingness to pay the higher price means that many in Europe fear a suspen-

sion of Russian gas supplies to Ukraine – which, as it travels through the same pipelines, would also interrupt Russia’s gas exports destined for Western Europe.

This is not the first time that Russia and Ukraine have clashed over gas prices. For more than a decade following the collapse of the Soviet Union, Ukraine benefited from Russian gas import prices far lower than those in Western Europe. Attempts by Gazprom to raise gas prices for Ukraine resulted in disputes and suspensions of gas supplies to Ukraine in January 2006 and January 2009.

**Kiev faces price hikes from US\$285 to US\$485 per thousand cubic metres of Russian gas, after Gazprom cancelled discounts offered in April 2010 and December 2013. The new price is significantly higher than, for example, the price of US\$399 paid for Russian gas at the German border.**

With Gazprom delivering 140 bcm to the EU in 2013 – more than a quarter of the EU’s total gas consumption – this has left many countries scrambling to find alternative ways to meet their needs.

### Find New Routes

Russian gas is delivered to the EU via several routes, of which the Ukraine pipelines are the most important, accounting for 55-60%. Around 25-30% travels through Belarus, and the remainder comes through the new Nord Stream gas pipeline, which runs under the Baltic Sea directly from Russia to Germany.

Opened in late 2011, Nord Stream is 51% owned by Gazprom, with the remaining shares owned by European energy companies (BASF Winterhall, E.On, Gasunie, and Gaz de France). The pipeline's capacity can reach 55 bcm per year, but due to regulatory problems in Germany is currently operating at half capacity.

Gazprom is also planning the South Stream pipeline, another joint-stock partnership between Gazprom and local energy companies in each of the states it travels through. This would link Russia to Bulgaria under the Black Sea, through Serbia, Hungary, and Slovenia to northeast Italy.

If built, the 63 bcm per year capacity of South Stream and the 55 bcm capacity of Nord Stream combined

could reduce Russia's dependence on the Ukraine pipelines to almost nothing, if Gazprom's current export levels of gas to Europe remain stable.

***The legality of re-exporting Russian gas from Europe to Ukraine may hinge on Gazprom's gas transit contracts with Naftogaz and Eustream. These contracts effectively "reserve" the pipeline for delivering gas from east to west.***

#### **Find New Sources**

Ukraine's efforts to find alternative sources of gas imports have led to protests from Gazprom. The



Major pipelines bringing gas East to West. Samuel Bailey, CC BY

gas that would be exported from the European market to Ukraine would actually be Russian gas, being re-exported at a profit by European energy companies. Gazprom claims such a scheme could be illegal, but has not clarified on what grounds.

Re-exporting imported gas was previously forbidden in Gazprom's contracts with European energy companies, under the "destination clause". But by 2006, these clauses had been removed on the grounds that they infringed Article 81 of the European Community Treaty (restrictive business practices). So any European energy company – theoretically, at least – now has the right to re-export gas, regardless of its source or destination.

The legality of re-exporting Russian gas from Europe to Ukraine may hinge on Gazprom's gas transit contracts with Naftogaz and Eustream. These contracts effectively "reserve" the pipeline for delivering gas from east to west. Should Naftogaz and Eustream



reverse the flow of their pipelines without Gazprom's agreement, they could be in breach of contract. This condition applies even if those pipelines are not being used at full capacity, as is currently the case, and even if Naftogaz and Eustream are still able to fulfil their commitments to deliver Russian gas from east to west.

***Both Russia and EU member states and their energy companies have a vested interest in maintaining good trading relations.***

#### **Recognise Mutual Dependence**

They key aspect of this situation is the extent to which all parties depend on each other. While the EU sources more than 25% of its gas consumption from Russia, around 60% of Russia's gas exports are to the EU. Almost 60% of Russian gas exports to the EU are delivered via Ukraine, which is itself also almost entirely dependent on Russia for its gas imports (imports account for just over half of Ukraine's gas consumption).

Occasionally the European media refer to Russia's gas as an "energy weapon", or to the possibility that Russia may "turn off the taps" as leverage in a political dispute with the EU. But this is simply not credible: both Russia and EU member states and their energy companies have a vested interest in maintaining good trading relations.

For Europe, the disintegrating Gazprom-Naftogaz relationship is the greater worry. Both sides have in the past failed to use arbitration and dispute resolution to resolve their disagreements, and the ongoing arguments and two complete gas suspensions were the result. Given the recent statements by Russian and Ukrainian officials, another suspension

of Russian gas supplies to Ukraine cannot be ruled out. ♦

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## Workshop Review: Boris Jordan, Chief of Sputnik Group—The Ukrainian Crisis and Why the Russian Economy is Slowing

—Nicholas Watt

On April 7, Boris Jordan, CEO of Sputnik Group, gave a presentation to European University's students and professors in the Golden Hall. After being introduced by Rector Kharkhordin, Jordan began with the warning that he may from time to time switch back into Russian. Indeed, Jordan, a US citizen, has spent the last twenty years living and working in Russia.

After graduating from New York University, where both of his parents attended, Jordan moved to Moscow and got a job at Credit Suisse First Boston. Originally, Jordan wanted to be a US diplomat, but when he realized that he would not be placed in Russia, he went into finance. He set up Renaissance Capital with Vladimir Potanin and soon after that Sputnik. In the early 2000s, Jordan served as chief of Gazprom-Media's NTV until 2003, when he was relieved for political reasons. Jordan is also a member of the Council of Foreign Relations.

Jordan's talk, entitled "The Ukrainian Crisis and Why the Russian Economy is Slowing," covered three main topics: first, how the Russian economy got to where it is now, second, what the present challenges are, and third, what can be done going forward.

The expansion of the Russian economy in the early 2000s was, according to Jordan, due to the following factors. First, Putin instituted a tax system

based on profit, not revenue; taxing revenue had caused many Russian businesses to evade taxes just to stay afloat. Second, private owners had more significant confidence that their assets would not be re-nationalized and made minor investments which yielded major profits. Third, there was consumer led growth that came as a result of the increased wealth from rising oil prices.

***This growth led to what is known as "Dutch Disease" – as the ruble got stronger, other sectors of the Russian economy, especially manufacturing, became uncompetitive and suffered.***



Boris Jordan giving presentation in Golden Hall of European University. EUSP, 2014.

This growth led to what is known as "Dutch Disease" – as the ruble got stronger, other sectors of the Russian economy, especially manufacturing, became uncompetitive and suffered. Additionally, in the early 2000s about 80% of the GDP was privatized, but since then, much has been nationalized. To Jordan, this means lower productivity. And the country's "twisted financial policy" played a role in it experienc-



ing the biggest contraction in GDP during the economic crisis of 2008.

One of the present challenges that Jordan pointed out is that Russia's capacity has been used up - the easy money that came with minimal investment has already been made. Russia needs more capital and fundamental investment. Though foreign investment is relatively healthy, notwithstanding the damage already done by the Ukrainian crisis, domestic investment is seriously lacking, Jordan claimed, and used Mikhail Friedman as an example. Friedman, one of Russia's richest men, sold his share of Russia's TNK and bought a German oil company.

***“We have come to a crossroads. We have used up all existing capacity. Now, it is about hard work and reforms. First and foremost, we need to build confidence. Build domestic capital; the real money is FID, but it's not enough. We have to invest in housing stock. Have to invest in education and healthcare.”***

“The irony is if you look at Ford, GE, Procter and Gamble, they have made more money per dollar invested in Russia than in any other emerging market in the world.” Jordan continued to explain that the problem is that these companies' boards do not let them invest in Russia because of the perceived risk the country presents: “Events [in Ukraine] have heightened the lack of confidence that could have a bigger effect than macroeconomic issues.” According to Jordan, this confidence problem stems from a lack of a transparency in decision making, inadequate rule of law, and low asset security – he point-

ed to the case of the expropriation of Yukos in 2003. “How can you plan to go forward is a big issue,” Jordan left open.

Jordan cited seven areas that needed to be addressed in the Russian economy: Corruption, diversification from oil and gas and rebalancing from state dominance, creation of efficient capital market, tax reform, efficient infrastructure investments, housing improvement and labor mobility, education and public health.

Jordan then went on to explain some of these in more detail, starting with the overdependence on fossil fuel revenue. “I can't stress enough how much Russia needs to get away from resource economy. Russia should invest and be a leader in it; it would be foolish if it didn't. But we need to also diversify because when we see a drop in oil prices, which is likely – partially because of US production – it will be a huge problem.” Jordan estimated that the Brent price of oil could drop down to \$75 per barrel by the end of the year. The Russian budget is balanced on a \$115 per barrel price, he noted.

Jordan moved to another problem: the puny sum of domestic savings in Russia. For comparison, Brazil – whose economy is similar to Russia's in a lot of ways – has about \$1.1 trillion in domestic savings, whereas Russia has only \$134 billion. This translates to a poor national pension fund. Jordan's company had built the 8<sup>th</sup> largest pension fund in Russia, but then sold it in 2012 right before Russia's pension reform, which Jordan views as a negative development. He added that the Russian government - via bureaucratic measures - cut off 50% of people trying to switch to a non-government pension fund. “There is no legislation to stimulate savings,” he said.

Other problems that Jordan pointed out were a high corporate tax, underinvestment and inefficient tender processes in infrastructure development (it is 3 to 4 times more expensive to build a road in Russia than



in Sweden), underinvestment in education (“still living off of investments made in the 60s and 70s”), and an inadequate healthcare system.

Jordan offered another peculiarity of the Russian economy that stunts growth – the relative immobility of employees. 11% of US workers are mobile, while the figure is only 2.6% for Russia. This shows that few Russians are willing to relocate, and Jordan pointed to inadequate housing as the biggest culprit. A low 2% of GDP is devoted to housing in Russia, whereas China’s figure stands at 12%.

“We have come to a crossroads. We have used up all existing capacity. Now, it is about hard work and reforms. First and foremost, we need to build confidence. Build domestic capital; the real money is FID, but it’s not enough. We have to invest in housing stock. Have to invest in education and healthcare.” Thus Jordan finished his presentation and moved on to the question and answer session.

### Question and Answer Session

The first question came from Rector Kharkhordin, who asked simply, “Why is Putin not doing this?” Jordan explained that though Putin is one of the smartest presidents he has ever met, his administration is getting old. The people in his administration have just been recycling and trading positions since 2002; this lack of new people, according to Jordan, is a significant hindrance to economic reform.

A later question brought up a comment Jordan had made earlier that Russia is perceived as a less attractive place to invest than Turkey, even though Turkey, by many measures, could be seen as less stable than Russia. “What drives this perception?” went the question. Jordan recalled being invited to visit Putin in 2003. During the visit, Jordan pushed for more economic reforms and Putin said the Russian people weren’t ready yet, giving this anecdote: “Imagine two farmers living next to each oth-

er. One farmer has one cow and the other has two. What do you think the dynamic will be? In the US, the farmer with one cow will want to have three to beat the other. What do you think the dynamic would be in Russia?” Putin asked Jordan. Putin answered his own question, “The farmer with one cow is going to kill the other farmer’s cow so that each can have only one.” Turkey, Jordan continued, is perceived as being closer to Europe and so people may think they’re safer there. There is a lot of negativity in the US about Russia and much is driven by necons, like McCain, Jordan said. “Russia has an image problem.”

***“As far as the West is concerned, the Crimea is irrelevant. But it’s relevant as long as this is on the front pages in the US.”***

Another question referred back to Jordan’s mentioning of Russia’s mobility problem and how to change it. Change can happen, according to Jordan, and one thing is that we need infrastructure and Russia has to work on its demographics with its health care. Opportunities will create jobs. “If you can find a job but no place to live, that’s a problem! Let’s create a housing boom.”

A later question raised the controversial issue of Crimea, and the sanctions that have come as a result of it being added to Russian territory. “I think with politics, I am not sure Putin had another choice. Politically speaking, he did what he had to do.” As to the economics, Jordan said that investment confidence had already been significantly damaged, and it was in the interests of the Russian economy to resolve the crisis as soon as possible. Investors are shelving or perhaps cancelling deals that had been in the planning before the crisis, he explained. “The quicker people talk about the



ramifications for the economy, the quicker we'll conclude the crisis," Jordan said and turned to Western concerns. "As far as the West is concerned, the Crimea is irrelevant. But it's relevant as long as this is on the front pages in the US."

The question and answer session ended and Jordan stayed around for a little bit to chat with university students and professors. ♦

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