

Energy International Risk Assessment

An Independent Monthly Review



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Letter From The Editor

Next month EIRA celebrates its first anniversary. It was created with the aim of helping its readers understand the anomalies stemming from unorthodox competition in the energy sector in the Balkans, the Eastern Mediterranean, the Caspian Sea, Africa and Asia. During this time we have tried to act as an “early warning” system and to forecast the key drivers behind political, economic, religious and racial conflicts that are influencing developments in the energy world.

One year on and as we accurately predicted, the situation in the above-mentioned regions has in fact deteriorated while conflicts are continuing to spread and gain mass participation.

This month we are enhancing EIRA by adding an *Open Forum* with which we aspire to transform into a collaborative space for open international dialogue on energy developments. Thus we invite energy experts and geostrategic analysts to contribute with informative analyses, opinion pieces and comments.

We would like to remind you that EIRA does not hold any responsibility for the content of the submitted articles, which solely lies with the respective author.

We take this opportunity to thank you for your kind words about our work, which give us the courage to continue our efforts.

George Hatzioannou
The Editor

Worldwide Revolutions: What Is Behind The Corner?

The world is living a period of street revolutions. A decade from now this tool of political actions was probed in Belgrade. Here the Serbs have experienced for the first time the tactic of nonviolent action against the Government, in full conformity with the teachings of the American activist and thinker, Gene Sharp.

Mr. Sharp created a theoretical base. Combined with a good scenario, scrupulous preparation, training of carefully chosen persons and sufficient money allocations, these tactics became an efficient tool to organize the toppling of unwanted rulers, provided there were some social or political preconditions.

That technology was later used on different occasions, sometimes successfully, sometimes not. Basically, these attempts were defeated or failed when local rebel forces had their own, different agenda and when the targeted power was ready to strongly react. One of the preconditions for the success of that kind of nonviolent revolutions is to create a situation when the Government cannot use force to place the rebels under control.

The Americans must have learnt the lesson and adopted their strategy. The Arab Spring was the vivid example. However, it failed in Syria where the local ruler was able to counter the attack, and where the scenario evolved into a full-scale civil war with all its horrors. But it is another story. The original idea has completely degenerated.

Today, we are witnessing that kind of scenarios enacted in different parts of the world. The capital cities of Thailand, Ukraine and Venezuela were turned into a stage for massive popular demonstrations, which would not happen were it not for premeditated organizational work and generous financing. In Kiev, the demonstrators have already reached their primary target, the regime change. What will be the outcome of similar actions in other countries? Where and when would they erupt next?

It is naïve to see in these movements only the exasperation of people, their desire for positive changes. Obviously, this sentiment is an integral part of these “street” revolutions. However, the consequences of these coups are more often than not far from the initial declarations. The evolution of the Egypt revolt is telling. First, the popular nonviolent manifestations ousted President Hosni Mubarak. People in big cities were exceeding glad: the tyrant was down and out; the future was promising democracy and freedom. Second, free elections brought to power Muslim Brotherhood, an old Islamic party, which changed the political agenda pushing for Islamic values. Third, the military, capitalizing on fresh street manifestations, snatched the power. Now, they face a hard choice how to govern an economically, socially and morally exhausted country. Much Ado about Nothing.

Was that kind of evolution unpredictable? For many it was an obvious outcome. Why could the politicians and those who suggest to them crucial decisions not foresee such a turnaround of events? Why did those who gave the final political blessing for that kind of actions and ensured the cash-flow not realize that more powerful factors are in play and they will devalue artificial schemes?

Strange are the politicians in modern times! They seem to forget to calculate all the consequences of their actions, in particular in one aspect: energy supply.

The Arab Spring enhanced the unpredictability of oil and gas markets. The Egyptian and Yemeni gas pipelines are targets for terrorists. Oil and gas production in Libya is in convulsions, sometime working, sometime not. Civil war in Syria blocks all the projects of new infrastructure bound to the European market. Is it really the actual goal of these revolutions? And was it not social and political stability in the region and secure energy flow which was originally declared? Well done, guys! Or was the goal something opposite?

Similar risks are foreseen nowadays in Ukraine. The country is a patchwork, composed of territories with different interests and agendas.

There are, at last two parts of the country: the densely populated and economically developed East and the less populated and unemployed West. The East is looking with more sympathy to Russia but prefers to remain independent; the West is looking for European and American money. Other analysts see even a third Ukraine, Crimea, which wants to reintegrate with Russia (Crimea was a gift to Ukraine made by Soviet ruler Nikita Khrushchev). Regular regime changes in Kiev are and will remain a part of its political life, because of that deep difference in core interests; here you may find every kind of political animals, including violent anti-Semitic and anti-Russian ultranationalists who were the strike force of the Maidan movement.

The Ukrainian game is not over, its outcome is unpredictable. One of the biggest risks now is European energy security. A huge part of vital for the EU-Russia oil and gas delivery is conducted through the Ukrainian pipeline system. Some Western governments, which blindly supported the Maidan movement, should have foreseen that threat for hydrocarbon deliveries. Now they have to smoothly collaborate with Russia in order to guarantee the uninterrupted energy flow through Ukraine. Does Europe understand it? Will the EU be able to do it? Will the US want to do it?

If not, the EU has been warned: see what happened to Egypt, Yemen, and Libya...

The Middle East: Jihad Strikes Back

We are living in a strange century where political leaders throughout the world seem to have lost the capacity of comprehending the consequences of their acts and decisions. Today, some key Middle East countries feel threatened by radical Islamic fighters, mostly spilling over the region after deserting the Syrian front. The most evident case is Egypt.

First, one of the oldest Islamic organizations, the Muslim Brotherhood, outmaneuvered all opponents to become the winner of the local Arab Spring revolution which ousted President

Hosni Mubarak, and then solidified its grip on power by winning a democratic, by all counts, election. The Egyptian revolution was largely sponsored by Qatar, a wealthy Persian Gulf absolute monarchy, and it was finally accepted by the US and other Western countries.

Second, the Egyptian military, supported by Saudi Arabia, bounced back to power after popular unrest and revolt, and overturned the tables by banning the Muslim Brotherhood and declaring it a terrorist group. That development brought about some complicated chemistry process within the movement and around it. As a result, a more radical wing took the advantage claiming that the attempt to come to power and to hold it through a democratic political action was a mistake and that only violent action could bring triumph to their cause.

In that context, the Islamic extremists organized some deadly attacks on national security targets. The Sinai Peninsula became the center of jihadist activity and a group called Ansar Beit al-Maqdis, absorbing many experienced and war-trained militants came to the forefront. Al-Qaeda and its affiliates called upon supporters to join the fight against the government in Egypt. Many followed that appeal, and not only residents of Egypt. Many jihadists are now coming from Syria. The Egyptian military claim that they monitored “foreign” terrorists in Sinai, although most of them are Egyptian citizens. The first of them to die in that terrorist campaign was a former army officer, Walid Badr who came back home to Egypt from Syria.

The comeback of jihadists, their return to home countries, becomes a grave threat not only for Egypt, but also for other countries, including European. Mid-February British Home Office minister James Brokenshire estimated that up to 250 British-based jihadists have returned home to the UK from Syria and this became a huge problem for the security services.

The situation is even more alarming in Saudi Arabia, the richest country in the Middle East, the most important oil producer in the world and the sacred place for Muslims. Saudi rulers are now taking measures to prevent their nationals to

go fight a Holy War anywhere, in Syria or elsewhere. A Royal edict, dated 3 February stipulates that Saudi subjects participating in conflicts outside the country's borders risk to be jailed, for a term of three to 20 years! That ruling is targeting young Saudis who responded to the appeals of radical imams and went to Syria as soldiers to exterminate the Shia.

The number of these fighters is estimated at 1.2 thousand and even more. Le Figaro, an influential French newspaper, recently reported that 250 of them were killed in action in Syria, according to an unnamed Western intelligence service. The new Saudi approach is promoted also by media, the Great Mufti, the Moutawa (religious police), the Shura (consultative assembly), etc.

Saudi Arabia has not changed its mind about the nature and essence of the conflict in Syria and continues to finance antigovernment forces. At the beginning of the conflict, some prisoners were reportedly freed from Saudi jails on the condition that they would go to fight in Syria. The head of Saudi intelligence, Prince Bandar Bin Sultan, played a key role in the scene-setting of the Syrian conflict and channeling money and armaments to anti-regime forces. The Prince promised to King Abdallah that a rapid regime change in Damascus is in the making but it did not materialize. Now Syria is locked in a dead-end of a full-scale civil war.

The Government in Riyadh does not feel comfortable with the prospect of having their jihadists return back to the country one day. The kingdom was shocked by bloody terror attacks in 2003-2006, after some fighters from Al-Qaeda affiliates arrived from Iraq. A lot of effort was needed at that time to neutralize that threat and place the situation under control.

Right now, the maintaining state of security is becoming even more complicated because of the Saudi involvement in the coup in Egypt which culminated in the dethroning and ousting of the Muslim Brotherhood. That sect, mainly sponsored by Riyadh's competitors from Qatar, has long been under suspicion in the kingdom. Nevertheless, some Saudi clerics were not happy

with their country getting so involved in change of guard in Egypt.

For some months, the mosques in Saudi Arabia are closely monitored to prevent too passionate Friday sermons in favor of Holy war. There were officially unconfirmed reports about suspension of a couple of dozens of radical preachers.

All in all, Jihad strikes back in the Middle East. It is becoming a serious challenge for this sensitive to outside and inside pressure region, rich in hydrocarbon, which have been both a blessing and a scourge.

Third Arab Spring In Libya: An Agonizing Reappraisal?

On February 17, the people of Libya liberated from the dictatorial rule of Colonel Gaddafi exactly three years ago, celebrated the occasion amid deep-rooted resentment of the modest progress made so far. There is a strong nagging suspicion that the new leaders are more consumed with power struggle and seek to enrich themselves than put things into order and improve the lives of the citizens.

The deeply polarized nation depends in its survival on a steady flow of oil which accounts for 98 percent of all export produce, 95 percent of state revenues, and generates 70 percent of GDP. The reliance on this single largest export commodity makes Libya highly vulnerable to any disruptions in the oil sector.

The extreme dependence was explicitly manifested in late February when protestors blocked production at the el-Sharara oil field.

In early January, local militants condescended to lift their blockade of the site. It was heralded as a success of the central authorities, namely of Prime Minister Ali Zeidan who made mammoth efforts to de-bottleneck the three oil terminals in eastern provinces which had been under siege and occupation since last August. The relaunch of el-Sharara ensured that Libya's oil output of the state-owned National Oil Corp (NOC) went up to 570,000 barrels per day (bpd).

However, the subsequent closure of the field in February reduced Libya's oil output to 230,000 bpd which is less than one fifth of the 1.4 million bpd which the country produced until the middle of 2013. The setback affected business interests of international energy majors who form part of Akakus, a joint venture between the NOC, Spanish company Repsol, France's Total and Austria's OMV.

Last year, the rupture of gas flows from Libya forced Italy, one of its main clients, to seek safer alternatives to maintain the national energy balance.

In order to remain on the prestigious list of Europe's oil and gas purveyors, Libya desperately needs to consolidate its fractious political structures to make them functional and trustworthy. A crucial step towards this ambitious goal was made in February when citizens were called upon to cast ballots to elect a representative body of 60 members. They are empowered to draft a new constitution within 120 days which eventually will be put to a referendum.

Yet, the popular enthusiasm seemed to have waned off. In the parliamentary elections held in 2012, almost three million registered. This time, the number of those who cared to exercise their democratic rights went down threefold.

The poor showing by the electors appears to be the direct consequence of the low esteem enjoyed by the General National Congress (GNC) which is the supreme authority. Its utmost supremacy is best illustrated by the fact that when the Prime Minister wanted to send troops to prevent bloodshed during a clash between rival militants he was told by the top brass hats that they did not take orders from him. The government and the Ministry of Defense are not in command of the military. They report to GNC only which, in turn, is torn apart by internal squabbling.

The term in office of the GNC members expired on February 7, but they prolonged their existence by extending their mandate until new elections are held at some point this spring. This move triggered off a backlash by two local power

brokers, the Qaqaa and Sawaiq brigades. These two militias called on the GNC "to hand over power" otherwise the legislators would be considered "usurpers" with the clear prospect of being arrested and imprisoned.

The ultimatum by the Qaqaa and Sawaiq paramilitary formations reflected the actual balance of power in Libya where tribal heavily-armed groups have de facto split the country into several fiefdoms enjoying an unacceptable autonomy from central government. It was also a collateral by-effect of the sometimes covert and sometimes overt power struggle between Prime Minister Ali Zeidan, which has full backing of the West, and the Islamists, both in the GNC and in the society.

In fact, the still undisarmed guerrillas pose a threat to all who are currently in power or who will succeed them. In January, the parliament had no other choice but to put its infant army on alert when gunmen stormed air force base outside Sabha in the remote southern region which was in the grips of a lasting feud of warring militias.

The rivalries between the militias have a direct impact on the slow recovery of the energy sector. The appetite of tribal warlords in the eastern part of Libya for petrodollars drove them to seize several sea ports and oil terminals in August 2013.

Their ambitions do not stop at demanding from the central government a fair, or rather a lion's share of the oil revenues. They want wide political autonomy. It is quite evident that the moment they acquire it, this gain will be translated into a wider economic autonomy with a high probability of a subsequent claim to sovereignty. Déjà vu? Indeed, this is exactly why the government in Baghdad is apprehensive when it comes to the Iraqi Kurdistan getting a freer hand in dealing directly with global energy majors.

In January, the eastern warlords made a generous offer to international companies to purchase oil directly from the occupied terminals. In a swift response PM Ali Zeidan ordered navy patrol

boats to fire warning shots at a tanker (unidentified) which attempted to load crude at one of such terminal.

The statement issued by Ali Zeidan is worth a full-size quotation: “Any country or company or gang trying to send tankers to take oil from the seized ports without coordinating with the NOC, we will deal with them, even if we are forced to destroy or sink them. We warn all countries there will be no leniency.”

The enraged reaction (the use of the strong word “gang”) by the head of the central executive authority comes as no surprise. But the key question sounds like this: does the Prime Minister have enough powder to outgun his opponents? In particular, the Muslim Brotherhood? Or its rival in the parliament, the National Forces Alliance (NFA) which is also no friend of Ali Zeidan?

Two other noteworthy elements in the Libyan jigsaw puzzle. First, the recent election of the constitutional panel to draft the new constitution was treated as a meaningless event by the militia militants who occupy the eastern oil ports. Second, the election was also boycotted by the Berber minority, the Amazigh, residing at close range of the oil installations.

The heterogeneous nature of the Libyan society presents a formidable challenge to any central authority. The 60 “sages” summoned by the electors to elaborate the new Law of the land are divided equally between Libya's three regions: Tripolitania in the west, Cyrenaica in the east, and Fezzan in the south. Could a federation-style system of government be a solution? Can it provide a mechanism of accommodating the natural greed of the impoverished regions so distinct in their tribal traditions, mentality and instincts?

But then, there is an external factor too. The armed group Ansar al-Shariah, suspected of murdering the US ambassador and three other Americans in Benghazi in 2012 (which brought to an end the career of the US State Secretary Hillary Clinton) is apparently inspired by Al-Qaeda. According to local intelligence reports, this group is growing in strength and scale of

operations having added western cities of Sirte and Ajdabiya to its stronghold in Benghazi.

Supposedly, the local Al-Qaeda-linked militia is not disarmed before a possible conclusion of the hostilities in Syria. It might receive an enormous boost when jihadists pack up, leave Syria and choose Libya as their next destination.

Summing it up, the three years down the road to democracy in Libya have been paved not only by noble intentions of some idealistic leaders and sentimental aspirations of the public but also by tribal rivalries, street violence, overall breakdown of law and order, political chaos and economic havoc.

The term “agonizing reappraisal” was used by the US President Richard Nixon, who actually borrowed it from John Foster Dallas, to define a sober assessment of the Vietnam War by the nation, or at least by the political class. The “reappraisal” of the Arab Spring, especially in the case of Libya, is still in the pipeline.

Iran Desperate To Lure Long-Term Investors

In the wake of the sanctions’ relief, hammered out at the ice-breaking Geneva talks on November 24, 2013, Tehran has been using every opportunity to position itself as the next big chance for energy majors to invest into its hydrocarbon riches.

In March, Tehran was hosting a low-key yet symbolically significant conference titled “Iran post sanctions: Energy and Environment” with invitations sent to high-profile figures from the West. Among the invitees were former director of the Conoco Eurasia, Franz Ehrhardt, director of the Middle East Program at CSIS (Center for Strategic and International Studies), Jon B. Alterman, former US State Department policy advisor, Suzanne Maloney and Barbara Slavin from the Atlantic Council.

The focus of the discourse, as it could be easily forecast, was the opening up of investment opportunities in Iran's oil, gas, and

petrochemicals, which are estimated in the amount of \$200-\$230 billion.

The classical track-two diplomacy, involving all kinds of “ex” officials, often precedes government-level contacts. These water-testing exercises involving both sides are indicative of the gathering momentum of a genuine rapprochement.

Iran has a big stake in easing tension in relations with the West and capitalizing on the opportune moment to bring on board Western businesses. The natural purpose would be to alleviate all the accumulated ills in its economy. Sanctions have hit hard. The blockade and embargo scared away international energy companies.

The attempts to find an alternative in Asia proved to be futile. The state-owned companies in Asia, on the one hand, are less dependable on the West and have more room for maneuver, but, on the other hand, they do not necessarily possess the state-of-the-art tailor-made technology to meet the challenges of the exploration and production at the complex oil and gas fields in Iran.

The exemplary case of the giant South Pars gas field is a tangible proof that lack of investment and sophisticated know-how largely stalled the development of this otherwise remarkable deposit. This true godsend gift is spread across an area of 9,700 square kilometers, with 3,700 square kilometers in the Iranian territorial waters in the Persian Gulf, and is estimated to contain 14 trillion cubic meters of gas plus 18 billion barrels of condensates.

Tehran intends to put on stream the South Pars Phase 12 out of the 28 planned phases soon enough. According to forecasts, it might yield some 75 million cubic meters of gas annually. However, this is not a *fait accompli*. Some years ago Iranian officials expressed hopes that South Pars would generate \$100 billion a year in income when it reaches peak production level. Hopes have remained high on the agenda all the time, but it did not “bring the bacon home”, so far.

Experts have long pointed their finger at the missed chances in Iran’s energy sector due to a lack of investments which holds back the development of gas fields in the offshore zones of the Caspian Sea and the Persian Gulf. Today, however, a window of opportunity started to open up. Albeit slowly.

As spelled out by the French Total CEO Christophe de Margerie in late January at the World Economic Summit in Davos, the new pragmatic Iranian leadership was ripe to offer foreign oil companies better terms to develop oil and natural gas fields once the trade embargo is lifted. The new contracting regime will be “more sexy than before”, the French boss said in a seemingly flamboyant mood.

Recently, Paris charged forward. A 116-strong French business delegation visited Tehran. It has been reported that not only French energy majors are keen to jump on the band wagon but other businesses as well. The Tehran Times quoted a former French ambassador to the country saying that “French auto and aviation companies visiting Iran may start shipping parts there within weeks, as they explore deals potentially worth hundreds of millions of dollars.”

This news seemed to be too much to swallow for the Americans. The US Secretary of State John Kerry sent a warning note to his French counterpart, Laurent Fabius, reminding him that most US sanctions were still in place. The meaning was crystal clear: the French could be subject to America’s wrath and reprisal. Mr. Kerry, according to media reports, claimed that the French delegation visit was “not helpful” and that “it is not business as usual” with Iran.

It looks like a show of consistency in the US foreign policy, but only if taken at face value. After years of Cold War between the United States and Iran, Washington cannot jump into bed with Tehran on a short notice. It takes time to set the psychological stage for such a daring move. The Europeans always pursued a less rigid policy towards the Iranian mullahs, and henceforth have a freer hand and a freer leg to move in quickly. It will hardly please the US

which seems to have reserved the role of the new-old best friend of Iran for itself.

In any case, the race to get to Iran's table before the birthday cake is apportioned among the selected few has already begun. The last come might be the last served.

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Cyprus Reunification Talks. Energy Matters!

When the President of Cyprus, Nicos Anastasiades, and the leader of Turkish Cypriots, Dervis Eroglu, met at the disaffected airport of Nicosia to talk about possible reunification of the island, there was an undersense floating in the air. The background for these talks was set by the discovery of hydrocarbon resources in Cyprus' off-shore zone.

So far, the renewed high level contacts did not lead to a breakthrough, though the reactivation of talks is illustrative in itself showing a renewed appetite for finding a solution for the 40 year-old problem. But, in a new energy context the perspectives for success are looking more promising.

Without international cooperation in the area, involving Cyprus and Turkey, the perspectives of hydrocarbon regional production are vague. With conflicting claims for economic zone control and with Turkey determined to obtain a part of future resources for the occupied Turkish part of Cyprus, it seems evident that finding a settlement could be the best way for a real start for oil and gas prospection and production in that part of the Mediterranean sea. Turkey showed its determination to protect what is considers as its "crown jewels" and even sent a military vessel, obliging a Norwegian ship to stop prospecting and to leave the area. Without having an uncontested and accepted by other interested parties Exclusive Economic Zone, Cyprus will encounter problems attempting to put on stream an efficient gas production and export channel, which are planned for 2017.

There have been reports that the US were pushing for a restart of contacts between two

parts of Cyprus. Assistant Secretary of State for European and Eurasian Affairs at the United States Department of State, Victoria Nuland (the lady famous for her "f... the EU" during Ukrainian events), visited Nicosia some days before the Anastasiades-Eroglu meeting. She was supposed to bring an encouraging message from President Barak Obama.

The US were pushing for reconciliation for geopolitical reasons, to favor alternative natural gas sources to the Russians. After discovering hydrocarbon resources in the Eastern Mediterranean, a debate was launched throughout the region on the best transport routes. Some are proposing an energy alliance between Cyprus, Israel, Greece and Egypt; others prefer the combination of Cyprus, Turkey and Israel (favoured by the US). They also see that cooperation as a possibility for reconciliation between Turkey and Israel.

The relations between two key US allies in the region were hit in 2010 after Israeli forces attacked a Turkish boat, Mavi Marmara, with humanitarian items bound for isolated Gaza. There are some signs of modest warming in bilateral relations. Turkish Prime Minister, Recep Tayyip Erdoğan, finds himself in a delicate political position inside the country. He has entered the pre-elections period and needs to score a political success, for instance, on the dispute with Cyprus; besides, today he has less possibilities for maneuvers.

The momentum for a political settlement of the old problem seems good. Some believe that it could be reached within some months.

Irrespective of whether there is or there is no settlement on the Cyprus issue, one may wonder what amount of fossil fuels, mainly natural gas, may be produced in that area. The main gas field was discovered in Block 12 and was named Aphrodite. Its reserves are not huge, the latest assessments are between 100-170 bcm, less than the first ones (140-230 bcm). Experts are unanimous: it will be enough to satisfy Cyprus' internal demand, specifically in the perspective of switching the power plants from costly and polluting oil products to cheaper and ecofriendly

natural gas. The Government in Nicosia is interested in building a liquefaction plant, in Vasilikos, or an export pipeline but the resource base seems to be insufficient. Nevertheless, the available quantity is interesting enough and new discoveries could be made in the region. Once maritime zones delimitation problems disappear, it would be easier and less risky to go into new prospections.

Since reserves in the waters around Cyprus are not huge to organize its export deliveries, it is worth examining some regional alternatives. Until now, only Israel may offer some possibilities.

The Israeli gas production has started in 2004, at the Mari-B field (30 bcm reserves) and now it is declining following the gradual depleting. In 2011, the production was accelerated to compensate the loss of gas deliveries from Egypt. Next year Israel was obliged to lessen its production, not to overload the field and to find technical solutions, connecting some minor fields.

In spring 2013 the production was launched on the bigger Tamar field (254 bcm) which is turning into the main resource base for the country for a decade. All the production is almost contracted, mainly for internal use. Even combined with Dalit field (up to 14 bcm) Israel may not dispose of enough reserves for building a liquefaction facility unit. The perspectives for huge export are turning low. A game changer could be the start of production on the biggest Israeli field, the Leviathan (540 bcm). The consortium that retains the rights on it is planning to export gas in 2018-2020. How important could the output be? Would it be economically sound to build an LNG facility for it? What could the target market be? There is no sound answer due to relatively modest volumes of export oriented Israeli natural gas.

Obviously, in the current situation the European gas market is not attractive due to depressed prices even in a politically positive context when gas from any new source is more than welcome. Turkey and its rapidly growing economy could be an option, although the building of an off-shore pipeline is expensive and is justified with important volumes of pumped gas. The most

attractive would remain the Asian region with its enormous appetite for fuel and readiness to pay a good price for it.

Israeli producers seem to remain in a discussion mode. There are reports about talks conducted with Egypt. Up to 8 bcm of gas a year from the Leviathan field could be pumped to Idku LNG facility via an underwater pipeline or the existing Ashkelon - El-Arish line in the Sinai Peninsula. This solution may be efficient: no need to build a new plant and pipelines, to provide gas for all the needed capacity. But the political and terrorist risks are not to be discounted in Egypt and, in particular, in Sinai where many new jihadists are based.

Another possibility is compressing gas and transporting it by sea in a CNG form. The idea is pushed by Woodside, a future partner in the Leviathan consortium. That technology could be economically possible if the transportation distance does not exceed 2.000 miles. The minimal required volume is low, approximately 680 mcm a year which is realistic in the present Israeli production configuration. Transportation fees are not high (\$1-3 per mbtu). Moreover, there are two obstacles. First, nobody has used that old technology, experimented in the 1960s, and nobody has the required expertise. Everything is to be done from scratch. Second, the cost of ships for transportation of CNG is high. Such a fleet does not exist and has yet to be built. The building of these ships could generate up to 85-90% of all the transportation costs (compared with 25-30% in the case of LNG) with a long period of amortization.

Summing up, we may suppose that the rush for hydrocarbons in the Eastern Mediterranean could be a good tool to settle the political problems in Cyprus but will not bring much gas for export to South East Europe, even considering Israeli resources. These resources, however, are sufficient to satisfy internal demand and bring substantial benefits cutting energy bills in the producing countries. Priority export market for extra volumes in an LNG form would still remain Asia, although some smaller volumes could be directed to Europe.

The Appeal Of And Challenges For The East Med Gas Corridor

Dr. Vassilios Sitaras, a policy-maker of the Hellenic MFA, spoke about the prospects of a Greek-Cypriot-Israeli energy cooperation during an event organized by ELIAMEP in Athens.

Greece, Israel and Cyprus, as the only real democracies in the entire East Med region, have many common interests and enjoy excellent diplomatic relations, while Greece and Cyprus are also the only EU members in the area, Dr. Sitaras pointed out.

During 2013, he noted, there were already some signs that a Greek-Israeli-Cypriot energy alliance was in the making, despite obstacles such as: a) a strong pro-Arab feeling among some Greek circles, b) objections in Israel concerning gas exports *in general* (an issue that was finally resolved by the High Court) and c) threats by Turkey against the right of sovereign Cyprus to exploit its natural resources.

After many months of delay, a trilateral Memorandum of Understanding was eventually signed in Nicosia in August 2013. This MoU and the simultaneous declaration supporting the «Euro-Asia Interconnector» electricity cable were clearly the first steps towards a trilateral energy alliance, but it is still not enough.

The trilateral cooperation, Dr. Sitaras emphasized, will become important only if Greece ever manages to become a transit country for Eastern Mediterranean gas, either through the submerged “East Med” pipeline to Europe or with special ships carrying liquefied natural gas (LNG). The former is a project conceived by the Greek gas company, DEPA, with a length of 1.150 km, a diameter of 26 inches and an annual capacity of 7 to 8 bcm. The feasibility study for it is now under way.

The LNG option is Nicosia’s favorite, as it has already signed (26/6/2013) a Memorandum of Understanding (in no way a Final Investment Decision) with the companies *Noble*, *Delek* and *Avner* (all with exploration and exploitation rights

on the “Aphrodite” field of block 12) providing for the construction of an LNG export plant in Vassilikos. Later in 2013, Greek Prime Minister Antonios Samaras, with almost half his cabinet, went to Israel for a G2G meeting and a Joint Energy Declaration was adopted. Once again, Greece stressed its willingness to become a transit country for Israeli natural gas towards European markets, and the Israelis were reported to be considering this proposal quite seriously.

Dr. Sitaras remarked that the very relation between international energy cooperation and international politics requires clarification. Professor Shaffer’s excellent book on the issue (2009) claims that these two are “*intrinsically interlinked*” or “*inseparable*”, especially when it comes to infrastructure projects, which “*link states and reflect relations*”. Therefore, when choosing export routes, nations “*naturally consider and promote the political ramifications of various options*”.

At the other side of the spectrum, the inglorious demise of the “*Nabucco Classic*” and then “*Nabucco West*” gas pipelines — which had a lot of political support from 2002 to 2013, but little commercial value — has led another expert to conclude that “*when it comes to energy, political support and institutional involvement do not always represent the decisive element, and may be counterproductive at times*”.

Dr. Sitaras’ concept puts international energy cooperation at the crossroads of *political* and *economic* diplomacy, with probably a slight emphasis on the latter. Investment decisions in the field of energy, usually with a capital expenditure of many billions of dollars, he said, must be *politically* acceptable, but also *commercially* profitable and *technically* feasible. If they cannot satisfy all these criteria, they have little sense.

Commerciality criteria cannot be ignored. Only Mr. Putin’s Russia does not follow this practice, but it is probably the only one that can afford to do so, as it enjoys the world’s largest gas reserves (and even for Russia, he said, the price it entails is huge losses, which will eventually undermine its dominant export position). In other words, according to Dr. Sitaras, while it is more or less true that the current political relations between Israel and Turkey constitute a serious *obstacle* for

their own cooperation, this does not necessarily mean that the crucial criterion behind a multi-billion dollar investment decision will be a political one.

In effect, arguments against a big or “twin” Israeli-Turkish pipeline of some 16 bcm are of mixed political and economic nature. It is true that the estimated capital expenditure of this project looks relatively small, but capital expenditure for a project scheduled to last for many decades is just one economic factor, and probably not the most important.

If Israel decides to export to Turkey alone, it will be bound to a single gas market for years to come (any idea to carry the gas — via a new pipeline — even further, to the European market, would simply raise its cost to almost unacceptable levels). Israel will become highly dependent on Turkey and not vice versa, thus creating a relation of asymmetry which is least favorable for Tel Aviv, especially after precedent of the 2010 bilateral crisis.

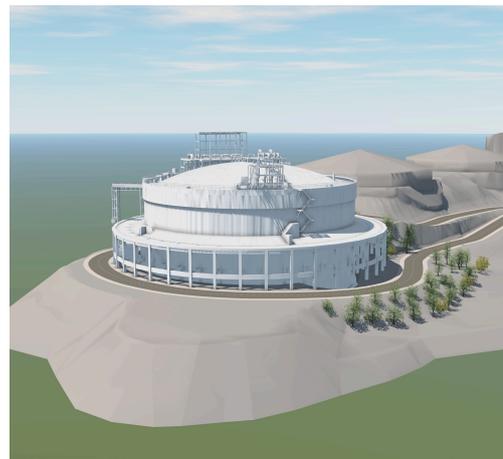
As Professor Shaffer has wisely remarked, in natural gas trade “*significant asymmetry of the degree of dependence is most likely to be exploited*”. As realism in international relations shows, two states are interdependent if the costs of breaking their relations or of reducing their exchanges are about equal for them. Interdependence implies that the parties are mutually dependent.

Finally, gas competition within Turkey is also strong: the proposed gas pipelines from Iran and Northern Iraq, when built, will carry to Turkey gas volumes much higher than the proposed pipeline from Israel and also will come at lower prices. In addition, no less than eight nuclear reactors are scheduled to come “on stream” in two Turkish locations during the 2020s, further reducing natural gas prices.

On the contrary, with Greece as an export destination, the “*East Med Gas Corridor*” will become a reality. Existing LNG import infrastructure is a strong asset of Greece, leading the European Commission to describe it as “*a physical gas hub*”. Since February 2000, Greece has a modern LNG import terminal, located in the

Revithoussa Island. By adding a third storage tank, its capacity will be expanded by 73% early in 2016, after an investment of 159 million Euros. Two small LNG terminals of the floating type (either FSRU or LNGRV) are under consideration in Northern Greece.

LNG from the “*Levantine Basin*” can feed these import terminals, with the final destination being Hungary, Poland or even Ukraine. This smart idea, known as “*Central Gas Corridor*”, will contribute to European energy security, somehow filling the “gap” of the cancelled *Nabucco* project with a minimum of capital expenditure, as Dr. Sitaras himself has claimed back in October 2013 (see *Energy Analyst: Nabucco's Gap Has to Be Filled*, www.atlanticcouncil.org). Therefore, the combination of the “*East Med Gas Corridor*” — Levantine Basin to Greece via LNG- and the “*Central Gas Corridor*” — Greece to the North via small pipelines- can become a provider of energy security for many states in Eastern Europe.



The third storage tank of the Greek LNG terminal, currently under construction (jp avax)

Finally, by the end of 2013, there was much talk in Israel of a possible combination of LNG exports together with Cyprus *and* a single pipeline to Turkey, a compromise solution favored by senior Israeli policy-makers. To be precise, they suggest 4 to 6 billion cubic metres of gas a year to Cyprus and 7 to 10 billion cubic metres to Turkey. Israeli economic newspaper *Globes* reported on 19/1/2014 that the commercial partners of Leviathan have distributed a request for offers to Turkey for the purchase of 7-10 billion cubic metres annually.

This “double face” scheme, Dr. Sitaras said, may sound politically desirable, as it will satisfy both Cyprus and Turkey, but it will make financial sense only if Israel’s export quantities are really significant (at least 15-16 bcma). In addition, the combined capital expenditure will be much higher than the cost of a single export project, so ROI (return of investment) will take time. Also, the single pipeline to Turkey will be less attractive than the original twin one (of 16 bcma).

Summing up, Dr. Sitaras underlined the point that, as of January 2014, there were the following five basic scenarios, sorted by rank of preference for Greece:

- a) Strong and permanent trilateral cooperation (*pipeline to Greece*),
- b) Weaker trilateral cooperation (*one or more LNG stations, with some gas ending up in Revithoussa*),
- c) Combination of Israeli exports both to Cyprus/Greece and to Turkey (*albeit with the Turkish project starting operations first*),
- d) Cooperation with neither Greece nor Turkey (*LNGs exporting solely to the Far East markets or elsewhere*), and
- e) Israeli cooperation with Turkey alone (*twin pipeline to Turkey*).

The ball is definitely on the Israeli side and it will remain so until the end of 2014. Dr. Sitaras’ view is that Athens and Nicosia should join forces, in order to persuade it to decide in favor of a project politically acceptable, but also highly profitable, all this from the producer’s point of view (and not for the most politically attractive from the transit state’s point of view).

Global LNG Fleet Will Rule The Waves

The explosion-like expansion of the LNG production and trade in major gas-producing and gas-importing countries created a new niche for industry building special vessels capable of shipping, literally speaking, this commodity.

Statistical estimates have two major drawbacks. First, they lag behind as always, and they often contradict each other. According to data of the International Group of Liquefied Natural Gas

Importers (GIIGNL), as of the end of 2012, the global LNG Fleet consisted of 378 tankers with a capacity of less than 18.000 cubic meters (cm) each and 14 floating storage and regasification units (FSRU).

Contrary to this estimate, the International Gas Union (IGU) said the actual number of LNG tankers was 362 but it took into account only those with a capacity of more than 18.000 cubic meters. Last year, 18 new tankers were finished, set afloat and sent sailing.

The composition of the LNG fleet by category (end of 2012): Tankers with

- capacity from 18.000 cm to 124.999 cm constituted — 7%
- capacity from 125.000 cm to 149.999 cm — 62%
- capacity from 150.000 cm to 177.000 cm — 19%
- a capacity from 210.000 cm and larger — 12%

The average capacity of a tanker equaled 142.000 cm.

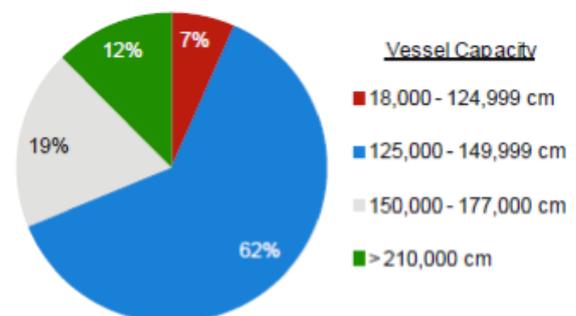


Figure 6.2: Global LNG Fleet by Capacity, 2012

Sources: PFC Energy Global LNG Service

After Fukushima, gas demand in Japan soared, and it consolidated the local market as a premium market affecting the state of play in the whole region. LNG became the most sought-after product in places where there was no technical capability to deliver gas through a pipeline. The lucrative Asian markets stimulated interest of gas producers from Qatar to Australia and further on to the United States. LNG deliveries, often labeled “flexible pipeline”, lifted both expectations and appetite for long-term forward-looking investments.

The key element in LNG trade is means of delivery, special tankers requiring sophisticated technology, maintenance and operational skills. In the last years, order portfolios for the construction of LNG vessels thickened. According to IGU, the overall orders amount to 96 tankers with an aggregated capacity of 16 million cm (which makes the average vessel capacity around 170.000 cm). Data by GIIGNL for the end of 2012 slightly differs: 78 tankers were on order.

In 2013, 57 newly-built tankers joined the global LNG fleet. Most of them were produced by shipbuilders in South Korea with Chinese and Japanese peers following suit. Out of total, 42 were tankers of standard capacity, 8 minor vessels, 6 floating storage and regasification units, and one tanker for bunkering refueling.

Actually, some experts predict there might be an LNG-tanker “glut” since the decommissioning is going at a slow pace. There is good reason for that though: the average age of LNG tankers is 12 years old; 87% of the fleet is younger than 24 years; only 11% have been around for more than 30 years. In 2012, only three tankers were reduced to scrap metal.

The steadily growing demand for LNG has created a lust for supertankers with a large capacity. Business is thinking big, if the market is there. Yet, a secure niche emerged for small capacity vessels. The customers ordering such vessels usually come from Indonesia, the Philippines and Vietnam.

The rationale is simple: these countries need to ship small-scale LNG cargoes on short distances. For instance, in Indonesia they deliver LNG from one island to another to use as fuel for power generation plants.

In spring 2012, the FSRU West Java was put on stream to provide fuel for power generation of the islands of Java and Sumatra in the western part of Indonesia. The gas producing regions, on the contrary, are located in the eastern part, on the islands of Kalimantan and New Guinea. Small-scale LNG production facilities and similar size tankers are best suited to do the job.

Although “small is beautiful”, it does not make headlines. What does, are the gigantic vessels, Q-Flex and Q-Max being constructed by the Qatari company Nakilat. These supertankers are capable of taking on board large volumes of LNG. Thus, Q-Flex has a capacity from 210.000 cm to 217.000 cm while Q-Max may hold from 263.000 cm to 266.000 cm. So far, according to Qatargas, 19 Q-Flex and 13 Q-Max supertankers have been constructed and commissioned.

Yet, for the moment, only 2/3 of the existing LNG-terminals around the world can accommodate Qatari Q-Flex tankers, and only half can accept Q-Max. There is a growing demand for building terminals to welcome standard tankers (capacity from 120.000 cm to 180.000 cm), mostly attributed to the spread of FSRU.

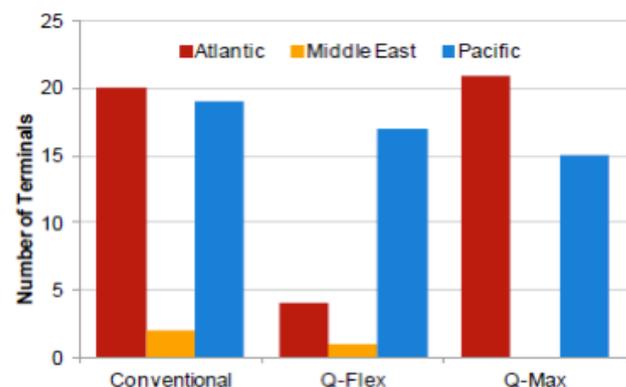


Figure 5.10: Maximum Berthing Capacity of LNG Receiving Terminals by Region, 2012⁹

Sources: PFC Energy Global LNG Service

The freight orders are on the rise as well, just as the tariffs. By the end of 2012, the average spot price for leasing an LNG tanker totaled some US \$120.000 per day, with a long-term lease equal to US \$80.000 per day. The top tariff for standard capacity tanker of 155.000 cm was registered at US \$150.000 per day.

The transportation distance determines to a great extent the cost of freight since LNG is prone to evaporation. It affects insurance premium. The shorter the distance, the better for producer, shipper and client. Presently, the longest route stretches from Trinidad and Tobago to Japan: more than 14.000 nautical miles.

Open Forum

The Energy Potential And Balance Of Power In The Caspian Sea

By Marika Karayianni*

i. The Energy Sector Of The Caspian Littoral States

Overall, the total proven reserves of the Caspian are estimated at 3,1 tcm of natural gas and 2,95 bn tons of oil. According to recent data, the Caspian oil extraction amounts to 2,5% of the global one. However, a significant part of its reserves remains undeveloped, due to the unresolved legal status and the unspecified ownership of the fields, that lie between two or more littoral States. Particularly, there are three mega structures in the Central Caspian basin between Azerbaijan and Turkmenistan, bearing double names, in Azeri and Turkmen, namely Kyapaz-Serdar, Hazar-Azeri and Chirag-Osman, which are assessed to hold significant natural gas reserves, able to alter the present production and export status in the Caspian.

Over the years, three major discoveries have marked the Caspian energy development: Shah Deniz in Azerbaijan, Kashagan in Kazakhstan and South-Iolotan/ Galkynysh in Turkmenistan.

Azerbaijan holds in total 1,3 tcm proved reserves with the potential to further increase, when Shah Deniz Phase II comes on stream as of 2019 and the new discoveries offshore Baku reach their initial development phase. Kazakhstan holds 1,9 tcm proved reserves of natural gas, however the numbers are expected to skyrocket, since the restart at the giant long-delayed Kashagan structure in the Kazakh offshore sector in the Caspian. Kashagan has been described as the world's largest oil and gas discovery in the last 50 years, however its development still faces significant obstacles, as major oil and gas deposits are in areas of shallow water, covered by ice 5-6 months of the year, further complicating exploration.

The Kazakh current oil production rate of 1,7 mn bbl/d could grow to 2,6 mn bbl/d by 2020 and to 5,2 mn bbl/d by 2035. Turkmenistan is a separate case, since the Turkmen regime is not very open to foreign auditing and inviting western companies to invest in the unexplored fields. The country holds the world's fifth largest natural gas reserves. The giant natural gas structures of South Iolotan, Osman, South Gutlyayak and Yashlar-Minara have been united in one single mega-structure under the name Galkynysh. The British auditing company Gaffney & Cline Associates gives 13,1 tcm low estimate and 21,2 tcm high estimate for its reserves, making it the most important natural gas discovery in the last decade on a global scale. The first development phase of Galkynysh was completed in summer 2013.

Focusing on Azerbaijan, the country is emerging as the Caspian's most important strategic export outlet to the West and is increasingly becoming an important producer and exporter of oil and natural gas. Azerbaijan's proven crude oil reserves were estimated at 7 bn barrels in 2010. The largest hydrocarbon basins are located offshore in the Caspian Sea, namely the Azeri Chirag Guneshli (ACG) structure, with estimated 9 bn barrels of oil. Oil production in Azerbaijan increased from 283,000 barrels per day (bbl/d) in 1999 to more than 1, 37 mn bbl/d in 2010.

There were a number of projects in Azerbaijan's offshore that seemed promising, but were deemed disappointing after they turned out to be either dry holes or the oil discovered was deemed non-commercial, resulting in the closure of several projects, the most prominent of them being the INAM offshore field, operated by BP.

In addition to the lack of new producing oil fields, political complications related to boundary disputes further dampened exploration and ceased field exploration, like in the case of the Araz-Alov-Sharg field between Iran and Azerbaijan. All in all, in the oil sector, Azerbaijan has so far signed 10 PSAs (Production Sharing Agreements) with international companies, all of which are currently active, for the development

of onshore and offshore oil structures, namely: Balakhany, Kurovdagh, Kursengi Karabaghli, Mishovdagh Kelameddin, Neftchala, Padar, Pirsahhat, Surakhany, Zih Hovsan and ACG.

In the natural gas sector, with the startup of the Shah Deniz natural gas and condensate field in 2007, Azerbaijan became a natural gas net exporter. During the period 2004-2011, natural gas production increased 5,2 times, from 5,0 bcm/y to 25,86 bcm/y. In 2010, Azerbaijan produced 15,1 bcm/y of natural gas. Almost all of Azerbaijan's natural gas is produced from offshore fields. Apart from the Shah Deniz, the Guneshli field, part of the ACG structure, provides associated gas to the Azerigaz system for domestic use. According to BP, Shah Deniz contains estimated reserves of roughly 1,2 tcm of natural gas and 240 mn tons of condensate and is expected to eventually yield around 25 bcm/y for export. Phase II of the Shah Deniz development is expected to produce the said volume of natural gas and its startup is announced for 2019. All in all, it is expected that by 2015 natural gas production will amount to 20 bcm, whereas by 2025 it will increase up to 40 bcm.

Apart from Shah Deniz, the interest of global energy companies is now focused on the new natural gas discoveries, announced by SOCAR in 2011, offshore sector of Azerbaijan in the Caspian, with most of them being adjacent to Shah Deniz. More specifically:

- November 2010 SOCAR announced the discovery of Umid, a natural gas field with estimated reserves at present time around 200 bcm and 40 mn tons of condensate. SOCAR is conducting all drilling and exploration activities on its own, as a result the field will not be subject to a PSA agreement in the future.
- The Bebek field, adjacent to Umid, also seems promising, with estimated reserves of 400 bcm in place and 80 mn tons of condensate. These two fields are currently in the phase of drilling and exploration and have not yet reached actual development.
- In September 2011, SOCAR together with Total announced the discovery of a major gas condensate field offshore at the Absheron peninsula, 100 km off Baku at a depth of 500m. Preliminary estimates give the field 350 bcm of gas in place and 45 mn tons of condensate. An Exploration, Development and Production Sharing Agreement was signed for the Absheron field, with the following contracting parties: SOCAR (40%), Total (40%) and GDF SUEZ (20%). Apart from the Absheron field, foreign energy companies have expressed interest in the shallow water area around the peninsula. As a result, another PSA was signed between SOCAR (20%) and Bahar Energy Ltd (80%) for the exploration and development of the Bahar-Gum Deniz fields.
- Another PSA was signed in October 2010 and ratified by Melii Majlis in May 2011, by SOCAR with BP on a 50%- 50% basis for the exploration and development of the Shafag-Asiman field. Shafag-Asiman is located at a depth of 600-800m, 60 km from the Shah Deniz field, with very deep reservoirs at approximately 7.000m and holds estimated reserves of 300 bcm in place. BP recently completed the 3-D seismic survey at Shafag-Asiman. The analysis of the seismic data is expected to take 18 months, in preparation for the drilling of the first well by 2016.

Moreover, SOCAR is also pursuing exploration activities on its own, through the commissioning in 2011 of two fields discovered in 1998, in partnership with foreign companies, namely the Garabagh and Ashrafi fields. Last but not least, together with RWE in the framework of the respective PSA, SOCAR is pursuing the development of the Nakhchivan natural gas field, also offshore in the Caspian, with estimated reserves at 300 bcm in place.

ii. The Development Of The Shipping Sector In The Caspian Sea

In parallel with energy development comes the rapid expansion of the merchant activity of the Caspian littoral States with the subsequent shipbuilding of new merchant vessels, both dry cargo and tankers, carrying oil and oil

derivatives, corn, grain, cereals and other agricultural products.

Russia, despite the fact that it holds a major merchant fleet with more than 1,400 vessels under Russian flag, has a minor presence in the Caspian region. Poaching and a local mafia of fishermen in the Daghestani coast seem to present a problem for Russian ships.

As far as Iran is concerned, due to the oil and oil derivatives trafficking from and through the Persian Gulf, it also holds a minor presence in the Caspian Sea.

In the Northern Caspian, Kazakhstan seems to attach increasing importance in the shipping sector, not only due to oil exports but, mainly, due to increasing agricultural production, primarily grain, through the newly upgraded terminal at the Aqtau port. There are also plans of having a direct line between Aqtau and Baku in Azerbaijan in the future. Kazakhstan uses the Volga-Don canal to direct its products in the international markets through the Black and Mediterranean Seas, while there is a number of tankers under shipbuilding in the yards of Mitsui in S. Korea.

Turkmenistan, on its part, is using tankers and CNG (Compressed Natural Gas) vessels, which carry hydrocarbons from the port of Turkmenbashi to Baku on the other side of the Caspian. Ashgabad has ordered the shipbuilding of six tankers, one LNG carrier, two passenger liners, four tugboats and four support vessels for the offshore platforms and rigs, i.e. a significant increase of its merchant fleet.

The most significant merchant activity is observed in Azerbaijan, since the country has the biggest oil and gas production and exports in the Caspian. The main priority of the Aliyev regime is to construct an entirely new port in the Caspian with increased capacity of loading and unloading fuels and also welcoming big dry cargo vessels. For the present time, Baku remains the central merchant and shipping terminal of Azerbaijan, while the terminals of Sangachal and Dubendi serve oil and gas loading and unloading. The State company Caspian Shipping

Company owns the Azeri fleet, which accounts for a total of 71 vessels, i.e. 36 tankers, 7 ferry boats, 2 Ro-Ro ships and 26 cargo ships. Of those, 23 ships are executing merchant shippings in the Black and Mediterranean Seas, while the rest of them are sailing exclusively in the Caspian Sea. In September 2013, a new shipyard was inaugurated in Baku, which is expected to largely contribute to the merchant and economic development of the Azeri economy.

iii. The Security Context In The Caspian And The Military Capabilities Of The Five Littoral States

The overall security environment in the Caspian is assessed as sensitive due to the immediate neighbourhood with the Caucasus on the one hand and Central Asia and Afghanistan on the other. 2014 is a crucial year in view of the imminent ISAF withdrawal from Afghanistan and the subsequent security vacuum, which is expected to emerge in wider Central Asia and the Ferghana Valley in particular. NATO has already raised fears on a feared revival of Islamic extremism in the region and a potential expansion to the East, i.e. to the Caspian, with primary targets being the onshore and offshore energy infrastructure (rigs, jack-ups, semi-submersibles, platforms, terminals and pipelines). Azerbaijan and Kazakhstan are the key allies of NATO in the Caspian Sea, first of all because Azerbaijan is hosting some of the biggest foreign investments of global energy companies and the subsequent stakes in the country are very high; secondly because Kazakh ports are included in NATO mapping of the ISAF withdrawal from Afghanistan.

Despite the unresolved legal status, the leaderships of the five littoral States (Azerbaijan, Kazakhstan, Turkmenistan, Russia and Iran) have altogether stressed the need to ensure security and stability in the wider region, through direct bilateral and multilateral consultations.

The latest bilateral meeting of the Presidents of Russia and Azerbaijan in 2012 was considered as very useful, since Putin and Aliyev confirmed the mutual will to pursue common energy

development with the ultimate aim of ensuring peace and stability in the Caspian.

All five littoral States are investing in increasing their naval presence in the Caspian, either through modernization of the existing fleets or through new procurements. The utmost priority of all is the protection of the fields and energy infrastructure in the Caspian at all costs and by all means.

Russia

The 4th Flotilla of the Caspian Sea is the strongest naval presence in the entire area. Its personnel accounts 15,000 marines and 30 war vessels, while an addition of 10-15 vessels by Russia is expected in the next decade. The main tasks of the Russian Flotilla is to ensure the naval supremacy of Russia in the Caspian, to fight terrorism and extremism in neighboring Dagestan and Chechnya and finally to counter-fight drug trafficking from Afghanistan.

Iran

Despite the fact that the Navy of Iran is much bigger in number in comparison to the Russian Navy (100 vessels in total), it lacks high combat capability. It is comprised of patrol gun motor boats with guided missiles and fast boats with different kinds of military equipment on board, which are stationed in three Iranian naval bases in the Caspian, one of which is a training center. The Iranian leadership has a plan to redirect some of its naval bases in the Persian Gulf to the Caspian, however this plan has not materialized due to extremely high cost as well operational difficulties.

Kazakhstan

The Navy of the country also outnumbered in absolute numbers the Naval forces of Russia and Iran in the Caspian Sea, however it also lacks behind in combat and operational capabilities. In 2006, the Kazakh Navy acquired three gun boats from South Korea and four patrol gun motor boats from the US. For the period 2013-2015 it is forecast to procure two newly constructed frigates and two Russian fast patrol gun motor boats. The

Kazakh port of Aqtau in the Caspian is programmed by NATO to be utilized as a base of stationing and transporting military material and equipment of ISAF forces withdrawing from Afghanistan.

Turkmenistan

The country's Navy was created only during the past decade and is comprised of two gun boats and several patrol gun motor boats with the tasks a) to protect the coastline and the fields and b) to obstruct drug trafficking and poaching.

Azerbaijan

Azerbaijan has been very keen to develop its bilateral partnership with NATO, under the PfP Program (Partnership for Peace) as well as with key countries such as the US, Turkey and Israel. The main task of the Azeri Navy is to protect the offshore fields and the energy infrastructure and installations, both Azeri and of the foreign energy companies. The combat forces of the Azeri Navy consist of 1 frigate and several types of tank-bearing vessels, most of which however are not equipped with land-to-land missiles and the necessary torpedoes in order to be operational. This year, the procurement of missiles KH-35 and URAN-E with 130 km drastic range is expected, which will equip the entire Azeri fleet.

From the above, it is obvious that the Caspian hydrocarbons are complementary and not an alternative to Russia's source of gas supply either to the EU or to China. It is also clear that the Caspian countries have informally divided the export outlets amongst themselves, with Azerbaijan supplying Europe via TANAP and TAP, Kazakhstan following the lead with oil supply through Russia, whereas Turkmenistan is addressing most of its gas production to China through the Central Asia Gas System.

Given the upcoming oil and gas production in the next decade, as well as the increasing geo-strategic importance of the Caspian in the aftermath of the ISAF withdrawal from Afghanistan, it is assessed that the region will remain high in the priorities both of the EU, as a

complementary source of natural gas supply, and of NATO, particularly Azerbaijan and Kazakhstan counterbalancing Russia and Iran in the region.

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Important Note

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