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CHALLENGES
OF 2017



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Bultan

NEW ALLIANCES



A Glance at Shipping Industry's Earnings in 2016



“Market conditions across most sectors of the shipping industry in 2016 have been highly challenging and things in many sectors appear to be as bad as they have ever been”, Clarksons Research says. According to MANA, in the wider fleet some niche sectors have seen better earnings, but even so, most shipowners will surely be hoping that 2017 brings with it a significant change in fortunes, Clarksons said.

The ClarkSea Index, an average of earnings for tankers, bulkers, boxships and gas carriers, averaged USD 10,574 per day in November 2016, down 11% on the average since the start of 2009, a handy marker for the onset of the downturn. In the dry bulk sector, the market has been under significant pressure for some time, and in November 2016, Capesize spot earnings stood 14% below the average since 2009.

Meanwhile, oil tanker earnings have fallen this year, from a strong 2015, despite robust trade growth. Clarksons informed that firm fleet growth in both the crude and product tanker sectors has placed pressure on the tanker markets, with clean MR average spot earnings in November 23% below

the average since start 2009.

The specialized shipping sectors are faring little better. LPG market conditions have deteriorated acutely this year, reflecting the impact of rapid fleet growth.

The PCTC market has also come under pressure, with the rate for a 6,500 CEU vessel averaging USD 16,000 per day in November, down 24% on the average since start 2009. In the general cargo sector, the boxship charter market has been notably depressed, with rates at bottom of the cycle levels. The 6-12 month charter rate for a 2,750 TEU boxship stood at USD 6,050 per day in November, 26% lower than the average since start 2009.

“However, in some of the niche general cargo areas, things look a little better,” as time charter rates for Ro-Ro vessels have firmed this year, with the November rate for a 4,000 lm vessel up by 43% on the average since 2009.

Clarksons said that some niches are performing more strongly than others, with passenger ferry charter rates in November up 46% on their start 2015 level, and the cruise sector in full-on expansion mode.

\$2.1bn shipbuilding orders in 11 months for HHI

HYUNDAI Heavy Industries, South Korea's largest shipbuilder, reported \$2.1bn in new orders for the first 11 months of this year.

In November, the conglomerate received an order to build one 7,500 cu m liquefied natural gas bunkering vessel for Germany's Bernhard Schulte. According to the document, the contract value stood at \$571m. Total new orders for HHI, whose business portfolios also include industrial plant and engineering, engine and machinery, electro electric systems, construction equipment and green energy, amounted to \$7.1bn during the reporting period. Despite the challenging environment, HHI seems to have fared better than its compatriot competitors in securing new orders. Samsung Heavy Industries, another shipbuilding giant in Korea, recorded only \$800m in newbuilding contracts for the 11-month period. Earlier this week, HHI signed a memorandum

of understanding with Seongnam City to establish the Integrated HHI Group Research & Development Centre. Earlier this week, HHI signed a memorandum of understanding with Seongnam City to establish the Integrated HHI Group Research & Development Centre.



HMM reveals ship order plan for 2017

Restructured Hyundai Merchant Marine (HMM) has unveiled its fleet expansion plan for next year. According to MANA, The Korean owner aims to order containerships and VLCCs in 2017, The Asiasis website cited the company as saying it has formed a consultation group which will examine potential yards and demand for vessel types.

It wants to replace boxships that are scheduled to be scrapped, as well as ordering feeder ships and focusing on eco-tonnage.

Currently controlling 2.2 percent of global container capacity, the firm said it intends to improve cost competitiveness by focusing on the Asia-US route and raising wet bulk carriers rather than dry bulk vessels.

In addition, HMM will focus on raising revenues and operating profits, and improving service quality in the next two to three years, local media cited Yoo Chang-keun, HMM's CEO, as saying.

HMM's creditors, including the Korea Development

Bank (KDB), agreed to inject about KRW 300 billion (USD 256.7 million) into the firm by this month.

On December 11, 2016 HMM reached an agreement with Maersk Line and Mediterranean Shipping Company (MSC), members of the 2M alliance, to enter into a new strategic cooperation.



Panama Canal, IRPT Sign MoU

Inland Rivers, Ports & Terminals (IRPT) has signed a Memorandum of Understanding with the Panama Canal Authority (ACP). This historic event marks the first ever global connection for IRPT.

This Memorandum of Understanding is important to all of our inland river ports, terminals, and river-borne transportation services and will recognize the importance of promoting waterway shipping.

IRPT promotes foreign and domestic commerce using international trade routes, such as the Panama Canal. America's inland ports are major sources of export and import generation for the economy and serve as feeder ports to coastal ports around the nation.

The memorandum will allow IRPT and ACP to engage in joint marketing efforts, generate new shipping business and share data that may be helpful in forecasting future trade flows. Together, IRPT and ACP can create awareness of the benefits



derived from the Canal expansion and optimize the existing inland transportation used to move commodities to and from the United States through the Canal.

Shanghai Port Remains N.1 in the World

The world's busiest port of Shanghai is poised to beat the container throughput of 36.54m teu it set in 2015, after it recorded throughput of 34.04m teu in the first 11 months this year.

Shanghai International Port (Group) Co (SIPG) released figures that the Chinese port handled 3.22m teu in November, tallying volumes for the first 11 months to 34.04m teu, up 1.9% from 33.42m teu seen in the same period of 2015, and just 2.5m teu shy of last year's volume, MANA correspondent reported.

Last month's volume rose by 6% compared to 3.04m teu handled in November 2015, according to figures from SIPG.

Shanghai is set to retain its crown as the world's busiest port as second ranked Singapore port recorded



throughput of 25.57m teu in the first 10 months this year, putting Singapore short of 8.47m teu to match Shanghai's volumes in the first 11 months.

Maersk Line linked to Hamburg Süd acquisition

The shipping arm of Danish conglomerate A.P. Moeller-Maersk A/S is looking to buy German peer Hamburg Süd, people with knowledge of the matter said, a deal that would help Maersk Line boost its presence in global trade with Latin America.

According to MANA, Maersk Line, the world's leading container-shipping operator, is interested in acquiring the entire Hamburg Süd business, Hamburg Süd, the world's seventh-biggest container operator in terms of capacity, is part of the Oetker Group, a family-owned German conglomerate involved in shipping, banking, food and beverages. Container ships that transport 95% of the world's manufactured products are caught in one of the deepest ever down-cycles, marked by anemic global trade and a glut of tonnage in the water.

Those conditions have kicked off an unprecedented wave of consolidation, with many of the 20 biggest operators either joining alliances or merging to weather the crisis.

France's CMA CGM, the third-biggest player, last year bought Singapore's Neptune Orient Lines for \$2.4 billion, and Japan's three largest shipping companies said in October they would merge their container operations. Hamburg Süd said it had nearly 6,000 employees at the end of 2015, and owned and chartered 130 containerships. According to data provider Alphaliner, the German company accounts for 3% of global container capacity, with the ability to transport 600,000 containers. The value of its fleet is around \$1.4 billion according to Vessels Value, another maritime data provider.

Idle container shipping capacity soars

The idle container shipping fleet has soared to 1.7 million TEU this year, driven up by Hanjin's collapse and from carriers withdrawing ships from service at a rapid rate in an attempt to limit the impact of chronic overcapacity and weak demand.

According to MANA, The number of idle ships has increased from 238 vessels in November 2015 with a combined capacity of about 900,000 TEU to 435 ships aggregating 1.7 million TEU in early November of this year, according to Drewry. At the beginning of 2015, idle containerships comprised just 2.5% of the global fleet, while ships currently laid up in quiet waterways around the world now account for 9% of the global fleet. Container shipping analyst Alphaliner also looked at the hopeless situation of Panamax owners. It said 50 Panamaxes had been sold for scrap since the expanded Panama Canal locks opened,

but another 100 vessels needed to quickly head for demolition if there was to be any chance of rebalancing supply and demand.



Hanjin Shipping Files for Receivership

South Korea's Hanjin Shipping Co Ltd ([117930.KS](#)) filed for court receivership on Wednesday after losing the support of its banks, setting the stage for its assets to be frozen as ports from China to Spain denied access to its vessels.

Banks led by state-run Korea Development Bank (KDB) withdrew backing for the world's seventh-largest container carrier on Tuesday, saying a funding plan by its parent group was inadequate to tackle debt that stood at 5.6 trillion won (\$5 billion) at the end of 2015.

DON'T MISS:

Hanjin Shipping, South Korea's biggest shipping firm, announced the filing for receivership and a request to the court to freeze its assets, which the Seoul Central District Court planned to grant, a judge told Reuters, declining to be named.

The court will now decide whether Hanjin Shipping should remain as a going concern or be dissolved, a process that usually takes one or two months but is expected to be accelerated in Hanjin's case, the judge said.

A bankruptcy for Hanjin Shipping would be the largest ever for a container shipper in terms of capacity, according to consultancy Alphaliner, exceeding the 1986 collapse of United States Lines. Global shipping firms have been swamped by overcapacity and sluggish demand, with Hanjin booking a net loss of 473 billion won in the first half of the year.

South Korea's ailing shipbuilders and shipping firms, which for decades were engines of its export-driven economy, are in the midst of a wrenching restructuring. The KDB's decision to stop backing Hanjin Shipping shows the government is taking a



tougher stance with troubled corporate groups.

"The government will swiftly push forth corporate restructuring following the rule that companies must figure out how to survive and find competitiveness on their own while taking responsibility," Finance Minister Yoo Il-ho said.

Hyundai Merchant Marine Co Ltd ([011200.KS](#)), the country's second-largest shipping line, will look to acquire its rival's healthy assets, including profit-making vessels, overseas business networks and key personnel, South Korea's Financial Services Commission said.

A Hyundai Merchant Marine spokesman told Reuters nothing had been decided about the potential acquisition of Hanjin assets and that the firm will hold talks with KDB. Hyundai Merchant Marine is also in the process of a voluntary debt restructuring.

South Korea's oceans ministry estimates a two- to three-month delay in the shipping of some Korean goods that were to be transported by Hanjin Shipping, and plans to announce in September cargo-handling measures which could include Hyundai Merchant Marine taking over some routes, a ministry spokesman said on Wednesday.

Ocean Alliance unveils network details



OCEAN Alliance members on Thursday came together to sign a document detailing its planned service coverage in the market.

According to MANA, "The four members, CMA CGM, Cosco Container Lines, Evergreen Line, and Orient Overseas Container Line will operate 40 services on the East to West routes with roughly 100 ports of call and close to 500 port pairs.

CMA CGM will assign 119 vessels with a 35% capacity share.

According to CMA CGM, one of the members, the network will comprise: 20 loops, 145 weekly calls and 52 ports on the transpacific trade; six loops, 79 weekly calls and 31 ports on the Asia to Northern Europe trade; six loops, 79 weekly calls and 31 ports

on the transatlantic trade; four loops, 67 weekly calls and 33 ports on the Asia to Mediterranean trade; four loops, 67 weekly calls and 33 ports on the Asia to Red Sea trade; and five loops, 55 weekly calls and 25 ports on the Asia to Middle East trade. "Ocean Alliance is the largest operational agreement ever made between shipping companies. With more than 40 maritime services, we will be sharing our fleet with the largest Asian shipping companies," said CMA CGM vice chairman Rodolphe Saadé.

Japan's top 3 shippers to merge container

TOKYO, Oct 31 Japan's top three shippers on Monday said they will integrate their container shipping operations to create the world's sixth-largest player, joining a growing trend of consolidation in an industry battling its worst-ever downturn. According to MANA, Overcapacity and anaemic economic growth globally have left hundreds of ships idle in the industry's worst slump since its birth in the 1950s and 1960s, which culminated in the collapse in August of South Korea's Hanjin Shipping Co Ltd.

Nippon Yusen KK, Mitsui OSK Lines Ltd and Kawasaki Kisen Kaisha Ltd said they would form a joint venture that will have 2.0 trillion yen (\$19.1 billion) in combined revenue and control 7 percent of global container shipping capacity. "The aim of becoming one this time is so none of us become zero," said Tadaaki Naito, the president of Nippon Yusen, at a joint news conference in Tokyo. Container shipping has seen a wave of mergers and acquisitions as companies try to grab a bigger share of a depressed market.

The world's No.3 player, CMA CGM of France, is in the process of acquiring Singapore's Neptune Orient

Lines (NOL), while German container shipping line Hapag-Lloyd AG agreed earlier this year to merge with United Arab Shipping Company (UASC). The Japanese joint venture to be owned 38 percent by Nippon Yusen and 31 percent each by Mitsui OSK and Kawasaki Kisen, will be formed on July 1, 2017 and begin operations in April 2018, they said in a joint statement.

It will have a fleet of 256 ships with a total capacity of 1.38 million 20-foot equivalent units (TEU), and is expected to create annual cost benefits of about 110 billion yen, the statement said.

The three firms reported operating losses for the six months to end-September and lowered their full-year forecasts. The forecast combined operating loss would amount to 84 billion yen for the year ending March 2017, versus their July prediction of a combined loss of 23 billion yen.

"Hanjin's bankruptcy probably had a positive impact on the container market" as it had removed some capacity from the market, Noriko Miyamoto, an investor relations officer for Nippon Yusen said at a press briefing on Monday.





IRISL

**IRISL signed shipbuilding
order with HHI Group**

IRISL CEO

IRISL signed shipbuilding order with Hyundai Heavy Industries Group



Hyundai Heavy Industries (HHI) Group, the World's largest shipbuilding group, announced today that it signed contracts, financed by Korean financiers to build 14500 TEU class containerships and 49000 DWT product/chemical carriers with Islamic Republic of Iran Shipping Lines (IRISL), one of the biggest shipping companies in the Middle East, at Seoul office on December 9.

The negotiations for these contracts had commenced in December 2015 with mutual good will and a series of constructive meetings in Seoul and Tehran, resulting in signing of the contracts on December 9, 2016 in Seoul. In addition to the contracts, HHI plans to discuss and pursue technical cooperation with Iran to develop the

shipbuilding industry at local Iranian shipyards at the request of IRISL.

The boxships measure 366 m in Length, 48.2 m in Width and 29.9m in depth while the product/chemical carriers are 183m long, 32.2m wide and 19.1m high.

The boxships are to be built by HHI and the product/chemical carriers to be built by Hyundai Mipo Dockyard both in Ulsan, Korea and all the vessels meet the latest IMO Tier III requirement, limiting NOx emission. The aforementioned contracts are the first shipbuilding orders that resulted from successful negotiation subsequent to the execution of JCPOA in January 2016 between The Islamic Republic of IRAN and P (5+1).

IRISL and Kazakhstan to Establish a Joint Company

The chief executive officers of Islamic Republic of Iran Shipping Line (IRISL) and Kazakhstan's KTZ Express – a subsidiary of the country's national railways company- signed an agreement for establishing a joint company

On the sideline of Iran's president visit to Kazakhstan, an agreement for establishing a joint company between Islamic Republic of Iran Shipping Line (IRISL) and Kazakhstan's KTZ Express – a subsidiary of the country's national railways company- was signed by Dr. Mohammad Saeedi, the director and head of the board at IRISL

and Dias Iskakov, MANA correspondent reported. The agreement seeks to encourage measures contributing to facilitating maritime transportation in the Caspian Sea Region, joint cooperation in terminal management, integrated transportation between Iran's southern ports and CIS countries, building port terminal and investment in the ship repair sector between Iran and Kazakhstan. On the sideline of the Signing Ceremony, Dr. Mohammad Saeedi and Dias Iskakov also discussed and exchanged idea over the relevant issues, according to this report.



IRISL CEO: Iran's Development Depends on Focused and Smart Goods Transit Management



The director and the head of the board at Islamic Republic of Iran Shipping Line (IRISL) stated that goods transit and its development as indispensable necessities should receive further notice.

In the First Conference on Commercialization of International Transit and Transportation Services, MANA reported, Dr. Mohammad Saeedi elaborated on the merits and the strategic location of Iran.

Counting coordination and synergistic as indispensable and critical necessities, he added that thanks to the lifting sanctions and the new post-JCPOA era, goods transit should be subjected to further attention.

Stating that Iran is located in a special region which makes it a perfect spot geographically for goods transit, IRISL director remarked that accurate engineering system and smart management of goods transit as well as cooperation among authorities could result in Iran's attainment of added value.

Dr. Saeedi referred to recent inauguration of a shipping line to Europe and stressed that IRISL is already offering services to merchants.

He also mentioned that in order to expand its

international activities, IRISL has established international joint companies with world-renowned shipping companies.

In this regard, significant Memoranda of Understanding (MOUs) have also been signed with major shipping lines, Dr. Saeedi added.

Deeming expanding Khazar Sea Shipping Company's activities as a proper opportunity for businessmen, Dr. Saeedi further stated that currently, Salianka port near Astrakhan is being managed by IRISL, which this would facilitate the process of goods transit.

IRISL director counted the development of Chabahar port as a high priority and remarked that in other sectors including container, bulk and general cargo, the approach of utilizing Iran's south regions such as Asaloooyeh, Imam Khomeini Port and Shahid Rajaei Port had been adopted.

Emphasizing the necessity of utilizing foreign investors, Dr. Saeedi expressed his happiness and satisfaction with the quality of the valuable and profitable projects that have been launched in Iran, which have also paved the way for foreign investments.

The Director of Khazar Sea Shipping Company: We Remain the Best Shipping Line in the Caspian Sea

The Director of Khazar Sea Shipping Company stated: Islamic Republic of Iran Shipping Line (IRISL) as the owner of Khazar Sea Shipping Company has devised a five-year strategic plan, which based on Khazar Sea Shipping line would occupy the position of strongest fleet in the Caspian Sea. In an interview with MANA reporter, Ali Akbar Ghonji referred to this fact that his company handles 35- percent volume of the transportation in the Caspian Sea and remarked: in the light of a two-year plan, we intend to raise this figure up to 50 percent. Emphasizing the importance of renovating and restructuring of IRISL fleet, Ghonjin added: with the implementation of these plans, it is hoped that we would witness more ship traffics in the Caspian Sea which carrying Iran's holy flag on the board.

Making a reference to the strategic plan of IRISL, Ghonji emphasized: this company as the owner of Khazar Sea Shipping Company has devised a five-year strategic plan, which based on Khazar Sea Shipping line would occupy the position of the strongest fleet in the Caspian Sea.

The Director of Khazar Sea Shipping Company announced that his company has commenced its activities in other maritime transportation sectors, including: multi-faceted transportation, South-North transportation and transportation in the Silk Road. Establishing a joint company between Khazar



Sea Shipping company and Kazakhstan shipping companies in Anzali port is among our future plans, he continued.

Ghonji also referred to the activities of the training center in Anzali port and stated: this training center has well managed to train human resources.

Pointing out to the regional cooperation with Russia, The Director of Khazar Sea Shipping Company proposed: we recognize Russia as our most paramount commercial partnership in the Caspian Sea and aim to promote mutual collaboration with this country.



Iran Shipping Lines head sees business back to normal by mid-2017

Container shipper Islamic Republic of Iran Shipping Lines (IRISL) Chairman Mohammad Saeidi expects the firm to have recuperated by the middle of next year the business lost while Iran was subject to international sanctions.

“Step by step the problems have been resolved, removing many restrictions and limitations,” since the sanctions were lifted, he told Reuters in an interview at a shipping conference in Copenhagen, According to MANA.

“I think at the maximum in mid-2017 the whole thing would be in the normal manner (of) things.” He added that he hoped to see remaining limitations on dollar transactions removed after the U.S. presidential election, and that IRISL was



negotiating with shipyards and manufacturers on the possible purchase of new vessels.

IRISL Reached Step 19 in The World Ranking



In the latest international ranking published by Clarksons Research Group, Islamic of Republic of Iran Shipping Lines (IRISL) container shipping fleet holds the 19th ranking among the top operator owned fleets.

According to MANA international group cited by

Container Intelligence Monthly, IRISL has managed to promote its ranking in international ranking of top operator owned fleets and stands in the 19th ranking with four steps of progress.

Possessing thorough cargo carrying capacity of 92,674 TEU, IRISL has occupied 19th ranking among the top operator owned fleets for the second consecutive month, Container Intelligence Monthly added.

Moreover, the report referred to IRISL as having the appropriate potentials and capabilities during the post- sanctions era. In addition it is the largest national fleet of maritime transport in the Middle-East.

It's worth mentioning that IRISL stood in the 23rd place among the top container operator owned fleets last year

Iran Establishes JV with a Foreign Partner in Ship Repair Sector

The initial agreement for establishing a Joint Venture Company in ship repair sector, was signed between Industrial Development and Renovation Organization of Iran (IDRO), Islamic Republic of Iran Shipping Line (IRISL) and National Iranian Tanker Company (NITC).

According to MANA correspondent, the initial agreement for establishing a Joint Venture Company in ship repair sector, was signed by Dr. Mansour Moazami, Iran's deputy minister of Industry, Mine and Trade and head of the board at IDRO, Dr. Mohammad Saeedi, director and head of the board at IRISL and Sirous Kianersi, NITC director.

Based on this agreement, a Joint Venture Company with the presence of IDRO, IRISL, NITC and a renowned international company will



be established in the ship repair as well as building vessels sector.

IRISL ships free to trade after Steamship P&I deal

A large part of the Islamic Republic of Iran Shipping Lines (IRISL) fleet has regained protection-and-indemnity (P&I) cover from Steamship Mutual.

According to MANA, More than 50 IRISL vessels have been entered in the International Group club that was a key insurer of the Iranian fleet before sanctions ended the relationship in 2009.

IRISL has put containerships, larger bulk carriers, multipurpose (MPP) vessels and offshore support craft into the club and appears to be prioritizing ships that are actively trading internationally.

Steamship Mutual was the P&I club most favored by Iranian owners before sanctions were imposed seven years ago, and as TradeWinds reported in August, has already signed up part of the National Iranian Tanker Co (NITC) fleet.



Now that IRISL and NITC have rebuilt their relationships with Steamship Mutual.

Iraninan President: Tehran, Astana Can Swap Oil in Caspian Ports



President Rouhani made the remarks in an interview with reporters as five documents for cooperation were signed by senior Iranian and Kazakh officials on Thursday.

President Rouhani said following visit of Kazakh President Nursultan Nazarbayev to Tehran last April and inking of many cooperation documents,

Iran and Kazakhstan have been witnessing ever-growing economic, cultural and scientific relations, According to MANA.

He said today, conditions are ripe more than ever for expansion of relations. “The first top issue in this concern is transit advantages of the two countries. Promotion of the rail and road links and direct flight between the two countries falls in the same line.”

He added that today, the transportation route between China and Persian Gulf and the Sea of Oman has dramatically become short.

“In oil and gas, Iran and Kazakhstan, both oil and gas producers and exporters, can cooperate with each other. They can have oil swap in the Caspian ports. We can take Kazakh oil and deliver it to Kazakh oil customers in Persian Gulf.”

As for petrochemicals, regarding Iran’s progress and the plans Kazakhstan has made for the sector, the two sides can have joint activities, he added.

IRISL Ships Travel all over the World

The First Deputy of Iranian president stated: thanks to the sanctions removal and the execution of JCPOA, Islamic Republic of Iran Shipping Lines (IRISL) faces no restrictions for international transportation and its ships could easily sail to each and every corner of the world while flying Iran’s three-colored flag.

At the first anniversary of JCPOA execution, the First Deputy of Iranian president, Eshaq Jahangiri, pointed out that IRISL ships have managed to retrieve their position in international transportation and they are able to transport goods to the four corners of the world, MANA correspondent reported. He further added: in the current year, exports and imports of Iranian goods have reached over 100 million tons.

Referring to that sanction imposers had targeted



Iranian shipping lines, and intended to disrupt their routines by confining and pressuring international insurance clubs at the sanctions’ era , Jahangiri remarked: at the present time, major world shipping lines call at Bandar Abbas, Bushehr port and other Iranian ports.

Iran Faces No Trouble in Shipping and Transportation



Iran's deputy foreign minister stated that shipping and transportation are of great significance for the country, and no major economic policy could move forward without them. He also asserted that new horizons are on the way for Iranian shipping community. In a press conference at the first anniversary of JCPOA execution, Iran's deputy foreign minister, Seyed Abbas Araghchi, pointed out that Iran has witnessed the removal of many obstacles in shipping and transportation since JCPOA has been put into action, MANA correspondent reported.

Based on the most recent updates from Iran's shipping

officials, Araghchi continued, things are in place in the field of shipping with no serious problems. Araghchi added that in his conversations with IRISL director, Dr. Mohammad Saeedi, and the reports he had received from this IRISL executive, all the disputes related to IRISL's insurance, flag and ship classes have been settled, and access to world's ports have been facilitated. Thus, it could be concluded that shipping and transportation are smoothly in operation with no problems.

National Iranian Tanker Company (NITC) plays a key role in the transferring of Iranian oil, Araghchi further added, and it used to struggle with insurance issues at the sanctions' era. Today, however, this problem has been resolved and our ships are covered with over one billion dollars of insurance.

The obstacles for Iran's purchasing of airliners from other countries, particularly from the main manufacturers have been eliminated, and the first recently-purchased airliners entered Iran a few days ago, Araghchi continued. Iran has signed a 10-year contract for purchasing airliners, and today, Iranian airliners could refuel in almost every country in the world.

Danish Companies Interested in Iran's Offshore Fields

Head of a visiting Danish delegation to Tehran said the Danish companies are interested in investing in Iran's offshore fields.

According to MANA, Hardestone, President of the Denmark union of petroleum companies made the remarks in a meeting with Managing Director of Industrial Projects Management of Iran (IPMI) Morteza Emami on Wednesday evening.

The Danish oil and gas companies have experience in working in the fields similar to Iran's fields in the Middle East, the official added.

He voiced hope for establishment of Danish oil and gas companies' office in Iran in the near future.

The Danish oil and gas companies are keen to cooperate with Iranian companies in the offshore fields as well as the Caspian Sea fields, head of the

Denmark delegation added.

The Islamic Republic is ramping up oil production and reclaiming market share after the lifting of Western sanctions in January.

In 2016, the limitations on Iranian oil exports, the ban on export to Iran of equipment and machinery for the oil, gas and petrochemical sectors and for the maritime industry, as well as the prohibition of financial transfers to and from Iran were lifted. This has given rise to business opportunities for Danish companies in a wide range of sectors, including the oil and gas sector. Denmark has considerable sources of oil and natural gas in the North Sea and ranked as number 32 in the world among net exporters of crude oil in 2008.

MANAGING DIRECTOR OF QESHM STAR BUNKERING & SHIPPING SERVICES CO.:

QESHM TO BECOME A BUNKERING HUB IN THE NEAR FUTURE

By Sepideh Yousefi



The access to high seas and the location of Iran in the international transport corridors as well as possessing rich energy resources, have given a critical and strategic position to this country. Furthermore, Iran is in the vicinity of the Persian Gulf and Oman Sea which has made the Strait of Hormuz the crossing passage of a large number of commercial vessels and tankers. However, Iran has suffered great losses due to the sanctions against commercial and industrial vessels in previous years and the impracticability of the presence of vessels to refuel on the shores and waters of the country.

Fortunately, the authorities of the public and private sectors of the country were not disappointed and followed the creation of appropriate infrastructures with the aid of long-term planning, which is achieved with their forethought. Moreover, public and private companies and organizations' interactions including Islamic Republic of Iran Shipping Lines with 60% of shares, Qeshm Free Zone Organization with 25% of shares and National Iranian Tanker Company with 15% of shares, made them venture into the construction of a bunkering site in "Salakh". This place is one of the areas with heavy traffic of commercial and oil vessels, which is located in the southwest of Qeshm Island. The companies could allocate a significant share of this lucrative industry to the country with the application of measured and targeted planning as well as public and private sectors' interactions.

In addition to providing bunkering services for vessels and eliminating 130 miles of distance to the port of Fujairah, Qeshm Star Bunkering & Shipping Services Co. has also provided other services including maintenance, transport of ship's crew, welfare, recreation and beach services which result in the promotion of economic level and sustainable development of the region. Managing Director of Qeshm Star Bunkering & Shipping Services Co., Mr. Ahmad Sarkandi, discussed the advantages and capabilities of this complex in detail:

What is the reason behind the establishment of Qeshm Star Bunkering & Shipping Services Co. in the southwest region of Qeshm Island?

The Persian Gulf and Strait of Hormuz are the traffic zones of most of the great vessels, such that approximately 55 to 60 thousand vessels pass through this area per year. A massive part of these vessels have different requirements including fuel receipt. Currently, the requirements of these vessels are provided through the United Arab Emirates and Fujairah Ports, however, they have to take 130 miles of detour and travel toward the north of the Persian Gulf to get fuel and then return to this path to get back on the main path.

There is an area called “Salakh” in the southwest of Qeshm Island which was appointed by the government cabinet as the strategic area of bunkering and it was assigned to be the bunkering site of the vessels. Qeshm Star Bunkering & Shipping Services Co. was established in this area for the mentioned reasons in 2008.

Which companies are the major shareholders of this site?

Currently, Islamic Republic of Iran Shipping Lines, Qeshm Free Zone Organization and National Iranian Tanker Company are the major shareholders of this corporate.

Based on the planning, when will the first phase of this complex be exploited?

- According to the plans, the first phase of the site is supposed to be exploited in November. By that time more than 95% of this phase, including offshore sector, reservoirs, oil pipeline, fuel pumps that are designated to transport the fuel, instrumentation system, electricity, control room, and fire suppression system will be prepared.

What is the fuel storage capacity in the first phase?

The first phase of this company wherein the fuel service is provided, consists of ten 5260 -ton tanks and totally has 52 thousand and 600 tons of storage capacity, having the capability of increasing its turnover with the presence of different vessels to get fuel in the near future. Considering the facilities of this phase, this company could approximately

provide two millions of tons of fuel per year.

What is the most important advantage of the launch of the Qeshm Star Bunkering & Shipping Services Co.?

Reducing the distance and improving the quality of fuel is the most important advantage of this company. In the first phase of the complex, the required fuel to be delivered to the bunkering vessels and those vessels that pass through south of Qeshm Island, could go through a slight detour which is fewer than four miles and reach the harbor and get the required fuel. Therefore, they do not have to travel a distance of 130 miles to the port of Fujairah to acquire the fuel needed. On the other hand, Iran’s fuel quality is higher than the fuel provided by the United Arab Emirates Ports. These two advantages are very important and valuable for vessels because due to the high costs running ships, traveling such a distance just to get fuel and services, besides requiring more than one day, do not have any economical justification. In addition, Qeshm Island is a very big island and is located in a special zone in the Persian Gulf and it will witness further development in the near future according to the actions and planning carried out. So,



the establishment of such a site is essential for the region more than ever.

What companies from IRISL Group will be the pioneers in this development plan?

- Considering the negotiations carried out with Kheybar Shipping Co., it was decided that the mentioned company to set up equipment and facilities in the area in line with the Qeshm Star Bunkering & Shipping Services Co. goals so that it enables us to provide the requirements of other vessels such as spare parts and marine oils along with bunkering to meet all the necessities of the vessels.

What other services will be provided in this region besides bunkering?

According to the plans, it is predicted that a club of naval personnel, shopping centers and hotel will be constructed in the next phases so that when the vessels are docked and the crew wants to get off, they can make use of the existing facilities and as there is no need for visa, the transportation of this ship's crew or officers could be easily done and they can easily travel to Dubai and other destinations via the region's

airport.

How many phases does Salakh bunkering site have? What services will be provided in the future?

- Salakh of Qeshm bunkering site has in total three phases, in the second phase, the tankers' capacity will reach 500 thousand tons, whereas in the third phase, the storage capacity will reach 750 thousand tons. The offshore of this complex has two breakwaters, approximately 70 percent of which has already been constructed. The length of the main breakwater is 1650m and at the moment, 1200m of the breakwater has been completed. The second breakwater is 600 meters length, 400 meters of which is constructed and a calm basin will be built within it. Moreover, two berths next to the main breakwater and five ones alongside the hinterland of the calm basin will be built. These berths are constructed for the use of different vessels at the time of maintenance and service. It is worth mentioning that in the second phase the construction of the breakwaters and a berth with the capacity of ten thousand tons as well as a berth with the capacity of 35 thousand tons next to them, will be finished within the next ten months.

When will the construction of breakwaters come to end?

The construction of breakwaters will have finished in the first half of 2017 and two berths will have been built on these breakwaters. The second phase of this project is dedicated to increasing the capacity in which related economic studies have been done and we hope the plans for its construction and installment will be carried out according to the schedule.

How are the financial resources of the company funded? Except for major shareholders, are there any foreign investors ready to cooperate for the completion of the other two phases?

To this day, funding of the Qeshm Star Bunkering & Shipping Services Co. has been provided by the shareholders. However, local and foreign investors have announced their readiness to invest in the next phases and the company is examining their proposals so as to find the most appropriate mechanism, where possible.



ARMAGHAN KALA ALBORZ MANAGING DIRECTOR:

J C P O A DEVELOPED BASIC ITEMS EXPORT



Iran is considered one of the biggest importers of basic food items including eatable oils extracted from sunflower, soybean, palm, colza, corn, olive etc.

In fact, importing basic food items is considered one of the most important realms in importing fields in Iran. Since shipping plays an important role in importing the above-mentioned foods, Islamic Republic of Iran Shipping Lines (IRISL) has been active in these realms to supply the existing demand. Therefore, IRISL established a subsidiary company called Armaghan Kala Alborz to manage importing and exporting foods in particular. The following is an exclusive interview PD managed with Armaghan Kala Alborz managing director.

What is the share of Armaghan Kala Alborz in the total import of Iran and what products has the company imported in past 10 months?

The company has managed to take considerable share in the Iran market. The company has handled 12.000ton of wheat through three vessels, 10.400ton animal wheat through 2 vessels and 4.700ton barely in one vessel. Taking advantage of bank facilities as much as 80%, Armaghan Kala Alborz also managed to purchase 11.000ton crude sunflower oil which is passing through the formalities to enter Iran from Imam Khomeini port.

The company tried its utmost to increase its stock in Iran's stock exchange continuously and finally presents higher profit for stock holders and managers.

What are the companies activities regarding trading?

Armaghan Kala Alborz is a trading agent too and manages importing, exporting, distributing animal products and has signed contracts without any risk while backed by IRISL.

What are the company's activities in the realm of exporting?

Backed by IRISL and offshore offices, the company functioned strongly and takes advantage of existing potentials through attending in various exhibitions and being in contact with ambassadors and trading offices.

What is the export outlook in the company?

Iran is reconnecting to the world in post sanction era and taking advantage of global marketing we are trying to retake our position in the field of petrochemical and agricultural fields in competition with our regional and global counterparts. We also intend to revive some brands for Iranian products in neighboring countries especially in Caspian Sea along with Iraq and Afghanistan through cheap labor force, industry activists and domestic manufacturers and present their products in international markets.

What are the company's achievement in the fields of LPG and agriculture?

The company intends to take part in Kharg petrochemical Company's bid and purchase 160 to 180 ton LPG during 2017 and finally transfer it to her Chinese, Indian, and Pakistani customers.

Furthermore, some European customers have shown interest to purchase agricultural products (saffron, Licorice, etc.) from Armaghan Kala Alborz Company mainly because the company enjoys a vast network in association of producers and exporters saffron in particular and for the time being, the issue is passing through the stage of sending the samples to the foreign parties and receiving the orders.

What are the activities of the company in the realm of mineral products?

We have run extensive negotiations with mine owners and marble manufacturers along with heads of chamber of mines and authorities in different provinces including Gilan and west Azerbaijan etc. The company is providing the products in this realm for a Korean customer and once finalized, exporting ashlar is placed within the company's plans.

Moreover, the samples for some petrochemical products including bitumen, methanol, PVC, D-ethylene glycol, low and high-density polyethylene have been sent to the customers and each issue is studied and passing through their export stages.

The company is working on exporting clinker cement from south ports to China in bulks.

The marketing and trading team in Armaghan Klala Alborz study and investigate the market through presence in domestic exhibitions including mines, industry, livestock and poultry, Oman trading potentials exhibition in Iran...) and make proper connections and evidently stand out as a strong arm for IRISL in the realm selling Iranian products in global markets in Iraq, Syria, Afghanistan along with European and Asian countries including Germany, Japan, South Korea and China.

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SHIPPING INDUSTRY; PAST 50 YEARS AND AHEAD

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Abstract

Will the next 50 years of shipping industry be as chaotic as it has experienced in the last 50 years? This is a very important question which needs to be answered by considering revolutions of the industry in the past 50 years and doing a quick review on the history of maritime transportation history. So, by considering both the experiments of 50 years ago and present condition of the industry, we could analyze the key indicators of maritime transportation industry in different aspects. For predicting future, past experiments would contribute to develop some scenarios for the coming years (until 2065). Finally, the probable scenarios would be explained and analyzed.

Key Words: history of maritime transportation; global seaborne trade; world economy; maritime economy; future study of maritime industry.

Introduction

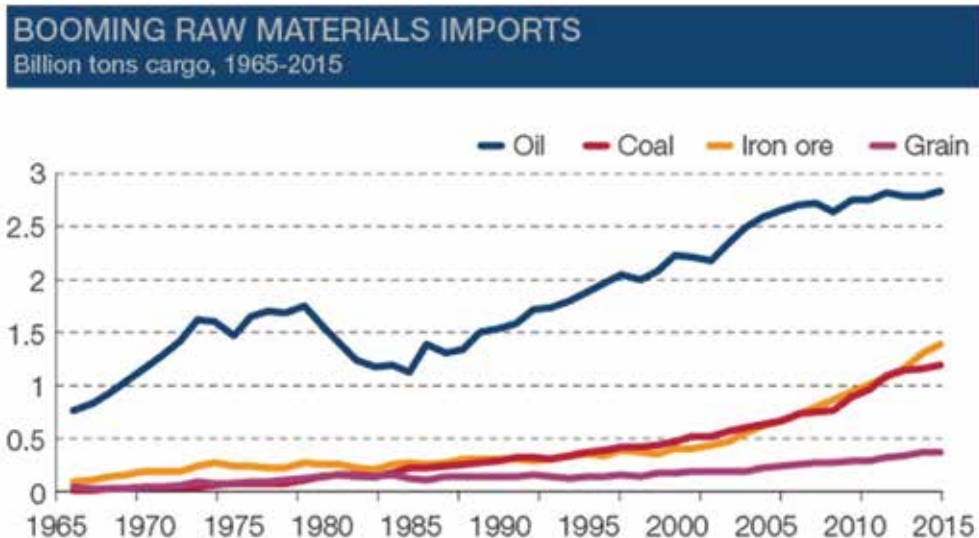
By taking a look at the growth of seaborne trade since 1965, two things can be noticed: First, rapid growth of seaborne trade. During this time, seaborne trade has grown faster than the global economy. In other words, between 1950 and 2015, Gross Domestic Production (GDP) has grown at an annual average of 3.8 percent, while world seaborne trade growth in this period was 4.7 percent. Now, global seaborne trade is about 11 billion tons per year, equivalent to about one and a half tons of goods imports for every man, woman and child in the world.[3] Second is the global seaborne trade tortuous path in this term. In the 70s and 80s, world trade plunged in coma. For about a decade, due to deepening recession in the world economy and seaborne oil trade sharp decline, world trade did not increase. In the first part of this article, the review of trends and developments in the past five decades will be discussed. Then, the questions will be reviewed which have currently engaged the industry leaders' minds. Finally, the results of the above analysis and predictions are examined.

1- Will the next 50 years be as chaotic as the last?

THE 1960s was a decade of enormous social and economic change. In Europe, the 1950s, a decade of frugal recovery from the Second World War, gave way to an exciting new society - the Swinging 60s. The Beatles topped the charts; color television arrived; direct dialing replaced switchboards; and the Boeing 747 initiated mass global travel. Shipping too was changing fast. In 1966, work started on Queen Elizabeth II, the first of a new generation of cruise ships; Japan's IHI shipyard delivered the first very large crude carrier; and Malcom MacLean started the first transatlantic container service. Norwegian shipping magnate Hilmar Reksten made a fortune when the Suez Canal closed in 1967. [1]

1.1. The new global economy of the 1960s

By the 1960s, a century of serving the European empires was ending and shipping's new role was globalization. This came as a result of nations in Asia and Africa being granted independence and the establishment of the European Union in 1958. The US, the world's wealthiest economy, provided a political hegemony founded on the principles of free trade, established at the Bretton Woods conference in 1944, and the rapidly expanding multinational companies managed the change. The result was a spectacular trade growth. Sea trade expanded from 1.6bn tons in 1965 to 10.3bn tons in 2015, a six-fold increase. Several developments coincided to create a global economic system that produced this record of uninterrupted economic growth. These included the emergence of a global free trade policy, the communications revolution, quicker and easier global travel and formation of globalized materials markets. So, what was the shipping industry like at that time? In 1965, the industry was busy building a new transport system. The drive to reduce transport costs spurred the replacement of cargo liners and tramps, which had served shipping faithfully for a century, with much bigger tankers and bulkers to transport bulk raw materials. [8]



In 1966, the first very large crude carrier, the 209,413 dwt Idemitsu Maru, was delivered and also the first cape-size bulk carrier, of 144,000 dwt. Specialized bulk cargoes were transported in specially designed bulk vessels (motor vehicles, forest products, chemicals and gas, for example). Multinational cargo shippers supported this development by building bulk terminals and providing time charters that enabled owners to obtain finance for the big ships. In the mid-1960s, the liner business was struggling to carry the escalating volume of trade with a fleet of breakbulk cargo liners designed for the imperial trade. But in 1966, Malcom Maclean commissioned the first transatlantic container service from New Jersey to Rotterdam, and the OCL consortium was set up. General cargo was unitized and transported by containerships; and air freight took the high-value commodities. During the same period, specialized vessels had developed, including the first chemical tankers; the first LNG ships; the first purpose-built car carriers; and the first open hatch forest products carriers. [6]

1.2. New generation of shipping companies

At the same time, a new generation of ship owners and shipping companies emerged, taking full advantage of the newly-developed flags of convenience to cut their costs to levels that allowed them to offer long-term time charters at rates far below what the multinationals could provide themselves. The FOC fleet grew rapidly as a result. The time charters they obtained were then used to raise finance in the rapidly growing Eurodollar market - the famous “other people’s money” concept - to create a new type of shipping business. Entrepreneurial risk-taking became the name of the game. Gradually, time charters disappeared as the multinationals found there were plenty of ships available on the spot market. [7]



NUMBER OF BENEFICIAL OWNERS ESTABLISHED ANNUALLY 1965-2014



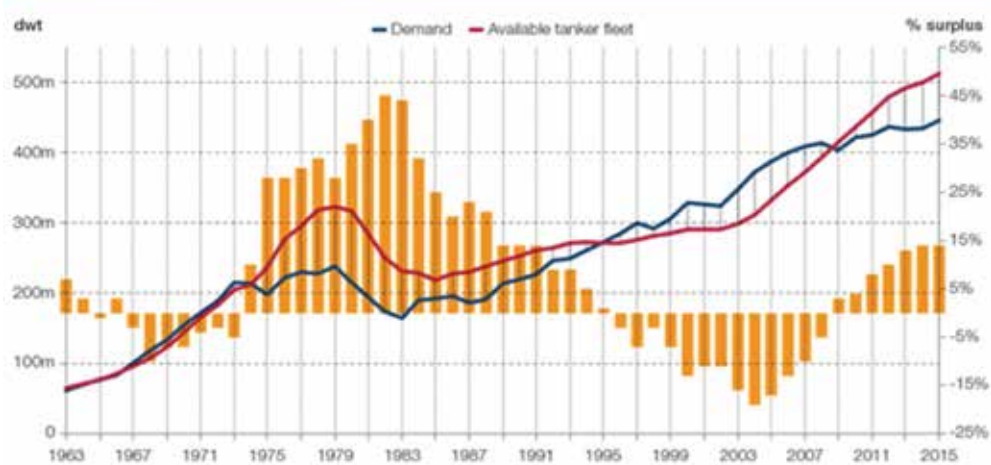
So in 1965, a transformation was in process and over the next 50 years, the industry changed out of all recognition.

1.3. Impact of globalization on sea trade

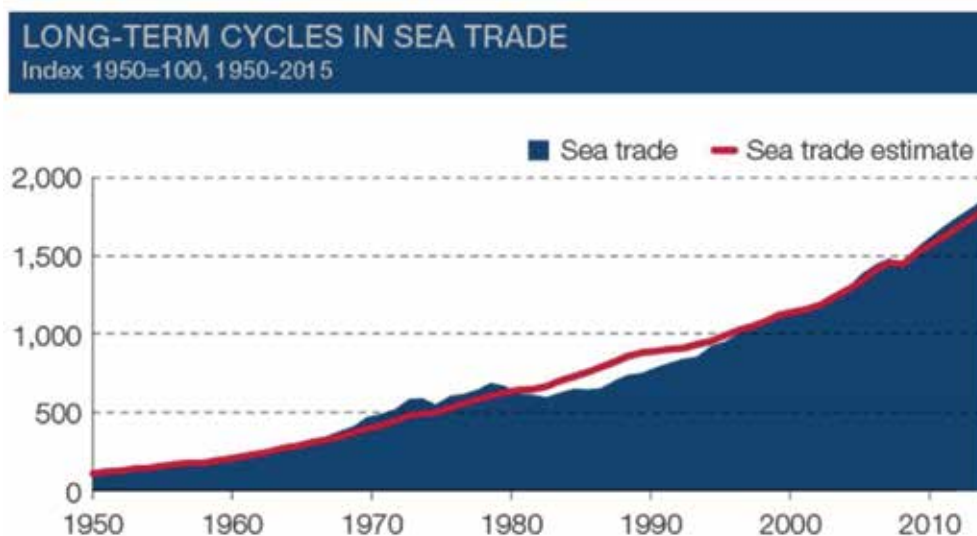
The 50 years since 1965 were generally prosperous. But this prosperity was patchy. World gross domestic product grew at an average of 3.8% per year and world seaborne trade grew even faster, increasing to 13 times its 1950 level by 2005. In the process, almost every aspect of the shipping business changed. However, this growth did not follow a neat exponential pattern. Digging a little below the surface, we find shipping investors had to deal with cycles that seem to have been operating at three different levels. First of all, there were 11 business cycles, some of which were serious enough to be labelled “crises”. Only one resulted in a decline in world GDP, but the six “crises” all triggered a decline in sea trade that rattled the cage of ship owners: the two oil crises in the 1970s; the financial crisis of the early 1990s; the 1997 Asia crisis; the so-called dot.com crisis in 2001; and the 2007-2008 credit crisis. [1]

All six occurred in the period since 1973, which works out at five crises in 30 years or one every six years. 2015 comes seven years after the last crisis, so you can draw your own conclusions on what that means, if anything.

LONG CYCLES IN THE TANKER MARKET 1963-2015 Source: Marsson



For the shipping industry, each decade brought new developments. The 1950s saw colonial independence; the 1960s saw Europe and Japan rebuilding their economies, importing vast amounts of raw materials by sea; this was followed in the 1970s and 1980s by the growth of South Korea and the Asian Tigers; and in the 1990s, the Soviet Union and China opened their economies to trade. [8]



As a result, the regional structure of trade in 2015 was very different from 50 years earlier. In 1965, two-thirds of all seaborne imports went into countries in the Organization for Economic Co-operation and Development, the home of traditional seafarers. The non-OECD countries accounted for only one-third of trade. By 2015, the pattern has been reversed. The non-OECD countries account for two-thirds of imports and the OECD for only one-third. This pattern, which seems likely to continue, sets the scene for the next 50 years.

1.4. The sea trade super-cycle 1965-2015

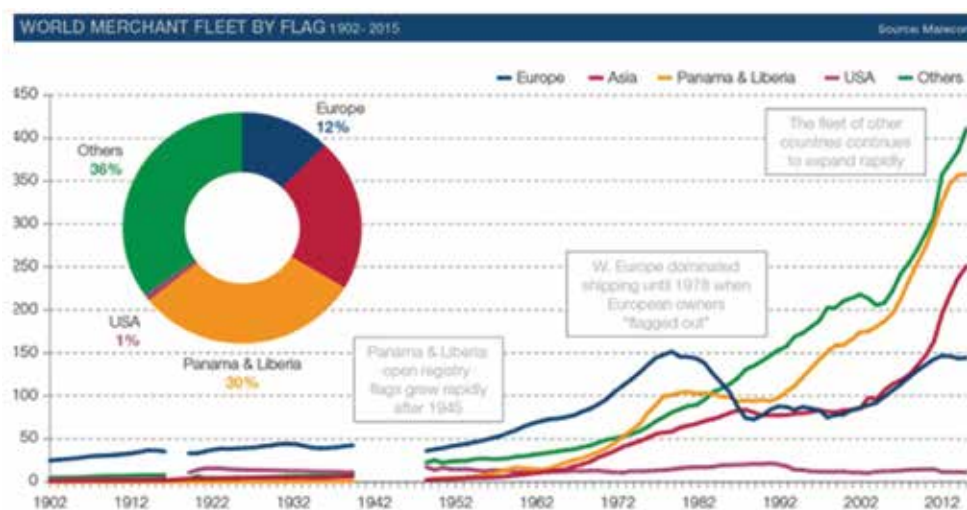
This pattern of regional development had another important impact on the shipping market. Bringing a succession of new regions into the trading system introduced long-term cycles into ship demand. Sea trade grew much faster than GDP over the 50 years, but it also followed a different long-term cyclical path. There are three clear phases: 1960-1980: Seaborne trade was driven well above the GDP trend as Europe and Japan went through a raw materials intensive growth cycle.

1980-1999: Trade fell below the GDP trend as the pressure on resources caused by the 1960s growth triggered the two oil crises of 1973 and 1979, plus commodity price inflation. This triggered a decline in trade coupled with a world economic recession.

2000-2015: Sea trade was above trend as the world recovered from the 1970s crisis and the Asian growth cycle gathered force. It started with the Tigers, and then China picked up in the late-1990s.

A clearer view of the cycles is obtained by plotting the difference between seaborne trade and GDP trend in a chart. The first phase of expansion lasted 15 years, starting in around 1956, and continued to 1973. Then trade moved into a down phase, which started in about 1974 and continued, with a few wobbles, until 1987. That is another 14-year period. Finally, the upswing lasted from 1988 to 2006, an 18-year expansion. During these three periods - two expansions and one contraction - the shipping industry faced very different circumstances in terms of ship demand. [5]

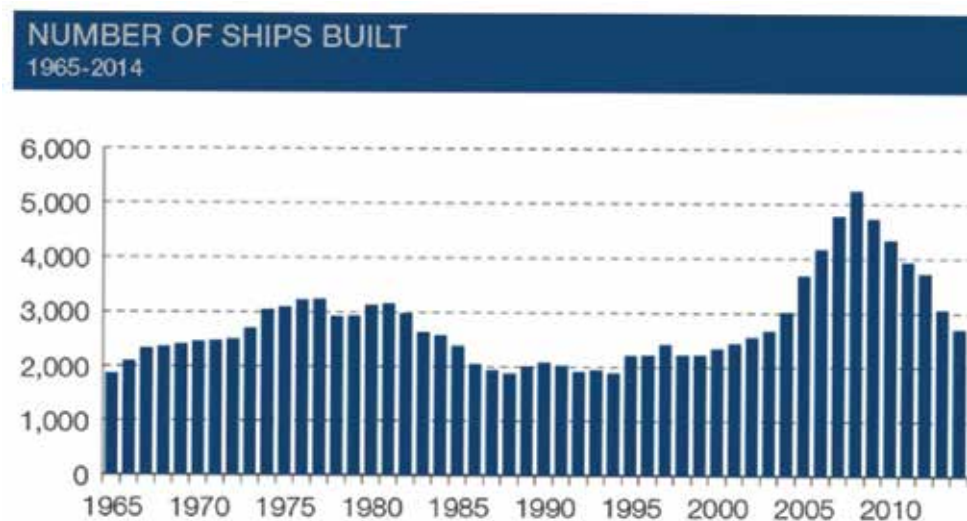
As the cycles in trade worked through into shipbuilding demand, the effect was amplified, producing shipbuilding cycles closely following and amplifying the trade



cycles. From a practical point of view, these cycles presented the shipping market with a structural problem for two reasons. First, shipyards cannot just stop and start building ships; once there, they are likely to build ships regardless. Second, the “footprint” of the previous cycle is embedded in the age profile of the merchant fleet, resulting in large swings in replacement demand. For example, the build-up in deliveries in the last decade shown will turn up as increasing replacement in 15 to 25 years. But today, replacement is driven by the very low deliveries in the 1980s. [9]

1.5. Progress through the Super Cycles 1965-2015

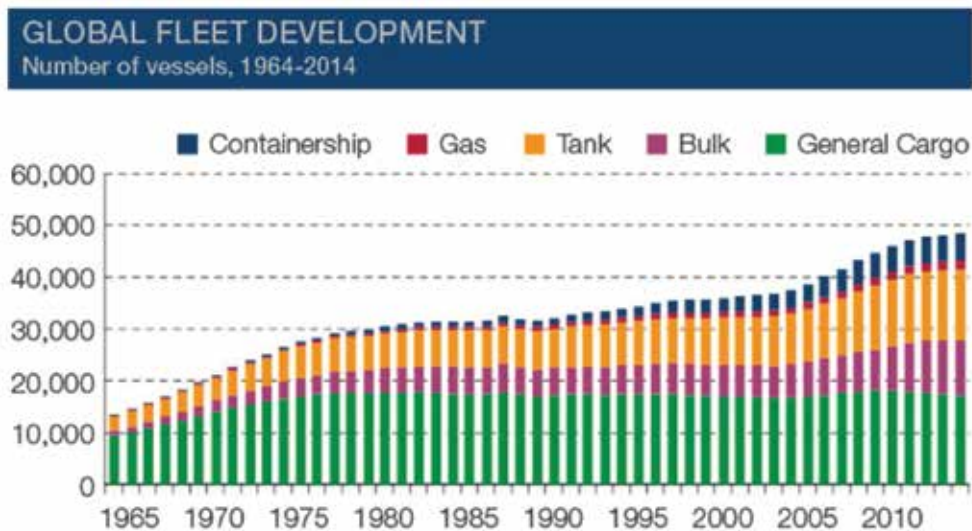
This combination of long cycles in sea trade and structural inflexibility in shipbuilding produced a succession of market phases, each lasting more than a decade. The cycles are illustrated from the tanker market but the dry bulk market followed a similar pattern. The Swinging Sixties (1963-1973): In the 1960s, sea trade was on an upswing with plenty of demand and the fleet grew at almost exactly the same rate, so the market was pretty balanced. During this decade, the spot market did not really matter because most of the capacity was booked through time charters, some up to 15 years. This was the era of “shikumisen”, the oil majors and the Japanese trading houses were all keen to cut their transport costs by outsourcing shipping. The new generation of ship owners used contracts from major charterers, especially in the oil and steel business, as security on loans. It was a prosperous decade, with a bonus as the value of the ships escalated.



The Shaky Seventies leading to the Awful Eighties (1974-1995): In the 1970s, the trade upswing faltered, but deliveries of new tankers continued. The tanker fleet grew to 350m dwt in 1977, but demand only reached 250m dwt, causing a major surplus of tanker capacity. Things got even worse in the 1980s, following the 1979 oil crisis and the collapse in the crude world trade that it triggered. The recession bottomed out in 1986.

The Marvelous Millennium (1995-2008): Things gradually recovered in the late-1990s and the gap between the fleet and demand narrowed as surplus capacity was soaked up in about 1997 and the demand trend finally pulled ahead of supply, almost 25 years after the gap first opened in the 1970s. But the 1990s were plagued by the world business cycle, with three “crises” in 1991, 1997 and 2001. So it was only in the first years of the 21st century that ship owners finally saw a revival of their fortunes.

The Traumatic (2010s): One way and another, it was a further bumpy ride. So the bottom line is that 50 years of progress and prosperity in the world economy did not mean quite the same thing in shipping. It was a rollercoaster ride. [5]



2- Four questions about the next 50 years

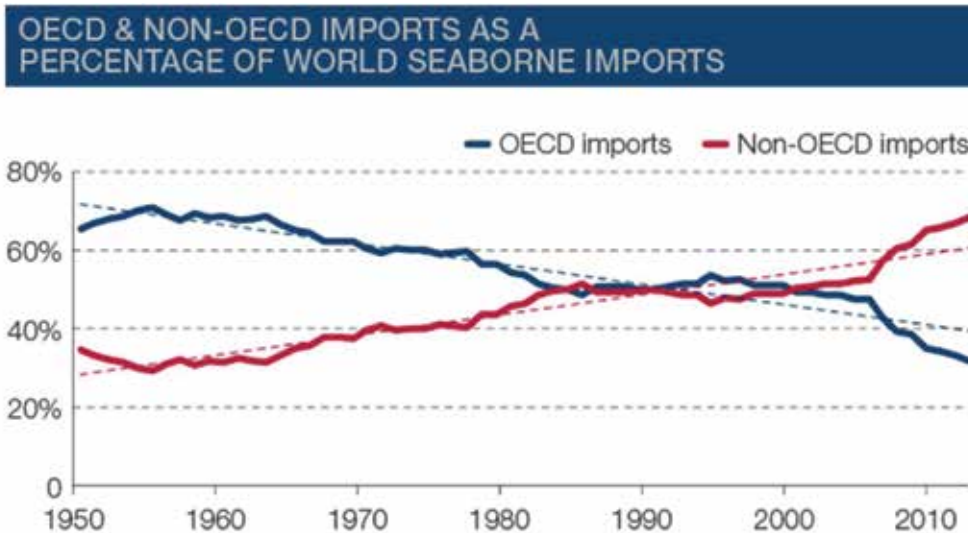
So far we have focused on the past 50 years, and the lessons we can learn. Turning to the future, common sense says making predictions 50 years ahead is futile. Shipping analysts struggle to predict 50 weeks ahead and since a good deal of the future depends on how the business plays the game, what’s the point of prediction? Well, that’s exactly the point. Players in a high-rolling game like shipping really need to understand the rules and that’s exactly what analyzing the past helps to do. As, Peter Drucker said: “The best way to predict the future is to create it.” [13] This happened during the



globalization boom of the 1960s and 1970s, when the shipping system was transformed by the positive action by investors. So thinking about future pressures and the changes needed to respond makes sense. There are four questions that need to be considered:

2.1. Question 1: A new global trade matrix in 2065?

During the past 50 years, there was a very significant realignment of the world economy away from the OECD countries to the non-OECD countries. Today, the OECD countries are mature, still growing but not very dynamic and two-thirds of imports are controlled by the non-OECD countries. As China slows down, the spread of countries around the South China Sea, South Asia, the North Indian Ocean, Africa and South America will grow in importance. From a shipping perspective, this is a very different mix: many small countries, many ports, and possibly a very different trade dynamic. This suggests that the great east-west orientated trade, which dominates the world today, will merge into a much broader trade matrix over the next 50 years. A map of the shipping lanes today shows how little trade there is in some areas. [4]



2.2. Question 2: How much sea trade in 2065?

This is a very big one - how much cargo will be shipped in 2065? Trade scenarios put this fundamental question into perspective. Over the past 50 years, the tonnage of cargo transported per capita has increased from 0.5 tons in 1965 to 1.43 tons in 2015. But within that average, in 2015, the OECD economies imported four tons to six tons per capita, while non-OECD countries imported about 0.4 tons per capita. In today's world of global communications, the aspirations for growth are enormous, and Scenario 1 assumes that by 2065, trade has reached four tons per capita (based on a population of 9.5bn). That would require the shipping industry to move almost 30bn tons of cargo a year, three times the present level. An alternative Scenario 2 assumes that sluggish economic growth, protectionism, climate change, increasing commodity prices and technical advances, which diminish resource use, would keep per capita trade at the current level of around 1.4 tons. In that case, trade volume would increase to only 14bn tons in 2065: a 40% increase. It is not difficult to think of a plausible explanation why something resembling either of these scenarios might occur. My personal view is that the trade volume of 20bn tons in 2065 is a more sensible working assumption than 30bn tons. [10]

2.3. Question 3: Another shipping super-cycle 2015 to 2065?

As suggested, there was a long (20- to 30-year) shipping cycle during the past 50 years, with demand and supply components. This invites the questions: “Where are we in that super-cycle today - and will there be another?” The demand super-cycle was driven by surges of trade as new economies came into the maritime transport system and sharp deceleration as they reached maturity and the imports stopped growing so fast. We saw this for Europe, Japan, South Korea, and most recently China. In addition, the oil trade, still the biggest single bulk commodity, has been driven by a very long-term price cycle which generated a “stop-go” pattern that caused volatility. The position today is that the cyclical upswing of the past decade peaked out and trade could be moving into a period of below trend growth as China slows; oil demand responds to new technology encouraged by recent high prices; and the fact that the next wave of regional super-growth is not in sight yet. This downswing could take us into the middle of the next decade, when the next wave of development of the global economy picks up. On the supply side, the shipbuilding super-cycle seems unlikely to help much. The last shipbuilding cycle lasted 36 years, from the 1976 peak to the 2011 peak, and we are only four years past the last peak. So there could be a long way to go. But on a positive note, this cyclical pattern is now programmed into the fleet demographic, so eventually there will be a lot of fleet replacement. [11]

**SHIPBUILDING SCENARIO 1:
INVESTMENT DEMAND AND ACTUAL DELIVERIES**



The shipbuilding Scenario 1 suggests a difficult decade, with capacity above trend demand. But this is a variable the industry controls, so in principle this time it could be different.

2.4. Question 4: Another new transport system needed before 2065?

The final question concerns the transport system. In 1965, the sea transport system was in the middle of a radical change from the old imperial cargo liners and tramp system to a new system based on bulk and containerized shipping. At the time, this was expected to produce bigger ships and bigger shipping companies, both of which occurred. This new system was very successful in moving cargo through the terminals and it reduced the cost of freight in a remarkable way. But 50 years later, the system developed in the 1960s is still in place and beginning to look inadequate for the job in hand. The pressure to get the cargo through the ports more efficiently is still there, but there are new pressures from the environment and the need to serve an increasingly complex trading world, as the epicenter of trade moves to a more global trading matrix.

Extending today's national eBay and Amazon model to a global distribution system would require a much more efficient and transparent system than we have today. In the early days, "door-to-door" transport systems were a feature of containerization, but this aspect of the business was never really implemented. Ship owners built bigger ships and bigger terminals. But "door-to-door transport" was never really exploited. And the control of trade, which under the industrial shipping era in the 1960s was minutely planned by multinational companies, faded away in the 1970s. [12]

Today, shipping is controlled by the spot market. While this is an efficient mechanism for cost minimization, it is certainly not a particularly good vehicle for managing logistics. With a digital and computer revolution that is now going on, it seems that the great challenge facing shipping in the next 50 years is to use information to make the whole transport system tighter, more efficient; to eliminate accidents; and to provide a more meaningful life for those who work in the industry, especially those on board the ships. These are important goals.

Will this happen? Well, as Peter Drucker said: "The best way to predict the future is to change it." [13] This particular future is very much in the hands of the ship owners and, perhaps even more importantly, the cargo shippers. Unfortunately, the past 50 years has seen alienation between these two key parties that does not provide a good foundation for building a global logistics system.



3- Another 50 Years Of Sea Trade, But Where's The Magic?

3.1. The Next 50 Years

Looking ahead, the shipping industry faces a daunting task. One problem is judging how fast trade will grow. If global sea trade just increases in line with growth in population, which is heading for 10 billion in 2065, imports would reach 15 billion tons in that year (Scenario 1). But the imports per capita trend trebled from 0.5 tons per person in 1965 to an estimated 1.5 tons in 2015. If the upward trend continues, imports might reach 2.2 tons per capita by 2065 and trade 22 billion tons (Scenario 2). But today although the OECD countries import around 4 tons per capita, non-OECD imports are around 1t per capita. If they were to reach OECD levels, global sea trade would hit a total of 37 billion tons in 2065 (Scenario 3). [2]

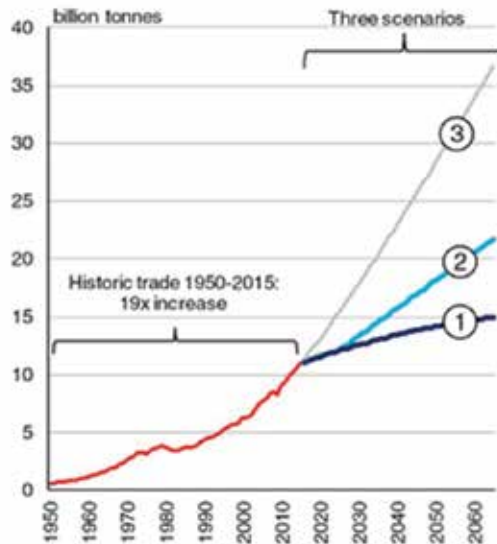
3.2. Bewildering Forecast Range

So in 50 years' time trade could be anything between 15 and 37 billion tons. And there are other scenarios, for example the phasing out of fossil fuels which could radically alter even this wide range. In terms of investment, on a very rough calculation, this means the industry could be spending between \$1.5 and \$4.5 trillion on new ships over the 50 years at today's prices. How will shipping handle this? Since 1965 the focus has

been on bigger ships, tight overheads, and an aggressive market offering little reward for innovative investment. But as the non-OECD driven world develops, with tougher targets for fuel and emissions, changes will be needed, and maybe a rethink. [6]

3.3. Maritime Magic Carpet

So, if shipping is to play as big a part in the global economy in the next 50 years as it did in the last, it needs a new injection of maritime magic. The digital revolution, now global, offers shipping companies a unique opportunity to integrate the management of their high cost assets, improving productivity and offering new ways to manage them that tighten up the whole transport chain. Who knows, maybe that’s just the magic that’s needed. Have a nice day. The graph shows estimated seaborne trade in billion tonnes in the 1950-2015 period (red line). The three scenarios show potential trends in world seaborne trade for the next 50 year period. The first two scenarios are as described in the text. The third scenario is based on trade per capita into OECD countries remaining steady throughout the period, with trade per capita into non-OECD economies increasing to reach current OECD levels of around 4 tons per capita by 2065, as well as expected OECD and non-OECD population growth trends. [2]



World Seaborne Trade: Three 50 Year Scenarios

Conclusion

After more than 50 years, it is time for a new business model that is used in the shipping industry where data provide new management tools. Has the time come for marine transportation business is the fourth wave? The current business model which has been Executive for more than half a century for relatively small companies with large balance sheets, earnings volatility and strong cost control, can survive so? Indeed, global maritime industry has the ability today to develop much more sophisticated information management systems and that has to be the key to managing chaos. Unfortunately, it is much easier to order new ships than to build new systems. We all like our independence and shipping is an old-fashioned business - we like it that way. But luckily there’s a new generation coming along and maybe the information culture will be as natural to them as “trading ships not cargo” was to their predecessors. The only thing that can be said with certainty is that next 50 years will be just as chaotic - it’s the nature of the beast - and by 2065, we should expect a very different trading world. But somewhere along the way, hopefully, the industry will find new ways to manage chaos, especially the self-imposed variety. The key to the future lies in a

more tightly controlled transport system. This means many things - better information systems, more automation, maybe bigger companies; better capacity planning and hopefully a much better career progression for those on shore and on board ship. In other words, a new world!

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AN INTERVIEW WITH MR.KOOPMANN, PWL MANAGING DIRECTOR

IRISL OLD-TIMER PARTNER TO PWL GROUP



During The german deligation visiting Iran, an Interview was made with Mr.Christian Cord. Koopmann, PWL managing director via Mehri Azizi (Ms.), regarding expansion of The cooperation of This German company with IRISL which is as follows:

Would you please introduce your company?

The PWL group is independent and privately owned company in shipping and transport. Since its establishment in 1964 Peter W. Lampke GmbH & Co. KG (PWL) represents well-reputed Liner and semi-liner services and is for more than 20 years the partner of IRISL in the North Continent. In logistics, the main focus of PWL Worldwide Logistics GmbH & Co. KG is pointed to automotive logistics activities whereas LPL Projects+ Logistics GmbH specializes on project forwarding. As a port agent PWL Port Services GmbH & Co. KG is at home in all German.

What are the prospects of the joint venture company with IRISL?

Having signed an MOU with IRISL to establish a joint venture company and holding the history with IRISL since 1999, we are happy the cooperation is resumed with this company. To facilitate and accelerate the process of applying the MOU which was signed in last March, we are in hurry to establish the company by the end of 2016.

What are the main areas to work with this joint venture company?

Great potentials in machinery and spare parts we sent from Europe and we have governmental negotiations which came to positive results especially regarding financial issues. We are moving forward with the number of services to weekly routine and based on this, we estimate it mounts from already 900 TEUs to 1000 TEUs volume per vessel soon. Once the financial issues are resolved completely, the volume of cooperation with IRISL in 2017 may reaches 15000 or 16000 TEUs.

More about PWL

PWL was established on October 20th, 1964. As

from that time the company has grown from a shipbroker and liner agent to a group of companies. The shipping companies have specialized and established in geographic and cargo-oriented market segments. The logistics companies have concentrated their activities mainly on the container. Container transport by truck, train and inland watercraft is offered, as well as container logistics and set up of complete transport chains to and from overseas. This includes of course all added values expected by our clients. As an Authorised Economic Operator (AEO) and with ISO - DIN EN ISO 9001:2008 certification, the company always guarantee a high quality service standard to our customers and business partners. As a privately owned company with partners being actively engaged in the daily business the company will be reliable partner also for the future.

In a trip to Hamburg, the chairman of the board and the C.E.O. of IRISL signed a memorandum of understanding with the owners of PWL Co. to set up a joint shipping company.

Based on this joint memorandum, a variety of representative services will be offered to IRISL and its subsidiaries' fleets in ports of North European countries, including Germany, the Netherlands, and Belgium.

The joint venture shipping company between Iran and Germany started its operation from March 2016.

With the establishment of this joint venture shipping company and a major part of the services being concentrated on JV Company, the pace of offering services to the customers of both parties will be noticeably accelerated. It is hoped that the satisfaction of both parties, as the main investors of the joint venture, could be earned.



DANISH COMPANY COMING BACK TO IRAN

By: Mehri azizi



In July 1915, Jørgen Christian Hempel became Denmark's youngest licensed wholesaler when he established Hempel's Marine Paints. The date narrates a century of working in marine painting. Taking advantage of 5,500 employees who live and work in more than 80 countries around the world, the Danish company operates on any man-made structure while the main focus is on marine industry. PD conducted an interview with Mr. Kim Scheibel, member of board of directors and Mr. Claes Skat-Rordam, Hempel marketing manager to dig into the world of painting the ships and the related industries.

How do you see the global business in your area of work?

We look at the Marine segment and our Marine customers from a global perspective with a local presence. The Marine industry is still one of the most global industries that not only connect the world but also make sure that the world economy benefits from the global exchange of goods. Coatings have a very positive effect on the environment and global health, by protecting vessels from corroding and at the same time are capable of saving tons of fuel and CO₂ emissions, utilizing anti-fouling for a smooth and clean hull says Kim Scheibel.

What advantages are offered by your firm compared to your rivals especially in the case of Iran?

One of our advantages is, that Hempel is a private owned company (Hempel Foundation) meaning we are not listed on any stock exchange. Therefore we are able to think long term and develop long lasting and durable products for the benefit of our customers. This is also why we for a number of product categories can offer the highest quality in the market and why our more economical products are still of a higher quality than other products in the same category, says Claes Skat-Rordam.

Could you elaborate on the history of cooperating with Iran?

As Mr. Kim Scheibel said then IRISL and Hempel have a very long relationship. I was personally Hempel's Technical Coating Advisor based at DSME, Korea, during the construction in the early 80's of your 20 x

42.500 DWT bulk carriers. Since then we have had many successful new buildings and dry-dockings with IRISL. I therefore have many good memories from my cooperation with a number of IRISL staff over the years, both technically, commercially and privately.

What business opportunities are there in Iran?

We are very happy to see the return of normal business relations with Iran. Hempel is therefore not wasting any time but is currently in the process of setting up a Joint Venture company in Iran, to be known as Hempel Iran. We expect Hempel Iran to be operational primo 2017. Hempel Iran will have a local factory in Iran, to cater for both the maritime market as well as the industrial protective market.

Would you like to add any thing else?

A few examples of our latest innovations and quality offerings is our hull coating Hempaguard X7 which in the same coating and specification allow the longest idle days in the market at the same time as high fuel savings. But it is not only fouling control on the outside hull which have our attention, equally important is the ballast tanks and other areas of vessels exposed to: impact, flexing, abrasion, temperature variation, water, etc. where our new series of fibre reinforced epoxy coatings named Hempadur Quattro XO will offer longer protection with lower maintenance. All of this and much more were covered in depth during our seminar given to a large IRISL audience this week here in Tehran. We are very grateful for the fantastic welcome we both received during this week says Claes and Kim followed adding that we look forward to many successful years in the future cooperation between IRISL and Hempel.





LNG as A Ship Fuel:

TOWARD SAFE AND ECONOMICAL FUEL IN MARINE TRANSPORTATION

By: Sara Zeinal Zadeh Vafa

Safe storage, safe transportation and safe usage are the mandated requirements for any fuel and LNG continues to demonstrate a long track record of safety in all these areas. LNG is clear, colorless, non-corrosive and non-toxic. It is cooled to minus 260 degrees Fahrenheit (-162° C) through a process known as liquefaction and the volume of produced gas reduced by 1/600. During this process the natural gas which is primarily methane, is cooled below its boiling point, whereby certain concentrations of hydrocarbons, water, carbon



dioxide, oxygen and some sulfur compounds are either reduced or removed. LNG density is also less than half the density of water (0.42), so it will expand and dilute with air if spilled on water.

LNG as a ship fuel has great potentials for the future. It is both a proven and available commercial solution. LNG offers huge advantages, especially for ships in the light of ever-tightening emission regulations. While different technologies can be used to comply with air emission limits, LNG technology is one of the options that can meet existing and upcoming requirements for the main types of emissions (Sox, NOx, PM, CO₂). Considering the fact, PD managed to run an interview with Manager of IRISL Fleet Fuel Supervision, Chief Engineer Pejman Sanei.

Could you please provide us with the advantages and disadvantages of LNG as a ship fuel?

The most significant feature of LNG as a fuel which makes it different from other types of fuels is its clean burning. This property meets all current and future emission standards. Secondly, it has a lower

cost today when compared to diesel fuel. Thirdly, it does not require cleaning at the sea and on the land on the assumption of leakage. Moreover, it reduces pollutant emissions resulting from fuel combustion. Meanwhile, LNG as a fuel has the highest standards of safety and security in marine transportation. The safety record of LNG carriers is extremely good. The safety philosophy must combine the design and operation of the entire system from gas bunkering to consumers and include everything from shut-down functionality to crew awareness. Last but not least, ships using LNG as a fuel do not require resupplying fuel in order to travel in ECA (Emission Control Areas). It is worth mentioning that LNG is more economical in the case of rise in fuel prices in the future.

The other side of the coin is that using LNG as fuel for conventional ships introduces new systems on board together with their associated risks. There are some disadvantages which mostly relate to economical factors. First and foremost, carrying costs of LNG is high-priced. Higher cost for engines and fuel systems and tanks should be taken into consideration along with expensive operational costs to substitute LNG for the existing fossil fuel. Potential loss of cargo space on some ship types RO-RO and container to make space is another inconvenience of LNG as a ship fuel. It reduces about 200 containers of a container ship with the capacity of 6500 TEU which shows 3% downfall. Another issue regarding the disadvantage of LNG as a ship fuel relates to the lack of infrastructural systems. In line with this, lack of bunkering supply systems in some ports can be annoying. Moreover, the possibility of no cargo operations during bunkering is still another factor which should be taken into account.

Supplying LNG fuel makes the investment risk-taking at higher level on the part of investors. In addition, payback time in LNG as a fuel is long-lasting compared to heavy fuels. Investors need security that the investment is not lost. Meanwhile, the process of extracting natural gas and transporting it to target customers can be environmentally destructive. However, specialists try their best to overcome this inconvenience using modern and new technologies.

How do you see the future of LNG as a fuel in the global marine industry?

As long as energy costs continue to grow, LNG shows great promise as an alternative fuel for the



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SHIPS USING LNG AS A FUEL DO NOT REQUIRE RESUPPLYING FUEL IN ORDER TO TRAVEL IN ECA (EMISSION CONTROL AREAS)

”

future due to its lower cost and clean burning. In other words, the benefits and fuel cost savings can outweigh the higher costs for some ships, making LNG a very viable fuel option to consider. Using LNG not only brings many environmental benefits, but also substantial economic savings. At present, 10% of gas supply basket is assigned to LNG. And this, it is expected to reach 50% spot by 2030.

Regarding the production price of LNG per ton, it is recorded in a range of \$200-280 with additional operating costs up to \$30 per ton annually. Considering LNG ship price, it should be mentioned that it reached \$170 million from \$300 million in the past decade. Meanwhile, the cost of carrying and production have been reduced, conventions and regulations have been

high on the agenda. Reduction in cost by 20 percent due to technology development can be seen in the market as a good sign. Moreover, the costs of heat exchangers have been decreased which shows a downfall of 6% in overall costs.

Tanks capabilities with excellent insulation increased from 125 m³ to 135m³ and it is expected to reach 160m³ in the near future. The charter rate of a LNG-fueled ship is estimated to be between \$70-100, 000 per day. Considering countries like, Britain, America and Canada and some specific areas such as certain rivers in China, regulations have been stepped up to reduce of pollutants at the sea which will pave the way to use LNG globally as a fuel in the near future.

Keppel Offshore & Marine Ltd. has entered into a shareholders agreement with Shell Eastern Petroleum, a part of Royal Dutch Shell, to form a joint venture company which will establish an LNG bunkering business in Singapore. Moreover, Qatargas Company and Shell signed an MoU to provide fuel for Maersk shipping Line. Also, Emirates Shipping Line along with Qatargas Company and Shell are reaching an agreement to establish bunkering hubs. Considering the growing tendency toward LNG as a ship fuel, Port of Rotterdam Authority aims to turn the port into a major European LNG hub. In addition, Iran intends to support and provide infrastructures to launch bunkering hubs and the required facilities of transporting LNG to other countries from Chabahar.

What infrastructural systems are required for providing LNG hubs?

One of the major barriers to the accelerated uptake of LNG as fuel is the uncertainty regarding LNG availability. Liquefaction, gasification, heat exchanger, pipes, tanks and bunkering stations along with marine fleet all should be considered as the required infrastructural systems for launching LNG hubs. Meanwhile, the investors should be given the assurance that in order to reach yearly production of up to 5 million tons, they need a source which provides them with 10 trillion ft³ of gas.

Are there any NGO's to support using LNG as fuel?

Iranian Classification Society (ICS) along with Iranian Community Ship-owner Association, Iranian Association of Naval Architecture and Marine Engineering and Sharif University are all those non-governmental organizations which are trying to meet the required measurements to reach the goal.



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By: Fatemeh Moonesan

Given the lifting of sanctions and the implementation of JCPOA , the grounds for cooperation between Iran and Norway have been paved, in a way that in the recent trip of Norway's fisheries director to Iran, 13 fisheries collaboration contracts were inked between Iran and Norway.

In order to discuss the grounds for more cooperation between the two countries, PD international reporter has conducted an exclusive interview with Ayhan Dilek, Norway's Deputy Secretary of Industry, Trade and Fisheries. A brief account of this interview could be accessed in the following.

Ayhan Dilek:

NORWEGIAN BUSINESS COMMUNITY LOOKING FOR OPPORTUNITIES IN IRAN'S MARKET

What are your insights into the 13 fisheries collaboration contracts between Iran and Norway, which were signed on the recent trip of Norway's fisheries director to Iran?

Several contracts between the two Norwegian aquaculture firms AKVA Group and Aqualine and Iranian companies were signed in the presence of the Norwegian Minister of Fisheries and the Iranian Minister of Agriculture, as well as the Iranian Vice Minister for Fisheries, on the 1st of October. These contracts were mainly the Framework Supply Agreements, on which future delivery contracts will be based.

What other fields of fisheries, do you believe, have the potential to be subjected to collaborations between Iran and Norway?

Norway's expertise lies in sea-based cage farming of salmon, but the same technology can be used to farm other species. There is not only a basis for collaboration between Norway and Iran for cage farming equipment, but also for knowledge and services. Moreover, there is great potential for increased seafood trade in a variety of species between Norway and Iran.

There is also a great interest from the Norwegian business community outside the fisheries sector for increased trade with Iran. The maritime sector, the oil and gas sector, as well as the renewable energy sector are all actively seeking business opportunities in Iran. In addition, other sectors such as the medtech- and greentech industries have expressed interest in the Iranian market.

In your view, what impacts does the lifting of the sanctions of Iran and the execution of JCPOA have on the fisheries collaboration of Iran and Norway?

The lifting of the sanctions has led to a big interest in the Iranian market, both as a market for aquaculture technology and services, as well as for seafood exports. The remaining US sanctions means that there are still some considerations that have to be made when trading with Iran, but the JCPOA has definitely brought us a big step closer to normalized trade relations.

What plans have you devised concerning the joint investment in the breeding and exporting of fisheries products between the two countries?

At the government level, agreements on cooperation in the fields of fisheries and aquaculture as well as in the veterinary field were discussed but not concluded during the visit. There is an on-going dialogue between the relevant

Norwegian and Iranian authorities, with a view to reaching finalized agreements in the near future. At the company level, several contracts were signed during the visit, such as with AKVA Group and Aqualine. Many other Norwegian companies established contacts with Iranian companies, which may well lead to contracts and investments in the future.

What solutions do you propose for tackling the obstacles between the two countries and expanding the collaborations?

The Ministry of Trade, Industry and Fisheries believe that the lifting of the sanctions over time will allow for extensive business relations between our countries. The recent visit to Iran by the Minister of Fisheries and State Secretary Ayhan together with a large business delegation show that the interest from Norwegian enterprises for Iran is prominent.

When it comes to Norwegian enterprises, the Norwegian Government expect them to do their core business well, with zero tolerance for corruption, to respect basic human rights, to provide decent working conditions and to protect the environment.

From the Norwegian Government's side, our interests are the same in every country and for all Norwegian companies: transparent, stable, objective and predictable regulations for companies and other investors.

In his recent meeting with you, Dr. Saeedi, the director and head of the board at IRISL, stressed the significance of maintaining close-knit ties between the two countries' ship owners association. He demanded that the two associations extend their collaboration, and also demanded that Iran and Norway cooperate in ship building and ship repairs industries. What are your perspectives on this? Do you have any plans in this regard?

The Ministry of Trade, Industry and Fisheries welcomes Dr. Saeedi's proposal and encourages our two countries' shipowners associations to establish even stronger relations.

On a general note, and given the broad interest for the Iranian market expressed by several members of the Norwegian maritime cluster, as well as the Norwegian Shipowners Association itself, there is certainly much potential for more bilateral cooperations going forward. Not least in the sectors held out by Dr. Saeedi; namely ship building and repair, in which Norwegian companies have developed world-leading technologies and competencies.

SPECIAL INTERVIEW WITH MR.NILSSEN,

DNV GL, IRISL TIES TO BE EXPANDEAD

Mr. Knut Ørbeck-Nilssen - the CEO of DNV GL – Maritime and member of the Executive Board of DNV GL SE.

By: MR.A.M.Sadeghi

Please give a short history about your company while introducing yours in brief.

DNV GL's shared roots stretch back to 1864, when Det Norske Veritas (DNV) was founded as a membership organization in Oslo. Norway's mutual marine insurance clubs banded together to establish a uniform set of rules and procedures, used in assessing the risk of underwriting individual vessels. As an independent classification society, Germanischer Lloyd (GL) was created in 1867 in Hamburg by a group of 600 shipowners, shipbuilders and insurers to evaluate the quality of ships and deliver the results to stakeholders.

The merged DNV GL Group became operational in September 2013; today we have approximately 14,000 employees operating in over 100 countries. We are a global player within the maritime, oil and gas, and energy industries as well as food and health care, meeting new challenges, while balancing the needs of



business and society.

Personally, I am a civil engineer. I started working for the company in 1990, so it's over 25 years now. When I first joined the company, I started as a newbuilding surveyor and gradually worked my way up. Throughout this time, I've been heavily involved with the maritime business, offshore, and oil-and-gas-related activities. I've had numerous positions but most recently held the position of Chief Operating Officer of Maritime before becoming CEO of DNV GL – Maritime in August 2015.

Would you explain the place of DNV GL in the shipping world.

DNV GL has nearly 12,500 vessels in our class, representing roughly 275 million gross tons which is the biggest fleet worldwide in terms of vessels and gross tonnage. However, DNV GL's main strategy is not to be the biggest but rather to provide the highest quality service for our customers to help our customers to ensure high quality, efficient, safe and environmental friendly operation.

DNV GL has leading positions in most shipping and offshore segments, which allows us to support our customers with highly qualified and experience expertise 24/7. We offer direct access to technical experts (DATE) from 4 hubs at different geographical locations with a response time of an average 6 hours, a service which seems to be highly appreciated by most ship owners. This service we offer to all vessels as a part of our Classification services.

Our global network is the most extensive in the industry, with 189 stations in over 100 countries and 2,800 surveyors worldwide. Hence, we are able to serve and survey vessels at most locations worldwide.

We spend 5% of our revenue on R&D to continuously build new competencies, offer new products and services geared towards efficient, safe, environmental friendly and trouble free operation. These services can be offered at many key geographical locations around the globe.

Going forward we are working to modernize our class services and help our customers deal with an industry that is increasingly going digital. Just to give you one example, this year we extensively tested the use of drones to complete tank inspections. This saves time and money, because you need less staging, and gives greater flexibility where the survey can be done. Further we looking into many aspects such as use of data in condition based maintenance, hardware in the loop testing, cyber security and assurance of

cyber physical systems, autonomous systems and many other areas. All these areas we have in mind adding value to our customers in terms of safer and more efficient operations.

When did DNV GL start to co-operate with IRISL?

Actually the cooperation with DNV-GL started early 1980s when IRISL commenced expanding its fleet by purchasing vessels and commencing its newbuilding program.

What plans have you put into action regarding your collaboration with IRISL?

We signed an MOU with IRISL to collaborate on topics to promote safe, efficient and environmental friendly shipping. As part of this DNV GL will keep IRISL up to date with the latest regulatory and technical developments. DNV GL has already offered seminars on many topics and ship segments to IRISL and we intend to continue with these going forward. DNV GL also participates in over 37 committees and subcommittees in IMO and the EU, which gives us unprecedented access to and foresight on future developments. Additionally, for the vessels under DNV GL Class we will continue to provide IRISL with access to technical experts 24/7 for all topics where a rapid response is required.

How can DNV GL expand the co-operation with IRISL in the post sanction era?

DNV GL would like to support IRISL in modernizing its fleet and enter more strongly into the western markets. In this regard we would like to assist IRISL to be in full compliance with all rules and regulations from your stakeholders, while at the same time reducing operating expenses. We have strong expertise and experience in these areas and we have assisted ship owners worldwide, often leading to owners improving their standing in the market with cargo owners.

DNV GL would also like to work with IRISL to add value ahead of your newbuilding orders to ensure the selected designs are fully optimized on hull, machinery and systems. We have proven that we can assist owners and yards with our expertise, towards highly efficient designs but at the same time ensuring compliance with the highest safety standards. During construction we are able to provide highly skilled surveyors to ensure vessels are constructed with quality and reliability in mind.



DNV GL wishes to congratulate IRISL Group Chairman and Managing Director on the re-vitalisation of IRISL's global activities.

We would also like to take the opportunity to extend our best wishes to the IRISL Chairman and Managing Director and Board of Directors and all staff members on the achievement of 50 years in the vital business of assisting and supporting Iranian and international trade.



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2. SCP Service: Operating with six vessels in this route with total capacity of 24600 TEU which connects the Persian Gulf ports to Far East central & Southern ports in 42 days.

3. ISC Service: Operating with three vessels with total capacity of 6600 TEU each, that connects South - East Asian ports to Jebel Ali, Bandar Abbas within a period of 26 days.

4. SAS Service: Operating with two vessels with total capacity of 2000 TEU connects countries located in East Africa to west coast Indian ports and eventually to Persian Gulf ports within 35 days.

5. ECL Service: Operating with five container vessels, with total capacity of 12700 TEU which covering from Persian Gulf, Gulf of Aden, Red Sea to Mediterranean Sea, North of Europe and exports from Europe and Mediterranean Sea to Persian Gulf ports.

6. IIX Service: Operating with three vessels, each with a capacity of 1100 TEU which is capable of transferring containers ex. Indian ports as well as those transshipped units in Bandar Abbas via Far east, South East Asia, North Europe & Mediterranean sea ports to Bandar Chabahar, Umm Qasr in Iraq, Bandar Imam Khomeini (BIK), within a period of 15 days.

7. XPG Service: Operating with four vessels, with total capacity of 3600 TEU which connects Persian Gulf ports such as Bandar Abbas, Bushehr, Bandar Imam Khomeini as well as Bandar Assaluyeh, Khorramshahr and vice versa, overall route period is about 7 days.

8. (AME) FAL 1: Operating with 13 vessels which connects Far East ports to North Europe in accordance to slot exchange agreement between HDASCO and CMA-CGM within a period of 84 days.



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• Ebrahim Yasseri



• Alhossein Farrokhi



• Seyyed Hassan Mousavinejad



• Gholamreza Najafi

IRAN'S INTEGRATED TRANSPORTATION:

A COMPETITIVE COMMERCIAL ADVANTAGE FOR CIS COUNTRIES

By: Narges Ehsandar

Today, transportation is considered to be the main facilitator of trade, and countries and corporations are endeavoring to maintain an efficient transportation fleet for themselves in order to attain a greater share of international trade. They have well perceived excellent transportation leads to optimum utilization of opportunities as well as to facilitate service offering processes.

The development of societies on the one hand and the advancement of technology on the other hand have promoted the significance of transportation firms more than ever. Besides, as the element of time has gained further importance, goods owners are pushing transportation companies for higher speed and time –saving activities. Thus, these days, transportation firms are highly interested in using integrated transportation methods in order to enhance and pace up their transit processes.

Thanks to its strategic geographical location and its vast coasts in north and south, possessing the largest shipping line in the region, and having railway and roads all throughout the country, Iran is an excellent choice for goods transit to and from the landlocked neighboring countries. To do so, Iran has taken steps to establish an integrated transportation firm in order to pave the way for the creation of a transportation corridor. In order to delve into this matter further and put the merits of integrated transportation in the spotlight, we decided to set up a panel discussion, which was held a while ago in the Islamic Republic of Iran Shipping Line (IRISL) headquarters in Tehran. The participants in the panel discussion were the following figures:

- **Mohammadreza Ghaderi, Director of IRISL Bulk and Break Bulk Shipping Company**
- **Aliakbar Ghonji, Director of Khazar Sea Shipping Company**
- **Captain Alihossein Farokhi, Director of IRISL Integrated Transportation Company**
- **Seyyed Hassan Mousavinejad, Chairman of the Islamic Republic of Iran Railways Guild Association's Board of Directors**
- **Dr. Ebrahim Yasseri, Vice President of IRISL Transit and Customs Committee**
- **Gholamreza Najafi, Deputy Director General for Commerce and Marketing at Railways of the Islamic Republic of Iran (RAI)**





Payam Darya: For the first question, we would like to have your take on the overall view of IRISL on integrated Transportation.

Alihossein Farrokhi: It was one single need that drew IRISL into this realm, and that was nothing but the concept of *door to door* transportation and feeling that this concept needs to be practically implemented. In other words, IRISL felt that holding Iran’s national maritime transportation fleet on the one hand and enjoying the excellent strategic location of Iran on the other hand made it well capable of offering integrated transportation services and hence making *door to door* transportation possible. What made the implementation of *door to door* transportation by IRISL even more possible was the extensive access of IRISL to goods and customers on the international transportation market through its various offices worldwide. To manage this area of its business more effectively, however, IRISL decided to establish an independent subordinate company under the title IRISL Integrated Transportation Company

Payam Darya: Why is integrated transportation worth noticing and thinking over?

Alihossein Farrokhi: First, I must point out that there were no companies in Iran which were capable of offering such integrated transportation services. Hence, IRISL felt the need for establishing a firm to cover this deficiency and to complete the chain of services.

Given that IRISL possesses representatives and offices in different corners of the world, it is more than capable of marketing and absorbing customers. Indeed, it is the one and only Iranian company that has such capabilities. Hence, IRISL was confident that via establishing a company for this matter, it could utilize its capabilities to offer integrated transportation services. Other companies are practically unable to compete with IRISL Integrated Transportation Company due their far more limited access to international markets.

On the other hand, in the light of its nature of business and owning various subordinate companies, IRISL could confidently meet the needs of its customers in full capacity. Customers do want to hand in their cargo to the transportation firm in the point of origin and have it delivered to the destination. The less the customers have to deal with transportation companies, the happier they feel.

In other parts of the world, shipping lines receive these services from private firms, yet in Iran, the entire process of integrated transportation, from issuing the bill of lading at the point of origin to delivering it at the destination, is handled by IRISL Integrated Transportation Company. Thus, IRISL Integrated Transportation Company is the only company capable of issuing nation-wide bills of lading.



Payam Darya: Isn't it a good idea to monitor the experience of other countries in this regard, to see whether they tend toward establishing integrated transportation systems, or prefer to limit themselves to maritime transportation only?

Mohammadreza Ghaderi: These days, thanks to the increasingly growing technological advancements, the communications among the residents of different corners of the world is not limited by distance. Consistency with these developments

will not only promote mankind's welfare, but it will also promote the status of industry players. Indeed, transportation plays a paramount role in the trade since it is responsible for delivering the necessities of people's routine life and industrial manufacturers. Transportation these days owes its advancement not only to the technology and innovation, but also to the new developments in some sciences such as logistics, chain supply management and transportation operations.

Meanwhile, knowledge-based companies have made valuable contributions to the expansion of transportation by bringing creativity and innovation to this industry and noticing the needs for the market. Today's companies and organizations have got acquainted with innovative means of transportation, and they do acknowledge the merits of multi-faceted transportation. In fact, the farther the time passes, the more they get interested in using multi-faceted transportation. A quick glance at the large shipping lines around the world will demonstrate that the majority of them are on the threshold of bankruptcy due to a major cut in the maritime transportation fares in the recent years. Even the most prominent ones have managed to preserve themselves at their minimum level – i.e. they have merely survived.

They have understood their comparative advantage and have taken a step forward before it brings them into abyss of failure.

For example, the cost of transportation for a 20-foot container from East Asia to Europe is 500USD. Due to the ships operating cost, it is obvious that this is an uneconomical task. In this situation, major companies have a pre-determined chain or package, as a result, other competitors who have not understood their condition in a timely manner and have not recognized global situation will fail easily. Only a few main players could survive while show their strength to other competitors in the competition. This is because of there is not only the income of the origin to destination transit, but also the revenue of integrated transportation for them.

The advantage of this way of transportation for owners of goods who constantly are receiving cargo is that turn-over funds will be diminished and they do not require to buy more expensive products in large quantities at one stage as well. It is the result of that chain which continuously provides all their needs. This is where integrated transportation will play a more colorful role. Under such circumstances, any organization or company which is responsible for providing the necessities and performing all stages of transport may have not the capability and ability to make all mentioned process practically alone, but the transportation management is done in a specific place. Owner of the product does not need to delegate his marine transport to one company and road transport to other company. Moreover, the global bill of lading is issued.

International shipping companies which are completely familiar with transportation laws, have strong impacts on transport in a quite competitive and professional way, making the transportation and sending of the goods for both manufacturers and buyers simple.

In recent years, IRISL have come up with this idea that remaining in the international market is not feasible only through maritime transportation. Based on this idea, via cooperating with different sectors and different transportation companies, IRISL has created an integrated transportation company which not only decreases the risks but also is in line with global developments.

Payam Darya: Do other shipping lines in the world have integrated transportation?

Mohammadreza Ghaderi: As mentioned before, large shipping companies are



responsible not only for transportation of goods from one port to another, but also due to their client inquiry, they provide multi-faceted transit services for them. As an example, you can ask one of such companies, like Maersk, to give you the best appropriate cost for transportation of a specific cargo from one country to another. It is obvious that these companies do not have agents in every corner of the world, but they have a unique management at the international level to be responsible for their clients. When a cargo should be transported from south of the Iran to the north, it will certainly not be transported by Maersk's machines, in other world, Maersk enjoys some cooperator companies. These companies are in support of each other, they have created a more competitive situation in the market than others.

Altogether, integrated transportation is an international issue. If we want to be one of the top companies, we should think and act like them. Nowadays, the number of shipping lines in the world are decreasing and most of them are willing to be combined with each other to make integrated transportation companies.

The past one or two decades, many jobs have been eliminated, seeing that different world networks have accelerated the pace of processes.

Payam Darya: **There are a sort of progressive needs in the country which transportation has to be responsible for. Due to this matter that transportation is known as a basis of development of a community, how is Iran's transportation progressing according to its development needs?**

Seyed-Hassan Mousavi Nejhadi: Transportation is a part of production costs. 7% to 15% of production costs is due to transportation. End user or main manufacturer is willing to decrease this cost to its minimum level, as some part of this cost is paid directly to transportation companies. In order to minimize transportation costs, all equipment and tools may be used by the end users or manufacturers.

In the USA, tentatively transport helicopter pads or controlled flying have to be used to deliver the goods. In the field of passenger transport, Huber is used, with two samples being launched in Iran. Huber uses the free shipping capacity to move passengers. It is more than three years since using Huber at startup, it is said that Huber is worth 70 million dollars. If the transportation is not started set to future needs, it will surely cause huge problems.

In order to adapt of the transportation sector with the development needs of our country, many attempts have been made. In this regard, facilities such as silo warehouses and steel manufacturing companies, have been connected to rail and road transporting network.

An important issue which should be taken into account is the part of 12% of GDP for transportation costs. As a result, in order to increase its activities, government and the private sector have made appropriate cooperation and due to the Post -JCPOA era, a golden opportunity has been also created to promote transportation with the cooperation of foreign investors and partners.

Payam Darya: **what is the role of railway in integrated transportation? What is the role of private sector in this regard?**



Gholamreza Najafi: Economy has experienced one percent growth in the year 2016.

the volume of world trade was also about 16000 billion dollars. If the sources and goals are planned, about 2700 billion dollars of it could be absorbed by Iran.

In the first year of changes which took place in the management of rail transit, operation growth was about 50%. In the year 2015, this figure raised to 97%. Due to its geographical location, Iran is able to absorb 25% of world trade volume. Less time and less costs are considered as the most preferable tools for clients. Thus, clients choose the company which offers the lowest costs. As a result, I believe that the necessity of group work is more obvious here. The view toward railways, ports and maritime organization (PMO), shipping and customs, should be in a similar way. Fortunately, the government is moving toward this purpose.

Scheduled trains are the most useful tool in railways. For example, in the year 2015, 1.400.000 tons of goods, mostly sulfur, was transported from Serakhs to Bandar Abbas.

It is about eight years since the international tariffs on railway are stable. Moreover, the discounts on railway transit have been increased, i.e. the 35% off for importing sulfur from Turkmenistan.

Moving toward integrated transportation should be subjected to further attention. As mentioned before, 2700 billion dollars could be Iran's revenue. Moreover, China's takings on goods transportation to European countries is 520 billion EUR.

Iran railway is seeking for the sources and goals to be planned and negotiated. In this regard, there are some ongoing negotiations with china.

For having an integrated transportation, China should negotiate with countries such as ; Kyrgyzstan, Turkmenistan, and Uzbekistan.

A tentative container train arrived from one of the eastern cities of china in Tehran which had an extensive international reflection. We have negotiated with Europe to export cargoes from Hamburg port which would be done partly via railway and partly via sea. Railway has set its goals and if it wants to be successful, there is no way but cooperation with ports and maritime organization (PMO), shipping lines and customs. Meanwhile, the issue of national interests should be put in the spotlight.

In this situation that potentials are supposed to be actual, everyone is to do its part efficiently. since 2005, it was approved for railway to give more responsibilities to the private sector. Accordingly, the railway gave all its wagon affairs and some part of the locomotive affairs to private sector. In the context of rails, international transportation is mainly done thorough CIS wagons. The Private sector did the A to Z affairs, as a forwarder. Railway had only a sovereignty role. Iranian railway authorities held some meetings with Azerbaijan railway and Russian managers. Both sides also nominated their representatives, but the main task is only done by the private sector.

Payam Darya: Persian Gulf Star Oil Refinery Project is gradually approaching its operations. Does IRISL have any plans to delegate some parts of this project's export?

Ali Akbar Ghonji: Thanks to the market's needs and current conditions, IRISL as an international company in the area of transporting of goods, is moving forward to be responsible for the mentioned needs.

In this regard, in order to play its role, and find its share in the current competitive market, IRISL will set specific strategies for each project. With the Persian Gulf Star Oil Refinery Project's joining the circuit, IRISL will meet the needs.





Payam Darya: Based on the evidences and by creating the necessary infrastructures, Chabahar enjoys a good and appropriate position, due to that it locates in free water and virtually there is no reason for ships to enter Strait of Hormoz; thus, from economical view, Chabahar is of great importance.

Mohammadreza Ghaderi: In terms of foreign transit, no port is equal to Chabahar. The iron mines in Iran are about 4 billion tons , 20 to 21million tons of which are exported each year.

Beside Iran, Afghanistan has also intact mines, major world powers examine all mentioned capacities every year. These sources can be used as part of raw material for their industries. They discovered oil in Saudi Arabia and then focused on Iran. But as they tried for further discoveries in the North Sea, little by little, the situation of oil market in Middle East and Persian Gulf was disrupted. The issue of connecting east of the country to Afghanistan, Turkmenistan, and other neighbor countries is not only an unavoidable issue, but also a priority.

There many resources of oil and gas in Makran which could have a great impact on Assalouyeh. Why economic boundaries of Iran and Afghanistan suffer from the lack of security? In fact, economic ties in this region are loose. For example, in the sanction period, almost all countries have boycotted us, excent for the UAE. The reason was related to the strong and long –term business relationship between Iran and UAE, so that UAE was not able to overlook it. Better put, the business relationship leads to safety and security. It would also bring about a sustainable economic condition for our country and the region.

“ **IRISL INTEGRATED TRANSPORTATION COMPANY IS THE ONLY COMPANY CAPABLE OF ISSUING NATION-WIDE BILLS OF LADING** ”

Ebrahim Yaseri: Currently, Chabahar port enjoys two significant wharfs. Due to their appropriate draught, they are of great significance. Hence, upgrading them is our priority.

In terms of hinterland, we are also equipping the region in order to be able to decrease the transportation time and meet the needs of customers.

Due to the special situation of Chabahar, being located at a crossroad transportation way, we are able to provide suitable services for all landlocked countries of CIS. Accordingly , in the current year, by signing a contract in Serakhs, the way has been paved for rail transit of goods to Chabahar and then to Iran.

Thanks to the joint venture, we would be able to exploit the sources in this region in two upcoming years.

Moreover, it is worth mentioning that with the establishment of an integrated transportation company which covers rail, air, road, and marine transportation, the speed of services would increase widely in this geographic area.

In Iran,the private sector is very active in this sector, the government has also offered good support and as mentioned in 6th development plan, all the organizations are bound to collaborate in this matter.





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SALES MANAGER OF MESPAS AG:

IRISL; A LONG-HELD FRIEND

***P**ayam Darya Magazine has managed to conduct an interview with Mr. Dominic Seiler, sales manager of MESPAS AG. You will find a summary account of the interview in the following:*

1 - In your perspective, how bilateral cooperations between IRISL and MESPAS AG could be further expanded, given the sanctions lifting?

Considering the lifting of the sanctions and the implementation of JCPOA the grounds have been paved for more cooperation between IRISL and MESPAS AG. In other words, our relationship could be back on the track just like the pre-sanctions era. IRISL is recognized as an old-timer customer of our company. We have had good partnership with IRISL and would warmly welcome to revive the ties. We provide customers with the cutting-edge software systems on vessels. In line with this, we aimed at putting into use of such cutting-edge software systems on IRISL vessels.

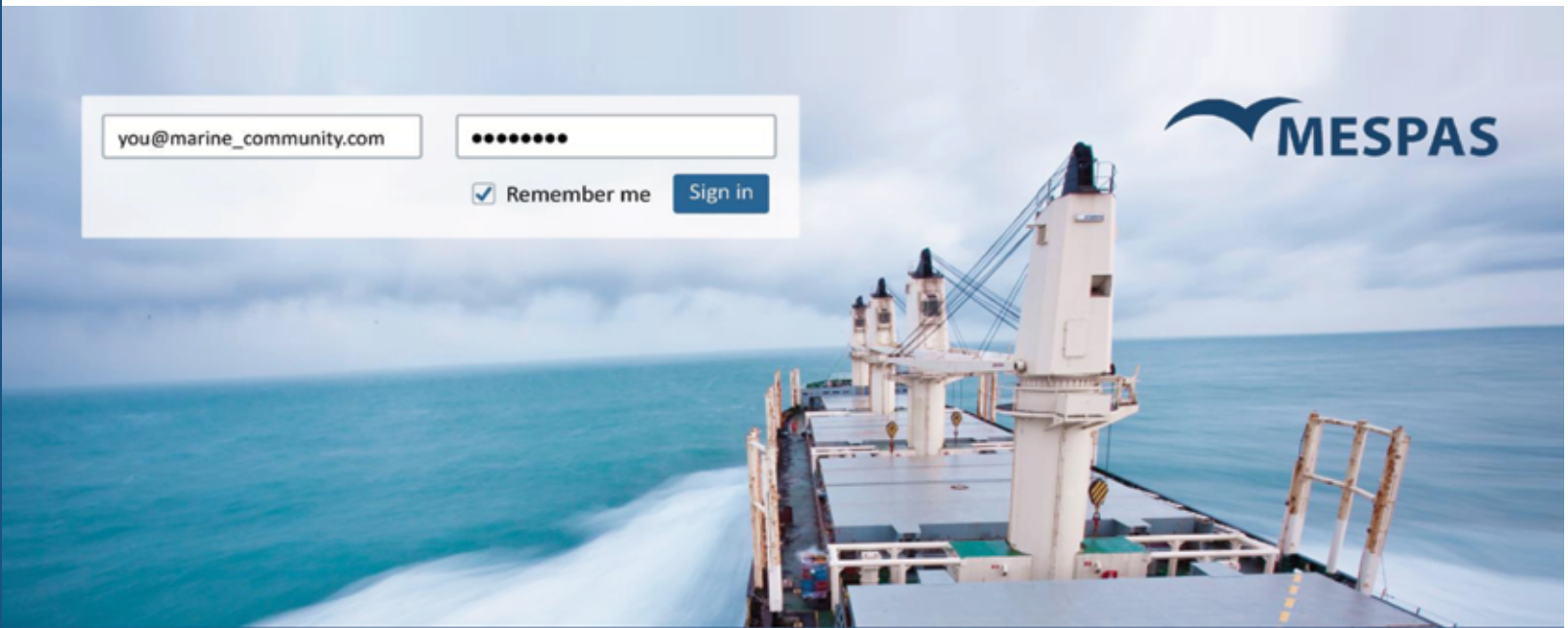
2 - In which fields do you mainly work with the IRISL? Do you have any intentions to work with IRISL in new areas?

We have brought advanced products which can be used by our customers worldwide. Our main focused fields are specified to vessels but also to offshore platforms, power plants and other maintenance-sensitive installations. For IRISL we have found that for such a big company, there are additional requirements which we covered with customized software development. Better put, satisfying our customers' needs is our priority. Regarding this, if IRISL needs a new product we develop it. I should emphasize that we aim at providing our customers with the premium and unique services.

3 - What are your proposals regarding the existing problems, if there are any?

I don't think that there would be a serious problem. In my personal approach, conversation stands in the first place in case of facing problems. If a service has to be improved, the supplier needs to be aware of it. The most direct way is to receive customer feedback. This counts in every industry: if it is software or shipping. So, in order to solve difficulties at a rapid pace it is necessary for us to cooperate with our customers..

Remember me



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MODERN SAFETY MEASURES IN OFFSHORE INDUSTRY

Saeid Kazemi

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Introduction

The intensive activities for exploration and exploitation of the oceans, especially the growing demand for hydrocarbons, led to the development of the offshore oil and gas industry during the last decades. The Piper Alpha disaster demonstrated that even when a facility is built to good design standards, catastrophic events can still occur. This incident prompted the recognition that exceptional safety performance requires the implementation of a comprehensive safety management system. Safety management systems provide a holistic approach to safety, addressing not only technical safety requirements, but also organizational and human performance issues such as management, training, documentation, operational procedures, etc. Regulatory trends have been moving away from enforcement of prescriptive requirements and toward performance-based systems. As operators are required to demonstrate the effectiveness of their safety management measures, the use of risk assessment tools has increased throughout the industry. On 20th April 2010, an explosion rocked Transocean's Deepwater Horizon drilling rig in what has escalated into one of the United States' deadliest offshore drilling incidents of the past half-century. After the initial blowout occurred, the leaking wellhead continued to feed the fire onboard the semi-submersible until the rig ultimately collapsed beneath the deep waters of the U.S. Gulf of Mexico on 22nd April 2010. Since 2001, there have been 69 offshore deaths, 1,349 injuries and 858 fires and explosions in

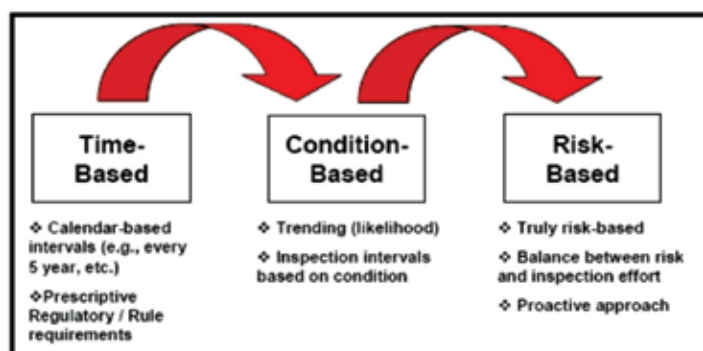
the Gulf of Mexico, according to the Federal Minerals Management Service. The main consequence of the Deepwater Horizon sinking is that oil and gas offshore drillings look more risky than before especially from the marine environment pollution point of view. Although regulatory requirements which apply to offshore oil and gas development are still quite different from nation to nation, a degree of uniformity is beginning to emerge in the approach operators are taking toward project development, design and risk assessment. Ongoing improvement in the safety of offshore facilities relies upon a union of good regulations and industry codes and standards. In the following, an overview of progression of risk-based analysis and legislation study of offshore activities are presented and discussed.

Safety Approach in Offshore Industry

The inspection frequencies for structures in the marine and offshore industry have traditionally been driven by prescriptive industry practices, usually at time-based or calendar-based intervals. However, such a practice does not explicitly consider the likelihood of failure of a component under its operation and loading conditions, nor the consequences of a failure. Current inspection practices make it difficult to recognize if the same or improved service reliability can be achieved by varying inspection methods, locations or frequencies. Also, current practices do not easily identify if an inspection activity is excessive and provides no measure of increased assurance for the integrity of the component.

“
SAFETY ASSESSMENT SHOULD COVER ALL POSSIBLE AREAS INCLUDING THOSE WHERE IT IS DIFFICULT TO APPLY TRADITIONAL TECHNIQUES
”

Figure 1: Evolution of Inspection, Maintenance and Repair Methods

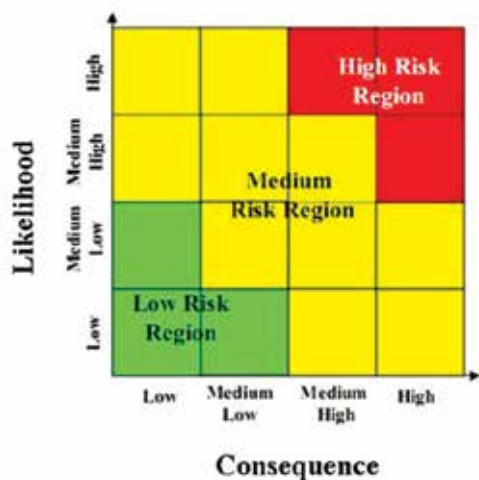




However, significant benefits may be gained from more informed inspection methods which combines factors such as satisfactory operating experience, low deterioration rates, minimal consequences of failure and condition-based inspection interval setting. The risk-based method includes aspects of the condition-based methods using trending techniques to estimate likelihood of component failure, but it also factors in an estimation of the potential consequences of the structure's failure. Structural components whose failure can lead to significant consequences, particularly related to life safety and the environment, receive higher inspection priority which reflects in risk matrix (Figure 2).

Formal Safety Assessment (FSA) has been a risk analysis tool for some time, having been particularly widely used in the nuclear and petrochemical industries, and some administrations have been encouraging IMO to recognize FSA as an aid to the maritime rule-making process. A number of trial applications have already been conducted, including high-speed crafts and helicopter landing facilities on passenger ships. However, although the principle of FSA has not been challenged, doubts still exist whether it can be integrated into the working practices of IMO. Following the public inquiry into the Piper Alpha accident, the responsibilities for offshore safety regulations were transferred from the Department of Energy to the Health & Safety Commission (HSC) through the Health & Safety Executive (HSE) as the single regulatory body for offshore safety. In response to the accepted findings of the Piper Alpha enquiry, the HSE Offshore Safety Division launched a review of all offshore safety legislation and implemented changes. The changes sought to replace legislation which was seen as prescriptive with a more "goal setting" regime. The mainstay of the regulations is the Health and Safety at Work Act. Under that act, a draft of the offshore installation (safety case) regulations was produced. It was then modified, taking into account the comments arising from public consultation. The regulations require operational safety cases to be prepared for all offshore installations. Both fixed and mobile installations are included. The HSE framework for decisions on the tolerability of risk is shown in Fig. 1,

Figure 2: Risk Matrix



where there are three regions: (a) intolerable, (b) As Low As Reasonably Practicable (ALARP), and (c) broadly acceptable. Offshore operators must submit operational safety cases for all existing and new offshore installations to the HSE Offshore Safety Division for acceptance. An installation cannot legally operate without an accepted operational safety case. To be acceptable a safety case must show that hazards with the potential to produce a serious accident have been identified and that associated risks are below a tolerability limit and have been reduced as low as is reasonably practicable. For example, the occurrence likelihood of events causing a loss of integrity of the safety refuge should be less than 10⁻³ per platform year and associated risks should be reduced to an ALARP level.

Fires and explosions may be the most significant hazards with potential to cause disastrous consequences in offshore installations. Prevention

of fire and explosion, and emergency response regulations (PFEER) were therefore developed in order to manage fire and explosion hazards and emergency response from protecting persons from their effects. A risk-based approach is promoted to be used to deal with problems involving fire and explosions, and emergency response. Compliance with the current offshore safety regulations is achieved by applying an integrated risk-based approach, starting from feasibility studies and extending through the life cycle of the installations. This is achieved through stages of hazard identification for the life cycle of installation from concept design to decommissioning and the use of state-of-the-art risk assessment methods. In a risk based approach, early considerations are given to those hazards which are not foreseeable to design out by progressively provided adequate measures for prevention, detection, control and mitigation and further integration of emergency response.

Figure 3: The HSE framework for decisions on the tolerability of risk

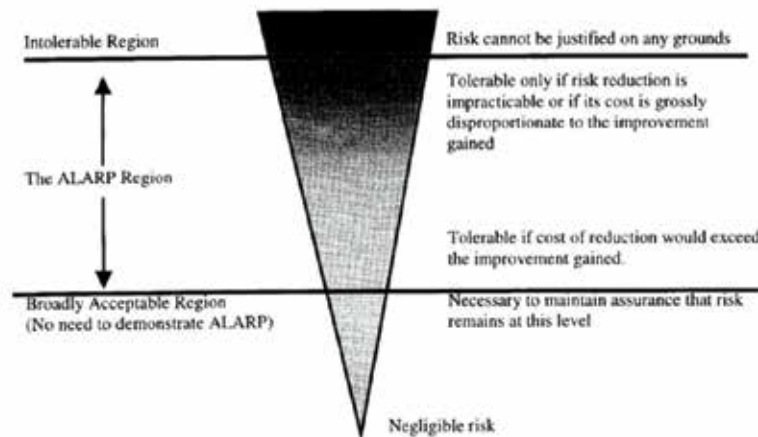


Figure 4: Corrosion Degradation Mechanism



RISK MANAGEMENT PROCEDURE

The five commonly defined steps in the risk management process are:

1. Hazard Identification (HAZID)

This is the essential first step and is often the one which causes the most difficulty because it calls for time, commitment to the process and planning. Some of the more formalized HAZID techniques are Hazard and Operability Studies (HAZOP), Failure Mode and Effects Analysis (FMEA), and Structured What-if Techniques (SWIFT)

2. Risk evaluation or assessment

Here, form and evaluation is given to the hazards, they are assessed as risks and their consequences identified. There are both qualitative and quantitative methods of evaluating the risk posed by the identified hazards and the process involves considering the likelihood of occurrence in combination with their consequences. This information can then be ranked in a matrix of likelihood against consequence.

3. Development of risk management plan

When the risk has been assessed, its cause identified and its potential consequence identified, it is time to look at ways of controlling or avoiding the risk and/

or its consequences.

4. Implementation

Once a risk control method, or more usually, a package of measures has been identified, assessed and selected, the next stage is implementation. This needs to be handled with a degree of forethought and planning since frequently it will involve change. Change needs both planning and managing.

5. Risk monitoring

The effect of implementation of the plan will need monitoring and this may be a complex process since the implementation may change more than one parameter. Nevertheless risk management, whether it is simply a technique used when addressing operational problems in management or a safety case designed to assess safety measures in a complex offshore unit, is a valuable discipline which more than any other can prevent or help to cope with the unexpected.

FORMAL SAFETY ASSESSMENT

The philosophy of formal safety assessment is essentially the same as the one for the safety case approach. It has been noted that many leading classification societies are moving toward a risk-based regime. It is believed that the framework of formal safety assessment can facilitate such a move. The concept of the safety case has been derived and developed from the application of the principle of system engineering for dealing with the safety of systems or installations for which little or no previous operational experience exist. The five key elements of the safety case concepts are illustrated in Figure 5. These elements are discussed as follows:

1. Hazard identification: This step is to identify all hazards with the potential to cause a major accident.

2. Risk estimation: Once the hazards have been identified, the next step is to determine the associated risks. Hazards can generally be grouped into three risk region as the intolerable, tolerable and negligible risk regions as shown in Figure 3.

3. Risk reduction: Following risk assessment, it is required to reduce the risks associated with significant hazards that deserve attention.

4. Emergency preparedness: The goal of the emergency preparedness is to be prepared to take the most appropriate action in the event that a hazard becomes a reality so as to minimise its effects and, if necessary, to transfer personnel from a location with a higher risk level to another one with a lower risk level.

5. Safety management system: The purpose of



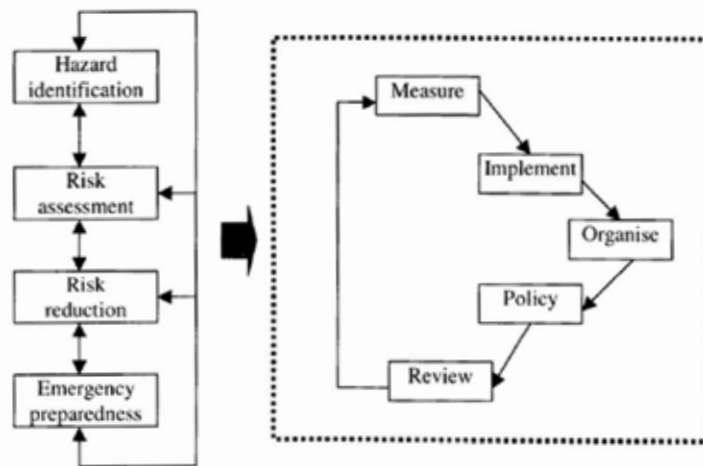
a safety management system (SMS) is to ensure that the organisation is achieving the goals safely, efficiently and without damaging the environment. One of the most important factors of the safety case is an explanation of how the operator's management system will be adopted to ensure that safety objectives are actually achieved.

A safety case is a written submission prepared by the operator of an offshore installation. It is a standalone document which can be evaluated on its own but

has cross-references to other supporting studies and calculations. The amount of detail contained in the document is a matter of agreement between the operator and the regulating authority. In general, the following elements of an offshore installation are common for many safety cases:

1. A comprehensive description of the installation.
2. Details of hazards arising from the operation of the installation.
3. Demonstrations that risks from these hazards

Figure 5: The Five Key Elements of the Safety Case Concepts



have been properly addressed and reduced to an ALARP level.

4. Description of the safety management system, including plans and procedures in place for normal and emergency operations.

5. Appropriate supporting references.

In offshore safety analysis, it is expected to make safety based design/operation decisions at the earliest stages in order to reduce unexpected costs and time delays regarding safety due to late modification. It should be stressed that a risk reduction measure that is cost-effective at the early design stages may not be ALARP at the late stage. HSE's regulations aim to have risk reduction measures identified and in place as early as possible when the cost of making any necessary changes is low.

Traditionally, when making safety based design/operation decisions for offshore systems, the cost of a risk reduction measures is compared with the benefit resulting from reduced risks. If the benefit is larger than the cost, then it is cost-effective, otherwise it is not. This kind of cost benefit analysis based on simple comparisons has been widely used

as a general principle in offshore safety analysis.

Formal Safety Assessment (FSA) is a new approach to maritime safety which involves using the techniques of risk and cost-benefit assessment to assist in the decision making process.

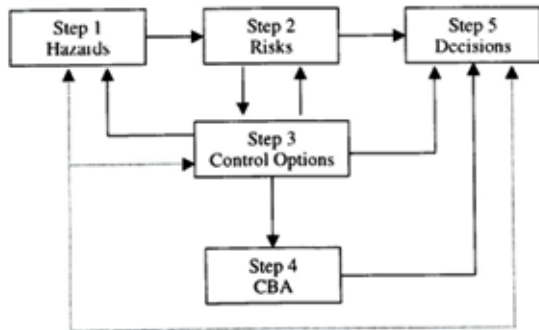
It should be noted that the FSA approach differs from the safety case approach in that its intention is to provide a generic approach across the whole field of safety legislation rather than address a specific operation. Thus, the approach proposed to IMO by the UK's Marine Safety Agency takes a generic approach to vessel operation and to those involved in and affected by its operation, either directly or potentially.

The FSA framework consists of five steps:

- (1) Hazard Identification;
- (2) Risk Estimation;
- (3) Risk Control Options (RCOs);
- (4) Cost-Benefit Analysis (CBA);
- (5) Decision-making.

The interaction between the five steps can be illustrated in a process flowchart as shown in Figure 6. As it can be seen, there are repeated iterations between the steps, which makes FSA effective as it constantly checks itself for changes within the analysis.

Figure 6: Flowchart of FSA process



RISK-BASED OFFSHORE INSTALLATIONS SURVEYS

The increasing use of risk-based as opposed to prescriptive legislation will undoubtedly affect the ways in which marine surveyors work and new skills will have to be learnt. An example of this is the recent decision by the International Association of Classification Societies (IACS) to start applying FSA techniques, where possible, in IACS working party tasks. However, the use of classification rules as a default performance standard is now becoming more and more a feature of the latest risk-based approach to offshore installation certification.

The risk-based approach also means that it is perhaps inappropriate to treat structural surveys of offshore installations in isolation from the machinery and systems surveys because one of the basics of assessing risk is to consider the installation as a whole.

The items that are to be examined and the techniques to be employed will be very specifically written into a Verification Scheme which is developed from a consideration of the Safety Critical Elements (SCE) of the offshore platform and a HAZID and HAZOP review.

Whilst this risk-based approach is not mandatory for all offshore statutory regimes, it is an approach

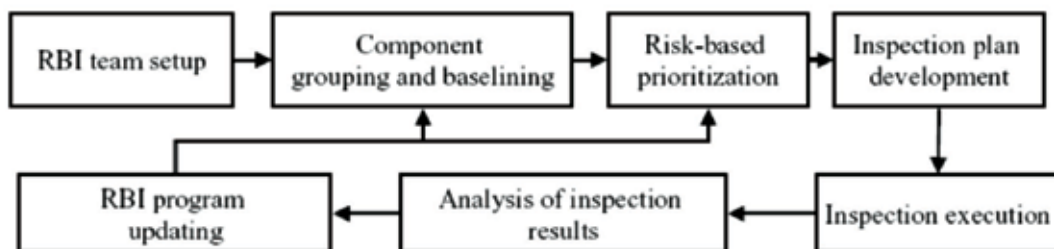


that is increasingly favoured by the oil companies themselves and it is likely therefore that it will be increasingly used as the basis for certification, and indeed classification, of offshore installations whatever their final location.

In the UK the “Offshore Installations Safety Case Regulations 1992” – SI (1992) 2885 require that safety cases to be drawn up by the owners of offshore installation to cover both the construction and the operational phases of the installation. In support of the safety case regulations are a number of other regulations, the two most significant for the classification societies being SI (1995) 743 “Prevention of Fire, Explosion and Emergency Response Regulations (PFEER)” and SI (1996) 913 “Design and Construction Regulation (DCR)”. It is the latter two that introduce verification schemes and written schemes of examination that feed into and underpin the safety cases.

One of the requirements of a verification scheme is

Figure 7: Main steps for developing risk-based inspection program





to identify the “nature and frequency of examination and testing” and one of the requirements of the safety case is to carry out audits of “the adequacy of the management system to achieve the purpose [of the safety case] carried out by persons who are sufficiently independent of the system (but who may be employed by the duty holder) to ensure that such assessment is objective”. It is a combination of these two requirements that determine the extent and frequency of periodic examinations on offshore installations and who ensures that they are being carried out.

The regulations apply to all offshore installation in UK waters including fixed and mobile ones. However, for mobile ones, the verifying scheme can be based on existing classification rules as the class system itself incorporates most of the elements of a verification scheme e.g.:

- proven and effective survey procedures;
- reporting and other systems to allow for survey follow up to ensure corrective actions are carried out;
- independence from the duty holder.

CONCLUSION

An offshore installation is a complex and expensive engineering structure composed of many systems and is usually unique with its own design/operational characteristics. Offshore installations need to constantly adopt new approaches and new technology and each element bring with it a new hazard in one

form or another. Therefore, safety assessment should cover all possible areas including those where it is difficult to apply traditional techniques. Although regulatory requirements which apply to offshore oil and gas development are still quite different from nation to nation, a degree of uniformity is beginning to emerge in the approach operators are taking toward project development, design and risk assessment. The dominance of the major operators in the newest areas of offshore development has played a major role in this progression. Many of the risk assessments and safety studies that are now required for North Sea developments in response to Safety Case legislation are becoming corporate standards for the large global operators. Ongoing improvement in the safety of offshore facilities relies upon a union of good regulations and industry codes and standards. Modern regulations are generally becoming more performance-oriented, requiring operators to demonstrate the effectiveness of their safety management techniques. More and more, operators are being given the opportunity to demonstrate, typically by means of risk assessments, the acceptability of new or novel approaches. Industry codes and standards which are continually improved remain a critical tool for operators to document practices which have been shown to produce acceptable results and to share learning from new experiences and approaches.

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GLOBAL ECONOMY & SHIPPING

ISTHMUS OF TRUMPISM



By: *malekreza malek poor*

US elect president , Donald Trump's remarks and approach actually indicate a trend against globalization.

The global economy has ever had a practice based on which production typically tend to be made in a place (a certain country or countries) where it may have the lowest cost and commodities are offered to customers at bottom prices. But Trump has a negative attitude towards such a trend, and it goes without saying that big challenges would soon emerge on the way of global economy; something about which the prominent economists in the world warn . Trumpistic policies will definitely make a serious change in congestion of handling cargo as well as China role as the world's greatest producer. Of course US seems to be affected itself by this bad impact very soon as well because the introvert approach Trump may assume for generating more jobs and keeping the electoral as well as the public satisfied, will cause this country's economical system to be entangled with a skyrocketing inflation. These problems will plunge the global economy into depression altogether

and the current order of commodities congestion, particularly in the shipping sector will become extremely disturbed . Since US economical system is the first and major economical system in the world and may encounter any possible challenge due to it's great power and being an effective country globally, we should expect Europe , Asia and along with that the whole world would also be affected following that country respectively. This was an experience we had evidently witnessed during the year 2008 when there was economical crisis in the world . Therefore , since we have already had many effective cases in the trend of global economy , there's this ghost of hope that Donald Trump would retreat from his past elective slogans when sweeping into power, and start reforming them by degrees. However , surveying his recent statements during the interview with different media explicitly showed that he had offered consecutive privileges to China .

The announcement of probable revocation of Transpacific treaty is considered as one of the main privileges Trump grants generously to China . This



is while the economists and politicians have been seeking to develop a commercial trade-off in the world in order to prevent from any new depression or crisis. But these destructive treatments will have a direct effect on the global transportation market, especially in the shipping sector and would deal consecutive shocks on this sector's structure in all probability.

If this ever occurs, the present strategies adopted by big companies which had already prevented from their collapse to a great deal can't be expected anymore to have the same effect at that time because when the economic sub-structures are destabilized, other sections won't be expected to be able to settle their own problems individually. However, as previously mentioned due to great ramifications Donald Trump's slogans may have imminently, either he should forego executing them somehow or their great thinkers might find a way to stall United States of America from giving him access to such threatening slogans. Anyhow even if the plans having been proclaimed by the elect president are slightly executed would

disturb the global economy, followed by different sectors of Transportation as well. But we just have to wait against events which have not yet happened since giving a definite view in current situation is not easy. In fact, all the views and comments having been given regarding the effect of Trump's sovereignty in the world still remain to be uncalculated. Therefore, shipping lines which can stand against indemnity as well as high spending and costs should take 'Waiting strategy' just like other economical sectors. Chinese shipping companies seem to have the upper hand among the others, since these companies as well as the other companies involved in this field have launched into developing this sector and managed to make up for low incomes which have emerged since the inception of depression in the transportation sector to a great extent. This actually means that outlooks in the section have expanded considerably. In other words, Shipping Sector is now included as a main part of logistics network and supply chain in such a way that those companies operating in the field wouldn't confine themselves to marine transportation only. Chinese shipping lines have been linked to Distribution Network rapidly, having propelled most of their assets brunt beyond participation in distribution, and could have been able to make up for the lost income balance in that sector. In Iran it seems to be necessary for us to step into such a path, take shipping sector out of privatization and push that towards more participating in distribution chain. Notwithstanding, Trumpization of global climate has an intrinsic threatening of pushing global economy towards some sort of collapse at the first stage. But we can't deny this fact that the world is able to get itself out of undue rightism which have implicated United States to a large extent, by regional and international convergence as well as offering strategies in which US no longer plays a pivotal role, in case US united governing body turned to Trumpism and started supporting that. Giving consecutive warns to this country's newly-appointed governing officials in such a manner that they may be reminded of mutual harms of their behaviors, would be very effective.

Veteran member of Iran Chamber of Commerce, Industries & Mines as well as Ex-Managing Director of Ports & Marine Organization

CONSOLIDATION THE TRUMP CARD IN SHIPBUILDING

By: Mehri azizi





In fact, more Chinese shipyards, in particular privately-owned enterprises, are expected to go bankrupt or shut down due to debts or simply having no new orders to sustain operations.

With more than 3,000 shipbuilding enterprises, mostly speculative yards, counted at the start of 2010, that number has drastically dwindled to only around 300 today, and only a little more than 100 yards have active day-to-day operations.

China's state-owned shipbuilders and China State Shipbuilding Corporation (CSSC), for instance, have responded to the declining new orders by consolidating its various yard subsidiaries so as to streamline operations and maximize facility utilization. Therefore, PD managed an interview with a Chinese shipbuilding to evaluate the market through a shipbuilder's point of view. In this regard, Mr. Lin Wang, the general manager assistant at Penglai Zhongbai Jinglu Ship Industry Co. Ltd which is located in Penglai, Shandong, China which was established in April 2006 by Shandong Huiyang Group and engaged in shipbuilding and offshore projects. After 10 years' rapid development, the shipyard has become one of the leading private shipyards in China, vice president company of China association of the national shipbuilding industry, and one of key shipyards listed Chinese government's "white list" with over 3000 employees and the product range covers merchant ship such as bulk carrier, container ship and tanker etc, high-level fish vessels such as Chinese first saury/squid hybrid vessel and first Chinese tuna purse seiner etc, official vessels such as coast guard vessel, scientific expedite vessel and administration vessel, and passenger vessels etc , gave the comments on the prospects of shipbuilding industry, the effects of mega-sized vessels on the market and the future of these ships, merging the shipbuilders and the current encouragements made by shipbuilders to encourage the shipping companies.

THE OUTLOOK FOR THE SHIPPING INDUSTRY IN 2017:

NO PLACE FOR NON-SPECIALISTS

By: *Vahid Basereh*

An experienced member of Iran's Chamber of Commerce, Masoud Daneshmand, explained the reason behind the rise and decline of the shipping industry over the past two decades: "The current downturn in the maritime transport sector goes back to the bubble boom that was formed from 2003 onwards. The volume of world trade was increasing in those years and the market was faced with a shortage of vessels, accordingly. This shortage has led many people to order and purchase vessels and as a result, the purchase price and ships chartering rate increased rapidly. Meanwhile, Chinese tried to absorb much of this demand with the construction of numerous shipyards. Consequently, the price of one 50 to 55 thousand ton Super Handymax vessel rose up to 30 million USD; ships chartering rate of the same type also reached over 60 thousand dollars a day."

He called this issue a milestone in the shipping industry and continued: "Unfortunately, those flourishing years made many investors to forget that the market is not infinite and every market has a certain capacity. As the market reached its capacity limit and the economic crisis began in 2008, the volume of world trade took on a downward trend suddenly. This means the decline in the amounts of load and the reduction in vessels' cost."

Mr. Daneshmand described further events as follows: "Following the market collapse, many natural and legal persons that had submitted shipbuilding order, whether gave back these vessels to shipyards bearing the loss incurred, or they completely gave up their down payment and because as much as 90 percent of the whole payment was through bank loans, they have abandoned the vessel on the shipyards in order not to get caught in its later outcomes".

He also referred to the Hanjin Shipping and said: "Hanjin tried to maintain itself in the market but as its accumulated losses constantly increased and reached an intolerable level, the company was forced to declare bankruptcy."

This experienced businessman that knows marine transportation inside out, declared that the volume of goods available on the market is slightly less than the 20 thousand tons and said: "Previously it was predicted that this volume would increase to 30 thousand tons, however, it did not happen and the transport industry, particularly the shipping industry was faced with recession and loss.

"In this situation, a large number of vessels created a negative competition and made the ground for further losses of shipping lines. As it was mentioned before, the engagement of non-specialist businessman and individuals is another problem of this field. Chinese played a prominent role in this case by the construction of numerous shipyards." Mr. Daneshmand stated.

In response to the question that, why the body of global marine transportation experts failed to predict the crisis ahead he said: "Actually the large and experienced shipping companies could predict the next state of the market and the crisis that was going to happen, but the non-specialist individual that had ordered a large number of vessels to shipyards and saturated the market by vessels, actually caused the market's failure. The shipping companies then tried to create a relative balance in the market by scrapping and demolition of the vessels which were more than 15 to 20 years old in the last few years. Many shipyards shut down in China, simultaneously; however, the necessary balance in the market has not been created yet."

When he was asked to share his idea about the outlook for international markets, he replied: "The market was waiting for the election in the United States and now the result of this election is revealed."

Chairman of the Board of International Transport Companies Association of Iran (ITCA) continued: "The victory of Trump would not currently have any impact on the maritime activities, especially the maritime transport and shipping industry unless new decisions are to be taken in the future."

Referring to the campaign slogans of Mr. Trump, the member of Iran's Chamber of Commerce declared that, it is not common in the United States to be faithful to campaign slogans, and we should have in mind that he is a businessman.

Afterwards, Daneshmand analyzed the content of Mr. Trump's speech after his victory and added: "The perspective of Mr. Trump is to develop Europe trade as well as world trade. He declared in his first speech after winning the election that: "I will create jobs for all Americans", "I will double the economic growth in the United States." The realization of this slogan requires achieving peace in the world and if there is no peace, the economy will not grow, although in conditions of war, "war economy" will grow, it is not a sustainable economy."

He explained while referring to this fact that in the conditions of peace, the economy is sustainable and developing: "In order to create jobs for all Americans, it is necessary that the production be flourished, markets become available for the supply of products as well as the production volume to be increased for the world trade. Production, sales, and business are the elements of the creation of jobs. Therefore, it is supposed that Trump is working in the field of economic stability, growth and development of trade and production in the world, if he wants to fulfill his promise to create jobs for Americans and also brings about economic growth; it is natural that he should move in this direction; economic growth does not happen by war.

However, this experienced member of Iran's Chamber of Commerce acknowledged that we could not expect the economic boom unless the volume of trade exchanges reaches above 20 trillion dollars a year.

According to Mr. Daneshmand, BRICS countries, particularly China and India have contributed to the reduction of trade volumes and global loads in recent years. They moved toward the consumer economy with the change in the export economic approach which has reduced the volume of trade.

This member of Iran's Chamber of Commerce who considers the business boom in Europe as an important factor in the definitive transition from recession said; "If Europeans fail to make their economy flourish, the United States as the most important ally of Europe will burden the responsibility. Once in 2008, the United States came to the aid of Europe so that they could pass the crisis. Now it seems that the United States intends to get back some parts of the global market from China and direct it toward Europe.

Mr. Daneshmand also issued some warnings to shipping lines, he mentioned: "Those shipping lines that have purchased expensive vessels should not assume that the anticipated recovery of the global market, will be realized soon, for this reason, they have to immediately look for a solution. It seems the first priority is that these companies have to come to an agreement with their counterparty bank in order to adjust the interest rates and increase the time for repayment of installments so that they could both decrease the cost and also become hopeful to remain on the market, if this does not happen, the same issues similar to the problem of Hanjin company can occur frequently.

He also called shipping lines to have a careful examination of the Hanjin and stated: "The study of how Hanjin went bankrupt would help other companies to adopt necessary solutions to avoid the same kind of failure in the market.



MR.HORCH:

IRAN IN A PERIOD OF TRANSITION

By: Mehri azizi

Frank Horch as the minister in ministry of Economy, transport and Innovation of the city of Hamburg travelled to Iran as the head of high delegation of Hamburgian business body with a focus on maritime issues. The following is an interview with him in respect with the Hamburg ministry's strategies toward Iran and perspectives he holds regarding working with Iranian maritime and non-maritime organizations as an authority with being educated in ship building engineering.

Would you elaborate the relation between Iran and Germany specially Hamburg city?

First of all, the long history between nations Iran and Germany is real important. The two nations enjoy friendly and respectful relations and so many links which support setting up business relations. I am highly optimistic about resuming the relations between Iranian and German companies once again in the new era. Furthermore, The Free and Hanseatic city of Hamburg is regarded as one of the most important locations in Europe for Iran. The lifting of many sanctions has put an end to Iran's years of isolation. The second largest economy in the middle East, rich in raw materials, with a great economic potential, is a good reason to streng then the relationships we have always maintained, even in difficult times.

Hamburg's special role as a location for the Iranian community ensures pronounced interest- not only in "Made in Germany" but especially in "made in Hamburg". I would like to grasp this opportunity for Hamburg. The focus here is on the maritime industries and on logistics, energy and the classic industries.

How do you analyze Iran's potentials?

The decisive foundations are being laid in Iran at present. The government is pressing ahead massively with the expansion of the infrastructure. The port of Bandar Abbas and the deep-sea harbor of Chabahar, the associated free trade zone, and the rail connection are at a very top of the list. Mazandaran Province and the region around Rasht are emerging regions that, due to their location on the Caspian Sea, will be assuming important functions as a hub for trade. Iran is still in a period of transition. Whereas the maritime industry already maintains intensive contacts with Iran, the country is still largely unknown for many other delegation members. For the latter, we offer a preliminary exploration of the market, whereas for the members of the maritime sector, it is more a matter of specific measures for opening markets. I hope we will all be having interesting and simulating conversations and that your entrepreneurial projects will be very successful.

Personally speaking, I have been in touch with many Iranian projects and I got many experience about Iran over more than three decades.



How has been the cooperation with IRISL?

Direct negotiation started this year after sanctions removals and the good point is that IRISL is in Hamburg and the initial negotiations started with Eurogate Company. Politically, we started negotiations and promised our support in each case in Feb, 2016 and we hope to move forward fast.

How do you evaluate shipping industry in 2017?

It is a little difficult to answer. The question for the time being, the shipping industry is in trouble. Changing the current situation in shipping depends on many factors including financing, raw materials, Chinese policies etc. we have to be very concentrated on the industry mainly because transportation has turned out to be a complicated task in recent years. In other words, the transportation in the future is different and the last ten years has undergone different changes which makes forecasting so difficult.



SPECIAL INTERVIEW WITH MR. MALTE MEISCH IN C.STEINWEG , HAMBURG:

HAMBURG-IRISL COOPERATION TO BE INTENSIFIED

By: *Fatemeh Moonesan*

Payam Darya magazine has managed to run an interview with Mr .Malte Meisch, sales manager of C. Steinweg (Süd-West Terminal) in Hamburg port.
A brief account of the interview could be accessed in the following.



In your perspective, what are the most paramount achievements of the recent trip of Germany's transport minister to Iran?

Complying to the general necessity of resuming relationships on both the political and industrial sectors and the mutual exchange of expectations and requirements during delegation meetings, as this certainly results in regaining confidence between Iran and Germany.

In the recent trip of Germany's transport minister to Iran, several memorandum of understanding (MOU) were also signed.

What capacities and privileges may the Iranian ports have in common with the foreign partners?

The actual world-wide developments and consolidations in maritime business segments affecting port operations, can partially be compared to the restrictions and experiences of Iranian ports during the sanction period. Either party could benefit by exchanging the implemented different measures to keep their respective market shares.

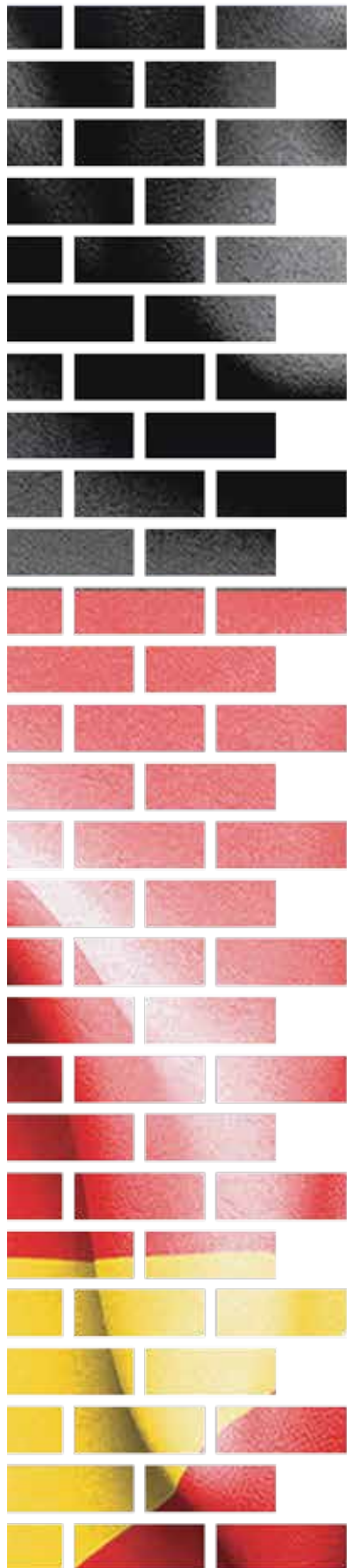
With reference to the lifting of sanctions and the execution of the Joint Comprehensive Plan of Action (JCPOA), how do you evaluate the ways for further cooperation in the field of maritime transportation between Iran and Germany?

Having been active for IRISL-Group long before the implementation of sanctions, C. Steinweg Hamburg can look back on long-lasting experiences in the Iranian market related to logistical and trading issue.

After The sanctions removal and the execution of JCPOA, ways have been paved for further cooperation between Iran and Germany.

The experiences along with the extensive IRISL-network and personal visits to Iranian companies allow us to deepen existing partnerships and to analyze further potential co-operations in the maritime sector.





IRAN AND GERMANY RECONNECTING FAST

By: Mehri azizi

Around 50 German firms have their own branch offices in Iran and more than 12,000 firms have their own trade representatives in Iran. Several renowned German companies are involved in major Iranian infrastructure projects, especially in the petrochemical sector, like Linde, BASF, Lurgi, Krupp, Siemens, ZF Friedridshafen, Mercedes, Volkswagon and MAN¹. In 2005 Germany had the largest share of Iran's export market with \$5.67 billion (14.4%).²

In 2008, German exports to Iran increased 8.9 percent and comprised 84.7 percent of the total German-Iranian trade volume. The overall bilateral trade volume until the end of September 2008 stood at 3.23 billion, compared to 2.98 billion euros the previous year.³

The value of trade between Tehran and Berlin has increased from around 4.3 billion. According to German sources, around 80 percent of machinery and equipment in Iran is of German origin.⁴

The German Chambers of Industry and Commerce (DIHK) has estimated that economic sanctions against Iran may cost more than 10,000 German jobs and have a negative impact on the economic growth of Germany. Sanctions would especially hurt medium-sized German companies, which depend heavily on trade with Iran. There has been a shift in German business ties with Iran from

1 «German-Iranian trade up 7.8 percent». Payvand.com. Retrieved 2013-05-20.

2 «The Cost of Economic Sanctions on Major Exporters to Iran». Payvand.com. Retrieved 2013-05-20.

3 Service, Haaretz (2009-11-05). «Iran warns Germany: Don't let «Zionists» harm your interests». *Haaretz.com*. Retrieved 20-05-2013.

4 <http://tehrantimes.com/economy-and-business/117115-german-businesses-should-seize-lucrative-opportunities-in-iran-numov-ceo>

long-term business to short-term and from large to mid-sized companies which have less business interests in the US and thus are less prone to American political pressure. Around 100 German companies have branches in Iran and more than 1,000 businesses work through sales agents, according to the German-Iranian Chamber of Industry and Commerce.⁵

In fact, with the ink barely dry on the Iran nuclear deal, Germany has made steps to revive a once close trading relationship with Tehran. In anticipation of western sanctions being lifted, Economy Minister Sigmar Gabriel made the first trip in 15 years to the Iranian capital. Speaking purely about business, Iran's Oil Minister Bijan Namdar Zangeneh said: "We hope to move fast after the sanctions are removed and it seems like the German companies and state have political determination to help Iran put the era of depression behind it, we have never had tense relations with Germany."

Gabriel is keen to strengthen ties with Iran's energy sector which at its height produced more oil than Saudi Arabia. However, Tehran has said it needs billions of dollars of investment to revive the industry which has been crippled by years of sanctions.⁶

Iran and Germany signed 10 memoranda of Understanding (MOU) at the end of their 5th Joint Economic Committee meeting in Tehran in Oct 3 2016⁷.

The MOUs were in a variety of areas ranging from finance, joint venture, banking, insurance, and urban development, to oil, gas and petrochemicals, renewable energy, railway, and environment.

The German vice-chancellor and minister for economic affairs and energy, Sigmar Gabriel, and the Iranian minister of finance and economic affairs, Ali Tayyebnia, signed the documents in the presence of some other officials from the two countries.

Gabriel, heading a 160-member delegation comprising corporate managers, entrepreneurs, and businessmen arrived in Tehran on Sunday.

In this respect, Germany's Deutsche Bundesbank (the central bank of the Federal Republic of Germany) and Central Bank of Iran (CBI) reached an agreement for technical cooperation. Meanwhile, SMS group, a builder of steelmaking plants, INTRA industrial solutions, Mitsubishi Germany and Keller HCW were among the firms which signed MOUs.

Touching upon the country's economic policies, the minister said that Iran's economic policy has always been focused on deepening ties with different countries, especially with traditional trading partners.

In another event, a high delegation of business authorities from Hamburg with Senator Frank Horch and minister Reinhard Meyer and companies including HPA, HPC, PWL, DNV_GL, BSM,

⁵ <http://online.wsj.com/articles/german-businesses-warm-to-iran-1407099835>

⁶ <http://www.euronews.com/2015/07/20/iran-and-germany-move-to-revive-economic-ties>

⁷ <http://www.tehrantimes.com/news/407013/Tehran-Berlin-set-to-broaden-economic-ties>





Senator Reinhard Meyer, Minister of Economic Affairs, Employment, Transport and Technology, from Schleswig-Holstein in regard with cooperating with Iran stated that:

Now that many of the sanctions restricting trade have come to an end, Schleswig-Holstein's industry has a chance to rediscover the Iranian market and the diverse opportunities it offers. In the past, Iran was an important business partner. That is what we hope to achieve again for the future. Interest is evident on both sides, and there is great potential for closer contacts and more intensive economic relations. Our task now is to determine the needs and strengths of both partners and forge links that will lead to sustainable and forward-looking economic cooperation.

Schleswig-Holstein has excellent economic and technological competences that are of great interest to Iranian companies- for example in the field of renewable energies, the maritime economy and mechanical and medical engineering. In 2015, for example, an Iranian delegation visited Brunsbüttel to inform itself on the spot about modern waste disposal system. And Iran was represented for the first time with a national pavilion of its own at SMM 2016, the international trade fair for the maritime economy. After years of isolation, a whole range of opportunities are opening up for Iran and its business partners to place economic relations with Nord Germany on a new footing. The Iranian economy offers great potential for the economy of Schleswig-Holstein, with its traditional structure of small and medium-size companies.

In the industrial fields, especially, Iran has a great need for investment. That is where companies from Schleswig-Holstein can contribute their capabilities. What we need now is to build up our economic relations carefully, strengthen contacts and open up new perspectives jointly. Not all the trade restrictions have been removed. So it is especially important to seek personal contacts, encourage partners to discuss directly and build up trust.

pelias, TUHH university, NEW4.0, Tchibo, Apo-rot, eeno-RD, RITZ, SMART, EMUTEC, Handelskammer, Fraunhofer, IHK, ECE, HOBUM, HaGe, WTM, IMVEST, SCHNOOR, IB.SH, Fuchs, Baader, Aerodun, Renewable Energy Hamburg, Weihe met Iranian authorities and their business counterparts.

The German high delegation in the formal visit with SSIC managing director in IRISL building welcomed and showed high interest on the areas of cooperation offered by Dr. Saeidi as IRISL managing director including green energy sector, oil, gas and petrochemical sector along with pharmaceutical sector etc. Frank Horch, Minister of economy, transport and innovation of Hamburg State in the meeting remarked that the information extremely important in a way to show the way into Iran market in different realms of trading, investment etc.

Both parties hope to have another meeting to start the technical negotiations in near future whether in Iran or Hamburg.

IRISL also hosted a number of delegations with the focus on maritime issues from HPA (which has established a joint venture company), HPC, PWL, DNV.GL, and Hamburg Port authorities. The following are the comments from few of them regarding working with Iran and the present potentials.



Furthermore Dr. Felix Kasiske, Managing Director at HPC Hamburg Port, Consulting GmbH, asserted that:

I could imagine if IRISL is looking into some kind of investments especially in Iranian terminals, we can support and play a role because HPC is always looking for opportunities for participation in terminal development projects and required facilities. We look for any cooperation especially when it is matter of Iran in post sanction era and I believe the country enjoys generous natural resources and very well -educated population in a strategic location and we also have series of customers who come to us to study the business in Iran or reestablish the relations. We are now assessing the opportunities to invest in Iran.



Mr. Jan Warmke, the Managing director at BSM (Bernhard SCHULTE Holding) in regard with Iran's potentials stated that:

The group owns 100 ships apart from 500 ships from other owners along with taking advantage of 17000 seafarers, we have signed a MoU especially in the realms of newbuilding activities, IRISL's ongoing projects in container along with newbuilding supervision, requiring the approvals and consultancy services especially the fleet size gets bigger fast. We can also add Iranian seafarers to our pool of seafarers. Furthermore, we have a subsidiary with the focus on LNG including a lot of expertise in running LNG ships and that can be a considerable point especially when Iran with rich LNG reserves is in the picture. Another option is offshore operations. In line with these fields of potential cooperation, we sent our first of four delegations at the end of last year in IRISL. We are highly focused on Iran and it is high on the agenda.

“Senator Reinhard Meyer: Our task now is to determine the needs and strengths of both partners and forge links that will lead to sustainable and forward-looking economic cooperation”

“HPC Hamburg Port authority: We look for any cooperation especially when it is matter of Iran in post sanction era”

“ IRAN'S ECONOMIC POLICY HAS ALWAYS BEEN FOCUSED ON DEEPENING TIES WITH DIFFERENT COUNTRIES ”

THE IMPORTANCE OF ASSESSING ATTITUDE OF MARINERS

Capt. Shahrokh Khodayari
the Head of Inspection Department of IRISL fleet

Skills and knowledge are requirements. You can't be safe and efficient without them. However, a mariner may have all the required skills and knowledge, but still be a very poor, unsafe mariner if his or her attitude or ethics are poor. The following questions may arise then:

Does the person care about the job? Do they care about their fellow crew members or themselves? When they see a problem, are they the type of person to stop and report it or fix it? Or do they just keep on walking? Do they instill professionalism in others? Or do they breed a lack of professionalism, and therefore poor performance in others?

Everyone knows who among their fellow workers have poor work attitudes, and in most cases it eventually catches up with them. Even so, there is a strong argument that we should actively assess attitude – providing some measure of it. If we do so, then we can act on real data, and do so much

more quickly than we otherwise might be able to.

Unprofessional attitudes can be poisonous to safety and the work environment and the more quickly we address them, the better off the organization is likely to be as a whole.

Measuring Attitude

Many organizations (hopefully most) perform regular performance appraisals. These are typically done by a superior and will often mention attitude and professionalism – at least if an issue is perceived. This is a good start, but it is incomplete and there is more that can be done.

Psychological Testing

There is a class of psychological testing, called objective personality testing, that is designed to measure attitude. These can take the form of written tests or, more recently, a technique called



“Gamification” where the candidate plays a scenario-based game and is required to make decisions based on the scenarios presented. The responses are studied by behavioral theory models which try to translate the reactions into measures of attitude, teamwork, work ethic, etc. You may be rolling your eyes already at the idea that we can draw meaningful conclusions from such tests, but keep an open mind for at least a few more minutes.

These tests usually have “validity” questions built in – questions which are there only to determine whether the test taker answered truthfully. Many people feel strongly that this kind of testing is very valuable and can, more often than not, produce useful and reliable information about the candidate’s attitude. Others argue that these tests require a high level of expertise to interpret – even though they are intended to be objective.

Having said that, we can’t help but think that a

semi-intelligent person would be able to adjust his or her answers to those which he or she believes are the desirable answers. After all, even if a person has no morals, they probably know what good morals look like and know that society values them. A really well constructed test may be hard to “fake”, but impossible?

Even if we do consider this kind of testing relatively reliable, the test is not telling us how the attitude manifests itself in terms of performance – only that there is an attitude issue. Therefore – what do we do with the results? It may be reasonable to consider the results if we are making a hiring decision. But what about test results for an existing mariner? Would a poor test result constitute reasonable grounds for remedial training or even possibly dismissal? Possibly the former, but likely not the latter!

Instead, at least for existing employees, it may be better to directly measure the attitude’s effect



on performance. 360-degree evaluations are recommended for this purpose.

360-Degree Evaluations

A 360 degree evaluation gets its name because of who performs the evaluation. Here, 360 degrees means “on all sides” of the person being evaluated. Specifically, the candidate is evaluated by his or her superiors, reports and peers. Some may consider such an evaluation at odds with the hierarchical reporting structure of the maritime industry. We are accustomed to being evaluated by our superiors. But what about our peers and subordinates? For most of us, if we think about it, we will come to the conclusion that knowledge of how our peers and subordinates view our performance can make us better at our job.

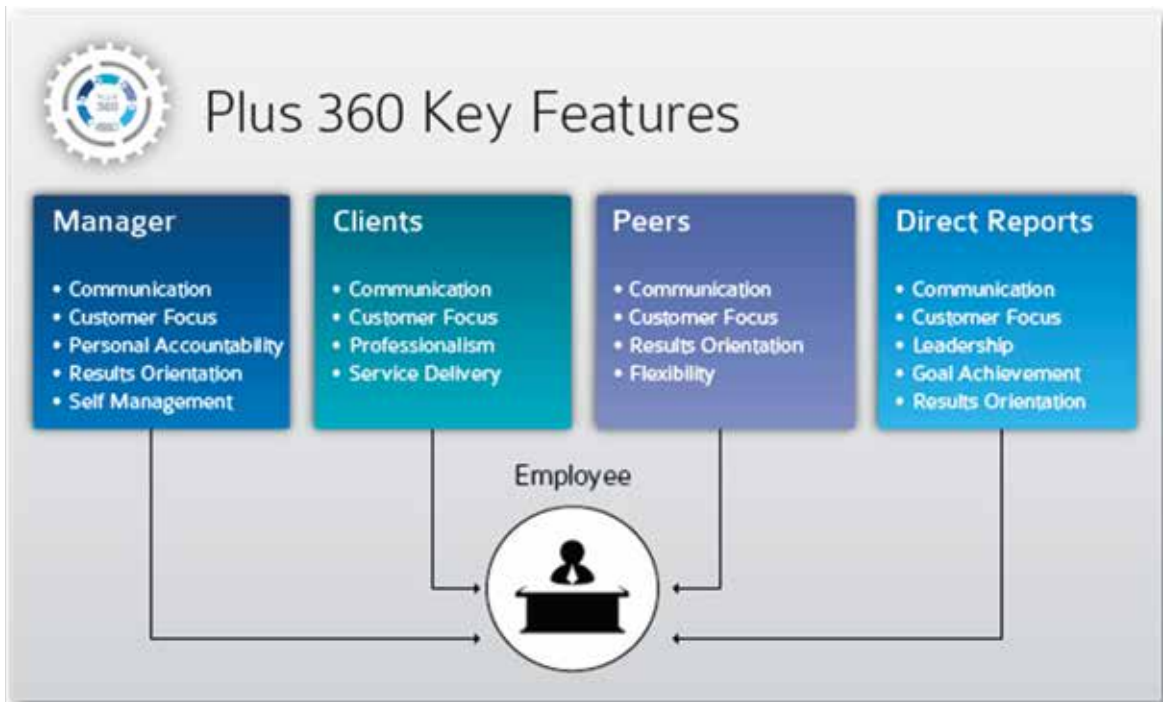
A 360 evaluation can assess a variety of attributes, but they are generally geared toward subjective attributes such as attitude and professionalism. The evaluation typically is based on a series of questions that evaluators are asked about the person being evaluated. The evaluators, normally numbering between eight and twelve, are usually a combination of some suggested by the person being evaluated and some chosen by the supervisor. All must have worked with the candidate sufficiently that they are able to render a meaningful opinion. In fact, studies show that the longer the assessors know the person being evaluated, the more reliable the assessments are.

The questions in the assessment can be direct and to the point, as long as they are the kinds of questions that the evaluators would have a basis for answering. It should be clear to the assessors that all questions should be answered based on their direct observations when working with the person being assessed. Likewise, there should always be an opportunity to answer “insufficient knowledge to answer this question”. If possible, each question should be answered on a scale (for example: 6 – Agree completely, 5 – Somewhat Agree, 4 – Agree, 3 – Disagree, 2 – Somewhat Disagree, 1 – Disagree completely). There should also be the opportunity for the evaluator to add a comment to any answer. Finally, feedback should be provided anonymously in order to encourage honesty – especially from subordinates.

To assess attitude, you might ask questions such as:

- 1- This person presents him/herself, by appearance and actions, professionally on the job.
- 2- This person inspires conscientious performance in others.
- 3- I trust this person to uphold the highest safety standards.
- 4- This person engages in all activities with a positive attitude, enthusiasm, and a smile.
- 5- This person always wears the required safety gear.

The examples above focus on professionalism and performance, but you can also assess leadership,



teamwork, or any number of other soft skills. The only requirements are that questions must relate directly to the job and be relevant to key company objectives.

Once the evaluations have been received, the results are assembled into a report which can be used as a basis for decisions.

The task of creating the evaluations, distributing them to the evaluators, collecting the completed evaluations, and assembling the results into a report is a major effort and was a significant impediment to the use of 360 degree evaluations in the past. Now, however, technology has come to the rescue and there are many good systems which automate all the hard work.

There is a lot more to the correct design and delivery of 360 degree evaluations – this is just a start. It should be noted that although, with planning, it is easy to do a great job, it is also easy to do a bad job at creating and delivering 360 degree assessments. Doing so can cause real damage to morale that takes time to repair. But, done well, it can be not only a valuable information source to the company, but also to the individual in helping them grow in their career. So the message is do your homework really well before embarking on this.

The Benefits of 360 Degree Assessments:

1- The first benefit is derived from the fact that there

are many evaluators, not only one. Because of this, it is easy to identify trends in the reports and have a greater confidence as to their validity. If there is a problem, it has likely been noticed by more than one person. Similarly, these assessments are less prone to being skewed by one outlying evaluation. As long as multiple people are assessing from the same “viewpoint” (peer, superior or inferior), then we can usually discount the outliers: evaluations which are not consistent with a large majority.

2- Another benefit to this type of evaluation is that an employee can sometimes present themselves differently to, for example, their superiors than they do to their peers or inferiors. Therefore, these evaluations are far better at identifying one-sided issues (such as poor leadership or expressed lack of respect for authority) than in an evaluation done solely by a superior.

3- Finally, 360 degree evaluations also provide a candid source of feedback that the person being evaluated does not often have access to. It can be a real eye-opener to see how your work is viewed by others. If the process is constructive and done with sensitivity, this can help the person being evaluated identify issues they were not aware of – but would very much like to work on.



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TTS Group congratulates IRISL Chairman & Managing Director, Board of Directors and staff on the occasion of New Year 2017

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RETURN OF IRANIAN PORTS IN THE POST-SANCTION ERA

By : Mehdi Rastegary

*Head of Research and Development
Affairs, Sina Marine and Ports
Services Co.*

Iranian economy at a glance

Since enactment of JCPOA, the return of Islamic Republic of Iran as an indispensable player in international trade and global economy has given rise to a thrilling move throughout the world. Until August this year, 350 commercial delegations and 160 political ones have been visited Iran from five continents, and the number is still growing fast. These delegations have made hundreds of agreements and contracts on economic cooperation, trade, investment, and business development. At the same time, 60 states have recognized the right of Iran's membership in WTO; and in spite of some encumbrances, international consensus has been formed around the need to reestablish trade and economic ties with Tehran.

Islamic Republic of Iran is an outstanding figure in terms of geo-economics and geo-politics. As the largest nation in Middle East and Central Asia, Iran is an economic powerhouse in terms of international trade, industry and agriculture, energy and natural resources, science and technology, tourism and logistics. In spite of all unprecedented global pressures in the past three decades, Iran is the land of resources and opportunities. Among the great features of Iranian economy, we can point to:

- 80 million population with progressive improvement of human development (HDI reported to be 0.766 in 2014)[1]
- Highly developed human capitals in form of young educated workforce
- Second global place in terms of natural gas reservoirs (34,020 billion cubic meters) and third in terms of production (184 billion cubic meters in 2016)[2,3]
- Fourth global place in terms of proven oil reservoirs (158,400 million barrels) and sixth in terms of production (projected production of 3.797 million barrels per day of crude oil on average monthly basis within the coming six months) [2,4]
- 7 percent share of mineral reserves in the world (aluminum, copper, Zinc, magnesium, chrome, lead, sulfur, talc, gypsum, phosphates , cement, silica, gold, uranium, titanium, gem stones, and many more)[5,6]
- Significant industrial production in more than 40 industries including metals and alloys, automotive, petrochemicals, petroleum refinery, defense, chemicals, food and drinks, pharmaceuticals and healthcare, construction, transport, tourism, retail, shipbuilding, power, telecommunication, electronics, and so on
- Great agricultural production (classified among the top 40 countries in 12 categories out of 13 categories of agricultural products) with an estimate of 47.7 billion USD agricultural production in 2015.[7,8]
- Foreign trade including 32,495 million USD non-oil exports, 53,652 million USD petroleum exports and 51,560 million USD imports in 2014[4,9]

Many of mentioned figures, though still significant in stature, reflect the induced contraction in Iranian economy within the duration of globally-enforced economic sanctions. Indeed, the real capacities and capabilities of Iranian economy are far beyond this projection. This is the main reason for the rush of global economic players to Iranian markets in the advent of post-sanctions era. As appreciated by specialists and researchers, opening of Iran's mega-market to foreign investment can provide new investment opportunities with estimated value of 600-800 billion USD within the next decade [10, 11, and 12]. It is a fact that Iran's role in global economy cannot be overlooked: the world needs Iran as much as Iran needs the world. The time has come for the world to deal

with Iran as a global player and regional partner that is willing to contribute to peace, stability and development. In this paper we review the status of Iranian ports sector and the benefits that it can offer to world trade. We will focus more on container ports that are capable of serving various supply chains.

Iran: the potential crossroad of trade

Iran is geographically located in the intersection of Central Asia, Middle East ,and South Asia. It borders 16 countries by land, water and sea¹. In this sense, Iran is the second state in terms of number of neighbor countries. Iran has 890 kilometers of coastline in her north that covers the entire southern bottom of Caspian Sea, and 4900 Kilometers of coastline in her south that covers the entire northern expanse of the Oman Sea and Persian Gulf. The Oman Sea is connected to the Indian Ocean, the most strategic ocean in the world. Associated with a total 2.5 billion population in her littoral states, Indian Ocean provides access to emerging and booming economies of new millennium and their markets.

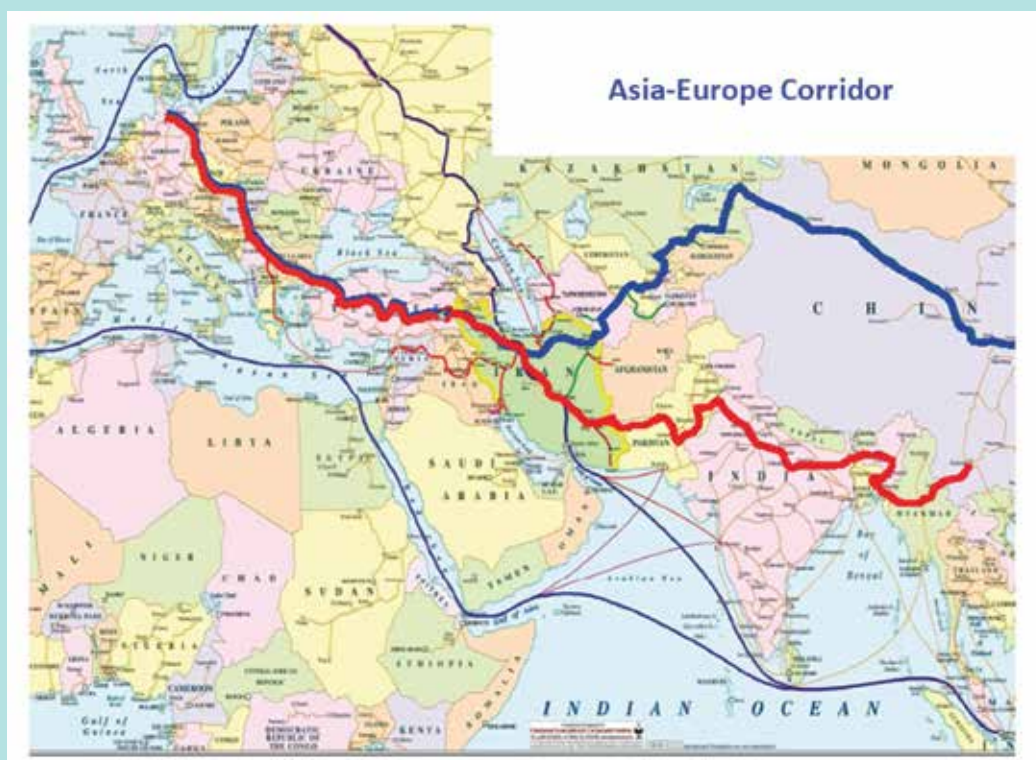


Exhibit 1 - Map of some proposed International Transport Corridors passing Iranian Territory [13]

Accordingly Indian Ocean has evolved into the greatest maritime highway for transport of energy and trade that attracts half of the container ships, two thirds of the oil tankers, and one third of the bulk carriers in the world. The linkage of Persian Gulf and the Sea of Oman to Indian Ocean provides the connection of Central Asia and Middle East to the global maritime transport network.

1) Iran has 6,000 kilometers of land (and river) bordering with Pakistan, Afghanistan, Turkmenistan, Azerbaijan, Armenia, Nakhjavan, Turkey and Iraq. The sea borders include 657 kilometers with Turkmenistan, Azerbaijan, Kazakhstan, and Russia in Caspian Sea, and 2043 kilometers of sea borders with Iraq, Kuwait, Saudi Arabia, Qatar, Bahrain, United Arab Emirates, and Oman.

Table 1 - Iran's Peripheral Economies and Markets in 2016 [14,15]

No.	Bordering* Position	Economy	GDP(millions of US Dollars)**	Population	Area (m ²)
1	Mainland	Iran, Islamic Rep.	425,326	80,043,146	1,648,188
2	N	Iraq	186,607	37,547,686	438,319
3	N	United Arab Emirates	370,293	9,266,971	83,600
4	NL	Afghanistan	19,199	33,369,945	652,085
5	NL	Turkmenistan	37,334	5,438,670	488,105
6	N	Turkey	718,221	79,622,062	783,562
7	NNL	Tajikistan	7,853	8,699,464	143,099
8	NN	Georgia	13,965	3,979,871	69,700
9	NNDL	Uzbekistan	66,733	30,300,446	447,401
10	N	Russian Federation	1,326,015	143,439,832	17,076,310
11	NL	Armenia	10,561	3,026,048	29,800
12	N	Pakistan	269,971	192,826,502	796,096
13	N	Oman	70,255	4,654,471	309,489
14	NL	Azerbaijan	53,047	9,866,447	86,600
15	NN	Syrian Arab Republic	..	18,563,595	185,180
16	NoL	Kyrgyz Republic	6,572	6,033,769	199,901
17	NL	Kazakhstan	184,361	17,855,384	2,725,119
19	N	Qatar	166,908	2,291,368	11,000
20	N	Kuwait	112,812	4,007,146	17,818
21	N	Bahrain	32,221	1,396,829	694
22	N	Saudi Arabia	646,002	32,157,974	2,149,717
Total			4,724,257	724,387,626	28,341,783

Note:
 *) Abbreviations denote: N: Neighbor; NN:Non- Neighbor ; NL: Neighbor Landlocked; NNL: Neighbor-to-Neighbor Landlocked.; NoL: Non-neighbor, and Landlocked ; NNDL: Neighbor-to-Neighbor, Double Landlocked
 **) The GDP figures are 2015-values.

Indeed all of the northern, western and eastern neighbors of Iran can be accounted as her potential hinterlands: Afghanistan, Turkmenistan, Azerbaijan, Armenia, Nakhchivan, and Kazakhstan are landlocked and do not have access to open seas. There are also landlocked states that are not direct neighbors of Iran, but border her neighbor states: these include Tajikistan, Kyrgyzstan, and Uzbekistan.

In spite of access to open seas, states like Iraq, Pakistan, and Syria not only have serious issues in terms of availability of port facilities and infrastructure, but also face serious national security issues. As the most politically stable and logistically capable country in the region, Iran is the best choice to serve the trade to these states.

Iran is also the best route for transit of trade flows from South Asia (and Far East) to states like Georgia, Turkey, westbound Russia, Ukraine, and even further to the EU states. The potential transit capability is usually recognized as proposed Transport Corridor concepts. Iran is also incorporated in several other proposed corridors (as

shown in exhibit1), including North-South Corridor (NSTC), Europe-Caucasus-Asia Corridor (TRACECA), and Silk Road Corridor. In 2016, the total population of the 17 hinterland states of Iranian ports in Eurasia and Central Asia has been 670.6 million people with an aggregate GDP of 3,325 billion USD (in 2015).

In the south, Iran borders six countries of (Persian) Gulf Council, and Iraq by sea. These are emerging markets and Iran not only has good ties with them but also has substantial trades with UAE, and Iraq, and a scope of emerging trade with Oman. The Persian Gulf Council states are mostly oil-driven economies with total GDP of 1,398.5 billion USD¹ and aggregate population of 53.8 million people in 2016 (excluding Iraq).

Iranian Ports: the natural choice

Shanghai International Shipping Institute has forecast that within the coming ten years, the demand for container ports in Persian Gulf will grow (by a 65.44% increase) to 49.4 million TEU. According to this report, we can estimate that the transshipment /gateway traffic ratio will rise from 77.36% in 2015 to 80.55% in 2025. This is on the contrary to the natural tendency of shipping and supply chains towards increase of gateway traffic in ports. Indeed, aside from some few instances, ports are normally driven by gateway traffic all around the world, and a/m ratio is usually near 43% (accounting 30% share for transshipment in total port traffic). This natural tendency has 1) Reported 2015 figure.



been extravagantly breached in the Persian Gulf. Instead of directing the supply chains to gateway ports to minimize the cost, time, and unwanted externalities (including pollution, and natural resources depletion) in delivery of goods to customers in the markets, the industry has switched into transshipment of goods from remote ports on the west side of Hormuz Strait at extra-heavy costs.

Table 2 - Container Port Demand in Persian Gulf (Million T.E.U.)

Demand	2015	2020	2025
Gateway	16.83	22.14	27.36
Transship	13.02	17.39	22.04
Total	29.86	39.53	49.4
SISI-2014 [16]			

For a better understanding, let's consider two scenarios: in the first scenario, a shipping line sends a 12,000 TEU ship to Jebel Ali in her Middle East Service, and a big part of cargo is transshipped to Bandar Abbas by two smaller 4,500 TEU Ships². In the second scenario, the shipping line sends the 12,000 TEU ship directly to Bandar Abbas. By comparing of costs and externalities of these scenarios, we find

2) Vessel sizes are selected regardless of the expected cascading effects in near future.



that scenario number 1 will require and entail consumption of 1134.2 tons of more fuel, emission of 3534.3 tons of CO₂, several days of delay in delivery of goods to customers, thousands of dollars of additional cost per delivery of each container, and hundreds of thousands of dollars for deployment of ships per voyage¹. This is absolute diseconomy in management of supply chains. These costs and externalities could be pragmatically avoided if the 12,000 TEU vessel was sent directly to Bandar Abbas according to scenario number 2. Unfortunately what has been put into practice for decades is scenario number one.



Presently, the Iranian ports sector is capable of channeling one-third of the prevailing gateway container demand in the Persian Gulf region. Table 2 indicates the capabilities of Iranian Ports and Maritime Sector from March 2009 to March 2016. Among the 22 container ports in the Persian Gulf and Sea of Oman, Iran has 6 globally renowned ports namely Chabahar, Shahid Rajaei, Bushehr, Assaluyeh, Imam Khomeini, and Khoramshahr². These ports are connected to a network of about 85893 Kms of roads, 10407 Kms of railways, 60 airports, and supported by great transport fleets³ that can channel and distribute the cargo to inbound and peripheral outbound markets [17, and 18]. Moreover on the northern borders, Iran has three major ports that cover the entire southern coastline of Caspian Sea: these are Anzali, Amirabad, and Noshahr. These ports can act as forelands for other Caspian Sea ports (i.e. Baku, Astrakhan, Aktau, Turkmenbashi, etc.).

Many of the Iranian ports are involved in development and capacity extension plans: Shahid Rajaei is meant to extend her capacity to 8 million TEU and 150 million tons in a few years. Chabahar has absorbed foreign investment to serve the

1) Fuel consumption rates and carbon dioxide emissions are taken from M.Sisson, and I.M. Vincent Andersen[19, and 20].

2) Other southern Iranian ports are Qeshm, Bandar Lengeh, Kish, Assaluyeh, Kharg, Mahshahr, Abadan, Lavan, Gonaveh. There are some other promising and/or developing ports in terms of container throughput like Souza port and Jask port. In addition, there are around 100 small and local ports on Iranian coastlines.

3) The Iranian national maritime fleet includes a total capacity of 106429 TEU container, 1338946 million gross tonnage in bulk, and 404225 gross tonnage in general cargo in IRISL. The haulier fleet consists of 423,000 lorries and trucks. The national railways fleet consists of 444 locomotives and more than 22000 railcars in operation.

Southern Asia- Central Asia trade in very near future. Bushehr is developing a 600 thousand TEU container terminal in Negin Island, and there are similar developments in BIK, Khoramshahr, Anzali, Amirabad, and Noshahr. Moreover, many infrastructure development projects are being completed to enhance the connectivity in Iranian transport network: these consist of 11,584 kilometers of roads, 586 kilometers of freeways, and 4,371 Kilometers of railways. Many of these projects are meant to serve as parts of transport corridors that cross Iran, including Qazvin-Rasht-Astara railways, Arak-Kermanshah-Khosravi railways, Anzali-Rasht-Ramsar Freeway, Tabriz-Bazargan Freeway, Astara-Rezvanshahr highway, and many more[22].

IFY 1388- Table 3 - Capabilities of Iranian Ports and Maritime Sector within 1393 [21]

IFY Category	1388 (2009-10)	1389 (2010-11)	1390 (2011-12)	1391 (2012-13)	1392 (2013-14)	1393 (2014-15)	1394
Nominal Capacity of Ports (Million Tons per annum)	150	163	172	184	190	200	209
Ports Container Capacity (Million TEU per annum)	4.4	5/0	5.1	5.3	5.34	5.34	5.34
Passenger Capacity (Million People per annum)	6	7.7	13	14	16	17.5	18.2
Non-oil Maritime Fleet Capacity -IRISL (Million Tons per annum)	4.5	5.5	5.7	5.8	5.34	5.2	7
Oil Tanker Fleet Capacity (Million Tons per annum)	7.1	11	9.7	13.7	15	15	15

Note: Iranian Fiscal Year begins on 21st March of each Gregorian year and ends on 20th March of next Gregorian year (e.g. IFY 1388 began on 21st March 2009 and ended on 20th March 2010).

The easing of the sanctions is bringing back a breakthrough momentum to the Iranian port sector: So far, 17 container shipping lines have restored their services to Iranian ports. Global and International Terminal Operators (e.g. APMT, DPW, PSA, EUROGATE, HPH and others) are bidding to get involved in the development and concession of Iranian ports and terminals. Being seen as the gateway to their domestic and foreign markets, the Iranian port are magnetizing the states in their forelands and hinterlands towards them: indeed, they have garnered a great number of agreements in the transport sector and ports between Iranian government and states like the Netherlands, South Korea, Belgium, Germany, India, Oman, Pakistan, Italy, France, Kazakhstan, Russia, China, and many more.

In merchant shipping, IRISL and NITC are among the few shipping lines in the world that are investing heavily in development and recuperation in terms of the prevailing bearish maritime markets. Currently known as the 21st largest shipping line in the world, IRISL is planning to extend her fleet by ordering 579,000 TEU of containerships, 2-million DWT of dry bulk vessels and 1.6-million DWT of tankers, all

to be operational by 2020. Also NITC , the owner of the third largest oil tankers fleet in the world, is seeking to invest 2.5 billion USD to modernize her tankers. With all these in coming years, Islamic Republic of Iran will be one of the greatest contributors to maritime transport. This will come into synergy with the capacities and capabilities of the Iranian ports.

According to Strategic Studies and Investigation Center of Iranian Ports and Maritime Organization, the demand for maritime trade through Iranian ports will be growing largely in the coming 10 years. Estimates of PMO indicate that the demands for maritime trade will grow from 150-million tons in the current year to 327-million tons by 2025 (the figures are aggregate sum of estimated demand for maritime trade of oil and non-oil goods). In other words, within a decade we will have a 118% growth in demand for maritime trade in Islamic Republic of Iran. This figure can reveal the prospects of Iranian ports sector and the colossal developments needed for it.

The Iranian territory includes the Strait of Hormuz. The strait not only accounts for the passage of 35 percent of oil traded by sea, but also facilitates the crossing of around 85,500 vessels per year. This provides the best opportunity for development of maritime business clusters in Iranian territory. The based on cluster may include such businesses as bunkering, maritime insurance, ship repair, salvage, ship chandlery, and many more businesses. The best instance of such businesses is bunkering: according to vicinity to maritime routes, economic supply of oil products, and availability of infrastructure and equipment which makes, Iran among the best choices to build a stable bunkering market.

Iran has been working actively to enhance her trade and business environment. Many Iranian ports have been transformed into free zones and special economic zones. Several exemptions, discounts, and facilitations are in place to support the transit from Iranian land. Iranian state is an influential member of many economic blocs such as Economic Cooperation Organization (ECO), GECF and OPEC. Iran is also invited to join Eurasian Economic Union (EAEU), Shanghai Cooperation Organization (SCO), and is currently bidding to join WTO as well.

In a nutshell, Iran is moving speedily to gain her merited position as a global participant in economy, international trade, and logistics in the post-sanction era. This can be a turning point in the history of the Middle East. Expanded from the heart of the Heartland to the edge of the Rim-lands, Iran is the natural choice of ports and terminals in the Middle East. This preference is strongly substantiated by political stability, industrial development, human development, size of accessible markets, transport facilitation, and opportunities for cooperation and investment. The time has come for the world and Iran to recognize the interests of one another and organize their joint efforts to consolidate them.

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MARINE AFFAIRS DEPUTY OF PMO:

WE ARE READY TO ATTRACT IRANIAN AND NON-IRANIAN INVESTORS



By: Narges Ehsandar

JCPOA granted reputation to Iranian ports and gave them an opportunity to experience their golden days again. The achievements in post-sanction era are numerous and still ongoing and PMO accordingly not only works on the former resolutions but also observes the global ups and downs to present new plans to authorities and manage the implementation of them as well. In other words, the ports are ready enough to welcome Iranian and non-Iranian investors in various fields and are able to use any facility to attract Iranian and foreign investors. In the realm of maritime, Ports and Maritime Organization (PMO) has managed to remove maritime hurdles which had been created through the sanctions against Iran and facilitate the maritime relations between Iran and other countries throughout the world and IMO as well.

Mohammad Rastad, deputy of maritime issues in Ports and Maritime Organization in this regard answered to questions in an exclusive interview with PD.

What has PMO accomplished regarding Iranian ships in international waters?

PMO has tried its utmost to comply with the regulations which facilitate the smooth commute of the Iranian ships and avoid any idle fleet especially in post-sanction era. Furthermore, the ships with Iranian flag are thoroughly inspected by PMO to meet the required international standards and be able to anchor in ports all over the world without any complications.

What has PMO done regarding the sea passenger section in Persian Gulf?

The majority of the voyages in this case takes place between Bandar Abbas and Qeshm and in this regard, PMO has moved forward stage by stage. In fact, in the first stage, PMO managed to remove the boats and ferries having low safety in the fleet. Simultaneously, PMO presented facilitated plans for the purchase of new ferries by those active in this realm including the investors. Presently, PMO is following the strategic plan to improve or renew ferries and furthermore, the routes of Bandar Abbas-Qeshm Island-Oman's Khasab port along with Chabahar Port-Oman's Muscat are activated.

What countries have signed MoU with PMO?

PMO on behalf of the Iranian government has signed agreements with 21 countries to recognize section 1/10 in STCW which allow the seafarers from the countries to work on Iranian fleet. The 21 countries are listed at www.pmo.ir.

Presently, the global market is contracted due to less cargo load. What strategies is PMO following to assist Iranian ship owners in the market?

The most important mission in PMO is to facilitate maritime shipping in a certain framework. Although, PMO has no responsibility for the problems such as lack of cargo for shipping, the organization has cooperated with maritime authorities and national fleet and has managed to decrease the costs for them.

Iranian ships were bound to operate under non-Iranian flags due to the sanctions. What has PMO done concerning the flag of Iran in international waters in post-sanction era?

During the sanctions against Iran, whole the Iranian fleet was bound to operate under non-Iranian flag. However, after sanction removals, the whole Islamic

Republic of Iran Shipping Line's fleet along with 10 vessels from National Iranian Tanker Company (NITC) started operating under Iranian flag. One of the main facilitating factors for the Iranian ships to refunction properly in post-sanction era was the international classification societies which were already active in Iran. Presently, we are encouraging the Iranian ship owners to operate their fleet under the flag of Iran again.



IRAN ENJOYS BEING LOCATED IN TWO CORRIDORS OF NORTH-SOUTH AND EAST-WEST AND THIS HAS MADE IRAN AS A GREAT OPPORTUNITY



What are PMO's plans to attract foreign investors?

In president Rouhani's government, PMO has followed specific plans listed below to attract the foreign investors:

- Supporting foreign investors and granting discounts
- Providing foreign investors with the rights, supports and facilities similar to Iranian investors
- Supporting the foreign investors through Iranian banking system

The supports are not limited to the above-mentioned criteria and we are trying our utmost to make the field more attractive to the foreign investors. In this regard, it is noteworthy that Iran enjoys being located in two corridors of North-South and East-West and this has made Iran as a great opportunity and a big player in the field of shipping, transshipping, transiting in the region and the world accordingly. Considering this fact, Iranian ports play a fundamental role in the region and today we are ready more than ever to attract Iranian or foreign investors.

CHABAHR FREE ZONE:

A GATEWAY TO THE MIDDLE EAST AND CENTRAL ASIA

By Sarah Zeinalzadeh Vafa

Chabahr port as one of the important ports of southern Iran is located on the northern coast of the Gulf of Oman. It has crucial functions in Iran's trade ties due to its strategic location and easy access to international waters. Meanwhile, its proximity to Afghanistan, Pakistan and Middle Asia and future linkage to the country's railway network will add weight to its position for transportation of goods to aforementioned places. Also, as the sole Iranian ocean port, it serves as a hot spot location and will be crucial to the North - South corridor. Moreover, being on the east-west transit route, the port is of considerable economic and geographical significance in transportation and transshipping. Considering the port's geographical position, it has capacities for trading, commercial and maritime activities. Following the importance of Chabahar Port's investment opportunities and existing infrastructures, we intend to provide a brief explanation about each one.





Capabilities and Existing Infrastructures

Iran's only ocean port, Chabahar Port, is equipped and facilitated with mooring capability for ocean-going vessels. Moreover, hinterland appropriate facilities should be taken into consideration. Having access to vast resources of marine fisheries and aquaculture facilities is still another blooming fact of the port. The shortest ways to link Central Asian countries and Afghanistan as well as the shortest transit route of Iran's East axis are the other advantages of the port. Last but not least, road, energy and telecommunication infrastructures make the port more robust.

The Main Focus of Investment

Taking advantage of transit capabilities of East axis (Iran's Eastern Province, Afghanistan, Central Asia) as a regional distribution network and a transit hub for goods, the capabilities of re-export to regional countries (Oman, Afghanistan, Pakistan), having access to the ocean for ocean-going vessels, being the fifth gas pipeline to India, willingness of neighboring countries and East Africa to invest in the region based on the value chain (tea, rice, dehydrated fruits,

etc.) and business development, the government political decision to establish an automotive industry and fishery resources as well as marine aquatics have altered the port to a hot spot place.

Specific Advantages of Chabahar Free Zone

Strategic geographical location near the high seas which was mentioned earlier is one of the specific benefits of the port. Iran's East Corridor connecting point to the high seas stands at the second step. Easy access to fossil fuels, construction materials and a variety of minerals in Iran's East is still another particularity of the port.

Legal Advantages for Foreign Investment

Possibility of appropriation of 100% shares of foreign companies, investments guarantee in accordance with FIPPA of foreign investment in Iran, possibility of transferring 100% of capital and profits obtained from the activity of registered foreign individuals abroad, 100% tax exemption on income and capitals for 20 years which is extendable as well as exemption from entering the machines and raw materials for production units from customs duties are all the factors which pave the way for foreign investors.



In addition to the above mentioned advantages, freedom from general import-export regulations of export of each region products, customs exemption on industrial units products of the zone for export to the mainland as much as value added in the use of domestic raw materials, the permissibility of unloading, loading, transit, and transshipment and exemption from customs duties with the exception of the costs of storage and handling, possibility of establishing local and foreign bank & insurance or their branches and issuing six-month visa for foreign investors which is extendable can be taken into consideration in this regard.

It is worth mentioning that the Port consists of two main ports named Shahid Beheshti and Shahid Kalantari.

Berths specification

Port name	Berth No	Length	Width (m)	Depth (m)	Capacity	Year of	Type
Shahid	5	265	53	-14	80000	2004	Multipurpose
Shahid	4	150	15	-9	25000	1983	Multipurpose
Shahid	3	150	15	-8	25000	1983	Multipurpose
Shahid	2	150	15	-9	25000	1983	Oil
Shahid	1	150	35	-8	25000	1983	General cargo
Shahid	5	235	53	-11.5	45000	1997	Multipurpose
Shahid	4	45	30	-5.5	2500	1983	General cargo
Shahid	3	45	30	-5.02	2500	1983	General cargo
Shahid	2	45	30	-5.02	2500	1983	General cargo
Shahid	1	45	30	-2	2500	1983	General cargo

Chabahar Port's Performance at A Glance



Port Development Plan

Phase	Year	Description
1	2013	Approximately 1650 m of breakwater extension, Construction of two container berths (640m) and three multi-purpose berths (540m) 17 million m3 dredging to (-16 m) depth Reclamation of 195 hectares sediment
2	2015	Construction of a container berth (360 m)
3	2016	Construction of an oil berth
4	2016	Construction of a multi-purpose berth
5	2021	Construction of a container berth (360 m)

Important Accomplished Projects

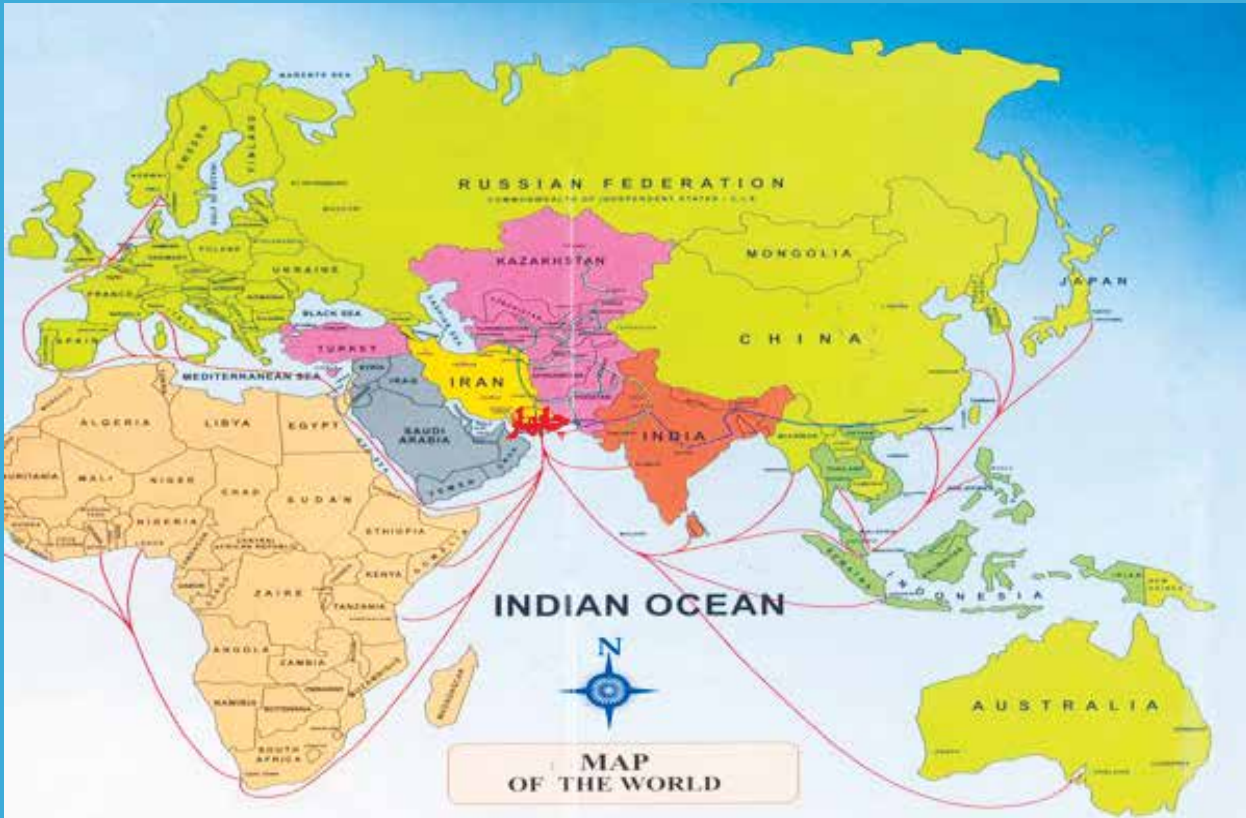
Order	Title of Project	Duration of Implementation (month)
1	Reconstruction of the berths of the Shahid Kalantari port	37
2	Reconstruction of the northern gate of the Shahid Beheshti port	4
3	Construction of the gate and the area of the Shahid Kalantari port	Area: Under-construction, Gate: 20 months

Important Ongoing Projects

Order	Title of Project	Infrastructure Area (m2)	Duration of Implementation (month)
1	Construction of the coastal wall of the Shahid Beheshti port	2500	24
2	Constructing and equipping the operational buildings of the Shahid Beheshti port	4000	30

Future Port Projects

Order	Name of Project
1	Construction of infrastructures of the development plan installations including water, power, the sewer
2	Studying the phase 2 for reserved lands preparation of the Shahid Beheshti port and performing the necessary actions
3	Construction of marine traffic control tower
4	Studying and checking the port lands development through joining nearby lands and anticipation of dry ports
5	Establishment of Control Management Systems of the project and GIS in the port
6	Implementation of strategies determination project and investment priorities for Chabahar Port
7	Studying and organizing the eastern gate and the eastern buildings of the port
8	Supplying electronic energy of the development plan to the amount of 16 MW for the first phase of the development
9	Construction and organization of the eastern gate of the Shahid Beheshti port
10	Construction of infrastructures of the development plan installations including water, power, the sewer and so on
11	Preparation of port support lands
12	Supplying electronic energy of the development plan to the amount of 16 MW for the first phase of the development
13	Reconstruction and organization of the eastern gate of the port, installations and related facilities



It's worth mentioning that India will invest up to \$500m (£245m) in a deal to develop Chabahar port in Iran. The development of Chabahar expands a trade route for the land-locked countries of central Asia that bypasses Pakistan. The deal that connects Iran, India, and Afghanistan to central Asia would bolster economic growth in the region.

Tourism Attractions

The existence of natural attractions in Chabahar Port is due to climatic conditions, special geographic position and historical geography combined with tectonic changes and other variables. Chabahar is one of the important archaeological centers in the

eastern half of the Iranian plateau and among the rich historical and cultural centers of the country with 156 identified artistic cases 27 ones of which have been registered in the national works list.

Volcanic waves are one of the rare and unique phenomena which are caused by the swings of seasonal winds in summer. Volcanic waves attract the eyes of every tourist in this area.

Rocky beaches have a very spectacular landscape that makes it as an example of the attractive beaches in the northern part of Iran in the form of a natural aquarium full of fish. This exquisite landscape is located there and extends to Govater.

Golfeshan is one of the most amazing geo-tourist phenomenons that have always attracted the attention of geologists and fans of nature. This phenomenon is scientifically called ' Mud Volcano which can only be found in a few parts of the world.

Carpet of moss is the other natural and geo tourism phenomenon in this area that can be seen in abundance along the coast. This phenomenon result from the chemical and physical erosion that has been active over thousands of years. Carpet of moss is in fact made of lichens that include seaweed and mushrooms.



IMPLEMENTATION OF JCPOA TO BOOST TOURISM IN IRAN

By Fatemeh Moonesan



Today, the tourism industry has become one of the world's most important economic sectors in the world, it has envisioned a better future for the people of the world by creating jobs for millions of people, tourism is also considered as one of the cultural entertainment of human communities with an ever increasing demand it which is visible worldwide, so that it is now one of the most important economic and cultural industries of human being and in terms of economy it has offered favorable consequences.

Tourist destinations almost include all parts of the world. Today, people are very enthusiastic about seeing the wonders of different countries and international tourism has witnessed a significant boom accordingly. We can find out about the rise of this industry in recent times by evaluating the number of international flights of the worldwide tourism industry.

Researchers of the tourism industry have suggested to this end that significant growth is marked in this industry in the first half of 2016. In general, it should be said that approximately 46 percent of the total international tourist revenues belong to the first half of the year and researchers believe that this trend will continue to grow in the second half of the year and a positive outlook can be seen in this process.

In order to review the status of tourism in the world and recent developments of this industry in Iran, Payam Darya quarterly magazine has conducted an interview with Mr. Mohammadreza Pouyande, the managing director of Revitalization and Utilization Fund for Historical Places in Iran's Cultural Heritage Handicrafts and Tourism Organization (ICHTO), a brief summary account of the interview is available in the following.

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**THIS
COUNTRY HAS
REGISTERED
MORE THAN 21
HISTORICAL
MONUMENTS
IN UNESCO
AND HAS
ONE MILLION
BUILDINGS
AND
HISTORICAL
SITES**

”





How do you evaluate the status of World Tourism in 2016?

In recent years, the tourism industry has found a special place and has attracted the attention of many countries, in other words, most countries in the world accept the importance of this industry and try to develop this industry by enjoying their various advantages including climate, history, and civilization advantages as well as planning at the macro level. According to the statistics released by the World Tourism Organization, this industry has experienced a growth of 5.2 in the first six months of this year and it shows an upward trend compared to the global average growth of 4.4 in the last year. Although we were faced with reduced growth of international tourism following the global financial crisis in 2008, but, in the past years, tourism industry

has pursued a growing trend. The number of one billion and 200 million international tourists were recorded in 2015 which saw an increase of 50 million people tourists compared to the year 2014 and it is expected that this figure will be doubled by 2030. Geographically, the Asia-Pacific region has shown relatively good growth in tourism in the first half of 2016, such that incoming international flights of these regions has increased by 9 percent, which is the highest global growth rate of tourism industry. We should also be aware of this fact that the world takes advantage of tourism industry to cause an inflow of foreign funds, in other words, more than a hundred countries around the world provide their first to third foreign fund inflow from tourism. Tourism industry also plays a significant role in the field of job creation and it creates employment

much cheaply than other industries. In other words, this industry provides 10 percent of the worldwide employment and a large number of jobs is created directly and indirectly with the entry of international tourists. Statistics published this year also suggests a significant influence of tourism industry on increasing employment in the world.

What is your prediction of the status of tourism in the coming years?

According to the predictions made by the Tourism Bureau, the tourism industry will have at least 10 to 12 percent growth in next year considering the increasing tendency of nations to be familiar with tourist attractions and potentials of different regions of the world. The industry will also experience a very significant growth in the coming years such that it will rise from one billion and 200 million international tourists in 2015 to two billion and 500 million people in 2030, suggesting an increase of twice as much.

What is your assessment regarding the status of the tourism industry in Iran as well as, in your perspective, what changes have been created in this industry following the lifting of sanctions and the implementation of Joint Comprehensive Plan of Action (JCPOA)?

Iran is among the countries of the world that has devoted special attention to travel and tourism industry. The country experienced a 12 percent growth in last year with more than six million tourists entering the country which is a threefold increase compared to the global average growth.

In fact, it could be said that Iran is recognized as one of the top countries in the world, with regards to its history, civilization and tradition as well as its monuments, historical structure and cultural heritage. This country has registered more than 21 historical monuments in UNESCO and has one million buildings and historical sites. This along with perfect security favorable climatic conditions, different and charming customs, abundant food diversity, renowned hospitality and most importantly being the cheapest tourism destination according to World Trade Organization has created attractiveness and great potential for foreign and international tourists. Of course, we should also remember that in the past years, a distorted image of Iran was created

for a number of international tourists due to raising issues such as Iran-phobia and negative publicity in some media. Fortunately, the international relations and communication with other countries of the world have dramatically increased following the lifting of sanctions and the implementation of Joint Comprehensive Plan of Action (JCPOA) and a huge amount of travel of the high-ranking political, economic and trade delegations as well as foreign investors to Iran has boasted the security and stability status of the country to the rest of the world.

In fact, the implementation of Joint Comprehensive Plan of Action created a good opportunity for people around the world to believe that Iran is a safe and stable country and they could travel to this country and enjoy its unique tourist attractions without any concern. A 12 percent growth of tourist entry to Iran is one of the excellent examples of the positive effects of the implementation of JCPOA.

Could you please provide us with the future plans of Iran's Cultural Heritage Handicrafts and Tourism Organization (ICHTO) to attract foreign investment?

Given that Iran enjoys a huge capacity in the tourist area, investment in this industry will be with a quick return and economical.

Fortunately, with the lifting of sanctions and implementation of Joint Comprehensive Plan of Action (JCPOA), numerous negotiations have been made with foreign investors in the tourism sector. For example, a number of experts from countries like Italy, Spain and China have been invited to fund the revitalization of historical buildings and monuments and infrastructure of cultural heritage and tourism. Direct investment in the last year to revitalize the monuments had a 1000 percent growth and we had experienced 10 times increase in the fund absorption. Indeed the results obtained are clear examples of the positive effects of the removal of sanctions against Iran.

Cultural Heritage Organization also tries to present a worthy and better image of Iran and its tourist attractions by participating in international tourism fairs in different countries such as Spain and England. The abolition of visas, together with the big revolution in the hotel industry and preparation to provide the best services for international tourists are among other big steps in order to achieve the purpose of the further flourishing of the tourism industry in Iran.

1ST INTERNATIONAL FISHERIES & SEAFOOD INDUSTRY EXHIBITION LAUNCHED IN IRAN

By: Mehri Azizi

The 1st International Fisheries & Seafood Industry Exhibition of Iran (IFEX) by the permission of the Iran's Ministry of Industry, Mine and Trade (TPO), was held from 6th to 9th Dec. 2016 in the Tehran Int'l Permanent Fairground.

The goals of this exhibition are declared to be creating a good environment for collaboration and investment, particularly foreign investors in the country's fisheries industry, supplying the country's capabilities in the field of fisheries and aquaculture, preparing good infrastructure to export fishery products and aquaculture, creating a balance between resources and beneficiaries in the fishing areas, and presenting its latest achievement, strengthen, educate and promoting the use of aquaculture, creating more jobs in the fishing industry of the country and promoting optimal patterns for seafood consumption. The exhibition holds 55 exhibitors including 8 fisheries and sea food companies from Turkey, China, Italy and Greece apart from Iranian companies. The product groups in this exhibition include manufacturers and distributors of fishing equipment, producers and providers of aquatics maintenance equipment, processing of fishery products, producers and providers of seafood, proliferators and producers of baby fish, producers and providers of refrigeration systems and equipment manufacturers and providers of machinery and equipment for water purification, packaging industries, producers of fish feed and farmed aquatic food, manufacturers of transportation equipment and transfer of aquatics and products, aquatics breeders, manufacturers of ornamental fish farming industries and machineries and aquarium equipment, providing fishing equipment and services (recreational), marine related sub industries, related

veterinary and sanitary equipment and service.

Dr. Salehi, the Deputy Minister of Jihad-e Agriculture and the Head of Iran Fisheries Organization (SHILAT), in an exclusive interview with PD stated that exhibition is of great importance although another fisheries aquaculture and fisheries industries exhibition was held in October in Iran. These are the initial steps to move forward with sea food industry in Iran.

He also asserted that Iran is highly potential for foreign investors especially in the farming of various kinds of fish including caviar, shrimps, and tilapia along with cage fish farming and cold-water fish species.

The Deputy Minister of Jihad-e Agriculture and the Head of Iran Fisheries Organization stated that there is a considerable number of the investors who have moved forward in this field in Iran both in north and south of Iran.

IFEX paved the way for Iranian companies in the realm of fisheries and related fields to meet their counterparts from other countries. Furthermore, the exhibition showed the Iranian potentials in the field of fisheries and the related food industry to foreign authorities and companies. The Iranian authorities welcome foreign investors to step in the virgin market of Iran in the field of fisheries.



A middle-aged man with a mustache and glasses, wearing a dark blue suit jacket over a grey and white diamond-patterned sweater and a light blue collared shirt. He is standing in front of a wooden wall. To his left are two flags: the Iranian national flag (green, white, and red with a red emblem and Arabic calligraphy) and a white flag with blue and red elements. A red banner is in the top right corner.

Close Up

**DIRECTOR OF SOCIAL SECURITY
INVESTMENT COMPANY:**

We Assure



SEYED REZA NOROUZZADEH:

SSIC ANNOUNCED ITS READINESS TO GUARANTEE FOREIGN INVESTMENTS

By: Amir Fallah

Social Security Investment Company (Shasta) is one of the largest well-known firms in Iran which acts in different fields of oil, gas and petrochemical, mineral and steel industries, transportation as well as drug.

Considering the implementation of JCOPA and development of economical cooperation with the international community, SSIC has played more significant role in attracting foreign investors. Meanwhile, different groups enters Iran to negotiate with the directors of the company and set up the contracts.

Consequently, Payem Darya ran an interview with Dr. Seyed Reza Norouzzadeh, the director of Social Security Investment Company (SSIC) in order to examine the SSIC activities during the post sanctions era.

Referring to an increase in economical cooperation between Iran and other nations due to the implementation of JCPOA, Dr. Seyed Reza Norouzzadeh stated that since Government of Prudence and Hope has started working, all challenges regarding nuclear affairs have been resolved in Iran and nuclear industry of the country has been authorized by international communities. Moreover, Iran's nuclear power has been proved as an official issue in international levels. Dr. Norouzzadeh asserted that the nature of SSIC's activities is investment. Considering the sanctions elimination and opening of international communication's gateways and interaction between Iran and the international community, SSIC is trying its best in order to gain all possible profits and optimum utilization of the situation.

Referring to the wide area of the company's activities, SSIC's director claimed that the company is one of the foreign investments' choices for negotiation by the side of different foreign delegations during the post sanctions era.

He continued by describing the main activities of the SSIC: "we are now specialist in many fields including oil, gas, petrochemical industries, and drug and have the ability, opportunity and appropriate advantages in these sectors. Therefore, we had extensive discussions with our foreign investors".

Dr. Norouzzadeh stated that JCPOA has paved the way for more cooperation between SSIC and foreign investors. Referring to the activities of SSIC in the fields of oil, gas and petrochemical, transportation, mineral and steel industries as well as financial markets, the director added that an optimum opportunity for foreign investors has been provided to invest in different sectors of Iran's economy by utilizing SSIC's capabilities.

He also described great advantages of investment in

Iran in oil, gas and petrochemical areas. He continued: 'foreign companies could gain both enormous profits and required guarantees of ROI by actualizing the potentials of the mentioned areas. Meanwhile, SSIC with its great financial resources can provide the guarantee for foreign investors.'

Referring to the introduction of all opportunities to attract foreign investors, he mentioned that SSIC as one of the most important firms in Iran is attended in almost all related seminars in international levels in order to bring both its own potency and Iran's capability to the world.

Dr. Norouzzadeh continued: in a seminar which has been held recently about oil, gas and petrochemical industries in Germany, the director of TAPPICO (Tamin Petroleum and Petrochemical Investment Company) as SSIC's representative who was in charge of introducing Iran's and the company's potentials had the control of a panel. Meanwhile, a session was held accompanied by significant investors from Hong Kong, Italy, Turkey and Germany in financial sector. Director of TAPPICO noted that due to multiplicity of activities, the type of contract will be specified with regard to common interests. He continued: 'it is worth mentioning that among the two main types of agreements which include financing and partnership, we prefer the second one, as it contains both financing and technology transfer simultaneously.'

Referring to SSIC as one of the eight selected companies by oil ministry in IPC field, he added that there are two substantial projects in which we are pursuing for a proper foreign partner to do the job. Dr. Norouzzadeh declared that the two mentioned projects are 'Siraf' and 'Fanavarán'. He asserted that in 'Fanavarán' project, the aim is to converse raw materials to the product. 'Siraf' project, on the other hand, aims to make gas into 'wood alcohol' at the first step, and in order to complete production stream, the manufacturing of other petrochemicals especially olefins will be taken into action at the second step, in which we are currently negotiating with foreign parties. Meanwhile, we are interested in developing investment and production outputs.

According to SSIC director, one of the consequent programs of this sector is the completion of value and product chain toward downstream products and Petro Olefin. Based on this issue and due to wide ranges of SSIC's fields of activities, SSIC is planning to make the best proper and applicable procedure.

SSIC HOLDING BOARD MEMBER:

SAFETY AND RETURN ON INVESTMENT IS PROVIDED FOR FOREIGN INVESTORS

By: *Sepideh Yousefi*



Measurements and planning of the government of prudence and hope aiming at developing export which include amendments to the customs laws, regulations and issues, an increase in the quality of Iranian goods in line with international standards, reduced fluctuations in exchange rate, creating necessary conditions and preparing grounds for private sector to engage in civil projects as well as economic programs, activation of commercial diplomacy and the coincidence of all of these actions with lifting of the sanctions make Iran's door to be opened to the world trade. This auspicious event promises that Iran's economy is becoming a powerful and dynamic one in the world due to the country's strategic position in the region and having access to high seas. Meanwhile, Iran's capacities and advantages have created a temptation in the hearts of foreign investors; such that many MoUs worth 6 billion Euros have been signed for foreign investment in steel, oil and gas, Referring to Iran's concessions to attract the participation of foreign investors, the board member of Social Security Investment Co. (Shasta) and managing director of Tamin Cement Holding in an interview with Payam Darya magazine said: "Facilities such as tariff advantages, human resources, untouched mines, and to some extent, technology updates are accumulated in Iran for investment." Morteza Lotfi, a board member of Shasta Holding, in this interview discusses the rich advantages and potentials of the Islamic Republic of Iran in detail.

In what areas, Iran's export advantages are more significant? Considering the ground and atmosphere created by JCPOA, how the export can be expanded?

Iran has a rich potential in mineral, metal, and especially oil and gas sectors and it has attracted the attention of foreign investors due to its strategic position in the region, having access to high seas, and having 1001 trillion Rials of economy. Moreover, given that neighbor countries of Iran have lost their productive capacities because of the existing problems, they become one of the major consumer markets of Iran, as these neighboring countries such as Syria, Iraq, and Pakistan are severely suffering in terms of technology and raw materials, and due to the proximity of distance and cost of goods, imports of goods from Iran is cost effective for them. Iran has significant advantages such as human resources, subsidized energy as well as great opportunities in agriculture, exploration and mining areas. I believe that our country is the best place for investment and the presence of foreign investors because the investors always think about their own interests and the country has the potential to meet and provide mutual benefits. They can also invest in different areas because the consumer market is completely identified and it is a durable market available. These advantages and facilities are also accessible in the field of home appliances. Facilities such as tariff advantages, human resources, untouched mines, and to some extent, technology updates are accumulated in Iran for investment, so the country is ready to attract foreign investors.

What actions are undertaken in regulations and issues of customs sector in order to facilitate the export?

I should remind that the ability to export manufactured goods to target markets and creating added value in joint ventures besides the maritime capacities such as shipping and rail connections is among the special benefits of Iran. What is now the main concern of foreign investors to invest in other countries is the safety. No country could be found in the world safer than Iran in which the investors can enter it with complete confidence and peace of mind. Following JCPOA and lifting of the sanctions, appropriate measures in the field of customs are conducted in order to update rules and regulations.

Measures such as the establishment of a single-window customs is undertaken to amend and adapt the rules with international investment rules. These actions are initiated by Islamic Consultative Assembly. Meanwhile, the government is pursuing these reforms with proper planning, especially in the sixth Development Planning Act. We hope that banking transactions' obstacles will be removed in the near future.

Considering the government's attitude toward the private sector on the other hand, it could be claimed that proper ground is prepared for the private sector to enter the investment areas and the Iranian government seeks to create forty percent participation in civil projects and economic programs. Therefore, Iran is suitable for investment of foreign investors at this period of time and in these circumstances. Because the most important elements for a safe investment include safety, access to high seas, action to amend and creating the rules in accordance with international trade rules and also target consumer markets have been initiated in this country. Moreover, all four sides of the North, South, West and East of Iran are neighboring countries that have the capacity to consume and demand. CIS countries, Afghanistan, Pakistan, Turkey, Iraq, Syria and even Persian Gulf littoral states are safe and convenient markets to this end. Furthermore, the presence of the private sectors which have the ability to join with foreign companies could also enhance the potential of Iran.

What was the most important measures of the government of prudence and hope to attract foreign involvement?

Among other economic measures that the



IRAN HAS SIGNIFICANT ADVANTAGES SUCH AS HUMAN RESOURCES, SUBSIDIZED ENERGY AS WELL AS GREAT OPPORTUNITIES IN AGRICULTURE, EXPLORATION AND MINING AREAS



government of prudence and hope has conducted in the last few years, we can refer to the reduced exchange rate fluctuations. Generally, a country with one thousand and one trillion Rials of capital is so tantalizing country for investor countries. Hence, considering the atmosphere created by JCPOA, it is likely that we will witness the investment of foreign countries. In addition, although a long period of time has not been passed since the lifting of the sanctions, many operational MoUs worth 6 billion Euros in the field of foreign investment in steel, oil, gas, ... have been concluded, which shows that the context is available for foreign participation. Meanwhile, the foreign party is looking for the return on asset and safety to invest in the destination country. In this regard, Iran has met the requirements.

To develop export, it is mandatory to make the quality of Iranian goods competitive while having overseas function, what approach do you adapt to achieve this export index?

Foreign investors should be aware that international standards of manufacturing along with Europe and Russian international standards and many other standards have been met. Furthermore, in the



memorandum and agreements that are signed for investment in the manufacturing sector, standards are cited in which all requirements will be respected. Consequently, these standards are considered both in investment and in cases where there is any demand for Iranian goods.

Many countries that have trade transactions with Iran send some inspectors to the country to confirm the quality of goods which are delivered after inspection and confirmation. Thereupon this capacity has been created in which any standard benchmark or inspection is met which is required to ensure the quality of the product.

One of the horizons of 1404 Perspective Document is that Iran has to become the largest exporter of petroleum in the world, what plans have been made to achieve the goal?

The necessary facilities and capacities to achieve the goal are available in Iran, but the main obstacle that hinders the achievement is the presence of cruel and unjust sanctions against Iran. However, after lifting of the sanctions and the post-JCPOA era the necessary capacities to create such conditions in the past two decades have been provided and there are plans to

make Iran to be ranked the first in the world in terms of petrochemicals production in the horizon of 1404. The availability of underground and processing resources gives us this opportunity. It seems that we will reach this national demand, i.e. achieving the first place in petrochemicals production in less than a decade.

As mentioned before, in terms of market penetration in neighboring countries, geographical advantages, cost price advantages and the quality of products, there are also other good advantages in Iran. How can we dominate the big market of neighboring countries?

Our active commercial diplomacy in fund raising can be highly effective. Many investors around the world do not recognize Iran's capacity or we have not found the proper opportunity to identify and introduce ourselves after the Revolution for reasons such as sanctions. But after lifting of the sanctions and preparing ground for the involvement of foreign investors, we could partly be able to erase the previous picture from the mind of people of other countries. Accordingly, the presence of foreign investors can be as a major propagandist in attracting investment and encouraging other foreign investors.





120M TON PETROCHEMICAL PRODUCTION THROUGH 40B-DOLLAR INVESTMENT



By: Amir Falah

Sanction removals in Iran once again attracted economists and industry bodies to Iran's advantages and opportunities.

Since Iran enjoys rich oil and gas reserves, Iranian and non-Iranian investors lay specific emphasis on it and the frequent travels of the authorities to Iran confirms this.

Making the most out of the reserves and producing final products rather than selling the raw material are high on agenda for president Rouhani's office and the resilience programs designed to encounter sanctions. Therefore, petrochemical industry as one of the most lucrative industries in Iran has received special attention and the opportunities along with removing the faults are carefully studied.

In this regard, PD run an interview on the Iranian petrochemical advantages in Iran with, Mohammad Hossein Peivandi, one of the biggest analysts in the petrochemical field and the managing director of one of the most prestigious petrochemical companies in Iran, Tamin Petroleum and Petrochemical Investment Co. (TAPPICO).

Downstream petrochemical industries, 40% of Iran's non-oil exports

Mohammad Hossein Peivandi, the managing director of TAPPICO stated that: today, apart from petrochemical products such as plastics and polymer, the petrochemical industry covers various areas including housing, clothing, health and hygiene and in a wider vision the petrochemical industry significant plays roles in other industries including agriculture, automobile, industrial productions, packaging, medical industry and textile industry.

He added that Iran holds reserves including LNG and its derivatives which are considered as raw material for petrochemical industry and this is considered as a privilege compared to other Middle East countries. Peivandi reminded that petrochemical industry is in a close connection with fossil energy and added that: Iran is ranked as the third or fourth in the world for having liquid hydrocarbon and first for having gas reserves and this makes an opportunity for Iran to increase its GDP.

He underscored that the entire hydrocarbon in the crude oil is used in the petrochemical industry is 7% and this can translate into 45m tons of goods in upper stream industries including alfin, methanol, chemical products, aromatics and LNG.

Former deputy of Iran's oil minister indicated that 93% of the hydrocarbon in the crude oil is exported or is operated through combustion which delivers 40% output. He also added that this does not mean that we need to operate the fossil hydrocarbon in energy sector. In fact, we need to lay emphasis on using crude oil in petrochemical industry to increase employment rate and GDP.

Peivandi reminded that the downstream petrochemical industries build 40% of annual non-oil exports in Iran and continued: at this stage of production, hydrocarbon completely changes into products.

TAPPICO managing director also indicated that alfin including ethylene and propylene and 4 carbon derivatives are considered the crucial element in petrochemical industry and stated that: crude oil targets 44% of the demands in petrochemical industry and that is the issue for Iran and other OPEC countries.

Petrochemical challenges in Iran and the world

Peivandi remarked that shale gas has heavily affected south America in a way that Americans have installed pipes in high depth to exploit oil and gas and produce ethane and send it to Asia and Middle East.



Peivandi stated that natural gas is transferred from the Middle East to America, Europe and Asia in liquid form and explained that this trend will be reversed and the raw material for petrochemical industry from the U.S., Europe and Asia will be transferred to the Middle East. Therefore, the LNG market in Middle East will face problems in coming years.

One of the other challenges in petrochemical industry is replacing natural gas with coal as the raw material for the industry and believes that coal as one of the most important fossil energy in China can be changed to gas synthesis through a process of general electric and the required alfin is derived from coal rather than natural gas.

The former deputy of the Natural Petrochemical

Company remarked that replacing natural gas with coal as the source of alfin is the biggest challenge in petrochemical industry in the world and added: sincethe Chinese economy is heavily dependent on petrochemical industry, the country can produce high volume of alfin and that can have an impacton the Middle East.

TAPPIComanagingdirectorcontinued:petrochemical industry is faced with two other big challenges of LNG and security. He also explained that gas reserves of South Pars gas field are shared with Qatar with the bigger share of the reservoir being placed in Qatar.

Security, the biggest attraction for investment in Iran

The former deputy of the Natural Petrochemical Company reminded of the lack of security ISIS has created in the Middle East and fuether added that is the key to investment and continued: Iran has settled security within the borders among the Middle East countries which suffer from lack of security. He also

**“
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”**

emphasized on security as one of the attractions for investment in Iran and believes that the JCPOA was successful partly due to this fact.

Peivandi continued that: between 2004 and 2013 Iran managed to increase the produced volume of petrochemical products from 18m to 60m tons. However, the rise in exports was drastically stopped due to the sanctions against Iran and the volume of exports in petrochemical industries fell from 18.2m ton in 2011 to 13m ton in 2013. However the internal consumption continued to grow and the sanctions could not hurt it.

TAPPICO managing director stated that petrochemical industry cannot easily be the target of the sanctions mainly because the industry produces a variety of

products but the sanctions poses negative effects on other areas.

61m Ton Project in Petrochemical Industry

Peivandi clarified that today 61m ton projects with the progress of 5 to 70% are under construction in Iranian petrochemical industry and added that: the projects will produce 32b\$ in revenues.

He also added that to accomplish the projects, investment with the value of 40b\$ is required and if provided, the volume of production mounts to 120m ton per year in next five years.

Peivandi, the petrochemical expert, indicated that a number of opportunities were created during the sanctions and explained: during the sanctions our finance resources were blocked in China and in return the private sector could receive in required investment from China with the backing of the blocked finance. The process resulted in producing methanol which amounted to 19m ton ethanol per year.

Furthermore, Peivandi asserted that the private sector also stepped in the field of transforming methanol to propylene and it is estimated that Iran will produce 24m ton methanol by 2020. In fact, this volume will hit the market and reduce methanol price tremendously and that will be the time to produce propylene out of methanol.

He also estimated that: once the 60m ton petrochemical projects are accomplished, the value of the produced volume will exceed 40b \$ by 2025.

Peivandi also reminded of the required raw material for this industry in Iran which is as much as 5m ton condensate, 100m2 methane and 2m ton liquid gas and commented that given the Iranian professional human resources, the petrochemical production in Iran will mount to 120m ton per year.

TAPPICO's managing director asserted that Iran's share for ethylene production is 4% on the global scale while it is 22% in the Middle East which can increase to 32%. Therefore, the ethylene consumption trend in Iran needs to be changed.

Tamin Petroleum and Petrochemical Investment Co. managing director concluded that today, Iran produces nearly 6m ton ethylene and less than 1m ton propylene and the entire downstream petrochemical industries are directly or indirectly dependent on propylene and therefore the production of methanol and transforming it into propylene needs to be increased to feed the downstream petrochemical industries in the best possible way.

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Economy

**HOW WILL THE GLOBAL
ECONOMY BE IN 2017?**

Ambiguous!

HOW WILL THE GLOBAL ECONOMY BE IN 2017?

NATIONALITY AGAINST UNIVERSALITY

By: Amir Falah

When the twin towers of the World Trade Center collapsed in 2001, everyone moved towards the elimination of global terrorism and public opinion that was deeply affected by this tragic incident of September 11, was united on this ideal.

But beyond the collapse of World Trade Center, there was an incident that was exactly defined by the name of the twin towers; World Trade!

Although the world economy was faced with recession and economic crisis in 2008, the dominant approach in the perspective of the Republican Party, who consider war as a means of economic stimulus, slightly delayed this with the consecutive launch of two wars of attrition; however, the postponement of this fact has not caused the counterfeiting of the fact and the incident which happened.



Increasing development of China by means of cheap labor along with complete bursting of the subprime mortgage bubble, not only gives a shock to the world but also backs way it.

On the one hand, capital inflows from West to East and creating target market for cheap Chinese goods that was the result of the cheap labor, makes the west which was always rescued from all problems by its magic wand and relying on its liberalism and capitalism, being defeated by the awakened dragon of the East. But on the other hand, wrong policies of the government of George Bush, the son, lack of correct analysis of the market, and booming the speculative market around the most vital human need, i.e. housing, resulted in American people neither have their own house, nor any economy that could shake its wand and create the savior by its magic.

But the rise of Obama to restore the damaged image of America and the West was a good opportunity both in this respect the traditional Democrats are the more dominant economists, and also in which he believes in detente and economic de-stress.

Thanks to the Chinese money which was spent on buying government bonds, the United States experienced partial withdrawal from the recession and the conditions further advanced towards globalization. But the growing process of his government and European zone areas that is considered as step brother of the United States moves in the direction that only the moribund patients survived and painkiller's therapy slightly healed the pain.

When the crisis in Greece and distortion in the global economy reached a peak, reality and truth of the world collided at one point and that was the public protest against the order that Obama and his political fellows were brought to the world.

In fact, the era of Obama and his allies was a historical retarding because despite all its achievements in the politics, diplomacy and economy, still the same Giant has dominated the world, and that was the crisis in the economy which its domino get started by the collapse of the World Trade Center.

However, the sick economy of the world bled in 2016 and two incidents revealed the same reality and truth more than ever and this dual united became exaggerative to the extent that "post-truth" was selected as the world of the year by Oxford.

2016 will be remembered with two historical events, Brexit and the selection of Donald Trump as the US president.

The new system built upon the liberal world predicted

something contrary to what happened in June and November, but when the reality overshadowed the truth, the result is a surge of people who are frustrated of this order and looking for the tranquility; even though this tranquility is the product of illusions.

Peaking of populism in the world and empowerment of the extreme-right was like that this time the Genie of the lamp of Alibaba tale released from the heart of history and the history repeated; the repetition of what happened after the 1930 crisis and the result was World War II with the empowerment and progress of the extreme- right.

Although Hayek and other neo-liberal thinkers believed that the extreme-right are in common at one point to the extreme-left, this fact is undeniable that the world entered a new era at the end of 2016 that once again place the fear at the top, not fear of war but fear of the economic type, in other words, the collision of nationality against universality!

Yet, what analysts and economists from the International Monetary Fund and from Economist predict is the same reflection of economic fear and economists in the best situation predicted the same circumstances like 2016 for the next year with one exception that now the United Kingdom is outside the Europe Union and Trump is the Forty-fifth president of United States of America!

2017 from the perspective of the International Monetary Fund

Considering many challenges including the geopolitical and economic instability, international institutions cautioned that there will be little progress in global economic growth in 2017 compared to 2016.

The International Monetary Fund warned that the rise of populism and protectionist policies may lead to slow economic growth.

In its report of "World economic outlook", the International Monetary Fund claimed that turning back the clock on trade can only deepen and prolong the world economy's current doldrums. Forty-fifth President of United States, Donald Trump also threatened that he will withdraw from The North American Free Trade Agreement (NAFTA). This is while managing director of the International Monetary Fund, Christine Lagarde called the restrictive trade polices as "Economic Abuse", because they block economic growth, the job and wage growth as well as causing the weakness of world economic outlook. Also, due to this fact that we will witness elections in

countries like France, Germany, and Netherlands in 2017, and this is while extreme right-wing politicians are gaining power in these countries, the possibility of adopting protectionist policies that are destructive to economic growth in the Eurozone, is likely to happen, but this issue is less important compared to a significant geopolitical event that will happen in 2017. This geopolitical event is the gradual withdrawal of the United Kingdom from the European Union that will start in 2017. Although United Kingdom's influence in the global economy has declined in recent years, population's votes to withdraw from the European Union have had a negative impact on markets and countries around the world. The fact that the market is still worried is reflected in the recent decline in value of the pound to its lowest level in the past 186 years. After that Prime Minister of United Kingdom, Theresa May, announced that the withdrawal process from the European Union will start next March, the value of the pound declined sharply. The longer the process of withdrawal of the United Kingdom from the Europe Union, more victims will be resulted from the uncertainty arising from the currency and stock markets. This will reduce the company's investment and will damage the entire economy of the Europe. In another dimension, considering that these days central banks have the limitation in the means of expansionary fiscal policies, some of these banks would not be able to continue their expansionary policies in 2017. Eight years have passed since the quantitative easing policy. However, these policies were successful in maintaining the market liquidity over the medium term, diminishing returns tell us that these policies approach its end.

Experts believed that the Central Bank of Europe and the Central Bank of England have prepared themselves for Contractionary monetary policy.

In case of Central Bank of Europe and the Central Bank of England terminate their quantitative easing policies, the markets will be damaged. This is while the action of the Bank of Japan to negative the interest rates has created some doubts about the future of quantitative easing policies of this country.

In a report published in October, International Monetary Fund predicted that monetary policies will be more contractionary in advanced economies. This is while the fund requires states to increase government spending in order to boost economic growth. A recent research conducted by the Bank of America Merrill Lynch suggested that 48 percent of financial managers believed that the monetary policies of the world will remain contractionary.

Many economists also hold the same perspective and are concerned about the increasing ineffectiveness of monetary policies. Although it is expected that the west will adopt contractionary monetary policies, it is predicted that on the eve of the Nineteenth Meeting of the National Congress in 2017, China will continue its expansionary policies at an acceptable level in order to sustain economic growth.

Furthermore, the price of the goods caused economic growth slowdown in countries like Brazil, Russia, Nigeria and other countries that were supposed to be the economic stars of 2016. International Monetary Fund predicted that the price of goods will have a slight improvement in 2017. The low price of goods severely damaged the emerging economies. Although some symptoms of economic recovery can be seen in emerging economies in Asia and especially in India,



International Monetary Fund is concerned that sub-Saharan Africa, South Africa, Commonwealth of the Independent States and Middle East countries will not have very good conditions. If OPEC fails to reach an agreement to reduce oil production, the situation of these countries will get worse. The economic downturn happened in some of these emerging economies in 2016 and the economic growth slowdown in developed countries, suggested that the year 2017 will also be challenging for the world economy.

The Economist's analysis of the economy in 2017

Top 10 countries that will experience the greatest growth from the perspective of Economist are as follows: Yemen, Myanmar, Cote d'Ivoire, Mongolia, Laos, Ghana, India, Cambodia, Bhutan and Djibouti that have been placed in the first to the tenth categories and their economic growth is estimated to range from

6.8 to 9 percent in the current year.

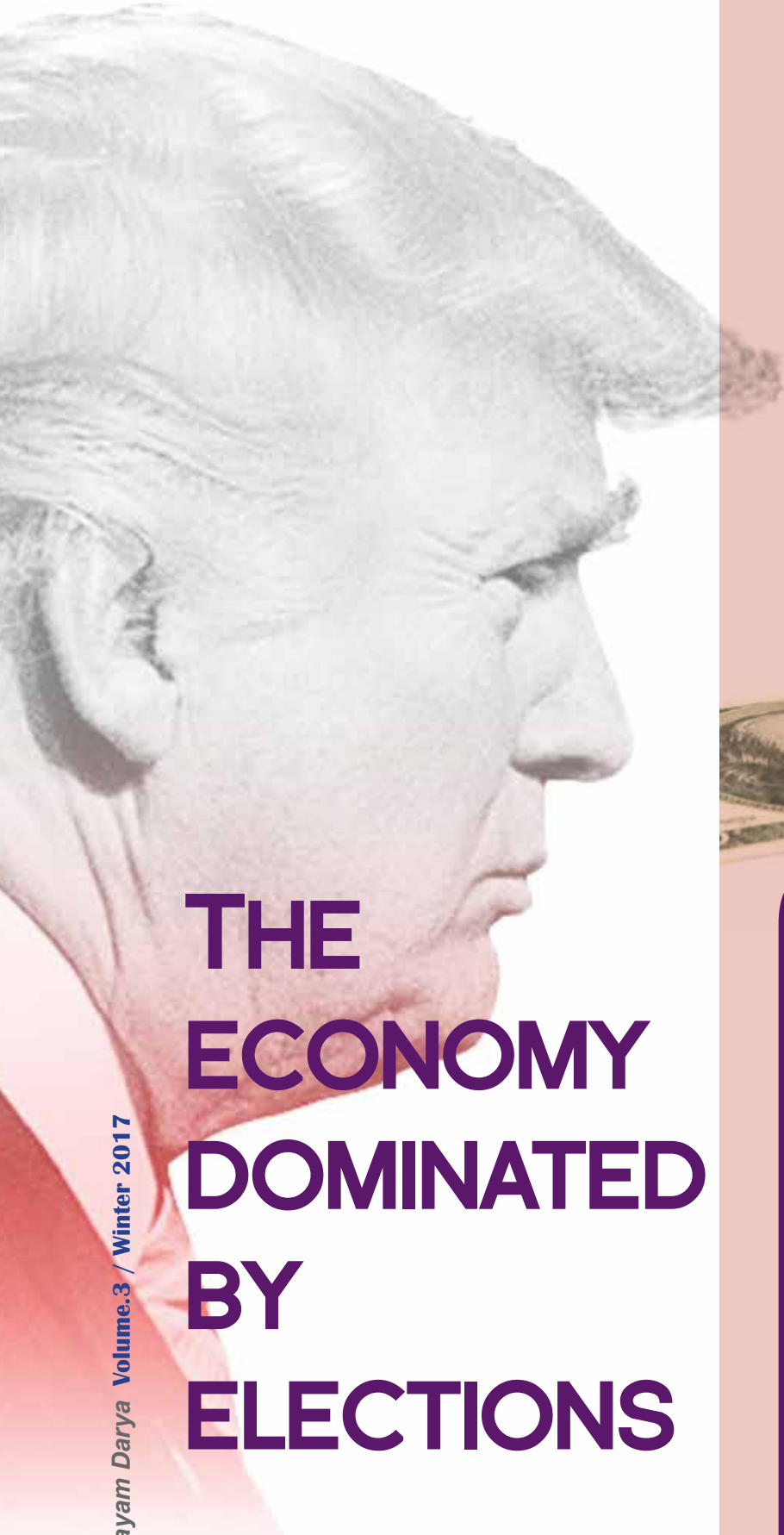
Interestingly, most of these countries are located in Southeast Asia or Africa and battle-scarred Yemen will experience the highest growth, this growth is justified considering the destruction of infrastructure and the possibility of peace in this country. Among the major economies of the world, merely India is seen in this list like last year, thanks to the pro-market reforms, however, poorer countries and smaller economies such as Myanmar, Cote d'Ivoire, Laos, Cambodia and Bhutan were included in last year's list of The Economist among top 10 economies with high growth and this year also they have continued their steady growth.

Myanmar has reached this position due to reforms resulting from the political and economic opening which was formed as a result of reconciliation between the civil authorities and the military authorities of the country; while political stability in Cote d'Ivoire has been a key factor in encouraging foreign investors. It is somewhat strange that we saw Mongolia in this list, but because of price increase in its mineral exports, this country is experiencing such growth and as in Laos, they benefit from investments in infrastructure to achieve this growth. Djibouti, because of updating its infrastructure including a port and two airports; Ghana, due to the expansion of its investment projects especially in oil production; and Cambodia also owing to a combination of reasons including increased exports and investment projects, are all included in this list. For hydropower plants, Bhutan is predicted to achieve this growth, although its growth will not reach the double-digit growth that the government had promised.

According to the prediction of Economist for 2016, Laos and Turkmenistan with 8 percent economic growth were at top, respectively, and it was estimated that Cambodia and Sierra Leone with 7.5 percent; Mozambique with 7.3 percent; Myanmar with 7.2 percent; Bhutan, Democratic Republic of Congo and India with 7.1 percent and finally Ivory Coast with 7 percent of growth are ranked third to tenth.

With regard to the events that occurred in the two critical points of the world, i.e. the United Kingdom and the United States of America and the results being contrary to predictions and surveys, we can imagine that this research has also the same foundation type, but what would be found out from the existing profile and all circumstances is that the world would not have a better situation in 2017 compared to 2016.





THE ECONOMY DOMINATED BY ELECTIONS

Payam Darya Volume.3 / Winter 2017

By: Mehri Azizi

The economy, after all, is like a sweater; if you pull one thread too hard, the whole thing can unravel. To avoid getting caught in the unraveling, investors need to keep an eye on the threads that various policies are pulling.

Brad McMillan



The Organization for Economic Co-operation and Development (OECD) predicted that the election of Donald Trump will lead to faster growth in both the US and the global economy. This is, of course, rather in contrast to the predictions emanating from many economists inside the United States. However, it seems for the macroeconomic effects of what the President-elect says he is following pretty standard parts of the standard economic models. Cutting taxes without cutting spending, increasing the expenditure on infrastructure, whether through public or private financing, are the required stimulus that we would expect to grow the economy¹.

The effect of Trump victory in the presidential elections on the US economy is larger and more vivid than the global economy and it goes without saying that the US economy heavily affects the global economy accordingly.

The good news starts with US growth, which will almost surely accelerate above the 2.2% average annual rate during Barack Obama's second term. This is because the Republican aversion to public spending and debt applies only when a Democrat like Obama occupies the White House. With a Republican president, the party has always been glad

1- <http://www.forbes.com/sites/timworstall/2016/11/28/oecd-donald-trumps-win-so-yuge-itll-grow-the-global-economy/#-100c2aec50dc>

to boost public spending and relax debt limits, as it was under Presidents Ronald Reagan and George W Bush. Thus, Trump will be able to implement the Keynesian fiscal stimulus that Obama often proposed but was unable to deliver².

The resulting deficits may be described as “supply-side economics”, rather than Keynesian stimulus, but the effect will be the same: growth and inflation will both increase. As the US economy runs into the limits of full employment, additional growth will push inflation higher, but that bad news can wait until 2018 and beyond.

If Trump follows through on his proposed tax cuts, the deficit will increase substantially. U.S. government debt will grow faster, making debt service more burdensome.

Rates are moving higher on expectations of faster growth and faster inflation. Though in many ways a sign of economic success, higher interest rates are also a brake on growth. With more expensive borrowing, houses and cars cost more on a monthly basis, hurting consumer spending, which is a major source of growth. Higher interest rates might also

2- <https://www.theguardian.com/business/2016/nov/28/donald-trump-economic-consequences-us-election-growth>



IF TRUMP FOLLOWS THROUGH ON HIS PROPOSED TAX CUTS, THE DEFICIT WILL INCREASE SUBSTANTIALLY

hurt business investment. Interest rates rise higher accordingly when rates are higher which act as a brake on economic growth. The immediate result of higher interest rates is higher consumer spending. It also might hurt business investment and finally given the very large and growing stock of government debt, U.S. government debt service also stands to rise substantially, as mentioned above.¹ Investments are subject to risk, including the loss of principal. Because investment return and principal value fluctuate, shares may be worth more or less than their original value.

Next and possibly the most important issue with U.S. growth up and rates rising is strong dollar which automatically results in less competitiveness in the realm of U.S. exports and affects the stock market in early 2017 accordingly. However, it seems Trump's proposed tariff policy predicates tax on imports and making them more expensive relative to American-made goods will alleviate the washback effects of a stronger dollar. Although the policy fosters the growth of American manufacturers, it faces two problems as follows:

American manufacturers demand to buy parts abroad in the process of manufacturing and the tariffs may hurt them.

There are many department stores which import considerable amount of let's say Chinese goods to the U.S. and the tariffs on the Chinese goods translate into more money the Americans need to spend on shopping.

1- <http://www.forbes.com/sites/bradmcmillan/2016/11/15/trumps-economic-policies-potential-costs-and-opportunities/#1de558ad59cf>



On the other hand, the combination of a dollar squeeze and protectionism spells big trouble for developing countries, especially those which are heavily reliant on free trade and foreign financing. In this regard, countries such as Brazil, Russia, and India with development strategies free from foreign financing can be the exceptions. The Middle East is bound to remain a cauldron of geopolitical unrest; but, even here, Trump's preference for local strongmen over "democracy promotion" could restore a degree of stability (at the cost of human rights).

In addition, the most dangerous consequence of Trump's victory may be its contagion effect on Europe. Just as Britain's referendum proved uncannily predictive of Trump's win, Trump looks like a leading indicator of populist upheavals in Europe, which could trigger another euro crisis and threaten the breakup of the European Union². The next anti-establishment victories, according to opinion polls, will be in Italy's constitutional referendum and Austria's presidential election. Globalists can only hope that the polls again turn out to be wrong – but in the opposite direction.

Finally yet importantly, boost to economic growth will come from deregulation. While battles over energy and environmental laws may dominate the headlines, the biggest economic impact will come from reversing bank regulations. As banks are encouraged to loosen lending standards, especially for middle-income households, an upswing in residential construction and debt-financed consumption should add further growth impetus. Excessive deregulation could cause a re-run of the 2007 financial crisis, but that, too, is a risk for 2018 and beyond.

The Bank of England has announced that the outlook for financial stability in the U.K. remains challenging, citing potential risks following June's Brexit vote and Donald Trump's victory in the U.S. presidential elections³. The European Central Bank accordingly cautioned that Mr. Trump's policies could trigger instability.

2- <https://www.theguardian.com/business/2016/nov/28/donald-trump-economic-consequences-us-election-growth>

3 - <http://www.wsj.com/articles/bank-of-england-sees-lingering-brexite-challenges-for-u-k-economy-1480491344>



PROSPECT FOR THE WORLD ECONOMY IN 2017:

TIME FOR HESITATION

By: Vahid Basereh





The current year is ending while Donald Trump, the US President-elect, is preparing to take over the helm of the world's largest economy in the early days of 2017. In this regard, the silence of China as the world's second largest economy is of special importance. The Chinese have slowed down their economic growth since 2 years ago trying to diversify their export-oriented economy and make it the second and even the main pillar of their large economy. This action of China has caused losses to some key economic partners of this country such as Australia. Reduced China's demand for imports of goods and raw materials from Australia has decreased the economic growth of Australia to 1.7 in 2015. At the same time, the world economy is undergoing a recession because about 30% of global economic growth in the period between 2004 and 2014 was resulting from China's growth and the world's economy is experiencing a relative recession with the slowing economic growth in China. However, the question here is that can we hope that this recession will soon lift its shadow from the global economy over the next year? Despite being tough, the answer to this question can be found by reviewing the US presidential election, current trends in China's economy, and performance of the world's major economies.

Let's start with the US. Donald Trump, a contractor from New York who incredulously defeated a veteran politician like Hillary Clinton in recent elections of the US, has special and interesting views on governance. Having no experience in politics and always being known as a wealthy showman, Donald J. Trump is about to reside in the White House. During his campaign, he strictly reprimanded the old and new international treaties such as NAFTA and Trans-Pacific, which were signed as symbols of globalization in order to facilitate the international trade. If elected, he claimed, he will either withdraw the US from those treaties or make revisions to them. Perhaps Trump was looking to attract voters from the working class of the US who had put their job and future at risk following the intensified globalization process over the last two decades. Although it seems very easy at first glance to abolish these treaties, it will cause major losses to some major countries; Japan, Mexico, and, to some extent, Canada now find themselves in new conditions threatening their economy. It has been long that Japan has tried to get rid of a seemingly interminable recession and



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CHINA WILL BECOME THE WORLD’S FIRST AND LARGEST ECONOMY IN THE COMING YEARS

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that’s why this country has greatly counted on the Trans-Pacific Partnership Agreement (TPPA). In this regard, Shinzo Abe, the Prime Minister of Japan, was the first one who reacted to Trump’s claims and, after meeting with the President-elect of the US, pointed out that the US withdrawal from the TPPA will cause dire consequences if executed. Signed by 12 countries including Japan, Malaysia, Vietnam, Brunei, Australia, Singapore, New Zealand, Canada, America, Peru, Mexico, and Chile, the Trans-Pacific Partnership Agreement (TPPA) will create the world’s largest free trade area, eliminating thousands of tariffs on imports of goods and products, and establish common standards for these 12 countries. All these hopes are now being threatened.

In this regard, Mexico, as a leading and emerging economy, has a special look at and needs the market of its northern neighbor, while Trump has said he wants to revise NAFTA. This means the possibility of imposing tariffs on imports from Mexico to the US, which can be a severe blow to Mexico’s nascent economy. The US new elect president has also mentioned the same slogans about China. The reality is that China has been the main reason for Americans To vote for Trump. Since 2004 when China joined the WTO, many American industries have moved to China due to the much lower cost of production in this country. Of course, it is obvious that the US economy has also benefited from this movement, but the point is that the upper class mainly benefited from this set up while, the lower classes lost their jobs and were practically deprived of the cake of economic profits. The economic crisis in 2008 has also been effective in accelerating this trend. However, it was China that saved the US economy and thereby the global economy by buying 1271 billion dollars of the US governmental bonds. But it had another meaning; Chinese can now have the upper hand in their relations with the US by playing the card of securities. It also depends on Donald Trump’s action. He has repeatedly stated that he plans to impose a tariff of above 35% on imports from China. This may make voters happy and give them the hope that industries will come back inside the US. But, if he does so, he will actually violate all international treaties, particularly WTO rules. Under these circumstances, the Yellow Dragon will be in a position of reaction whose consequences will be threatening to the global economy. Previously, China had occasionally warned about selling the US bonds below the market price at times of challenge with the US. However, the consequences of such a measure would be so

devastating that both Trump and the Chinese will avoid resorting to their claims. Nevertheless, with his look-in policy, Trump certainly will not contribute to putting an end to the global economic recession. China will be cautious in this situation more than ever, causing the horizon ahead to remain unclear and obscure. China is trying to be more self-reliant. The export-oriented economy of this country, with a value of about two and a half trillion dollars, has been now diversified and turned to the consumption-oriented economy in order to strengthen China and substantially increase its bargaining power in the international arena. According to current projections, China will become the world's first and largest economy in the coming years.

In this regard, China's performance and the relatively deliberate reduction in economic growth of this country from an average of 8.6% per year to around 6% have negatively affected the emerging economies. Until recently, it seemed that Brazil, Indonesia, Russia, and South Africa are the future hopes of the global economy, but most of these countries have faced slowed growth due to China's problems, political problems, and falling oil prices.

In the meantime, although India is hopefully going forward, the depth of problems of this country which are rooted in cultural issues has caused this hope not to be much reliable, and some fluctuations in this growth will be probably observed in the near future. Considering the prospect that the US future administration is outlining, concurrent with the threat of "Brexit" to the European Union and behavioral complexities of the Chinese and lack of defining clear and pre-set strategies by these country's leaders, it seems that the next four years to be a time of difficulties and recession. However, given the rationality of economic processes, it can be hoped that a crisis similar to what happened in 2008 is not imminent, but it cannot be also concluded, based on the rise of populists in the four corners of the world, that thriving days are ahead. History has proven that in the wake of the economic crisis, intellectuals of a community roll up their sleeves and put an end to the crisis, but when you come back tired from the battlefield, they witness that populists and demagogues have deceived the nation with false claims in their presence. World War II is a good evidence of this example.



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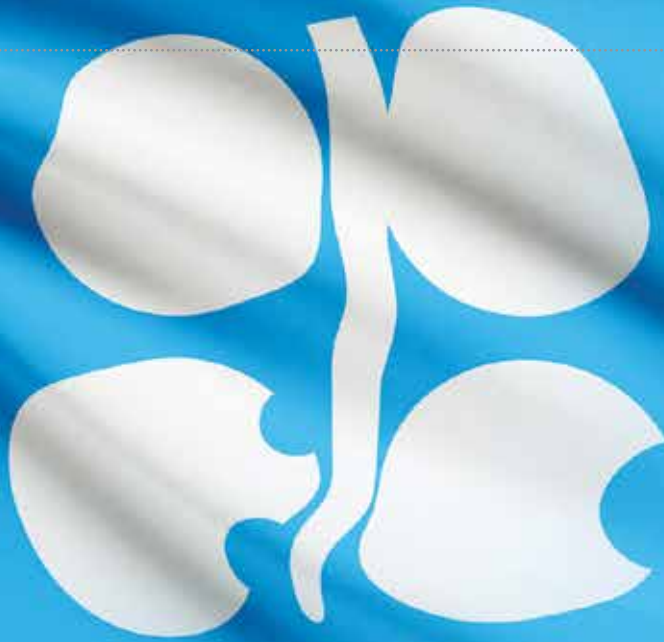
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WHY OPEC 171 MEETING MADE A HISTORY ?

MEMBERS' CONSENSUS FOR REVIVING THE OIL MARKET

By: Houri ghasemi



The organization which had remained silent and inactive against fluctuations in oil prices during the past 8 years rose up again due to a historical decision and became so strong that could persuade 12 Non-OPEC oil-producing countries that decrease in production would be to the benefit of the oil market. On 30 November, OPEC members decided to play a major role and be as much effective by their own share in production of oil instead of just observing fluctuations of the oil market following which that decision was secured by the agreement for holding a meeting with Non-OPEC countries on 10th of December so that the oil market could still rely on an increase in oil price, though Dollar rate had already been shot up. The 30 November meeting bore more effective consequence than its main objective which was decreasing level of production and increasing oil prices and that was actually show of strength which could show off OPEC oil Cartel power to the world once again. If we have a glance over the goal of establishing this organization, we will find that controlling oil supply with the purpose of preventing from fluctuations in the oil market had been one of the organization's main tasks which sadly had been neglected due to the disputes among members during the few recent years.

Therefore, the consensus among OPEC members conveyed a distinct and clear message to the world. OPEC members proved that they were seeking to start reactivating in the oil market so that the collective gains among them would be provided. With such an effort OPEC members have made their decisions to act wisely, we can hope rationing in OPEC would be formulated once again and this could pave the way for more effective presence of this organization in international relationships and trading, something which can make the oil market more systematic and supervision over it in critical situations would be increased. Based on the decision which was made

during OPEC No. 177 Meeting, the series of cheap oil ended and members reached an agreement to shoot up oil prices globally. Diplomatic travels of the countries' oil ministers and different meetings and sessions they attended during the period as well as strict resolutions of OPEC member countries all combined and finally members of this oil cartel managed to reach a consensus after an eight years' debates and negotiations. The consensus which made oil prices to rise 13 per cent and nudge to 50 dollars again at the very first hours.

In fact, OPEC member countries which had lots of problems with cheap oil strictly made a resolution to develop an extensive change in the market.

The cheap oil which had provoked big producing countries such as Saudi Arabia and Russia to protest heavily and seek for a practical solution in the market, caused the "Oil Freezing" plan to be reconstructed to "Decrease in production" one. In pursuit of this historical decision, 12 Non-OPEC member oil-producing countries also supported the OPEC members and the subject of oil decrease was approved by them unanimously on 10th of December.

But let's see how decrease in oil prices and efforts to find a solution for controlling that began?! A surplus in oil supply can be a good reply to this question. Saudi Arabia has been consistently looking for a way to downgrade Iran's main role in the oil market during these years. The abuse of nuclear sanctions against Iran can be enumerated as the most prominent actions taken by that country against Islamic Republic of Iran. Due to the sanctions, Iran's oil exports had decreased to 800,000 barrels per day and as a result three countries; Iraq, Russia and Saudi Arabia managed to dominate over the Iranian ancient oil markets. Saudi Arabia made the most of such a situation and revoked the already approved rationing procedure among OPEC members during a meeting on December 2011. This country's main excuse was



that other member countries could be able to keep the oil market balanced, if the oil supply decreased. This caused surplus oil which was over daily consumption to be launched into the market and slash prices considerably. After the nuclear agreement was signed Saudi Arabia's policy implying that Iran should not find any chance to return to the market once again, became more obvious than ever before. Discussing the issue of oil freezing was the most critical point proving this policy. Saudi Arabia raised the issue of oil freezing closing to January 2010 simultaneously with the news that Iran would restore its oil trading with other countries in the world and the sanctions preventing from further selling of oil would be lifted. If this plan would ever be executed, those countries producing crude oil would fix their own productions for January 2016, and this was while Iran had not managed to add to the amount of its productions and exports at the time due to the sanctions. This policy seemed logical in appearance, since it had been discussed aimed at preventing from oil price slump to below 30 dollars, but when it was decided at a meeting in Doha in spring this year to make the policy executed, Saudi Arabia caused the oil freezing plan to fail under the political pretext and only because Iran had not accompanied the plan.

Iran was known to be blamed for a deranged situation of oil while Saudi Arabia and Iraq were competing to increase their oil products at the time, and while Iran had not been present in the market, and since there had not been any share left, there was no impediment in their ways any longer. The increase in production continued until the share for Saudi Arabia increased from 29.5% of OPEC oil products in the year 2004, to 31.5% of that in the current situation. But, the increase in production for



Iraq was by far more remarkable. Iraq managed to increase its 6.5% share to 13.2% during a period of 12 years and this was while the share for Islamic Republic of Iran had slumped from 12.7% in the year 2004 to 10.5% , and its share had been even less than this and decreased to nearly 8.6% on occasion . Therefore , Iran declined to freeze its own oil products. When Iran's products increased to the level of that before the sanctions , this country took the upper hand and other members including Saudi Arabia were prompted to agree with its request. Zangeneh's authority along with Iran's situation during the period after sanctions as well as Saudi Arabia's great needs to more oil incomes combined so the two OPEC great powers would come to agreement and decrease production though there was still a serious dispute between Iran and Saudi Arabia in the international scene. The agreement was made while there had been hard impediments for OPEC members in reaching a common understanding as a result of the local problems during the recent years and since Iran had decreased its oil exports due to slump in production , its bargaining strength had been seriously lowered as well.

The Iranian oil Minister had previously mentioned that actually oil barrels give power to the countries. Iran also being quite advised of this issue , made great efforts to nudge the same production level of that before sanctions at a regular speed , and of course could achieve success in this way. This quick come-back to the market as well as increase in oil production proved to be a strong support for the Iranian negotiating team at OPEC meeting in Algeria and could isolate Iran that was seeking its own right for producing more oil, from production decreasing plan.

OPEC regained dominance at Vienna following the

meeting in Algeria . It was agreed that the procedure of executing production decreasing plan should be determined by OPEC members at 171 meeting in Vienna. It was difficult to reach an agreement in Algiers before arriving at Vienna. Almost all the expert meetings before Vienna meeting ended without any effective consequence. Even failing of the experts' meeting two days before the OPEC members' forum , caused oil prices to slump all of a sudden. But it was wisdom that finally came over at OPEC meetings and the members managed to achieve a satisfactory consequence at Vienna meeting on 30 of November the preliminaries of which had already been provided at Algiers participated by all countries. The success which was achieved at the meeting in Algiers could pave the way for the consensus by the member countries which had remained suspended from the outset of oil prices downside. The consensus which seemed unattainable from the beginning of the year 2008 , but it was achieved after all. OPEC consensus at Vienna meeting implied that the two countries were at one with each other over the prices increase though there were great disputes on different issues, such as regional situation between Iran and Saudi Arabia . These two countries made a major and effective decision , irrespective of their political problems . The Iranian oil minister , Bijan Zangeneh also stated on this issue after the Vienna meeting that OPEC 171 meeting and the members' decisions for decreasing production could prove that we can have trading with other countries over common interests , though we may have deep political disputes with them. But this agreement suggests Iran has come back to power again at OPEC meeting in many respects , in addition to being a way for controlling oil prices.

Based on this agreement , all member countries have been tasked to decrease 4.5% of the amount of their basic productions in October. Of course Iran was excluded from this problem and the highest amount of production per day that would come to 3975000 barrels was considered as a base for Iran's production instead of setting production for October as a base for the purpose. With such a calculation the country would actually be able to increase its products up to 90000 barrels per day comparing to what had been announced by the Second Resources for the month of October.

Iran's insistence on its own right in the oil market caused the consequence intended by this country to be provided . In other words , we can say Iran could take the upper hand during complicated negotiations at OPEC meeting which was held following the



political sanctions and finally drive it's own views and demands. According to the figures , Saudi Arabia would probably have the most decrease in production and this country will soon slash it's daily products from 10.53 million to 10.06 million barrels per day , indicating that nearly 500000 barrels of this country's oil products are decreased each day. Other OPEC member countries such as Iraq , Emirates, Kuwait and Venezuela each would decrease between 100 to 200000 barrels of their oil products each day. The rest of countries also would slash a certain per cent of their oil products , each with respect to it's own productive share.

Libya and Nigeria too , in addition to Iran ,have been excluded from decreasing their products due to their particular conditions.

Participation of Non-OPEC producers in decreasing production

One of the other points in success of the oil production decreasing plan is participation of Non-OPEC oil producing countries , with Russia at the top of them. Russia as the greatest Non-OPEC oil exporting country agreed , at the first step , to decrease 300000 barrels of it's crude oil products . Of course this is while the country had managed to record the highest production in October since it was entangled with downfall . But the news of Russia's oil decrease would send a signal to the market which would promise more flourishing days ahead . Telephone conversation between Putin and Dr. Rohani before the OPEC 171 session can be described as one of the main reasons for participation of Russia at the meeting. Some of the regulators in the oil market believe that Russia has managed to convince Saudi Arabia with such a decrease that it would dissuade from oil decrease by Iran, so this country could be able to return to it's same level of production before the sanctions once again. Of course budget deficit in Russia's financial system was another problem which caused the country to retreat from it's own positions and the country that always used to discuss "production freezing " was convinced to decrease it's oil products to some extent. Russia's participation will cause the market to observe increase of prices with much greater hope. Also Russia's participation in decreasing oil production will pave the way for other Non-OPEC oil producing companies to accompany other countries and decrease 300000 barrels from their oil products altogether . A meeting was held on 10th of December for coordination between OPEC members with



Non-OPEC producers so the manner of cooperation and participation of member countries would be distinguished in it. During the session attended by 13 OPEC and 12 Non-OPEC members , it was decided that in addition to a decrease of 1.2 million barrels of OPEC products , Non-OPEC producers should decrease totally 560 to 600000 barrels of their own products, and as previously mentioned Russia accounts for nearly half of these amounts as it's own share. In addition to Russia , there are also other countries such as Mexico , Kazakhstan , Oman , Azerbaijan , Malaysia , Bahrain , Guinea , South Sudan , Bruneni and Sudan participating in decreasing of oil products. Also upon agreement of OPEC members to decrease 1.2 million barrels of oil , a ministerial committee was set up to supervise over decisions which are to be made at 171 OPEC meeting chaired by Kuwaiti high authorities . The ministerial committee is composed of member countries such as Algeria , Kuwait , Venezuela and two OPEC Non-member countries headed by Kuwaiti high officials as well as participated by OPEC secretariat and should have a close supervision over the manner of executing the agreement and producers' commitment to that, while being tasked to deliver their reports to the Ministers' conference. In such a situation since



1.2 million barrels of OPEC member countries , 300000 barrels of Russia's products as well as 300000 barrels of other Non-OPEC producers' products are decreased , about 1.8 million barrels of oil being supplied to global markets would be decreased as of the first of the year 2017 which can play a significant role in strengthening prices .

This hope can be strengthened when we observe that the historical decision has been made by OPEC members , participated by Non-OPEC producers , on the threshold of cold season in Northern hemisphere , and that demand on energy and fuel is currently at the highest level across the world .

America's policies overshadow OPEC agreement

Among these bright hopes, of course some concerns are also looming , overshadowing the market the main of which is the swift come-back of uncommon oil products , those which will find more chance to emerge in the market due to the presence of expensive oil products , since in this case they will have economic briefing for being produced

This briefing was one of the reasons Saudi Arabia offered to support cheap oil during the past few years . The country's argument was that since these oil products are quoted at bottom prices in the

market they will cause United States to become more dependent on the Middle East oil products . This fact was found during the first months of reducing oil prices and so oil platforms were taken out of SHELL OIL fields , but presently production of SHELL oil at prices below 40 dollars has become possible thanks to modern technologies . On the other hand , Donald Trump has vowed in the election contest to prosper United States of America's oil industry. Production of SHELL oil or the same " Uncommon Oil " is one of the fields of America's oil industry.

Now the number of oil platforms working in these oil fields are increasing as the oil price gradually scales and this means that the global production is increasing and as a result the surplus of supply will augment more than ever before. Therefore , the greatest concern for OPEC members would be that United States of America's new agreement may encourage oil companies to expand their activities prematurely , and this would increase supplying of oil to 500000 barrels per day within the next 12 months. So , Trump's insistence on independence of America in the field of energy may pale OPEC agreement into insignificance in the oil market. Another main point in Trump's remarks is that he has vowed to dispense America with the oil of Persian Gulf littoral states . This is an issue which is against Saudi Arabia High Officials' tastes . Finally , it should be mentioned that you cannot go freelancing in the global crude oil markets , as the events during the recent years have suggested. Although oil -producing countries are seeking to add variety to their customers as well as the companies they are dealing with and all debates among the countries over the shares in the market along with the issue of producing oil , but now oil producers have decided that they should return to negotiating table once again, and this could bring another good chance for OPEC dominance in the global market so it can prove the effective role it can play in the field of energy trading in the world . Therefore , OPEC agreement would pave the way for further strengthening of oil prices in the market along with increase of supply as well as decrease of oil reserves in the market during the last month of the current Christian year and the first three months of the year 2017. This event would enhance the prospect of oil-rich countries in the world for gaining more consistent oil incomes . It can also be expected that the agreement would put paid to all concerns regarding budget deficit by oil-producing countries in the future.

WHAT ARE PETROCHEMICAL DEMANDS FOR DEVELOPMENT?

By: Amir Falah

“The petrochemical industry in Iran appeared to be on the move and it is estimated that the export level reaches 40b \$ in five years through higher production of petrochemical output.”

The sentence was announced by Bijan Namadar Zangane, the minister of oil industry in Iran, in opening ceremony of Marvdasht petrochemical plant in Fars province. It is mainly indicative of authorities’ efforts to develop petrochemical industry and produce added value and lessen the dependency on oil income accordingly.

The statistics demonstrate that Iran followed the strategy of increasing the export of petrochemical products immediately although the trend was drastically blockaded through the sanctions against Iran and its

share decreased as much as 29% especially through the sanctions posed in 2012.

Iran has been investing on petrochemical industry for years mainly to terminate crude oil selling. Although the petrochemical industry is considered an upstream industry in Iran and the experts strongly recommend to operate in the middle and downstream levels of this industry for higher added value, the statistics remark exporting the petrochemical products a lucrative business.

In fact, Iran faced the sanctions when the production trend in this industry was upwards. In other words, the petrochemical production of 9b \$ in 2009 reached 14b \$ in 2011 and the sanctions against Iran in 2012 resulted in 12.1 and finally less than 10b \$ of produced petrochemical output gradually.

The official statistics also indicate that petrochemical product's export has risen 26% in post-sanction era. However, despite the increase of export of petrochemical products in post sanction era, the share of Iranian non-oil products in the international market has decreased and the matter needs attention.

Furthermore, World Trade Organization (WTO) has removed trade hurdles to ease the global trade. This strategy approves the fact that studying relative advantages are of crucial importance in Iran especially when Iran is considered one of the developing economies and analysis on relative advantages and the gaining information on development plans for non-oil products are mandatory.

On the other hand, Iran is marked as an important country with rich oil and gas reserves in the global energy map. In fact, Iran enjoys 16% of gas reserves and 6% of global oil reserves and needs applying them for producing valued products rather than exporting crude oil and accordingly wins its true position in global economy through strengthening oil industry. In this regard, petrochemical industry can manage to produce petrochemical products with 10 to 15 times more value than oil products through reforming oil hydrocarbons.

Given the fact that petrochemical industry import considerable amount of foreign exchanges to Iran, Iranian authorities and the great leader of Iran laid lay great emphasis on petrochemical industry and producing valued petrochemical products in particular to develop Iran's economy.

Moreover, the president Rouhani's government managed JCPOA after 13 years and authorities stressed prompt implementation of the plans through 45 new resolutions which present an investment opportunity of 40b \$. Additionally, president Hasan Rouhani's government has granted an appropriate guarantee to pave the way for foreign investors to step in.

Furthermore, oil minister of Iran in his last statements hoped that petrochemical industry grows to produce 40b\$ petrochemical export in five years while the petrochemical export has reached 560m\$ in 1997 which was the fruit of big states' investments in Iran.

Additionally, one of the important factors in the realm of studying relative advantages pertains to the abounding number of production plants which along with abundant oil and gas reserves place Iran in a reliable and suitable position in the realm of petrochemical product exports. Considering the fact that shale gas from the U.S. resulted in the export of petrochemical feed from Europe and the U.S. to Asia and this recently put the Middle Eastern countries in trouble regarding petrochemical feed. However, Iran faced no problem regarding petrochemical feed.

Literally Iran has operated different phases in South Pars field in past three years and the problem for lack of petrochemical feed and ethane gas feed in particular is resolved. Moreover, the stable and competitive prices for the petrochemical feeds in Iran have made this country an excellent destination for investments. In fact, the raw material for petrochemical plants along with the final petrochemical products has changed the relative advantage to the absolute advantage.

The above-mentioned factors are few elements in the Iranian petrochemical industry along with many other factors and the country is following strategies to develop the industry in the fields of marketing, technology transfer and applying cutting-edge technology to meet international standards and implement market assessments to compose new contracts with new sections for foreign investors.

The virgin petrochemical plants paired with security and political and economic stability in Iran along with implementation of JCPOA, has made Iran a great opportunity for the foreign investors to enjoy considerable profit in cooperation with their Iranian counterparts.

IRANIAN OIL AND GAS GIANT AWAKENS

By Huri Qasemi

Iran has exposed its ability in managing energy diplomacy and bargaining power in oil market short after JCPOA. Oil exports, through negotiations with over 50 big oil companies are indicative of the power of Iran through JCPOA backing. Despite the fact that Iranian oil industry was the main target of the sanctions against Iran, the country managed to resume the volume of oil exports to pre sanction era since January. In fact, Taleqani Street where the oil ministry is located witnessed numerous economic delegations from all over the world. Taking advantage of opportune time and active diplomacy of energy, oil production in Iran reached 4mb/d of which 2m 400.000 barrels are exported to international markets. Furthermore, oil exports which according to statistics did not exceed 1mb/d at the beginning of Rohani's tenure, jumped to double its amount in three years and according to oil minister, the revenues made out of oil export is immediately in the country's treasury.



In fact, the pace of oil production and export by Iran has surprised international oil experts mainly because they did not expect Iran to resume oil production so quickly despite the lack of proper activities in oil production during the sanctions.

Given the fact that Rouhani's government had alarmed the Iranian oil companies to make them ready for resuming oil production fast, the companies managed many mock oil productions to be able to restore the oil production in reality so swiftly.

The Rohani, government also succeeded in putting aside the oil producers that had taken Iran's share in global market and resume its former share in oil exports.

Iranian authorities also believe that now that the sanctions are removed, Iran is able to make use of the outer financial resources of its own to retake its position in the global market and interestingly the foreigners are keen on to accompanying Iran in this lengthy process.

Although many foreign companies worry about the violation of JCPOA by the European and American states and try to walk on the safe side, the international analysts believe that Iran is now free from sanction's pressure globally and is moving out of the predicament and no threat can endanger JCPOA.

Considering the above-mentioned fact, it seems that Iranian oil industry will witness even more busy days and apart from the Iranian companies which have moved forward in the realm of oil extraction and production, the foreign parties have managed to hold many important negotiations.

Furthermore, Iran as an oil exporter is eager to increase the investments and update the required technology to consolidate its presence in global market. In fact, the energy sector in each country

not only affects production, growth and economic security, but play roles in the realms of politics and strategic planning. Therefore, the oil exporters can enjoy the created power in the world.

Iran holds the 4th rank for having natural gas reserves and is considered as one of the main players in the field of energy in the world. However, Iran has not yet been able to take up its proper position and the present share of this country in gas extraction is only 4% and in the best situation may rise to 5%.

Despite the rich reserves, Iran requires investments as much as 134b \$ in the next 5 years and it is estimated that the this amount of investment is provided through new oil contracts, mutual purchases, stock exchange along with internal and foreign investments and expansion of oil and gas infrastructures.

Required investments in shared oil and gas fields

The oil industry is so vast that to recognize and choose the field to invest in requires a great deal of studies. According to the oil authorities in Iran, the shared fields of oil and gas are the most crucial areas which need investments.

Iran shares one of the largest gas fields with Qatar and is trying to increase the volume of its extraction in its rivalry.

Although many phases in the field are progressing well, it is possible to take advantage of cutting-edge technology to extract oil as much as possible. On the other hand, investing in this area is inevitable and accordingly Iran can take up its share once again through collaborations with international companies. In the first step, the 11th phase in South Pars field as there was no investor Iranians started cooperating with Chinese and French and handed over the control of this phase to the foreigners with the cooperation of Petropars. In fact, Total had control of the last phase of the South Pars field before.

In this regard, the 11th phase of South Pars is worked on by Iran's National oil company in cooperation with Total (France), CNPC (China) and Petropars. The contract will result in 56m2 increase in the extraction of oil in Pars Pouth field. The contract has brought in high technology to extract more through installing a platform which makes the phase as the hub for higher technology throughout south Pars field.

The Iranian oil minister asserted the collaboration of of Iran's oil company and Total from France and hoped that the other foreign countries put aside the worries they hold regarding working with Iran.

In fact, working with Total paved the way for other big international oil companies to work on knowledge transfer, capital and technology to Iran.

Expanding new fields in west Karoon River

The oil extraction is not the only focus in Iran. The next privilege in the Iranian oil industry is the shared oil field in west Karoon.

The plan for this area is that with the expansion of north and south Azadegan, north and south Yaran and Yadavaran, the total oil production reaches 500,000 bpd. In fact, west Karoon is considered to encompass the Karoon River in Iran and its bank in Iraq. The field includes some important oil fields. The fields in this area are important mainly because they are quite new in fact and two countries have newly started to extract oil from them. Pfcourse, most of the oil fields in Iran are located in Khuzestan province and they are in their second half of their age and that is why the new oil fields play important roles in oil industry in Iran. Since the early months of 2016, we have witnessed oil extraction as much as 75000bpd in north Azadegan and 85000bpd in Yadavaran. Furthermore, newly the oil extraction has started in north Yaran fields with a production of 30.000bpd.

The oil extraction in Yadavaran oil field has mounted to 115000bpd past November, concurrent with 85000bpd in north Azadegan. However, this area still needs investements to increase oil extraction.

President Rouhani in this regard stated that Iran is able to put up the oil production to 300.000bpd and asserted that today the oil extraction in this field is 250.000bpd and it needs to be increased. He also announced that there has been 7b\$ investment in west Karoon and to complete the projects in this area a further investment of 18b \$ is needed along with taking advantage of the required technology.

The important note in this case is that 1% increase in output in these fields translate into 670mb/d and given that the oil barrel's value is 50\$, the value of the



increase means 33b\$ income for Iran and therefore, attracting foreign investors are high on agenda for the authorities.

To attract foreign investors, Iran has composed new models of oil contracts and got them endorsed by the parliament and is now employed in the oil negotiations.

In the past, Ali Kardor, the National Iranian Oil Company's managing director, emphasized that the oil contracts were signed with the main focus on increasing output in the oil fields and the first oil contract with a foreign party was composed, emphasizing increasing the oil extraction in Khuzestan oil fields.

After Total entered Iran and signed contracts regarding oil and gas, some Russian companies stepped forward to find a place in the oil industry in Iran. However, the Russians moved faster than others and have signed three MoUs so far with Iranian companies. According to one of them expansion of Dehloran field was within the responsibilities of Tatneft from Russia.

In the past, there were two confidential contracts

between Iran and Russian companies of Lukoil and Zarubezh Neft which made the number of contracts between Iran and Russian companies rise to 3 in the past 6 months.

Russia owns big oil companies including Rosneft, Lukoil, Gazprom Neft and Russneft and they have all made their way to Iran in post sanction era to grab the existing opportunities.

Russia had left Iran due to the sanctions and now they are planning how to get back to Iran.

In this situation, Iran needs investment and technology both to compensate for the past years and plan for its reserves; therefore, it has expressed interests in negotiating with China, Russia and European countries.

Iran's petrol star starts shining

The above-mentioned investments will be fruitful if only the crude oil sales lessen tremendously. Regarding the increasing volume of production of condensate produced through development phases, some refineries are to be established to not only consume the products as raw material, but also create

added value which is the result of selling the end product rather than the condensates. In this regard, two refineries by the name of Persian Gulf Star with the capacity of 360,000 bpd condensate and Siraf with 8 smaller refineries and the capacity of total 480,000 bpd condensate are the main targets for these programs.

The first phase of Persian Gulf Star coming into operation will definitely be one of the most important occurrences in president Rouhani's government. The Persian Gulf Star is planned to produce 120,000 bpd in three phases each and produce total of 360,000 bpd. The privilege of the phases were studied and after receiving the required equipment (through JCPOA) the first phase is going to be completed as soon as possible. After the first phase, the second and this phase will also be completed in six months and by the second quarter of 2018, the whole project will be operational. The refinery is going to carry out important responsibilities including producing the whole need of petrol in Iran and in the next step make Iran as an exporter of petrol. The first phase of this refinery feed Iran with required petrol and this phase is high on the agenda of regarding resolutions made in Iran.

Iranian oil minister emphasized that with support of the stock holders, governmental aids and oil ministry follow up, the refinery will start operating and producing 12m L Euro-4 petrol and 4.5 m L gasoline and 1m white oil Euro-4 and L.300,000 L LPG Euro-4.

Zanganeh estimated that by the end of the first quarter of 2017, 93% of the project will be accomplished.

It is noteworthy that Phase 1 of The Persian Gulf Star Refinery (PGSR), including utilities, process units, torch units, interface, and tanks, accounts for 76% of the refinery, has a daily processing capacity of 120,000 barrels of condensates, and the capability to produce gasoline, gas oil, kerosene, and Euro-4 liquefied petroleum gas (LPG). The main parts of the refinery utilities, including water, electricity, steam, compressed air for instruments, nitrogen, and fuel reached the operational phase several months ago.

The Persian Gulf Star Gas Condensate Refinery (PGSGCR), owned by The Persian Gulf Star Refinery (PGSR), is the first under-construction refinery in the country that will be using gas condensate as raw material.

In addition to the above-mentioned, the building new refinery units are underway. In the case of three projects, namely,

“ IN IRAN, THE SHARED FIELDS OF OIL AND GAS ARE THE MOST CRUCIAL AREAS WHICH NEED INVESTMENTS ”



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IN VIEW OF THESE AGREEMENTS AND MOUS, A NEW ERA SEEMS TO BE STARTING FOR THE IRANIAN OIL INDUSTRIES IN THE POST-SANCTION TIMES

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Anahita 150,000-barrel Refinery in Kermanshah, Pars 120,000-barrel Refinery in Shiraz, and Siraf 480,000-barrel Refinery Complex, the negotiation and administration stages are proceeding more rapidly. Therefore, taking the finalized projects into account, the petroleum refining capacity of the country will soon reach the level of three million barrels per day, which should be considered as the actualization of one of the most significant strategies of the country for cessation of crude oil sales. Hence, Iran will be transformed into the largest crude oil refiner in the Middle East, and the sixth largest in the world. Therefore, investment in this zone may be an appropriate opportunity for investors.

Foreign Investor's Interest in Iran's Petrochemical Industries

However, the development of oilfields and refineries is not the sole topic of Iran's agreements with foreign companies. The petrochemical industries are also spending some hard-working days.

To begin with, the Japanese arrived in Iran to cooperate in converting the Iranian gas to polypropylene. The senior representative of the petroleum, gas, and energy division of Sojitz Company, explaining his company's plan to cooperate with Iran's petrochemical projects, stated: "We are hoping to construct a manufacturing complex in Assaluyeh, in cooperation with the National Petrochemicals Industries.

This Japanese company, which has invested in the production of petrochemicals and energy in over 50 countries around the world, having noted the vast natural resources and technical capability and know-how in Iran, views this country as its next option for investment; believing that such a venture would lead to the realization of its objectives. He also pointed out that many foreign firms have expressed their desire in investment in Iran's petrochemical industries, and that he hoped for a pronounced cooperation between Iran and Japan petrochemical industries, after this agreement has been reached.

Also, after signing a mutual agreement, the Royal Dutch Shell Company has returned to Iran's petroleum industries. This Dutch-British company has agreed to study all plans for investment and implementation of its projects in Iran within a period of 8 to 9 months. Shell is planning to make different projects operational in Iran, and also create jobs, increase the production capacity of various petrochemicals and downstream products, through mutual collaborations.

On the other hand, concurrent with Hermes Insurance Company's positive signals to cover German investments in Iran, Linde has started negotiations for investment in the largest petrochemical company in Iran. The new rounds of post-sanction negotiations between Iran and Linde, centered on investments in Iran's petrochemical industries, have just begun. The German firm has signed a contract with Kian Petrochemicals, regarding the transfer of technology, and performance of basic engineering for Kian.

A new round of talks between Bandare Imam Petrochemicals and this German company has started in Mahshahr Free Economic Zone. These talks center on new investments, transfer of technical knowledge and new technology, and training and implementation of research plans.

The recent dialogues with the German company have been held shortly after the Hermes Insurance Company announced its willingness to cover all foreign (and particularly, German) investments in Iran's Petrochemical Industries. In addition, final

discussions are being carried out between the National Petrochemical Industries Company of Iran and German banks, aiming to reopen a credit line of approximately 3 billion Euros, in order to finance the new, post-sanction projects in Iran's petrochemical industries. During the 11-month period following the Nuclear Agreement, many German companies, including Linde, BASF, ThyssenKrupp, Uhde, and Lurgi have carried out discussions with Iranian petrochemical companies over transfer of technology, sales of equipment and rotating machinery, investment, and partnership.

In view of these agreements and MOUs, a new era seems to be starting for the Iranian oil industries in the post-sanction times. Since the lifting of sanctions have lead to substantial increase in sales of crude oil and other petroleum products, we will be witnessing the presence of foreign firms and investments in this field. Amir Hossein Zamaninia, Deputy Oil Minister for International Affairs and Trade, emphasizes that considering the negotiations that have taken place over the oil industry after the Nuclear Deal, the impediments for the presence of foreign investors in Iran will gradually be removed. Therefore, with due attention to these events, it is expected that these

agreements will act as a prelude to a more frequent and effective presence of foreign firms. This will result in the transfer of capital and technology to the Iranian oil industry, which in turn, will revert that industry to its acceptable position, by relying on local capabilities, and foreign technology and financial resources. It should finally be said that the realization of investment capacities in Iran will be a long and costly process. It is not supposed to be an overnight success story; development requires time. For these investments to be successful, attractive contracts and macro investment strategies will be needed.

The point that makes the Iranian oil market attractive for investments is that the decrease in global oil prices has become a major concern for the American producers, due to their high production costs. On the contrary, this decrease has created no problems for the Iranians, who can extract oil at minimal costs. Iran needs to invest \$20-35 for production of each barrel of oil. Provided the global oil prices remain stable at approximately \$45/barrel, such investment will still be profitable for Iran. This issue, along with Iran's location and the competent workforce in its oil industries, may persuade investments in the Iranian market.





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Thanking you,

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