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Energy Outlook

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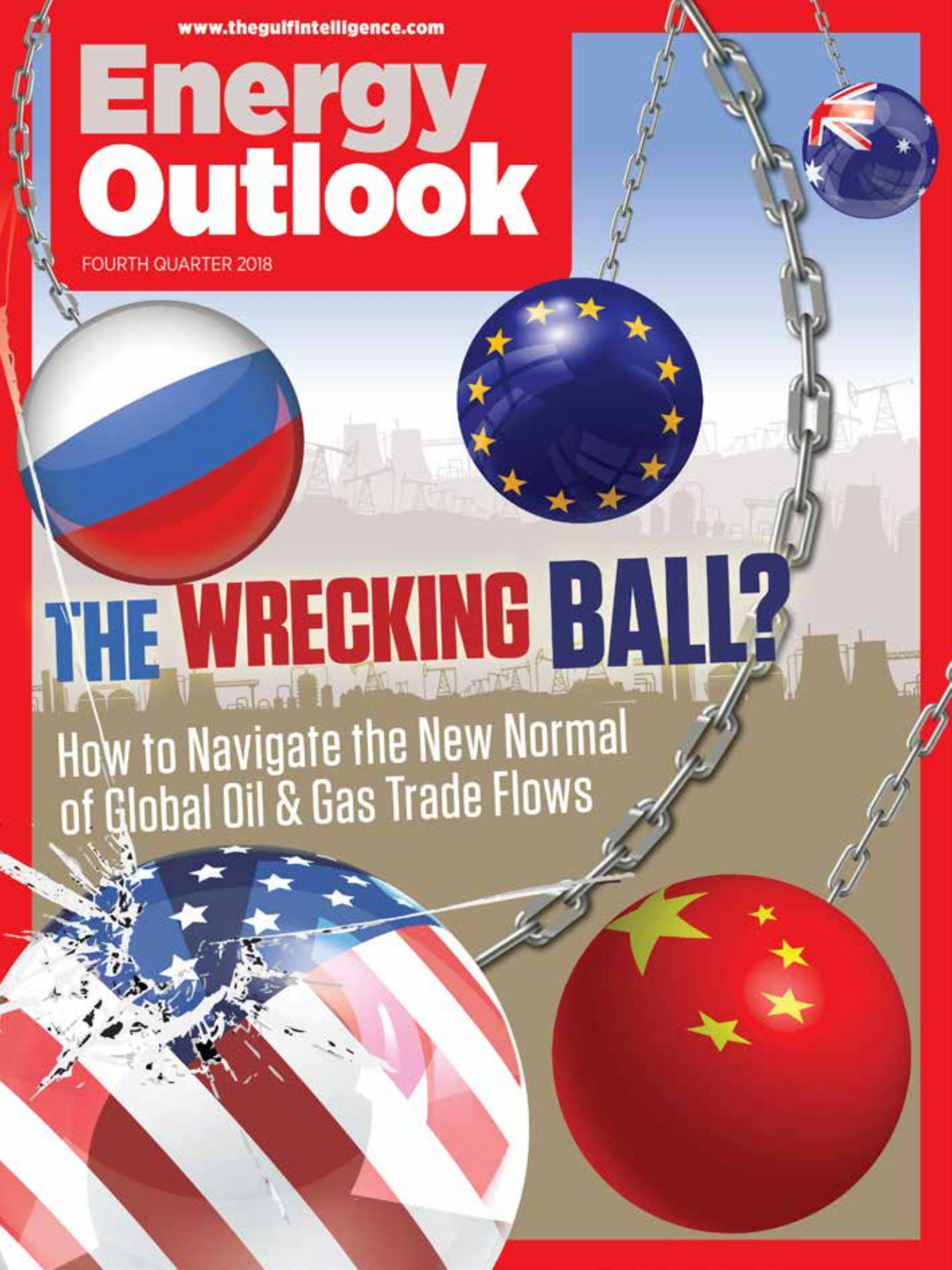

THE WRECKING BALL?

How to Navigate the New Normal of Global Oil & Gas Trade Flows

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REPORTING FROM THE US!

The Year Ends in a Perfect Storm!

BY SEAN EVERS
Managing Partner, Gulf Intelligence

WE ARE CERTAINLY DEEP IN HURRICANE season when the unpredictable wilds of the oceans meet the stillness of the land and chaos ensues delivering unknown unknowns. The month of November is loaded with numerous calendar items, known knowns if you will, that could deliver metaphorical cyclones to send the oil markets on a turbulent ride.

First up on the list is the US unilateral sanctions on Iran that could see as much as 2 million barrels a day removed from the international oil markets, and no cavalry is riding up over the hill with a truckload of replacement fuel. Hence many seasoned market watchers are starting to ring the sacred 100/bl bell.

This global economic shock was swiftly followed by US midterm elections on the 6 November, which has so many possible permutations that the crystal ball readers are dizzy speculating how to position portfolios. Hence the immense volatility we have recently seen in the stock markets. Looking through all the noise, there is currently more than an 80% chance that the day after the elections, Donald Trump's two years of total emperor powers will be over, and divided government in Washington will return to trigger a political civil war that could swallow all before it, including oil demand growth.

And the 25 countries of the OPEC non-OPEC Vienna Agreement, the central bankers of the oil markets, will gather in Abu Dhabi on the 11 November to take stock of the fall-out from the US elections, and try to carve out a roadmap for supply-demand fundamentals through 2019 that will please all and keep the massive coalition of oil producers unified. No easy task, but as you will read in this publication, the OPEC Secretary General is very determined to see it happen. Failure is not an option!

Also on the perfect-storm agenda will be the final chapter of trying to agree Britain's increasingly ugly Brexit divorce from Europe. All possible outcomes appear to be some version of terrible for everyone, and regardless of what the lawyer politicians ultimately sign-off on, hard or soft eggs falling off a cliff end up smashing on the rocks and shocking everyone into paralysis. The outlook for economic growth and with it oil demand, will be determined by whether the news will be a lot less dramatic than the rumor.

And all this without even mentioning the guesswork surrounding IMO 2020, the growing China-US trade war, raising US interest rates that threatens to send many emerging economies into an accelerated downward spiral. ■

SUPPLY-DEMAND
GETTING IT RIGHT

EXCLUSIVE INTERVIEW

WHAT NEXT FOR OPEC+?

H.E. MOHAMMAD SANUSI BARKINDO, SECRETARY GENERAL, OPEC

Moderated by John Defterios, Emerging Markets Editor and Anchor, CNN Business News

John Defterios (JD): *We are almost two years into the Declaration of Cooperation (DOC) signed in Vienna December 2016. How do you ensure there is cohesion within the OPEC and non-OPEC group of producers going forward? We've heard both the Kingdom of Saudi Arabia and the state of Russia suggesting they want a permanent structure for the DOC. How long would it take to set this framework and is it realistic?*

H.E. Mohammad Sanusi Barkindo: When we signed the DOC in Vienna, there were two objectives. To adjust supply to enable a withdrawal in stocks down to five-year averages and to work out a permanent framework for this new cooperation. Our target is that by December when we reconvene in conference in Vienna, we should be able to have a framework to present to both OPEC and non-OPEC. The DOC is here to stay; it has become a permanent feature in the global energy scene. What we are working on now is to make it more permanent under an institutionalized framework.

JD: *Should OPEC expand this remit to also eventually consolidate the Gas Producers Association out of Doha? A DOC that extends to both oil and gas?*

H.E. Mohammad Sanusi Barkindo: Discussions are going on between the Secretariats of OPEC and the gas exporting countries for the need to ultimately bring both oil and gas within this declaration. But I don't think it would be appropriate for us to jump the gun. Hopefully by December we will have this permanent framework and then we can consider moving on.

JD: *We sit here in a region that has about two thirds of global proven oil reserves. If OPEC manages to get the institutional framework done, will that avoid the danger of stranded assets? Are there concerns behind the scenes that perhaps, like in Iraq, the full potential for oil or gas will not be realized if we don't keep a framework for pricing of let's say $70 or $80 a barrel to meet demand and keep the market in balance so that the right level of investment comes in?*

"The DOC is here to stay; it has become a permanent feature in the global energy scene. What we are working on now is to make it more permanent under an institutionalized framework."

H.E. Mohammad Sanusi Barkindo: Demand for oil and gas will continue to grow. What is required now and what is missing and of great concern, not only to producers but also to consumers, is the ability to continue to attract the required investment competitively with other sectors and in a predictable fashion. Also, we need to continue to promote the appropriate technologies to make production more efficient. Equally important is the issue of the environmental credentials of oil that have continued to put us on the defensive.

JD: *Is there a consensus today that $70-$80 a barrel is a bandwidth that doesn't destroy demand but at the same time invites investment?*
H.E. Mohammad Sanusi Barkindo: The market continues to evolve. In the 18 months from January 2017 to June this year, the DOC group began to surpass our output cut target of 1.8 million barrels a day, reaching 147% compliance at one point. So, we took a decision that we should strive to come back to

"What is required now and what is missing and of great concern, not only to producers but also to consumers, is the ability to continue to attract the required investment competitively with other sectors and in a predictable fashion."

100%. We want to restore market stability, so the question is how do we sustain this going forward in the face of geopolitical and trade tensions in different parts of the world? We are committed to make sure that we deliver current and medium to long-term demand and continue to make oil the choice for the foreseeable future.

JD: *On the subject of geopolitics, is there a danger for the DOC that the US is putting a wedge between OPEC and non-OPEC producers because of the sanctions on energy with Iran? What sort of challenge does this present to you?*
H.E. Mohammad Sanusi Barkindo: One of the most interesting issues arising from the current dynamics is the realization that the world cannot do without OPEC. Indeed, some of the powers that be are calling on us to ensure that there is no supply crisis, so consumers are not unnecessarily punished.

JD: *The Iranian position is that the US, Saudi Arabia and Russia are taking the oil market hostage with undue influence on OPEC.*
H.E. Mohammad Sanusi Barkindo: OPEC will continue to work with non-OPEC and moreover, Iran is not only a founding member of OPEC, it's a very important member — the third biggest producer within the group. So, we have no choice but to continue to work with all parties, both to confront the current challenges and fashion a way forward that will hopefully insulate the DOC and its partners from the exogenous factors that sometimes become increasingly challenging and diversionary.

JD: *How do you fill the void of 2.5 million barrels of exports from Iran, which are dropping rapidly? There is not a lot of excess production around.*
H.E. Mohammad Sanusi Barkindo: When you have major producers facing supply challenges, it's of concern to them and also to consuming countries. The forces of globalization have broken barriers; the global oil market is more integrated today than it was a decade ago and so whatever happens with it has a ripple effect across the spectrum. We need the support of producers and consuming countries to continue to work together to ensure that this stability that we keep talking about is ensured and sustained. Iran and other producers have a leading role to play in that regard.

"We have opened dialogue with the American administration and we have begun to exchange technical information. Working in silos will no longer be beneficial either to US companies or to us in OPEC."

JD: *But the reality is that US sanctions on Iran mean that the number one consuming nation is going to push up prices and there isn't a lot of spare capacity to fill that void.*
H.E. Mohammad Sanusi Barkindo: We have opened dialogue with the American administration and we have begun to exchange technical information. Working in silos will no longer be beneficial either to US companies or to us in OPEC. I remain optimistic going forward that within the confines of the law, both in the US and elsewhere, we can be innovative in finding ways and means of partnering together in order to insulate ourselves and continue to play our role as suppliers to this increasingly integrated oil market.

JD: *The US Energy Secretary, Rick Perry, was suggesting to Russia and Saudi Arabia to fill this void that's being created by Iran right now. Doesn't that blow through the very specific targets you have under the OPEC and non-OPEC agreement?*
H.E. Mohammad Sanusi Barkindo: I have not heard of one participant in the DOC walking away once our mission is accomplished. These geopolitical factors are beyond us in OPEC. What we try to do is to minimize the impact on our operations and focus on how we tackle the oil markets going forward.

JD: *Collectively though, the objective is to meet demand and keep stability in the market, and*

OPEC: A Brief History

1960s

OPEC forms in Baghdad in 1960 with five oil-producing countries: Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Over the decade, membership increases to 10, joined by Qatar, Indonesia, Libya, the UAE and Algeria. In 1965 OPEC moves headquarters from Geneva to Vienna.

1970s

OPEC rises to international prominence, as member countries take control of their domestic petroleum industries and have a major say in the pricing of crude oil on world markets. Membership grows to 13 by 1975.

1980s

Oil price crashes in 1986 responding to oversupply. OPEC introduces a production ceiling among member countries and a reference basket for pricing. OPEC/non-OPEC dialogue and cooperation is seen as way of maintaining market stability. Concerns about the environment begin to emerge.

1990s

A more integrated oil market leads to a solid recovery against a backdrop of a post-Soviet world, globalization and emerging technology adoption. OPEC/non-OPEC relations advance. UN-sponsored climate change negotiations gather momentum.

2000s

Oil prices soar to record levels before collapsing in the 2008 global financial turmoil and economic recession. OPEC becomes prominent in supporting the oil sector, as part of global efforts to address the economic crisis.

2010-present

Prices remain stable between 2011 and 2014, before oversupply cause them to fall. Trade patterns shift as demand grows in Asia. A focus on the environment continues to develop through a UN-led climate change agreement. OPEC/non-OPEC cooperation increases.

Source: www.opec.org

"We remain hopeful that the leading trading powers of the world will be able to find common ground to see that growth continues in a very healthy manner that will not destroy demand."

less about specific targets within the OPEC, non-OPEC sphere, is it not?

H.E. Mohammad Sanusi Barkindo: No one single group or group of countries, including the biggest producers, can undertake this responsibility efficiently and effectively. Consultations may be taking place bilaterally between countries, but at the end of the day it is the OPEC conference and the conference of the OPEC and non-OPEC producing countries in the DOC that will take decisions regarding supply and other fundamentals. Hence, our desire to institutionalize a permanent framework by December.

JD: *With Iran's exports already dropping, how do you fulfill the mandate for OPEC and non-OPEC producers ahead of sanctions?*

H.E. Mohammad Sanusi Barkindo: We meet almost every month at the technical level to monitor the evolution of the market, including considering the exogenous factors that impact supply and demand. And almost every two months, the joint ministerial monitoring committee meets, which Iran also participates in, to ensure that we are ahead of the curve on supply. We believe that working together will enable us to minimize the impact of factors beyond our control, even if we do not eliminate them.

JD: *With oil prices above $80 a barrel and a new round of trade tariffs on China, do you worry that prices will rise further due to the Iranian sanctions and so that then destroys demand? There is a real danger.*

H.E. Mohammad Sanusi Barkindo: Our mandate is to restore and sustain stability. Trade is a major quantum in the overall global economic equation. Whatever effects the free flow of trade will ultimately impact on growth and hence the revisions that we are beginning to see, not only on demand, but also on GDP. But we remain hopeful that the leading trading powers of the world will be able to find common ground to see that growth continues in a very healthy manner that will not destroy demand. ■

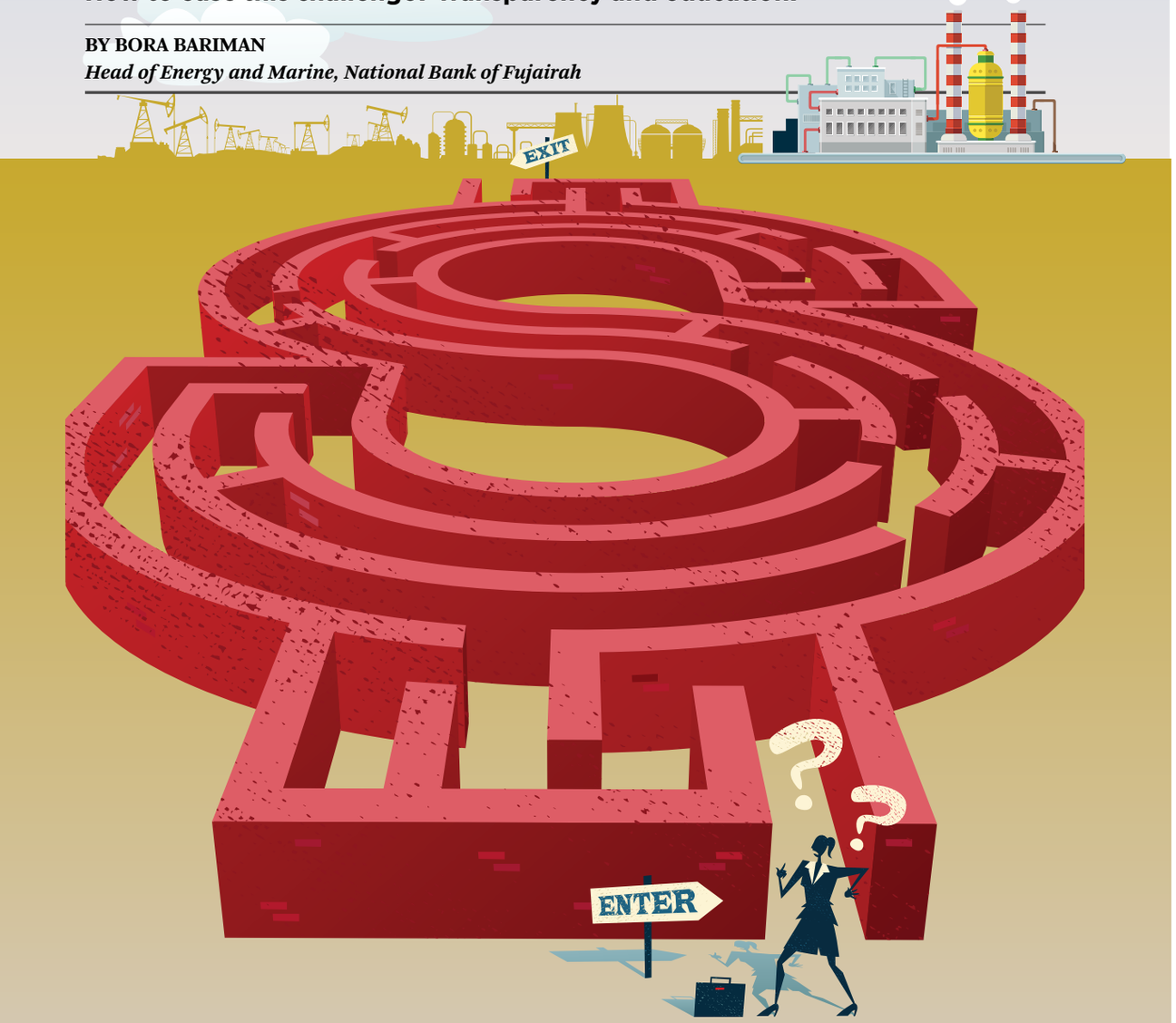
**Edited transcript*

FINANCING OIL STORAGE

Enhance Transparency, Bolster Education

Asking banks to lend more into a market during a cyclical downturn is rarely an easy sell. But those involved in the oil storage industry are facing significant uncertainties in communicating a compelling business proposition to investors. How to ease this challenge? Transparency and education.

BY BORA BARIMAN
Head of Energy and Marine, National Bank of Fujairah



CONSIDERING THIS is a market that has always operated in the context of the risks posed by supply-demand imbalances and forward curve volatility, many stakeholders cite today's level of unpredictability as significant. It does not just impact niche segments of the oil storage industry, but instead fully involves the profitability outlook of the entire energy chain. There are far more questions than answers – a mix that raises bankers' eyebrows.

How accurate are forecast storage demand estimates? Is the right type of storage being built in the right locations? Are efforts – and attitudes – to comply to the International Maritime Organization's (IMO) 2020 ruling sufficient with the start date for the lower sulfur bunker fuel limit of 0.5% just over a year away? Will the price backwardation persist or will the market head into contango and therefore, again, shift storage demand? The list of influences is a long one, including oil prices, which fell from $109.45/barrel in 2012 to $52.51/barrel in 2017 – more than a 50% decline overall. The impact of the US' increasingly revived shale production and the evolution of the deal to trim production output between OPEC and non-OPEC (known to some as OPEC+) will also guide storage demand over the next year. Regulatory overhauls must also be factored in, such as the IMO 2020.

GUIDING HANDS

An ability to flex to the market's ever-changing conditions is key to sustaining oil storage providers' positions at the top of the league table in the Middle East and Africa. Combined, the region hosts upwards of 83.402 million cubic meters of oil storage facilities, with a compound annual growth rate of 7.91% anticipated between 2014 and 2024, according to Transparency Market Research. Equally, the finance community needs goal posts to be a little more visible.

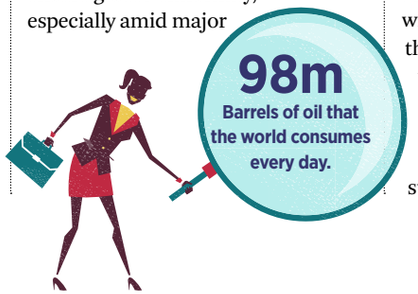
> **"Comparing notes will not create a crystal ball, but it will enable stakeholders to collectively turn down the volume of today's alarm bells."**

Greater collaboration between banks and industry stakeholders – refiners, ports, storage providers, shippers – will shed light on the oft-opaque supply-demand projections for IMO 2020, for example. Comparing notes will not create a crystal ball, but it will enable stakeholders to collectively turn down the volume of today's alarm bells. Reassuring financial institutions that are keen to engage makes sense; a reliable flow of funds is the linchpin to transforming theory into reality.

EXTRAORDINARILY, every cargo of LNG can be tracked, yet ambiguity exists due to limited information sharing from some links in the oil storage value chain. In order to lend into the sector, bankers need to establish confidence that infrastructure investments are justifiable and sufficient cash flows can be generated to repay the debts. Transparency is essential to modelling such cash flow forecasts with confidence. The same need for reliable information applies to ensuring official certification or confirmation that different fuel types are tested for compatibility to ensure global uniformity, especially amid major industry shifts like IMO 2020.

Devoting time to communicate a compelling business case, with facts and logic that can be checked, is a worthwhile effort for industry stakeholders. It raises the profile of the industry and educates pools of capital that this is an industry that can readily cope with the operational challenges of oil logistics, combined with the financial acumen to identify and mitigate market risks. Capital flows to industries that are understood, and openness, will create a firmer foundation; the 'bricks' of new financings will slot into place more easily. Industry's efforts to nurture both established and emerging relationships with banks is a wise move; as market norms change, so will the way they are financed. The successful sponsors of oil storage will have an entrepreneurial mindset, so the 'traditional and reliable' cornerstones of the finance community will need guidance.

Clarity will not be achieved overnight. But if we work together, we will benefit from the opportunity presented by the reality that the world consumes 98 million barrels of oil a day. This demand has never been greater and is likely to only increase for decades. A very large share of world demand is met by the supply from the Arabian Gulf, and the region's oil storage industry will play a vital role in connecting this supply to demand. For terminal operators, satisfying their customers is vital and explaining this proposition to investors will unlock the required financial support. ■

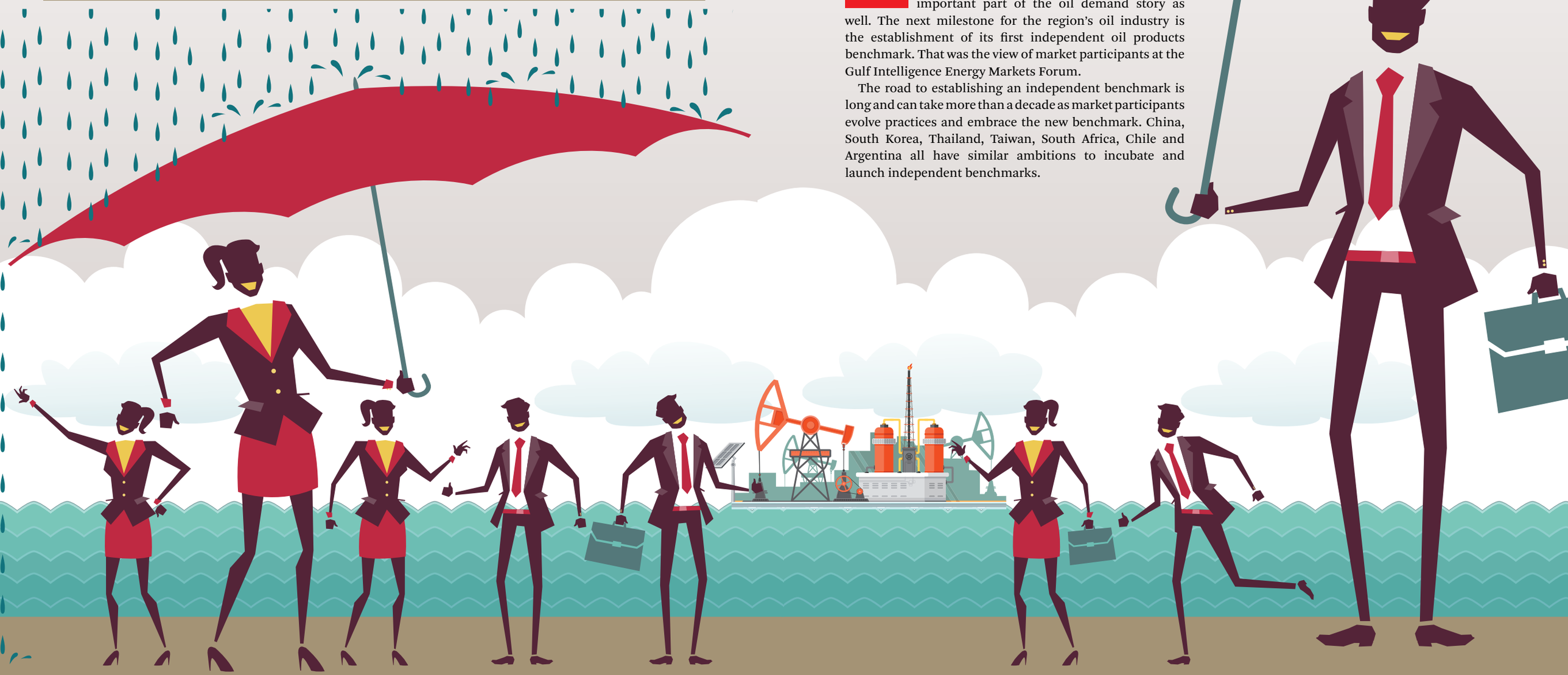


OIL BENCHMARKS IN THE MIDDLE EAST

Global Giants – Local Champions

A NEW MARRIAGE?

BY DAVE ERNSBERGER
Global Head of Energy Pricing, S&P Global Platts



THE MIDDLE EAST HAS BEEN AT THE EPICENTER of global oil production for more than half a century, and in the past decade become an important part of the oil demand story as well. The next milestone for the region's oil industry is the establishment of its first independent oil products benchmark. That was the view of market participants at the Gulf Intelligence Energy Markets Forum.

The road to establishing an independent benchmark is long and can take more than a decade as market participants evolve practices and embrace the new benchmark. China, South Korea, Thailand, Taiwan, South Africa, Chile and Argentina all have similar ambitions to incubate and launch independent benchmarks.

But the number of success stories can be counted on one hand – and the UAE's emirate of Fujairah is one. Fujairah is home to one of the world's largest bunkering hubs, and as part of the wider UAE, has the infrastructure and technical capabilities to establish a reference point for oil products prices in the Middle East.

The full range of oil market participants have played different, but equally crucial roles in Fujairah's journey so far. Brokers have rallied conversations on the need to boost liquidity and the terminal operator community is helping create the necessary infrastructure. The regulator, working in conjunction with terminal operators and the port operator, FOIZ, has taken the crucial step of increasing transparency by publishing inventory storage data, now delivered by S&P Global Platts through the global oil industry's first successful blockchain deployment. These are essential components to nurturing a robust and sustainable trading ecosystem. Fujairah's role as a major bunkering hub has evolved into a key crude and blending hub, rife with arbitrage opportunities for the oil trading community. But the market cannot take its foot off the accelerator pedal. What must happen next to support momentum?

OPENING DOORS

Greater interplay between the global giants and local champions in Fujairah, the UAE and wider Middle East is a must. This model has paid dividends in Singapore, an oil trading behemoth, where the engagement of local participants means the workings of indigenous dynamics really shine through; it reveals an 'organic' voice. Fujairah needs local companies backed by local money and talent to mix more openly with those with worldwide positions. Not only will this increase transparency, it will also bolster liquidity of the traded markets. For example, Middle Eastern national oil companies (NOCs) exporting fuel do not tend to hedge their physical cargoes, which limits their activity in the paper market.

> **"Greater interplay between the global giants and local champions in Fujairah, the UAE and wider Middle East is a must."**

Improving expertise is one of the keys needed to unlock the region's trading treasure chest. Some market participants suggest global giants and local champions establish joint ventures to explore new talent in the Middle East, while bringing academia into the mix. Others suggest that a formal regional training platform is established, and some point to deepening the Fujairah-Dubai relationship to lead to more dovetailing of talent.

NOCs can be actively involved, both on the teaching and learning side. The same applies to enhancing the finance community's commodity trading acumen. Few have the deep-rooted trading experience that is required to spur trade finance, but they do have the talent and appetite. Guidance from those long-established in this space would help all market participants to be more flexible in their approach. Understanding what will be an oft-shifting crude palette in the Middle East will only become more pertinent amid rising demand and regulatory shifts, such as IMO 2020.

Clearly, Fujairah and the Middle East are fast moving beyond the exploratory stage of their benchmark journey. Taking any of the aforementioned steps – if not all – will grease the wheels of liquidity. Exploration of what many consider the last frontier of oil trading is well underway to helping the Middle East evolve amid new sources of global crude supply. ■

2
Port of Fujairah is the world's 2nd largest bunkering hub after the Port of Singapore.

70
Nautical mile distance of Port of Fujairah from the Strait of Hormuz.

$100m
Value of transactions that can take place in remote ports using paper contracts and bills of lading. Blockchain is considered to be a more efficient and secure process.

1983
The date Port of Fujairah commenced full operations. Construction began in 1978.

Pioneering Low-Carbon PARTNERS

BY ABD MALIK JAFFAR
Regional Director PETRONAS Subsidiaries Middle East, PETRONAS

54%
The amount BP Outlook expects the Middle East's energy consumption to rise by 2040.

60%
China and India, two of the world's largest energy markets, account for more than half of energy demand growth over the last 15 years within ASEAN economies, according to the IEA.

WHEN A RARE RAY OF CERTAINTY shines through the mist of guesswork in the energy markets, we must be proactive. We know that the world's energy market faces its most challenging tightrope yet: to meet rising energy demand and simultaneously hit the unprecedented low-carbon targets that are detailed in the Paris Agreement. What isn't certain is how to achieve it. So, now we must pinpoint how the historic alliance between the Middle East and Asia can help producers on both sides of the Indian Ocean achieve the holy grail: affordable low-carbon energy security. Collaboration and innovation are vital tools for producers trying to keep their balance as this 21st century energy transition gains traction.

BP Outlook expects the Middle East's energy consumption to rise by 54% by 2040. To the east, China and India are two of the world's largest energy markets and the 60% growth in energy demand over the last 15 years in the Association of Southeast Asian Nations (ASEAN), detailed by the International Energy Agency (IEA), is likely to continue. Swelling populations largely underpin this surge. The United Nations (UN) expects Asia will still be home to two of the world's biggest populations by 2024, with 1.44 billion people in both China and India. Expanding populations are also forecast across the rest of Asia; Malaysia's population will climb by 32% from 2017 to 41.7 million people by 2050, for example. And in the Middle East, the 39% growth rate in the UAE's population to 13.1 million by 2050 generally echoes across the region.

So, what are the potential release valves to these burgeoning pressure points? The rise of renewable energy, leveraging gas as the 'greenest' fossil fuel and greener enhanced oil recovery (EOR) are on the still-exploratory list.

Renewable energy is a key focus area for both regions. The IEA expects Asia to be home to two of the three countries – China, US, India – that will account for two thirds of the global renewable expansion up to 2022. Renewables are also an integral thread in the energy strategies of most Gulf countries' National Visions. The UAE, long an advocate of solar power, launched the world's largest Concentrated Solar Power (CSP) project last year. Looking ahead, how can the expertise of these renewable pioneers be leveraged so they co-author an even more impressive chapter? And how can new sweet spots in the ancient east-west alliance be leveraged via China's Belt and Road Initiative (BRI), India's Think West policy and Gulf nations' plans to widen their influence outside the Middle East?

Regulatory shifts in the global bunkering market offer another collaborative opportunity in the liquified natural gas (LNG) market. LNG is an increasingly popular option to meet the International Maritime Organization's (IMO) ruling to introduce a 0.5% sulfur cap on bunker fuels, down from today's 3.5%, by the 1 January

2020. Alignment between the two regions on leveraging LNG bunkering makes sense. Maximizing the use of natural gas and LNG is part of energy strategies of both regions, which are also home to the world's first and second largest bunkering hubs: the Port of Singapore and the UAE's Port of Fujairah, respectively.

We are eager to build on our collaboration with Abu Dhabi-based Masdar to pursue opportunities in renewable energy and clean technologies, both locally and internationally. In particular, we want to learn from their experiences in developing solar farms, keeping the overall levelized cost of electricity (LCOE) low and their extensive renewable developments outside of the Middle East.

CUTTING CO_2 emissions from EOR is another vital link in the balancing act, especially as the market expands.

Transparency Market Research expects the global value of the market to soar from $38.1 billion in 2012 to $516.7 billion by 2023. But EOR stakeholders cannot play by the old rules; low carbon operations must be implemented to prevent producers slipping from the tightrope. What lessons can be gleaned across the Middle East and Asia from Oman's groundbreaking Miraah project? The collaboration between state-owned Petroleum Development Oman (PDO) and GlassPoint has created one of the world's largest solar plants, which generates 6,000 tons of steam a day in support of the sultanate's EOR efforts.

1.44bn
The UN expects Asia will still be home to two of the world's biggest populations by 2024, with 1.44bn people in both China and India.

2050
The year Malaysia's population will climb by 32% to 41.7m, and the UAE by 39% to 13.1m.

2022
Two thirds of the global expansion in renewables up to 2022 will come from China, the US and India.

> "Collaboration and innovation are vital tools for producers trying to keep their balance as this 21st century energy transition gains traction."

THE LIST of potential synergies goes on. How can a concerted strategy hasten the electrification of energy markets and affordably diversify refineries' crude palette to increase the supply of biofuels? How to help the aviation industry adjust to the UN's International Civil Aviation Organization's (ICAO) new offsetting scheme, the Carbon Offset and Reduction Scheme for International Aviation (CORSIA), from 2021? And how to improve the utilization of wastewater in energy production amid warnings by the World Economic Forum (WEF) that scarcity is a top global risk?

Answering even elements of these multifaceted questions will quicken the Middle East and Asia's journey towards sustainability and showcase their influence as low-carbon pioneers on the global energy stage. Together, they can clear the mist. ■

Energy Outlook

Energy Outlook **is one of the must-read publications in the Middle East's energy market – with direct access to the most influential leaders in government, industry, business and academia! In-depth coverage and a breadth of world-class expertise ensures *Energy Outlook* moves the conversation forward in what is a rapidly evolving market. Explore *Energy Outlook*'s journey over the last six years...**

100+

Energy Ministers across 14 countries in the Middle East and North Africa have featured in *Energy Outlook* more than 100 times – many in exclusive interviews!

75

Of the 75-plus companies that have been featured in the publication, 40 are regional and 34 are international. The Middle East's energy market is multifaceted and driven by local and international alliances. *Energy Outlook* covers all camps.

30,000

The 30,000 recipients of *Energy Outlook* cover a broad spectrum. This includes governments, national and international energy companies, financial institutions, research agencies and academia.

42+

CEOs of more than 42 leading companies in energy and technology in the Middle East and beyond have shared their views in an Opinion Editorial or Interview in *Energy Outlook*.

40+

More than 40 managers in the Middle East who represent international companies' presence in the region have featured in or contributed to *Energy Outlook*.

12%

Energy Outlook has been read in 24 countries – this equates to 12% of the world's nations!

5

Energy Outlook focuses on five types of editorial: Opinion Editorials, Analytical Features, Special Reports, Company Profiles and Advertorials.

30

The number of issues of *Energy Outlook* since the publication was launched by Gulf Intelligence in 2012.

5

Energy Outlook's distribution spans five continents; Asia, Europe, North America, Africa and Australia. Some of the dedicated readership are in the UAE, Oman, the UK, US, Singapore, India, Australia, Nigeria, Canada and others!

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GI Publishing

Thegulfintelligence.com

IMO 2020
TICK TOCK

IMO 2020

Unite to End the Blame Game

BY WILLIAM LIST
Operations Director, Fujairah Oil Tanker Terminal

SCALING THE HURDLES REQUIRED to comply with the International Maritime Organization's (IMO) 2020 ruling is far from smooth sailing. Clarity just over how the market will and should respond to the 0.5% sulfur cap, down from 3.5%, remains elusive. Energy stakeholders' calls for transparency across the board – refineries, ports, shipowners, traders, the IMO and others – largely ends with more finger pointing. The blame game must cease as D-day is the 1 January 2020, just a year away.

Can the UAE's Port of Fujairah, the world's second largest bunkering hub, leverage IMO 2020 as another step in its ladder to greater influence on the global energy stage? Absolutely. The UAE is a signatory to IMO, we have representatives at the IMO table and we are vocal supporters of compliance. Blessed by geographic fortune – at the crossroads of integral east-west trade routes – and home to the storage of more than 18 million barrels of oil products, the port can carve out a positive template for others to follow.

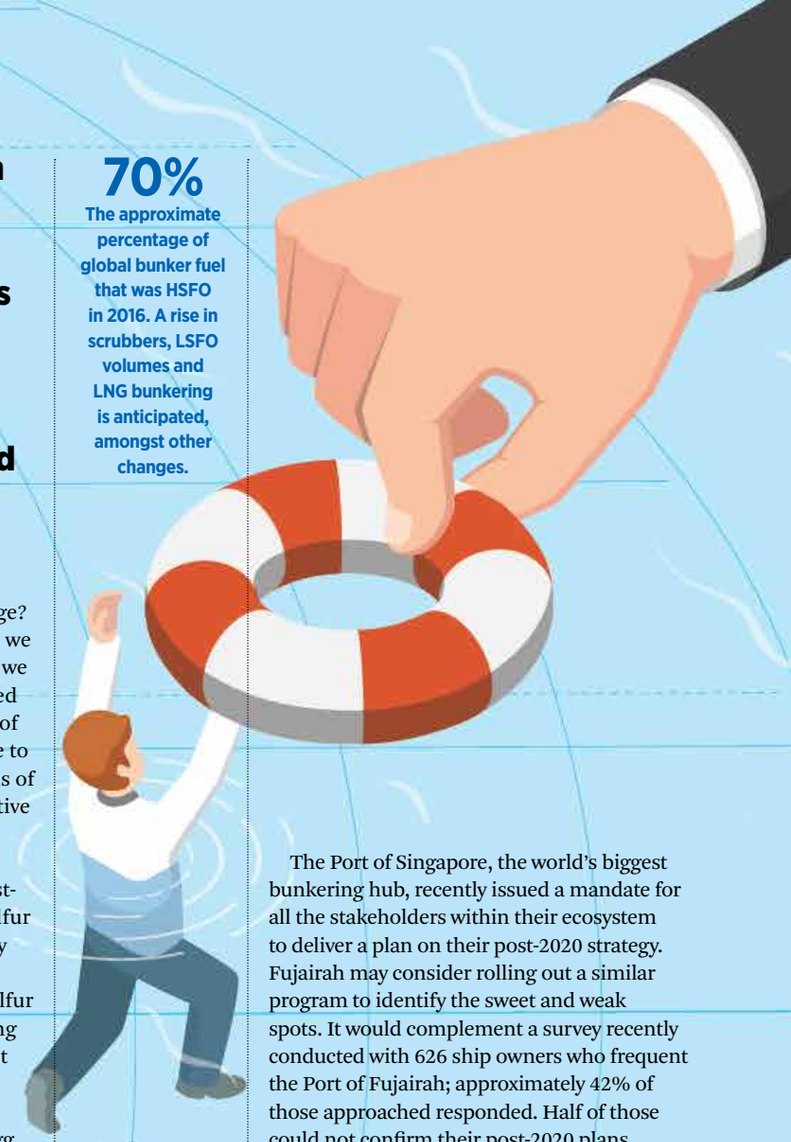
32%
The percentage of respondents in a GIQ Industry Survey who said ports should take the lead in managing IMO 2020 compliance.

> "IMO 2020 has fallen into the age-old trap of the chicken and egg argument; which goes first? It is not just the energy market in need of firm signposts. Insurers and bankers urgently need more accuracy too."

THE MORE sulfur-constrained world of post-2020 will have huge implications; high sulfur fuel oil (HSFO) was used for approximately 70% of the world's bunker fuel in 2016. Unsurprisingly, a rise in scrubbers, low sulfur fuel oil (LSFO) volumes and LNG bunkering is anticipated, amongst other changes. But that is where the sureness – albeit with rough edges – ends. IMO 2020 has fallen into the age-old trap of the chicken and egg argument; which goes first? It is not just the energy market in need of firm signposts; insurers and bankers urgently need more accuracy too.

Nearly a third of respondents (32%) to a GIQ Industry Survey said ports should take the lead in managing IMO 2020 compliance. Is this fair? Industry has many answers to what seems a simple question; an illustration of the market's confusion. Our answer is that joint responsibility is key; ports cannot become global policemen. The culture of 'let's wait and see what happens' must end. The IMO can also enhance its role in accelerating progress by elaborating on how it envisages the value chain readjusting for 2020.

70%
The approximate percentage of global bunker fuel that was HSFO in 2016. A rise in scrubbers, LSFO volumes and LNG bunkering is anticipated, amongst other changes.



18m
The Port of Fujairah has storage for 18 million barrels of oil products. Through its position as the world's 2nd largest bunkering hub, and at the crossroads of east-west trade routes, the port can carve out a positive template for others to follow.

The Port of Singapore, the world's biggest bunkering hub, recently issued a mandate for all the stakeholders within their ecosystem to deliver a plan on their post-2020 strategy. Fujairah may consider rolling out a similar program to identify the sweet and weak spots. It would complement a survey recently conducted with 626 ship owners who frequent the Port of Fujairah; approximately 42% of those approached responded. Half of those could not confirm their post-2020 plans.

HOW seamlessly the 2020 transition goes will depend on preparation today. The sooner we fill in today's black holes of information, the more time and money it will save us all later on. A realistic and positive outcome would be a six to nine-month adjustment period with some teething issues in 2020 followed by relatively seamless operations in the fourth quarter and beyond. Clearly, this result is what the vast majority want.

Instead of an economic curse, let us work together to leverage IMO 2020 as a new chapter of openness and communication. We can achieve so much more if we put our fingers down and open our ears. ■

IMPACT OF IMO 2020 ON THE PORT OF FUJAIRAH

HOSTED BY JOHN STEWART
Principal Analyst, Wood Mackenzie
Briefing at Gulf Intelligence's Energy Markets Forum

1,000
The number of scrubbers on vessels anticipated worldwide by 2020 – that is out of a global vessel market of 55,000 so not a large penetration rate. By 2025, this number is set to increase to 5,000.

70%
Predicted growth of LNG through to 2020, although on a volume basis this is only 40,000 barrels of the overall mix.

John Stewart: The Wood Mackenzie view is that come 2020, we don't see the world being fully compliant with IMO 2020 regulations. We will see 80% compliance on the 0.5% sulfur emissions. Places like South America, parts of Southeast Asia and the Middle East to a certain extent, will have limitations to comply due to infrastructure on the supply side.

There are three tangible options to comply with the new specification. Either install scrubbing technology on vessels to take the exhaust gas emissions down to 0.5%; switch to a lower sulfur fuel or distillate marine gas oil; or switch to liquified natural gas (LNG), which still has large growth potential. A fourth and final option of course is to do nothing, and in parts of the world, that might actually happen despite the reputational damage that might follow.

We think there will be around 1,000 scrubbers on vessels worldwide by 2020 – that is out of a global vessel market of 55,000, so not a large penetration rate. Those 1,000 scrubbers will represent about 5% of global marine fuel demand. Come 2025, we are likely to see this number at 5,000 vessels and that's just based on the type of vessels that are going to be installing scrubbers with economic paybacks – those who have long distances to cover and will be burning lots of fuel.

There are resistance factors to installing scrubbers, such as whether there will be time to get all the scrubbers installed by January 2020. What happens if you have a receipt that says you bought a scrubber but it's not installed yet? Do you get leniency on the fuel that you burned because you have a scrubber coming six months down the road? There is a lot of uncertainty and how that enforcement transpires.

Participant: *You mentioned this region has not got the necessary infrastructure, so if we have an overhang of high sulfur supply there's going to be a market clearing price.*

John Stewart: The refining system has certain limitations on its flexibility and how much it can shift one way or another. It can't go overnight from 30% gasoline to 30% diesel. As high sulfur fuel oil (HSFO) pricing starts to fall, the scrubber penetration rate picks up through to 2025. The incentive has to be there to make that fuel from the supply

side so the crack spreads have to be there to support the refiner shifting. There are many factors on the economics of refineries in the region. HSFO can either go into the power sector if it gets cheap enough or you can look for outlets in other refining systems to take it into their upgrading units. Globally, we think there is enough upgrading capacity to take those barrels. The best thing refiners can do is look at their internal streams and how to blend the fuels to make other specifications. If that option has been exhausted and a refiner has produced as much compliant fuel as possible from lower value streams, then look for an outlet to export those barrels somewhere else that has the upgrading capacity, such as in North America and China.

On LNG, the potential growth rate is very high. We see 70% growth through to 2020 but on a volume basis that will only be 40,000 barrels of the overall mix. That is very low so we don't see it having a material impact in our base case. Certainly, with the right investment there is definitely scope for more growth in LNG.

We see full compliance coming in 2025. Most of the switch will be made from an initial shift in the refining system to produce distillate to the levels that it can. And then beyond that, it will really be the scrubber penetration rate and how much HSFO it picks up through to 2025.

Participant: *When you invest in a scrubber, it's based on certain assumptions of price and how much low sulfur fuel oil (LSFO) will be available. So how is a shipping company going to look at this with regards to the size of vessels? If the size of the ship is bigger, the economics are easily justifiable.*

"One thing that the IMO has mentioned is that vessels found to be non-compliant will be declared unseaworthy and the moment this happens, the insurance coverage for the vessel becomes null and void."

John Stewart: Yes – a scrubber makes more sense for larger vessels burning greater amounts of fuel. Some of the smaller product size tankers for comparison actually did quite well on an LNG basis versus installing scrubbers. A lot of it depends on the route you are taking, the size of the ship and then what your payback time will be, fuel availability, and who is financing the project. For example, as a refiner of HSFO, you could talk to a shipping company and say we'll give you the fuel oil and help fund some of the scrubber CapEx if you come to us every time you go into Fujairah. Ideally, port authorities, storage companies and refiners need to talk more as a group, instead of working independently, about what the options may be and how to solve these questions collaboratively. There's opportunity there, which I don't think has been fully realized and we're quickly running out of time.

Participant: *Is there an issue with the availability of scrubbers? Ships are trading everywhere and shipowners want to make sure they have supply and shipyards also need time for installation. I think that's an issue for LNG as well. Those dynamics need to be factored in.*

John Stewart: It's a great question. I think the numbers that I referred to – a thousand scrubbers by 2020 and five thousand in 2025 – are probably optimistic. Those numbers were compiled at the end of May and I can see them being pulled down in our next update.

Participant: *If the scrubbers aren't available, how does that impact the whole market for HSFO?*

John Stewart: This region still relies on Singapore netback for the pricing of fuels, so they are going to need to know how the HSFO market is doing regionally and also what's happening on the distiller side. There's not really the liquidity on the fuel oil side in the region compared to perhaps some of the other ports. There is liquidity here on the distillate portion of the barrel though, and I think we've got two million barrels per day of additional refining capacity coming over the next five years. So, there will be additional availability of lower sulfur distillate volumes. This is an opportunity for Fujairah to get a little bit more of a foothold in the global market and establish itself by having a benchmark.

Participant: *From a jurisdiction or port authorities' point of view, what will happen with those who are not going to be compliant?*

John Stewart: There has been no real transparency on that. Who enforces compliance? Does it fall with individual states or each port authority? Does it go back to the original supplier? Can you chase a refiner because they sold HSFO to a ship or does that get lost in the whole trading cycle? How much is the fine? The framework to implement fines is very difficult to understand; I don't see how that will play out.

Participant: *We all know there is going to be an increase in price for the compliant fuel that's going to be in use. So irrespective of who bears the cost, the final price of the commodity in itself is going to have a huge impact, especially for developing countries who may not be ready to absorb this additional cost.*

John Stewart: If it's an international shipping organization, then maybe they have the ability to absorb that cost. But some countries don't so then how does the discussion transpire on that basis?

Participant: *One thing that IMO has mentioned is that vessels found to be non-compliant will be declared unseaworthy and the moment this happens, the insurance coverage for the vessel becomes null and void. How is that going to be a factor in terms of ensuring compliance?*

"Come 2020, we don't see the world being fully compliant with IMO 2020 regulations."

John Stewart: You will lose money on a daily basis if your ship can't move from A to B due to insurance coverage, but again it goes back to the fact that the framework is just not there yet on who is responsible.

Participant: *What will the impact be on supply in the Fujairah market?*

John Stewart: We have looked into the Fujairah market on the supply side and we don't see there being sufficient very low sulfur fuel oil (VLSFO) availability. The question then becomes do you start to pull out barrels from other middle distillate grades to comply with the 0.5% legislation? Areas where 0.1% sulfur limits are already in place will do OK as will other parts of the world that have more sophisticated refining infrastructure.

Participant: *Fujairah is a big bunker supplier so when you say the region will struggle to have the compliant supply, what does that mean for bunker supply companies? Does it mean that their customers might be bunkering somewhere else or do they have to do something else, like import the required supply?*

John Stewart: Yes – they may need to do that in order not to lose customers. Also, if you are a refining company that has shipping, you probably want to supply your own ships when you can with compliant fuel. Certainly, the risk of loss of market share is there with those more compliant regions like Amsterdam, Northwest Europe, Singapore and even places like China, which has quite a sophisticated refining system.

Participant: *The supply after 2020 will all depend on what kind of spread there is between high sulfur and low sulfur. If it's high, then the ship owners and the suppliers will have to find different ways to take advantage of that spread. But it's very hard to define right now. Will the spread be $50 per ton or $200? Do you think blending would be an option for Fujairah to overcome the shortfall in refining capacity, given the massive infrastructure and the flexibility available to blend?*

John Stewart: I've yet to see a consistent LSFO spec that everyone can or has to comply to. Picking up a variable sulfur fuel oil in Singapore might not be the same as the one you pick up in China or Fujairah, and compatibility might be an issue if you start to blend those. As the second largest bunkering hub in the world, there are existing players and infrastructure in Fujairah and that is a platform for growth. The blending site is a good opportunity. But again, it goes back to the point of transparent communication between suppliers, consumers and storage companies. I don't think we are where we need to be at on that basis. ■

**Edited transcript*

Who's in the Driving Seat?

BY SEAN EVERS
Managing Partner, Gulf Intelligence

THE REAL ELEPHANT IN THE ROOM is how will the world handle the International Maritime Organization's (IMO) 2020 ruling on sulfur regulation. This is going to drive the dynamics of the oil markets for the next 18 months, so being able to navigate that is going to be paramount to survival and profitability. One question amongst many – how will marine gasoil and heavy fuel oil fare? – will by itself keep many analysts awake at night.

Every party, whether it be shippers, refiners, operators and others, all think the other is taking care of the problem, but the reality is there has been no agreement around the table yet. There is a lack of clarity on how to respond. The market needs certainty. We missed the wave of investing in putting scrubbers on ships.

NOW it comes down to refiners, port authorities and blenders to give clarity on enforcement and the requirements in different areas. Some players are already providing alternatives to destroying high sulfur fuel oil (HSFO) and to changing refinery slates as soon as everything is defined clearly. The industry can react when the conditions are there, but the message must be coherent on how to, for example, extract waivers, equal standards between ports and so on.

> **"Every party, whether it be shippers, refiners, operators and others, all think the other is taking care of the problem. But the reality is there has been no agreement around the table yet."**

0.5%
The new permissible sulfur limit in bunker fuels as per an IMO regulation that kicks in on 1 January 2020, down from the current 3.5%.

13
The number of months shippers, refiners, operators and port authorities have to comply, as of November 2018.

2025
There was a proposal to delay the date of the 0.5% regulation by a further five years, but this is completely off the table now.

$155.1 bn
Expected value of global bunker fuel market by 2024 – a CAGR of slightly above 5.5% between 2018 and 2024.

ANOTHER critical question to answer: what will be done with the surplus HSFO as more developing economies go into gas?

Responsiveness and flexibility will be key to any operator. The ability to manipulate a barrel quickly – to blend it, upgrade it, convert it – and enable incremental refining margins to be achieved is paramount during this backwardation period.

But perhaps the more challenging question is whether terminal operators should build clean or dirty storage tanks. The answer depends on your point of view regarding where fuel oil is going to go in 2020, when the sulfur limit falls to 0.5%. Are fuel oil inventories going to balloon due to insufficient coking capacity and will fuel oil have a role in the bunker pool?

If the IMO regulations are effective in the bunker market, then we will need an alternative to HSFO – and that will be gasoil. In this scenario, marine gasoil will have to rise to help meet latent 2020 demand and fuel oil supply will also rise due to lack of natural demand from the market. There will be an inflection point and the storage requirement will have to change as a result. This will play out over the next 12 months.

ONE thing is clear though: tolerance for not abiding by the IMO's ruling will be very low by the likes of the United Nations International Convention for the Prevention of Pollution from Ships (MARPOL) and other authorities. The adoption schedule for IMO has become acute with talk of drones and satellite enforcement. Fines for non-compliance may not be very high, but reputational damage will be. ■

SHIFTING SANDS
STAYING SHARP

THE IFC ARAB COMPETITIVENESS REPORT

The Arab World Competitiveness Report 2018 **is a special project within the framework of the World Economic Forum's Future of Economic Progress System Initiative. It is the result of collaboration between the World Economic Forum and the International Finance Corporation/World Bank.**

COMPETITIVENESS IN THE ARAB WORLD

Even though a handful of countries have made intense efforts to reform and increase investments to improve their level of competitiveness, the region still lags in many areas. Overall, the aggregate competitiveness of the Arab world economies has not significantly changed over the past decade as measured by the *World Economic Forum's Global Competitiveness Index* (*GCI*). It is, overall, less competitive than East Asia and Europe, but, according to the index, appears more competitive than Latin America and the Caribbean, South Asia, and sub-Saharan Africa.

Of the 12 pillars of the GCI, infrastructure and technological readiness are the areas where the Arab world has made the most significant progress over the past decade relative to Organization for Economic Co-operation and Development (OECD) countries, a result of heavy investments in transport and information and communication technologies (ICT) connectivity. However, these improvements have not led to gains – relative to OECD countries – in innovation. The gap between the OECD and the Arab world has widened on two pillars, the macroeconomic environment and labor market efficiency.

Resource-rich countries have increased their competitiveness the most over the past 10 years. Investments in infrastructure and connectivity were particularly notable in the Gulf Cooperation Council (GCC) countries where, in 2017, the total value of infrastructure projects in the planning or delivery stage amounted to $2.7 trillion. The macroeconomic environment of these countries was hit heavily by the decrease in oil prices, but most have implemented effective countercyclical policies to shield their economies from adverse consequences. Similarly, the impact of investment booms and busts has been largely limited to the financial sector. In addition, perceptions of public institutions among businesses improved, while the perceived ethics of private boards and managers has deteriorated, according to the *World Economic Forum's Executive Opinion Survey*. The functioning of the labor markets and extent of training remain key areas of reform for resource-rich countries, since the lack of adequate talent and private-sector competition and the low labor force participation weigh down their capacity to innovate – by far their biggest weakness.

A new social contract will be based on different roles and interactions for governments, citizens, and the private sector and will require addressing the following four challenges:

"Infrastructure and technological readiness are the areas where the Arab world has made the most significant progress over the past decade relative to OECD countries. This is largely thanks to heavy investments in transport and information and communication technologies (ICT) connectivity."

1. TRANSITIONING AWAY FROM NATURAL RESOURCES AND DIVERSIFYING THE ECONOMY

Oil and gas remain the largest export from the Arab world, accounting for close to half the region's merchandise exports. Changes needed to encourage more rapid diversification in the Arab world include regulatory frameworks that ensure competition and support private-sector investment; improvements in the quality of education; openness to trade and foreign investment; and a financial sector that better meets the needs of micro, small, and medium enterprises.

2. INCREASING THE ROLE OF THE PRIVATE SECTOR AND DIMINISHING THE STATE'S INTERVENTION IN THE ECONOMY

Constraints to private-sector development remain substantial in many countries in the Arab world. States remain present as active market participants in a number of sectors, including construction, finance, transport, manufacturing, and regulated industries such as infrastructure. Apart from state presence, a number of investment climate factors deter private-sector investment, including a complex regulatory environment, political instability in some countries, barriers to competition in markets, such as finance and land, and skills mismatches.

3. ENSURING OPPORTUNITIES FOR THE YOUTH AND THE WORKFORCE OF THE FUTURE

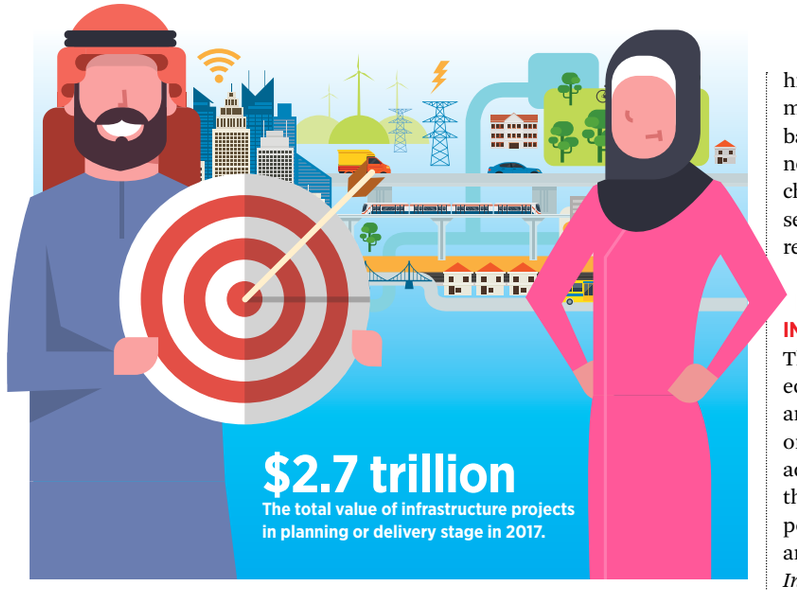
In 2015, close to one person out of five in the region was aged between 15 and 24. The Arab world could reap significant benefits from its young, technologically connected, and increasingly educated workforce. However, the region is not making use of this opportunity, as this cohort suffers from low labor force participation and high unemployment. To realize youth potential in the region will require placing higher emphasis on the role of youth in society, using more merit-based systems for employment, making education systems more responsive to skills the markets demand, and fostering a culture of entrepreneurship and risk-taking.

4. PREPARING FOR THE FOURTH INDUSTRIAL REVOLUTION AND IMPROVING THE INNOVATION ECOSYSTEM

The 4th Industrial Revolution is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. The speed of technological development is increasing and eroding advantages of market proximity and low wages in the manufacturing and service sectors in favor of innovation and effective absorption of new technologies. The Arab world still needs to address some of the basic issues that will allow it to navigate through these developments. With half of the population not connected to the Internet, connectivity remains problematic for large parts of the region, especially in rural areas.

BARRIERS TO DIVERSIFICATION

A key reason for low diversification in resource-rich countries is that the persistent reliance on oil and gas exports exposes them to volatile macroeconomic conditions resulting from changes in the prices of these commodities and may reduce incentives for reforms to the business environment. Oil and gas exports accounted on average



over 2005-15 for more than 70% of exports of merchandise in nine countries in the region. Oil and gas the main export for many comparatively stable countries, such as Qatar and the UAE, as well as some of its most unstable and weakly governed ones, such as Libya and Yemen. Dutch Disease types of effects can particularly undermine the competitiveness of the tradable sector. However, this is far from being the only cause of low diversification. Resource-poor countries also suffer from lack of a diversified and dynamic private sector.

THE FINANCIAL SECTOR DOES NOT MEET THE NEEDS OF PRODUCTIVE SECTORS

A competitive and well-regulated financial sector facilitates economic diversification by encouraging capital accumulation, competition, and new firm creation. In general, banks in the Arab world are not serving these functions well. Rather they tend to lend to large, sometimes state-owned or well-connected firms, and have few incentives to serve the smaller firms segment. Loans to micro, small and medium-sized enterprises (MSMEs) account for a smaller share of bank loans in the Arab world than in any other region. This results in less competition, does not encourage the development of new firms and new sectors, and eventually impedes the diversification process.

A legacy of large state involvement is another key reason why many countries in the Arab world have struggled to diversify. State-owned enterprises stifle competition, often have privileged access to factors of production (land and finance, particularly) and are frequently inefficient and protected. State ownership was dominant in the early years of industrial policies that aim to spur diversification. These policies have mostly failed in Arab countries, but state-owned firms remained, keeping their competitive advantage, privileged access to resources, and soft budget constraints.

TRADE POLICY IMPEDIMENTS

The region is the least integrated region in the world, despite its attractive geographical positioning at the crossroads of Europe, Africa, and Asia's trade routes. Trade policy in many countries is impeding diversification. The Arab world has high average effective tariff rates, mainly resulting from non-tariff barriers. In addition, the region is not well integrated in global value chains, has relatively protected service sectors, and has low levels of regional trade and investment.

ENTREPRENEURSHIP ECOSYSTEMS IN THE ARAB WORLD

The Arab world entrepreneurship ecosystems are underdeveloped and require a concerted effort on behalf of policymakers to address the significant gaps that are hindering existing and potential entrepreneurs. The annual *Global Entrepreneurship Index* (*GEI*) measures the quality of entrepreneurship as well as the extent and depth of the supporting entrepreneurial ecosystem across 14 components. Scores on the GEI range from 0 to 100%. The average score for the region's countries in the 2018 GEI is 37%. Qatar, the UAE, and Oman are the top performers, while Algeria, Egypt, and Morocco are at the bottom.

The 2017 survey of leading Arab world entrepreneurs conducted by the World Bank Group and the World Economic Forum provides additional insights on the most acute impediments entrepreneurs in the region encounter. The three most severe obstacles faced by the leading entrepreneurs are lack of access to finance (42%), an inadequately educated workforce (28%), and business licensing and permits (27%). Furthermore, only 65% of those surveyed had received mentorship, and even fewer (about 42% and 44% respectively) had gone through incubation/acceleration and training. ■

For the full The Arab World Competitiveness Report 2018: visit https://www.weforum.org/reports/arab-world-competitiveness-report-2018

GIQ

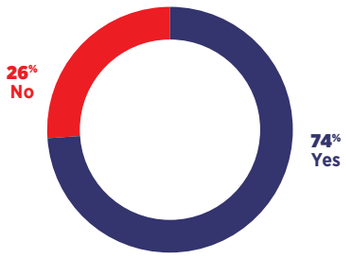
SURVEY SINGAPORE

Q3 2018

THE APPEC MIDDLE EAST ENERGY LEADERSHIP DISCUSSION 2018

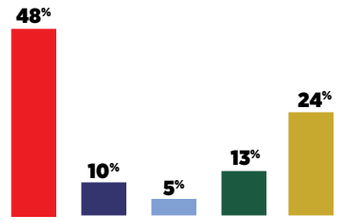
Middle East Energy Sector in Transformation – *Final Destination?*

Do Arab Gulf national oil companies (NOC) need to transform into globally competitive international oil companies (IOC) like their European peers (BP, Statoil, etc) and Asian peers (PETRONAS, Sinopec, etc) have done in previous decades?



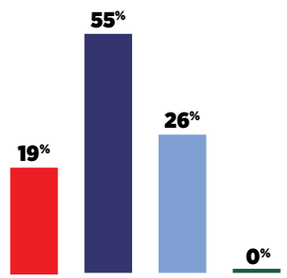
Traditional energy industry partnerships have evolved in recent years. Service companies have secured upstream opportunities and NOCs have gone abroad and partnered with NOCs and IOCs in different markets. What will be the dominant energy industry partnership in the 2020s?

A. NOC – IOC
B. NOC – NOC
C. IOC - IOC
D. INOC – NOC
E. Silicon Valley companies – NOCs

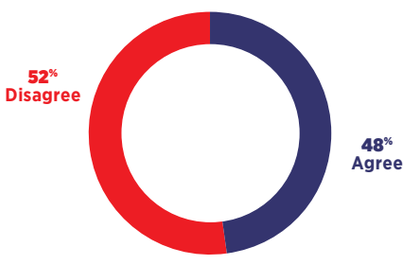


Which of the following would be a bigger challenge for national oil companies with international footprints and influence (INOCs) emerging out of the Gulf to succeed worldwide like other NOCs (Sinopec, Statoil, Petronas) have done in the past?

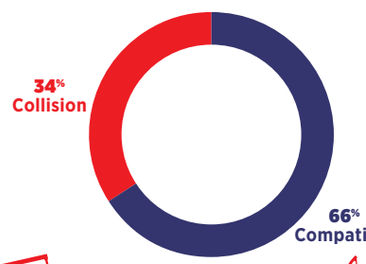
A. Balancing national agenda with commercial reward
B. Experience of operating in competitive markets without monopoly position
C. Transparency standards required in other markets
D. None of the above



Gulf NOCs should only seek global opportunities in partnerships/consortiums:



State-owned Abu Dhabi National Oil Company (Adnoc) and Saudi Aramco signed an agreement this year to jointly invest in a $44 billion refinery on the west coast of India. Is the rise of India's Think West policy and the acceleration of China's Belt Road Initiative (BRI) compatible or is a collision on the horizon?



Source: GI Research

TOP 5 Tweets

Q3 2018 @gulf_intel

Oil Price

1. #Oilprices fell on Monday as supplies from #SaudiArabia and #Russia rose, and as signs of an economic slowdown in Asia dented the outlook for demand #OOTT
2. #Oil tops $79 a barrel and may hit $85 as supply falls and demand rises #libya #OOTT #OPEC
3. WATCH: Daniel Jaeggi, President @Mercuria suggests that the potential disappearance of 2 million barrels a day from the market in Q4 2018 could push #oilprices to $100 a barrel #PlattsAPPEC #ThingstoThinkAbout #OOTT
4. US #crude exports rise with higher production; export a bigger share of total production now via @SPGlobalPlatts #OOTT #PlattsDOF
5. #WTI $.69.72/bbl (-0.58%), #Brent $74.74/bbl (-0.31%) - both #oil benchmarks in intraday correction mode, after overnight rally on supply concerns via @ The_Oilholic

Gas/LNG

1. Power sector to weigh #gas imports under new #fuel policy #MELI @MidEastLNG #OOTT
2. #Kuwait expected to reach an agreement with #Iraq to import #gas as well as develop shared oil fields by the end of this year, according to the Arabian Gulf state's oil minister #OOTT
3. .@Total has confirmed its withdrawal from a $4.8 billion Iranian #gas project, leaving the door open for co-investor #CNPC to take the lead on the asset #OOTT
4. Phased for completion between 2020 and 2023, @ GE_Power Hayssan Power Plant development will provide a 25% boost to Dubai's current grid capacity #oilandgas #OOTT
5. via @ArabianOilGas - @ Total becomes 2nd largest global #LNG player by closing acquisition of Engie's LNG business #MELI @MidEastLNG #OOTT

Asia

1. China's #BeltandRoad Initiative by Paul Gruenwald, Managing Director, Chief Economist @ SPGlobalPlatts @CPI_Financial #BRI #OBOR
2. #OneBeltOneRoad Silk Road's new challenges, opportunities #OBOR
3. #China continues to be the top importer of #oil from #oman thanks to the perceived compatibility between the quality of the Sultanate's #crudeoil and the needs of Chinese #refineries #OOTT @DubaiMercantile @ Mog_Oman
4. Challenges of #Asia's upstream sector up to 2020: tough fiscal terms, restrictive regulations & lackluster exploration results. More partnerships bw #MiddleEast upstream & #Asian downstream companies needed
5. The #BRI promises to radically transform a vast swathe of the world's #trade & #transport infrastructure, which will have a marked impact on how Asia does business with the world and vice versa. #silkroad #OBOR

OPEC & non-OPEC

1. #SaudiArabia and #Russia reaffirmed an agreement between #OPEC and its allies to increase #oil production by 1 million barrels a day bloom.
2. #DonaldTrump Demands more #Oil on the Market...via Twitter! #thingstothinkAbout #OOTT #OPEC
3. Gaurav Sharma, Independent Oil Analyst and Forbes Columnist, adds his own insights within a scenario of high US exports, upcoming US #sanctions and the OPEC, non-OPEC agreement @ The_Oilholic #OOTT
4. OPEC+ – A pipe dream or stark reality? What can #oil markets expect from the Declaration of Cooperation meet in #Algiers today? #OOTT #Fujairah @ OPECSecretariat #giforum
5. OPEC's Barkindo: 'Our target is to have a framework for longer OPEC+ cooperation by Dec @ OPECSecretariat #giforum @ CNN @JDefteriosCNN #OOTT

Shipping

1. @Saudi_Aramco plans to ship first #crudeoil to Malaysia JV refinery in October @Petronas #OOTT #IMO2020
2. Cleaner shipping fuel regulation: Opportunities for ME ports by Dave Ernsberger, Global Head of Energy Pricing & Co-Head of Content, @SPGlobalPlatts @ kuwaittimesnews #IMO2020 #PlattsAPPEC
3. @Saudi_Aramco to build a $20 billion oil-to-chemicals facility on Red Sea Coast with @ SABIC and $44 billion refinery and #petrochemicals project in #Maharashtra India with a consortium of local refiners. #PlattsAPPEC
4. The 2020 mandate on lower sulfur content in bunker fuels needs immediate action plan by @sean_evers #IMO2020 #OilMarkets @gulf_news
5. Saudi Arabia, world's largest #crudeoil exporter, has suspended all oil shipments through the Bab el-Mandeb strait at the southern tip of the #RedSea, following an attack on 2 VLCCs by Yemeni Houthi militia said @SPGlobalPlatts Analytics.

The Middle East LNG Institute @MidEastLNG

Gas/LNG

1. Malaysia's demand for gas and #LNG will be soft over the next five years #MELI #downstream
2. @SPGlobalPlatts reported #LNG swaps volumes, settled against its JKM LNG price assessments, quadrupled in 2017 to 50,266 lots, equivalent to around 170 tankers of LNG and the growth has continued this year.
3. #Coal seen as cost-competitive alternative to #gas in #GCC #MELI #NatGas
4. $40 Billion LNG Project Finally Starts Up #MELI #LNG
5. Petronas secures 25% of LNG Canada #LNG ■

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enoc

Faces Across Decades

The employees taking ENOC into a new era

SANA NOOR
Administration Assistant – Marketing Finance

Joined August 2015 as a Marketing Finance Administration Assistant

I was impressed by how organized, timely and manageable the environment and workload was on my first day at ENOC. Teamwork is a strong part of the organization's ethos, which made settling in very easy.

Working for ENOC makes me feel content and stable, and my manager's confidence in my capabilities encourages me to continually improve.

I would recommend building a career at ENOC to anyone with the right skillset and a positive work ethic. ENOC can offer exciting opportunities for those with an ambitious and collaborative attitude. Looking ahead, many of these opportunities could be in the field of cleaner energy as ENOC widens its scope (as with the solar-powered retail stations) to support Dubai's growth as a greener economy.

"Working for ENOC makes me feel content and stable. My manager's confidence in my capabilities encourages me to continually improve."

ABED SADEK
IT Manager, Supply, Trading and Processing (STP)

Joined December 1987 as an IT Coordinator and was promoted to IT Manager of the STP Stream

I stood at the doors on my first day at ENOC more than three decades ago, ready and excited to work. That passion has not dimmed, mainly due to ever-changing market dynamics, positive colleagues and supportive management. We work and collaborate as one team – ENOC feels like a family. Looking back, I have had a long and satisfying career with the ENOC Group and am in the 31st year of my tenure now.

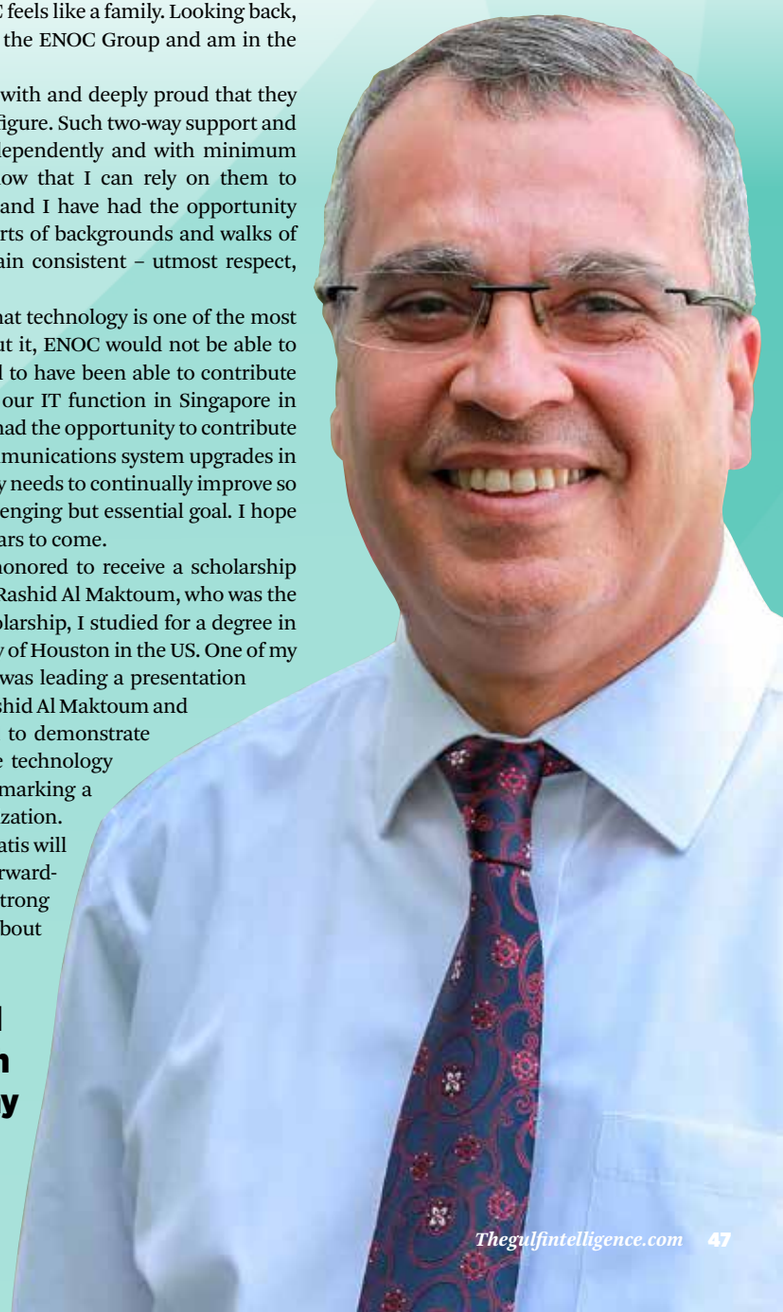
I am profoundly grateful for those I work with and deeply proud that they sometimes look to me as a father or brother figure. Such two-way support and confidence means my team works very independently and with minimum supervision. I trust their expertise and know that I can rely on them to deliver. Part of ENOC's ethos is diplomacy and I have had the opportunity to collaborate with many people from all sorts of backgrounds and walks of life. Whoever I speak to, three factors remain consistent – utmost respect, consideration and harmony.

As a technology specialist, I understand that technology is one of the most important aspects of ENOC's future. Without it, ENOC would not be able to operate or grow the way it has. I am grateful to have been able to contribute in this area, which includes helping set up our IT function in Singapore in 2000. As a part of my responsibilities, I have had the opportunity to contribute majorly in ERP implementation and telecommunications system upgrades in the organization. The reliability of technology needs to continually improve so that downtime almost never occurs – a challenging but essential goal. I hope innovation will play an even bigger role in years to come.

Prior to joining ENOC, I was extremely honored to receive a scholarship from His Highness Sheikh Mohammed Bin Rashid Al Maktoum, who was the Minister of Defense at the time. Via the scholarship, I studied for a degree in Information Technology (IT) at the University of Houston in the US. One of my proudest moments while working at ENOC was leading a presentation for His Highness Sheikh Mohammed Bin Rashid Al Maktoum and His Highness Sheikh Hamadan Bin Rashid to demonstrate ENOC's Select Card. Recently launched, the technology was being used at ENOC's service stations, marking a major technological milestone for the organization.

Over the next 25 years, I expect more Emiratis will join the ranks of one of the country's most forward-thinking energy companies. ENOC is a very strong organization and people feel very positive about the future.

"I have had a long and satisfying career with the ENOC Group – I am in my 31st year now."



TWO ENERGY WORLDS

The energy landscape has shifted. Changing customer behavior, new technology, and increasingly global markets are creating two distinct energy worlds.

The classic energy world has the indispensable task of ensuring supply security. Alongside it is emerging the new world of distributed energy solutions. Uniper's portfolio will combine large-scale power generation and the effective management of global and regional energy supply chains. E.ON will focus on the new energy world with renewables, distribution networks, and customer solutions. Both worlds require distinctive business models and capabilities. Both worlds present challenges and opportunities. Both worlds are needed to meet the world's energy needs in the decades ahead.

A strong energy company

Uniper has the right assets, knowledge, and skills to succeed in the classic energy world. We have a deep understanding of global and regional energy markets, regulatory regimes, and market designs. We have a wide range of capabilities in the construction, management, and operation of large-scale energy assets as well as the optimization and risk management of assets and contracts. And we have long-standing relationships with industrial customers, municipal utilities, system operators, and our suppliers. These strengths and networks reinforce one another.

Why Uniper?

We're well positioned to play a key role in ensuring supply security. We have:

- a broad geographic footprint with positions in Europe's main generation markets and in Russia
- comprehensive capabilities in the operation and management of individual generation assets and optimization of generation fleets
- profound technical knowledge gained in the development and use of energy technologies
- the market access of a proven trading and optimization platform at Europe's key trading points and on global markets along with a significant position in the midstream gas business
- a detailed picture of the interrelationships between market participants, technologies, and energy systems
- deep expertise in regulatory regimes and market designs

There are three main areas in which we deploy our strengths:

• We help ensure security of supply in Europe as it transitions to a low-carbon future

The growth of intermittent renewable generation increases the need for flexible power plants that can meet fluctuating demand at short notice; our generation portfolio is well suited to this task. In addition, our midstream gas business helps ensure supply security through a diverse portfolio of long-term gas contracts along with gas storage, transport, and regasification capacity.

• Our trading activities connect global commodity markets

Global trading in commodities like natural gas and coal is bringing energy markets from America to Asia closer together. As markets become more interconnected and dynamic, they create more opportunities for companies that can build bridges between regional markets, respond swiftly to changes in supply and demand, and use their knowledge of supply chains to better manage commodity risk. Uniper has a flexible portfolio of long-term gas import contracts, coal, and LNG. This portfolio not only enables us to meet our own fuel needs but also to provide our customers with bespoke products and services.

• We support the development of power markets outside Europe with our own generation activities and our services for third parties

Uniper has a significant platform of technologically advanced generation assets across Europe and in Russia. As the demand for dispatchable generation capacities is growing in a number of markets, we're well positioned to market our capabilities in building and operating assets and in supplying fuel to third parties.

From gas fields and power stations to customers: Uniper helps keep energy reliable

We offer a broad range of energy products, services, and solutions. Our business portfolio encompasses most of the stages of the energy value chain. We have a stake in a gas production business in Russia and procure climate-friendly natural gas under long-term supply contracts and at trading venues. With LNG becoming a more prevalent source of gas, we're active in sourcing, transport, and regasification. In addition, our hydro, coal and gas power stations play an important role on the upstream end of the electricity value chain.

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