Fourth Quarter 2013

Energy Outlook

A View from Baghdad

Boring Oil Markets – Yippee!

THE OIL markets are certainly facing their fair share of headwinds – is it ever thus you may say! But what appears to be dramatically different on this occasion is that Brent crude remains boringly stuck in an uninterested slumber of $110 a barrel regardless of feast or famine wailing on all sides.

But plain vanilla consistency is certainly useful, for producers and consumers love nothing more than the stability of predictability, especially Iraq as it maintains a bold determined march towards the target of 10 million barrels a day with a new refreshing flexibility to adjust and adapts to ensure a win-win framework for all stakeholders.

But it could be a few rather dull developments that may shake up this nice cruising $110 altitude – one forcing a breakout to the upside and the other could propel a crash through the floor.

The upside is a double edged sword: Gulf States aren't just among the world's largest energy exporters, they are also quietly emerging as major energy consumers in their own right, eating into their countries' oil export capacities with Saudi Arabia already consuming about one quarter of its production. OPEC's domestic oil consumption has increased seven-fold in 40 years, to 8.5 million barrels per day (bpd). They consume almost as much oil as China, and this constitutes one fourth of their production. Such rapid growth in consumption – 5.1% annually, faster than their income growth of 3.1% – will challenge OPEC's ability to increase their oil exports, which are relied upon in long-term world oil projections by the International Energy Agency.

The downside: The counterbalance, markets are increasingly convinced that US monetary policy is reaching a turning point that doesn't bode well for the Brics emerging markets. Talk by the Federal Reserve about tapering its quantitative easing -printing cash- measures led to an unexpectedly large increase in long-term yields in the US and pushed Asian currencies up close and personal with a 1998 cliff, much of which has not been reversed despite a subsequent decision by the Federal Reserve to maintain the amount of asset purchases and policy actions in other countries.

And we didn't even mention Coal is back!

Sean Evers
Managing Partner, Gulf Intelligence

Iraq to Build & Locate Oil Exporting Infrastructure to Best Serve Marketing Strategy

HE Hussain Ibrahim Al-Shahristani, Deputy Prime Minister for Energy, Iraq

IRAQ'S TOP priority today is to establish how to best move, store, allocate and commercialize its additional crude oil production.

With oil output on target to hit 3.6 -3.7 million barrels a day by the end of this year, and following the welcomed revisions to long-term plateau production targets for IOCs, to 9-10 million barrels a day by 2020, we now need to establish what volumes to allocate to Asia, Europe and North America, and what routes to use to best access these markets. Addressing these interrelated issues requires Iraq to weigh potential infrastructure costs, market netbacks and strategy risks.

At present, Iraq has export access to all three major global crude oil markets - Asia through the Arabian Gulf, Europe through the Suez Canal and the Mediterranean, and the American market, again around the Cape or directly through the Mediterranean. When comparing different shipping rates to markets for Iraqi oil, the best netback is achieved through the Gulf in the South, to Asian markets. The next best return is to route our oil through the northern pipeline to Ceyhan in Turkey and ship it onto Europe.

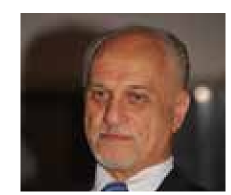
And with the Asian market forecast to have the largest demand growth in the foreseeable future, we are focusing on building new terminals in the South. A number of these CPMs have come into operation and Iraq expects the total loading capacity will exceed 6 million barrels within a couple of years, so that we will always have some spare capacity.

But despite the fact that exports to Asia offer the best deal, Iraq is diversifying its risk on transport routes and allocating only about half of its oil to this market, with a quarter going to Europe and another 25% to the US It's important not to rely on a single market, with regional economies employing different tanker rates, and routes also subject to specific sources of interruption.

Our strategy incorporates implementing our master pipeline program, to connect all our fields and be able to move redundant crude from north to south and from the center to the east to the Mediterranean. We are doing this internally, but we need to connect to our neighbors. To achieve this, Iraq is moving as fast as it can to build a new pipeline to Aqaba on the Red Sea through Jordan. And although the situation in Syria is not currently very encouraging, as soon as the situation stabilizes, Iraq will use the old route through Syria but supplemented by new pipelines.

The routes and market choices that we take, combined with the eventual crude segregation into two to three grades, results in a commercializing strategy which will be backed by sufficient redundancy and which in turn, will require crucial infrastructural development, such as increased storage capacity to protect production against contingencies like shore destruction due to bad weather in the Gulf.

That's what we're focusing on - rebuilding our infrastructure to be able to move oil, store oil and use the various routes available to Iraq to avoid any risk. ■



HE Hussain Ibrahim Al-Shahristani, Deputy Prime Minister for Energy, Iraq

Feature Interview: Iraq's Ready to Adjust to Ensure Win-Win Strategy for All Production & Export Goals

HE Hussain Ibrahim Al-Shahristani talks with Dyala Sabbagh, Partner, Gulf Intelligence

DYALA SABBAGH (DS) How do you think the evolution in shale oil development is affecting industry dynamics? Do you see this as a dramatic change?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI Well, this has been very welcomed by all countries including those in OPEC. Shale oil and gas has been around for a long time, but until recently, the technologies were not available to extract it at sufficient recovery rates or at a reasonable cost. What we are seeing is very encouraging but the fact is that this shale is everywhere, for example in Europe and in Asia. And yet, some nations have not been very keen to invest and produce oil or gas from shale, and this indicates that not everybody is confident that it's a source.

Audience Member: Fereidun Fesharaki (Chairman of FACTS Global Energy): On the fifth bid round, is the emphasis going to be on gas or oil? And secondly, when will the pipelined gas from Iran start to flow, and in what volumes?

HE Hussain Ibrahim Al-Shahristani: There is bid round coming up which is mostly exploration for gas in the Western desert and we are reconsidering the model contracts to make it more attractive to companies.

As for the import of Iranian gas, we need it immediately for power generation. We have power plants that are ready, that have been constructed this year, but we don't have sufficient gas for them. So we have agreed with Iran to import gas for 5 years, but that can be extended further because there is also strong demand for Iraqi gas exports to Europe. And once the international community resolves the issues of Iran's nuclear program, we can make more Iranian gas available via Iraq to the international market.

DS But if we look at the US, which has made tremendous progress, and which has put some of its shale production towards refined product exports, do you see that as a game-changer? The U.S imports half of its daily oil needs from OPEC, so does the development of shale not affect OPEC's influence on the market?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI For the US, it has been a big change obviously, but let's not forget that for the US to be able to produce oil specifically from shale to replace its current imports of about 8 million to 9 million barrels, would require perhaps 10,000 drilling rigs. And unlike with conventional oil, once you drill to produce from shale, you can only produce for a few months and then move on to look for a new well. Clearly the US is going to reduce its oil imports, but I personally do not believe that it can replace all its imports from abroad with shale oil in 2 or 3 years. The development in shale gas has been more impressive.

DS If we look at demand projections and how the industry may be looking to tackle these. By 2040, global energy demand is set to increase by 30% and natural gas demand by more than 60%. Most of the additional gas supply is going to have to come from unconventional resources like shale. The net driver of demand will be electricity generation, particularly in the developing world, which is looking to add 1.5 billion users by 2040 - clearly a massive draw on resources. The IEA has forecast that $19 trillion of cumulative investment will be needed to ramp up oil and gas production by 2040. Where is the capital for this going to come from?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI The unconventionals will obviously have to come from the current producing countries, and most of their gas is associated. Most of these countries have the capital to develop these resources and there are a number of major IOCs with sufficient funding resources to be able to help them develop these oil fields. Take Iraq for example - we didn't really have any financial resources but we had natural resources and the IOCs are very willing to come and invest the time required to develop these fields. I think the same story would apply anywhere else: if you find the resources, the capital isn't a big problem.

DS Given that some of these fields may be difficult to develop, do you think that will impact the structure of the contracts offered to IOC's? Do contracts such as those in Iraq need to be changed to attract this level of investment?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI The marginal fields, whether they are deep in the ocean or in some other environment, are only going to be economically viable if the oil price is at a level that can justify that kind of investment. So, as long as the major producing countries can support the market with their supplies, I don't see much investment ready to be spent on marginal or unconventional fields. This will only be the case when we see a serious decline in production by OPEC or other major producers.

DS You mentioned in your keynote address that about half of Iraq's oil exports are focused on Asia. We have recently seen figures indicating a slowdown in Asian demand and a simultaneous increase in demand from the OECD. This shift in demand dynamics may be short-lived, but what impact does it have on the international oil industry?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI Not much, simply because regardless of what happens in Europe, it has reached a saturation level and they're not going to use much more oil. The story is completely different in Asia. The Asian communities can only develop by increasing their energy consumption. The growth rate in Asia has only decreased from 10% to 7%, so that growth rate in itself is significant compared to OECD countries. I don't think demand for additional oil is going to be impacted by the current economic situation. Most of the incremental oil that will be needed over the coming 20 years – which according to a number of studies will increase by 20 million barrels per day - will be coming from conventional major oil producers.

DS If we can take this point and address its relevance to Iraq. Your country's energy sector is undergoing an extensive development program following years of destruction. Oil production has in the last 5 years made a lot of progress, increasing approximately 40%. Earlier this morning, our audience here voted that 5 to 6 million barrels a day was a realistic production target for Iraq to reach by 2020. Iraq has set itself a target this year of 3.5 million barrels a day it doesn't look like it's on track to hit this. Does that mean you will look to adjust the 2015 target of 4 to 5 million barrels a day?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI Well, our plan was 3.5 million barrels by the end of 2013. Currently, we are producing about 3.3 million. In the last few days we have added 50,000 barrels from the Gharaf field which will be increased to 100,000 barrels before the end of the year. The Majnoon field has come online and it's going to hit almost 200,000 barrels before the end of the year. There are also increases in other fields. So in total, we should add at least 300,000 thousand, and perhaps 400,000, barrels to the 3.3 million. So we are actually on target and this, despite the fact that our 2013 budget also includes an additional 250,000 barrels per day still due to come from the KRG.

DS You mention the KRG. Do you see the dispute on the governance of national resources being resolved anytime soon? It is after all influencing IOC activity and decision-making in the Iraqi oil sector.

HE HUSSAIN IBRAHIM AL-SHAHRISTANI Well, unfortunately, this has taken much longer than necessary to resolve. The hydrocarbon law has been in the Parliament since 2007 and although there has been some discussion in recent months, we still are not seeing any breakthrough. So quite frankly, I don't want to be pessimistic, but I don't expect any solution, at least during this year.

DS Although production targets have been adjusted to reach 9 to 10 million barrels a day by 2020, this is still very ambitious considering the number of fundamental challenges that the Iraqi economy faces; to name a few, a shortage of skilled human resources, political

instability, bureaucracy, an unpredictable legal and regulatory framework. And then on the technical front, transport and storage bottlenecks. What would you identify as the main challenge to tackle first?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI There are some general bottlenecks that are affecting our energy development plan. The most serious, in my view, are the terrorist attacks against oil installations and energy infrastructure in general. That has been on the increase in recent months because of the Syrian situation. We have a number of bureaucratic bottlenecks in Iraq also, such as customs clearances that companies have been complaining about, and although we have come a long way there are still a number of serious issues such as corruption which we are trying to tackle.

DS Regarding the service contracts that have been awarded in the last 3 to 4 years to international oil companies, as you yourself mentioned today, progress has been slow at times due to internal dynamics in Iraq. Are there any plans within the INES to alter the incentives or terms of these contracts? Would that push things forward a little faster?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI Actually, we have done that. The contracts that were signed require these companies to increase production very fast to have a combined total plateau of about 13 million barrels per day. But that would have exhausted our fields too quickly and would not have maximized recovery from each field. So soon after the contracts were signed, we actually asked each company to tell us according to best management of the reservoir, what would be the optimum plateau that can be maintained over 20 years or longer and maximize recovery. The companies, our own national team and our international consultants, each conducted independent studies but reached a similar consensus - that at 9 million barrels per day, Iraq can maintain production for about 20 years, subject to world market demand. There's no point in investing money to try to increase capacity, even before 2020, if your projections are that the world will not be needing that much extra oil from Iraq. So the speed with which we are going to move is going to be partially determined by the world market demand growth. The IOCs have been happier with the changes in the contracts, and quite frankly I think this has been a win-win situation for Iraq to be able to maximize the recovery, and maintain a constant production capacity for 20 years, which is a very long time in the oil industry.

DS If we look at your refining industry, it's very fuel-oil focused and does not produce enough gasoil, gasoline and lighter products. Iraq has a huge import bill for refined products of $250 million; are there plans to address this imbalance in the product mix?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI We do have plans to build four new refineries. The one in Nasiriyah is the largest at 300,000 barrels per day but there are three more in Karbala, Kirkuk and Meysan. These are all available for investors. In Nasiriyah, we have tried to work out a new formula where the giant field will be developed together with the refinery and where the refinery can source all its oil from the field. We are going to have our fifth bid round in December this year and we are pleased that a number of major companies have asked to join in the bidding.

Audience Member: Kate Dourian (Middle East Editor, MEES): Iraq has recently talked about proposed amendments to the Nasiriyah oilfield contract - that companies could get paid for the upstream portion of the project on completion. The current terms stipulate that companies won't be paid until at least half of the first train of the refinery is ready – has there been a decision on changing the terms?

HE Hussain Ibrahim Al-Shahristani: The final version has not been agreed upon yet, so these are basically ideas. Some of these ideas have been put forward by the IOCs and we are considering for the upstream portion to be paid, even if the refinery will take a longer time to be constructed.

Audience Member: Paul Young (Head of Strategy, Dubai Mercantile Exchange): Given that tanker rates are currently terrible, would you see Iraq eventually developing its own tanker fleet so you can compete on a CFR basis, or rather just remain in the FOB space and let companies like Vitol worry about tanker rates?

HE Hussain Ibrahim Al-Shahristani: Currently, as you know, Iraq doesn't have any tankers. This is something that we'd seriously consider in the very near future - to bring back our tanker fleets to the market - and today is an opportunity to invite the tanker companies for a joint venture with the Iraqi tanker company that would be dedicated to move Iraqi fuel. But our top priority now is the internal infrastructure and to be able to move our oil.

DS Will the rates of return be more attractive?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI
Yes, we believe so. We have made some changes which we discussed with the IOCs, which includes cancellation of the R-factor that required them to receive lower remuneration fees. And some adjustments have also been made to insulate oil field operations from any infrastructure bottlenecks, so if there are any delays for reasons not under control of the oil companies, this should not reduce their profits or fees. Also, the repayment has been modified for this particular project where IOCs receive immediate payment in kind (crude) as soon as they develop the oil fields - and not necessarily have to wait for the refinery to be finished. And there are a number of other adjustments that have been made following requests by IOCs and refinery companies. It has not been finalized yet but we are very happy to listen to any other amendments that they consider necessary, to get them more interested to participate in the upcoming bid round.

DS Power shortages currently cost the country about $40 billion per year. One of the main challenges is that you don't have enough gas to fuel extra power generation and this is linked to being able to capture more of the associated gas that's being produced in Iraq, 40% of which is currently flared. Apart from the environmental impact that this creates, it's also a simple waste of resource, so what strategy do you have in place to reduce the flaring with the ultimate intention of resolving the power sector shortages?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI
Electrical power development has been one of the weaknesses in our development plan over the last 10 years, which has to be remedied. A decision has been taken at the highest level in Iraq - and this would be an occasion to announce it also—that we are going to invite investors in power generation – to come and build their own power plants as Independent Power Producers.

DS What's the timing of that?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI
The decision has been taken; those investors who we know have been interested in the past have been invited, but now I'm making it clear for everybody that any investor who is interested to come and produce power in Iraq and sell it to the Ministry of Electricity is most welcome to come and see me. I'm heading the committee which is going to look at these applications and make decisions on them.

You very rightly pointed out that this needs gas. Currently, the quantity of gas that is required is not sufficient because our gas is mostly associated and as we increase our oil production to the level that we have been discussing, we will have sufficient gas in the future. But in the short term we don't have enough. The only immediately available source of gas for the power plants currently under construction – about 20 gigawatts of power generation - and for the IPPs that we're inviting to come and build a new power generation, is from Iran. There is already a pipeline under construction that would be ready before the end of this year and there will be another pipeline to the Basra area which we hope will be finished in 6 months. These are short-term contracts just to give us breathing space until we increase our oil and associated gas production to the levels required.

DS What's your view on Exxon's recent reduction in its stake in the West Qurna field?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI
This was a request made by Iraq to Exxon-Mobil. Exxon wasn't very keen to sell some of their interest in West Qurna, but because of the problem that was created when they signed contracts with the KRG without the approval of the Federal government, Iraq asked them to scale down their operation in West Qurna.

DS For the sake of reaching production targets throughout the whole country, do you see a consensus in the future between the KRG and the Iraqi government?

HE HUSSAIN IBRAHIM AL-SHAHRISTANI
Obviously the question of oil and gas production in the KRG has to be solved within the framework of the Iraqi constitution. It is not for the oil companies to decide or to interpret our constitution, on who has the right or entitlement to what part of Iraq's oil and gas. We believe that Exxon has committed a serious error in signing a contract without approval from the Iraqi government. ■

Iraq – Independent Power Projects

At The Gulf Intelligence Energy Markets Forum in Dubai on Sept. 24th ***HE Hussain Ibrahim Al-Shahristani, Deputy Prime Minister for Energy, Iraq,*** announced that Iraq would welcome private investors to develop Independent Power Projects (IPPs) in the country. A few points HE stated on the subject that are worth noting:

1. The Government of Iraq was committed to develop IPPs and that a committee had been formed, which he would lead, that will appraise all IPP development proposals received and award projects accordingly.

2. Iraq has already been approached by 2 large investors, which he didn't name, that are keen to develop IPPs in Iraq, and the new committee would evaluate these 2 proposals and decide on whether an award is appropriate.

3. Iraq has no current plans to go through a bidding process for these IPPs even though a bidding process may lead to a more competitive bid. Iraq has a benchmark of what a competitive IPP bid should look like from the previous process 2 years ago, and so HE doesn't see the need for a competitive bidding process on this occasion.

4. That said, Iraq does recognize the importance of having a well structured contract to attract as many bidders as possible.

5. On the question of where Iraq would secure the fuel for the IPPs, which was an obstacle to progress during the last attempt by the country to attract investment into the power sector, HE said that Iraq is in discussions with Iran to secure the gas supply needed to fuel these IPPs.

6. HE is confident that Iran could increase its gas exports sufficiently within a year of sanctions being lifted – at present a new gas import pipeline is being built between Iran and Iraq.

Energy Markets Face Extraordinary Times, Extraordinary Challenges

Christopher Bake, Executive Director, Vitol Group

THESE ARE extraordinary times for energy markets – bringing with them a very specific set of challenges.

The rise of North American oil supplies from shale reserves is emerging as a "defining feature of tomorrow's market," the International Energy Agency said in August. And indeed, the impact of shale has been dramatic already: US oil production is on an upward trajectory, reaching a 25-year high of nearly 7.6 million barrels a day in August and significantly reducing the world's biggest economy's import requirements. As a result, energy trade flows are shifting as crude originally destined to go west now has to find its way to other markets, mostly in the east.

The trend has been somewhat tempered by supply disruptions in the Middle East in recent months as oil production in Libya, Syria and South Sudan declined for different reasons, driving down exports from the region. But as some of these disruptions get fixed, the overall impact on the market will be dramatic and lead to more of the type of volatility seen in September, when Brent fluctuated between $118 and $107 a barrel within a span of only 10 days.

At the same time, the US shale bonanza has led to new realities on the global refining market. Fueled by domestic crude, US Gulf Coast refiners have been able to run at capacity levels not seen in decades, driving up product exports to record levels. The impact has been felt across the Atlantic Basin. Refiners in Europe in particular have been hit by excess product volumes hitting their markets and seen their margins being eroded.

It won't be just US products affecting the market going forward. With significant refining capacity in the process of being developed across the Middle East, notably in Saudi Arabia, Qatar and the U.A.E., the region will soon turn into a net product long market from what is a short market now. With this in mind, the rising tank storage capacities due to come on stream in the U.A.E. emirate of Fujairah over the next 18 months or so may well be needed to absorb some of the incremental production. Either way, the additional product supplies out of the Gulf region will not only add to the woes of European refiners but present a challenge for refining markets globally.

The energy market's challenges don't end here. One of them is the economic cost of subsidies, in particular in this region, where energy is heavily subsidized. In 2011, Middle East and North Africa countries spent an estimated $212 billion—equivalent to more than 7 percent of the region's gross domestic product—on food and energy subsidies, according to the International Monetary Fund.

Add to this the kind of oil price fluctuations seen in recent weeks and countries with struggling economies and weakening currencies such as Egypt will find themselves in dire straits. In Egypt, a $20-billion-a-year subsidy bill is weighing on the government and national oil company Egyptian General Petroleum Corporation. While financial support from Gulf states has helped the country avoid an imminent crisis, this is clearly a temporary fix. The subsidy situation is putting similar strains on the government of Jordan, a country that has virtually no conventional hydrocarbon resources and imports almost all its energy needs.

The subsidy challenge is as relevant to hydrocarbon-rich Gulf countries as it is to Egypt and Jordan, at least in the longer run. With domestic energy demand soaring, countries consume ever larger portions of their oil at home. This in turn is eating into exports and driving up subsidy bills in a region known for some of the cheapest fuel prices in the world. The question is what are the options to overcome the subsidy challenge going forward?

Another critical challenge facing the energy sector today is affecting small and medium-size oil producers. Lacking the financial strength of national oil companies and integrated oil majors, they have to rely on outside financing for funding. However, despite buoyant market conditions, independents and oil service companies, which

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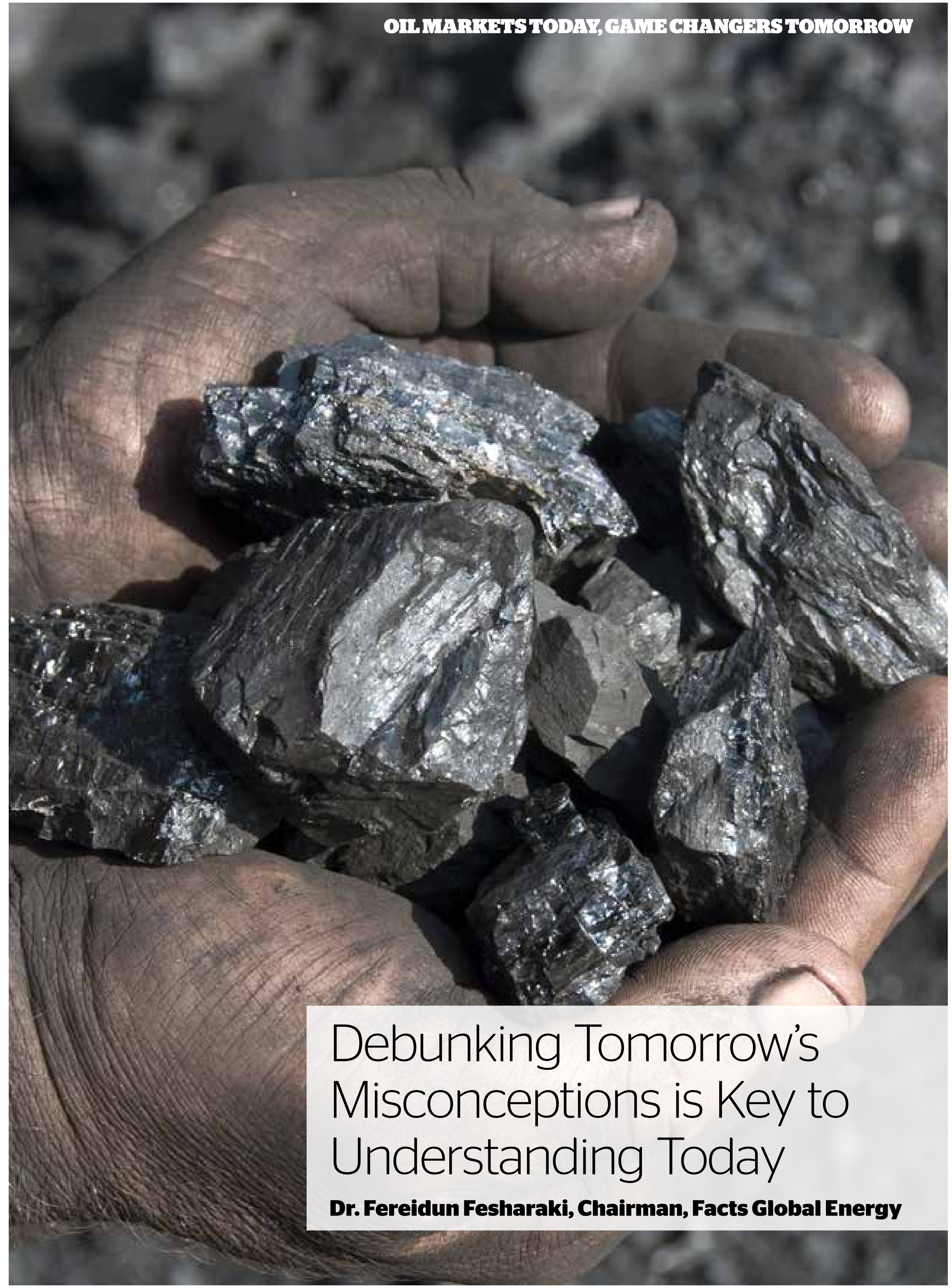
can be largely credited with having made the North American shale boom possible, are struggling to secure adequate capital.

One of the reasons for the lack of funding being made available to these companies may well be the forward price guidance coming out of energy markets. The latest forward guidance is indicating WTI prices to be at around $90 a barrel in December 2014 and in the mid-$80s a year later. It therefore appears that there is some uncertainty in the forward value of crude oil, which may be the result of expectations of incremental production from shale becoming available. This trend could jeopardize planned capital energy spending programs in the future and represents yet another challenge for the industry to deal with.

Just like three or four years ago, when no-one could have predicted the situation we're finding ourselves in today in terms of global supply-demand balance, there is much uncertainty over where markets will stand three to four years from now. What we do know is that energy markets are in for more extraordinary times—and challenges. ■

Christopher Bake, Executive Director, Vitol Group



Debunking Tomorrow's Misconceptions is Key to Understanding Today

Dr. Fereidun Fesharaki, Chairman, Facts Global Energy

AN IMPORTANT starting point to analyzing the biggest game changers impacting the global energy markets today is to first remove some of the common misconceptions about tomorrow.

Firstly, there is no peak oil!

There is plenty of oil, conventional, non-conventional and we have at least 60 years more of it at current rates, probably 100 years. But there are a lot of years in front of us, so when we talk about the future you need to keep in mind that plenty of hydrocarbons are available and will be available to us.

Secondly, oil will remain the grandfather of everything!

Gas will be following a short step behind oil. The difference between oil and gas is that oil is like dating and gas is like getting married. When you have a date, you can change your mind; you can go from point to point. When you get married, you need to build a house, a car, and infrastructure—in fact you're a prisoner of infrastructure. So gas developments are important and serious but they require a huge amount of infrastructure and investment. And divorce is not an option. You can't change your mind once you go in there.

And thirdly, the golden age of coal is tomorrow, not yesterday!

The dominant narrative has been that the golden age of coal was finished because of carbon issues, but it's not! A huge amount of new coal-fired power capacity will come on to the market. From Japan to Dubai, coal will become a more important fuel, so let's not write it off! Carbon issues are taking a back seat for a period of time, not forever. And renewable energy, with low coal prices will be challenged.

Now looking at the issues facing oil markets today, it is remarkable that with all these colossal changes that we've seen in the past 2 or 3 years, the price of oil has remained so stable, between $100 and $110 per barrel.

To find an answer I look at only one number—Saudi oil production. I noticed Saudi oil production was 9.2 mbpd only a few months ago and then it popped up to 10 mbpd—what this tells me is that there is real demand in the market, that in fact the production of oil needs to be increased. The current management of the market is quite tremendous and well organized, without any fanfare and without any clear or open discussions.

All looks good now, but in a year or two all bets are off—the production of oil which will come from outside of the Middle East and the US could be substantial enough to drive prices down. How far down, I think the lowest price could be $80 to $90 a barrel, not a collapse.

The most important supply factor is the production of liquids from shale in the US—2.5 mbpd is being produced right now. Based on existing investments, there could be another 0.5 mbpd by the end of next year. So these numbers are real, they're not speculative. The issue is can it grow? I don't think it can grow much more. The range will be 3 to 5 mbpd as far as these liquids are concerned.

The interesting thing about all this shale oil production is that it does not reduce the dependence of the US on the Middle East. It does reduce the dependence of the US on Nigeria or Angola. It is the African crudes which are being killed by the increase in the US shale liquid production.

However, the US is short of the heavy crude it needs for its refineries. So where are the sources of heavy crude—Venezuela, Mexico, Canada, and the Middle East. Prior to Mr. Chavez's demise, he entered into long-term arrangements with India and China which takes about 1 million barrels per day of oil out of the US market and sends it to Asia.

As a result the US is short of heavy grades to blend into the light grades which it now produces as a result of the shale revolution

> “It is a common misconception to say that the increasing domestic production in the US reduces dependence on the Middle East. In fact, because Venezuela, Mexico, and Canada are not able to supply the needed volumes, the US has to increase its Middle East crude imports to at least 2020.”

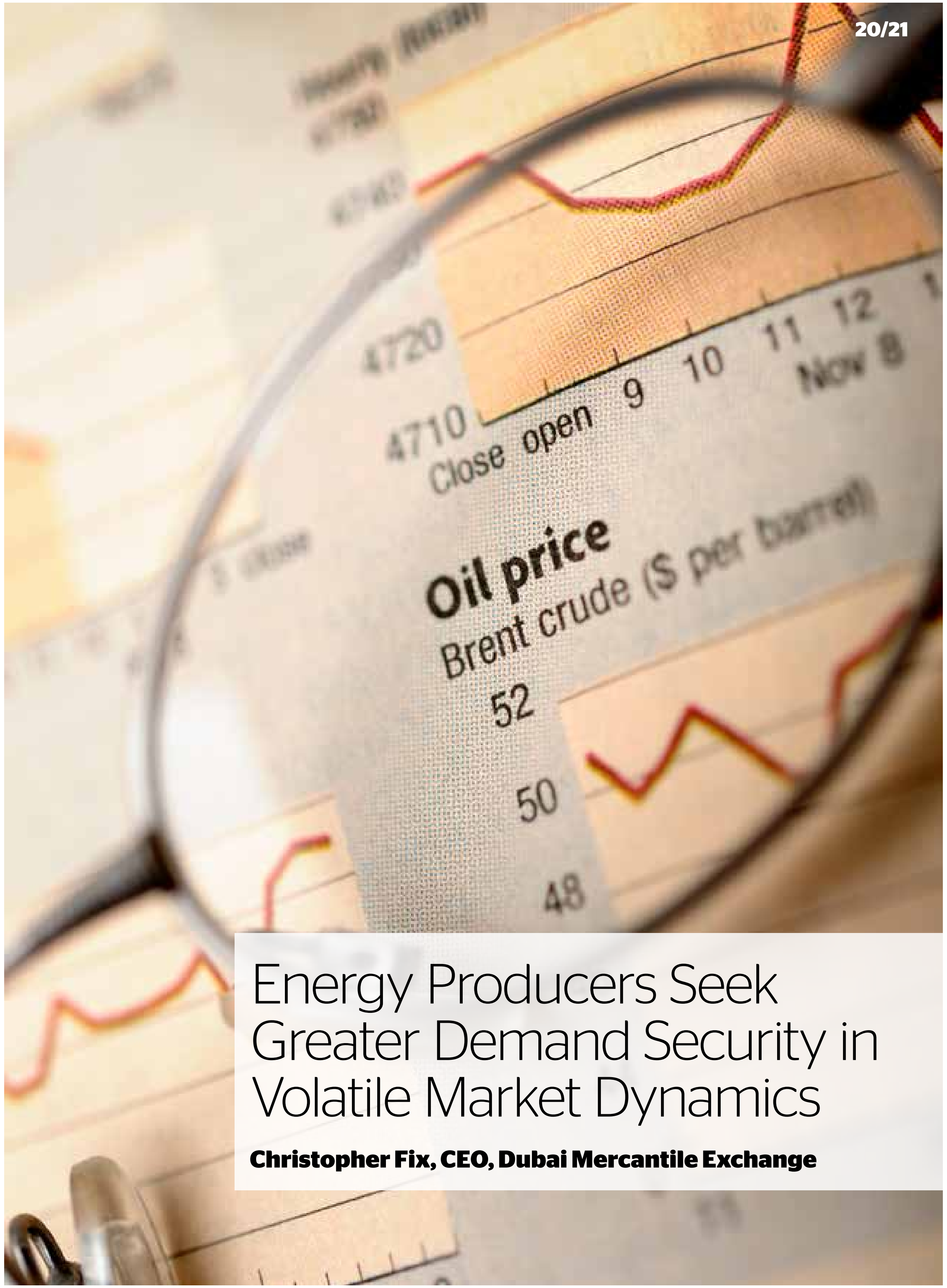
to supply its own refineries. Mexican oil production is declining, and Canadian imports are stuck in the political wrath at the moment of the Keystone XL pipeline which President Obama is likely to reject or postpone.

As a result, there is only one choice—Middle East crudes are increasing their exports to the US. It is a common misconception to say that the increasing domestic production in the US reduces dependence on the Middle East. In fact, because Venezuela, Mexico, and Canada are not able to supply the needed volumes, the US has to increase its Middle East crude imports to at least 2020.

The other big game changer to watch out for is natural gas exports from the US and what it all means for Qatar, Saudi Arabia, and the other the Gulf States. The US today has tentatively approved four LNG projects. It is not speculative; there are four real LNG projects. And they will likely approve 2 or 3 more before the end of the year. I am personally convinced that US LNG exports will be bigger than Qatar, or about the same at 70-80 million tons.

LNG from the US is coming and it is not going to be cheap. It is going to be in the same range as $80 to $100 a-barrel oil and there'll be plenty of supplies coming. The biggest push from the US is to send gas to Asia because Asians can pay for it given that the cost is way too high for the European market. ■

Dr. Fereidun Fesharaki, Chairman, Facts Global Energy



Energy Producers Seek Greater Demand Security in Volatile Market Dynamics

Christopher Fix, CEO, Dubai Mercantile Exchange

THE EMERGENCE of economically viable shale oil developments in North America has turned out to be a true game changer for the energy industry. It has helped the US become less dependent on crude imports, and led to a shift in global demand dynamics.

For oil producers in the Middle East, the shale boom has brought the issue of demand security to the forefront once again. The issue is particularly pressing for the six-member Gulf Cooperation Council (GCC) states and Iraq with its large-scale expansion plans.

The reason is clear. For one, GCC countries' economies are still very much dependent on oil revenues, if at varying degrees. The high dependence on hydrocarbon export revenues makes them vulnerable to oil price fluctuations and swings in global energy demand. And while GCC states continue to pursue ambitious diversification plans for their economies, it will be some time before true economic diversification from hydrocarbons can be achieved.

Establishing the region as a major trading hub and price formation center will play a key role in helping producers achieve fair value for their oil. The Middle East and the wider Asian consumer base clearly need their own oil pricing benchmarks; the DME will offer the security of reliable and transparent pricing, which in turn will better help both buyers and sellers make informed decisions. Most Middle East oil pricing is derived from Singapore netback values, so it is important in the long term that the Middle East itself has a greater input into price formation.

In the meantime, funding governments' generous spending programs—aimed at implementing their diversification strategies and building up domestic infrastructure—will continue to depend on revenues generated from hydrocarbons sales. The problem is that rising domestic energy demand in the region is eating into crude exports as greater volumes of the resource are being consumed at home, which is likely to undermine oil revenues in the medium to long term.

Add to this the fact that countries such as Iraq and the US—among others—are ramping up oil production, which will compete with GCC hydrocarbon exports, and the question that arises is how can you ensure that you place your oil in the market in the long term? How do you ensure that revenues remain at levels that allow governments to proceed with their spending plans and meet the expectations of a dynamic young population?

With that in mind, it is clear why oil producers such as the GCC states will continue to seek greater demand security from consumers. Ensuring demand security will help these states to buy the time needed to pursue their transformations into more diversified and less hydrocarbon-dependent economies.

For GCC producers, demand security is also important for another reason. In order to retain crude production levels, hundreds of billions of dollars are required to be invested in maintaining existing oil fields and developing new ones. On top of this, long-term capacity expansion plans will also have to be funded. Stemming this cost won't be possible without sustained high levels of oil revenues – but a lot of these investments won't happen without demand guarantees.

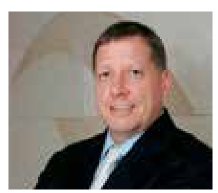
Seeking demand security doesn't come at the easiest of times for GCC states. Growing investments in alternative energies—whether in North America, Europe or China—mean that greater contributions from these sources will eventually drive down demand for hydrocarbons. As alternative energies become increasingly competitive, their share in the world's energy mix is bound to increase further. In light of these developments, crude producers such as the GCC and Iraq, which eyes oil production capacity of 9 million barrels a day by 2020, need demand assurances.

Another issue comes into play too. According to the latest economic data released by the Organization for Economic Co-operation and Development (OECD), emerging markets—the leading buyers of Middle Eastern crudes—may be in for a rough time as the world's economic growth pendulum swings back to industrialized nations. While it is too early to say what exactly the impact will be on oil demand in the longer term, it is a development that producing nations will be acutely aware of.

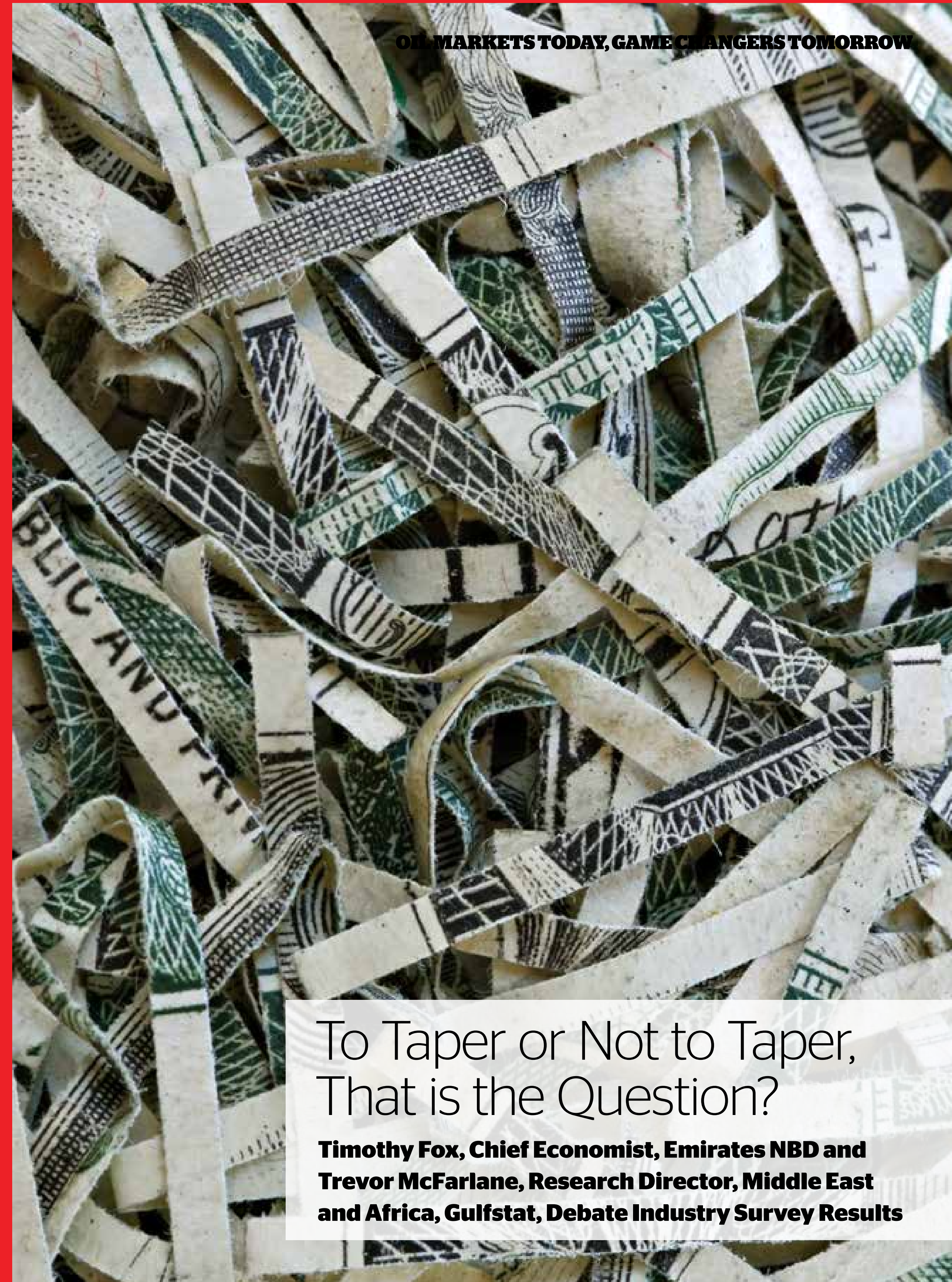
“Growing investments in alternative energies—whether in North America, Europe or China—mean that greater contributions from these sources will eventually drive down demand for hydrocarbons. As alternative energies become increasingly competitive, their share in the world's energy mix is bound to increase further. In light of these developments, crude producers such as the GCC and Iraq, which eyes oil production capacity of 9 million barrels a day by 2020, need demand assurance.”

To be sure, the long-term outlook for Asia remains encouraging – downbeat OECD figures or not. India's growth story will be extremely important because rising GDP will enable a growing middle class to start buying cars, and I believe India will turn out to be a demand story that we can't even see yet. China in many ways serves as a case in point. Today it is the world's largest importer of cars, tendency rising. Overall energy demand has jumped in recent years and—in the long run—will continue to climb as the economy continues to expand. In Africa too, energy demand is on an upward trajectory, representing yet another opportunity for Gulf producers to place their oil.

Going forward, demand security for producers will to a large extent depend on their ability to market their crudes in the large and growing consuming nations in Asia, and against competing volumes of oil from other parts of the world. Establishing new pricing mechanisms, decoupled from existing structures in the US and Europe, which create a new ecosystem that reflects the change in global demand dynamics could go some way helping offer greater demand security for producers. ■



Christopher Fix, CEO, Dubai Mercantile Exchange



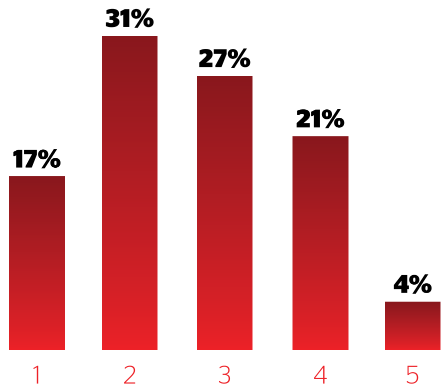
To Taper or Not to Taper, That is the Question?

Timothy Fox, Chief Economist, Emirates NBD and Trevor McFarlane, Research Director, Middle East and Africa, Gulfstat, Debate Industry Survey Results

Timothy Fox, Chief Economist, Emirates NBD, and Trevor McFarlane, Research Director, Middle East and Africa, Gulfstat, debate the answers to an Industry Survey of 150 energy executives conducted at The Gulf Intelligence Energy Markets Forum in Dubai on Sept. 24th, 2013

Q1. To Taper or Not to Taper – How will the US Federal Reserve's eventual tapering of its monetary stimulus program affect the global energy industry?

1. The impact will reverse a 10-year upward trend of oil prices on weaker Asian demand
2. No change as reduced energy demand in emerging markets will be balanced out largely by growth in developed economies
3. Money will get more expensive curtailing production capacity expansion which in turn will squeeze energy prices higher
4. Getting back to normal trend lines of monetary policy will make it easier to predict future supply and demand cycles
5. Nine billion people and $200 barrel here we come!



TIMOTHY FOX I went for answer 4. I think we should get back to normal monetary policy as soon as possible so that businesses have a clearer field in which to make decisions. Monetary policy has run too far, particularly in the U. S.. I think they made a mistake the other day by not withdrawing some of the stimulus that they've been sticking into the US economy. It was an optimal moment for them to have done so; the markets fully expected it and the economy was fulfilling a lot of the targets that had been set for it. They'll never get a better chance to execute a preliminary withdrawal of QE and have a relatively controlled reaction in financial markets and I think anything that goes on from here will potentially risk increasing volatility again. You could even say that the delay to reducing QE and eventually removing it could actually have a counterproductive impact on the US economy if consumers and businesses start to feel the doubts in the Fed about the prospects for growth.

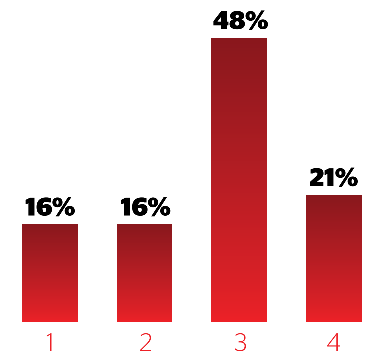
TREVOR MCFARLANE Tapering is going to have an impact on all of us and we've already seen this in emerging markets since the announcement in May. Although we are seeing lower growth rates in China of 7.5%, as His Excellency said earlier, energy demand will remain intact there. But if we look at what's happening in Latin America, in Brazil in the last quarter, the growth rate is down 2%; in India it's 4.4%. If these are the growth engines for the global economy, it's going to impact all of us. The countries that are going to be impacted are those with current account deficits, such as India, Brazil and Indonesia.

Now if we look at long-term structural trends and at the latest U.N. population projection figures, yes the main growth is happening in Africa and Asia; India is going to be the world's largest population in around 2030. But at the same time, an uptick in OECD growth can certainly do no harm for prices in the short-term.

It's probably not so realistic for an informal union to be formed. But it's true with regards to the tapering and particularly what Bernanke is saying now, which is yes - there's a lot of uncertainty, and basically get over it. It's interesting what the Indonesian Central Banker said a few days ago - that it's up to each economy to get their own current account deficit under control and tackle inflation. And when you look at the strong foundations in China, it's not just from growth; there's also surplus and low debt -this is why people haven't been bailing out of China.

Q2. Oil prices were in the $30s a barrel before QE started, what will be the consequence for Gulf oil producers as OECD economies start to show a return to growth as emerging markets weaken?

1. Beware the beast of inflation sending Asian customers over a cliff
2. End of QE means stronger outlook for OECD GDP growth = higher oil price
3. Gulf States win both ways with 3 billion customers on its east doorstep and world's richest economies on the west
4. It's time to get back to business and forget about all this monetary policy noise



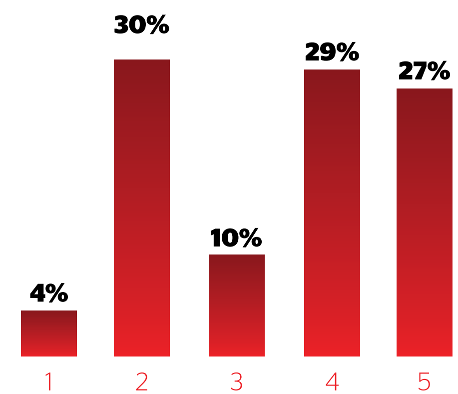
TIMOTHY FOX Well - there is probably an outcome where the Gulf can benefit from growth in the east and west. I also think the end of QE is probably a good signal for growth in OECD economies. It should signal confidence; it should signal investment plans, and it should ultimately signal consumption and a higher oil price. But I think it would be good if monetary policy went back into the closet again and businesses got on with the real task of making money.

TREVOR MCFARLANE Yes, I agree, but in reality for Gulf oil producers we have to remember where the oil is actually going; two-thirds of it heads east and into Asia and into the Pacific.

At the same time, for all producers, there are other issues at play that are a lot more interesting. There's the shale revolution of course, and also what's happening with natural gas. LPG is commonly finding itself in the tanks of light vehicles, trucks and lorries, but as it moves into ships, into power plants, into industrial and domestic heating systems in the US, this could shave demand off by maybe a few million barrels a day by 2020.

Q3. China has sustained current-account surplus, low foreign debt, huge exchange reserves, high savings and capital controls, while many emerging markets are buckling at the knees – how should one interpret the growing disconnect between Emerging Markets and China?

1. Don't short the China economic juggernaut now in its 4th decade of high altitude growth
2. China is the best at central command and Protectionism – But buyer beware as all it does is mask the internal economic and social issues that need tackling
3. China's growth pattern may be diverging from other emerging markets now – but it's just temporary
4. China health is tied to US and EU not Indonesia and India
5. All of the above and some



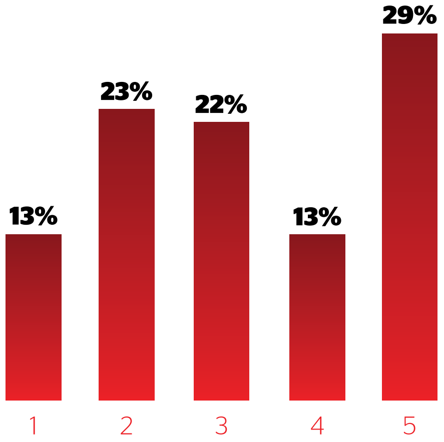
TIMOTHY FOX I'm with the majority this time. China is very different to all the other emerging economies in Asia. It is the biggest with an enormous population and it's a command economy so that makes an enormous difference to the way in which that economy moves and develops. It trades very much independently with the developed world economies, and also has an impact on the rest of Asia. Later this year, China's Politburo will be deciding on its next 5-year plan. You have the conservative element arguing for a steady, careful growth policy - focused on more investment in consumption and protecting its social infrastructure. And then you have the reformists arguing for breaking down some of the rules, allowing capital controls to be relaxed and creating a more fluid economy and therefore faster growth. At the moment, it seems that the conservatives will probably have the upper hand.

TREVOR MCFARLANE In many ways I think China was always the one with the financial muscle. When you look at the BRIC initiatives, effectively China has the power of veto. If you look at its GDP output, it's actually larger than all the other countries combined so without China, who really cares? This is the point. And this growing disconnect I would argue has always been there.

But everything is not rosy in China. The key issue for many moving forward is how the government manages to move away from this over-reliance on fixed asset investment, from building roads, bridges and factories etc, towards more consumption-led growth. This is what will carry the economy through and also better ensure social stability; when you have a one-party state, these things don't always end very well and this is a challenge for China. If we look at India by contrast, it's a large, thriving democracy which nudges the country in the right direction on the whole.

Q4. Japan's Abenomics seems to be working. Are we on the verge of a 'golden decade' for Japan?

1. Japan is back! The Abenomics fiscal and monetary stimulus will drive sustained economic growth
2. It's just hot air. Once the stimulus ends, it'll all be stagnation again
3. Stimulus or not - slowing emerging markets will be a drag on Japan's exports, and economy
4. Only if the other developed economies pull upwards as well
5. It's a bit early to say, isn't it?

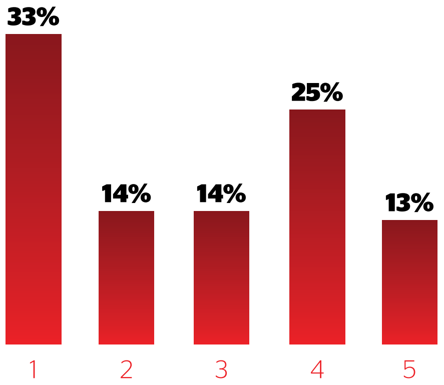


TIMOTHY FOX Abenomics has to get beyond the three arrows of policy which have been generated by the Prime Minister. Essentially, what Japan is engaged in is a huge money-printing operation. That money is going to a variety of areas - to the banks and sitting in cash, to local authorities which are not necessarily the best arbiters of where to invest it. And some of it's going overseas, so you're probably going to get a weaker Yen which will be beneficial for Japanese exports. But the jury is still out on whether it can sustain growth beyond the currency effect. The Yen hasn't really been affected by the Fed decision last week in the same way that other currencies were.

TREVOR MCFARLANE The Yen is in a good position for Japan as exporters; and although one may criticise the print-and-spend policy, at least it's jolted the economy and started to have some inflationary pressures in the market. Internally, there are massive structural reforms that need to happen - in labor, in agriculture and in health services. In the long-term, you can't be so bullish on Japan, simply because of the demography; economic growth comes down to people, cash and ideas and there's a percentage of the working population that is getting too old, so the most important reform that Abe needs to make is on immigration which is a very difficult policy to enact.

Q5. Emerging markets inflation is an unwanted offspring of the unusual economics of Quantitative Easing and now its tapering - what is the medium-term impact to watch out for?

1. They better get a grip on it - after all, this is how social unrest starts!
2. We better brace for corporate results to be hit by sustained slow growth in emerging markets
3. Bond markets in emerging markets will see troubled times
4. Economic pressures will lead to structural reforms, which in turn will drive renewed economic growth
5. It's too early to speculate about it

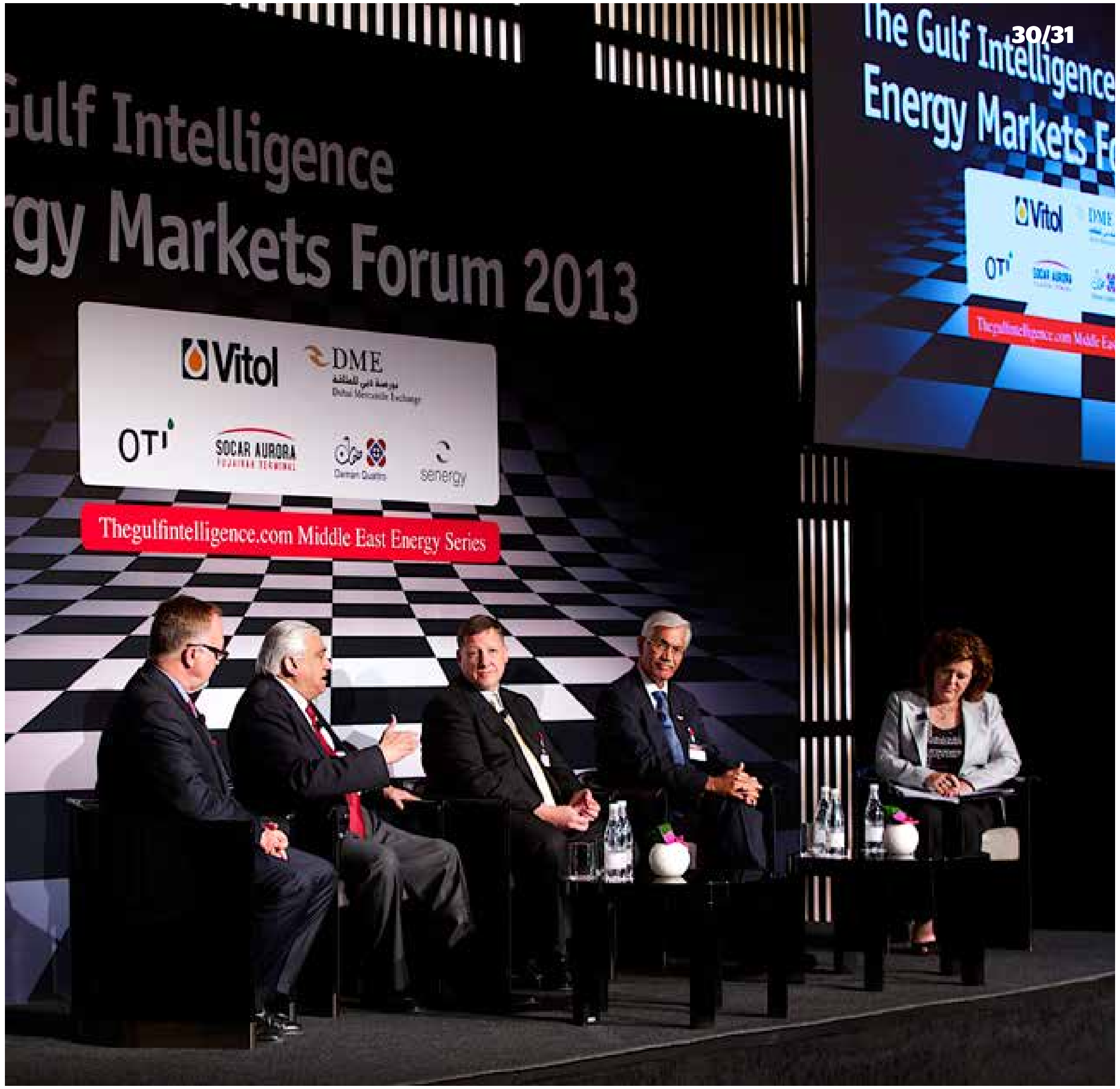


TIMOTHY FOX The currency impact is quite a large one to the extent that currency weakness in many emerging markets is being partly driven by the effects of QE, particularly as we've seen recently in India. I suspect that as yields start to push up in the United States as QE gets withdrawn, that will make life more difficult for emerging market economies' bond markets, so I would probably vote for number 3 in the survey.

TREVOR MCFARLANE Inflation is of course very important. You've seen the Reserve Bank of India tackling inflation quite aggressively recently. Globally, whether inflation is a concern to run into unrest is debatable. Inflation rates currently differ quite significantly - from very low in Europe to quite high for example here in the Gulf. Historically, inflation certainly has placed pressure on politicians but we're not today seeing the hyper-inflation - as we did in Germany in the 30's - that has a dramatic impact on humanity. We're not at that point yet. ■

Secure New-Silk-Road Energy Corridor East-of-Suez by Whom for Whom?

Talmiz Ahmad, India's former Ambassador to Saudi Arabia, Oman and UAE



POLITICS AND ENERGY have never been separated. They are an integral part of each other. They feed off each other. There is never pure energy economics. There's invariably energy politics and that is going to remain. This is going to be a defining aspect of the energy scenario for decades to come.

What have changed are certain realities with regard to the energy corridor East of Suez. Today, Asia is the principal consumer of Gulf production, with as much as 70% of Gulf production now being consumed in Asia – India, China and Japan and the Republic of Korea get most of their imports from this region. And, this dependence is going to grow.

Coupled with this, other realities have emerged: energy, trade and investments have created new and substantial connectivities across Asia, effectively constituting the New Silk Road of the 21st Century. This has certain political implications.

What we are looking at is a possible strategic paradigm shift in the Gulf. For far too long, for about 50 to 60 years, a single hegemonic power has dominated this region. And, much of the instability and insecurity of the region emanates from the policies and interventions of this hegemonic power. Can we now consider fresh ideas at this crucial stage when Asian countries have an abiding interest in the security and stability of this region? In fact, that this region is secure and stable is for them a matter of life and death.

I have a feeling that we are at the cusp of something new and something different. There are many challenges before us because the present security environment militates against the realization of a new security paradigm, though improving ties between Iran and the United States could be a major source of change in the regional political scenario.

Over the medium term, you could see some new initiatives from the Asian countries -- China, Japan, the Republic of Korea and India -- engaging with each other and defining, over a period of time, a role in the Gulf region that goes beyond economics and moves towards politics and strategic interests. I am confident that, with Asian propulsion, we can work towards a cooperative security architecture that would embrace all the regional and extra-regional role-players in an accommodative arrangement that promotes dialogue and understanding on the basis of consensually-accepted norms and principles.

CHANGING THE WORLD ORDER

Frankly, I am not particularly impressed with terminologies such as "American Century" and "Asian Century." These are gross oversimplifications and frequently misrepresent the true picture. For instance, the United States was certainly a powerful and influential role-player in the second half of the 20th century. However, for much of this period, it competed with the Soviet Union for influence and had its own debacles in Vietnam and Afghanistan.

Over the last 20 years or so, even though the Soviet empire has collapsed, new centres of influence have emerged, particularly on the basis of economic achievement, such as the BRICS institution. The difficulties the US has faced in Iraq and Afghanistan and generally in the so-called "global war on terror" suggest that the 21st century will also not see the exercise of untrammelled power by any single country or grouping.

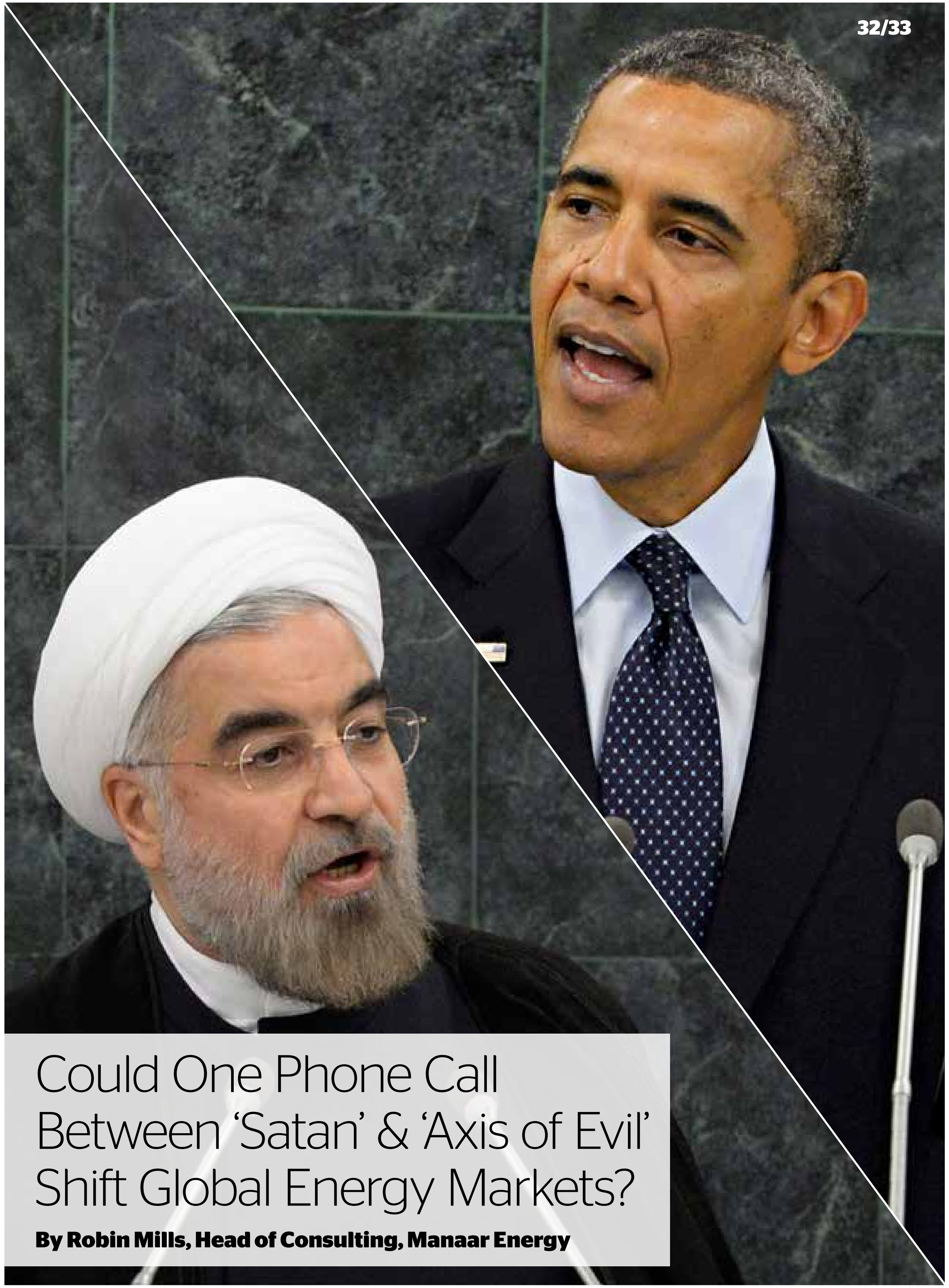
In fact, the challenges we face in this century are often global in character, such as climate change, natural disasters, desertification, energy security, food and water scarcity, problems pertaining to women and the girl child and, above all, the scourge of poverty; or emerge from unorganized non-state actors such as religious extremism, terror and piracy. All of these demand a globalised cooperative action rather than competitions and confrontations between countries or blocs.

That said, there is no doubt that the countries that constitute the so-called "West" continue to see themselves as a privileged entity, and frequently do operate in a unified manner to maintain their positions of influence through their domination of world institutions such as the United Nations and its various organs, the World Bank, IMF, WTO, etc., or through the exercise of brute military force. In fact, Western countries at times promulgate domestic legislation that is intended to influence the policies of countries outside their territorial jurisdiction.

"In fact, the challenges we face in this century are often global in character, such as climate change, natural disasters, desertification, energy security, food and water scarcity, problems pertaining to women and the girl child and, above all, the scourge of poverty; or emerge from unorganized non-state actors such as religious extremism, terror and piracy. All of these demand a globalised cooperative action rather than competitions and confrontations between countries or blocs."

This situation is often referred to as "neo-imperialism," which unfortunately remains a robust factor in world affairs. I do believe that this Western insistence on retaining its primacy in world affairs will be increasingly challenged by "outsider" countries from Asia, Africa and Latin America, which will set up coalitions against Western domination to subserve their own interests. In fact, with the BRICS countries now beginning to take joint positions on political issues, we just might witness a grouping that would in time confront Western hegemony and encourage the principal Western countries to play a more responsible role in cooperation with other countries. What we are looking at, therefore, is not so much an "Asian Century" but a more equitable, cooperative and accommodative world order. ■

Talmiz Ahmad, India's former Ambassador to Saudi Arabia, Oman and UAE



Could One Phone Call Between 'Satan' & 'Axis of Evil' Shift Global Energy Markets?

By Robin Mills, Head of Consulting, Manaar Energy

LATE SEPTEMBER'S phone call between the Iranian president Hassan Rouhani and Barack Obama – the highest level contact for three decades – made headlines. It might turn out to be no more than another of several false dawns during the long cold war between Iran and the United States. Or it could be the opening for a diplomatic breakthrough and a major shift in energy markets.

With a promising start at the latest round in nuclear talks, in Geneva, resolution of the dispute over Iran's nuclear programme could open the way to normalization of relations between the US and the Islamic Republic. There is still a long and winding path to that goal – it could be derailed by hardliners on either side, or by the inevitable pressure of turbulent events, in Syria or elsewhere.

But even a relaxation of sanctions could allow Iran to regain its role as a leading oil and gas player.

The new oil minister, Bijan Zanganeh, previously held the post from 1997 to 2005. His first tenure was regarded as a golden age by the Iranian oil industry and international companies. It certainly was, by comparison with the Ahmadinejad era that followed. But viewed objectively, it was only a partial success. Oil production increased from 3.8 million barrels per day to 4.2 million bpd, and gas output more than doubled.

Major contracts were signed with Total, Shell, Statoil and Russia's Gazprom. But major strategic goals were not met.

Other than Turkey, Iran did not become a gas exporter to its neighbors, which would have built its regional influence. It did not develop LNG exports despite exhaustive negotiations. The reformist camp around then president Mohammad Khatami was consumed in debate over whether gas should be exported, used in industrial development or to increase oil production. As a result, they achieved none of those things.

Domestic consumption soared because of profligate subsidies. And new oil developments dried up as international companies became frustrated with the unattractive "buy-back" terms. As long as sanctions persist, Iran can do no more than nibble around the edges, search for loopholes and try to implement a war economy.

But given a deal on the nuclear issue, Mr Zanganeh's announced strategy for his second period in office is sensible – to expand gas-based industries at home, develop new gas exports, restore oil production to pre-sanctions levels, and develop cross-border fields shared with Iran's neighbors in the Gulf, Iraq and the Caspian Sea. He would have to attract back experts from the Iranian Diaspora, sidestep bureaucracy and politicized decision-making – and convince oil majors that Iran was truly open for business.

The return of Iran as a global energy player would mean several things. Instead of one OPEC heavyweight – Saudi Arabia –as there has been over the past decade, there would be three, with Iraq and Iran joining the Saudis.

Iran's subsidy reform programme was derailed from a promising start by politicization, inflation and the collapse of the rial under sanctions pressure. It would have to be revived to control domestic demand and free up gas for export.

But then Iran could expand supplies to Turkey – desperate to diversify away from Russia – and on to Europe. Gas could also flow to energy-starved Pakistan, and perhaps some of Iran's GCC neighbors such as Oman. Given access to international technology, it could become a player in the crowded global LNG market by the early 2020s, with very competitive costs, second only to Qatar.

Russia would be the biggest loser from this realignment: not only will it lower prices for its oil, but also competition for its premier gas markets in Europe. China, India and the EU would be among the winners. The stars are briefly aligned: the phone call may disappoint – or set global energy on a new path. ■

Robin Mills, Head of Consulting, Manaar Energy

** This article originally appeared in 'The National'*

Asset Integrity is Critical to the Future of Mideast Oil Supplies to the World

James McCallum, CEO, Senergy

LIKE IT OR NOT – but the world's thirst for energy isn't going to let up any time soon. On the contrary, according to the Paris-based International Energy Agency (IEA), global energy demand will roughly double by 2050 driven largely by the expanding economies in Asia but also in Africa and parts of South America.

As the world demands more energy, the oil industry is taking on new, harder-to-access hydrocarbon reserves – including unconventional ones such as North American shale that have become economically feasible to develop in recent years – while at the same time seeking to extend the working life of existing assets to maintain output. This in turn has put a firm focus on asset integrity, making it a top priority for many operators around the globe.

Ensuring asset integrity in the oil and gas industry is particularly critical because failure to do so jeopardizes production, people's safety and the environment, and thus may have a negative impact on companies' operations and profitability. In the Middle East, where national oil companies (NOCs) are entering a new era of post-easy oil and starting to venture into technically more complex projects and hydrocarbon reservoirs, managing the integrity of new and existing assets is therefore becoming increasingly important for operators.

Many existing operating assets in the region – in particular in offshore locations – are 30 to 40 years old and are producing at their maximum installed capacity, often under harsh conditions. Many wells are being used beyond their lifespan, which introduces significant uncertainty about their integrity during the remaining service life. Unlike in other hydrocarbon-rich regions, oil and gas resources in the Middle East were in the past very easy to access. For operators, this has meant high productivity and low costs, which has allowed them to absorb any business inefficiencies that may have resulted from poor asset integrity management.

As costs rise or supply continuity becomes more critical, however, so does the significance of asset integrity and efficiency, which has led to increasing global use of digital oilfield techniques. Some NOCs have recognized the importance of establishing a clear picture of the well status for example so that uncertainties and risks can be managed better in the long term. Still, this approach isn't universally applied in the Middle East yet.

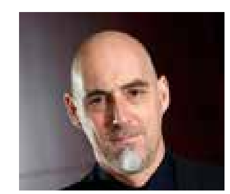
One of the risks NOCs in this region might run into – just like national operators in other parts of the world – is failing to acknowledge the need to change their strategy in order to manage ageing wells and infrastructure, and invest accordingly. The U.K., for example, has produced an industry-leading set of standards for well-related activity, which is recognized internationally. So far, this type of investment in the future of the industry is not seen in the Gulf region on a larger scale.

The issue is one of particular relevance in Abu Dhabi, where Adnoc is seeking to renew its onshore oil concession by early 2014 and its offshore concession by 2018. One of the key questions here is whether the requirements for any new license holder will include management of well integrity to a specific standard.

For the oil industry at large, there are other critical issues to be looked into, including how companies can ensure that those individuals with a stake in asset integrity truly understand the core concepts involved in effective integrity management and how their actions and decisions can have a major impact on a company's ability to operate safely and efficiently. As such, constant training and education of the workforce is seminal in order to ensure a thorough understanding of the risks on the one hand and to enable them taking personal ownership on the other. At the same time, there is a need to increase the focus on quality during the procurement process so that long-term reliability can be a significant part in any commercial evaluation.

Moreover, at a time when the industry is facing a global skills shortage that's going to worsen over the next 10 years, there are signs that knowledge and skills required for satisfactory management of well integrity are increasingly in short supply too. This is a particular challenge given that the specific skill set needed to address integrity management issues is typically acquired over a prolonged period of relevant work experience. It is therefore essential that the industry constantly works towards developing and training a capable labor force.

Among the initiatives that could be implemented across the Middle East is building research and development (R&D) facilities dedicated to asset integrity. This could be of particular interest in the Gulf region, where Abu Dhabi, Qatar and Saudi Arabia have already launched energy R&D centers with global aspirations. The advantage of developing local R&D capabilities would have a number of benefits, notably raising specialist technical capabilities and steering R&D to resolve issues relevant to the Gulf region. It would also support regional countries' ambitions to build knowledge economies. ■



James McCallum, CEO, Senergy

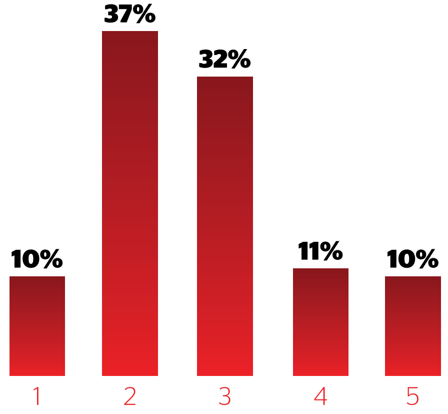
Survey Says – Iraq's oil production capacity could increase to as much as 5-6 million barrels a day by 2020, according to 150 Gulf-based energy industry executives

THE OIL MARKETS are certainly facing their fair share of headwinds – is it ever thus you may say! But what appears to be dramatically different on this occasion is that Brent crude remains boringly stuck in an uninterested slumber attached to $110 a barrel regardless of feast or famine threats wailing on all sides.

But plain vanilla consistency is certainly useful, for producers and consumers love nothing more than the stability of predictability, especially Iraq as it maintains a bold determined march towards the target of 10 million barrels a day with a new refreshing flexibility to adjust where necessary to ensure a win-win framework for all stakeholders.

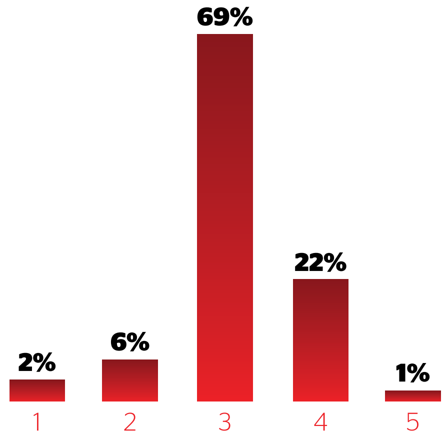
Q1. Analysts indicate that Iraq is unlikely to hit its target of 3.6 million b/d by the end of the year, raising questions about the country's ability to hit its long-term targets – At what level do you see Iraq's oil production capacity by 2020?

1. Current Levels
2. Close to 5 million b/d
3. Close to 6 million b/d
4. Close to 7 million b/d
5. Close to 10 million b/d and Surpass Saudi Arabia as OPEC's largest exporter



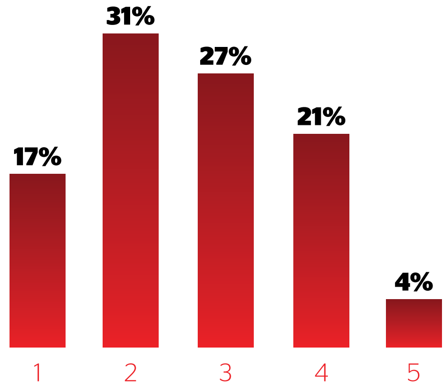
Q1. Brent crude prices have remained above the $100-a-barrel-mark the whole year, bar a few days, and touched a six-month high of $117.34 a barrel in late August on concerns over supply disruptions in Iraq, Libya and Nigeria, and a potential US military strike on Syria – What price will Brent crude oil average this year? stimulus program affect the global energy industry?

1. $130 a Barrel
2. $120 a Barrel
3. $110 a Barrel
4. $100 a Barrel
5. $90 a Barrel



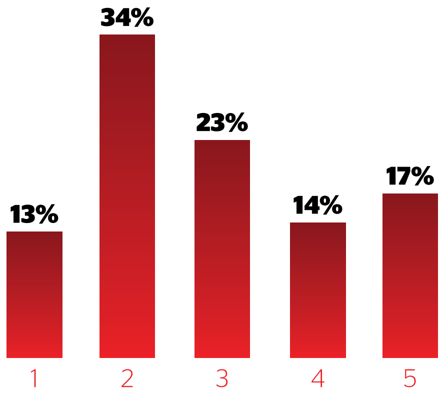
Q3. To Taper or Not to Taper -- How will the US Federal Reserve's eventual tapering of its monetary stimulus program affect the global energy industry?

1. The impact will reverse a 10-year upward trend of oil prices on weaker Asian demand
2. No change as reduced energy demand in emerging markets will be balanced out largely by growth in developed economies
3. Money will get more expensive curtailing production capacity expansion which in turn will squeeze energy prices higher
4. Getting back to normal trend lines of monetary policy will make it easier to predict future supply and demand cycles
5. Nine billion people and $200 barrel here we come!



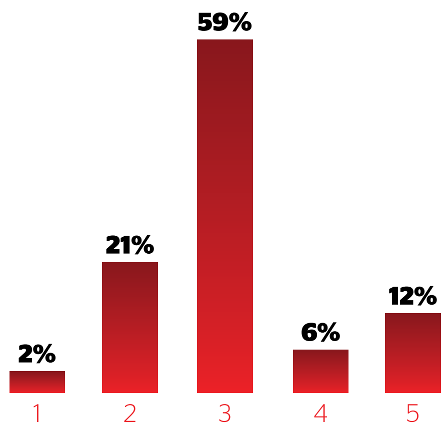
Q4. The US, Japan and Eurozone economies are all rebounding, while several major emerging economies may be approaching crisis. Morgan Stanley has named Brazil, India, Indonesia, Turkey and South Africa as the 'fragile five' – Is BRICS' day in the sun over as the growth pendulum swings away from emerging markets and back to advanced economies?

1. Yes! The weak currency/cheap labor punch bowl is drying up
2. No! US – Japan – EU face massive debt levels as they awake from stimulus addiction
3. It's just too soon to know as India-Indonesia-China still fluid
4. Neither! We are at the dawn of global growth from both OECD and emerging markets
5. It doesn't matter to Gulf Energy producers because either way you cut the global growth cake oil has permanently transitioned to triple-digit price



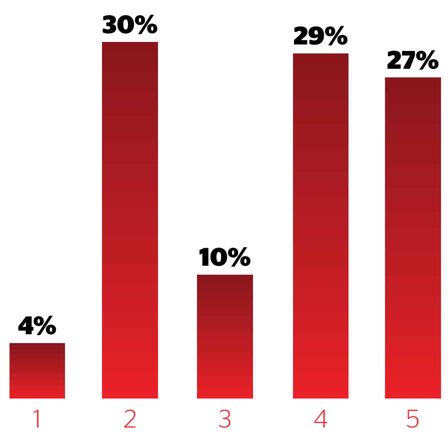
Q5. Gulf States aren't just among the world's largest energy exporters, they are also emerging as major energy consumers in their own right. In Saudi Arabia, for example, domestic oil consumption is projected to increase to anywhere between 5.5 million to 8.5 million b/d by 2030, according to different estimates, eating into the country's oil export capacity – What does the emergence of Gulf energy exporting nations as major consumers mean for global energy markets?

1. Oil prices will soar above $200 a barrel if Saudi oil consumption forecasts are realized
2. Gulf states will be able to raise production capacity to sustain export levels while meeting increasing domestic demand
3. Other energy sources such as Shale and Nuclear will make up for lower oil exports from the Gulf
4. No problem! Increased efficiencies in major consuming nations will reduce demand anyway
5. Gulf States will have to dramatically curtail government spending as oil revenue declines



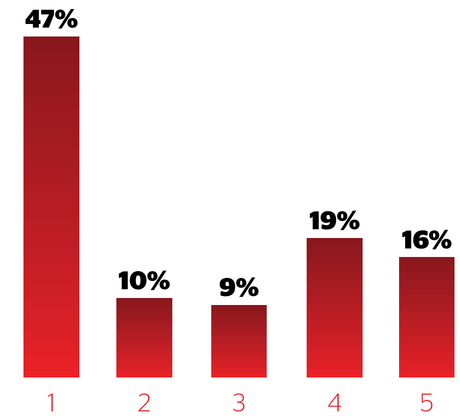
Q6. China has sustained current-account surplus, low foreign debt, huge exchange reserves, high savings and capital controls, while many emerging markets are buckling at the knees – how should one interpret the growing disconnect between Emerging Markets and China?

1. Don't short the China economic juggernaut now in its 4th decade of high altitude growth
2. China is the best at central command and Protectionism – But buyer beware as all it does is mask the internal economic and social issues that need tackling
3. China's growth pattern may be diverging from other emerging markets now – but it's just temporary
4. China health is tied to US and EU not Indonesia and India
5. All of the above and some



Q7. What is the biggest game changer at play in the global energy industry that will have a lasting impact?

1. North American shale oil and gas developments
2. The emergence of East Africa as a new energy hub
3. Ongoing technological advances in IT filtering through to the energy industry
4. The changing roles of NOCs, IOCs, independents and service companies
5. The Gulf region's emergence as a major energy consumer in its own right



Q8. Mega pipeline projects such as the Russia-China crude line are set to capture new, long-distance energy trade flows – Will big pipeline projects drive shipping companies' into stormy waters?

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