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OPEC, hope


by GIANNI DI GIOVANNI

The energy industry finds itself in highly complex, challenging times. The repercussions of the collapse in oil prices continue to have consequences that, though not perhaps perceived by much of the public (who are, however, pleased about saving money at the gas station), raise concerns for attentive observers. We have, of course, seen instances of sudden market movements in the past. *Oil* itself has addressed the consequences of such occurrences, but this time the feeling is that we are facing something different and far more serious: this time, the situation looks like a real systemic crisis.
The most visible sign of this came from OPEC's decision – essentially, Saudi Arabia's – not to cut crude oil production to support oil product prices, which it justified by a commitment to the market. The overall impressions left by this move are of an irreversible crisis of logic and a failure of traditional mechanisms in the face of a completely changed landscape. We refer especially to the evolution of the global energy market in response to the flood of new buyers hungry for resources. We've seen an availability of products that was unthinkable only a few years ago as a result of new extraction techniques and new industrial and commercial systems, and this has affected relations between producing countries and produced revolutionary changes in hierarchies and roles.
The importance of these changes cannot be exaggerated; indeed an effective response to them will be vital for the world's future. *Oil* has dedicated this issue to exploring this subject, in all of its complexity. Giving voice, as always, to a number of highly qualified experts, we have attempted to outline scenarios and perspectives, viewed objectively, from the perspective of the key players. At its center is OPEC, the Organization of Oil Exporting Countries, which has for over fifty years occupied, in the world of black gold, a key role, a role that the new international situation and internal dynamics now seem to have forced it to abdicate. We have sought to analyze the views and perspectives of other key players such as the United States, which, after the boom in new mining technologies, no longer considers the much longed for energy self-sufficiency a mirage. The American boom has directly challenged Saudi Arabia's heretofore unchallenged role as an absolute benchmark in the energy industry. We look too at Russia, which is also striving, despite the political and economic headwinds it currently faces, towards a key position in the production and marketing of oil by virtue of its vast reserves.
This jockeying for position has resulted in an extremely complex and, at the same time, fascinating and unsettling scenario: an intricate puzzle in which economic and industrial issues intersect with vital geopolitical issues; technical complexities with delicate choices of international alliances; financial crossroads with the fates of entire populations. Suffice it to say that speaking of oil and energy today means fully entering the dramatic realm of current events: from the Ukrainian crisis, to the fight against ISIS, from the balance in the Islamic world to the negotiations on lifting the Western sanctions imposed on Iran, to the relations between the United States and Israel, to name only a few.
The assessments, of course, do not always coincide, but on one perspective, *Oil's experts* converge: on a long-term basis, the oil industry requires stability, i.e., the absence of uncontrolled market volatility, to ensure the major investments necessary to maintain energy supplies. More cooperation is needed to ensure this stability, including new international institutions that encourage dialogue and promote common technical operations.
The debate among experts on the many issues related to this subject has been joined, but it appears increasingly necessary to engage the world's citizens to learn about and understand the implications of these revolutionary changes. Only an educated citizenry can be counted on to weigh appropriate responses to the difficult policy choices that are coming. *Oil*, as in its style, has aimed to offer, in this sense, its contribution of information and reflection. ■

No one is invincible


SERGIO ROMANO
was Italy's representative to NATO and Ambassador to the Soviet Union from 1985 to 1989. After his diplomatic career, he taught in Italian and foreign universities. He has written books on history and politics, and is a columnist for *Corriere della Sera*.

Perhaps we would have been less surprised by the arrival of ISIS and the declaration of the caliphate if we had remembered some of the main events that have taken place in the region since the end of World War II. In the early 1960s, in the wake of the Évian accords between Italy and Algeria, the decolonization process was considered complete. Aside from a small remaining British presence in the Gulf, all of the states of a region that had been Anglo-French were independent and on the path towards more or less capitalist or socialist modernization.
Thirty years later, many governments installed at the time of independence had been overthrown, modernization had failed completely and the ruling classes were often oligarchical, corrupt and nepotistic. The most interesting case was Iran, where, due to increasing oil prices following the Yom Kippur War (1973), Shah Reza Pahlavi was enticed by an ambitious, costly and megalomaniacal modernization process. A popular and bourgeois revolution overthrew the regime, but the prize of victory was won by Shiite clerical power and its main Ayatollah. The failure of secular modernization and the creation of an Islamic Republic triggered a sort of return to the faith. It also led to a reawakening of the ancient animosity between Islam's two large religious families: the Sunnis and the Shiites. Since then, the combination between politics and religion has been the primary cause of almost all conflicts that have erupted throughout the region. The first was between Saddam Hussein's Iraq and Ayatollah Khomeini's Iran. The war that broke out in 1980 lasted eight years and resulted in one million deaths. In many respects, the long Lebanese civil war was no less influenced by religious factors.
In response to increasing turbulence in the region, Western democracies could have conducted some limited interventions in cases in which their vital interests risked being compromised. But the U.S. and certain Western powers preferred to affirm their presence and role in the region. Between 1980 and 1988, the United States supported Iraq against Iran. In 1991, they invaded Iraq in response to a dispute between that country and Kuwait. In 2003, they accused Iraq of having weapons of mass destruction in its arsenals (an accusation that was later found to be false) and they invaded the country once again. This time, the result was even more disastrous. After defeating Saddam Hussein's army, the Americans destroyed the two pillars of the Iraqi state (the armed forces and the Ba'ath party) and ripped power out of the hands of the Sunnis to hand it over to the Shiites. They stirred up a dual resistance movement (nationalist and Sunni), and they sought to mobilize Sunni tribes against al Qaeda and other terrorist organizations. The destabilization of the entire region and the continuation of a conflict that was drawn out for more than a decade made Iraq an eternal battlefield. It has become the favored breeding ground for terrorist organizations, the easiest place for radical Islam to disseminate its calls to jihad and recruit new blood. The Arab Spring, which erupted at the end of 2010, the Western incursion against Colonel Gaddafi's regime, the crisis of the Egyptian regime and the suppression of the Muslim Brotherhood after the rise of the militarists only complicated an already confusing situation.

ISIS will have a greater chance of surviving if it can rely on the disunity of its enemies

ISIS is much stronger and more organized and motivated than the movements that preceded it. But it is not invincible. However, it will have a greater opportunity to survive and develop as long as it can count on disagreement amongst its enemies and the sympathy of certain Sunni countries that hate Shiites even more than they hate the "caliph" al-Baghdadi. ■

C O N T E N T S

● Welcome to *Oil*, a publication of news and ideas for the energy community and beyond. It provides authoritative analysis of current trends in the world of energy, with particular attention to economic and geopolitical developments.
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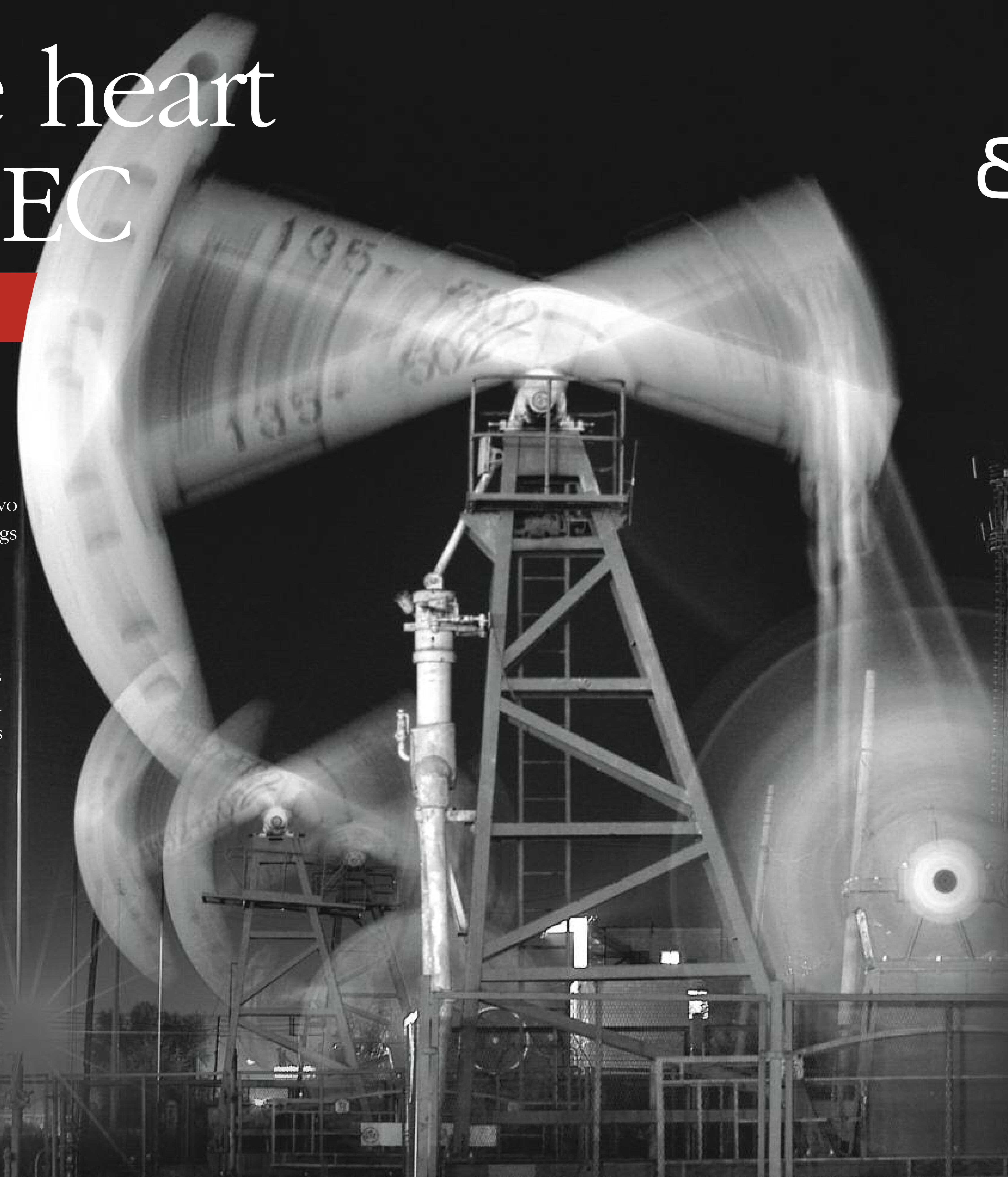
At the heart of OPEC

Vienna • June 3/5
OPEC meeting

OPEC will keep its production ceiling unchanged at 30 million barrels a day. This decision was reached on June the 5th, at the latest meeting in Vienna, after two days of meetings and proceedings during the 6th International Seminar. *Oil* was in Vienna to gather, first hand, impressions, reflections and comments about the role of OPEC and the effects of its decisions within the global energy community. Providing us with an insight into the latest decision of OPEC is Deborah Gordon, Director of Energy and Climate Program, Carnegie Endowment for International Peace



Strategies & reflections

by DEBORAH GORDON

The global oil market is in disequilibrium. OPEC's continuous production stream—together with new alternative oils flowing from the United States, Canada, and elsewhere—are flooding the market. Asia's economic downturn and a sluggish global economy are constraining consumption and pushing supply and demand further out of balance. OPEC hopes that demand will soon recover and prices will rise. But no one knows where prices will ultimately settle—or if they will settle at all. With this backdrop, OPEC decided at its 167th meeting to stay the course, maintaining its 30 million barrel per day ceiling and urging member countries to adhere to it. OPEC is sending the market a signal that, even through the lean years, its members plan to remain open for business. The terms, however, are highly uncertain. OPEC—along with everyone else—has been baffled by the multi-trillion-dollar reversal of fortune in the global oil market over the past year. Oil's dynamic economic, political, technological, and societal circumstances often change without warning. The lack of transparency, barriers to entry and exit, incentives to profit from others' losses, and mounting externalities can create blind spots.

OPEC'S CHARGE

It's amid such opacity that OPEC has reaffirmed its position to maintain oil production. That OPEC took this tack is not entirely surprising. That the organization remained entirely intact is. Formed in 1960 with five founding members—Iran, Iraq, Kuwait, Saudi Arabia and Venezuela—and expanded to include Qatar, Libya, United Arab Emirates, Algeria, Nigeria, Ecuador, and Angola, OPEC is often referred to as an oil cartel. However, this label may no longer apply. According to Brown University political scientist Jeff Colgan, "its members continue to have quite different interests and are unlikely to cooperate in any meaningful way." And experts dating back to the early 1980s have claimed that OPEC is an oligopoly with Saudi Arabia as the price leader and largest producer. While the relationship among its members is mystifying, OPEC has straightforward enough objectives. Its goals are to *coordinate petroleum policies* among member countries in order to *stabilize prices for petroleum producers* and efficiently *manage the supply of petroleum to consuming nations* while ensuring a *fair return on capital.*

REALITY CHECK

How realistic are OPEC's objectives amid today's unprecedented market uncertainty?

- Coordinate policies among its members? Yes, at least for the moment.
- Stabilize prices for producers? Impossible. OPEC couldn't prevent soaring prices last year or falling prices this year.
- Efficiently manage oil supplies? Dubious. OPEC isn't acting rationally to reduce oil production in line with anemic demand.
- Ensure a fair return on capital? Unattainable. OPEC argues that current returns are inadequate. But tomorrow's oils will likely cost more than $60 per barrel.

If OPEC can only achieve one of its stated objectives, namely coordination (an achievement in itself), does that call into question its very existence?

PAST AS PRELUDE?

It is not entirely clear what lessons OPEC can glean from more than five decades of experience in oil markets. But it's worth briefly recounting them to see if history can serve as a guide. Perhaps OPEC's greatest fear is an era of oil price volatility, pitting members against one another, creating rifts with non-OPEC producers, potentially destabilizing nations that depend on oil revenues, and confounding consumers. The ability to achieve price parity, however, may be more difficult than in the past. (See the Figure on p. 7).

During the postwar period, through the 1950s and 1960s, oil prices hov- →

ered around $3 per barrel ($20 in real, inflation-adjusted terms). In recent history, there has never been a more stable period in oil markets. The 1970s marked unprecedented oil market upheavals. U.S. recessions dampened oil demand and oil-rich Texas removed its production limits, shifting the power to control prices to OPEC. Geopolitics roiled oil markets due to an Arab oil embargo, the Iranian Revolution, and the Iraq-Iran war. The 1980s saw plummeting oil prices. OPEC attempted to set production quotas to stabilize prices. When members exceeded quotas, Saudi Arabia assumed the role of swing producer, cutting its production. Tiring of economic self-sacrifice, the Saudis more than doubled production in 1986. Prices tumbled and remained weak through the decade.

The 1990s brought more geopolitical strife. Oil prices spiked during the first Gulf War, but steadily declined to a recent all-time low by 1998. Japan's stagnation, high oil inventories, and expansionary oil production policies precipitated this fall. OPEC's rigid approach to weak prices was not considered very effective. By the 2000s, with the global economy humming and China booming, oil demand surged, driving up prices. By 2008, the oil market had hit an all-time high. And it's this set of circumstances that caused an oil paradigm shift chocked-full of market uncertainty.

TURNING THE PAGE

In the summer of 2014, the oil market was soaring in the triple digits. A year later, oil is selling for nearly half that price. OPEC's concerns over oil price uncertainty aside, there may be transformational changes coming to oil markets. As cheap, conventional resources dwindle, oils that fueled the twentieth century are giving way to an array of alternative oils. This is extending the age of oil. According to oil analyst Blake Clayton, author of *Market Madness: A Century of Oil Panics, Crises, and Crashes*, there is an assumption that "if [oil] has not been found yet, or cannot be extracted with today's technology or at today's prices" that it won't ever exist. Yet we haven't run out of oil and history has repeatedly refuted this claim. The twist in the story is that much of tomorrow's oil won't be as cheap as yesterday's. Prices will rise to cover higher operational costs, mounting environmental externalities, increasing risks, and demanding economic rents. And the higher future oil prices rise, the more there is at stake for tomorrow's marginal oil producer.

OPEC'S GLUE

Saudi Arabia is OPEC's de facto leader and largest producer, supplying approximately one-third of its oil. Whether its dominance will last, and whether the organization can be held together are burning questions. In the meantime, the Saudis and their stanch position appear to be the glue holding OPEC together. There are numerous explanations for the Saudi's steadfast decision for OPEC to maintain production. The most honest is that OPEC doesn't have the ability to engage in a price war. But there are other possible reasons. First, pumping oil while prices are low helps Europe, China, and others' economies to recover, slowly rebooting demand. This could cement relationships with those buyers the Saudis need in the future. Second, maintaining production delivers an economic blow to Russia, Saudi Arabia's real oil competitor. The Saudis may also be attempting to slow America's fracking boom and Canada's oil sands development, which are more price sensitive than their (and most OPEC nations') production. By holding production relatively constant, the Saudis gain pertinent information on the marginal costs of North America's unconventional oils. And last but not least, in pressing their position, the Saudis may be reminding OPEC members who's really in charge when it comes to future realignments in oil markets. Backing down is not an option; they aren't going to cut production. According to Saudi Arabia's Oil Minister Ali al-Naimi in December, "[That's a] position we will hold forever, not [just] 2015."

BREAKING BONDS

Despite support for the Saudis' position from the Qataris, Kuwaitis and Emiratis, there may yet be a conflict brewing within OPEC. Iraq's surging production and the possibility of Iran returning to its post-sanctions oil output with a successful nuclear deal could threaten Saudi Arabia's influence and authority. Nigeria is grumbling. In February, Nigeria's Oil Minister, Diezani Alison-Madueke, complained, "almost all OPEC countries, except perhaps a few in the Arab bloc, are very uncomfortable." Venezuela is scheming. In April, Eulogio del Pino, the head of the state oil company PDVSA, proposed blending their extra-heavy oil with light Algerian and Angolan oil to compete against swelling North American supplies. Ecuador, OPEC's smallest member, is bargaining. Its president, Rafael Correa is slashing budgets, reforming taxes, and borrowing from China. What leverage do the Nigerians, Venezuelans, and Ecuadorans really have to sway OPEC policy? They can attempt to protest or get creative. Or they can exit—which they are reluctant to do. It may be less that the Saudis have succeeded in retaining membership in trying times than there is nowhere for discontent members to go.

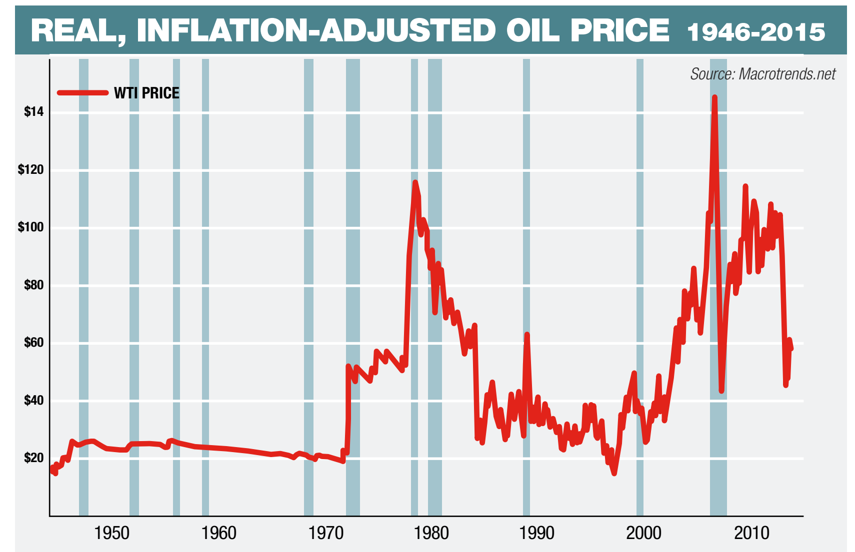
Can the Saudis hold OPEC together? There are more questions than answers surrounding OPEC, its position, and tomorrow's oil supplies. How will the oil sector reshape itself this time around? In reconfirming its decision to maintain oil output amid slow economic growth and increasing global oil supplies, can OPEC manage this sector's growing risks? Will greater competition come from within OPEC or without?

RISKIER BUSINESS

There's no debating that oil is risky business—economically for investors, operationally for industry, geopolitically for nations, socially for communities, and environmentally for the earth. But is it getting riskier? Two major concerns from different spheres, both private (speculation) and public (climate change), are barreling down on OPEC and oil markets. Together these *unpriced* externalities impose significant premiums on oil markets that are estimated to cost as much as a barrel of oil itself, or possibly more. On a private front, speculation may be driving oil markets more than supply and demand. According to OPEC Secretary General Abdalla Salem El-Badri, in an April bulletin commentary, actual market fundamentals may not be solely responsible for plummeting oil prices. Instead, he stressed that speculators—"phantoms of energy markets"—have played a meaningful role in the fall.

Dealing in "paper barrels," where the player never takes physical possession of actual barrels has futures markets trading an order of magnitude more virtual barrels than the market can supply. Moreover, speculators routinely arbitrage oil, purchasing low-priced crude and holding it in storage, until they can recoup handsome profits. Oil volatility is becoming a new asset class for investors. OPEC's *Monthly Oil Market Report* observed last September while prices were falling that "hedge funds and other money managers chose to reduce their net long positions in Brent and WTI futures trading by a hefty 73 percent and 45 percent, respectively, exerting even more downward pressure on prices."

Oil volatility is thought to have jumped to its highest level since the financial crisis. OPEC is concerned that speculation will ultimately destabilize markets.



The graph relates the recessions of the U.S. economy (green stripes) with the trend in the price of WTI crude oil.

SOCIAL LICENSE

From a societal perspective, the externalities associated with oil are large and increasing. It is unclear how seriously OPEC and its western competitors take their social license to operate. The upcoming climate talks in Paris could offer a meaningful reminder. And the reminder may be necessary. Apparently, when an audience of over 300 delegates gathered this June at OPEC's International Energy Seminar was asked in a show of hands whether they believed a binding agreement to limit global warming would result, no one raised their hand. Saudi Arabia could assume a leadership role, however. Their oil minister reportedly continues to warn about the "dangers of the industry failing to act to help to limit global warming." So too could the EU oil industry—Royal Dutch Shell, Total, Eni, BG Group, BP, and Statoil. Ahead of OPEC's seminar, they collectively called for a "binding global system to govern carbon pricing." And Shell's CEO, Ben van Beurden, proclaimed that the global energy system needs to undergo "a transition from the traditional model based on oil and coal to a progressively cleaner, less carbon-intensive model." Inspiring words from OPEC and non-OPEC producers.

But are they actionable? High oil prices spurred new oil supplies. Low oil prices will likely spur growing oil demands. Both run the risk of increasing the oil sector's climate footprint.

TOMORROW'S OIL

As conventional oil dwindles, producers and refiners will have to learn how to handle a new array of alternative oils. These resources are very different from the conventional oils OPEC produces, and from each other. For example, Alberta's oil sands and North Dakota's light tight oil have little in common except that they can be turned into marketable petroleum products—and even there they differ.

In a recent report, *Know Your Oil*, the Carnegie Endowment for International Peace, Stanford University, and the University of Calgary estimate that there is an 80 percent difference in total life-cycle greenhouse gas emissions between the highest- and lowest-emitting oil in a sample of 30 global oils. That difference in only 5 percent of the world's current production is surprisingly large—and large enough to matter. What's more, prospective unconventional oils modeled using Carnegie's *Oil-Climate Index* are expected to expand that emissions range further. The large and variable climate footprint of oil speaks to the issue of *stranded assets* that suffer from unanticipated or premature write-downs, devaluations, or conversion to liabilities. Significant oil assets will almost certainly be stranded. There are estimated to be at least ten times more fossil fuel reserves slated for future exploitation than is compatible with the 2 degree Centigrade climate target—the safety limit agreed to by the world's nations.

THE EVOLUTION OF OPEC

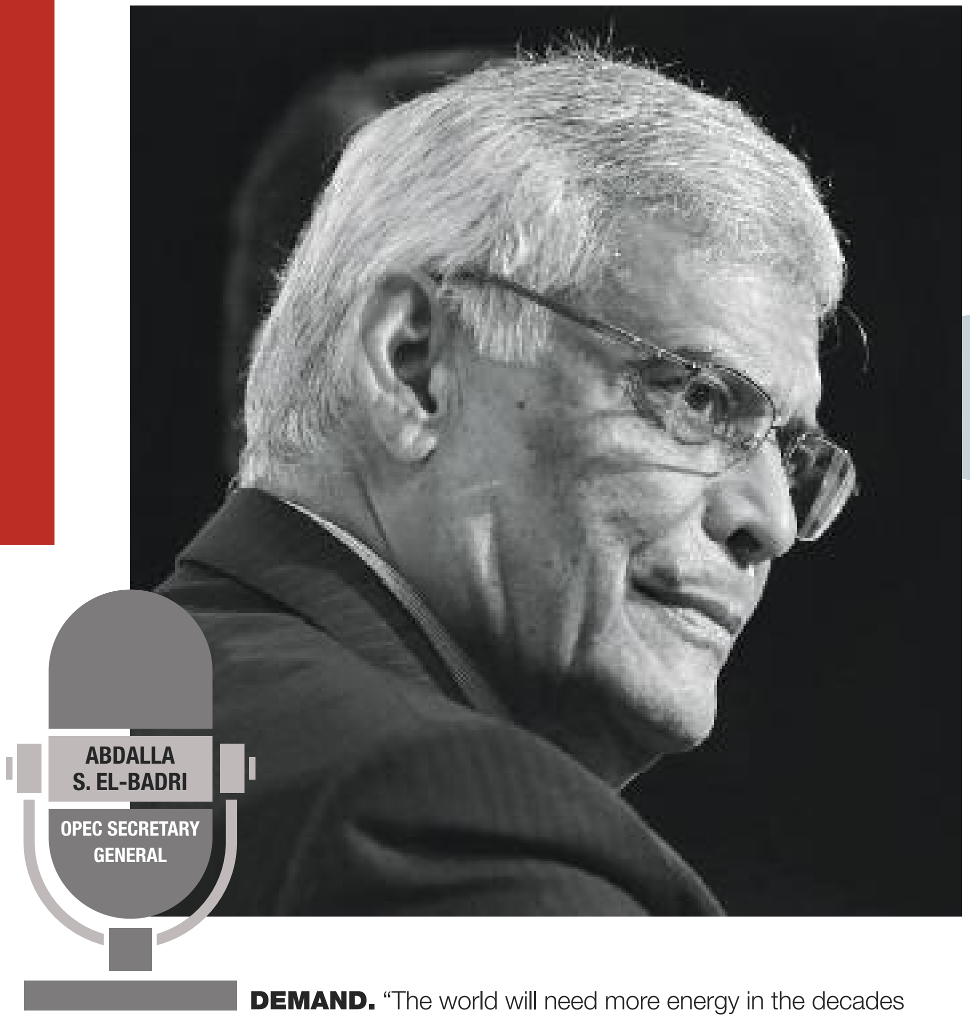
OPEC is being challenged on many fronts. Its future is not guaranteed. In order to survive, the organization may need to innovate, regroup, restructure, and renew its mission. Important questions remain. Will OPEC nations like Saudi Arabia diversify their economies away from oil? Can OPEC provide a larger tent and would that improve market function? Can OPEC burnish its image through greater integration and transparency in the global system? Can oil revenues bring national and regional stability? How will the world's major oil consumers—China, India, and others—figure into the equation? Full disclosure from here on out—or as close to that as is possible for OPEC—will likely be necessary for the organization's very survival. Petroleum exporters—OPEC and all others—will need to compete more openly in the global marketplace. According to Oxford Institute for Energy Studies founder, Robert Mabro, in The Oil Price Crisis of 1998, it's a "fallacy to believe that withholding information on production, investments or stocks improves the producer's [market] position. Transparency pays much higher dividends." It will benefit OPEC to be creative and candid about its plans to evolve. Motivations for OPEC to evolve could advance on many different fronts: economic rivalry from other oil producers, threats from unconventional oil resources, geopolitical tensions and regional strife, technological breakthroughs on oil alternatives, societal concerns stemming from climate change, or unforeseen risks. Come December 4th, OPEC will meet again about production levels. The odds are high for keeping the status quo if you take the Saudis at their word. The odds are small otherwise for adopting a radical shift. Either way, OPEC has some serious thinking to do. And it's best for all involved if OPEC thinks out loud.

THE AUTHOR
Deborah Gordon is director of Carnegie's Energy and Climate Program, where her research focuses on oil and climate change issues in North America and globally. Gordon has managed an active energy and environmental consulting practice, taught at Yale School of Forestry and Environmental Studies, and directed the Energy Policy Program at the Union of Concerned Scientists. She began her career with Chevron. She is the author of two books, *Steering a New Course* and *Two Billion Cars* (with Daniel Sperling), and numerous other publications.

OPEC meeting

Voices of the key players

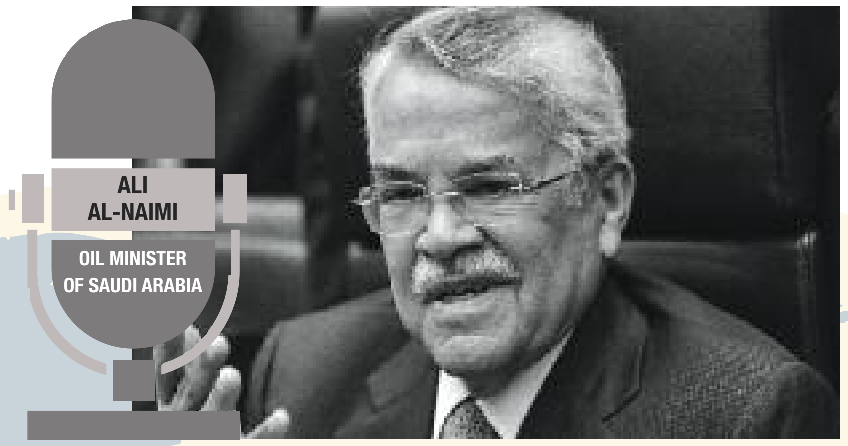
by Simon Tompkins



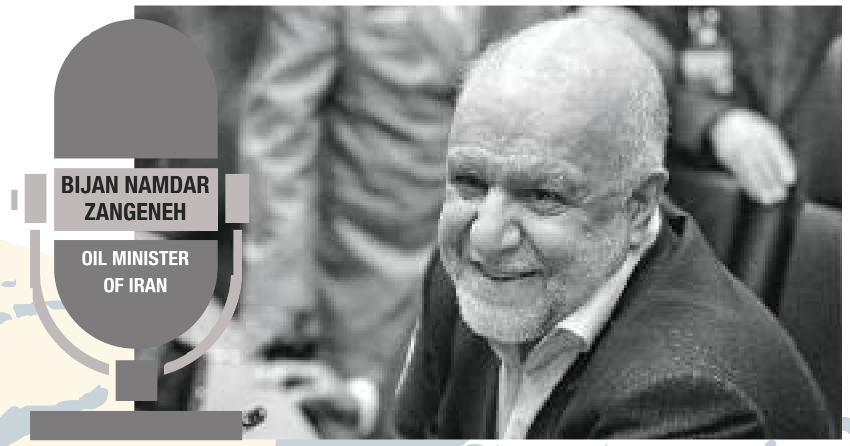
DEMAND. "The world will need more energy in the decades ahead, as the global population expands and economies grow, and as countries seek to provide the energy poor with access to modern energy services, the global need for energy will grow. In OPEC's most recent World Oil Outlook, energy demand is set to increase by around 50 percent between 2015 and 2040. I think that most of us here today also understand that the world has enough energy resources to meet these expected future energy needs. The key questions about our energy future relate to deliverability and sustainability."
Looking ahead, from the perspective of oil we see demand growing to 111 million barrels a day by 2040, an increase of around 18 million barrels a day. This expansion will require huge investments. It means we need to have clarity in terms of demand and, in turn, supply.

CRUDE'S ROLE. "Fossil fuels will continue to play a dominant role in meeting energy demand, although their overall share will fall from around 82 to 78 percent during this period.
By the 2030s, the share of oil, coal and gas are anticipated to be at similar levels, at around 25 to 27 percent."
"Yes, we need to continue to develop renewables. But they cannot be seen as a replacement for fossil fuels in the coming decades."

RELATION WITH NON-OPEC COUNTRIES. "We also welcome recent OPEC and non-OPEC discussions. I have read many reports that suggest OPEC is targeting specific non-OPEC countries or producers with its decisions. This is not true. We welcome all energies. We welcome all producers.
In the current market environment, I think we can all appreciate that the challenge of maintaining the supply-demand balance and reaching price stability requires the cooperation of major non-OPEC producers. We should remember what cooperation between OPEC and non-OPEC producers achieved back in the 1998-1999 crisis. While none of us can plot the exact path of our energy future, I think we can all agree that our shared objective must be a stable and sustainable energy future for all."



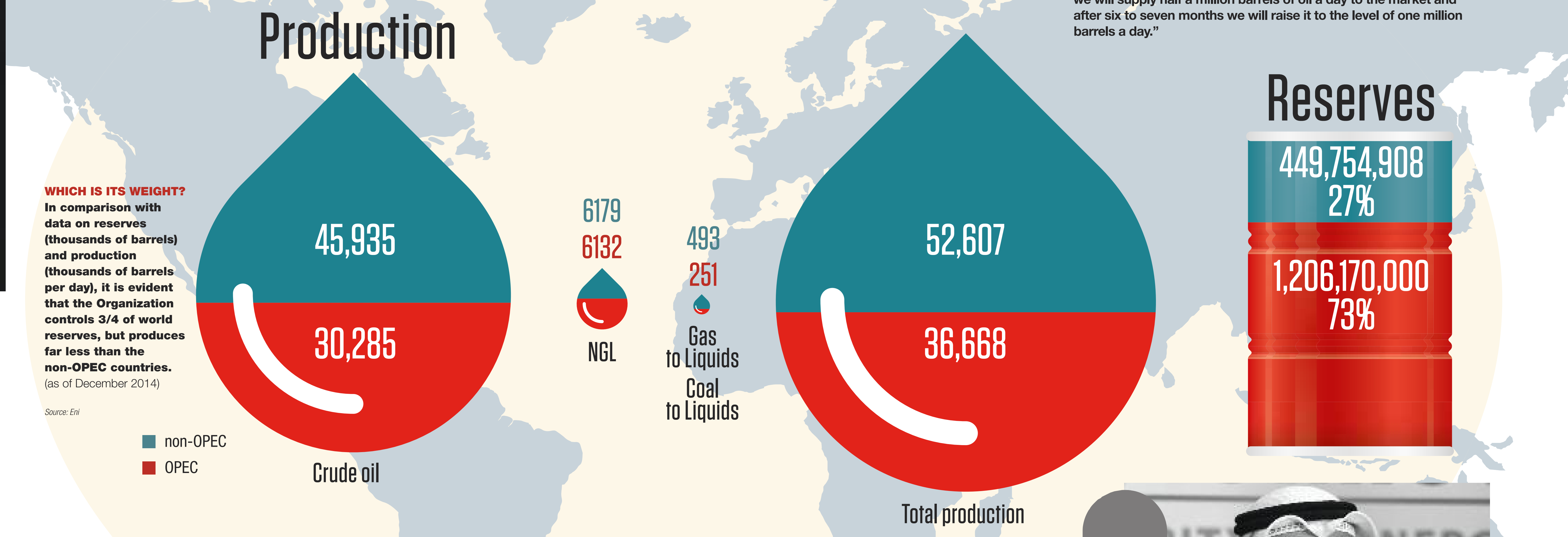
"Have we ever told Iran what to produce? Production is a sovereign right. They are free to do as they want."



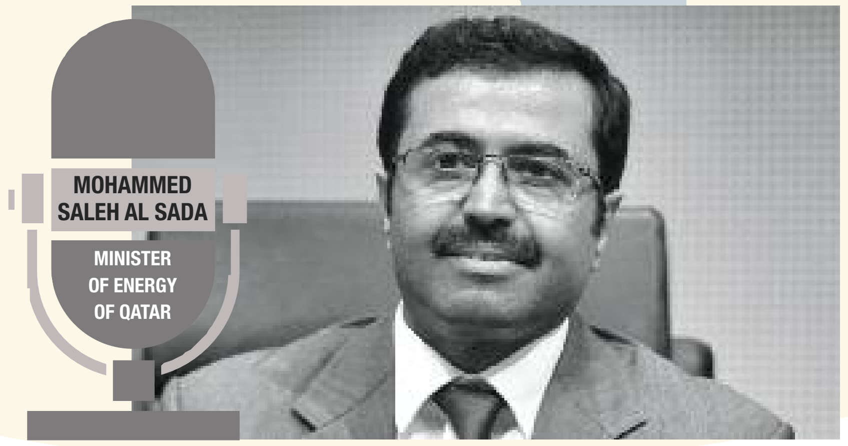
"We believe return of Iranian oil to the market should be gradual, not needing a long time. Instantly or one month after lift of sanctions, we will supply half a million barrels of oil a day to the market and after six to seven months we will raise it to the level of one million barrels a day."

WHICH IS ITS WEIGHT?
In comparison with data on reserves (thousands of barrels) and production (thousands of barrels per day), it is evident that the Organization controls 3/4 of world reserves, but produces far less than the non-OPEC countries.
(as of December 2014)

Source: Eni



"I expect a growing demand; it is currently higher than expected and this indicates the rise in prices, which will rise again later this year. I expect a price of around $75 a barrel."



"There is a great deal of cooperation between us, through the secretariat, which monitors the dynamics of the market and circulates information that is useful in responding to these dynamics. OPEC does not apply its policies and isolate itself from the market and among ourselves there is a great deal of cooperation and mutual understanding. This is the atmosphere prevailing at the moment."

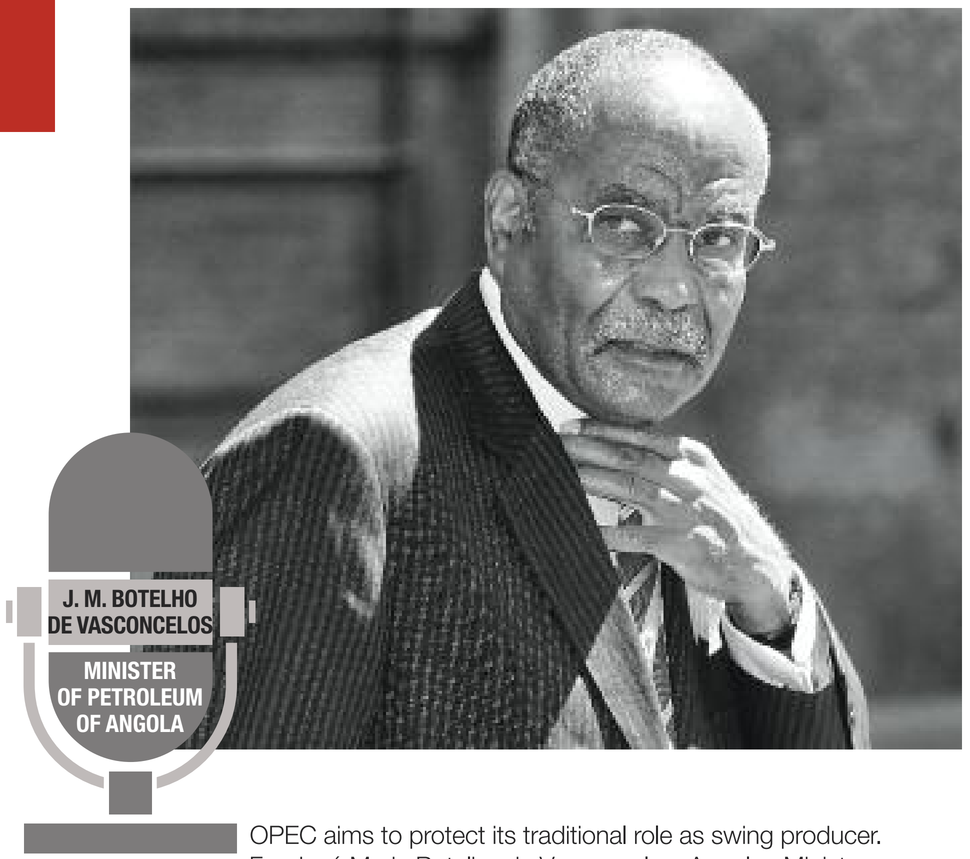
"I strongly believe that Gulf OPEC members should give their support by keeping the cartel's production ceiling unchanged."

"OPEC role as reliable supplier will be enhanced for decades to come, despite on-going recent growth in non-OPEC supplies. Hence..."

ANGOLA Interview with José Maria Botelho de Vasconcelos, Minister of Petroleum

An institution working to keep its role

The cartel of producing countries is working to preserve its mission and to establish a long-term forecast for the oil market



OPEC aims to protect its traditional role as swing producer. For José Maria Botelho de Vasconcelos, Angolan Minister of Petroleum, with whom we met up during the OPEC International Seminar, the only response to the significant challenges facing the organization is to continue working.

Many in the energy sector believe that OPEC has lost its role as a swing producer, in other words, as a cartel capable of easily decreasing or increasing extraction. What do you think about this?

I don't believe this to be the case. OPEC is an institution that has been around for about fifty years and we are working to keep up its role and definitely not to lose it.

Over the next ten years OPEC expects that the price of oil is unlikely to return to $100 a barrel. This would obviously create a problem for exporting countries.

We are an exporting country, we continue to export and at the moment the price is not favorable for us but we continue working. Even during this seminar, oil producers, as well as oil companies, are working to establish a long-term forecast. I believe this is a sign that our activity will continue.

How much of an effect will the growing power of non-OPEC countries, especially the United States and Russia, have on the development of OPEC's role?

I believe it would be better to ask this question directly to non-OPEC countries.

"We have made the best decision that we could, and we continue to work on strengthening OPEC and maintaining a reasonable and fair price for our main resource, oil."

The Magnificent 12

Source: Eni

Crude oil production in 2014	
Middle East	22,128
Saudi Arabia	9720
UAE	2759
Kuwait	2800
Iran	2812
Iraq	3332
Qatar	706
Africa	5144
Algeria	1121
Angola	1661
Libya	460
Nigeria	1902
Latin America	3013
Ecuador	551
Venezuela	2462
OPEC	30,285

(thousand barrels/day)

Crude oil production in 2014	
Middle East	792,344,000
Saudi Arabia	265,789,000
UAE	97,800,000
Kuwait	101,500,000
Iran	157,800,000
Iraq	144,211,000
Qatar	25,244,000
Africa	106,644,000
Algeria	12,200,000
Angola	9,011,000
Libya	48,363,000
Nigeria	37,070,000
Latin America	307,182,000
Ecuador	8,832,000
Venezuela	298,350,000
OPEC	1,206,170,000
non OPEC	449,754,908
WORLD	1,655,924,908

(thousand barrels)

Total oil production (*)	
Middle East	26,966
Saudi Arabia	11,548
UAE	3578
Kuwait	3100
Iran	3442
Iraq	3419
Qatar	1880
Africa	6228
Algeria	1578
Angola	1735
Libya	498
Nigeria	2417
Latin America	3223
Ecuador	551
Venezuela	2672
OPEC	36,417

(thousand barrels/day)
(*) does not include GTL, CTL, biofuels and processing gains

LNG production	
Middle East	4838
Saudi Arabia	1828
UAE	819
Kuwait	300
Iran	630
Iraq	87
Qatar	1174
Africa	1084
Algeria	457
Angola	74
Libya	38
Nigeria	515
Latin America	210
Ecuador	0
Venezuela	210
OPEC	6132

(thousand barrels/day)

"This is what all of us should be thinking about globally, prices should be reasonable in order to be able to make long-term plans in our countries, for example, with regard to education, health, roads and whatever else may be needed."

"I am to assure OPEC Heads of Delegation, of a new dawn in Nigeria and the capacities of a new President who understands and appreciates the prospects and challenges of our Organization like no other former Nigerian Head of State, having being a Minister of Petroleum Resources before."

UAE Suhail Mohamed Al Mazrouei, Minister of Energy

"We are the most reliable producers"

The production of the Organization is reliable, economical and should be the best. The price? It's the market that regulates the price. The real task is to guarantee sufficient supply

OPEC has never had the role of a swing producer, according to The Minister of Energy of the United Arab Emirates, Suhail Mohamed Al Mazrouei, who spoke to us in an interview after the conference in Vienna. He believes that OPEC and non-OPEC countries are "complementary" and that the Organization should not worry about prices, but rather about supply.

According to many people, OPEC has lost its role as a swing producer, especially as a result of last year's decision not to cut production. Is this really true? Could OPEC be reborn and strengthen its role?

OPEC's role has never been that of a swing producer. In reality, we are the most reliable producers, and one of the most economical producers in the world, if not the most economical. We should always be a basic producer. Our production is reliable, economical and should be the best. More expensive production should take place when the price is right. This is a logical process in a market involving raw materials. And this is where we find ourselves today.

How much of an effect are non-OPEC countries having on OPEC's role?

We are complementary, we are producers of oil and other raw materials, where the most expensive product is at the top and the most reliable base at the bottom. This is what is happening. And it's logical.

OPEC forecasts that over the next ten years, oil will not return permanently to a price above $100 a barrel, and that its highest price in 2025 will be $76... If accurate, this scenario puts exporting countries in a difficult position.

I could never predict the price of oil in the future. Because I would always be wrong.

But the price is a problem, first and foremost, for exporting countries.

Our job is not to worry about the price, but to be concerned about supply and to make sure that supply is sufficient. The price will regulate itself on its own. It's the market that will regulate the price.

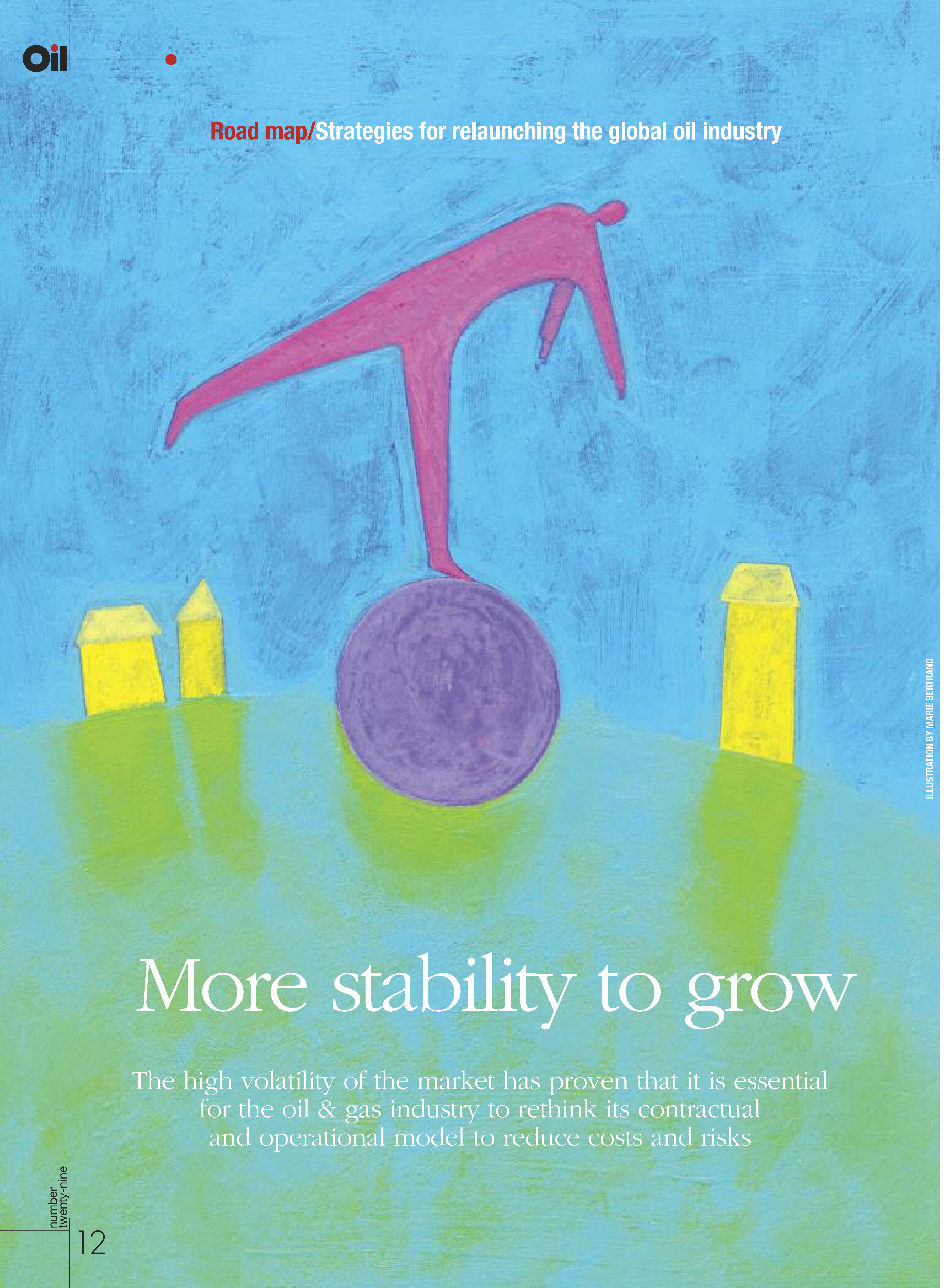


ILLUSTRATION BY MARIE BERTRAND

Road map/Strategies for relaunching the global oil industry

More stability to grow

The high volatility of the market has proven that it is essential for the oil & gas industry to rethink its contractual and operational model to reduce costs and risks

by CLAUDIO DESCALZI
Eni Chief Executive Officer

The last few months have seen the global oil industry engaged in a fast-moving series of calculations and analyses that may restore their hopes for a sustainable future. The climate of anxiety, though, is still tangible amid the increasingly obvious effects on the markets of the sudden drop in oil prices, as well as the appeal, by the major oil companies, for strategies on cost-cutting and downsizing investments. This highly difficult environment may, paradoxically, provide an opportunity for a thorough review of the model under which they've been operating, ensuring the economic viability of an increasingly complex production system and consequently ensures more stable, long-term growth. The success of shale oil, which has recorded a production, over just 3 years, of 3.5 mb/d, has added yet another layer of complexity to the system. In the U.S. alone over the last decade, an investment of approximately 25 percent of total expenditure between 2005 and 2014 has resulted in a growth in production amounting to 5 mb/d, or 75 percent of the global production of liquid hydrocarbons, mainly due to the positive production waste generated by shale oil. This, in turn, has undoubtedly affected the latest sharp fluctuations in the price of crude oil, reflecting the fact that the traditional dynamics between production cuts and price support have now been overridden by the American "spare capacity" which, moving as it does on shorter production cycles, allows rapid "start/stop" production operations tied to market conditions. It seems reasonable to assume that whatever price oscillations we see, we are unlikely to go above $100 per barrel in the near future. It is easy to understand, in the face of the high rate of investment over the past decade, how this trend provides a disincentive for new production initiatives. This one perspective, which draws the attention of all workers to the urgent need to identify the ways in which the industrial sector may preserve energy continuity and ensure, at the same time, adequate growth, especially considering that in recent years, despite prices being well above $100 per barrel, the industry has experienced difficulty in maintaining cash and increasing production.

A complicated situation if traced back to the relationship between total capex in the industry, which, in 2014, was approximately $700 billion, equal to 250 percent more compared with a decade ago, and the increase in global production advanced by a mere 15 percent.

WHAT EFFECTS WILL WE SEE OVER THE NEXT TEN YEARS?

This environment includes the efforts of the major oil companies to stem, as far as possible, the difficulties resulting from a drop in oil production by approximately 10 percent, also considering the PSA effect, despite the substantial increase in investment. An alarming situation, directly linked to a not too distant past, when companies partly revised their investment strategies, increasing the technical complexity of their development projects, which were to be managed and run by contractors. The industry has allocated most of its capex to highly-complex, capital-intense projects such as the expansion of LNG and the development of tar sands and ultra-deep water projects. If we consider that, with regard to these types of projects, the breakeven point may exceed $100 per barrel, as things stand, the difficulties in sustaining the resulting economic effort in the long-term can be well understood. Faced with such a prospect, and under the ax of the decline in oil prices, the industry has found itself obliged to intervene by substantially cutting investments and cancelling or, at best, postponing more complex and costly projects. The forecast, to date, is that the effects of this action could have a negative impact in the relatively near future on the growth and sustainability of supply, threatening to cause a material gap between production and demand within the next decade, with direct results on the economies of importing countries.

A RATIONAL REVISION OF INVESTMENT

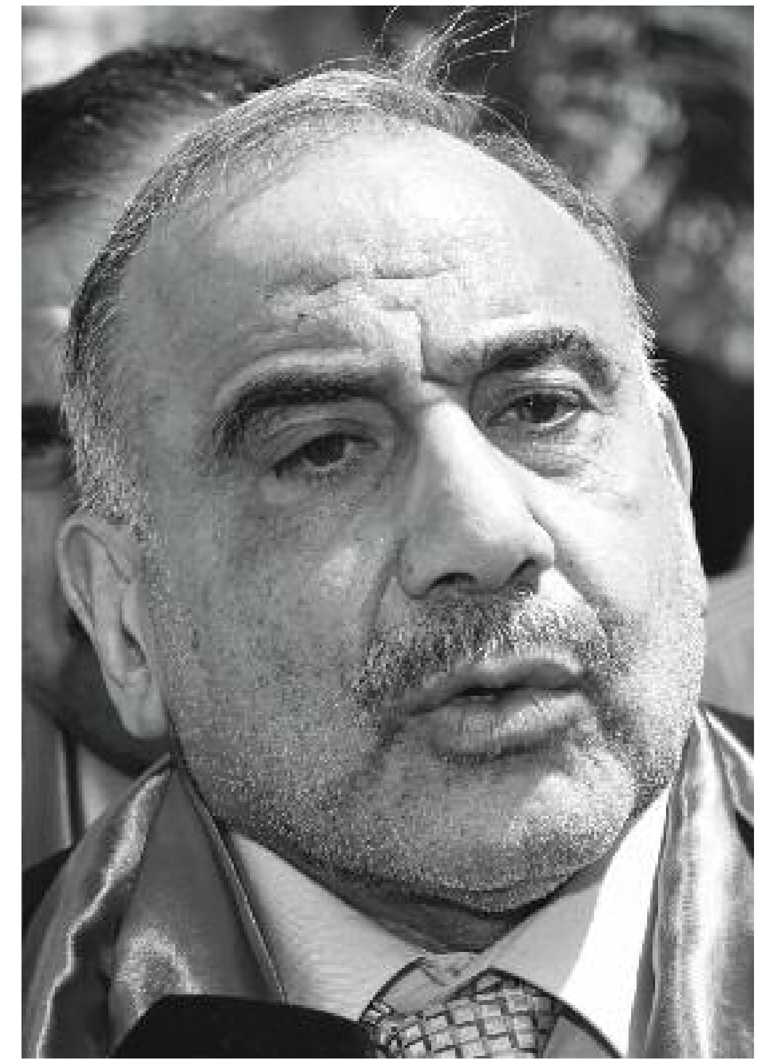
The only viable solution for the oil industry is to regain profitability, impacting on the cost structure, by selecting investments and optimizing production and, even more effectively, developing proven exploration basins through the introduction of new technologies that contribute to a reduction in spending and emissions. It is therefore inevitable to proceed rapidly towards a detailed and functional reflection, which goes beyond cuts, purely and simply, to investments, and promotes a thorough revision of operating procedures. Companies will increasingly have to move towards restoring operational simplicity, focusing on conventional assets and directly managing development projects through a rigorous control of every stage of the process. On the other hand, producing countries will also inevitably have to reconsider their business models, reviewing oil contracts in order to align them with current conditions, reducing risks and costs. It will be essential to create competitive contractual formulas to make "conventional" crude oil extraction opportunities economically attractive, offering investors a chance to capitalize on price spikes under flexible terms in order to gain competitive efficiency in an increasingly volatile market. All IOC, NOC and producing countries will have to revise their goals for optimizing investments. At this point, the oil industry needs to make a profound reconfiguration to achieve greater flexibility, linearity and operational effectiveness, by optimizing investments, production capacity and revenues, and relying on the resilience that has always distinguished it in order to constructively address the vulnerability of the markets and to regain confidence and competitiveness. ■

The current transition phase may provide an opportunity to carry out a review of the production system so as to achieve better economic sustainability and more solid, long-term growth

Interview/Iraqi Oil Minister Adil Abdul-Mahdi

Strong against all adversity

Oil production is recovering despite ISIS's advances, and the successful start of negotiations with the regional government of Kurdistan could lead to economic recovery for the country



ADIL ABDUL-MAHDI AL-MUNTAFIKI
Shiite, politician and economist, was appointed Minister of Oil in September 2014. He was one of Iraq's Vice Presidents from 2005 to 2011, and he served as Finance Minister in the interim government. Early in his career, he was forced into exile in France as a result of his association with the Iraqi Communist Party. In the early 1980s, he began to adopt the Islamic principles of Iran, until his appointment as a member of the Supreme Council for the Islamic Revolution in Iraq, an opposition party composed exclusively of Iraqi exiles. Defeated by a single vote in a 2006 run for Prime Minister of Iraq against Ibrahim al-Jaafari, Abdul-Mahdi was re-elected in the same year, for the office of Vice President, a position he held until May 31, 2011.

by MOLLY MOORE

If we had to highlight a trait that has marked the recent history of Iraq, it would definitely be resilience. It has been through a dramatic economic and political transition and now—in spite of continuing threats from ISIS and other adversities—it shows signs of progress in many different realms.

We find this same attitude in the words of Oil Minister Adil Abdul-Mahdi, who met with *Oil* and a small group of journalists from other media during an official working visit to Washington.

His comments on the country's activities within OPEC and its commitment to developing strategies for increasing crude oil production project hope for a future of greater prosperity for Baghdad.

In recent months, Iraq has registered record levels of oil production. Although this increase may be beneficial in the short term, it could, in the long term, keep oil prices low. Are you concerned about this?

In the '70s, oil production in Iraq was considerably higher than it is today, even though crude oil reserves prove to be among the most substantial in the world. In the face of the current reduced level of production, I think that we will retain a substantial share of the market. We do not only consider the current level of prices and markets, but also our intentions to pursue a long-term policy. Our number of customers is increasing. We are signing many contracts that envisage supply levels that are much higher than current levels. The country is returning to good health and is witnessing a satisfactory recovery of the oil trade. We will shortly be introducing two new types of oil: Basra light, a light oil type, and Basra heavy, a heavier type. As regards heavy crude oil, we are about to finalize a new supply contract with the Indian company, Reliance Industries. Operators are already very familiar with Basra light oil and will not increase production without real motivation. Iraq is also a member of OPEC, with which it shall continue to work, just as it will continue to collaborate with countries outside of the Organization. I think that, in the medium and long term, supply will again return to balance the markets, since the demand for oil is usually in line with the economic cycle. Currently, many countries are experiencing a period of deflation but, at the same time, many others are expecting to recover, especially China and Asia. We are, however, talking about a cyclical situation that will stabilize over time.

Other than supplying to the Indian company Reliance, do you have other potential buyers?

Yes, we already have some potential customers but, as you know, every new product must be properly tested. However, we have news of refineries that are very interested. This will only lead us to improve and stabilize the quality of our light oil, for which we recorded some problems due to the mixture with other types of crude oil.

> The Baiji refinery is very important because it provides almost half of our oil production. We're talking about 300,000 barrels. Part of the reason for the current shortage in the country's oil production is due to the loss of Baiji

What are your prospects for oil production and export in the medium and long term?

The budgetary goal that we have set, in the short term, is to produce 3.3 million barrels per day. We know we can do it, even in the face of the regularization of payments with foreign companies. The outlook for 2020 is to reach 6 or 7 million barrels per day.

To what extent does this goal rely on making progress on the introduction of hydraulics in the south of the country?

Water is definitely a key element. My hesitancy towards the possibility of providing forecast data on oil production stems precisely from the fact that the result does not only depend on us. There are many other factors that have an effect: the market, which is not up to us to control, prices, infrastructure and many others. As regards hydraulic injection, this is proceeding much better than before in most oilfields. Solutions have been identified on a local level, though not yet with regard to the project concerning the use of seawater, which is, however, our main objective.

Since last November, Saudi Arabia has stressed the need for OPEC countries to avoid making cuts in oil production. At the same time, however, China has registered a record storage and the United States has recorded a peak in production. Would you now be in favor of these cuts?

In the coming months, OPEC will certainly clarify its position in greater detail in this regard. Requests for cuts in production have recently come from Algeria, Venezuela, Iran and other producers but, since Saudi Arabia, along with other Gulf States, holds over half of OPEC's production, it will surely have the last word, and if they do not carry out the cuts, nobody else can do it. However, we would welcome any reduction in supply.

The Iraqi oil budget for 2015 refers to an average crude oil price of $56 per barrel and a production of 3.3 million barrels per day. With regard to these parameters, what is the situation to date?

As regards production, we are still a little behind. In January and February 2015, our exports were not so satisfactory. They totaled around 2.5 million barrels per day. Even the price, at this moment in time, was lower. Therefore, perhaps, we will record some deficiencies in terms of the budget, but we must continue to pursue our goals without delay. The dramatic decline in oil prices has led us to rationalize production costs. This commitment is driving the government to implement some cuts, especially with regard to excess expenditure.

In your opinion, are OPEC countries trying to reduce prices compared with the competition in order to acquire new customers, in addition to keeping existing customers?

The OPEC countries are trying to adapt production policies to their domestic needs and to the market situation. To comprehensively assess the situation, however, we must wait and see how the current difficulties will be addressed, even by countries considered to be "marginal" producers and non-OPEC members, and what derives from their production, be it oil or other sources of energy.

Let's talk about relations with Kurdistan. How is the situation evolving?

We are optimistic about it, for economic, political and security reasons. The lack of normalization of relations with the Kurdistan Regional Government is definitely not good for any of the counterparties.
One of the reasons for which, in 2014, the Parliament of Baghdad did not approve the oil budget concerned the unsatisfactory relations between the Kurdistan Regional Government and the federal government. This year, things have been better: we agreed to the budget within one month of discussions in Parliament and the process has been very positive. As we have explained many times, the negotiation has provided for many phases. The first, called "confidence-building," included the supply of 150,000 barrels on their part against an offer of the federal government of $450 million. The second phase was that which we called "the agreement on the budget," according to which the Kurdistan Regional Government should supply 550,000 barrels of crude oil, or the equivalent of 17 percent of the budget. At this point, we should discuss in detail the amount of exports and their method of transfer, in addition to identifying an effective form of government for Kirkuk. Today, the city has a dual administration, and this is not positive. However, I think that if things have gone well in the first two phases of the negotiation, I trust that the third stage should also conclude successfully.

Can you update us on the situation of Baiji refinery, which has suffered ISIS attacks?

The refinery, which is powered by the wells of Kirkuk, located approximately 40 km away, has not been operational since June 2014, and I think that it will remain dormant for a long time. The fate of the plant depends mainly on the environment, how the people will govern the area and how relations will pan out; therefore there are many problematic aspects. To be objective, it is difficult to specify a precise date. We have to wait. We paid a very high price to defend the refinery. The people defending it suffered a relentless siege.

What is the importance of the Baiji refinery for your long-term projects?

It is very important because it provides almost half of our oil production. We're talking about 300,000 barrels. It is the largest refinery in the country. Part of the reason for the current shortage in the country's oil production is due to the loss of Baiji.

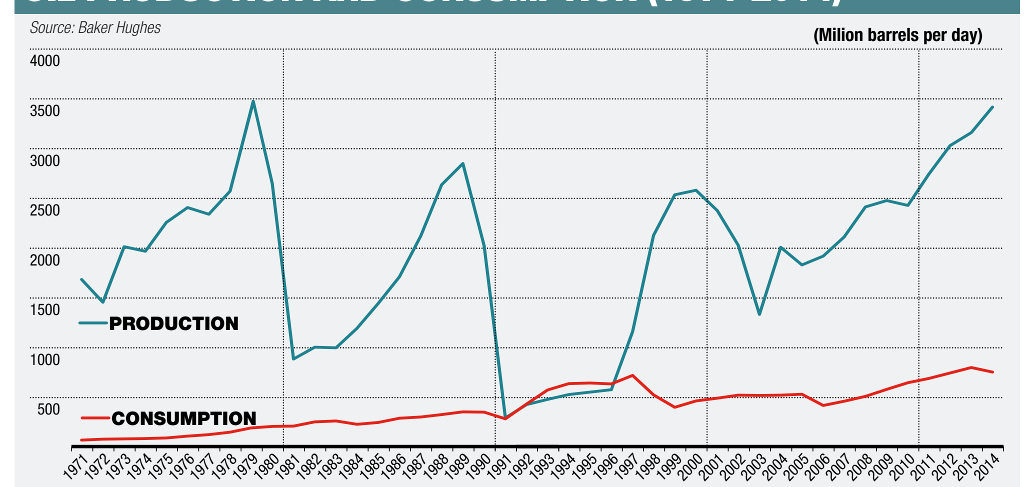
Have you been able to assess the extent of the damage that ISIS has inflicted on oilfields and how much it might cost to restore their operation?

It is very difficult to carry out a precise assessment of the damage. To date, ISIS still controls the Gayara oilfield, where 4,000 to 6,000 barrels per day are produced. The terrorists set fire to several basins and also damaged oil pipelines running from Kirkuk to Mosul and the plant that passes through Haditha to reach the Mediterranean. Even for Baiji, it is difficult to assess the damage.
I have been to the plant twice and it seems to be rather intact on the outside, but the extent of the damage to the warehouses, tanks and much other equipment cannot be estimated by prediction.

Do you have an idea of the total amount of oil that ISIS has stolen?

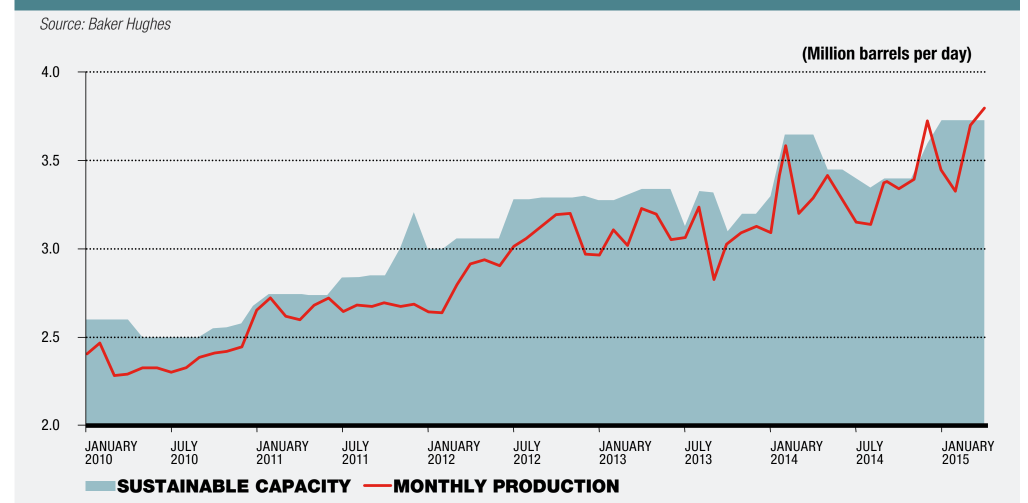
Not exactly, because we have no knowledge of what the revolutionaries are extracting from Syria, or from other parts of the Middle East. We know for certain, however, that the ongoing conflict is not only military, but also economic. They need oil immediately to support their military machinery.

OIL PRODUCTION AND CONSUMPTION (1971-2014)



Since 1971, Iraq's oil consumption has experienced a trend of gradual growth, while production has recorded substantial declines due to conflicts that have affected the country, especially since the early '90s. Now, however, this curve is rising sharply.

PRODUCTION AND EXPORT RECORDS



In 2014, Iraq produced 3.4 Mb/d of crude oil, the highest value since 1979
In April 2015, the country reached a historical peak of 3.8 Mb/d, with exports at their highest levels in 36 years.

What is the condition of the Kirkuk fields. Have you discussed them?

Of course. We have asked for information but we have not received particularly detailed responses. Now, thanks to bilateral consultations with Turkey, we may perhaps learn more. Things are going in the right direction, although in recent years many negative influences have accumulated, which is why the situation should be handled with patience and foresight.

In your opinion, should parts of Kurdistan be administered by a single authority?

Kirkuk is a disputed area and in the implementation of any type of operation or project concerning oil, both parties should be involved, the federal government and the regional government, that is, the regional government of Kurdistan or Basra. But, so far, this has not been the case.

So what is the solution? Should a referendum be held? This is what the Regional Government of Kurdistan maintains.

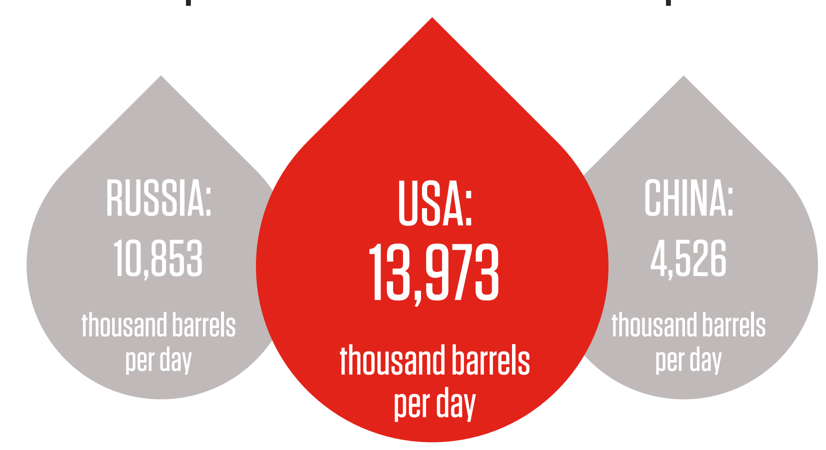
We and the United Nations have worked for six years on this hypothesis. Iraq is still in a period of transition and we have not yet reached a solution. We must continue discussions. The population is aware that, with the accession of ISIS, the situation has become more complicated and that their ambitions for independence could be undermined by the current situation.

On www.abo.net, read other articles by the same author.

Molly Moore is a senior vice president of Sanderson Strategies Group, a Washington, D.C. media strategies firm, and a former *Washington Post* foreign correspondent.

Oil

The United  US tates of ENERGY



America no longer feels a slave to OPEC and celebrates its ability to maintain low prices. Strengthened by its new power—the head of Russia's top oil producer went so far as to call it "the key regulator"—the U.S. could give rise to an alliance to counterbalance the power of the Organization of Petroleum Exporting Countries, as envisaged by Energy Secretary Ernst Moniz. The presidential election is also a consideration: for API's president, Jack Gerard, with President Hillary Clinton "many opportunities" could be seized

by MOLLY MOORE

OPEC's recent decisions to keep oil flowing at current rates despite a plunge in prices has prompted two overriding political reactions from U.S. officials: Plenty of gloating that the U.S. is no longer a slave to OPEC when it comes to oil production and pricing, and relief over the boon low prices has provided to American consumers.

Some American oil and gas companies—especially smaller companies and those operating on the margins—have imposed layoffs and cutbacks. But in the minds of most political leaders, the positive impact of lower oil prices and the inability of OPEC to substantially thwart America's new technologies for extracting oil and gas have far outweighed any problems created for industry.

Even elected officials from American oil-producing states, like U.S. Congressman Charles Boustany, a Louisiana Republican, are cashing in on the political mileage afforded by low gas prices and America's elevation as a major oil-producing nation.

"It is becoming clear that America is the dominant global force in energy production and exports," Boustany wrote in a statement. "By expanding domestic production, not only have American families benefitted tremendously from more jobs and economic activity, the United States is increasingly able to effect and dictate market conditions."

President Barack Obama and his administration have been largely mum on the changing geopolitical relationship between the U.S. and OPEC, and the changing fate of rival Russia, preferring to allow market conditions to speak for them.

"When people ask the question 'What will the U.S. do?' it's really the market that's going to have to decide what happens," said Amos Hochstein, the U.S. State Department coordinator of international energy affairs. "This is about a global market that is addressing the supply-demand curve."

Asked if the U.S. could intervene in any way to influence prices, Hochstein told Bloomberg News, "We do have mechanisms to work with our partners around the world if something extreme happens, but that's not where I think we are and I think the markets so far can adjust themselves." In other words, hands off.

Gov. John Hickenlooper, a former oil industry executive and now the governor of the oil producing state of Colorado, recently summed up the views of most fellow American politicos: "OPEC is the past, and its leverage over the economies of the world has been significantly diminished. We really control our own fates."

And it's not just the American view. Igor Sechin, the head of Russia's top oil producer Rosneft, recently told reporters that the global influence of the U.S. on oil markets has steadily increased while OPEC has watched its power diminish. "In essence, the sole market, which has all the sets of financial and technological tools, is the U.S. market, which has became the key regulator," Sechin said.

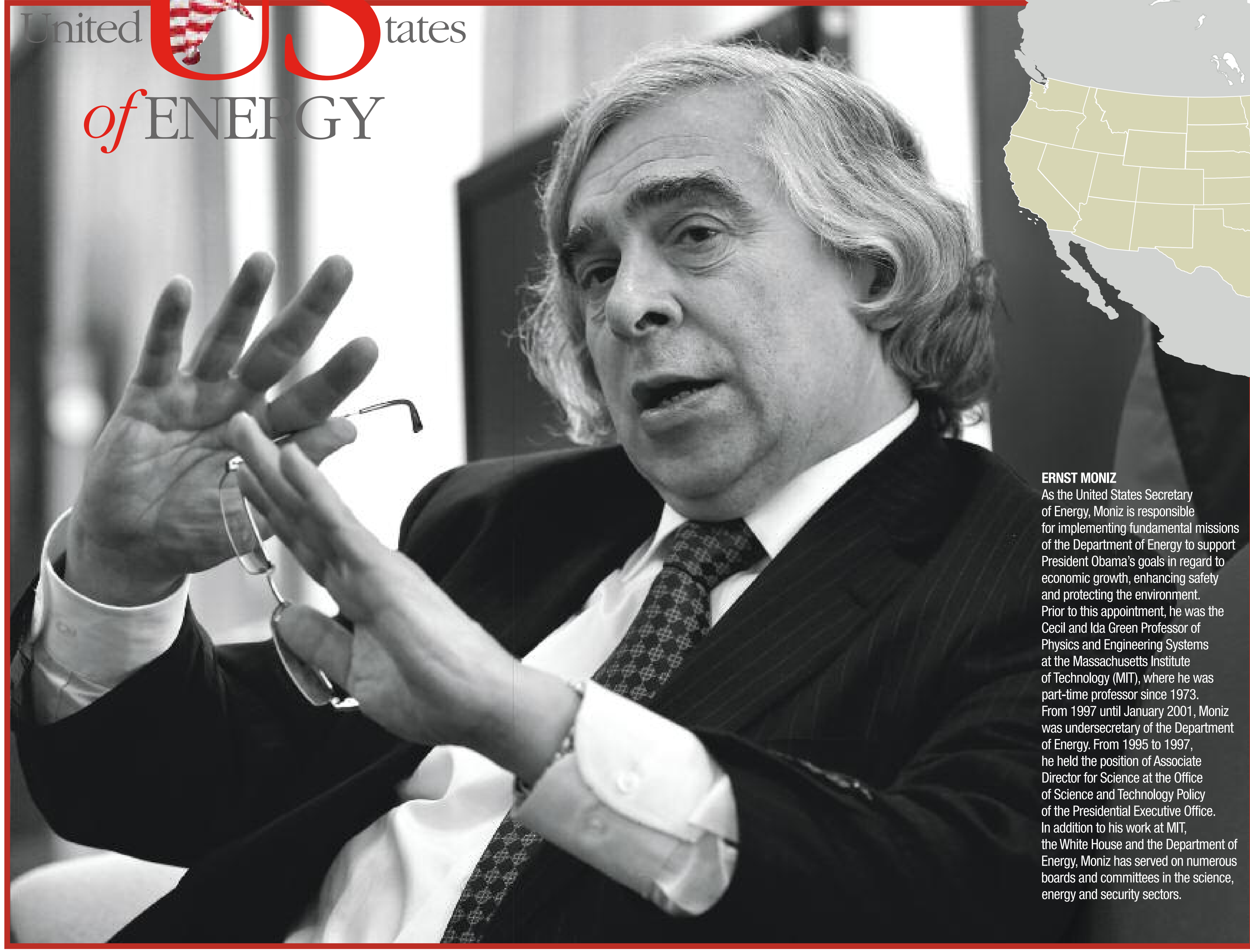
And it's this goal—of national energy independence—that been espoused by every American president since Richard Nixon.

INTERVIEW/Ernst Moniz,
United States Secretary of Energy

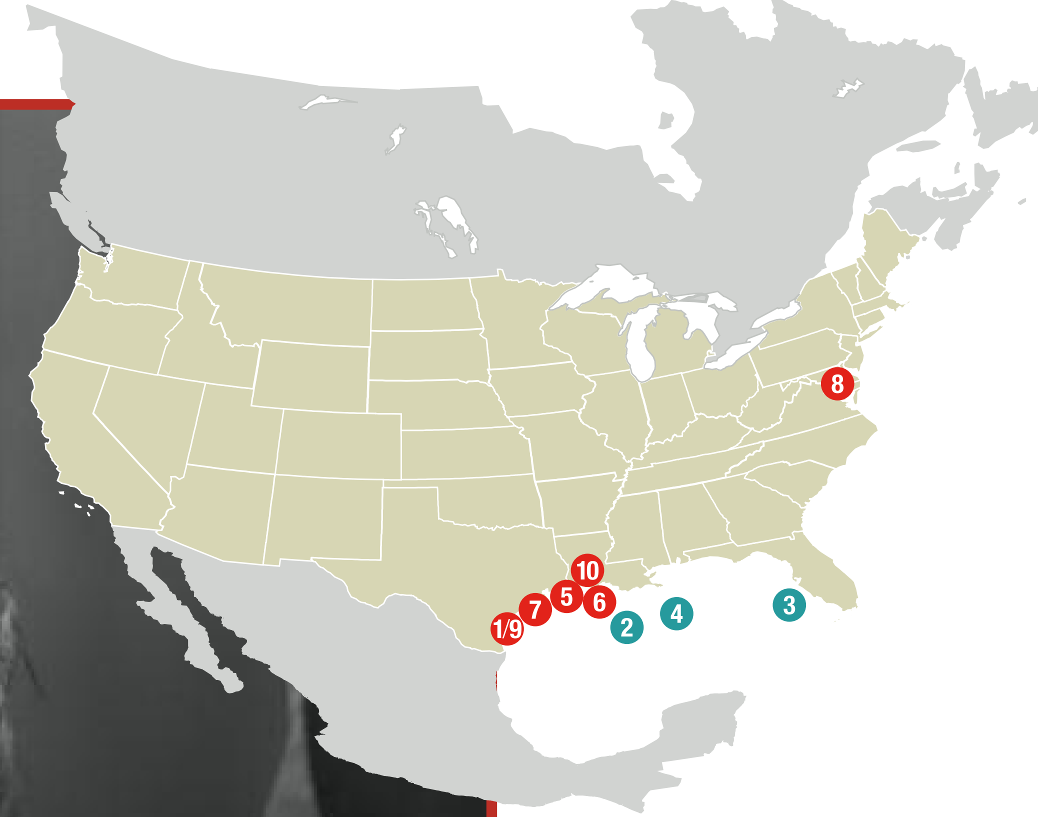
American OPEC

Confident of a successful agreement with Iran, the U.S. aims for greater leadership on the world's energy stage, including the start of LNG exports and a $15 billion plan for modernizing its energy infrastructure, as well as concrete plans for an energy "trilateral" with Canada and Mexico

The United States of ENERGY



ERNST MONIZ
As the United States Secretary of Energy, Moniz is responsible for implementing fundamental missions of the Department of Energy to support President Obama's goals in regard to economic growth, enhancing safety and protecting the environment.
Prior to this appointment, he was the Cecil and Ida Green Professor of Physics and Engineering Systems at the Massachusetts Institute of Technology (MIT), where he was part-time professor since 1973.
From 1997 until January 2001, Moniz was undersecretary of the Department of Energy. From 1995 to 1997, he held the position of Associate Director for Science at the Office of Science and Technology Policy of the Presidential Executive Office.
In addition to his work at MIT, the White House and the Department of Energy, Moniz has served on numerous boards and committees in the science, energy and security sectors.



NORTH AMERICAN LNG IMPORT /EXPORT TERMINALS APPROVED

IMPORT TERMINAL
UNDER CONSTRUCTION (U.S. – FERC – Federal Energy Regulatory Commission)
1 Corpus Christi, TX
NOT UNDER CONSTRUCTION
(U.S. - MARAD/Coast Guard_U.S. Maritime Administration)
2 Gulf of Mexico
3 Offshore Florida
4 Gulf of Mexico

EXPORT TERMINAL
UNDER CONSTRUCTION (U.S. – FERC – Federal Energy Regulatory Commission)
5 Sabine, LA
6 Hackberry, LA
7 Freeport, TX
8 Cove Point, MD
9 Corpus Christi, TX
NOT UNDER CONSTRUCTION
(U.S. - MARAD/Coast Guard – U.S. Maritime Administration)
10 Sabine Pass, LA

Source: U.S. Department of Energy

by RITA KIRBY

Arriving at CERAWeek, fresh from negotiations on the Iranian nuclear issue, is the U.S. Secretary of Energy, Ernest Moniz, a key figure in the negotiations due to his background in nuclear physics. Questioned on the possible outcomes of the negotiations – on the sidelines of the projects of the 34th edition of the Houston conference – Moniz revealed a cautious optimism. Together with the energy ministers of Canada and Mexico, he has agreed on the need to further tighten cooperation in a sort of "Western OPEC," although one that is not a formally organized cartel.

Can an "American" alliance to counteract OPEC's power be envisaged?
For too long, we have not had a similar trilateral, and 2015 could be the year of a serious, real effort and concrete action.

The oil industry continues to insist on the need to lift the ban on U.S. crude oil exports. Has anything changed in this context of low oil prices?
Assuming that this is a matter for the Department of Commerce, I would say that the situation, compared to last year, has not changed a lot. In a context in which we still import 7 million barrels of crude oil per day, I find that the arguments in terms of the economic impact are not convincing. And I am not making a statement for or against the idea of exporting crude oil. I am only saying that the arguments do not seem convincing in terms of economic benefits. The U.S. is instead preparing to become a major exporter of LNG.

When will the first shipments be made?
We believe that the first shipments will be made at the end of this year or at the beginning of 2016. For now, we have licenses for approximately 6 Bcf per day of exports to non-FTA countries, that is, countries without a free trade agreement with the U.S.. I believe there is a real possibility that LNG exports could rise to 10 Bcf per day and that in this decade the extent of U.S. exports could reach the level of those of Qatar, which is the world's leading exporter of liquefied natural gas. As regards countries of destination, I think that it is a decision for the market. Contracts are private: we do not decide the countries of destination; we only assign the licenses for export to non-FTA countries. The direction of this cargo is not so important. They are already having a strong impact because they are anticipating the fact that we will be a key player.

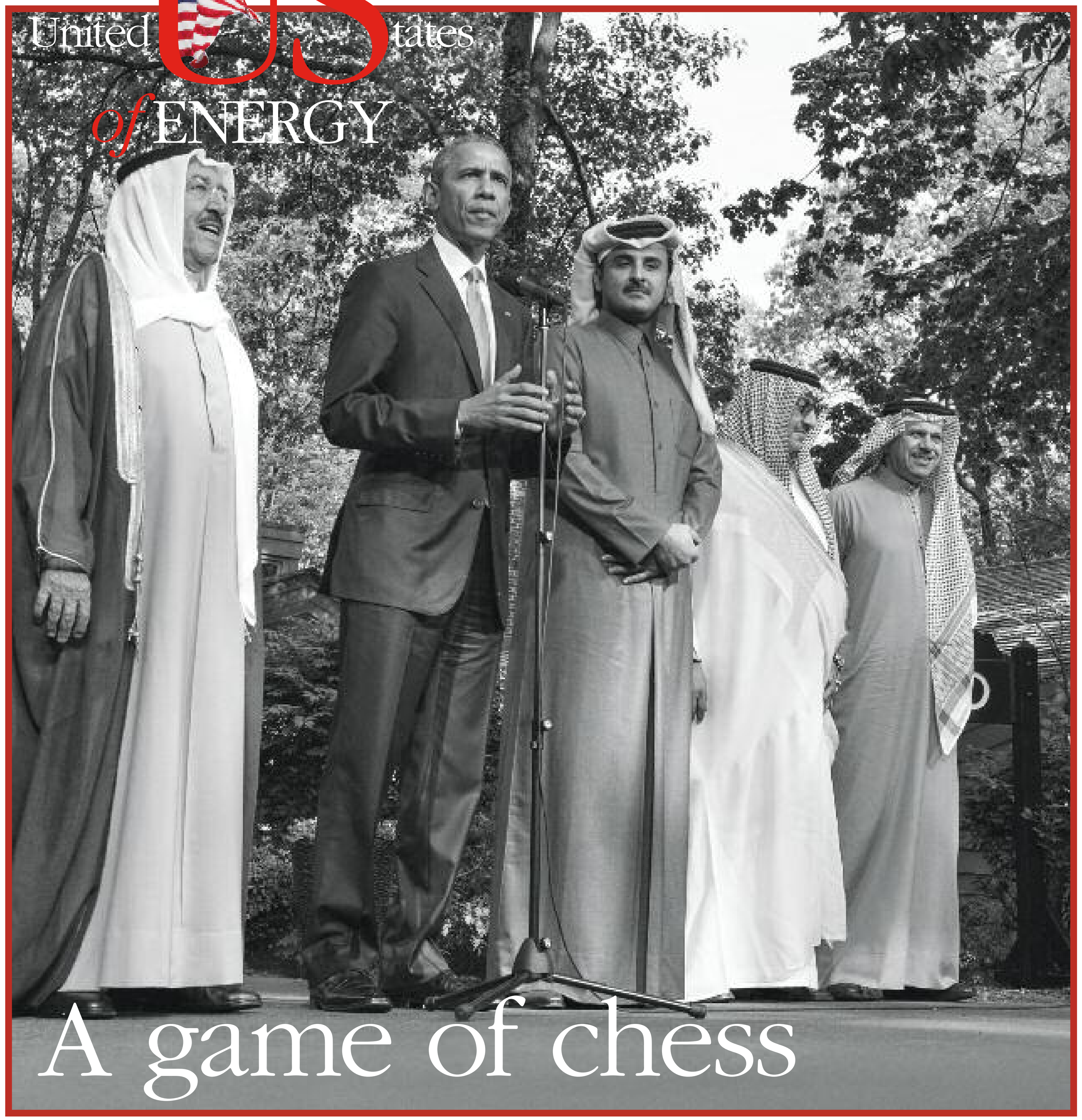
Are you optimistic regarding the possibility of an agreement on the Iranian nuclear issue?
The possibilities of completing this agreement are excellent. The fact of having decided to continue these negotiations, in good faith, could really prevent Iran from building an atomic bomb. We have seen the results of not have previously carried out a tough negotiation and we are paying the consequences of not having done so a decade ago, when it had 200 centrifuges uranium enrichment compared to approximately 20,000 today.

What is the main challenge at the moment?
A good deal would be that its respect can be verified and, on this front, we have started to put rather stringent measures in place. The centrifuges, according to the agreement, should decrease to 6,000, while the current 10,000 Kg of enriched uranium should decrease to 300 Kg. I am quite optimistic. It is not an agreement built on trust but on that establishes a very precise path of authenticity and transparency.

In the Quadrennial Energy Review (QER) that you have just published, you have sounded the alarm on America's inadequate and crumbling infrastructure. How much investment is needed?
It is not that our infrastructure is falling apart: in reality, we have good infrastructure but we must renovate it so that it reaches the same level as this phase of energy abundance related to the shale oil revolution. Our recommendation is for an investment of $15 billion in one decade. The idea of this sort of road map is to use federal funds to encourage the modernization or construction of new infrastructure. It is clear that we trust in private investment.

Which sectors most urgently need to be addressed in terms of infrastructure?
The most critical areas we have identified at this point concern gas pipelines rather than oil pipelines. Much of our energy infrastructure is more than 50 years old and, therefore, it has both environmental and safety risks. But it must be replaced intelligently in order to provide not only services and reliability but also resistance to climate change and, for instance, cyber-attacks.

The United States of ENERGY



A game of chess

The U.S. wants to keep prices reasonable and discourage excessive volatility, while OPEC aims to raise prices and maximize profits. Admiral Dennis C. Blair explains the strategies of the Stars and Stripes

by MOLLY MOORE

Admiral Dennis C. Blair is co-author of the inaugural report of the Commission on Energy and Geopolitics: "Oil Security 2525: U.S. National Security Policy in an Era of Domestic Oil Abundance," an analysis of the impact of U.S. oil production on American foreign policy and national security in the coming decade. The commission is a project of the P.X. Kelley Center for Energy Security at Securing America's Future Energy (SAFE), a Washington, D.C.-based policy organization. Admiral Blair discussed the rapidly changing geopolitical dynamics of energy security.

How is the shift that has seen the U.S. emerge as a major oil and gas provider changing America's relationship with OPEC?

I think the U.S. is in a really interesting position now. We are the world's biggest producer of hydrocarbons—oil and gas—and at the same time we're also the world's biggest consumer of them. And yet it's a global market in oil, although a regional market in gas, and so we have a pretty complicated game to play. And our game is clearly based on keeping prices reasonable and trying to keep them not as volatile as they had been in the past—that's what we want to do. OPEC has always had a different set of goals. They want to keep prices as high as possible and maximize their profits, because they're just producers. But they want to keep the price low enough to try to kill off competition. So you have this interesting game of chess that we're all playing depending on where we are. But I think the United States is now in a much better position dealing with OPEC since we now are a producer ourselves. That'll mean that on some issues, what we want to do cuts the same way as what OPEC wants to do. On other issues, we're different. You have to look at it on an issue-by-issue basis.

And so how do you see this changing the geopolitical dynamics of oil and gas pricing and supply in the coming years? Because I think this happened faster than anyone expected it to.

I think that's right. What I hope would develop would be a better dialogue between the United States and Saudi Arabia, as the biggest OPEC producer and maybe the other OPEC countries, on these issues. We're never going to join OPEC, of course. And OPEC is never going to identically line up with us. But I would hope it would lead to better dialogue. But, let's analyze the latest OPEC moves: Saudi Arabia's decision to keep its production up and not to cut that production as the prices drop. I think they had four different motivations. And if you go through them one at a time, on making sure that Iran and Russia were still being hurt, which was in the Saudi interest. You have the United States and OPEC, or the United States and Saudi Arabia, pretty much aligned on that one. And the lower the prices, the more effective the sanctions are against Russia and Iran. So on that one we're sort of working together. But Saudi Arabia also was thinking as the price goes down low, we can test the resiliency of American fracking. And of course, half of our rigs have gone offline. And so that one is pretty much against our interests. And then the last one that they were trying to do was preserving their own market share. And that one is not a very big deal between the United States and Saudi Arabia. So what happens is you've got this much more complex relationship between us as a big producer and Saudi Arabia as a big producer. I think the geopolitics are just going to get more complicated, and the United States is going to play a larger role in it because we have this production end as well as our previous consumption end. And you're absolutely right, it's all happened a lot more quickly than people thought.

So do you think OPEC is trying to break the U.S. fracking industry?

I think they're trying to test it, not break it. I think that "break" is a pretty extreme word. But Saudi Arabia's always been the lowest-priced producer, right? What does it cost Saudi Arabia to actually produce a barrel of their oil, $5-10? The U.S. oil industry with hydraulic fracturing we're finding out what the breakpoint is. Is it $50 or $60 or $70? So Saudi Arabia's always been able to use its lower production to be able to put pressure on others in the market. But the other thing that Saudi Arabia has, which is new and sort of developed at the same time, is that Saudi Arabia has a social stability price that is higher, and it's much higher than its production price.

Saudi Arabia uses such a large amount of its oil revenue to finance current government expenditure, and a lot of that goes into payments to both its civil servants and to other parts of society in order to keep it quiet. But Saudi Arabia's price point on that is probably more in the $40 or $50 a barrel range, and below that they have to eat into their foreign reserves—which is what they're doing right now. They can sustain that for a while, but they can't do that forever.

I think they are testing a competitor, which is U.S. production. But I think also, they have to be aware that their social production price is not the same as their drilling costs.

So I think it's a little more complicated than just trying to undercut American producers.

When you look at all this, do you think that we're going to see the end of OPEC's dominance in controlling world oil prices?

I think we've been sort of seeing that for quite some time. When's the last time that OPEC has really acted in a unified manner and cut production and driven the price up by their role on the production side? It's been many years since they've done that. They don't have the hammerlock on price that they had 30 years ago. And there are tremendous internal splits within OPEC as those countries which don't have the margin Saudi Arabia has, but are yet members of OPEC, are afraid to cut production because they'll lose market share and their revenues will go down because their social price points are even higher than Saudi Arabia's. I mean, OPEC still accounts for 30 percent of overall production. And in fact, their share in recent months in oil has inched up slightly, but I don't think they're the king of the hill anymore. I think they're an important player, but not dominant.

How are these changing relationships on oil and energy questions going to impact U.S. foreign policy?

The two countries that we are applying economic sanctions to — we among others — happen to be countries that are heavily dependent on their oil revenues: Iran and Russia. In a sense, American oil production and the drop in price that it caused— or was a major contributor to causing— cut the oil revenues actual potential of both Russia and Iran, and therefore made the other economic sanctions, which the United States organized and led, that much more effective. In that sense, our oil production has made economic sanctions against certain oil-producing dependent countries much more effective. And that's certainly something that we didn't foresee being able to do back before our production became so high. So that's been a very positive geopolitical impact of our production, and because the United States is a consumer and a producer, there's no danger of us becoming an oil-production-dependent country in the sense that they are. But we have a much more balanced set of tools that we can use.

I think that the hydraulic fracturing boom that we invented gives us a lot more choices and flexibility geopolitically, less dependence, and it overall puts us is in a much stronger position.

How do you think this new dynamic is going to impact how the U.S. looks at the Middle East

SHALE GAS PUT TO THE TEST
Saudi Arabia seeks to create difficulty for U.S. fracking, but it should be aware that the social price of production is not equivalent to production costs.

DENNIS C. BLAIR
He was the United States Director of National Intelligence from January 2009 to May 2010, responsible for 16 federal intelligence agencies. In his 34-year career in the Navy, Blair was commander of the United States Pacific Command (USPACOM), the largest U.S. military command. He is currently a member of the Energy Security Leadership Council, which brings together some of the U.S.'s most prominent business and military leaders to support a comprehensive policy to reduce U.S. oil dependence and improve long-term energy security.

from a military and security perspective?

I wish that some of the things that you hear people who are not very knowledgeable saying were true — that it is, with the United States producing so much more of its own oil, then we would be able to draw back and treat the Middle East in a much less military way than we have in the past. But unfortunately, because of the dependency of our transportation sector in particular on petroleum, and because of the worldwide nature of the market, and because OPEC produces 30 percent of the world's oil, we're still tied to this global market. And if prices go up, the only near-term way to bring them back down again is with OPEC and primarily the Middle East, Saudi production. So we still, until we can diversify our transportation, our transportation fuels are going to have to be concerned about maintaining a stable situation in the Middle East and the free flow of oil coming out of it. Even if it weren't for that, which is pretty important, the considerations of Iranian nuclear behavior and terrorism and our security guarantee for Israel are going to keep us involved and involved with heavy interest in that region. If we could lighten the impact of this immediate oil burden, that would also be good, but I think it's going to be a relative item, not something that's a switch that we could treat the Middle East in the future the way, say, we treat southern Africa or Latin America or places that can't do things that would affect our economy or our security in such a strong way so quickly.

One of the things we've seen in the Middle East is the direct disruption that ISIS has caused. Do you see oil fields becoming the new combat zone of the future with these insurgencies? And what does OPEC need to do to protect against that sort of thing, or can it?

I think they can. Even in Iraq itself, the oil fields are primarily concentrated down in the south in the Basra region, which is not threatened by ISIS, or up in the north in Kurdistan which can defend itself. It's those pieces that are in the central part of Iraq that ISIS can get at. Syrian production is pretty small. And I also don't think that ISIS is going to last for many more months or years. We've always worried about the terrorist-style threat to the oil fields and we saw an actual takedown in Tunisia a couple years ago. We've seen cyber attacks on Aramco. I think the oil fields in that whole section of the world from North Africa across to the Middle East are going to have to deal with terrorist attacks, whether they be physical or cyber, but it's hard for me to see any large-scale real takeover by major military force as a threat to them.

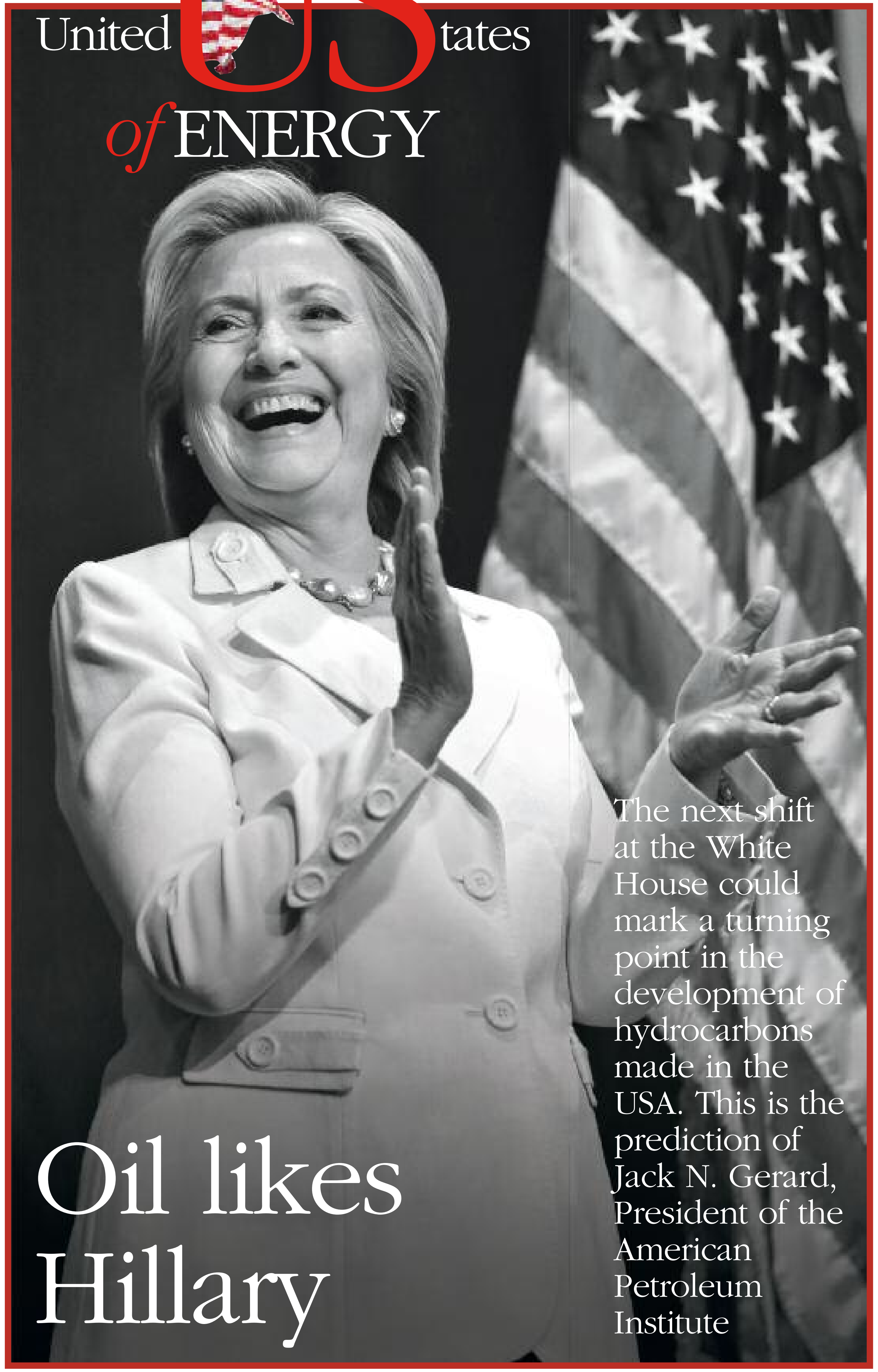
Looking at U.S. and OPEC production, where do you see the balance now shifting in relations with consumer nations like China and other rapidly-growing nations in Asia?

The trend in China is pretty clear: If their economic development continues, they are going to be putting more and more vehicles on the road, using more and more oil. The Chinese are very concerned about their dependence on oil because projections show them coming up to 40 percent or so in the next 5 or 10 years, on imported petroleum. You see them pushing very hard on electric vehicles, on other alternatives, on mass transportation, which can run off electricity, which is not powered by petroleum. I think they're going to continue to be major oil consumers. And I think, as we said in the report of our commission, that offers some opportunities for cooperation with China because the United States is going to be an oil importer for some time too.

Admiral, when you look at the big picture of these changing geopolitical dynamics, what concerns you most about the next few years?

I am most concerned that we get lulled into inaction by the false sense that our own production can solve all of our problems, and that we just don't need to worry about it anymore. Because of all of these complicated interconnections between supply, demand, technology and price, you just can't take refuge in a solution that more drilling in the United States is going to take us back to 1960, where we really didn't have to worry what happened overseas in the oil markets. There are some things that we need to do in terms of not only diversifying the fuel to go into our transportation sector, but also the physical security of our oil routes. We're still going to be involved in the international markets and have to make sure that they're secure. We're going to be cooperating with some countries and testing with other countries. And we just have to have a smart set of policies taking advantage of our production position to keep prices at a reasonable level and drain out some of the volatility. We have to resist this idea that more drilling is just the solution to all of our problems, that's my biggest concern. ■

The US
United States of ENERGY



Oil likes Hillary

The next shift at the White House could mark a turning point in the development of hydrocarbons made in the USA. This is the prediction of Jack N. Gerard, President of the American Petroleum Institute

by RITA KIRBY

The United States is the true "outsider" of global energy. The country which, until recently, was the world's largest oil importer, now sees the possibility of not only achieving energy independence, but of presenting itself to the market as the first challenger to the supremacy of the swing producer par excellence, namely, Saudi Arabia. This would be an exciting prospect were it not, as observed by many analysts and experts, for the reluctance of the current administration toward the exploitation of hydrocarbons, such its failure to lift the ban on oil exports introduced in 1975 with the Energy Policy and Conservation Act. As recently affirmed by the President and CEO of ConocoPhillips: "There is already a market that is ready to absorb the export of U.S. oil, and the exploitation of shale oil has already allowed the States to overcome crude oil production and domestic refining capacity on a seasonal basis." This is a vision shared by Jack N. Gerard, President and CEO of the American Petroleum Institute.

Oil and gas production are at historic highs, but prices have been slow to recover. What lies ahead for the U.S. hydrocarbons industry, at this crucial time in the history of the nation's energy industry?

The United States is going through a stage of reflection, but the future remains bright. The demand for hydrocarbons continues to grow and the United States is becoming the epicenter of oil and gas power in the world. Of course, it is time to reflect on where we are, on how to become more efficient and on how to progress. We can remain competitive and decisive. There is a power shift right now, in the world, with the United States, which is becoming a critical player. The benefits of this era of energy abundance go far beyond finance: they have helped to cut our country's greenhouse gas emissions, reducing them to the lowest levels of the past 20 years, despite record production. 600,000 new jobs were created between 2009 and 2011, a crucial support for our economic recovery. All this provides a glimpse of a new era of American energy abundance, security and global leadership.

The Chair of the Senate Committee on Energy, Lisa Murkowski, promised a comprehensive energy reform law in America. Do you think this is a realistic goal, capable of passing the scrutiny of the White House, which threatens a veto on measures such as the green light to the Keystone oil pipeline and the lifting of the ban on crude oil exports?

It depends on the extent of the operation and to what extent the proposal of reform is bipartisan. I believe that energy is paid a lot of attention. Potentially, I see the possibility of achieving a positive result. The roles of Senator Murkowski and the President are crucial, but it is definitely the head of the Senate Committee on Energy who has the task of putting the pieces together, deciding what to offer on the plate, what to present to the expert leaders in order to obtain the support of both the Republicans and the Democrats. Even President Obama wants to reform energy with greater attention, for example, to efficiency and renewables. We need a solution that represents a compromise between the various instances, which combines the various components. This way, the goal becomes more achievable.

Would anything change with Hillary Clinton in the White House?

Politics matter, even in terms of energy, as do the people who have the ability to make decisions in this regard. Hillary Clinton has already expressed her favorable view regarding the approval of the Keystone oil pipeline and, as I understand it, is inclined to lift the ban on crude oil exports. This could prove to be a great support for the entire industry. It may seem surprising, but we had the best opportunities for exploiting resources on federal territories when Bill Clinton was President. Much more so than with George Bush. Hillary Clinton, as Secretary of State, proved to be a very pragmatic person. If, as President, she were to maintain this practical sense, then, with her, we could seize many opportunities.

What challenges does the energy industry present to President Obama?

Unfortunately, not everyone shares our enthusiasm for what I call the "American energy moment," a new era of abundance for the U.S. that will allow the country to overcome what for decades has been a vulnerability from an economic, social and geopolitical point of view, namely, dependence and lack of energy security. It is also clear that the focus of Obama's administration, over these last two years in office, has not concentrated on the American energy renaissance of the 21st century and on the need to guarantee the status of the United States as global energy leader in the long term. The White House expresses a more limited perspective, mainly supported by ideologies, especially in terms of climate change, a subject dear to the American President for making his legacy on environmental issues. The tendency to impose binding rules instead of working with the industry remains the real threat to our sector: we need policies capable of seizing the opportunities that the 21st century offers, not gimmicks or ideologies. ■

JACK N. GERARD

Since November 2008, Gerard has been President and CEO of the American Petroleum Institute, the national industry association that deals with all aspects of the U.S. oil and natural gas sector. During his presidency, Gerard has expanded the number of members of the API (now over 600) and the association's global influence, with the opening of offices in Dubai, Singapore, Beijing and Rio de Janeiro. Gerard was previously President and CEO of the American Chemistry Council and, before that, held the same functions at the National Mining Association. He also worked for ten years at the Senate and at the United States House of Representatives, as well as, among others, for Senator James A. McClure, who chaired the U.S. Senate Committee on Energy and Natural Resources.

The Russia of ENERGY

Total production of oil and other liquids

USA: 13,973 thousand barrels per day

RUSSIA: 10,853 thousand barrels per day

CHINA: 4,526 thousand barrels per day

Russia/A conflicting comparison

Two parallel paths

In the wake of OPEC's failure to cut oil production, Moscow has resumed a dialogue with its Saudi "competitors." Are we witnessing the beginning of a new alliance that could stabilize oil prices?

AGREEMENT BETWEEN MOSCOW AND RIYADH Russian Energy Minister Alexander Novak and Saudi Oil Minister Ali al-Naimi signed a document on June 18 to strengthen cooperation in the energy industry.

THE AUTHOR. Evgeny Utkin is an economist and geostrategic expert focusing on energy issues. Director of Partner N1, he collaborates with several Italian newspapers (RBTH insert of *La Repubblica, Panorama, Formiche*, East and others) and foreign newspapers (Expert). In the past, he worked as a researcher at Moscow State University, before becoming manager for intergovernmental and international companies such as Eutelsat and Ericsson.

by EVGENY UTKIN

It has been 55 years since OPEC's creation. The Organization of Petroleum Exporting Countries has played a key role in the world economy ever since, due of course to its ability to control more than 40 percent of the world's oil production. Many people believe that OPEC even contributed to the collapse of the Soviet Union, when its failure to support higher oil prices weakened the U.S.S.R.. The Soviet Union itself had applied for membership to the organization shortly after its establishment, but its application was rejected on statutory grounds. Russia subsequently approached OPEC in 1998, acceding as an observer. Since that moment, a lively discussion has opened up in Russia among experts concerning the country's opportunity to join as a permanent member. The prevailing opinion remains on both sides, however, that there's less of a need for Moscow to join the OPEC club, as relations have strengthened and there have been numerous consultations between the Kremlin and Vienna since Russia became an observer.

THE PROVERBIAL COMPETITION WITH SAUDI ARABIA

It must be said that the nature of relations between Russia and Saudi Arabia is like that of two competitors who reach temporary agreements in order to move along together for short distances, only to then separate again. The two countries have competed for primacy in oil production, but ultimately the U.S., thanks to shale oil, has overtaken both countries. Saudi Arabia – although politically allied with the United States – has not welcomed America's ascension. OPEC has decided not to cut oil production quotas, thus leaving crude oil prices acceptably low for Saudi Arabia but difficult for several other countries, including Venezuela. And Russia? Moscow would have surely preferred a much higher oil price, but that does not depend on Russia, which is enduring the current situation, and appears, however, better able to survive low prices than previously thought. In Russia, there are many oilfields with a fairly low production cost, making them profitable at even the current low prices. It is clear that the oilfields have unlikely been non-operational for some time.

But does OPEC (and especially Saudi Arabia) really fear that, in the event of a decrease in production, Russia may independently decide to increase production, thus gaining market share? And is it therefore worth it? On the other hand, Russia is slowly preparing for a possible prolonged scenario of low oil prices.

AN ECONOMY SEEKING A WAY OUT FROM OIL

For years, Russia's economic programs have emphasized ending dependence on oil, by focusing on innovation and other areas. Now, in the context of economic sanctions imposed by Europe and the United States, the mere theory has become a necessity. For example, in Russia, there is currently a substantial aid program in the agri-food industry, which highlights the country's great desire to become an exporter of grain and other foodstuffs. And we cannot forget that Iran also enters into this complex game. Friendly to Russia, but not Saudi Arabia, Iran has already stated that, once the embargo has been lifted, it will be ready, within a short period of time, to increase its oil production by one million barrels per day. The level of OPEC's quotas (30 million barrels per day) is already rather precarious and is regularly exceeded by at least one million. And that one Iranian million could bring crude oil prices down further, partly because Tehran would necessarily sell at a lower price to be able to re-enter the market. Further complicating this geopolitical situation, another detail: at the last World Economic Forum in St. Petersburg, Vladimir Putin met with a large Saudi Arabian delegation comprise of the most powerful figures in the kingdom, including the Deputy Crown Prince and Saudi Defense Minister Mohammad bin Salman Al Saud, who officially invited the Russian president to travel to Riyadh (in return, Putin also invited the king to Moscow). Are we witnessing the foundation of an oil alliance between Saudi Arabia and Russia to stabilize the global oil market? It is hard to believe, especially given the strong divergence of the two countries on complex issues such as Syria, Iran and Yemen. What is certain for now is that oil producers, including Russia and OPEC, would like more stable, less fluctuating crude oil prices, to be able to plan investments and future development. Dream or reality? ■

INTERVIEW Irina Busygina, expert at the Russian International Affairs Council, speaks

Europe remains the ideal partner

Moscow could find a huge market in China for its hydrocarbons, but negotiations are proving difficult. For political reasons like this, the European market continues to be the best fit for Russia

by GIANMARCO VOLPE (AGENZIA NOVA)

The sharp drop in oil prices has added to Russia's woes as the country contends with the effects of economic sanctions imposed by the West. Moscow could find relief selling its hydrocarbons to China, and some envision a policy agreement between Russia and OPEC. According to Irina Busygina, a leading spokesperson of the Moscow State Institute of International Relations (MGINO), these hypotheses seem unrealistic, if considered in the light of geopolitical interests. The Russian economy is based on hydrocarbon exports, and Moscow must certainly diversify its end markets but, says Busygina, Europe as a whole remains its ideal partner.

Following the sharp drop in oil prices, some observers have speculated that we might see an agreement on oil policies between Russia and OPEC members. Do you think this is possible?

In theory, it seems possible, but if you take into account the geopolitical interests of the different countries involved, you realize it is not possible. Several producing countries have political-institutional structures similar to those of Russia and, in certain circumstances, the economic interests of the various players could converge. But from a geopolitical point of view, there are crucial differences that would create conflicts that will be impossible to resolve.

Could the current tensions with the European Union prompt Russia to turn to other markets for its oil and gas exports?

It is not a matter of possibility. The Russian economy relies on the export of raw materials, and Moscow must consider other markets and do so continuously. At first glance, it seems clear that China, for Russia, is a market with huge potential. But there is a problem that often tends to be underestimated: that concerning infrastructure. Prior to a deeper cooperation between the two countries, it is necessary to know for sure who will implement out and at what cost. With the Chinese, it is never possible to say. Their negotiators are much tougher than Europe negotiators, and those of Russia itself. We often intend to exaggerate the level of cooperation between Moscow and Beijing, but the truth is that Russia still needs it European partners. My opinion is that there is no better market for Russia than that of Europe. All other options are a strain, especially from a political point of view.

The conflict in Ukraine has put a strain on relations between Brussels and Moscow, but recently the agreement in Minsk has led to an easing of tensions in the East of the country. What effects will the agreement have on the →

IRINA BUSYGINA
Professor of Comparative Politics, Director of the International Research Institute and Research Center for Regional Political Studies at MGIMO (Moscow State Institute of International Relations). Expert at the Russian International Affairs Council and at the Russian Civil Initiatives Committee.

stability of gas supplies to Kiev?

My doubts concern the sealing of the agreement. The main problem is that, so far at least, none of the parties has assumed any serious, concrete commitments. This applies to Moscow as well as to Kiev. Either party could terminate the ceasefire at any moment. And all this, of course, has clear negative effects on Russian gas supplies to Kiev and, ultimately, to Europe.

Russia abandoned the South Stream project, designed to transport natural gas to Europe via the Black Sea. In its place, it has proposed the construction of a new gas pipeline that would link southern Russia to Turkey, reaching the Southern Corridor, creating infrastructure that would transport gas from Azerbaijan to southern Europe. What factors, positive and negative, can influence the stability of gas supplies to the Old Continent?

This is a very complex issue. We are not only talking about politics, but also geo-economics. There are many, often conflicting, interests. Let's consider the European Union, which in turn expresses a number of different positions with regard to energy. Then there are Russia, Turkey and Azerbaijan. The only way to bring the different needs together towards a single project is to avoid considering the problem only from an economic point of view and taking the inevitable political implications into consideration. At present, the key player is undoubtedly Turkey, since Azerbaijan does not have the political weight to play an important role. Ankara finds itself between two fires: Moscow on one side and Brussels on the other. Russian President Vladimir Putin presented Turkey with a very interesting proposal, but, on the other hand, he angered his counterpart, Recep Tayyip Erdogan, by using the term "genocide" to refer to the Armenian massacre in 1915. But the crucial point is: is Europe a real magnet for Turkey? If I had been asked this question twenty years ago I would not have had any doubt about the answer. Today, however, the question remains open and Russia is trying to use the Turkish elite to its advantage on this point.

What is Ankara's current position?

My impression is that Erdogan is trying to "keep a foot in both camps." This, however, can work on a tactical level, not on a strategic level. At a certain point, Turkey will need to make a decision and, it must be stressed once again, the attitude of Turkey's leader towards Brussels will be crucial.

How could the international scenario change after a possible final agreement on Iran's nuclear program?

Iran and the P5+1 group (the U.S., Russia, the United Kingdom, France, China and Germany, Ed.) laid the foundations for an agreement that would have very significant effects on both a political and economic level, on a regional level and from a global perspective. But from Moscow's point of view, the issue is mainly political. Russia's commitment in the P5+1 group framework to reach an agreement with Tehran should be read primarily in light of Moscow's need to find a new partner and, ultimately, to provide a solid international coalition. The developments of recent years have clearly shown how even the great powers need alliances. Russia can find support among the countries that have similar political structures to its own: on the one hand, the former members of the Soviet Union; in a broader perspective, Venezuela, China and Iran can be considered. This is why Moscow has every incentive to encourage the political and economic reintegration of Tehran into the international community. ■

THE IMPACT OF ENERGY IN MOSCOW-BRUSSELS RELATIONS. Russia's economy is based on hydrocarbon exports and Europe remains the area that Russia continues to watch.

The China of ENERGY

China/Asia's largest energy consumer's strategic response to low oil prices

A strategic collaboration

Beijing places great importance on its relationship with OPEC. But the opposite is also true: in recent years the demand for oil in Asia has accounted for roughlly 70 percent of Saudi exports of crude oil

by LIFAN LI

China is not a member of OPEC, but it places significant emphasis on its relationship with the organization. OPEC and China have formulated a strategic cooperative relationship. In 2014, the largest OPEC oil producers, Saudi Arabia and Iraq, reduced the price of oil on the Asian Market, showing a strategic policy of competing strongly on the market for global consumption. Oil demand in Asia now accounts for about 70 percent of Saudi Arabia's crude oil exports. Given that China has become Asia's largest energy consumer, OPEC will likely increase cooperation with China. Meanwhile OPEC has to face inevitable challenges from Russia and Iran for the Chinese market.
The OPEC report issued in May 2015 noted that OPEC's share of global crude oil production increased from 32.6 percent in March of 2015 to 32.8 percent in April 2015. It can be expected that in 2015, the average daily supply of crude oil from non-OPEC countries will increase by 68 million barrels to 5716 barrels per day. OPEC and China's National Development and Reform Commission and OPEC had discussions on China's oil demand, investments and strategic oil reserves in early 2015. OPEC welcomed China's investment in upstream and downstream oil industry sectors. Correspondingly, investment from OPEC to China is mostly in the downstream sector. China, as the world's largest energy consumer, is interested in playing a more active role in the global discussion on energy prices.

PRODUCTION, EXPORTS AND MARKET DEMAND

In the first half of 2015, the main oil-producing countries did not reduce production. In March 2015, Saudi Oil Minister Ali al-Naimi put his country's oil production at approximately 10 million barrels per day; in Iraq, the daily export of crude oil in April reached the record level of 3,080,000 barrels, while in the same month, Russia's crude oil exports reached 6,870,000 barrels per day, with a 29.2 percent increase in the monthly rate up to 29.2 percent and a 31.8 percent increase in the annual rate. This indicates that the increase in market demand has encouraged Russia's strategy to win back its market share, without fear of opening a competition with the OPEC countries. The increase in oil production was then reflected in the growth of exports, which has met the global requirements and the need for growth in domestic demand. In 2014, the world economy, despite some recovery, suffered a general recession, resulting in weak demand for crude oil. Since the beginning of 2015, →

global prices of raw materials have been falling and, by April, crude oil prices started to recover and the dollar plummeted. On May 1, crude oil closed at $59.26 per barrel, approaching the important price range, from a psychological point of view, of $60 per barrel. In these last six months, we have experienced a steady decline in crude oil prices on an international level and oil drilling in the United States is steadily decreasing production, while the cost of crude oil is increasing. At present, OPEC members are continuing to increase their production. Although the situation in Yemen supports the base price of oil, the contradictions between supply and demand, however, limit the pace of the rise in prices, and American oil producers take advantage of this opportunity to bounce prices in order to lock them in until next year, or even further ahead, thus ensuring supplies for the future and probably laying the groundwork for resuming production. In short, there is a downward global international trend in oil prices, which also reflects, in some way, the foundations of the global growth of the economy.

OIL COMPANIES RESPOND TO LOW PRICES

The fall in oil prices is a double-edged sword for oil companies. On the one hand, it lowers the price of many oil and gas properties, driving oil companies to increase acquisitions. On the other hand, however, history and experience show that the properties acquired by oil companies during periods of cheap oil do not have guaranteed profits. As a result, many oil companies can choose a strategy to limit development and control the amount of investment and the number of projects.

- Optimize industrial structure

In response to the fall in oil prices, Shell, in 2014, carried out many equity transfer transactions. heading a financial group (including Shell, Total and Eni), four oilfields in Nigeria and an important pipeline were sold for $5 billion.

- Control costs and spending

In this climate of low oil prices, British Petroleum announced the freezing of the base salary of 80,000 of its employees for 2015, along with spending cuts of $20 billion and the postponement or temporary stop of downstream activities. Shell has plans, for the next 3 years, of carrying out cuts of $15 billion; Chevron's budget for 2015 is $35 billion: this is the largest reduction in spending for the company since 2003; oil company ConocoPhilipps defined, for 2015, spending of $11.5 billion, a decline of 1/3 compared with the previous year. ExxonMobil's spending in 2014 was $38.5 billion, but as a budget for the coming year, its intention is to remain below $37 billion.

- Increase cross-border mergers and acquisitions, to promote the possibility of integrating services

Worldwide oil and gas company acquisitions reached $443 billion, up 69 percent over last year. The number of acquisitions, however, has dropped 20 percent compared with last year. In November of 2014, Halliburton spent $34.6 billion for the acquisition of Baker Hughes and, following this transaction, it made improvements in terms of activities related to artificial lift systems and special chemical products, and also strengthened its capabilities in high-level technology services. It also acquired Baker Hughes' profitable oil extraction instruments, and this helped it to implement synergies and increase business performance. By means of an acquisition, dependence on high-risk oil production areas can be offset.

- The division of the oil industry into two poles and the increase in the default rate of oil companies

While the cycle of falling prices has hurt the production activities of oil companies, it has, at the same time, driven the same companies to focus more on quality and efficiency; there is also the potential to see a push towards sustainable development. Financially stable oil companies, those with strong management, may well take this opportunity to reorganize their equity and business structure through acquisitions or divestitures, or through the purchase of goods at low prices. Smaller oil companies, with more debt and less available cash, will, alas, find themselves locked in a default crisis situation.

CHINA'S COUNTERMEASURES AND THE TRANSFORMATION OF THE OIL INDUSTRY

During this cycle of falling oil prices, it is estimated that costs of oil imports in China have decreased by at least $20 billion. If the price of oil decreases further, the costs of oil imports will also decrease considerably, which, for China, Europe, Japan and all major oil-importing countries is, of course, good news. The low cost of crude oil has had a negative impact on all "upstream" companies engaged in oil operations and works, while it's had a positive effect on industrial "downstream" activities, especially on the numerous small- and medium-sized businesses. Moreover, as a result of the falling costs of other industrial activities associated with oil, the prices of many goods have stabilized. Here's how the oil companies should proceed:

- Consolidate a more independent management of the oil industry, optimize industrial frameworks and increase international competition

In the current price climate, with unfavorable market demand, "downstream" oil companies must understand how to optimize themselves, how to lower their costs, improve their technology and ultimately gain a larger market share.

Naturally, they should also focus on potential negative factors in the future: will for example, petrochemical products from the Middle East have a "dumping" impact on the Chinese market, particularly given that Chinese petrochemical products are not on par with those from the Middle East--Chinese petrochemical industries, in terms of technology, the scale of resources and facilities, and in terms of management quality, are very far from international levels.

Chinese petrochemical companies must make the most of the opportunity of this cycle of low-cost oil and increase their production of high added-value products. The petrochemical industry must use a "grouped and basic" development model. "Grouped" refers to the creation of groups by area. For example, steel, refining and petrochemicals can gain benefits in a complementary way and become "grouped." This type of schematic model may involve the three oil companies, PetroChina, Sinopec and Cnooc, investing in a single area, creating a sharing and exchange of resources, significantly reducing business costs and diversifying the interests of "downstream" activities.

- Encourage the new "expose" policy and abandon energy subsidies to promote energy price reform

Low oil prices have given the Chinese government a golden opportunity to cut unproductive subsidies to fossil fuel energy and increase more productive spending. Cutting subsidies to fossil energy will not only be more economically rational, it will also reduce perverse incentives promoting pollution and global warming. This can both help reduce government spending and make more money available for state funding in the fields of education, health, infrastructure and the fight against, promoting economic development in the medium and long term. According to the "2014 report on the development of world energy," published by the IEA – International Energy Agency – China's fossil fuel subsidies in 2013 came to a whopping $550 billion, 4 times those for renewable energy.

- Focus on international strategies to "increase the value of the project + acquisition of the project"

With the price of oil continuing to remain so low, many oil companies have started to sell industrial goods to reduce financial pressure, making mergers and restructuring the main theme of the international oil industry in 2015-2016. All this will give private Chinese oil companies the opportunity to pursue overseas acquisitions. Despite the fall in oil prices, companies can take advantage of this opportunity to participate in corporate acquisitions at bargain prices. Currently, Chinese oil industries that have already formed the three core areas of activity in Central Asia, North America and Central Asia are strongly developing international activities. The companies may continue to develop their business network and expand their activities of the highest level, with specialized staff and integration of resources, continuing to expand towards the peripheral areas rich in oil and gas, thus increasingly expanding their volume of business.

- Increase political support and allow the private sector to import crude oil

China should make the most of the fall in oil prices by eliminating obsolete activities and promoting an opening of the system, allowing the private sector to have more rights and loosening controls over crude oil imports. It is estimated that in 2015, the right of use over crude oil imports will first be issued to 10 companies and that 30 million tons may therefore be accessed.

Subsequently, crude oil imported by the companies will not be included in the programming index of PetroChina and Sinopec and, once this right of use has been obtained, importation may be entrusted to Chinochem or Sinopec, even if there will no longer be a direct import. At this point, there will be a possibility of having a specific importer and companies with overseas resources will be the first to benefit from this right.

In general, opening crude oil imports has already become the main route of energy strategies. This means that, in many areas, where conditions permit, refining companies will obtain the right of use of crude oil imports.

- Expand international collaboration and attract foreign oil companies to an internal collaboration within the sector

Many large overseas oil companies collaborate with Chinese companies. As regards a reform of the Chinese "upstream" sector, China must provide foreign participants with a clearer access structure. For example, for the development of shale gas, China can follow Europe's lead, and issue precise provisions to attract foreign investment.. With regard to "downstream" activities, foreign companies should be given the right to wholesale marketing of petroleum products. Due to the absence of this right, petroleum products produced abroad have no way of arriving directly at their service stations. The right to the wholesale marketing of petroleum products may gradually lead to a further liberalization of the best foreign companies. Currently, by regulation, the percentage of service stations of foreign companies in China cannot exceed 30 percent, but the share must definitely increase.

- Finally, join the "One belt one road" strategy: an integral framework of the energy industry

Promote the creation of energy transport channels. In the future, China may continue to promote the construction of many channels for transporting energy across borders, including the creation of four Central Asian energy pipelines, oil pipelines and gas pipelines between China and Russia, the energy "corridor" between China and Pakistan, the energy canal between China and Burma and the energy hub of the maritime Silk Route, thus implementing the construction of an internal Chinese production center. The southeast coast and inland areas of China have created a large energy production center and, as a result, there is an increasingly urgent need to develop intelligent, high-level equipment; the market's creation of the "One belt one road" is the opening market for service engineering and energy equipment companies and for major industrial upgrading projects. ■

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The Europe of ENERGY

In the short term, the Organization's disarray has sustained the reduction in oil prices. In the long term, it raises concerns about the direction of crude oil prices in the event that companies and countries continue to cut investment

Europe/The intricate network of relations with the members of OPEC

The advantages of the Old Continent

by PAUL BETTS

At last June's annual ministerial meeting of the European Union and the Organization of Petroleum Exporting Countries, the then EU energy commissioner, Gunther Oettinger, underlined the importance of cooperation and dialogue between the EU and OPEC. His premise was quite straightforward. The EU imports 53 percent of the energy it consumes, almost 90 percent of its crude oil needs, 66 percent of its natural gas and roughly 42 percent of its solid fuel requirements. So Europe can hardly be indifferent to an organization that has accounted in recent years for around 40 percent of the global oil market and that once produced more than half the oil in the world.

But this so-called EU-OPEC dialogue has never really lived up to expectations. "It is not surprising," says the chairman of a London-based independent oil exploration and production company. "You cannot really talk about a relationship between Europe and OPEC as to all intents there is none apart from these random annual meetings. What you do have is a complex web of intense and intricate relationships between the EU and its individual member states with the respective countries that constitute the OPEC cartel as well as other non-OPEC oil producers," he explains.

ENERGY SECURITY AS A PRIORITY

For the EU and its member countries, the key issue has always been energy security and affordable energy supplies. And in the case of oil supplies from OPEC producers, price is obviously a decisive element. As Mr. Oettinger has pointed out: "Producers and consumers might have different views on what should be a desirable oil price. However, I think there is a broad agreement that an affordable oil price is a prerequisite for economic growth of all economies, both for the producer and the consumer side. In other words, excessive oil prices will be damaging to our economies." Mr. Oettinger is no longer the EU energy commissioner, having moved on to become the EU commissioner for the digital economy. But like most of his European policymaker colleagues, he must be pleased by the sharp drop in the price of crude oil over the past ten months and the decision of OPEC members, and in particular the biggest producer of all, Saudi Arabia, which accounts for 40 percent of OPEC production, to keep pumping at record levels.

HOW FALLING PRICES AFFECT EUROPE

Cheaper oil, combined with the European Central Bank's bond buying stimulus program, have helped deliver faster growth in the European region. "The EU economy has rarely benefitted from such a strong conjunction of support factors," writes Marco Buti, the head of the commission's economic directorate. European Commission economists are now forecasting that gross domestic product in the 19 nation Eurozone should grow by 1.5 percent this year and by 1.8 percent in the 28 nation EU, at least in part because the sharp drop in the price of oil is leaving more money in the pockets of European consumers. Mr. Buti wonders, though, whether the European economy will be able to maintain a self-sustained and balanced expansion once these temporary favorable tailwinds fade. The answer is far from obvious, but maintaining a stable longer-term oil price environment would certainly help. In terms of its role in the broader energy market, the new European Commission is quietly moving forward with its efforts to complete the internal market for energy, as it has concluded that the region's energy security can be created only with a genuine single market. That involves investment in new energy infrastructure; moving forward with a program of energy savings to achieve at least 17 or 18 percent energy savings by 2020 if not the targeted 20 percent; further diversification in energy sources and renewables; and pursuing the EU's ambitious decarbonisation objectives. But many of these are medium to long-term objectives and oil, in the meantime, will remain a key component of the EU energy mix. Indeed, the European Commission has indicated that in the short to medium-term, Europe's oil import dependence will increase considerably, up to more than 90 percent, as a result of the progressive depletion of EU oil reserves.

TENSIONS WITH RUSSIA

And so Europe cannot afford to be complacent or indifferent to OPEC. All the more so following the crisis in Ukraine and the heightened diplomatic tensions between the EU and Russia, one of the world's largest oil producers and one of the European region's key natural gas and oil suppliers. Before the crisis and resultant U.S. and EU sanctions against Moscow, Germany in particular saw Russia as its and the EU's privileged energy supplier and economic trading partner, this a strategy designed to reduce its dependence on OPEC suppliers, especially the organization's large Middle East oil producers. It is no accident that former German chancellor Gerhard Schroeder became chairman of Gazprom, one of Russia's dominant state controlled energy groups. As a result of the Ukraine conflict and the icy standoff between the U.S. and Russia, this strategy has been put to the test. Relations between Berlin and Moscow have cooled considerably in spite of recent efforts by Russian President Vladimir Putin to renew the dialogue with Germany. This, in turn, has left Moscow with two alternative options – cooperating with OPEC and even joining the cartel, and turning its attention east to China. Russia could indeed elect to do both. But so far it has only moved decisively to boost its oil and gas exports to China, including a recent proposal to build a new trans-Siberian pipeline. Following the latest upheavals in the international oil markets, OPEC, and in particular Saudi Arabia, have made new approaches to Russia about joining the organization or at least enhancing coordination and cooperation. Saudi Arabia and Russia have a lot in common. Both depend on oil exports for the bulk of their budget revenues. Russia has in recent years increasingly become a petroleum-based economy similar to Saudi Arabia. And both Saudi Arabia and Russia place energy at the center of their foreign policy, using it as a key tool to achieve their political objectives. Both also pay lip service to the idea that the market drives oil prices. As Sergey Lavrov, the Russian foreign secretary, put it in February: "We see eye to eye with our Saudi colleagues in that we believe the oil market should be based on the balance of supply and demand, and that it should be free of any attempt to influence it for political or geopolitical purposes." However, President Putin was somewhat more frank last autumn when he said during a visit to Beijing that "the political element in the oil price is always present." The failure of Russia and OPEC to work closer together in their mutual interest to see a firm and sustained oil price is an old story. Back in 2008, amid falling oil prices, a plunging rouble and a gathering international financial storm, Russia lobbied OPEC for output cuts. But then, as today, the talks between OPEC and Russia yielded very little, if anything, as each side has been unwilling to bear the pain of the necessary production cuts needed to lift prices from their current low levels – even if there has been talk of late again among OPEC members of the need to re-institute production quotas that were abandoned in 2011.The fact is that neither Russia nor Saudi Arabia as well as most other OPEC producers can afford to reduce the flow of their oil revenues and risk losing market share—especially with the threat of the revived U.S. oil industry, which Saudi Arabia is attempting to combat, not altogether successfully.

THE BUDGETARY PRESSURES OF OPEC COUNTRIES

If low oil prices are an obvious benefit to the European economies with the exception of the European oil industry itself, the impact of cheaper oil on producing countries could nonetheless have repercussions for EU countries. By OPEC's own admission, oil prices are not expected to trade consistently at $100 a barrel again in the next decade, in part because OPEC's American competitors are expected to be able to cope with a low price environment and keep pumping out supplies. Lower revenues will put pressure on the budgets of OPEC countries to cover their needs and growing expenditures sufficiently to avoid domestic political and social unrest. The post-Arab Spring turmoil in Libya and elsewhere in the Maghreb has already had severe repercussions in Europe with the growing and tragic wave of African migrants attempting to cross the Mediterranean to Italy. This has already created a crisis of huge human dimensions and put further stress on how EU countries tackle growing immigration. European countries also have various bilateral interests with specific OPEC producers beyond the broader issue of attempting to avoid further conflict in the Middle East and potential terrorist offshoots. For both the UK and France, Saudi Arabia and the Gulf states have long been key defense industry markets. Both the French and UK defense sectors continue to rely for a large portion of their export sales of aircraft and other defense equipment on these regions of the Middle East. They also increasingly rely on this region of the world for sales of commercial aircraft, with states such as Dubai, Abu Dhabi and Qatar becoming key purchasers of European Airbus commercial jetliners. So it has long been in the interest of European countries to work towards easing the multifaceted political and social tensions in the Middle East and in other developing oil producing countries to avoid potentially unpredictable and serious disruptions to oil supplies and other economic ties, not to mention major geopolitical threats.

THE WEAKENING OF THE ROLE OF OPEC

Unfortunately for OPEC, the infighting between its members and its overall lack of discipline has inevitably undermined its power to influence the oil markets. This, in turn, has also weakened its negotiating hand with other institutions, not least the European Union. For Europe, the waning of the OPEC cartel is a mixed blessing. In the short run it means a welcome boost to growth from lower oil prices. In the longer term, it raises questions about the direction of oil prices if companies and countries continue to cut investments and capital spending as they readjust and reposition themselves in the face of low oil prices and an oversupplied market. Abdulla al-Badri, OPEC's secretary general, warned earlier this year of a risk of a future price increase to as much as $200 a barrel if investment in new supply capacity is too low. He is probably overstating the risk, but the point is that the last thing Europe wants or needs is a highly volatile oil market that swings from global abundance to global scarcity as it has so regularly done in the past. That is why it is in the interest of the EU and European countries to seek greater cooperation and mutual understanding with OPEC and non-OPEC oil producing countries on the all-important mechanisms that govern oil prices. At the end of the day, the price of oil will ultimately be dictated by the cost of replacing reserves so a balance needs to be reached to ensure that reserves can be replaced on an economically viable basis. In the current climate, it won't be easy.

INTERVIEW **Joe Kaeser, CEO of Siemens, Europe's largest conglomerate**

OPEC: A role not lost but surrendered

If the Organization does not act as a swing producer, it is by choice. In spite of short term challenges created by low prices, in the long term, the oil and gas industry remains a good bet. For Kaeser "it is worth being there"

Joe Kaeser, the Chief Executive Officer of Siemens, remains optimistic about the oil industry despite the fall in prices. Thanks to the Dresser-Rand transaction and other recent acquisitions, the German conglomerate will be well positioned to hit the ground running when prices bounce back, assures the CEO, questioned on the sidelines of IHS CeraWEEK.

In the "new world of energy" has OPEC really lost its role as swing producer?
I do not think that OPEC has lost its ability to act as swing producer. I think that it has instead given up this role.

In their interests, deliberately to the United States?
This you should ask them.

The fall in crude oil prices has led to a general cut in investments in the industry. What does this mean for Siemens?
It means that contracts will decline in the short term and this is definitely not good news. In our specific situation, the good news however is that we have enough time to focus on the integration of three assets: Dresser-Rand, Rolls-Royce and Siemens Oil & Gas. Obviously, the fall in oil prices does not please us, nor does the consequent decline in capex, but at the same time the timing is perfect: it allows us to properly complete the integration and to be ready for when people return to the field.

Are you therefore optimistic about the prospects of the industry?
We continue to believe that the oil and gas industry is still one of the most attractive: it is worth being there. We at Siemens, also thanks to the Dresser-Rand acquisition, are able to weigh on the side of keeping costs low and this is one of the answers, if not "the" answer, to the current situation. But in the long term, Oil & Gas remains profitable. The question has not been dropped. Siemens is active in many sectors: that of generation, transmission, distribution, upstream, downstream, offshore and onshore.
If you look at the Siemens-Dresser-Rand-Rolls-Royce combination, I think that we are very well positioned.

You have, however, announced more than 7,800 cuts in the workforce as part of the corporate restructuring plan…
The new strategy and the new organization will make our company more efficient. We have eliminated the layers, we are closer to our customers, to our business and many jobs have become redundant, especially in the administrative sector. We have also made assumptions. We want to use these posts to focus on innovation and growth. While oil prices were high, no one was worried about cost efficiency. The only concern was to pull oil out as fast as possible.

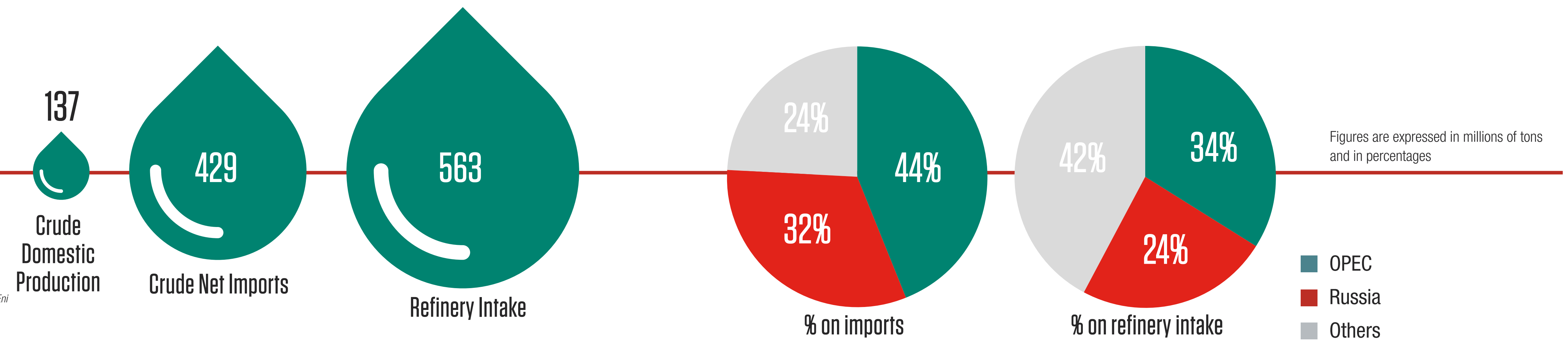
RITA KIRBY

JOE KAESER
Joe Kaeser has been President and Chief Executive Officer of Siemens AG since August 1, 2013. Prior to that, he was Member of the Managing Board and Head of Corporate Finance and Controlling at the company, positions he held since May 1, 2006. He was also responsible for Financial Services, Siemens Real Estate as well as Equity Investments at the Company. In addition, Mr. Kaeser acts as Member of the Equity and Employee Stock Committee at Siemens AG. He studied Business Administration at the Fachhochschule Regensburg. He joined Siemens AG, Components Group in 1980.

OIL BALANCE OECD EUROPE

OECD-Europe's dependence on foreign crude oil, which includes production from Great Britain and Norway (the North Sea). The consumption item was understood as refinery intake (processing of crude oil in domestic refineries of the area).

Source: NE Nomisma Energia on statistics from IEA and Eurostat, EnI



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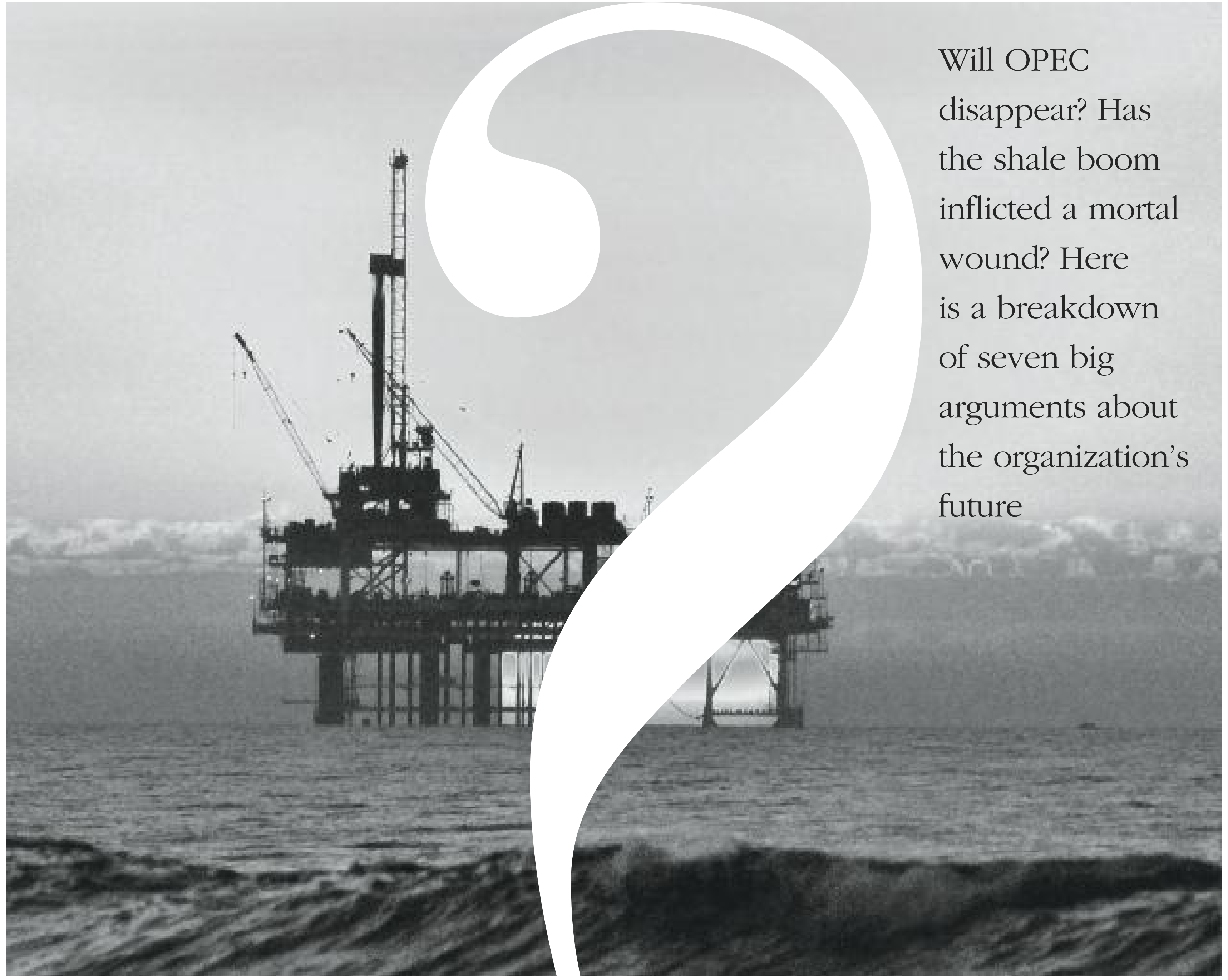


Will OPEC disappear? Has the shale boom inflicted a mortal wound? Here is a breakdown of seven big arguments about the organization's future

True ? false

The seven most common ideas

by MOISÉS NAÍM

The global oil scene has always been a battlefield in which the intensity of the commercial skirmishes is only exceeded by the vigor of the geopolitical clashes over its control. This has not changed in recent years, except for the fact that the fighters, weapons, strategies and tactics on that battlefield have been dramatically altered. New technologies have disrupted exploration and production and created new players that use very different tactics, boosting the oil fortunes of producers like the United States. Hedge funds and new forms of financing operations have added financial players to the list of the new forces that are upending oil markets.

National oil companies are working to adjust to the contradictory pressures of the domestic politics of their countries and the international politics that shape their business environment.

Traditional multinational corporations face surprising competition from smaller but more agile and bold, rivals. Changes in the patterns and volumes of the demand for oil have also created new realities. In the midst of these revolutionary changes stands the 55 year-old Organization of Petroleum Exporting Countries, OPEC. OPEC is caught in the middle of this epic struggle. Surely, today it has less influence on the market than during its halcyon days. While in 1974 it accounted for half of the world's total supply of oil, today OPEC members account for a third - and their share of total supply is expected to continue to dwindle. But is OPEC an endangered species condemned to disappear? Or will its power to determine global oil prices recover? The turmoil in the structure of the global oil industry has inevitably nurtured a spirited debate about OPEC's future. In this article I have identified some of the most common assertions made about OPEC and discuss how valid they are. Some are true, some false and some others that used to be true are no longer so.

never true

OPEC determines global oil prices

While at times it wielded substantial price-fixing power OPEC was never a price fixing cartel. In fact, when measured in terms of effectiveness, rather than intentions or public statements, OPEC has rarely been a strong cartel. It reached the acme of its price-fixing power in 1973, during the Arab oil embargo when decisions taken by OPEC effectively contributed to the sudden quadrupling of oil prices. The energy bill of consuming countries skyrocketed. Since then, OPEC has been essentially unable to exercise significant influence over global oil prices. The diverging interests of its member nations made it very difficult to maintain price discipline while new producing countries entered the market refusing to join OPEC.

Periods of high oil prices have been mostly triggered by geopolitical events outside OPEC's influence. Even today, as Saudi Arabia's decision to increase production has been an important contributing factor in keeping down prices, the main player has not been OPEC as a whole, but a small and dominant group of Gulf States within the organization. In fact, the decision to keep production levels unchanged runs contrary to the professed policy of OPEC of defending prices by managing output. This recent behavior is nothing new but one more example of what is a clearly identifiable trend with OPEC, namely that its behavior is fundamentally driven by the interests and decisions of its larger producers.

false

OPEC is doomed to disappear

As is the case of many other international organizations that have lost the relevance they once had, OPEC will more likely enjoy bureaucratic immortality. Although its importance has dwindled, OPEC is not in danger of being shot down by its members. Conceived by third-world visionaries in the 1960's, the organization was given geopolitical legitimacy by its success in raising prices in the early 1970s and also by the ideas and principles expressed by a doctrine called the New International Economic Order (NIOC). The NIOC included as one of its main bedrock principles the right of nation states to control the extraction and marketing of their domestic natural resources. Another was the establishment and recognition of state-managed resource cartels. Their aim was to stabilize commodity prices and, of course, extract from the richer consuming countries "fair" prices for their exports. Surprisingly, OPEC perceived power was greatly aided by M. King Hubert's Peak Oil theory, which popularized the belief that oil was becoming scarce in the planet and would eventually become extremely scarce. This perception further boosted OPEC's geopolitical power given that its members controlled most of the oil reserves. Once the assumption that the world would shortly use up the oil has been replaced by the theory of an overflow of petroleum, the importance of a cartel that controls an abundant commodity inevitably declined.

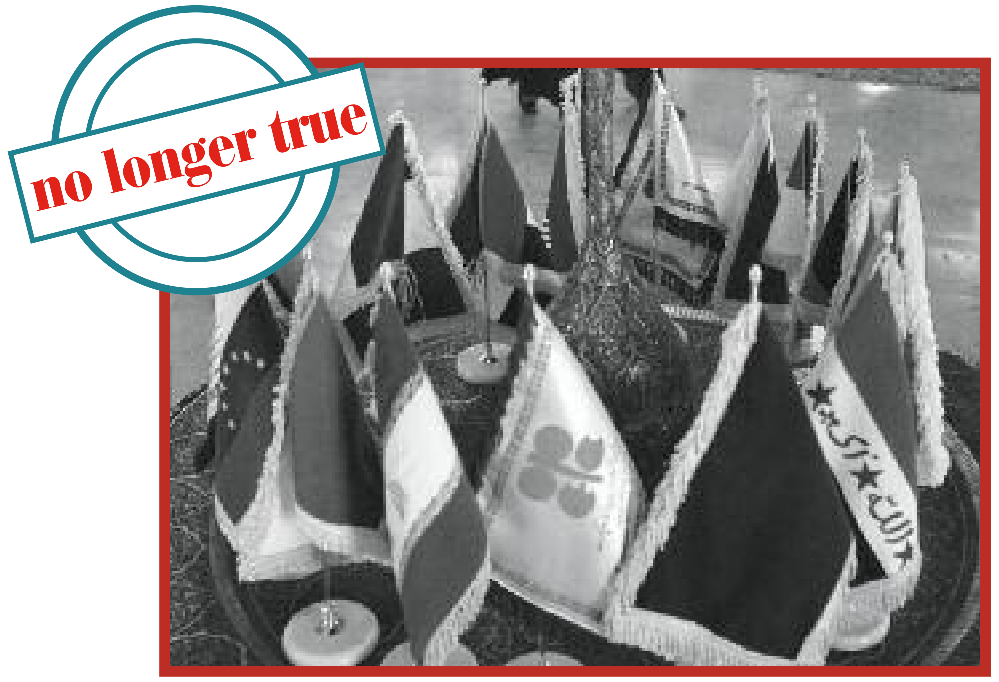
The survival of any cartel depends on two main factors: that the commodity it controls is in short supply and that the members of the cartel respect their agreed production quotas and refrain from adding to the supply beyond their allocated production, thus, pushing prices down. Today, powerful new forces and actors have weakened these two conditions. New sources of energy are entering the market at increasing speed. In Europe, consumption of renewable energy sources has increased some 80 percent in the last 10 years and some 15 percent of electricity consumption in the U.S. now comes from renewable sources. Technological innovations such as thin film solar cells could become real game changers in the energy sector. The shale oil and gas boom, which will spread from the U.S. into at least half a dozen other countries, and the proliferation of independent oil producers are gradually reducing the significance of OPEC's role in the global energy sector. However, in contrast to similar organizations such the International Association of Coffee Producers (IACP) or the International Tin Council (ITC), which folded when they could no longer pay their debts, OPEC is relatively inexpensive to maintain by its very wealthy members. Therefore, the outlook for OPEC is for progressive irrelevance rather than death.

OPEC was created to maintain market stability

Even though its leaders are loath to recognize it, since its inception OPEC has been guided by what it calls "the defense" of oil prices. This meant getting prices as high as the market would bear, while avoiding setting them so high that rival producers or new technologies (especially renewables) would become economically attractive. Despite the official line and the speeches about OPEC's goal of seeking the elusive equilibrium between supply and demand, what in practice shaped OPEC's decisions most of the time was getting the best possible prices without stimulating rivals. In fact, for years, the prevailing strategy of the organization, was limiting its members' output in order to maintain a market dominated by the sellers. Rather than cooperation between producers and consumers, OPEC emphasized a strategy of gaining price advantages over the large consuming countries of the industrialized world, even if its pricing strategy obviously hurt consuming countries in the developing world. Over time, this strategy of maximizing revenues became ineffective, as individual member countries which desperately needed oil income to fill the government's coffers blatantly violated their production quotas - which they had promised OPEC that they would respect. Today, this situation prevails and the most financially strapped members openly flaunt their output commitments. In part as a result of its inability to maintain discipline in its ranks, OPEC is now calling for increased global cooperation between consumers and producers - a move more likely driven by necessity than by conviction.

Saudi Arabia will continue to be its most influential member

In the foreseeable future there is no rival to Saudi Arabia within OPEC. Its vast proven reserves of good quality, light oil with relatively cheap production costs insure that the Saudi kingdom will continue to be OPEC leader despite the fact that Venezuela - one of OPEC founders - boasts the world's largest reserves. Venezuela's lower quality, heavy oil is more expensive to produce. In addition, the Venezuelan government has been unable to create a growth-oriented oil industry and, in fact, its production capacity has been declining. Iran's conventional oil reserves are the third largest in the world but its oil industry continues to be afflicted by poor operational efficiency and a prolonged period of underinvestment. Things can change and Saudi Arabia's oil leadership could be affected by political instability or a geopolitical accident that limits its oil export capabilities while Venezuela and, more probably, Iran may recover their competitiveness. Still, most experts agree that the most likely scenario is that Saudi Arabia will continue to retain its leading position within OPEC. The Kingdom leadership is well consolidated, not only thanks to its highly efficient management of its oil industry but also because it wields significant influence over its oil and gas producing allies in the Gulf.



The differences in the national interests of its members can be reconciled

As in any other type of association the harmony within OPEC could be easily maintained while results were clearly favorable to the producing countries. The increasing role of independent oil producers in the global market, the boom of oil and gas production in the U.S., China's increasing reliance on Russia for its energy requirements have greatly contributed to OPEC's loss of market share and have exacerbated internal frictions within the organization. The attention of member countries has been diverted to individual survival rather than to collective action. Moreover, the international financial crisis and the anemic global economy have hurt the most fiscally vulnerable members of OPEC. The fiscally exposed countries need relatively higher oil prices to balance their public budgets or - absent higher prices - they need to export larger volumes of crude in order to obtain the revenues they badly need. The substantial drop of oil prices that began in the summer of 2014 has added pressures for needy OPEC members to export as much as they can to close their huge fiscal deficits. Naturally, this worsens the misalignments between the OPEC members that enjoy a sounder economic situation and the oil producers who are in dire economic straits. The results of the recent OPEC meeting in which higher production levels were confirmed, show that Saudi Arabia is, more than ever, in the driver's seat and that the fiscally frail producers will have to fend for themselves.

The boom in oil and shale gas development will become global and will further weaken OPEC in the medium term

Most shale oil and gas probable reserves are located in non-OPEC Countries, particularly the U.S., Mexico, Argentina and China. In 2010 these resources were estimated by the International Energy Agency, IEA, to be some 5 trillion barrels of technically recoverable oil, a volume more than four times larger than the proven oil reserves of all OPEC members (about 800 billion barrels of oil). The development of these resources in the U.S. has already had a large impact on the global oil supply and in the softening of prices. As other countries start developing their own resources this impact will become even more significant. Moreover, as a recent Financial Times editorial says: "The shale oil industry of the U.S. is emerging as the world's swing producer, bringing more crude on to the market when prices rise, and putting a ceiling on its potential price that will probably now be well below $100 per barrel". U.S. Shale oil production would behave like a thermostat, set at around $70 per barrel, to control oil price in a much more effective way than OPEC ever did. The FT editorial adds: "Rival producers will have to learn how to live with it. Russia needs an oil price of $90 per barrel to balance its budget, Iraq $98, Saudi Arabia $105 and Iran $137, according to Citigroup. Those countries will have to make potentially painful changes if oil prices remain well below those levels for a protracted period. The risk of political instability will rise". Perhaps the only factor external to the operation that could affect oil prices significantly is the futurization of oil revenues by hedge funds and speculators, the massive buying of oil futures as a hedge against inflation and a weaker U.S. dollar.

OPEC is the main enemy of the environment

As producers of fossil fuels, OPEC member countries are certainly responsible for a large share of the carbon emissions which contribute to global warming. However, the main culprits are the consumers, not the producers. Governments are especially responsible for having so far failed to establish carbon pricing policies that create the appropriate incentives to curb emissions. The point is that governments have the main responsibility for adopting and enforcing carbon emission regulations and to stimulate the shift to low carbon energy producing technology. According to the International Energy Agency (IEA) clean-energy levels are still falling short of those needed to limit the global increase in temperatures to 2 degrees centigrade or less. The Agency calls for tripling the public spending in research and development in low-carbon technologies on the positive side, the IEA notes that "global emissions of climate-warming carbon dioxide did not rise last year (2014), for the first time in 40 years without the presence of an economic crisis". These good news are credited to shifts in China's pattern of energy consumption, the world's biggest carbon polluter and seem to be a sign that efforts to control emissions care starting to be successful.

To add to these good news, President Obama signed in March of this year an Executive order requiring the U.S. federal government to cut greenhouse gas emissions by 40 percent by 2025, from 2008 levels. Companies such as Lockheed Martin and General Electric are announcing voluntary cuts of their own. Such a move would be equivalent to taking about 5.5 million cars off the road for a year. Most important of all, the G7 Countries decided in their June 8th meeting to develop long-term low-carbon strategies and abandon fossil fuels by the end of the century. These are developments that will have dramatic implications for the global energy picture in the medium to long term. They will also add to the pressure that OPEC faces to maintain its relevance.

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Scenario/Riyadh's role

When looks are deceiving

Sandwiched between volatile oil prices and a lack of cohesion within OPEC, Saudi Arabia has favored maintaining market share over maximizing revenue

Oil markets often respond to changing expectations of future supply and demand. This chart shows how projections of changes in Saudi Arabia crude oil production results in changes in WTI crude oil prices. Saudi Arabia, the largest oil producer within OPEC and the world's largest oil exporter, historically has had the greatest spare capacity, typically keeping more than 1.5-2 million barrels per day on hand for market management.

by BASSAM FATTOUH AND ANUPAMA SEN

The recent volatility of oil prices has turned the world's attention to Saudi Arabia's oil policies and its role in the oil market. Initial hopes that Saudi Arabia would come to 'rescue' and "balance" the market and put a floor under the price of oil were replaced by stories of "price wars," "conspiracy theories," and "grand design strategies and games" aimed at pushing prices down to achieve some wider geopolitical objectives.

OPEC's decision in November 2014 not to cut output and to leave the daily output ceiling unchanged at 30 million b/d raised a broader and more fundamental set of questions: has there been a shift in Saudi Arabia's oil policy and if so, how will this change manifest itself both in the short and long run dynamics of the oil market? And has the role of swing producer shifted from Saudi Arabia to the U.S. shale producers?

A key objective of this article is to analyse the country's recent behavior in light of the transformations in global crude oil markets, the internal dynamics within OPEC, and the structural features of the kingdom's domestic economy and its energy sector.

SAUDI ARABIA'S OIL POLICY AND ITS TRADEOFFS

Saudi Arabia's oil policy should not be analysed in isolation from the evolution of global oil market dynamics. It is also fundamentally rooted and shaped by several salient features of its political, economic, and social systems. Key factors that directly influence the kingdom's oil policy include:

- **Its high dependency on oil revenues.** Despite various attempts to diversify its economy, Saudi Arabia remains highly dependent on revenue from oil. Its government continues to use it to fuel the kingdom's development path while government spending, also fuelled by oil revenues, remains the main engine behind the growth of its local economy, including the non-oil private sector. Given the central role played by oil in the domestic economy, the policy objective of maximizing oil revenues will always rank highly in any output decision.
- **Its massive oil reserve base, which will be exhausted over many decades.** According to the *BP Statistical Review of World Energy 2014*, Saudi Arabia holds around 266 billion barrels of proven reserves, with a reserve-to-production ratio of more than 63 years. Therefore, securing long-term demand for its oil is a key policy objective that should be balanced against other objectives such as higher revenues and higher oil prices. Demand reduction—due to high and volatile oil prices and/or due to oil substitution policies driven by energy security and climate change concerns—constitutes a long-term challenge, especially given that Saudi Arabia's continuing attempts to diversify its economic base remain unsuccessful.
- **Its dominance in oil production and trade.** In 2013, Saudi Arabia produced around 9.7 million b/d and exported more than 7 million b/d. It also produces a wide variety of grades—ranging from the super-light to the super-heavy—and hence can satisfy demand from a wide range of refineries. Given this production and export profile, a presence in key markets such as the U.S., Europe, and Asia is important to secure clients for its crude.
- **Its spare capacity.** Saudi Arabia is one of the few producers with ample spare capacity that can be used effectively to balance the market relatively quickly. Furthermore, Saudi Arabia is the only country that has an official policy to maintain spare capacity. Therefore, investment and output policy should be geared towards optimizing the size of its spare capacity and meeting domestic demand, which has been growing at a fast rate. Neither a very small nor a very large amount of idle capacity is desirable. On the one hand, low spare capacity reduces its ability to calm oil markets in case of disruption. On the other hand, large spare capacity puts downward pressure on oil prices and affects both Saudi Arabia's market share and the rate of return on its investment.
- **Its political and internal stability.** Being at the heart of a region that is very unstable politically, especially in the aftermath of the Arab uprisings, Saudi Arabia's ability to maintain internal stability is of paramount importance. This shapes key economic policies such as the government's spending decisions, the pace of economic reform (including the reform of energy prices), and the kingdom's regional and international relations.

Given the wide range of short and long term policy objectives and the limited number of tools available for oil policy makers (basically adjusting output and signalling to the market), Saudi Arabia will always face trade-offs with its oil output decisions. A key trade-off arises between the objective of revenue maximization and those of maintaining market share and production and export volumes above a certain level. Such a trade-off is shaped by internal dynamics and by external oil market conditions, both of which are highly uncertain. It is in the context of uncertainty surrounding trade-offs that this article attempts to explain the behaviour of Saudi Arabia during the latest oil price cycle.

SAUDI ARABIA WILL NOT SWING ALONE

The 2014–2015 oil price cycle has generated much speculation about the drivers of Saudi Arabia's oil policy. Some explanations are based on the premise that Saudi Arabia is not concerned about the lower prices, or that it even favours a low price policy in the current context, in order to achieve wider geopolitical objectives. One view that has gained some traction is that Saudi Arabia is working with the U.S. to drive down the price in order to put pressure on the oil export-dependent Russian and Iranian economies. But such an explanation is problematic. Since the oil embargo in 1973, Saudi Arabia has not used oil as a political tool; in recent years it has taken pride in the fact that decisions related to production and investment in the oil sector have been based solely on commercial considerations, independent of any U.S. influence. Furthermore, one should question the effectiveness of oil as a political weapon and whether a squeeze on the oil revenues of either Russia or Iran could induce a radical (or even a slight) shift in the foreign policies of these countries. But more importantly, such explanations ignore some basic features of the Saudi economy. As mentioned previously, Saudi Arabia's dependence on oil revenues remains high, while government spending commitments at both the domestic and regional level continue to rise, especially in the aftermath of the Arab uprisings; a policy of deliberately pushing prices down would therefore cause self-harm.

In fact, just before oil prices started falling, Ali Naimi, the Saudi oil minister, declared in May 2014 that: “One hundred dollars is a fair price for everybody – consumers, producers, oil companies.” However, at this relatively high and stable “fair price,” strong supply and demand responses were becoming more visible. On the supply side, U.S. production was increasing at a phenomenal rate, with 1.2 million b/d of crude oil (including lease condensate) added by the U.S. in 2014. On the demand side, between 2011 and 2014, global growth in oil demand continued being revised downwards, reflecting weaker economic prospects. Despite the increased visibility of these demand and supply responses, the last few years have seen no proactive Saudi oil policy aimed at bringing prices down. Instead, Saudi Arabia validated the hundred dollar oil price environment by signalling the fairness of such a price to the market. This reflects a clear asymmetry in oil policy response. Prices need to rise to extremely high levels to provoke a proactive Saudi response (this was seen in the first half of 2008, when prices hit close to $150, and in early 2012 when oil prices increased sharply as concerns over U.S.-Israeli attacks on Iran intensified).

THE 1985-1986 PRICE FALL

All oil exporting countries are aware of the fact that in the face of a fall in the oil price caused by *ex ante* excess supplies, co-operation on the output front is the most effective way to reverse the price decline. Leaving it to prices to clear excess supply comes with its own risks and uncertainties. While lower prices will help stimulate oil demand and potentially slow the pace of oil supply growth in some regions (possibly causing some projects to be delayed or postponed), these effects tend to take time to play out. Furthermore, for any oil price decline to have a long-lasting effect on supply–demand balances, price expectations need to remain depressed for a long time. In contrast, output cuts (and supply disruptions) still represent the fastest and most effective way of feeding through to oil market balances. There is rarely any disagreement on this general principle, but disagreements usually arise over which countries should shoulder the burden of any cut. It has long been the case that non-OPEC countries leave OPEC to implement cuts. In turn, many within OPEC would like to leave Saudi Arabia to shoulder the burden.

The expectation that Saudi Arabia would balance the market on its own is somehow surprising, as the kingdom has made it very clear on many occasions that it will not cut output unilaterally. As Robert Mabro, founder and former director of the Oxford Institute for Energy Studies, noted in 1998: “Saudi Arabia’s willingness to cut output on its own to influence the course of oil prices could not be taken for granted.” In fact, following the price collapse in 1985, nobody should realistically expect Saudi Arabia to act as the sole “swing producer.”

Between 1973 and 1985, OPEC exercised the ultimate pricing power by setting the marker price, but in doing so it had to live with variable volumes of production. With the continued decline in demand for its oil, OPEC saw its share in the world’s oil production fall from 51 percent in 1973 to 28 per cent in 1985. Under this pressure, disagreements within OPEC began to surface. Saudi Arabia lost market share with every increase in the marker price and hence opposed price increases. Other OPEC members pushed for large price increases – while at the same time putting additional oil on the market in an attempt to boost revenues. OPEC’s introduction of a formal quota system proved to be ineffective in preventing production from rising above quotas (in other words “cheating”) and it was becoming clear by the mid-1980s that OPEC was losing its power to set the oil price. Saudi Arabia’s attempts to defend the marker price resulted in a huge loss of market share: the demand for Saudi oil declined from 10.2 million b/d in 1980 to 3.6 million b/d in 1985. This decline in production volumes and loss of market share proved to be very costly for Saudi Arabia.

THE MARKET AS A REBALANCING TOOL

In late 2014, realizing that key OPEC members and non-OPEC producers such as Russia were not willing to share the burden of the cut necessary to stabilize the market (on the contrary, some producers, such as Iraq, Iran, and Russia, indicated that they would continue to place more barrels in the market), Saudi Arabia opted to ‘leave it to the market’ to clear the excess supplies. For Saudi Arabia, there was real concern that any cut in its production would have been compensated for by an increase in production from both within and outside OPEC, with little effect on prices. The ultimate nightmare for any exporter is a reduction both in its market share and its revenues. While the strategy of not adjusting production would entail the short-term pain of falling oil revenues, it could lead to a gain in market share, as production in high-cost non-OPEC area starts slowing down in response to lower prices.

Furthermore, Saudi Arabia has been facing tough competition in key markets as a result of the shifts in crude oil and petroleum products trade flows caused by the increase in U.S. oil production. The reduction in U.S. imports has meant that many traditional exporters to the U.S. (from West Africa and Latin America) have had to find new markets, and have done so mainly in Asia. In order to maintain its market share in this fast-growing region, Saudi Arabia has had to compete more aggressively in Asia, not only with producers from outside the region, but also from producers within such as Iran, Iraq, and Kuwait.

Internal factors also played a role in the decision to “leave it to the market.” Saudi Arabia is in a relatively better financial position to withstand lower prices in the short term than many other oil exporters. Over the last few years, the kingdom has accumulated large foreign assets while its debt is quite small, both in absolute value and in relation to its GDP; its capacity to borrow from domestic banks and international markets is therefore large.

U.S. SHALE GAS: A NEW CHALLENGE

The advent of U.S. shale has generated a new set of challenges, making calculating the trade-off between maximizing revenue and maintaining market share more difficult and uncertain. These uncertainties relate to a number of dimensions: the price elasticity of U.S. tight oil; the price below which U.S. tight oil supply growth would slow down; the time lags involved; and whether such a slowdown would follow a linear or non-linear path. One key uncertainty relates to the elasticity of the U.S. tight oil supply curve, especially in a rising market. If the supply curve proves to be highly elastic, then this will put a cap on the oil price, as any increase in the price above a certain threshold will generate a strong supply feedback. In such a context, Saudi Arabia’s actions in defending the oil price would have limited success, as cutting its own production would be compensated by increases in U.S. shale production, especially as U.S. shale producers can hedge their production at these higher prices. Furthermore, the breakeven cost is highly uneven both across shale plays and within shale plays. This makes any prediction of the magnitude of the supply response in a falling price environment highly difficult, as this will depend on well-by-well economics and the degree of efficiency improvement. Finally, unlike conventional fields, the decline rates in tight oil wells are very steep. The only way to increase production is to drill hundreds of new wells, requiring large increases in capital expenditure. Over the years, this has been financed by U.S. shale producers, who have thus accumulated large amounts of debt. Therefore, in addition to production economics, U.S. shale is affected by other factors in a low-price environment; these include the cost of debt and the willingness of financial investors to roll over existing debts and extend new lines of credit.

THE TRADE-OFFS IN AN UNCERTAIN ENVIRONMENT

Thus, shaped by changing market conditions, lack of cohesion within OPEC, and the advent of U.S. shale, the trade-off in the current market context has favoured market share over short-term oil revenue maximization. In other words, while structural features of the Saudi domestic economy imply that maximizing revenue remains a key objective, this should be balanced against the objective of maintaining volume above a certain level to avoid losing market share and being left with high idle capacity, especially given the large investments that Saudi Arabia has undertaken in its energy sector in recent years. In 1986, the relevant trade-off in the circumstances of the time favoured volume over price, after volumes had dropped to unacceptable levels. In 1998, the trade-off favoured price over volume, given that the very negative impact of abysmally low prices on revenues had induced an agreement on collective cuts from both OPEC and non-OPEC producers.

From Saudi Arabia’s perspective, the retention of market share, whatever the cost, is not a fixed position and its policy could change depending on market circumstances and the behaviour of other market players. Its oil policy is flexible and there is no single preferred oil price, which remains a moving target depending on market conditions. This explains why, over the last few years, the preferred price continued to drift upwards from $20, to $60, to $75, and most recently to $100.

IMPLICATIONS FOR THE OIL MARKET

Regardless of the reasons behind Saudi Arabia’s latest decision, the perceived loss of “Saudi feedback” by the market has a range of implications for oil market dynamics. If there is no quick mechanism (such as an OPEC cut) to balance an oversupplied market, the market can only balance through changes in supply and demand, in response to price signals. Given the high degree of uncertainty, together with different expectations relating to the timing and magnitude of these responses, the market is likely to become more prone to undershooting and overshooting, so sharp adjustments in oil prices may become more frequent.

The decision to “leave it to the market” also has long-term implications for the investment environment. The fact that prices could, in the future, fluctuate widely implies that the perception of risk in investing in oil projects has changed. In addition to a high oil price, the former stability of oil price within a narrow range and the implicit expectations that OPEC would put a floor on the oil price (and in effect guarantee the rate of return on investment in new energy projects) encouraged investment and the entry of new sources of supply into the market. The advent of increased volatility, together with the perception that prices could fluctuate widely, would cause investors (including national and international companies) to reassess the risks in new energy projects, discouraging overall investment and encouraging the option to wait.

Thus, from Saudi Arabia’s perspective, price volatility can accelerate the supply response. However, higher volatility and sharper swings in oil prices also accelerate demand responses and increase the challenge of managing the domestic economy, which remains highly affected by swings in oil prices.

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Analysis/The risk of default is played on geopolitical variables and internal debate

Warranty clause

OPEC is riven by conflicting interests: Saudi Arabia fears the advance of Iran, which finds itself with an unusual potential ally in the United States and support from a China-Russia strategic alliance in the military, financial and energy fields

by DEMOSTENES FLOROS

The Organization of Petroleum Exporting Countries was founded in 1960 in Baghdad with the aim of negotiating, together with oil companies, issues related to production, concessions and the price of raw materials. OPEC's control over the global oil market has decreased from over 50 percent in the '70s to 32.15 percent today (OPEC crude oil of total world oil). Specifically, during March 2015, the Organization's crude oil output was 31.02 million b/d, while the total global oil supply and demand reached, respectively, 94.55 million b/d and 93 million b/d during the first quarter of 2015.

The decline of oil prices clearly revealed a split within OPEC. Saudi Arabia and its historical allies in the Gulf—Kuwait, Qatar and The United Arab Emirates, which in sum provide 53 percent of OPEC's crude oil output—have argued against intervening in the market in order to reduce current production and thus stop, or at least limit, the fall of the barrel. This has greatly increased tensions, both within the Organization and outside it (e.g., the impact on the budget of the Russian Federation). In fact, Iran, Venezuela and Algeria —backed by Nigeria and Angola, whose productions have long been threatened by American tight oil—attempted to oppose the Saudi option, but did not succeed, as demonstrated by the speed with which Tehran, while grappling with the nuclear talks, blindly aligned itself with the positions of Riyadh in order not to give up further market share.

The fact that Saudi Arabia reached a new production record—10.3 million b/d—in March 2015 is a clear demonstration of how the Saudis managed to gain market share from the prolonged—and desired—fall in oil prices. In this regard, in times of difficulty, Alberto Clò wrote that "*Saudi Arabia, in essence, would seem willing to pay a price today—to stop the erosion of Western demand; to slow the growth of competing production, to give breath to the world economy – in order to benefit tomorrow, with a vision focused, as is typical, on the long term. Whether this is, or is not, a calculated risk, the facts will tell.*" Meanwhile, even the Russian Federation, which is not a member of the Cartel, recorded the greatest production of the post-Soviet era, to the tune of 10.7 million b/d.

THE ADVANCE OF IRAN AND THE UNITED STATES

Two main geopolitical factors will affect OPEC in the years to come: the first concerns the outcome of the ongoing conflict between the United States of America, on the one hand, and the Russian Federation and the People's Republic of China on the other; while the second relates to developments related to the agreement on the Iranian nuclear issue. Possible changes and any reforms that may affect the evolution of the internal balance of the Organization, as well as its outward projection, depend on these factors. First factor: the divergent views that have emerged from within OPEC about how to influence the international oil market often reproduce the different "alliances on the ground" that have formed around the main sites of confrontation, if not outright war, around the world. In fact, in Syria, Iraq, Yemen and Venezuela, the positions taken by the United States and Israel tend to converge with those of Saudi Arabia and its Gulf allies. This does not mean to exclude the presence of obvious conflicts. For example, Libya and Egypt, Riyadh and Doha, despite being united in their support of ISIS in the Middle East, express diametrically opposite positions with regard to the Muslim Brotherhood, as well as Washington, whose policy towards the Islamic State, which often appears ambiguous, to say the least, seems now to seek support in Moscow for the war against ISIS.

Conversely, the strategic alliance between the Russian Federation and the People's Republic of China is also evident in the military, financial and energy fields. In addition to the agreement between the two countries on natural gas, in 2014, Beijing purchased 36 percent more oil from Russia (665 thousand b/d) and 8 percent less from Saudi Arabia, which remains its top supplier with 997 thousand b/d, but which has seen its stake reduced by 19 percent to 16 percent. With regard to the international balance, the union between Moscow and Beijing is renewed in supporting Iran, and the governments of Syria, Venezuela and Ecuador.

Second factor: The agreement reached on April 2, 2015 between Iran and the permanent members of the Security Council plus Germany and the EU is perhaps the most consequential geopolitical event for the future of OPEC's internal balance. In fact, the multiple political and military consequences that could arise should be well beyond the future role of the Organization since, in the spring of 2012, it was still waiting to see whether the dispute linked to the Iranian nuclear issue would be resolved by peaceful means or whether the line that hid behind two legislative documents would prevail, at that time, on the office of the U.S. Congress – the first being H. Res. 568, aimed at weakening the diplomatic situation with Tehran, while the second was H. Res. 4310, intended to authorize the option of war.

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The first consequences concern the economic and social conditions of the Iranian people, who paid the price for the embargo imposed on July 1, 2012. In this regard, during February 2012, Haaretz columnist Ari Shavit wrote that "*so far, the military option has been a great success on the diplomatic front. It has managed to get the international community out of its apathy and has made a decisive contribution to the intensified economic and diplomatic siege against Iran.*" In fact, in 2012, Iran's oil exports accounted for 78 percent of Tehran's total exports, as well as 21 percent of the value of its GDP.
Secondly, the general agreement reached is the precondition for an attempt to stabilize the entire Middle East – starting from the war in Syria – which has so far failed. Previously, the fact that neither the heirs of the Persian Empire, nor the Saudis, had been invited to the Geneva Summit for peace in Syria on January 22, 2014, was not a forward-looking decision.

NEW TAKEOVERS IN THE MIDDLE EAST

For its part, the U.S. is faced with a particularly delicate situation: its historical ally in the Middle East, Israel, at least in view of the present government, continues to be hostile towards the agreement with Iran. At the same time, Barak Obama's main need – which, whoever becomes the next occupant of the White House, will have to deal with – is to shift part of its military bases, currently located around the Strait of Hormuz, towards Asia in an attempt to contain, according to some, or to surround, according to others, China.
The Pentagon has spent the stratospheric figure of $8 trillion (equivalent to half of the current U.S. Government Debt) to provide military security to the Persian Gulf – "to Guard Golf Oil" – from 1976 to date. According to economist Roger Stern, this figure exceeds that incurred by the United States during the entire Cold War against the Soviet Union. If this money were dedicated to containing China, it could have a significant effect.
Moreover, according to Sean Mirsky at the Carnegie Institute, China's reliance on maritime trade and oil imports makes it vulnerable.
"*In keeping with its reputation as the "workshop of the world," China relies on imported raw materials to export finished products. The trade dominates the export-oriented Chinese economy, which includes 52.1 percent of the Chinese GDP (of which 90 percent is transported by sea). [.….]. More surprisingly, China's energy security is closely linked to its dependence on oil imports. In 2011, China bought almost 60 percent of its oil abroad – a surprising 5.7 million barrels per day – and therefore depended on maritime transport to bring in 90 percent of the oil. [.….]. Oil imports may well be China's Achilles heel. In the context of a Sino-American war, the United States could try to take China to its greatest strength, that is, its orientation towards exports, its economic growth model, and turn it into a major military weakness.*"

OPEC CRUDE PRODUCTION

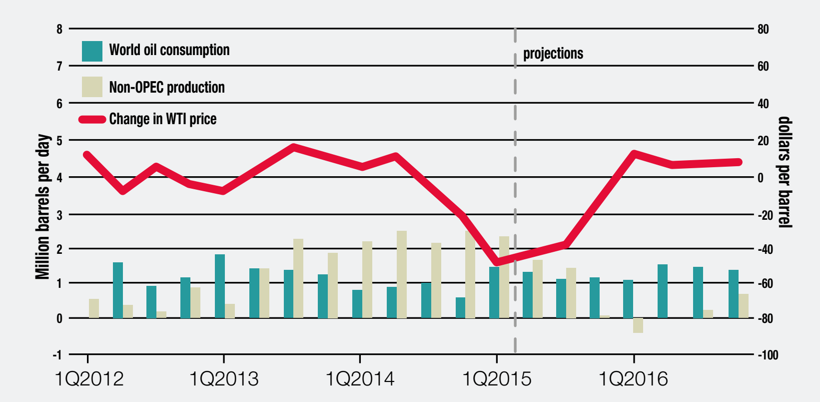
	Jan. '15 supply	Feb. '15 supply	Mar. '15 supply	Sustainable production capacity[1]	Spare capacity vs Mar. '15 supply	1Q15 average crude supply
Algeria	1.10	1.10	1.12	1.14	0.02	1.11
Angola	1.77	1.79	1.80	1.80	0.00	1.78
Ecuador	0.56	0.56	0.56	0.57	0.01	0.56
Iran	2.82	2.64	2.79	3.60	0.81	2.82
Iraq	3.44	3.32	3.67	3.73	0.06	3.48
Kuwait[2]	2.80	2.80	2.80	2.82	0.02	2.80
Libya	0.34	0.29	0.48	0.50	0.02	0.37
Nigeria	1.87	1.83	1.79	1.92	0.13	1.83
Qatar	0.67	0.67	0.67	0.70	0.03	0.67
Saudi Arabia[2]	9.69	9.71	10.10	12.34	2.24	9.64
UAE	2.84	2.84	2.84	2.90	0.06	2.84
Venezuela[3]	2.40	2.38	2.40	2.49	0.09	2.39
Total OPEC (excluding Iraq, Nigeria, Libya and Iran)	**30.29**	**30.13**	**31.02**	**34.51**	**3.49**	**30.49**

Values expressed in Millions barrels per day

1 Capacity level can be reached within 30 days and sustained for 30 days.
2 Includes half of Neutral Zone production.
3 Includes upgraded Orinoco extra-heavy oil assumed at 440 kb/d in March.

Source: IEA

CONSUMPTION & NON-OPEC PRODUCTION



Source: U.S. Energy Information Administration

EIA expects non-OPEC production to grow by 1.3 million b/d in 2015 and by 0.2 million b/d in 2016. Forecast non-OPEC production growth was revised upward from last month's STEO by an average of 0.5 million b/d in 2015, to account for historical revisions to first quarter U.S. production and increases to forecast Canadian production.

THE SEA ROUTE TO CHINA

15.5 million b/d and 2 million b/d of other petroleum products are transported from Hormuz daily, amounting to approximately 17 percent of oil consumed globally and 30 percent of that transported by sea. Specifically, in 2013, oil from the Strait, a real "oil jugular", took the following routes: 2.1 percent to Japan (for years, the main holder of U.S. Treasury Debt, currently in second place), 14.4 percent to China (Washington's first creditor), 13.2 percent to India and 12.9 percent to South Korea. Only 9.8 percent of oil flows out of Hormuz took the U.S. route; approximately 85 percent went to Asia. This will not be the case if General Yin Zhuo, Director of China's navy information committee, has "noted that American is trapped in Gulf: it will take the United States a fairly long period of time to return to Asia. Anti-terrorist wars still constrain U.S. power. China needs to grasp this strategic opportunity firmly."
Since the stabilization of the Middle East is the main precondition for the United States to dedicate itself to shifting its resources to conted with China, Washington could be forced to recognize Tehran, not only as an indispensable interlocutor for resolving the crisis in Syria and Iraq, but as a true regional power. This scenario – if it actually occurs – is in fact contrary to the interests of Riyadh to the extent that it would change the balance of power between Saudi Arabia and Iran, which, since the 1979 revolution, has always seen the White House align itself with the Saudi royals without hesition.

DIVERGENT INTERESTS WEAKEN OPEC

Only one geopolitical factor has affected oil prices thus far in 2015: the war in Yemen, itself little more than an indirect conflict between Saudi Arabia and Iran. In reality, the temporary price increase that occurred towards the end of the second week of March 2015 took place in the wake of the bombing of Sana'a by the heterogeneous Arab coalition led by Riyadh. Although Yemen produces no more than 130 thousand b/d, an average of 3.8 million b/d of crude oil and petroleum products are transported from its territorial waters directly to Asia or towards the Suez Canal. Could OPEC risk losing its power to influence prices as the Cartel of producing countries, since the interests of member countries are starting to diverge excessively? It is difficult to give a definite answer. In fact, those countries hold 72 percent of proven global oil reserves – amounting to 1,688 billion barrels – compared with 14 percent held by Canada, the U.S. and Mexico and a further 14 percent by non-member states of the Organization (above all, the Russian Federation and Kazakhstan). Moreover, the recent changes regarding the succession to the throne in Saudi Arabia seem to guarantee a close alliance with the United States of America for decades to come. "No one can set the price of oil – it's up to Allah," declared the Saudi Oil Minister, al-Naimi to the CNBC on May 5, 2015. It is right to doubt whether this is sufficient to ensure that the Arab monarchies do not fear the possible nuclear deal with Iran as a historic change in the balance of power in the Gulf.
It will certainly be an event but, for starters, King Salman, together with other leaders of the Arab Peninsula, considered it necessary to boycott the Camp David Summit on May 14.

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The point/Factors affecting producers' latest decisions

Toward the end of an era?

From the days of Saudi Sheikh Yamani to the controversial response to the sharp drop in oil prices, OPEC's policy directions have varied in clarity and effectiveness, sometimes due to its poor internal cohesion

by ALESSANDRO LANZA

For those born before 1965, Sheikh Yamani remains an (almost) mythological figure. Minister of Oil and Mineral Resources for Saudi Arabia from 1962 to 1986, then for OPEC for 25 years, he became known in the West for his role during the embargo of 1973, the year in which crude oil prices rose from $2.90 per barrel in September to $11.65 per barrel in December.
Born in Mecca in 1930, and having studied law in Cairo, Ahmed Zaki Yamani, just over 40 years old at the time of the embargo, nonetheless took a strong strategic role in determining OPEC policies as well as those of his country.
The paradox of communication made him much better known than the Saudi Arabia's king at the time, King Faysal, who, having reigned from 1964 to 1975, can be rightly considered as the true protagonist of the whole affair.

YEARS OF RIGOR

The policy of austerity, as it was called, during the '73 embargo, as it was called, was actually a fluke that – at least in Italy – lasted for 6 months, leaving for us Italians lasting memories of "Sunday walks" and the immense wealth accumulated by nations that had been until then invisible, at least for most Italians. This was also perhaps the first time that Western countries had heard of OPEC, though the organization had been founded more than a decade earlier, in 1960 in Baghdad.
The organization originally consisted of only five founding countries (Iran, Iraq, Kuwait, Saudi Arabia and Venezuela) whose members comprised a cartel with the aim of agreeing on the amount of oil produced and exported and, in this way, influencing its price.
In a few words, OPEC sought to →

Between past and future

Austerity. It was, perhaps, the first time that Western countries had heard of OPEC, which was attempting to regulate its oil production and influence crude oil prices.

Saudi Arabia. From the 70s to the present day, the country has often exercised its leadership in the organization, intervening in the market in an attempt to stabilize it.

Demand. According to the latest report of the IEA, 2014 closed with an increase in demand of 700 thousand barrels per day, i.e., an annual growth rate close to zero.

Upstream. Over the past 4 years, major oil companies have invested approximately $2.5 trillion in funding the search and production of new oil, with direct repercussions for the price of oil.

Energy efficiency. Periods of high oil prices drive e fforts to improve efficiency and technological changes: just remember the growth of the French nuclear industry and the legislation passed by the U.S. Congress in 1974.

regulate its own oil production and, therefore, influence crude oil prices, mainly by setting quotas for its members.
OPEC's policies have had varying degrees of success over the years, and the large price reduction that occurred starting in 2014 should not be seen as a complete novelty. During 2014, oil prices fell from $108.12 per barrel (Brent) in January to $62.34 per barrel in December. This is not the worst slowdown of recent years: in 2008, for example, the price fell more significantly in only 6 months, dropping from $132.4 per barrel in June to $39.95 per barrel in December of the same year.
The main actors in this performance are always the same. Over time, the secondary actors, theaters and even the audience have changed. It is not just a change but a deep history – as I will attempt to argue – which often tends to repeat itself. More than 50 years since its foundation, OPEC, which Saudi Arabia continues to lead, clearly no longer wishes to operate as the world's swing producer. This technical expression aims to define that producer which, due to the size of its reserves, production and price, can only be influenced by the market.

THE SAUDI ROLE IN OPEC

Saudi Arabia, which is often rightly attributed the role of OPEC's leader, has often exercised this responsibility, intervening in the market in an attempt to stabilize it.
In 1973, the year of the embargo, OPEC's market share of total world production was approximately 50 percent.
However, the sudden price increases caused, on the one hand, a significant increase in the efficiency of oil-consuming countries (i.e., less oil consumption per unit of GDP) and, on the other hand, the development of oil production by non-OPEC countries.
Saudi Arabia's first important intervention was carried out during the first half of the 1980s. The country evidently reduced its own production in an attempt to maintain the price targets set within OPEC. This goal was not achieved due to the continuous "decartelization," or non-compliance, with the agreements on production quotas.
The result was that prices fell significantly and, as a result of lower fuel consumption and an increase in non-OPEC production, OPEC's market share fell below 30 percent in1985.
In 1986, after a period of reduced production aimed at achieving some price stability, and weary of the politics of non-OPEC countries and of insufficiently loyal members within OPEC, the Saudis opened the taps, flooding the oil market, resulting in a drastic reduction of prices. By 1994, OPEC had regained half of its lost market share.

> Saudi Arabia's attempts to persuade Russia and Mexico to join a coalition aimed at reducing the available supply were in vain, in spite of the pain caused by lower prices

OPEC'S RESPONSE TO THE PRICE CRASH OF 2014

The growth in Chinese demand starting in 2000 caused increasing tension in the demand market. Between 2000 and 2014, global oil demand grew by almost 15 million barrels per day, equivalent to the combined production of Russia and the whole of central Asia. In response, both OPEC and non-OPEC countries have contributed to a significant increase in production, amounting to 1.2 percent per year, although the former continue to maintain an overall market share amounting to just over 40 percent.
In this context, special attention is due to the United States. Within only 4 years (January 2011 – January 2015), its production increased from 5.5 to 9.2 million barrels per day: a very rapid increase that was certainly one of the main triggers of the 2014 price crisis.
During this time, OPEC's policies have been even less clear than in the past, and in the latest meetings in Vienna, there was a clear lack of cohesion between its member states. Therefore, any attempt to negotiate a reduction in the overall supply of OPEC countries, at this stage, seemed quite difficult to achieve.
Several analysts have tried to explain what happened and newspapers are not lacking detailed scenarios, more or less shared, of what was or what will be the predictable behavior of the main players in the sequence of events. The most common explanation is linked to an excess supply of oil on the international market. This phenomenon depends, in turn, on two issues that are not necessarily linked.

DEMAND DOESN'T RECOVER

The first important issue concerns global oil demand, struggling to recover after the crisis of the last three years. Non-OECD countries, which for many consecutive quarters grew by double-digit percentage rates, have, over the last two years recorded a more modest increase of approximately 3 percent per quarter. On the other hand, for the OECD countries, the outlook is even dimmer: 2011, 2012 and 2014 recorded reductions in oil demand.
The overall result for global demand is obvious: according to the latest report of the International Energy Agency, 2014 closed with an increase in demand of only 700 thousand barrels per day, that is, a growth rate very close to zero. Globally, oil consumption is approximately 92 million barrels per day, while the supply during 2014 was structurally higher by approximately 1 million barrels per day.
There are various reasons for the imbalance. First, the United States, which now represents approximately 10 percent of the overall supply, recorded a level of production that has not been known for thirty years. And even certain areas deemed in crisis have contributed to forming the oversupply. Libya – despite its civil war – has reached almost 1 million barrels per day, while Iraq has achieved a level of production (approximately 3.3 million barrels per day), which has not been seen since the Gulf War. All of this makes for a very complex scenario to be sure, the expected, obvious outcome of which is a significant increase in oil stocks: in mid-2015, the United States – just as an example – registered the highest levels ever recorded in the last eighty years.

INDUSTRY RESPONSES IN THE UPSTREAM SECTOR

The second important issue concerns the strategy adopted over the last five years by the companies operating in the upstream oil market.
According to analysts, oil companies have invested significantly over the past four years, to the tune of approximately $2.5 trillion in funding for the discovery and production of new oil. At the same time, a very competitive environment has led the major oil companies to compete for every area and field available in the world. This means that the number of explored fields has soared in recent years under increasingly complex conditions and, for various reasons, potentially involving cost increases. Long-term projects are in fact more vulnerable because they are more exposed to cost increases (for example, steel or the cost of skilled labor or extreme weather reports or some kind of legal or political intervention). On the other hand, the oil industry has always been subject to sudden and particularly unpredictable cost fluctuations, also due to its enormous influence on supply and price policies.

THE STRATEGIC BEHAVIOR OF COUNTRIES

The third issue concerns the strategic behavior of member countries of OPEC, the cartel that now controls just over 40 percent of the market. These days, the organization's various member countries report the reference price against which they build their budgets. For instance, Saudi Arabia has specified a cost of $45 per barrel, even the cost of producing that barrel is approximately $3; therefore, the margin for each barrel produced remains wide. It is possible that some cartel members wish to bring the price down even further, with the aim of displacing the marginal production of non-OPEC countries.
Of course, not all OPEC countries are currently able to afford this strategy. In fact, Saudi Arabia's attempts to persuade Russia and Mexico to join a coalition aimed at reducing the available supply were in vain. Needless to say, a significantly prolonged period of prices lower than those of the present time would create a very serious crisis in a country such as Russia: a crisis which, despite the ongoing tensions, even the United States would rather avoid.

> Globally, oil consumption is approximately 92 million barrels per day; in 2014, supply was structurally higher by approximately 1 million barrels per day

HIGH PRICES AND ALTERNATIVE ENERGY

The fourth and final issue concerns the increase in energy efficiency.
Since the first oil embargo in 1973, the amount of oil and gas consumed in the United States to generate $1 of gross domestic product has fallen by 64 percent. Despite these savings, the increases in crude oil prices that have followed have also created the reemergence and development of an oil industry which, in the United States, seemed to be on the wane. Conversely, imports have decreased significantly. This year, the United States will import approximately 4.5 million barrels of crude oil, with a drop of approximately 24 percent since 1986, the year in which an oil price below $10 proved a death-blow to the American oil industry and to attempts to gain further efficiency.
High oil prices have driven gains in efficiency and technological changes in Europe: just remember the growth of the French nuclear industry, founded after the first oil shock. The first legislation passed by the U.S. Congress to promote research in the solar industry was issued in 1974.

THE SITUATION IN ITALY

Even in Italy, there were specific laws to promote energy savings and efficiency: the first came in 1974, and the second, which was very important, in 1982, after the second oil shock. Law 308/82 enacted the national energy plan and gave a role to renewable energy, energy savings and energy efficiency. This legislation continued, albeit with controversy, with laws 9 and 10 in 1991.
Gains in terms of greater efficiency perform the role of the wheels of a winch in which energy efficiency increases when the oil price increases, but decreases in the event of price reductions. This is what the British call the ratchet effect; technological advances in this field are not reversible.
It remains to be seen how and to what extent the fall in oil prices will convert into reductions in energy prices in various countries, starting with Italy. In the case of administered prices, such as natural gas or electricity, the Energy Authority will communicate the price reduction to the consumer. Transport, which accounts for the majority of oil consumption in developed countries, will need to be attended to by the policies of the various companies operating in the fuel sector. In addition to the extent of the reduction, it will be interesting to observe how quickly the decrease will be transmitted to final prices.
It remains clear, however, that the decline will not be very visible due to the huge tax burden that covers every change in the price of raw materials.

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PERSPECTIVES/The causes and effects of a presumed decline

Long live the price maker

With its share reduced to one-third of the world's crude oil production, OPEC may lose its role as the world's main market regulator. To avoid the boom/bust chaos of an unregulated market for this essential commodity, others will have to act in tandem to regulate price and supply

by LUAY AL-KHATTEEB

Since its inception in 1960, OPEC has often been misunderstood or seen as shrouded in mystique. OPEC members have 81 percent of the world's known reserves, 66 percent of that amount in the Middle East.

Though it now only accounts for a third of world crude oil production, OPEC's continuing importance should not be understated, as these are predominately low cost reserves. Analysts are now expecting OPEC members to return to business as usual after its unexpected move in November of 2014, when the organization refused to play its traditional role of supply regulator and price stabiliser by altering its oil production output. However, its major player, Saudi Arabia, which traditionally took on the role of swing producer, remains strangely silent while many of its fellow members are calling for a cut in production to push prices back up. Some might speculate that Saudi Arabia recognizes that the market has experienced a structural shift that has diminished its power and so is no longer keen to play the game. This time, the difficulties of rebalancing supply and demand go beyond its capabilities.

Historically, major fluctuations in prices—the result of geopolitical conflicts, regional wars or speculative financial activity in paper oil on futures markets—have been beyond OPEC's control. But, the current collapse is simply one of oversupply in the market which would have previously been dealt with by the OPEC swing producer, Saudi Arabia, reining in its own production. The current oversupply—stemming from the non-OPEC producers and, specifically, U.S. shale oil producer—has been like a virtual oil tsunami. Just three years ago in early 2012 much of the debate was about a tight market with little spare capacity. Today, after the spectacular growth in U.S. shale oil output, there is a glut with the price unexpectedly falling some 50 percent within a year. OPEC countries are not the culprits but are the victims suffering a collapse in revenues and now seem reluctant to give up even more market share.

AN ECONOMY DEPENDANT ON A SINGLE RAW MATERIAL

Oil has been pivotal in the economic and political development of OPEC countries, but it is also a crucial tool in their diplomatic relations between themselves and with the oil consuming nations of the East and West. Increasingly, the majority of the OPEC members have become single commodity dependent economies, at a time when they are losing their market power and are now suffering more than others as their fiscal revenues collapse as the oil price tumbles. Back in 1973, OPEC produced 29.3mbd of crude oil. Today, that figure, notably, remains virtually unchanged at 30.1mbd having fallen to 26.4mbd in 2009. Back in 1973, OPEC had nearly 60 percent of the market; now, due to rise of non-OPEC producers, that share has fallen 30 percent to about one third of the market. 30mbd of a market of some 93mbd means OPEC can no longer play the role of price maker, but has in reality become a price taker. Dr Fadhil Chaladi whose seminal work on OPEC, *Oil Policies, Oil Myths* (2010) dispels the notion that OPEC's ever had the market power attributed to it, and who would argue that OPEC never acted as a true cartel but fixed price at the behest of the U.S. and western governments. So, far from acting as an oligopolistic cartel, OPEC has failed to maintain its market share by allowing self-defeating pricing and production policies to reduce its influence on the market. It has let prices rise at the behest of its competitors, the high cost non-OPEC oil producers such as the U.S., leading to the development of expensive offshore oil fields such as the North Sea, Gulf of Mexico and Brazil. Expensive capital intensive onshore fields like the Canadian tar sands and more recently the U.S. shale oil and gas fields have now come on stream recovering their capital set up costs while the low cost Middle Eastern fields remain neglected and underdeveloped as high prices and increasing revenues have been, until now, sufficient to meet their fiscal requirements. OPEC lost its market power by allowing new entrants into the market and failed to develop its own low cost supply. Failure to follow economic theory has led to a market where there are now more than a few suppliers. Oil has been →

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A LEADING ROLE. **OPEC's importance should not be underestimated. In the picture, Diezani Alison-Madueke, President of OPEC.**

found around the world; from Africa to Asia, South America to the arctic, new fields have come on stream or have been proposed. New technologies have rejuvenated old oil fields and made possible development of the U.S. shale oil and gas revolution. Meanwhile, George H.W. Bush and the American administrations that followed him have nearly achieved his goal of energy self-sufficiency. To add to their woes, OPEC members have lost further market power by becoming the victims of their own economic development by failing to predict the rapid growth in their home energy demands. Saudi Arabia, Kuwait and the UAE have been involved in a dash for gas policies and increased investment to boost their production capacity in gas and oil to meet home demand and also to raise their export potential further. Too little too late seems to be the maxim as OPEC has witnessed the death of its market power.

THE NEW OIL MARKET

As OPEC's output has remained around 30mbd for the past 40 years, demand has continued to rise, from 55mbd in 1973 to over 90mbd today. Supply has kept up with demand and more recently the pace of oil production growth has raced ahead of the growth rate in demand as the non-OPEC producers raise their output. Both Russia and the U.S. produce more than 10mbd each. U.S. production reached 11mbd in 2014 and is expected to reach 13mbd, usurping Saudi Arabia as the number one oil producer. Its crude oil production increased by 16.2 percent (1.4mbd) in 2014, the largest increase since 1940. The rapid development of unconventional shale oil and gas has been spectacular economic success story unleashing a virtual tidal wave of oil onto the market. The world's largest oil consumer has seen imports fall to 7mbd of crude and 2mbd of oil products. While the export of crude remain prohibited by law, the U.S.'s exports of oil products is racing towards 5mbd. Since 2010, some 3mbd of crude once destined for the U.S. is looking for new buyers. The rapid rise of U.S. oil & gas production, falling imports in the country, falling consumption due to energy efficiency measures and the rapid rise in oil product exports have had a significant impact on the market. Canada, Russia and the Caspian Sea producers have also been engaged in increasing production capacity and output has consequently risen, taking the non-OPEC production beyond 60 percent of the market.

In 1997, when demand for oil stood at 62mbd, peak oil theorists and financial speculators pedlled tales of doom and gloom for the world economy unless energy efficiency could be improved and new sources of energy found as oil would run out soon. The world economy boomed, good steady growth rates were abundant in the developed world while spectacular growth rates were experienced in the developing world. Oil demand grew by 50 percent, but oil supply kept on coming as high prices attracted new investment. There was never to be a shortage, but the financial collapse and the subsequent economic recession of 2008 would change the world economic landscape and choke the growth in demand for oil. The oil market stagnated at 90mbd, and has only grown by a trickle since. Experienced economic commentators and financial speculators who had grown up reading Matthew's Trade Cycle and Keynes's theories at university looked upon the recession as yet part of another business cycle of boom and bust. The U.S.'s economic recovery confirmed their expectations, as the world's largest consumer economy came back from the brink in 2011, but unlike with previous cycles, there seemed to be no multiplier effect upon the rest of the world. A two-tier Europe emerged, with the southern economies crippled by debt and unprecedented unemployment rates condemning a generation to a life of poverty. Even historically low interest rates failed to bring back consumer confidence. Western consumers who were so traumatised by the financial collapse of 2008 have opted to reduce their debt burden and only spend cautiously, avoiding being tempted by low rate credit offerings. Consumers have a mind-set of once bitten, twice shy, an outlook fuelled by the austerity-based economic policies of many western governments. If the government is reducing its debt burden, so should we, is the new philosophy of consumerism—we've finally concluded that our grandparents were right to tell us only spend what you earn. This failure to revive consumer confidence has had a ripple effect, damaging the growth rates of the export led economies of South East Asia and in particular China. One might have expected a slowdown in economic growth rates as the Chinese economy develops, but the recent slowdown reflects the failure of Europe to recover significantly. To add to China's woes, the U.S. recovery appears to be faltering, as even low oil prices seem unable to boost consumer confidence. Company profits may be up and stock markets at record levels, but the profitability comes mainly from cutting costs and increasing productivity rather than increasing sales to consumers.

Only the low cost and a few high priced exclusive retailers win as austerity economics widens the gap between "the haves and the have-nots." The financial collapse of 2008 still haunts world markets. It created a world economic recession, it did irreparable damage to consumer confidence, made traditional economic theories obsolete. The threat of deflation and a double dip recession is more apparent. Politicians and economic commentators are in the last chance saloon hoping that low oil prices will have the desired multiplier effect upon economic recovery.

AN UNREGULATED MARKET

For the past twelve months we have witnessed the workings of a free market in oil. OPEC has stood on the sidelines, refusing to play ball as prices collapsed. Geopolitical events in Nigeria, Libya, Iraq and Yemen have had a minor impact upon price but have failed to stem the downward trend. Speculative revivals based on falling stocks, oil rig counts dropping and economic recovery have boosted some future prices, but supply is still growing faster than demand as the recent investment in production capacity building runs its course. Is OPEC capable of playing the game of high price collaboration when the market is so saturated, or will it remain a spectator, its members becoming mere suppliers on the free market. Chaladi predicted "the absence of OPEC would cause a reversion to a chaotic free-for-all oil market—which in today's market conditions, would damage world energy supplies and bring market anarchy." North American output now accounts for over 15mbd (16 percent of the world market, equal to 50 percent of OPEC's output) produced in a free market, uncoordinated manner. It is subject to the vagaries of boom/bust cycles that unregulated commodity markets endure and whose economic inefficiency was highlighted by Keynes in the 1920s. It seems unfair to expect OPEC to sacrifice its output when the major players—the U.S., Russia & Canada—can choose their own course of action even producing more in anticipation of price rises. The U.S. also has the advantage of its shale oil being of better quality than most Arab crude oil, thereby commanding a higher price and likely a rapid gain in market share if crude exports were allowed.

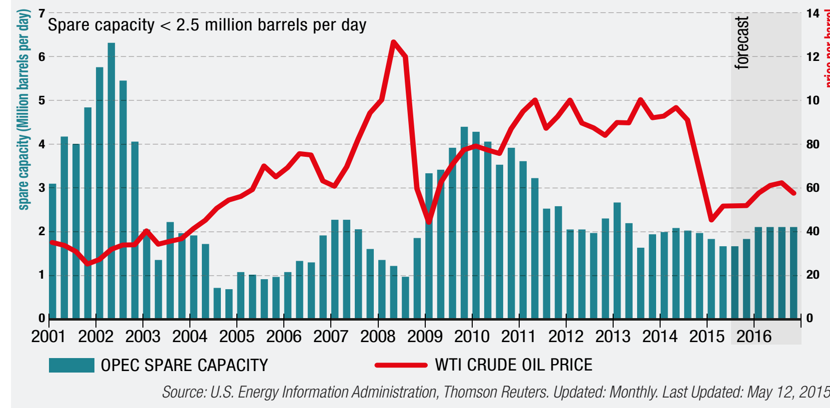
Most expert oil market analysts insist that an oil price of around $70 would be a fair price for most, if not all producers. To achieve this in current market conditions would take a 4 percent reduction in supply, which seemingly can only come about by timely intervention in the market or having the boom/bust approach of a chaotic free market run its course. The latter means shortages and gluts, which would undermine economic planning in all markets. Economic stability versus economic chaos seems to be the choice, but can intervention be left to a group of now relatively small suppliers who themselves face geopolitical chaos amongst their members? Libya's oil supply varies by as much as 500,000mbd due to its civil war. If the sanctions against Iran are dropped, does it have significant spare production capacity to flood the market? Will Iraqi production continue to develop (despite its problems with ISIS in the north) and put even more pressure on supply? Will unrest in Nigeria spill over once again into a fight for control of its oil industry? Can Saudi Arabia keep control of the oil supply of its OPEC members when religious bigotry, ethnic unrest and corruption blight the Middle East landscape? Can OPEC be expected to cut its output from some 30mbd to 26mbd when the International Energy Agency is predicting that the U.S. will increase its crude oil production in 2015 by 8 percent? In any event, the task of regulating and intervening in the market seems to be beyond the capacity of the current OPEC membership.

A NEW REGULATION FOR A NEW OPEC

The case for intervention is strengthened by the rising number of supply and demand variables in the market, which can only increase price instability and uncertainty and create further obstacles to long term capital investment. On the demand side, the continued Eurozone crisis and the economic slowdown in Asia make forecasting demand difficult. The growth in energy efficiency, alternative energy options, the falling price of substitutes and uncertain government energy policies only complicate the matter. The recent unexpected slowdown in the U.S. economy only highlights this dilemma. On the supply side, the rapid development of shale oil in the U.S., potential shale oil fields elsewhere in the world, significant developments in Africa with the discovery of increasing amounts of light crude fields, the rapid growth in oil production from the politically volatile Iraq, civil war in Libya, and the possible re-emergence of Iran as a major player all point to uncertainty and likely future oversupply. Since 1960, we have accepted intervention by OPEC acting as a supply regulator usually acting to dampen price rises. The International Energy Agency (IEA), which represents 28 producers, has intervened three times, most recently in 2011, dumping 60mb at 2mbd per day over 30 days to protect the fragile economic recovery as the Arab spring in Libya threatened supply and fuelled price speculation. More than half of the oil for this intervention, which lowered the price of oil by nine dollars per barrel, came from the U.S. Strategic Petroleum Reserve.

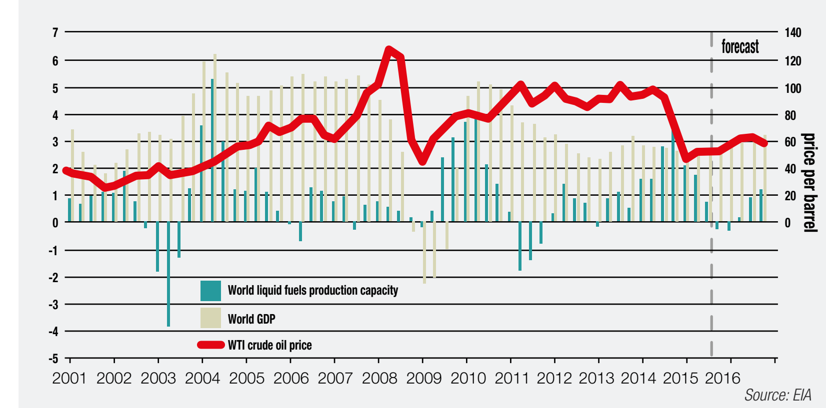
In the past it has been rumoured that OPEC offered membership to Russia, but to date it has acted only as an observer at OPEC meetings. The Organization is open to increasing its membership and it therefore seems logical that the IEA and OPEC should either join forces or open up a dialogue over the question of oversupply. The solution that Keynes would propose would be that of coordinating buffer stocks rather than allowing a free for all market, which is beginning to come to fruition. Saudi Arabia and other OPEC members have offered discounts on long term contracts in Asia securing their market share as they are threatened by non-OPEC producers. There is likely to be no change to OPEC's output following the comments of Kuwait's OPEC governor Nawal Al-Fuzaia in February, so if we want to see stability rather than the volatility of boom and bust, price wars, and large fiscal deficits in developing nations, others will have to join OPEC or act in tandem to regulate the market price and supply. Both OPEC and the IEA have the capacity to stabilize the market by devising a suitable intervention model to achieve their common interest of price stability. Keynes' argument with regard to building up buffer stocks is undeniable and achievable and would reduce price volatility and paper oil speculation. The benefits, to the small oil producers and the crude oil-dependent economies, would be the stabilization of fiscal budgets. Economic planning would be more certain as transportation costs and energy costs would be known. OPEC's rule created stability: consumers always got their oil, there was cooperation between the producers and the consumers, who, as Keynes suggested, always have common interests. But the market changes already have commentators claiming the death of OPEC. If it has died, it needs to rise like a phoenix from the ashes and become even bigger than before if we are to be saved from the economic inefficiencies of an unregulated commodity market and its subsequent chaos.

OPEC SPARE CAPACITY AND WTI PRICES

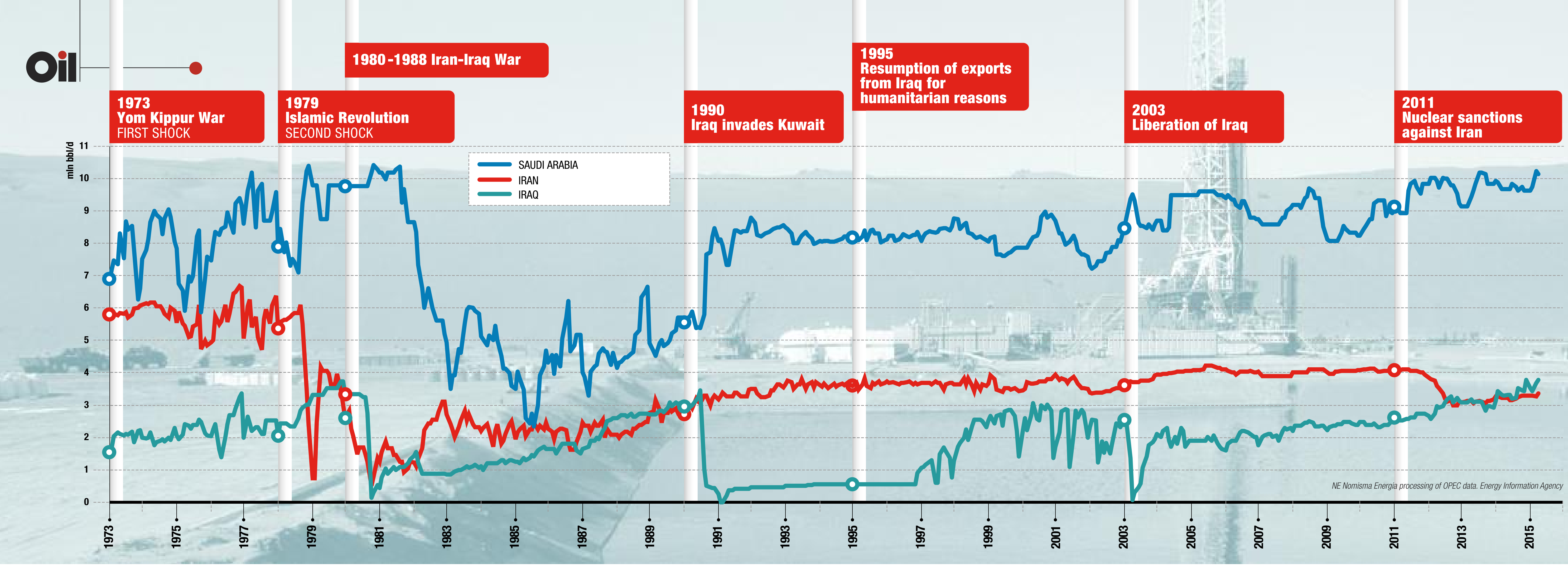


Between 2003 and 2008, oil prices increased when OPEC reserve levels were relatively low. A low reserve capacity prevents OPEC from meeting oil demand, with a consequent rise in prices, while a high reserve capacity indicates a willingness to contain production, presumably for price management purposes.

PRODUCTION, WTI PRICES AND GDP GROWTH



WTI price levels are graphed with world GDP growth rates (as an indicator of global oil demand growth) and quarterly changes in world capacity, defined as OPEC capacity plus non-OPEC production (as an indicator of global oil supply growth). From 2005 to 2008, economic growth remained strong while oil production capacity grew slowly.



MAJOR GEOPOLITICAL EVENTS
Oil production trends in Saudi Arabia, Iran and Iraq show against the timeline of major events between 1973-2011.

History/The victories and defeats of a geopolitical star

The reasons for a re-match

During key times of crisis, whether in the form of battles over the price of oil or turmoil on the chessboard of the Middle East, OPEC has played a key role in making sure that the flow of oil has never stopped

by DAVIDE TABARELLI

On September 14, 1960 in Baghdad, Venezuela, Iran, Iraq and Saudi Arabia met and agreed to join together in a common front, with the hope of day increasing the price of the oil that flows from their land like rivers. The price had recently been reduced to less than $1.50 per barrel by the cartel of strong international oil companies. That was how OPEC was founded. Its members could never have imagined that they would soon bring the world economy to its knees and come to use their exports as a political weapon in the disputes that invariably broke out in the Middle East. For more than 10 years, the Organization of the Petroleum Exporting Countries went almost unobserved as just one of the many organizations born at the dawn of economic globalization. The opportunity to affirm its power came at the start of the 1970s. In the previous 10 years, demand for oil had more than doubled—to 55 million barrels per day—and 50 percent was covered by global production. Newspapers and politics were dominated by the debate on resource scarcity, on the limits to development and on the unjust relations between the rich northern countries that defrauded the poor countries of the global south of their resources. The Yom Kippur War in October 1973 was the pretext for the explosion in prices, which had been low for some time and did not reflect the world economy's extreme dependence on oil. Scarcity syndrome, fuelled by the Arab embargo on exports to certain countries, and market panic triggered a rally that in any event would have been inevitable. OPEC took the power of unilaterally setting prices away from companies and gave itself the task of announcing official prices, which were established using the most important quality of Arabian Light as a reference point. Between October and December 1973, crude oil prices rose from $3 to $12. It was the world's first oil shock, which violently introduced the world to OPEC, a group of mostly Arab countries that acted as a counter against oil consuming countries by demanding prices that at the time seemed impossible. In the collective imagination, the stereotype of an OPEC that wanted only higher prices was reinforced. Prices were announced regularly during its meetings, which attracted the spasmodic attention of media worldwide. Then came the Iranian revolution in 1979 and the war with Iraq in 1980. Prices rose again, with spot prices reaching nearly $40, while OPEC kept them at $32. It was the second oil shock. Unlike the first one, this time OPEC countries, particularly Saudi Arabia, did everything they could to avoid a further spike in prices. In November 1980, Saudi production surpassed 10.4 million barrels per day, an all-time high even now, 35 years later. The cartel seemed to have unlimited power, which it would inevitably exploit to bring prices in later years towards $100 per barrel, a threshold agreed upon in all forecasts.

UPS AND DOWNS IN RELATIONS WITH THE FINANCIAL MARKETS

Instead, just a few months later, halfway through 1981, prices began to fall. This spurred OPEC in March of 1982 to adopt for the first time the quota system still in force today. Things got worse in 1985 when the cartel's production dropped to fewer than 15 million barrels per day, compared to production of more than double that level just 4 years before. And then, in early 1986, the unthinkable happened: prices plummeted from $28 to $10 and OPEC abandoned the official price system to move to the spot market, the real winner of the conflict with the oil companies. Just two years prior, in March 1983, when West Texas Intermediate crude oil futures were introduced on the New York Mercantile Exchange (NYMEX), the Secretary General of OPEC had called the new financial instruments useless. The futures markets—the NYMEX as well as the London Brent, the current Intercontinental Exchange—completely supplanted OPEC, which was not able to raise prices back up for the next 25 years. Indeed, in 1988 and in 1998 they fell to less than $10, which in real terms was even lower than the prices in place during the Great Depression of the 1920s.

Those who sanctioned the impotence of OPEC at that time later became the greatest generators of unanticipated and extraordinary profits. In the 2000s, with the finance boom and all of its attendant depravation, and robust growth in oil demand, especially due to China's arrival on the international market, barrel prices exploded in the futures markets. In July 2008, they reached the all-time high of $148, something the oil producers' cartel could not have dared hope for even in the 1970s. More recently, until the end of 2014, prices remained strangely stable at more than $100 per barrel. The subsequent dive to below $50 per barrel was, as many times in the past, unexpected.
OPEC is still important today. From that distant 50 percent of 1973, its share of total global crude oil production has decreased to 40 percent. Its production hovers at around 31 million barrels per day, a pace that is double the minimums reached in 1985, but still no more than in the 1970s. However, at that time global demand was almost 50 percent lower. OPEC is still important because it has all of the unused production capacity in the world, which determines price changes in the short term. OPEC is also still important because the world will continue to need a good deal of oil in the future, as there is still no effective alternative for transport. And demand for transport, which is constantly and unstoppably on the rise, continues to be met primarily with private vehicles whose engines run on liquid fuel, a simple, reliable and cost-effective means of energy generation. Despite 40 years of attempts to free the global economy from its oil habit, in the next 30 years demand will continue to be met primarily by oil. OPEC brings together 65 percent of the world's oil reserves: the conventional reserves that were discovered decades ago, and those, which count more for us consumers, that have much lower development costs—averaging around $10 per barrel, with minimums close to $5 in Iraq, Saudi Arabia and Kuwait.

POWER THAT IS NOT SYNONYMOUS WITH AFFLUENCE

It remains paradoxical that global oil consumers, who pay the barrel price in the end, are forced to finance international oil companies from their own pockets for investments in extreme areas, such as the deep waters of the Gulf of Mexico and the cold waters of the North Sea or the Arctic. However, while billions of dollars are spent on extremely costly projects, for one reason or another investments in OPEC countries are limited and production remains lower than that of 40 years ago, despite the abundance of low-cost reserves. This imbalance is aggravated by the fact that many OPEC countries desperately need to produce and export more oil to finance their own development. The average income of some members is amongst the lowest in the world, at around $3000 per person, compared to an average of $45,000 in countries belonging to the Organization for Economic Co-operation and Development, where most of their oil is consumed.
Iran embodies this paradox most of all: after the latest nuclear sanctions in 2010, its production fell to 2.8 million barrels per day. Before the 1979 revolution, it produced more than 6 million barrels per day and the intent was to reach 10 million barrels per day in the space of a few years. Maybe it would even surpass Saudi Arabia. Since then, production has declined consistently, while its population has doubled to more than 77 million. Most of its people are young and have legitimate expectations for a better future. In certain respects, the story of Iraq is even more tragic. It has lived through three brutal wars: against Iran in 1980-88, the invasion of Kuwait in 1990-91 and the war to oust Saddam Hussein in March 2003. With pressure from the Kurd separatists and continuous invasions by ISIS, the country is anything but nearing stability. But, for the peace of mind of the markets, its exports in the south have enabled new production maximums of around 4 million barrels per day.

RIYADH AT THE CENTER OF ALL DECISIONS

Saudi Arabia continues to dictate the future of the market. Its strength arises from its immense cash reserves accumulated in the past, which guarantee its limited population of just 26 million a society that remains one of the most stable in the Middle East, despite some peculiarities that may seem bizarre and out of date. It has been governed by the same Saud family since 1926, when Ibn Saud was charged with defending Islam's holy sites. In 1932, it became the only country in the world to take the name of its ruling family. Right from the start there was oil income, which was paid in gold coins by U.S. companies to guarantee that the Saudi system would prosper and remain unscathed in the midst of regional turmoil. Its stability has also lent strength to its alliance with the United States. While this partnership has experienced highs and lows over the years, it has indirectly benefitted the international oil market. For obvious reasons, the Saudis are the greatest backers of oil, and they share common interests with the billions of consumers spread throughout the world. In the last 50 years, the Saudis were always the moderates of OPEC in the dispute between the hawks and the doves, which became very heated in the 1970s. While the former wanted to push prices higher, the latter aimed for stable pricing and growing consumption. In 1973, it had to agree to the demands of the radicals during a military and political disaster of the Arab world, in Israel. With the Khomeinist Revolution and the Iran-Iraq War, it boosted production to offset deficits and limited increases. To ensure price stability during a decrease in demand, it reduced production from peaks close to 12 million barrels per day in 1981 to 2.7 million barrels per day in August 1985, a technical minimum that damaged many of its oil fields. In the last 20 years, it has continued to be the main global producer. Even the most recent price decline in early 2015 is thanks to, for us consumers, or the cause of, for producers, its decisions. The Riyadh government's decision to reduce production at the OPEC meeting on November 27, 2014 triggered the collapse. What motivated this decision? Pushing the U.S. oil frackers out of the market? Warning Iran that there is not much room once the nuclear sanctions are lifted? Or hurting exports from Russia? Perhaps all of these to a certain extent, but the fact is that for oil consumers, the end recipients of black gold, it was an unhoped-for gift in the order of $1000 billion per year of savings in their wallets. Despite all of the attempts to limit dependence, oil remains the lifeblood of the global economy, now as it was 55 years ago, when OPEC was founded. Oil consumption has more than doubled from 40 to 94 million barrels per day, and in the next 50 years it should increase by another 30. OPEC certainly could have done better, but we do owe them thanks for ensuring that the flow has never stopped and that we can look to the future with a bit of optimism.

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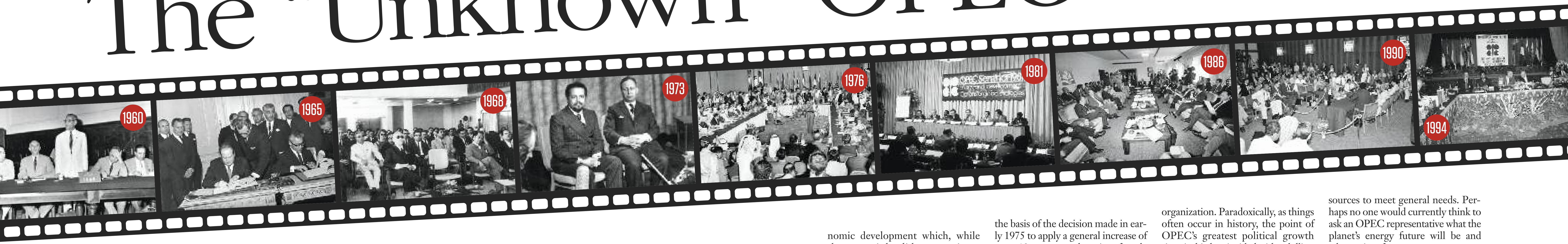
Reflection/Media coverage and public opinion of an organization in transition

The "Unknown" OPEC



With the international political pomp of the 1970s long gone, the Vienna-based oil producers' cartel struggles to regain the institutional recognition befitting an organization that held the reins of the global economy for years

by ROBERTO DI GIOVAN PAOLO

Generations come one after another, as do organizations, although the relationship between them doesn't necessarily stay the same. There is the generation of those who would not fill up their gas tanks without first perusing the newspaper's business section, where OPEC reigned supreme, and there are those who check the weather and traffic on their smartphones. And yet, not many years have passed and the general meeting of the organization that regulates the flow of what has been pretentiously referred to for decades as "black gold" is always close at hand. We should consider that on the website of the global organization that brings together some of the largest oil producers in the world, we found the 167th Meeting, held in June of 2015, regarding the new challenges of energy and the role of oil as a driving force. Raise your hand if you saw significant news in the newspapers during the meeting. Of course, we saw updated production data and the most recent press releases, but if we looked closely, even the website looked tired: no special effects, few familiar faces and almost no social media component.

The times of shocking declarations that left global leaders speechless and doubtful as to their own economic policies are clearly behind us. And yet, the value of oil and its influence have certainly not diminished, considering that entire economies rely on it and that in the Arab world a not very "hidden" war is raging on between the reigning families and national governments and a certain "ISIS," or "Daesh," as many are now calling it at the impetus of French Foreign Minister Laurent Fabius. The truth is that checks and balances also have their own media influence and the "context," as more than one sociologist of communication would tell us, is gaining the upper hand.

A LONG AND INTERESTING HISTORY

The Organization of the Petroleum Exporting Countries was founded in 1960 as a (certainly not only economic) cartel that was affected by the ideologies and influences of the previous years of European colonialism. For at least the two decades that followed, OPEC, which was headquartered in Vienna in 1965, continuously controlled around 70 percent or more of the world's discovered oil reserves and more than 50 percent of its natural gas reserves. It now supplies over 40 percent of the world's oil production and 17 percent of global natural gas production.

OPEC was evidently a "homegrown" response to the excessive power held at the time by large foreign oil companies. The pan-Arab and third-world version of the organization immediately grew with a built-in contradiction that would come to light throughout the 1970s and 1980s. While it seemed to be the Robin Hood of countries that had found a path toward development thanks to their colossal underground wealth, it also looked like a private club of families and heads of state that wielded enormous power not only over other countries, but also over their own citizens. Certainly, we are really speaking of an era of global foreign policy. This was an era still reverberating with the epithet "seven sisters," coined by Enrico Mattei to refer to the largest international oil companies. It was a time in which the European colonial powers, experiencing the teething pains of reconstruction, turned for not purely philanthropic reasons to newly formed countries that seemed to have "the sun in their pockets."

Another extremely unfavorable blow (which was therefore favorable to the union amongst countries confronting the global scene of geopolitical influence) came from the decision made by the Eisenhower administration to launch the Mandatory Oil Import Quota Program (MOIQP) in 1959. By limiting U.S. imports to 9 percent, this protectionist program made things especially difficult for Middle Eastern countries, which were already in the grips of the general instability that still exists today and has afflicted the region since the Sykes-Picot Agreement of 1916. However, the calling of a conference on the problems of oil producing countries had a widespread and global impact, since along with the Middle Eastern countries of Iran, Iraq, Kuwait and Saudi Arabia, Venezuela was also present from the start, demonstrating that this was truly an international, and not simply regional, organization.

If we examine how OPEC was treated in the global press in the1960s, we find a range, from those who focused on its domestic impact—in U.S. and British papers (but only financial newspapers), to surprised, mostly favorable, comments in Europe, where even non-specialized daily newspapers reported the news. In its first decade, the "perception" of OPEC was associated with emerging countries efforts to spur their own economic and social development. It was closely linked to new policies of economic independence and economic development which, while they certainly did not envisage Malthusian growth rates, also did not forecast any type of halt in the impetuous growth of global consumption.

Some numbers will help to better understand the effect of the founding of OPEC, which would take on a considerable role in the 1970s. In 1972, before the first global energy crisis, OPEC countries earned $23 billion. In 1977 (recall that the oil crisis started in 1973), they earned $140 billion. And of course we are speaking of numbers that take into consideration the devaluation of the dollar during the crisis years and afterwards.

Therefore, in terms of money and procurement, but also from the media perspective, its influence was growing. This can be seen in its 1973 decision to punish the Western countries that supported Israel in the Yom Kippur War. This was considered the first valid "test" of the cartel as an economic force as well as an element of closely intertwined political and diplomatic pressure. This was also a tool that many colonialist countries had often used against them in the past. Newspapers from the time report economic forecasts in addition to many political statements by representatives of OPEC governments (at times the simultaneity of the role had a strong influence) that had a real effect on the lives of an entire generation, which had to come to terms with the cost of filling up their gas tanks (not to even speak of the cost of heating and all the rest). That first denial of oil immediately triggered a 70 percent increase in the price of crude oil, which lasted nearly five months until March 1974. In addition, it was at the basis of the decision made in early 1975 to apply a general increase of up to 10 percent to the price of crude oil.

THE MEDIA TOOK NOTICE

In the view of the public, especially the public that was not well versed in foreign policy, a direct link had been created between what happened in the Middle East and developing countries in general, and the trends of countries that believed that they were safe from economic risk and had limitless opportunities for scientific and economic progress. Perhaps most importantly, this period witnessed the creation of an extremely strong, concrete sentiment—less ideological than in the past—of direct involvement in the general fate of the planet. Perhaps the idea that the daily life of every family in Western (or "advanced") countries was directly related to the living conditions or structural poverty of countries that until that time had been relegated to the margins of international foreign policy entered a state of "suspension" that had been unthinkable not long before. This took place in a crude yet effective manner and even predated certain debates regarding the end to indefinite development (and certainly before the Internet). Truth be told, this did not lead to greater knowledge of those countries or greater public attention to geography. However, it aroused the attention of the ruling classes as well as academics (entailing renewed interest in, and in a certain sense the rebirth of, geopolitics) and resulted in renewed efforts for global discussion around energy and social development.

And here we note the first limit on OPEC, which now impacts the currently diminished perception of the organization. Paradoxically, as things often occur in history, the point of OPEC's greatest political growth since its birth coincided with a dulling of its "reading" of societal changes. It surely cannot be said that the first large global energy crisis of 1973 was at the basis of sustainable development movements or even what we currently call "degrowth movements." Certainly in these months and years in which OPEC dominated all of the world's main newspapers, either because of the price of oil or because of foreign policy claims, there was never any real attention paid to the status of the world's energy.

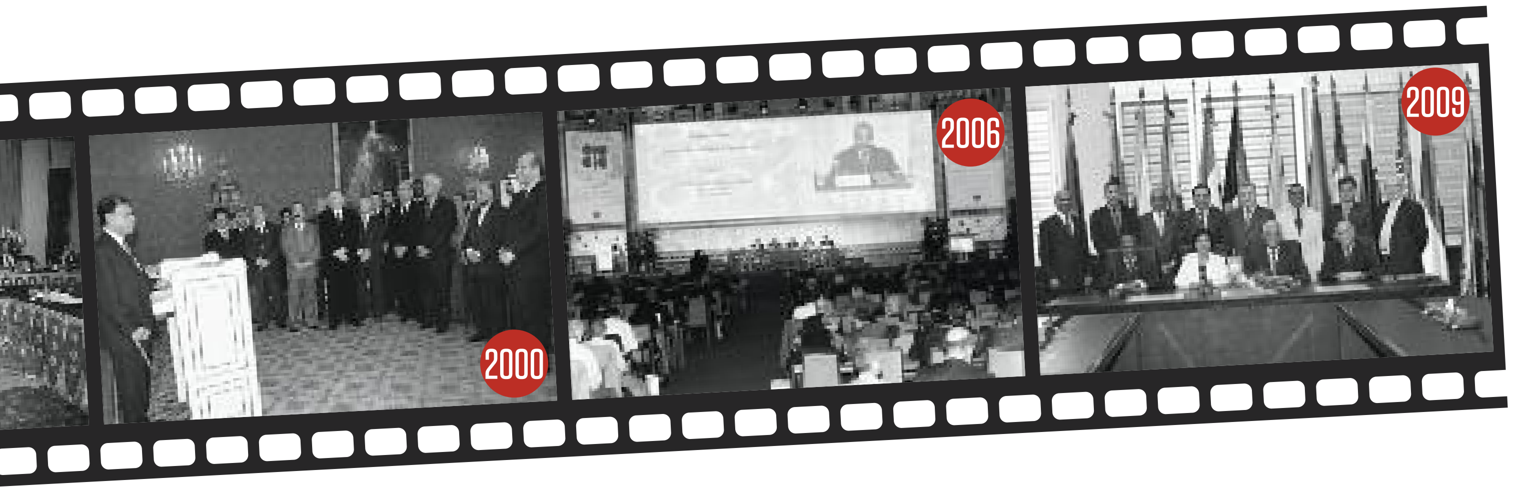
And there wasn't much in the subsequent years either. Of course, this was affected by the absence of any real public opinion in the majority of, if not all, OPEC countries. This includes African countries like Algeria, Libya and Nigeria and the countries of the dynastic families and satraps of the Middle East, as well as Ecuador and Venezuela, which certainly were not beacons of democracy in South America.

INDIFFERENCE OR LITTLE INTEREST ON THE PART OF THE PUBLIC?

The absence of public opinion and governments that were rigidly ideologically closed to external influences generated a "non-debate" on the future of their countries as well as of the assembly of nations and the social and scientific harmony of a community intent on resolving the problem of the use of energy resources, which is increasingly important for humanity. As a result, OPEC was increasingly seen as an economic cartel intent on maintaining its economic influence instead of—as it initially was for some currents of thought—a group of nations that wanted to leverage their resources to meet general needs. Perhaps no one would currently think to ask an OPEC representative what the planet's energy future will be and what mix of energy resources we should develop, or indeed if they made the correct calculations on the use of oil and if there will ever be an end to this exploitation of resources.

And in this regard, official talks and speeches by the Secretary General at the summer 2015 meeting in Vienna confirm the sensation of conservatism and déjà vu alongside the legitimate commitment to a market "order" to be restored, which surely received the most attention amongst the topics discussed. Even more paradoxical was the political weight perceived only as a potential "offensive" of the OPEC nations. The organization received a severe and completely unexpected blow on December 21, 1975 when the infamous international terrorist Carlos the Jackal (Ilich Ramírez Sánchez, who was certainly famous at the time, but is not as well known today) attacked OPEC headquarters in Vienna and took 60 hostages. This event is known perhaps because of what happened afterwards and a few films that it directly or indirectly inspired. After the kidnapping, there was a flight to Algiers, where the first hostages were released, then to Tripoli, where other hostages were released, and lastly to Algiers, where the last hostages were freed after political asylum was granted. When he returned to Libya, Carlos was essentially subject to a political trial by the Popular Front for the Liberation of Palestine (PFLP) and was then expelled from the group for having failed to meet the specific objective of the spectacular attack in Vienna: the capture or murder of the Iranian and Saudi oil ministers.

From the perspective of the current environment in which the internet and the media constantly refer back to each other, at times constructing the me- →



dia event itself, the rough and pre-media era objectives of this event were based on an old version of political ideology. This ideology was generically socialist/Marxist in the PFLP and even more so in Carlos's ideological confusion. It was therefore linked to the idea that in under-developed countries that were rich with resources, those who used or exploited these resources without distributing them or distributing the dividends were "the class to be overthrown." However, the objectives were also based on the more modern view in which the international and collective aspect took center stage (subconscious geopolitics "incubated" by struggle movements). Therefore, OPEC was not seen as an assembly of nations, but rather as an international, in some senses even a supranational, body. This was before the crises of resurgent nationalism that are still largely popular in the majority of these countries. And it was seen in a manner that is perhaps more lucid and modern than OPEC itself.

The next steps were a kind of militarization, not only of the headquarters in Vienna but also of OPEC's role and initiatives. There were great debates in the international arena, but its role gradually diminished, for different and competing, yet precise and specific reasons. Interaction with its national populations decreased when the oil aristocracy was accepted-with the support of Carlos and ideology as well-in the old boys' club of those who are at risk of terrorism and therefore tend to close themselves off in terms of relations. There was a crisis as regards the political "reading" of the terrorist attack, in that OPEC was a global body and therefore closed itself within the confines of oil and gas and their sale and market regulation. Finally, excessive weight was not given to the environmental and social reading that before too long would gain the upper hand over the ideologies of the 1960s and 1970s, which would therefore almost disappear in the following years. On the social side, especially in Arab or Middle Eastern and African countries, there would be an economic and social crisis that, in the absence of ideologies and the fight for civil rights, would gradually result in the radicalization of popular and populist positions we now know as, amongst others, Islamic fundamentalism. OPEC news from the 1980s and 1990s is all quite similar: "OPEC Summit: oil production cuts" or "OPEC guarantees support to production to ensure market stability" and so on. However, in the new century, the international players change. Indonesia leaves the organization, while Angola joins and Russia boosts OPEC in the area of gas with the support of Iran.

THE ECLIPSE OF THE POLITICAL AND SOCIAL VALUE OF THE VIENNA CARTEL

The headlines go directly to the economic affairs page while the world, in a post-Cold War blender in which the certainties of that era are no more, sees a war break out in Iraq that will be called the "dirty war of blood and oil." Nonetheless, OPEC gradually loses its political value. Its heads seem more like public officials than political rulers or the ruling class of their own countries. But it is certainly not their fault if the 1993 Iraq war and the conflicts following the attacks of September 11, 2001 resulted in a changed and varied world where the political and diplomatic certainties of the past were shaken to the core. The first Gulf War would involve military as well as media conflicts: who doesn't remember the controversies and truths triggered by the famous photo of the cormorant covered with oil that according to viewers was real, not real, real but plausible. Oil becomes a flammable substance, from the perspective of the media: some fight for it alone or defend themselves because it is everyone's energy resource. In any event, sustainable development and self-satisfied degrowth movements declare that its use and duration are unreliable. And in the midst of all this, in the media, OPEC increasingly closes itself off within the economic and statistical realm. This is understandable, also because, as we know, it is not the case that national harmony is reigning supreme in Ecuador and Venezuela. And in Africa and the Middle East, a fight is brewing, in part hastily labeled as religious, whose fault line comes from religious history but also marks a break—between Shiite and Sunni countries and populations—that is especially social, and regards real power. The pauses often herald only the defense of short- and medium-term national interests, or the repression of movements that disturb the "normal" conflict, which may involve Kurds or university students who demand more democracy and rights or even only women who twenty or thirty years ago were freed from their university studies and only want to drive their cars to work. The drive toward international reimbursement of the formerly "exploited" countries is lost or no longer fashionable. Next, the ideology of international rebellion falls away (despite Hugo Chavez), and finally dialogue with the rest of the world committed to developing new tools for the creation of energy is lost. OPEC has spent recent years in anguish. ISIS/Daesh is committed to gaining a piece of land including its own oil to be sold on the "black market" (certainly not to individuals, right—from "rogues" to "rogue states" the figures are many and varied.). But there is also an overabundant oil supply because since 2008, the international community has experienced an exceptional economic crisis, the worst since 1929 or, according to some, the worst ever. Even in the role of market modeler and price controller, it seems to have difficulties. Cutting production may not have the desired effect of raising prices, but rather may only open new markets to non-members. So OPEC remains. In Vienna, it is there monitoring and taking no staunch positions. Therefore, it has lost the political, social and economic justifications to be "the news," which for half of the 1970s represented an inevitable economic reference for the distracted driver, the average businessman and large international corporations.

HOW LONG WILL IT STAY THIS WAY?

It may stay this way forever if OPEC decides to play a merely "functional" role. In this case, the children's book explaining the life and history of oil on the website, its fiftieth anniversary celebration photos and industry seminars will remain its only commitment, which will act as the background to its role as statistician and market regulator. Especially in the Middle East, events are taking place involving nations at risk of implosion and loss of territory, and the elite classes are being called directly to the stand (even ruling families with centuries of visibility in the religious Muslim and non-religious world). It is possible that these events may not impose a less restrictive vision, more open to a reading that is in any event less messianic than OPEC's post-colonialist origins and the national pride of the 1970s. However, will they impact the great global changes with which public opinion comes into direct contact via social networks online? It is evident that it cannot be the current leaders of OPEC who will decide in the place of those who put them at the head of a global organization. But on the market of volatile prices and instability, OPEC may agree to be one of the parties—and not the only one—in a dialogue regarding energy sources, with a pedigree that is enviable when all is said and done. And if this happens, it is possible that the internal and external "perception" may change and the media may once again begin to talk about something more—in the future—than a spare shopping list, noble though it may be, of black gold and energy, with the relative prices.

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Opeconomics

A market in turmoil, with forecasts increasingly difficult and projects at risk. While OPEC holds firm on its decision not to push forward on the production of crude oil, industry analysts see a future of looming cuts in investment, declining oil revenues for many producing countries and a period of austerity. But when will this fog clear? We asked Adam Sieminski (EIA), James Burkhard (IHS Energy) and Edward Morse (Citi) to explain to us which routes offer a path towards growth

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Opeconomics

At the dawn of a revolution

OPEC faces perhaps its most difficult challenges ever; the forces working against higher oil prices explain the Saudi's decision to adopt a market share strategy

EDWARD MORSE

OPEC's obituary has been prematurely written several times. But discounting a strong future for the oil producing organization, often incorrectly referred to as a cartel, seems more logical today than at perhaps any other point in the group's 55-year history. Late last summer, when the group's senior member, Saudi Arabia, announced to the world that it would relinquish the role of "Central Banker" to the world's oil market, it seemed to be asserting that the institution had lost its purpose. The kingdom, the group's largest producer by an order of magnitude, proclaimed that it would no longer provide additional or less liquidity to markets by raising or lowering its production to meet its own, and the producer group's, price objectives. Rather, by ending its decades-long practice of being a swing producer and leading the rest of the producer group in the implementation of its price goals, the kingdom was going to maximize its own market share. What has confused markets as well as other producing countries, both inside OPEC and outside of it, is a combination of questions. Why had OPEC's largest producer decided to adopt a market share strategy? Why then? And for how long was it going to go its own way? Less confusing was the fact that two other producers – Kuwait and the United Arab Emirates – joined the Saudis: they have long concerted with Saudi Arabia in a common quest with respect to oil markets.

A CHANGE OF ROLE FOR RIYADH

In retrospect, the apparently sudden turn in Saudi policy was the result of months of study of the rapidly changing global oil supply and demand conditions. The dramatic nature of the change reflects circumstances that have been increasing since the beginning of this decade, with roots in the earlier years of this century. These conditions were apparently creating an existential threat to Saudi Arabia's role in global energy markets. Since the fall of 2013, Saudi Arabia's state-owned oil company, Aramco, has run into persistent and growing problems in marketing crude oil, especially to its two largest customers, the United States and China. Saudi Arabia was exporting around 7.2-million barrels per day (m b/d) at that time, out of its average monthly production of some 9.5-m b/d. The U.S. market received about 1.6-m b/d of Saudi crude, while China was receiving around 1.2-m b/d. But over time the exporter's market share in its two largest markets fell disproportionately. In the case of the U.S., the loss of market share was gradual but built over time. Between late 2013 and mid-2014, Saudi export volumes fell from 1.6-m b/d to 1-m b/d and the main reason was the shale revolution in the U.S., where domestic production rose by more than 1-m b/d for the third year in a row and obstacles to U.S. exports were depressing the price of U.S. crude versus the rest of the world's crude oil. That meant that to maintain market share in the U.S., the Saudis would have to sell crude oil to the U.S. at a lower price than it was selling oil into Europe or Asia. The Saudis increased export prices to the U.S. and in effect intentionally lost market share. At their lowest point, Saudi exports to the U.S. fell to just about 800-k b/d this past winter, a loss of half of the country's market share in little over a year.

Supply from the U.S. was also starting to alarm the Saudis, as was new supply from two other new sources of "non-conventional" crude oil. The new frontiers of oil included shale (which enabled U.S. production to grow by 90 percent since 2010), oil sands (where Canadian output increased by more than 40 percent over the same period) and deep water (where Brazilian supply grew by more than 25 percent and where U.S. production, stalled after the BP Macondo disaster imposed a drilling moratorium, was starting to grow again). In 2014, supply from these unconventional sources amounted to about 1.8-m b/d, versus total oil demand growth of under 700-k b/d. Saudi Arabia was beginning to understand that its market position—and OPEC's more generally—was being challenged by new unconventional oil output. In this sense, the unconventional oil supply revolution has been the most politically disruptive situation in oil markets in decades and the largest challenge to Saudi Arabia and the rest of OPEC in their ability to impact the direction of price changes as well as their level. Of greater concern was the loss of market share in China, where in the fall of 2013 Saudi Arabia was selling 1.2-m b/d. This market was supposed to be the heart of global growth and the place where increasing share had been the core of Saudi export policy for years. The volume of Saudi sales lost in China also fell steadily from late 2013 to the summer of 2014, to an average of some 800-k b/d, dipping at times to 600-k b/d. Here there was no competition from surging domestic oil production, as was the case in the U.S., but rather the causes were startling drops in demand growth and competition from other suppliers—both factors that were harder to battle against. On the demand side, the Saudis discovered that not only was China's oil requirement growth falling along with the decline in Chinese GDP growth from over 10 percent annually to under 7 percent per annum, but the energy intensity and especially the oil intensity of China's GDP growth were also falling. Most noteworthy was the sudden drop in China's diesel demand growth. The core of China's oil demand growth in the twenty years before 2010 had been diesel fuel, which had been growing more or less 1:1 with GDP growth. But then, in 2011, it grew by 5 percent and stopped growing thereafter, even as GDP grew by around 7 percent. Last year diesel demand growth was actually negative. What happened was a sudden shift in the drivers of China's oil demand growth, from high levels of fixed asset investment and urbanization away from urbanization to consumer-led growth. In early 2015, then Chairman Fu of Sinopec, China's largest refining company, actually indicated that he expected China's diesel demand to peak by 2017 and fall thereafter.

If the core of China's oil demand growth was faltering and China's market was going to be growing by a lower percentage each year, competition for the Chinese market also took a startling turn. China had already been changing the patterns of buying, favoring tying down supplies with "pre-export" finance through loans offered to foreign countries (among them Brazil, Ecuador, Sudan, and Venezuela). In the spring of 2014, when the European Union and the United States imposed financial sanctions on Russian companies and the Russian government, cutting off access to long-term credit, China stepped in and offered long-term loans in exchange for long-term oil as repayment of the loans. This meant not only that the Chinese market was growing less rapidly but that competition for China's market was intensifying as long-term supply arrangement grew and in the face of growing new supply from Iraq due to new production and from Iran due to the expected end of sanctions in the near future.

A RAPIDLY DECLINING DEMAND FOR ENERGY

It is now obvious that Saudi Arabia believes that oil demand growth is on a significantly lower path. The 2014 Annual Review published by Saudi Aramco in May 2015 indicated that between 2014 and 2040, a stretch of 26 years, oil demand was expected to grow by 18-m b/d, significantly less than 1 percent, falling to around 0.6 percent, versus 1.5 percent-1.8 percent per annum growth previously assumed.

Thus both on the supply and the demand side, the Saudis concluded that they were confronting a long-term threat to their ability to manage markets and, more critically, to maintaining their market share, which is critical to monetizing their extremely long position as the holder of huge oil and gas reserves. The shale revolution in the U.S., combined with growth in oil sands and deep-water output, were depriving them, and therefore OPEC as a whole, of the ability to target a price and to maintain it. The beleaguered outlook for global oil demand growth meant that if they stuck with their swing producer role and cut output last year, they were in danger of losing market share for a long time. As was the case in the 1980s, when an oversupplied bear market was looming, if they cut output and lost market share, they would lose more revenue than if they strived for market share. One strong potential implication is that oil being produced in the short term is becoming more valuable than oil under the ground, an issue of significant market impact over the next few years. Another factor in the Saudi change in strategy was the realization that the glut in the market was of light, low sulfur (sweet) crude oil and if OPEC did cut production, there would still be a glut of light crude (the kind produced by U.S. shale oil E&P companies) and what's worse it would continue to grow, subsidized by OPEC cuts and the lift a cut would give to global oil prices, further subsidizing U.S. production growth. A final factor on the oil side perhaps was the realization that it was exceedingly unlikely that other OPEC countries would join in an output cut. For all practical purposes, Iraq had signaled it would not cut production and had a right to continue to grow its output given that had been under-producing and ceded market share to Saudi Arabia and other GCC countries; Iran had a similar view, given it had lost export markets as a result of UN and Western-imposed sanctions; Libya was confronting fragmentation risk and was incapable of reducing production further. The Saudis found themselves in an environment in which it was exceedingly unlikely that other OPEC countries would have been in a position to cut production and would be unwilling to share in the burden of adjustment requiring them to cut output either alone or disproportionately within the producer group. Moreover, the basic supply challenge was coming from the U.S., whose government would not be constitutionally capable of putting a lid on production. Hence the Saudis came to the conclusion that they needed to announce a market share strategy that would result in much lower oil prices for a sustained period of time. In this lower oil price environment they would seek to shift the burden of adjustment to lower oil prices on higher cost producers, in particular the producers of unconventional oil whose production has taken most of oil's market share during the current decade – shale oil in the U.S., deep water production globally and oil sands in Canada.

A DECISION THAT LOOKS INTO THE FUTURE

Despite the once prevailing view that the new strategy was designed to force a production agreement on OPEC countries and some critical non-OPEC countries such as Mexico and Russia, the Saudis appear to have both a longer view and a different set of targets in mind. The longer view is that oil prices will have to be lower for a long period of time, since shale production and deep-water production can grow even in a $75 price environment. The longer view also is that these new frontier sources of oil can rebound if and as global prices rise and, barring an increase in disruptions to supply. The kingdom needs to secure market share and maintain it, leaving the burden of adjustment on other OPEC and non-OPEC countries. As many commentators have noted, there has been an additional convenient consequence of lower oil prices for the kingdom in that they have negative consequences for both Iran and Russia, both of which are pursuing goals in the Middle East that are against Saudi interests and for both of whom lower prices are massively painful. There are plenty of oil market issues around that have impacted Saudi oil policy and that can explain the change in strategy without reference to these overlaying political issues. It's hard to predict that any structural change in oil markets is "permanent" or "forever," but it's also difficult to see how the oil market will be able to sustain higher prices or even a return to last year's prices given the entry of shale oil, deep-water output and oil sands into the production system.

OPEC cedes its power

The group's abdication to the U.S. took place last November, when it chose not to cut production quotas. The United States is the new "swing producer," in terms of the overall impact of its oil industry on prices

JIM BURKHARD

OPEC is no longer the absolute monarchy of oil: it has ceded its scepter to the U.S., sanctioning the abdication last November when it chose not to cut production quotas. James Burkhard, Vice President of CERAWeek and Head of Research on Global Oil Markets and Energy Scenarios at IHS, is convinced of this.

How will the world be without OPEC at the center of the oil industry?

OPEC is no longer what it once was. The U.S. is the new "swing producer," obviously not as regulated or established, but in terms of its oil industry's overall ability to impact prices. Then there is a lot of capital available and this can lead to a new dynamic in the relationship between costs and prices. It could result in a shift to a lower cost structure, that is, with more at- →

Opeconomics

Opeconomics

tractive margins and definitely lower oil prices.

What will the impact of low oil prices be on the economy and to what extent will this affect geopolitics?
On the oil and gas industry, the impact will be significant, but it will also certainly affect consumers, the world economy and the position of individual countries. The growth of the world economy is expected to receive a significant boost while the companies that will obviously suffer will be those of the industry, those involved industry-related activities and producing countries. Underlying the decline in prices is the weakening of fundamentals, with a slowdown in demand. We believe that the low prices will result in only a marginal increase in demand, which will be linked to structural changes in the global market and the pricing policies of many countries. In a few years, acceleration in demand will barely be able to compensate for the excess supply. The slowdown in the growth of oil consumption in China due to the slowdown of its economy is all but negligible. Nevertheless, we estimate that the expansion of global GDP will continue, albeit not spectacularly, with a subsequent increase in global oil demand. In this context of low prices, the countries seeking investment to develop their oil and gas resources will suffer the most. If they want to attract investment, they will have to review their tax systems and regulations, so as to become more competitive.

Oil companies have announced cuts in investment. Can we expect a drop in production?
OPEC said that it will maintain its production at 30 million barrels per day (mbd) despite low prices. We actually expect an increase in OPEC's production next year. Having said that—except for interruptions, which are always a possibility—it will be the non-OPEC producers that will bring the market basics back into balance. Although the majority of the adjustments will involve North America, the impact will be felt all over the world. The entire industry is deciding on a cut in expenditure estimates for 2015 and the adjustment will be fairly substantial. In the United States, we estimate a particularly severe reduction—40 percent from last year—in expenditures for the development of new oil and gas. The impact of this cut in investments in exploration and development will begin to be felt towards the end of the year, reaching a rebalance on the global scale between supply and demand and creating the conditions for a price recovery.

Which projects are most at risk?
The most expensive projects will be scrutinized most. The low prices will force many operators to cut spending on exploration and development and this will, in time, lead to production drops. The production of tight oil, oil produced by hydraulic fracturing, will be affected more than that from conventional sources. There is a global slowdown in investment that will probably be more pronounced in the U.S. but will affect the whole world. This means that every society, every major player in the oil and gas industry, is going through a complex investment period due to reductions in spending.

The merger of Shell and BG is the largest consolidation of the last 10 years in the oil and gas industry. Do you think it is the first in a long line of mergers that will result from low oil prices?
It is certainly the largest merger that we have witnessed in recent years. Whether it signals the start of a new era of mergers and acquisitions is more difficult to establish. Everyone had expected strong M&A activity in the United States and it does not seem that it has yet happened. That between Shell and BG is definitely a transaction of enormous scope for the oil and gas industry but it is really too early to determine whether it is anything more than a single transaction.

Shell, which, with BG, will have access to significant assets in the deepwaters of Australia and Brazil, aims to expand gas production. Will blue gold be the main source of energy in the future, with shale gas on the sidelines?
I do not think that shale gas will be placed on the sidelines in the future. I think that the demand for natural gas, on a global level and in the long term, will continue to be very high, especially in comparison with oil. Gas is an increasingly important fuel for generating electricity and also as a fuel for vehicles. Gas therefore has an important future in terms of growth in global demand. **(R.K.)**

Waiting for the next moves

Political normalization in Libya, the impact of the Iran nuclear deal and the recovery of demand in China are only a few of the factors influencing forecasts of an uptick in oil prices

ADAM SIEMINSKI

The global oil and energy chessboard always hosts more than two players. And its seems that the referee, OPEC, is no longer holding its own against the political and economic ambitions of many of the key players involved. As a result, it is becoming increasingly difficult to forecast what oil prices will do in the future. Geopolitical factors, always uncertain, continue to play an important role. In addition, pressure is being felt from Beijing, which is seeking to increase its significance, especially in areas with high crude oil production, and the U.S., which has taken on the role of privileged observer from the height of its new position as soon-to-be exporter. Few are able to accurately predict what the consequences of this game will be. This is why we spoke with Adam Sieminski, Administrator of the U.S. Energy Information Administration (EIA).

After a significant decline, oil prices now seem to be bouncing back. Will they reach $100 per barrel again, or have we definitively entered a new era?
In the Annual Energy Outlook (AEO), the Energy Information Administration indicates that in light of long-term supply and demand trends, prices could reach $140 per barrel by 2040. However, in the short term, a range of factors are causing a good deal of uncertainty. In any event, our analyses indicate that in the future, prices should tend up rather than down. In the Short-Term Energy Outlook (STEO), we estimate that WTI should increase up to roughly $65 per barrel by the end of 2015. In 2016, this price is expected to reach $70.

What are the most important factors influencing oil prices?
In terms of supply, geopolitical factors play an important role. Tensions in international relations could result in a situation similar to the one that occurred in 2012 and 2013 when Libya and Sudan left the market. There also continue to be concerns about production in Iraq, Nigeria and Venezuela. The decrease in oil revenues could force some OPEC countries to enact austerity measures, leading to social tension and resulting supply interruptions. Finally, in terms of production, the presence and actions of ISIS continue to be a source of great concern.

Some believe that the impact of geopolitical tensions on oil prices has now become marginal, since U.S. production will be able to balance out the market. Has the U.S. taken over the role of OPEC?
The exponential growth in U.S. production during the Libyan crisis prevented prices from rising more than they actually did. While this growth played a significant role, it is not the only factor impacting the market. It is really demand that makes the difference, and between 2015 and 2016, we expect liquid fuel consumption to rise. A lot will depend on China, where consumption has risen by an average of 430,000 barrels per day over the last four years, accounting for 40 percent of global growth. The slowdown in Chinese economic growth will decrease fuel consumption by an estimated 330,000 barrels in 2015 and 2016, representing a 25 percent decline over the previous years. Still, there are too many variables to count. Prices will fall if the Chinese economy continues to slow down, if global growth remains stagnant and if Iranian oil returns to the market. On the other hand, if the global economy improves and the effects of announced investment cuts begin to be felt on the supply side, a rally in prices could take place much more quickly than expected.

How much would an increase in Iranian oil production impact oil prices?
A nuclear deal enabling Iranian oil to return to the market would have an impact of between $5 and $15. A return to the market (or withdrawal from the market) of one million barrels per day would basically trigger an average effect of $10 per barrel. As regards Iranian oil in particular, other variables are also in play, from the terms of the nuclear agreement to when exports might resume, to the policies of the U.S. Congress and administration. We do not have these answers yet.

Can the U.S. shale boom be considered a thing of the past, at least in terms of production peaks?
U.S. production has shown surprising staying power in the last 10 months despite the fall in prices, but the effects of investment cuts will be felt. There are signs pointing in this direction. U.S. industry has repositioned itself to a certain extent by concentrating on sites with greater outlooks for growth and setting aside non-core areas. Nonetheless, even with these adjustments and a decline in production in important areas such as Bakken, Eagle Ford and Niobrara, we expect a recovery starting at the end of 2015 and, in any event, an increase in 2015 compared with 2014. Canadian production will also continue to rise in 2015 and 2016, although at a slower pace. On the other hand, it seems that Mexico will have more difficulty. Indeed, we expect a decline in production in Latin America, the North Sea and the Caspian Sea region.

What will low oil prices mean for the gas market, particularly for liquefied natural gas (LNG)?
Falling crude oil prices have had inevitable repercussions on gas. The drop in oil prices from $100 to $50 halved the BTU equivalent price. Lower gas prices have had significant effects on the LNG industry, especially in the U.S., which aims to become an exporting country starting in 2017. It is clear that if gas prices are low, no one will be interested in paying LNG transport costs.

From this perspective, what do you think of oil industry pressure on lifting the ban on crude oil exports from the U.S.?
The EIA is a statistics agency, so we take no position with regard to industrial policy. In terms of production levels, I can say that the speed at which the industry was moving with respect to the sustainable limit of refining capacity has decreased. From this perspective, we can infer that making a decision in this regard may not turn out to be such an urgent matter. **(R.K.)**

THE UNCERTAINTIES WEIGHING ON OIL PRICES

OPEC DYNAMICS: The fall in oil revenue could force some countries of the organization towards austerity plans, resulting in social tensions and disruptions in supplies.

U.S. SHALE: The exponential growth in U.S. tight oil production has prevented prices from going up even though, between 2015 and 2016, growth is expected in the consumption of liquid fuels.

THE IRANIAN NUCLEAR AGREEMENT: The impact that the return on the market of one million barrels per of Tehran crude oil could be quantified, on average, by a drop of $10 per barrel.

GEOPOLITICS: International tensions involving Iraq, Syria and Libya, as due to the presence of ISIS, in addition to Nigeria and Venezuela.

CHINA: The slowdown in the growth of the Chinese economy will lead to a slowdown in the consumption of fuel in 2015 and 2016 equivalent to a decline of 25 percent compared with previous years. If the slowdown in Beijing's economy continues, crude oil prices will drop even further.

CENTERS OF GRAVITY

IAI
Istituto Affari Internazionali

More unity to foster cooperation between producers

by NICOLÒ SARTORI

"Only Allah can determine the fate of oil prices." This, Saudi Arabian Oil Minister Ali al-Naimi's judgement, is a demonstration that OPEC's state of health—measured according to the cartel's ability to influence international crude oil prices—is no longer at its best. The difficulties within the alliance of exporting countries – divided by growing political distrust and by disagreements of a strategic nature—fuel heavy speculation on the real significance, both currently and, especially, of the future, of OPEC. If not dealt with pragmatically by all players involved, this situation could lead to a period of high volatility in oil prices, with possible repercussions on security scenarios, especially in the Middle East.

"Only Allah can determine the fate of oil prices," said the Saudi Arabian Oil Minister Ali al-Naimi.

U.S. producers' extraordinary ability to reduce production costs has changed everything

Saudi's decision to abdicate its traditional role as swing producer—in an attempt to deliberately bring down oil prices, to defend its market share and to counterattack a large portion of unconventional U.S. production—does not seem to have given the desired result. After the decline in prices that started in June of last year and brought oil down to below $40 per barrel in March, the recovery of prices has so far only been partial. What makes members of the cartel tremble, above all, is the extraordinary ability of unconventional U.S. producers to lower production costs and improve their competitiveness. As evidence of this, we see that although the fall in prices has actually resulted in a significant reduction in the number of oil rigs operating on U.S. territory, shale production has barely been affected With prices reaching around $60 per barrel, American frackers already seem willing to resume new drilling and expand the global supply, with the aim of taking further market share from traditional producers. The dynamism of the U.S. operators and their ability to intensify or slow down production based on price levels and demand signals not only makes them more flexible and efficient than the large national energy companies of OPEC countries, but also could help to transform the United States into the new linchpin of the global oil system.

Threats to internal stability and the regional geopolitical balance

The combination of relatively low prices and a U.S.-led oil market could turn into a nightmare for most OPEC members. In order to understand it, just take a quick look at the prices required to balance the budgets of the main oil exporters, almost all well beyond the threshold of the profit made by unconventional U.S. producers. This situation is likely to put a strain on the cash accounts of the petro-states, forcing them to drastically review their generous welfare policies, placing them up against concrete threats to their internal stability and geopolitical balance in critical areas such as the Middle East. In the past, the collapse of oil prices followed processes of destabilization within OPEC countries. Algeria is one example, which, after the counter-shock of 1986, sunk into a dramatic political crisis that led—subsequently—to the electoral victory of the Islamic parties, a military coup and nearly a decade of civil war. Even the invasion of Kuwait by Iraq can be read as a result of the internal instability created by a prolonged period of low prices (and by the aftermath of the war with Iran), which helped to drive Saddam Hussein towards an aggressive policy against the small emirate in order to deal with the strong internal financial difficulties. Today, the region is potentially explosive, in the light of the growing rivalry between the Sunnis and Shiites, which has repercussions on the tensions between Saudi Arabia and Iran (exacerbated by the possibility that Tehran reaches a final agreement with the international community on its nuclear program), and also on the conflicts in Syria, Libya and Yemen, and on the most advanced collective of Islamic State in the Middle Eastern quadrant.

A lack of better choices could lead to new models of cooperation

However, the need to address such threats could also trigger a unitary push within OPEC, and more generally between the traditional oil exporters. Iran, in this context, has the potential to be crucial in rebalancing the current (un)balance. In the event of an international agreement on the nuclear issue and a progressive reduction in the sanctions on the national oil industry, Iranian oil could, in fact, find its way in the international markets, helping to further enlarge the global supply and to (potentially) bring oil prices down to below the current threshold. In order to deal with the catastrophic repercussions of such a development, Riyadh and Tehran, followed by the remaining OPEC members, will have to seek an agreement within the cartel, and establish a broader framework of political cooperation in the region in order to identify the causes of friction and communally manage a series of geopolitical dossiers in which the two countries have been engaged, directly and indirectly, in recent months. The need to respond consistently to these challenges represents an opportunity to institutionalize mechanisms for cooperation between OPEC and exporting countries that are not members of the cartel: firstly, Russia, which has been left battered by a combination of economic sanctions, the collapse of crude oil prices and the devaluation of the ruble. Moscow, in fact, not only has every interest in seeing a significant rise in the value of crude oil, but also plays a key role in balancing the regional geopolitical chessboard, thanks due to—for example—links with the regime of Bahsar al-Assad in Syria, on whose fate the Kremlin is interested in being able to say the last word.

Nicolò Sartori is Senior Fellow and Head of the Energy Program of the IAI, where he coordinates projects on the issues of energy security, with a focus on the external dimension of Italian and European energy policy.

WHAT HAPPENS WHEN IRAN RETURNS TO THE ENERGY MARKET?

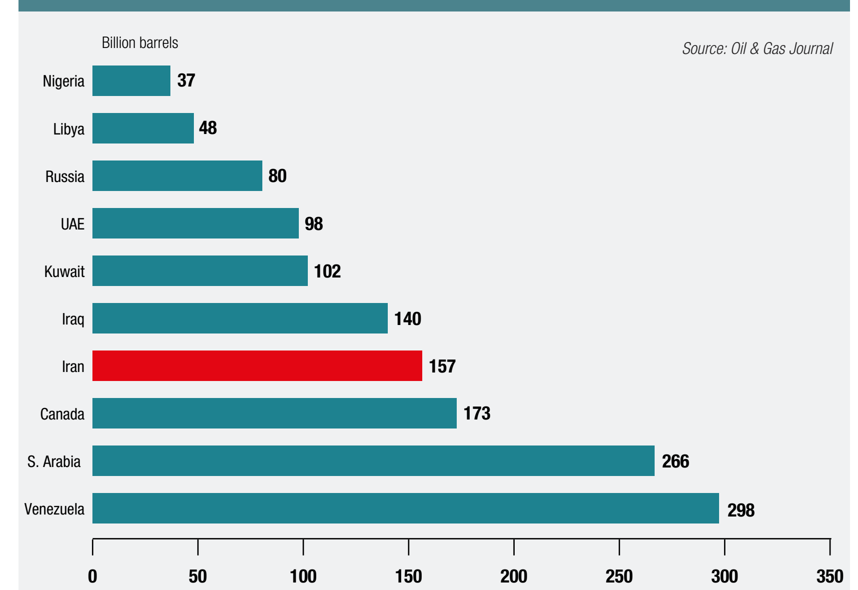
Beyond the sanctions

We can envision a time when much larger quantities of Iranian oil and gas start to reach the international markets. That day, however, is not yet upon us, and when the increase arrives, it will necessarily be gradual and "absorbable"

by JAMES HANSEN

When Iran and the so-called "P5+1" group of nations (the five permanent members of the UN Security Council: China, France, Russia, the United Kingdom, the United States; plus Germany) recently negotiated a "framework" agreement in Lausanne to bridle Iranian nuclear ambitions in exchange for a loosening of sanctions, much of the world took the reduction in geopolitical tension as good news. Petroleum markets, though, fell sharply at the prospect of vast quantities of Iranian crude and natural gas flooding world markets, further driving down already low prices. Iran, at least in theory, certainly has the hydrocarbons with which to do that "flooding," including the world's fourth-largest proved crude oil reserves and the second-largest natural gas reserves. According to the U.S. Energy Information Administration, Iran holds nearly 10 percent of the world's crude oil reserves and 13 percent of OPEC reserves. Just how rapidly all of this can be got out of the ground is, however, entirely another question. Iranian oil production has fallen sharply over the past few years, and natural gas production growth has slowed. International sanctions have deeply affected the country's energy sector, sparking cancellations or delays in upstream projects and lowering overall capacity. Under Western economic sanctions, Tehran stopped selling oil to the U.S. in 2012, and the next year petroleum deliveries to the EU ceased as well.

WHO OWNS CRUDE OIL?



Iran holds the fourth largest oil reserves in the world, behind only Venezuela, Saudi Arabia and Canada (data as of January 2014).

How export has changed, from yesterday to today

Before the embargo, Iran produced over 4 million barrels of oil per day, of which roughly 2.5 million were destined for foreign markets. Today, exports have fallen by over half, to only 1.2 million barrels per day, and overall production has dropped to 2.9 million bbl/d. There are other reasons beyond sanctions for falling output. Most of the country's oil discoveries are old, with about 80 percent of proved reserves identified before 1965, so many fields have simply been depleted after decades of pumping. Iran appears to be facing technological limits too. It has not brought a single new field on-stream since 2007. Getting Iranian oil to market is an issue as well. Several recent episodes of warning shots fired on foreign-flagged merchant ships by Iranian naval forces have only strengthened the doubts of maritime insurance brokers about the wisdom of issuing policies covering traffic to and from the country. The powerful International Group of P&I Clubs, a London-based group of underwriting pools whose members between them provide "protection and indemnity" coverage for approximately 90 percent of the world's ocean-going tonnage, has so far hesitated to resume issuing policies for shipments of Iranian oil, with an especially negative impact on exports to Asia. Some Asian countries—India, Japan and South Korea—have issued their own sovereign guarantees to vessels carrying Iranian crude to enable shipment. Iran has bet on the Asian thirst for petroleum, especially with regard to China, but the way forward has been difficult. The two countries, both with an imperial history and a certain shared imperial arrogance, do not get along easily.

The very complex synergies between Iran and China

When the Iranian economy turned sour—and China's own economy began to ease after the boom of recent years—ambitious Chinese-backed development plans began to stutter. The Azadegan field, thought to contain between six and seven billion barrels of oil, was Iran's biggest find in 30 years when it was discovered in 1999. China National Petroleum (CNPC) was to develop North Azadegan, with ultimate total production estimated at 150,000 bbl /d. The first phase was originally expected to be on-stream between 2015 and 2016, at a cost of $1.8 billion. In 2014, though, the National Iranian Oil Company (NIOC) announced that it was canceling its contract with CNPC to develop the field because of persistent project delays, pointing out that the Chinese had drilled only seven of 185 planned wells. One obstacle to development—independently of the nationality of the partner—is legal. Iran's constitution prohibits foreign or private ownership of natural resources and the production-sharing agreements (PSAs) used by many contractors are also forbidden. Iran instead employs "buy-back" contracts and uses the export revenues it generates from petroleum sales to repay the foreign contractor's capital costs. The repayment rate is based on a predetermined percentage of the field's production and the rate of return on the invested capital over a payback period of five to seven years. For operators, the difficulty with this sort of arrangement is the lack of flexibility in cost recovery, especially in periods of whipsawing crude prices on world markets. In an attempt to create more attractive terms to attract foreign operators, Iran is understood to be developing a new contract model, the "Integrated Petroleum Contract" (IPC), under which the Iranians will pay foreigners a share of the project's revenue in installments once production begins at a field. Beyond the technical and business challenges, there are geopolitical reasons for uncertainty about the massive return of Iranian oil and gas to world markets. One is that the "framework" agreement regarding Iran's nuclear program is still not what might be described as a "done deal." Other players who have a major say in the outcome—Saudi Arabia, for instance—are frothing at the mouth at what they say amounts to granting Iran a license to join the club of nations who have "the bomb." Another elements, easily forgotten, is that Iran is an OPEC member, though, like Iraq and Libya, it is—for the moment—allowed to operate outside the organization's system of production quotas. Still, when Tehran begins to increase export capacity, the cartel will move to bring it back into the fold. The conclusion must be that much larger amounts of Iranian oil and gas will—one day—begin reaching world markets. That day though is not tomorrow, and when it does come, the increase will necessarily be gradual and "absorbable."

James Hansen is a consultant for major Italian financial communication and international relations companies. An American, he arrived in Italy as Vice-consul in charge of economic affairs at the U.S. General Consulate in Naples. He then became correspondent for the International Herald Tribune and other media entities. He was subsequently appointed spokesman for Carlo De Benedetti and Silvio Berlusconi, and was chief press officer for Telecom Italia.

MARKET TRENDS

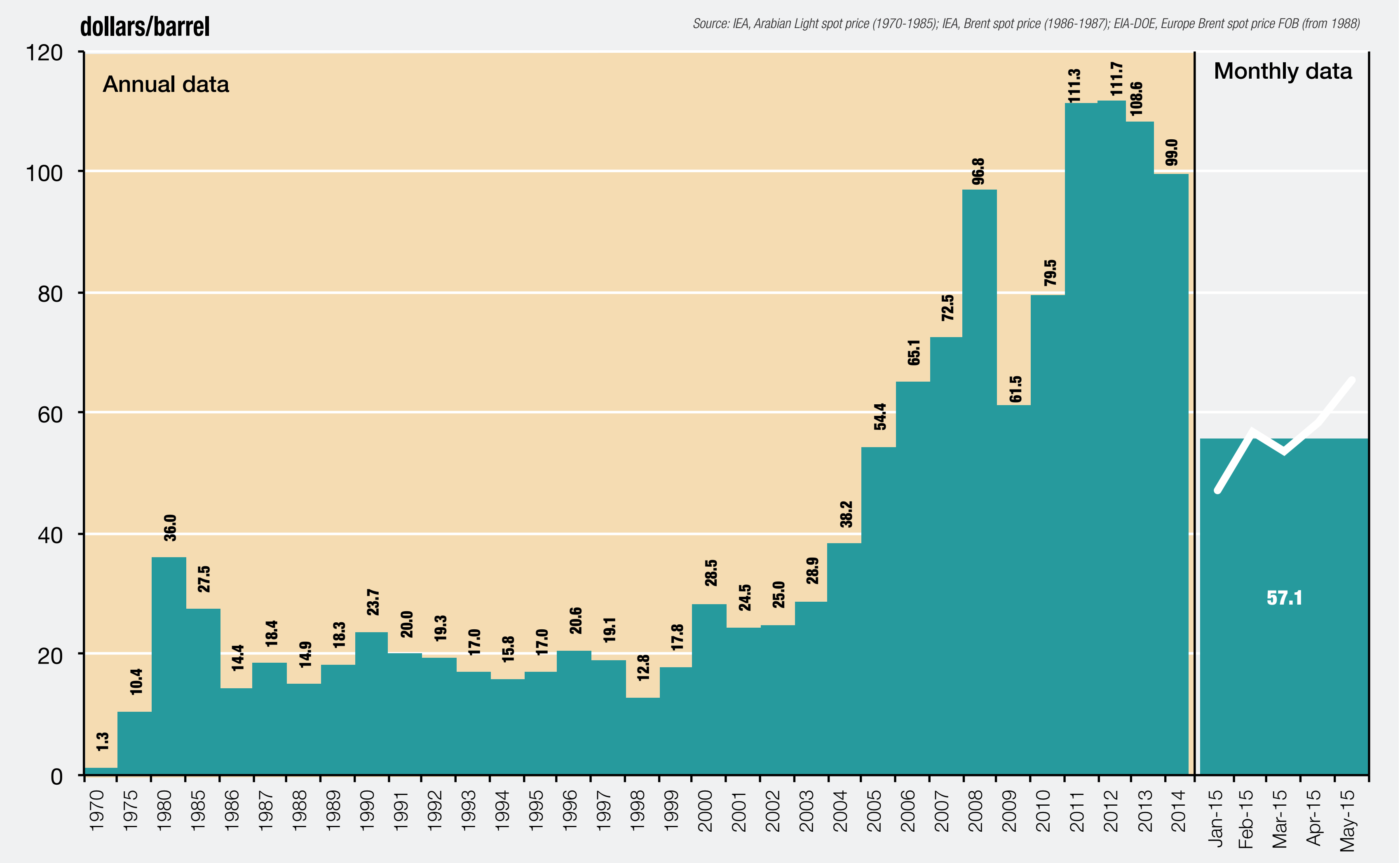
Back to the business

Brent at around $60 per barrel, low volatility due to current oversupply and expectations for a readjustment

Oil prices

The year 2015 opened with the Brent price on the decline. It dipped below $50 per barrel in January, but then gained roughly $10 in February. It currently remains at around $60 per barrel. This price level is causing uncertainty in the markets, which are divided between the weight of the current oversupply and the expectation of a coming readjustment of the fundamentals. In this weak macroeconomic environment, with the market still characterized by excess supply and the strong dollar, some signals of price support are emerging.
Estimated oil demand for 2015 has been revised upward. In its June report, the International Energy Agency (IEA) forecast growth of 1.4 million barrels/day compared to 2014, up from 0.9 million barrels/day forecast in January. Upstream, some bullish signs include the 2015 capital expenditure cuts by oil companies and the continuing decline in the number of U.S. oil rigs, to the lowest levels since August 2010, putting the development of future supplies at risk. Heightened geopolitical risk is also contributing to the recovery in prices. Tensions are rising in the Middle East due to the intensifying conflict in Yemen and the progress made by ISIS in Iraq and Syria. In Libya, production continues to fluctuate broadly due to extreme political uncertainty as a result of the simultaneous presence of two rival governments. On the bearish side, OPEC production is on the rise and has exceeded 31 million barrels/day since March. At its meeting on June 5, the cartel confirmed its new non-interventionist policy, which seems to indicate that current production levels will be kept at well above the target of 30 million barrels/day. Chief among concerns about a possible downturn is the Iranian question. The agreement made in early April, which should be finalized by the end of June, drove prices down due to the possible entry into the market of additional volumes, which would only aggravate the current oversupply. Pending a new adjustment, the market is experiencing low price volatility. The U.S. market continues to receive scrutiny. While total production remains high, tight oil plays showed some initial signs of a decline in May. The accumulation of crude oil, resulting in a series of all-time records in U.S. stocks, was interrupted in late April. This was partially due to the uptick in processing at refineries (utilization at 92%) and the downturn in imports. Long positions on the London and New York futures markets remain elevated, although financial operators have in part reduced their bets on an upward trend.

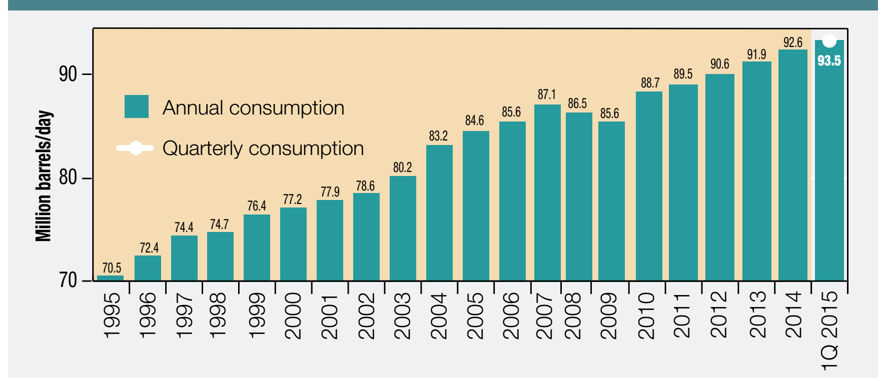
BRENT PRICES



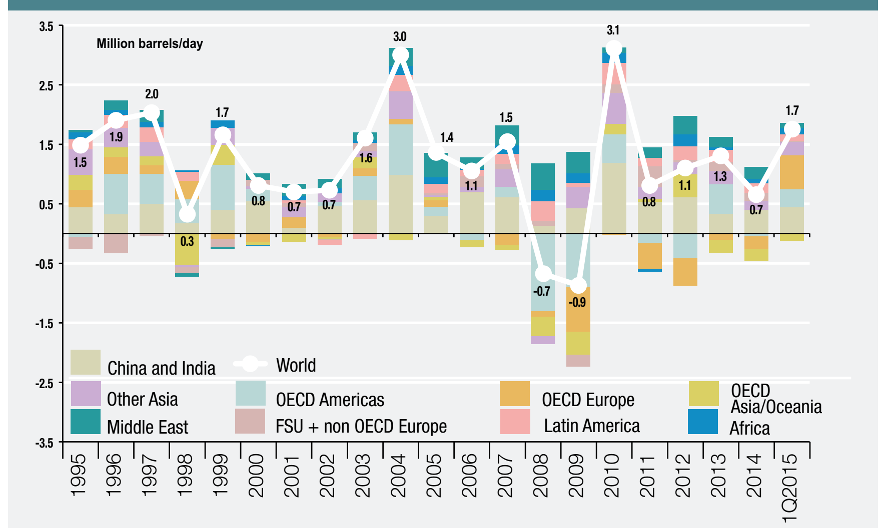
Oil demand

In 1Q 2015, global demand increased by 1.7 million barrels/day, highlighting a growth trend that began in the second half of 2014. Consumption by Organization for Economic Co-operation and Development (OECD) countries has clearly recovered, while that of oil producing countries with intense oil production and high dependency on oil revenues (Middle East, Russia, Brazil) is slowing down due to the halving of crude oil prices. In the OECD area, there are finally signs of a European economic recovery: for the first time in 5 years, all of the major economies reported growth in 1Q 2015. This, along with a particularly difficult winter and lower end prices starting in the second half of 2014, helps to explain the surprising rise in European consumption (+0.6 million barrels/day) after eight consecutive years of decline. Also in the OECD area, the U.S. has experienced a robust rally (+0.5 million barrels/day) despite its reduced economic growth, thanks to positive trends in gasoline (+3.4%) and jet kerosene (+3.6%), which are less dependent on the economic cycle than diesel. The gap between non-OECD and OECD consumption is narrowing. It is now at just 0.5 million barrels/day, compared to 1.3 million barrels/day in 2014, the historic year in which the emerging markets surpassed the advanced economies. This is a momentary phenomenon linked primarily to decreasing crude oil prices, which have especially benefitted the U.S. The slowdown in non-OECD demand (+1 million barrels/day in 1Q 2015 vs. +1.2 in 1Q 2014) was triggered by modest growth in China and more limited or even declines in consumption in many oil exporting countries (e.g., Russia). With Chinese economic growth at 7% in 1Q 2015, the lowest level of the last six years, that country's consumption increased by 0.3 million barrels/day, in line with 2014. This was basically driven by the transportation industry and demand by the petrochemical industry. Gasoline (March car sales +10%) and liquefied petroleum gas (LPG) continue to experience robust growth, unlike diesel, which has been affected by the weak manufacturing industry. Unlike China, India continues to record high consumption growth rates, which led it to surpass Japan in the second quarter of 2015. It is now at third place on the list of the main oil consuming countries. In the Middle East, consumption trends remain positive, although there was a slight slowdown in Saudi Arabia (40% of total Middle Eastern consumption) in the first part of the year (+5% in 1Q 2015 vs. +6.5% in 2014) due to the expected weakening of economic growth.

GLOBAL CONSUMPTION

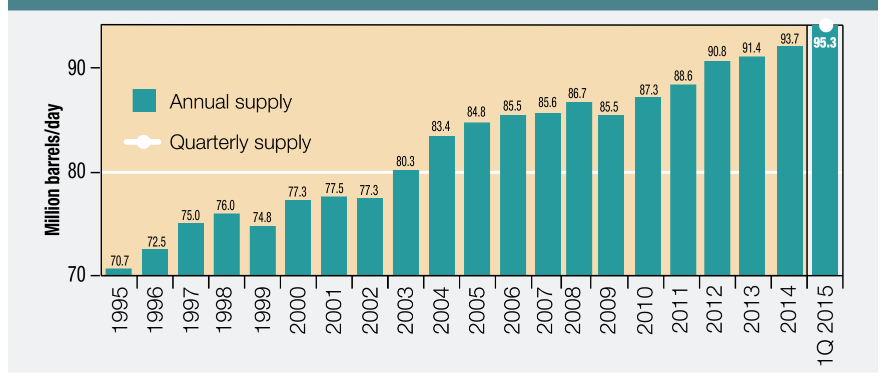


CHANGE IN GLOBAL CONSUMPTION AND BY AREA

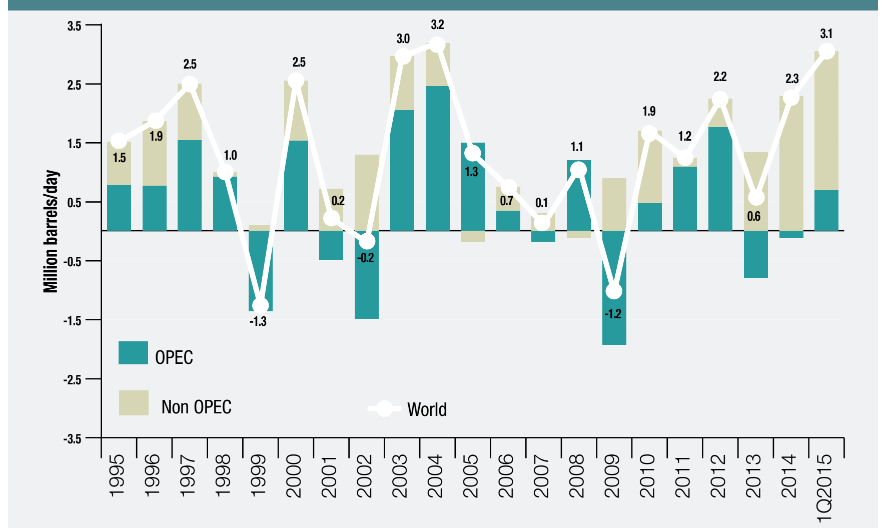


Source: Eni's elaboration on IEA data; change vs the same period of the previous year

GLOBAL SUPPLY



CHANGE IN GLOBAL SUPPLY AND BY AREA

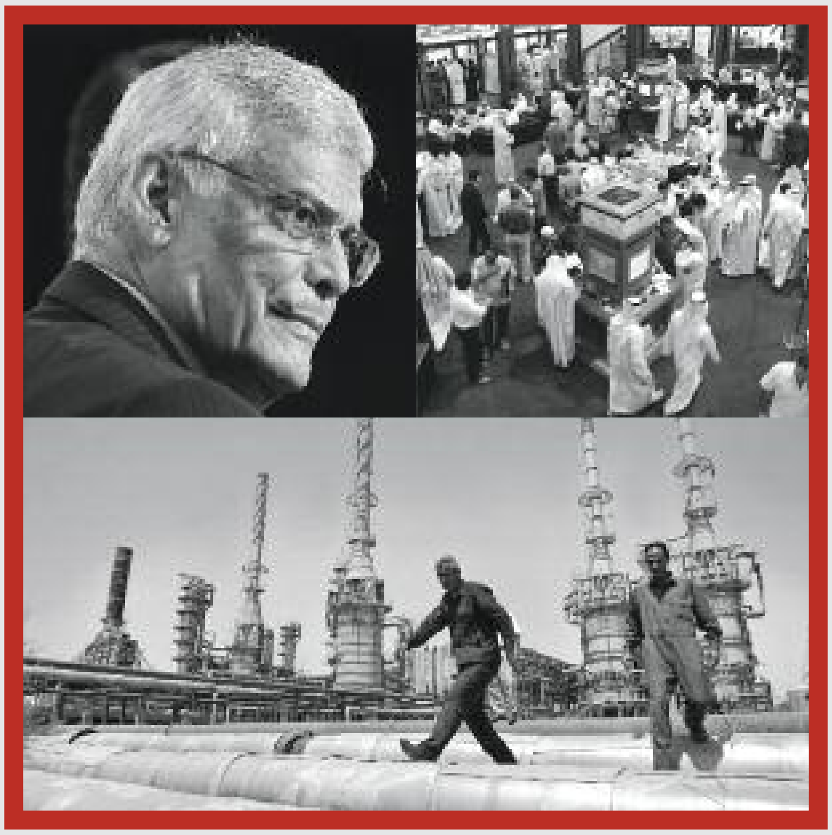


Source: Eni's elaboration on IEA data; change vs the same period of the previous year

Oil supply

The global oil supply continued to grow in the first quarter of 2015, surpassing 95 million barrels/day. Non-OPEC production remained high (+2.4 million barrels/day compared to the same period of 2014) while OPEC consolidated growth already seen in the final months of 2014 (+0.7 million barrels/day). Among the non-OPEC countries, for many months the largest increases have been in the U.S., which has produced more than 12 million barrels/day since July 2014 and recently reached 13 million barrels/day. Tight oil, which has risen continuously, currently represents more than 40% of the country's crude oil production. Brazil has registered a steady increase (+0.3 million barrels/day) due to production from pre-salt plays and the Campos Basin area. Canada is also up (+0.2 million barrels/day), with the Alberta oil sands accounting for roughly 70% of the total increase. Russia's production has risen slightly (+0.1 million barrels/day during the quarter). However, it has not managed to regain the top place in the ranking of oil producers, currently held by the U.S. Production by OPEC countries started growing once again in the final months of 2014. Saudi Arabia reached 10 million barrels/day at the end of the quarter, and its levels are currently at 10.3 million barrels/day. Iraq has demonstrated the most consistent gains. Despite the critical situation resulting from internal conflicts between its military and ISIS militants, exports reached an all-time high in the first fifteen days of June. Production is also recovering in West Africa thanks to the West Hub deep water project in Angola, which recently entered production. The situation remains uncertain in Libya, where production is seriously fluctuating (200-400 thousand barrels/day). The country, which is already experiencing internal political uncertainty, is also under the constant threat of ISIS. At its June meeting, OPEC confirmed its previous decision to keep the production target at 30 million barrels/day (agreed at the end of 2011) for the coming months. Saudi Arabia has supported the strategy of maintaining production levels, and this policy, meant to defend market share against the advance of shale oil, remains successful.

Oil



July 2015