The Arab Gulf States Institute in Washington
Building bridges of understanding

Petro Diplomacy: Challenges in the New Energy World

Conference Report

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December 16, 2016

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Event Report

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The Arab Gulf States Institute in Washington (AGSIW), established in 2014, is an independent, nonprofit institution dedicated to increasing the understanding and appreciation of the social, economic, and political diversity of the Arab Gulf states. Through expert research, analysis, exchanges, and public discussion, the institute seeks to encourage thoughtful debate and inform decision makers shaping U.S. policy regarding this critical geostrategic region.

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About This Report

This report was compiled by Diane Munro following the AGSIW conference "Petro Diplomacy: Challenges in the New Energy World" held on September 19, 2016.

In its second year, AGSIW's Petro Diplomacy conference brought together experts from the oil industry, finance, government, and academia to investigate and debate the interplay of the oil, economic, and political forces at work in the new energy world. Speakers and discussants identified the critical issues in play and provided a greater understanding of their implications for the energy market and the political economies of the Gulf Arab states.

Diane Munro is an energy analyst and contributing writer for AGSIW. She has more than 25 years of experience in monitoring international oil market developments and geopolitical issues. She most recently served with the Paris-based International Energy Agency, where her work centered on developing global oil market forecasts and energy policy analysis of OPEC member countries. Munro has written on energy issues for numerous news organizations including Bloomberg, Middle East Economic Survey, Reuters, and Al-Hayat. In addition, she has worked as a consultant for a wide range of companies including Wood Mackenzie, BP, and Arthur Andersen. Previously, she was president and editor-in-chief of The Oil Daily Co, now known as Energy Intelligence Group.

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Welcome Letter

Ambassador Marcelle M. Wahba, AGSIW President

Dear Colleagues,

On behalf of the Arab Gulf States Institute in Washington's board of directors and staff, it is my pleasure to share with you the report of our second annual energy conference: "Petro Diplomacy: Challenges in the New Energy World."

Hosted on September 19, 2016, the conference brought together scholars, analysts, and CEOs from all over the world representing academic institutions, nongovernmental organizations, multilateral organizations, and the private sector, including shale oil producers, to explore the paradigm shifts in the international energy market and the geopolitical and economic implications for the Gulf region. This conference report provides findings from the day's discussions to inform policymakers and industry leaders as they consider the momentous challenges ahead for the Gulf Arab states, oil producing countries, and the international energy market.

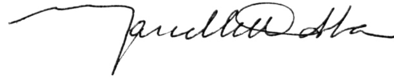
The discovery of oil on the Arabian Peninsula transformed the Gulf Arab countries into dynamic players on the global stage. The sudden collapse of prices in 2014, and protracted lower prices over the past two years, have had a significant impact, creating political momentum for economic reform. This has especially been the case in Saudi Arabia, where the government in April announced Vision 2030, a sweeping plan for moving the kingdom beyond dependence on oil revenue. The advent of nonconventional shale oil is injecting another level of complexity, with prices forecast to remain well under $100 per barrel for the rest of the decade. Lower oil prices are also affecting the Gulf Arab countries' political agendas, as they seek to confront unprecedented levels of turmoil in the region.

As the only organization in Washington, DC focusing solely and in depth on the Gulf Arab countries, AGSIW is quickly becoming Washington's primary source of credible and expert analysis about the complex issues that impact the region and U.S. interests. Our annual energy conference and the variety of public programing and publications we have produced have taken us a step further in that direction.

I hope you find this report informative and useful, and I look forward to engaging with you in

the months and years to come.

Sincerely,



Ambassador Marcelle M. Wahba
President, Arab Gulf States Institute in Washington

Executive Summary

Oil, economic growth, and politics have long been intertwined in the Middle East, transforming the region over the past 50 years into a dynamic player on the global stage. After decades of almost uninterrupted expansion, the sudden collapse in oil prices in mid-2014 has had a dramatic impact on the political economy of the region, creating formidable challenges that will ultimately set a new trajectory for the region's future development. Initial expectations among oil producing countries that the fall in prices would prove temporary gave way in 2015 to a more somber acceptance that a paradigm shift in the international oil industry has taken place. The industry's long-held narrative of steadily rising oil prices against a declining resource base increasingly more expensive to develop has been rewritten by technology-driven development of shale oil that will expand global supplies further into the future in a more competitive, lower oil price environment.

To explore the paradigm shift in the international oil market and the geopolitical and economic implications for the Gulf region, the Arab Gulf States Institute in Washington hosted its second annual energy conference, "Petro Diplomacy: Challenges in the New Energy World" on September 19, 2016. The conference brought together oil industry executives, economists, foreign policy experts, scholars, and government officials to discuss key drivers of the oil price outlook, upstream oil investment strategies, economic and energy policy reforms in the Gulf Cooperation Council states, and the impact of lower prices on foreign policy agendas, regionally and globally.

Key Findings

- The alarming drawdown in reserves and rising fiscal deficits have been the focus of much public discourse, however, the Gulf Cooperation Council states are in a much better financial position now to weather the storm than in previous downturns. Imposing reforms will be politically and socially challenging but an array of financial shock absorbers are available to help lessen the impact. Nonetheless, the pace of change will be tempered by the need to maintain a delicate balance in a multiyear, low growth, economically challenging environment.

- The political momentum for economic reforms is also driven by recognition that oil prices will remain lower for longer and that a high level of uncertainty surrounds the timing of a sustained market recovery. This low oil price environment will eventually lead to tighter oil supplies and stronger prices in the future, but when and to what level is still under debate.

- The advent of nonconventional shale oil is injecting yet another level of complexity in forecasting higher oil prices, and hence revenue for government planners. Mainstream economic forecasts are coalescing around a $50-60 per barrel (bbl) band to 2020. At the same time, diverging views are rampant among industry professionals, with a much wider price range of $40-75/bbl projected through the end of the decade.

- Two years of persistently low oil prices has also triggered a crisis for OPEC, with ministers searching for a new policy framework that will lead to stronger markets. A policy shift aimed at maximizing oil revenue is expected to replace the market share strategy in place since late 2014. OPEC experts at the conference reasoned that the catastrophic collapse in oil revenue will lead to a much higher degree of cooperation and compromise among members at the November 30 meeting in Vienna than shown over the last several years. Nonetheless, there was also skepticism that OPEC would be able to overcome the myriad demands of individual members to reach a credible agreement as well as concerns about compliance if an accord is reached. Failure by OPEC to successfully implement an agreement could see oil prices falling back below $40/bbl and, once again, raise the question of whether the group remains relevant.

- The high levels of geopolitical turmoil in the region are straining relations among the Gulf states and compounding financial woes. Civil wars in Syria and Yemen have created a cauldron of competing interests among countries, with Saudi Arabia's already tense relations with Iran further inflamed by Tehran's interference in the Yemen, Syria, and Iraq conflicts. Low oil prices are having the biggest impact on the political agendas of the Gulf region's three largest countries, Saudi Arabia, Iran, and Iraq, which could have far-reaching impacts on international oil markets.

Introduction

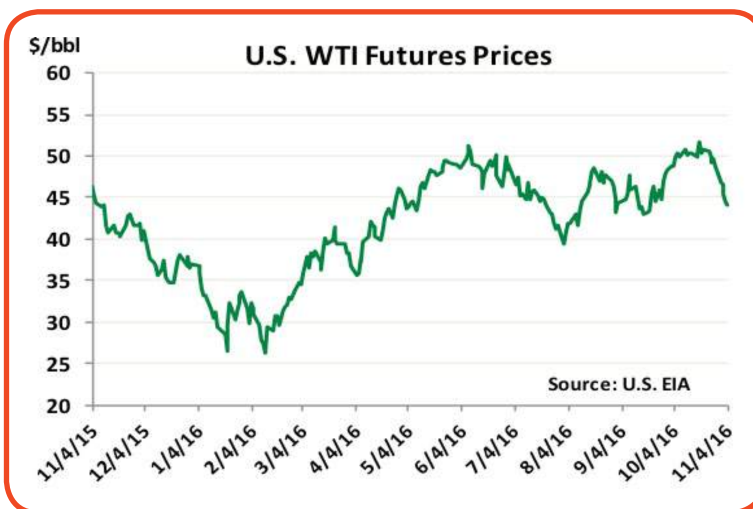
The collapse of oil prices in mid-2014 has had profound repercussions for oil producing countries around the world. For Gulf states, this new energy world has upended economic policies and geopolitical agendas. Gulf Arab leaders have acknowledged for decades the need to diversify their oil-based and government-subsidized economies for future sustainability but slow progress has left them ill prepared to adapt to the new lower oil price environment. It is this history of economic initiatives with varied levels of success and reliance on financial reserves to withstand past oil shocks that has raised questions about the Gulf states' commitment and willingness to implement ambitious reform plans.

In contrast to harsh critiques of past initiatives and policy responses, a more sanguine view of the unprecedented policy changes and economic reforms underway across the region emerged from experts at the Arab Gulf States Institute in Washington conference "Petro Diplomacy: Challenges in the New Energy World." The substantive initiatives taken by the region's leaders to contain the financial fallout from lower oil revenue is signaling a strong resolve and more pragmatic approach not seen in previous crises. A key factor differentiating past efforts from current initiatives is the groundswell of political will among the region's new generation of leaders to take on the formidable task of engineering sweeping economic, institutional, and social reforms. Experts emphasized that, while a promising beginning, blueprints for economic reform read more like wish lists at this stage. Strengthening financial and institutional frameworks is a critical priority, and will require an unprecedented level of transparency for a region that has long operated in an opaque manner.

Oil Market Dynamics, Investment Challenges, and Policy Responses

Two years into the current down cycle, oil markets are still facing considerable headwinds from persistently high global oil stocks and the transformative impact of shale oil on supply dynamics. Near-term market focus is on record global oil-stock levels while in the medium term concerns of a supply crunch before the end of the decade loom following industry-wide cuts in spending and capital investments.

Analysts are closely tracking monthly supply, demand, and stock movements for signals when prices will break out of the current range and move higher on a sustained basis. The relentless rise in global oil stockpiles started to ease in the second quarter of 2016, which helped put something of a floor under prices. Over the past six months, prices steadily recovered from below $30/bbl, breaching the $40/bbl threshold in early April. Since then, oil prices have traded in a fairly narrow $40-50/bbl band, with West Texas Intermediate (WTI) oil futures averaging $46.25/bbl over the past seven months.



In the near term, market attention is focused on the likely timing of a rebalancing of oversupplied oil markets and any shift in OPEC's production policy at the November meeting. Industry forecasts are wide ranging, with more bullish analysts expecting a drawdown in stocks to take hold from the end of this year, while the more bearish see it later in 2017, or even early 2018. Price sensitive U.S. shale production has added another layer of complexity to forecasting the supply curve. Shale oil is not only important because it has expanded the global reserve horizon but it has also altered traditional market dynamics, since it is a fast-cycle source of supply, which can be brought online in months compared to conventional mega oil projects that take anywhere from three to seven years to come onstream. As a result, the advent of fast-cycle shale over the past several years has injected more elasticity into the global oil supply chain and therefore exerts more influence on the price trajectory.

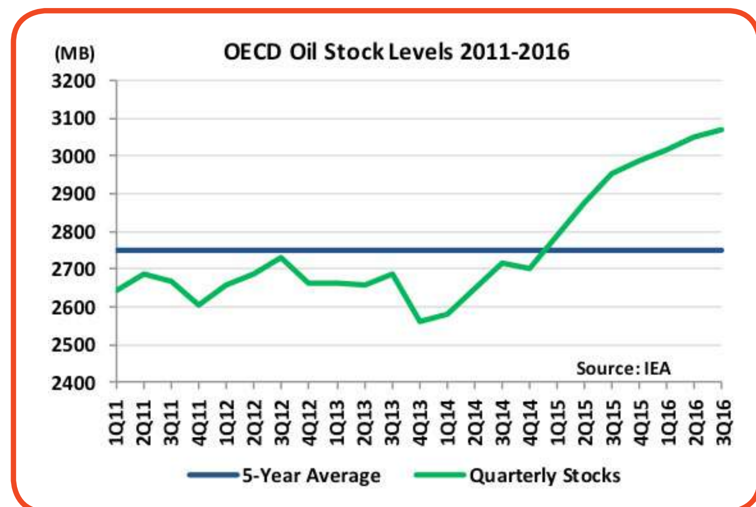
Revisiting Inventory Benchmarks

In the current weak market, analysts are focused on the record high level of global inventories weighing on markets. However, several participants argued that traditional oil inventory benchmark levels may need to be reconsidered and that the market may be overestimating the "surplus" of supplies. When measured against the backdrop of exceptionally low OPEC spare capacity, the need for additional operational stock levels at new refineries and terminals, and

historically high unplanned production outages, several experts said that the market needed a higher cushion of inventories than in the past. Commercial inventories in the Organisation for Economic Co-operation and Development (OECD) member countries are above 3 billion barrels, or a steep 300 million barrels above five-year ranges of around 2.75 billion barrels.

The widely reported glut of OECD commercial oil stocks, however, may be misleading analysts and skewing forecasts for a much-anticipated rebalancing of oil markets and the outlook for a price recovery. Several discussants argued that a higher level of commercial inventories is required to offset sharply lower OPEC spare production capacity and persistently high levels of unplanned supply outages.

OPEC's effective spare capacity is at an eight-year low, estimated between 1 and 1.8 million barrels per day (mb/d), with 90 percent of those supplies in Saudi Arabia. On paper, Saudi Arabia's production capacity is reported at around 12.2 mb/d, or 1.6 mb/d higher than recent output of 10.6 mb/d. In the event of a supply emergency, Saudi officials admit the most they could raise production is by 600,000-700,000 b/d (kb/d) within a few months and that it probably would take six months to reach the 1 mb/d mark. The last time OPEC spare capacity was below 2 mb/d, during the 2004-08 period, oil prices rose from $40/bbl to over $125/bbl. Indeed, as a percentage of demand, spare capacity is critically low, and would normally exert considerable upward pressure on prices if not for the current supply overhang.



At the same time, the volumes of unplanned supply outages, due to operational problems or civil unrest, have scaled new heights over the past few years and injected considerable upward pressure on oil prices at times. Between 2010 and 2014, unplanned outages averaged 1.9 mb/d but since 2015 supply disruptions have risen sharply, to an average 2.9 mb/d by August 2016, including a record 3.5 mb/d for May, according to the U.S. Energy Information Administration (EIA).[1] Given the high level of political unrest in several OPEC countries, the ebb and flow of unplanned outages will continue to have a larger impact on price direction than earlier in the decade and underscores the need for the industry to hold relatively higher volumes of inventories.

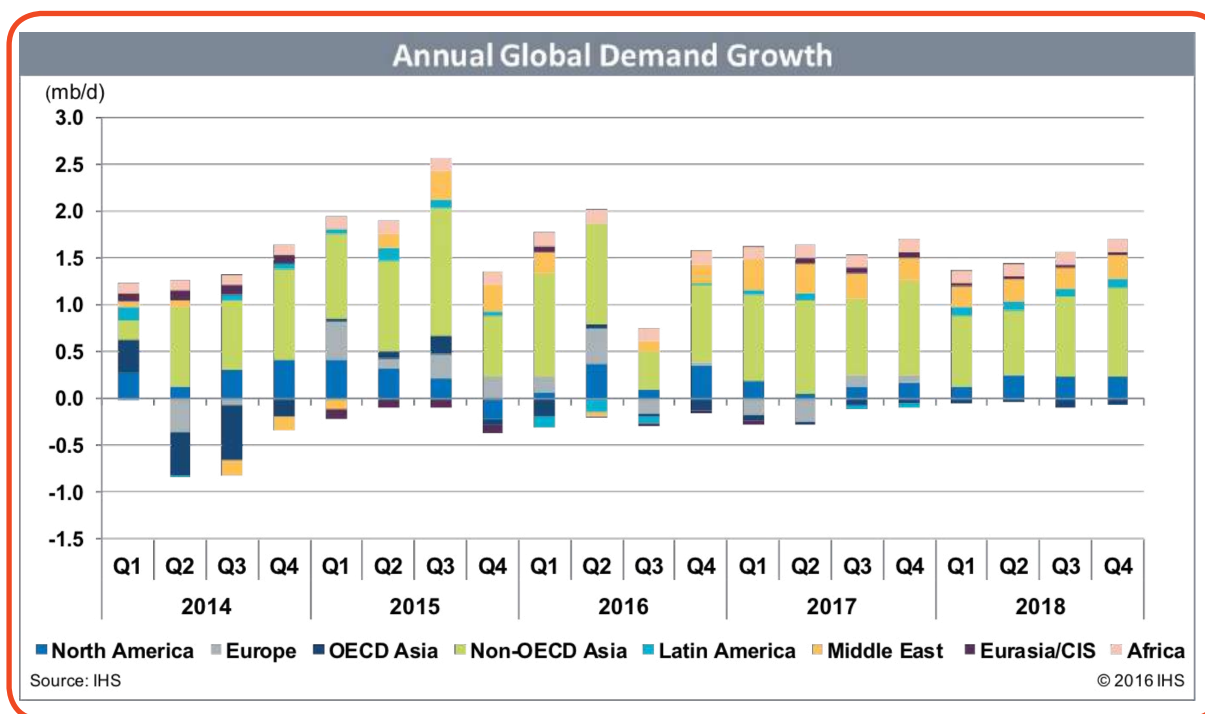
Equally, higher inventory levels are not necessarily an indication of a massive surplus but reflect increased demand from the expanding supply chain. Some of the higher inventory levels can be explained by the need for additional oil used in working storage at new refineries, pipelines, and terminals, which are baseload supplies and not surplus stocks that can provide a buffer for when the global market needs access to liquid inventory.

1 "Unplanned global oil supply disruptions reach highest level since at least 2011," *U.S. Energy Information Administration*, June 9, 2016.

As a result, focusing on a five-year average stock level as a target for a rebalanced market may be distorting forecasts for the pace and timing of a recovery in markets. Factoring in the need for holding additional oil inventories to act as a cushion to replace reduced OPEC spare production capacity, unplanned supply outages, and increased operational needs are key reasons some analysts believe that once supply and demand start rebalancing, aided and abetted by steady oil demand growth, the market will see a steady recovery in oil prices to a higher price range of $60/bbl in 2017 and a stronger $65-75/bbl by 2018.

Global Demand Growth Tempered by Weaker Macro Environment

While a multitude of drivers are affecting current supply levels, the demand outlook is relatively more stable. Despite persistent worries over the pace of the global economic recovery, there is a consensus among forecasting agencies that oil demand is set to increase at around the five-year average of 1.2 mb/d through the rest of the decade, though a number of analysts see a more robust 1.4 mb/d-1.5 mb/d annual growth rate. The fragile macroeconomic environment, however, may lead to slower demand growth rates and potentially shave 100-200 kb/d off the near-term forecast. Demand growth from China, India, and other non-OECD Asian countries, and to a lesser extent the United States, will account for much of the momentum, led by transport fuels. Robust vehicle sales will continue to propel transport fuels higher, adding 150-200 kb/d to baseload Chinese and Indian demand over the long term.



One driver expected to temper oil demand growth in non-OECD countries is the contraction in capital investments for infrastructure projects in emerging markets. Capital inflows averaged a robust $1-1.5 billion between 2011 and 2014 but started contracting in 2015. Nonetheless, key support remains in China and India, where the governments continue to maintain investments

in infrastructure such as roads and electricity grids. China is also expected to continue filling its government-run strategic oil storage tanks. It is estimated China's stockpiling averaged 400-600 kb/d in the first half of 2016, though the rate of increase may slow if oil prices rise above $60/bbl.

Capital Investment Cuts Undermine Global Oil Supply Outlook

The new era of lower oil prices has had a profound impact on oil companies' spending and investment plans over the past two years, which has sharply altered future production growth trends. An estimated $2 trillion in global upstream spending has been cancelled for 2014-19. Even when oil prices were higher, conventional discoveries were trending lower and over the last five years have been near historical lows.

International organizations, such as the International Energy Agency and OPEC, are warning that sharply lower capital investment could lead to severe supply shortages as early as 2018, with a corresponding destabilizing spike in oil prices. Divergent views emerged among conference participants for the outlook for non-OPEC supply in 2017 and 2018 but general expectations are for a slow and steady rise in prices, which will bring on incremental supplies to meet rising demand and avert the supply shock mooted by some forecasters.

Non-OPEC supply is forecast to decline as much as 1 mb/d in 2016, with the United States accounting for half the decline. However, forecasts for non-OPEC supplies were estimated in a wide range, from a low of 200 kb/d to as much as 600 kb/d in 2017 as production rebounds from a number of new projects already in the pipeline coming onstream from Russia, Kazakhstan, Brazil, Canada, and Europe, offsetting reduced supplies elsewhere. However, beyond 2018 the shape of the non-OPEC supply growth, excluding U.S. shale, will hinge on companies approving unsanctioned projects of conventional oil fields, including a number of deepwater projects that have been put on hold.

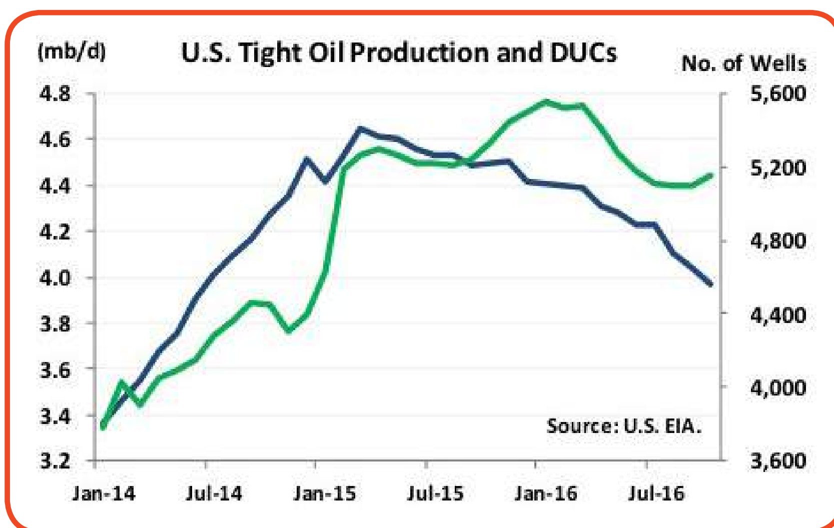
U.S. Shale Production Remains a Moving Target

As expected, the pace of recovery in U.S. tight oil remains central to the global supply outlook. The resilience of shale oil against a backdrop of plummeting prices defied industry expectations and upended forecast after forecast. Some pioneering and innovative U.S. producers rapidly adapted to the lower oil prices, with new and improved application of technologies reducing operating costs and increasing well productivity. Costs have fallen from around $80-100/bbl early in the decade to as low as $30/bbl currently for some experienced drillers sitting on prime reserves. Not all shale plays are created equal, however, with the new norm for marginal per barrel costs in a wide $40-65/bbl range, with the lower estimate for premium producing assets, especially in the Permian Basin.

Total U.S. crude oil production is forecast to fall by around 500-600 kb/d in 2016, with tight oil output accounting for most of the decline. Production is expected to start recovering in 2017 on forecasts of higher price levels at around $50-60/bbl and gather pace in 2018. Producers are focused on increasing output from the premium assets, such as the Permian Basin, while shutting down operations at costlier, uneconomic wells. In addition to reduced costs and

a focus on premium assets, tight oil production has held up better than expected due to increased output from completion of already drilled but uncompleted wells, otherwise known as DUCs.

The large inventory of DUCs is a relatively new phenomenon and is unique to shale oil operations. Shale oil producers typically have long-term contracts for drilling rigs and lease contracts that mandate drilling and producing to fulfill commitments made to the landowners and mineral-rights owners. When prices started plummeting in mid-2014 many of the wells became unprofitable so companies maintained drilling to meet contract obligations but stopped short of undertaking the more expensive fracking process due to cash constraints and capped the wells, waiting for the day when oil prices would rebound enough to cover their costs. The inventory of DUCs, or drilled wells that have not been fully completed with the hydraulic fracking process, is commonly referred to in the industry as "the frack log."



As prices gradually recovered from a low below $30/bbl at the start of 2016, producers gradually increased production from DUCs, which partially offset the shut-in of more expensive production and sharp cuts in drilling rates. The frack log declined from just over 5,575 wells in January to around 5,070 in September, according to U.S. EIA data.[2] The frack log was around 3,800 before the price collapse in 2014, the EIA data show. A rough estimate of per well costs breaks out at 40 percent for the drilling and the remaining 60 percent for the actual hydraulic fracturing needed to complete the well and bring it to full production.

While some producers are able to raise production from completion of DUCs at $40/bbl or even $30/bbl, and indeed the top quintile in every major oil shale play is at least marginally economic at $40/bbl, one oil executive noted that a price level of $60/bbl or higher is required to jump-start drilling activity at undeveloped projects.

Future Shale Oil Growth More Tempered than Past Levels

Forecasts of tight oil production for 2017-20 range from around 300-400 kb/d per year at sustained price levels of $50-55/bbl to a more robust 400-600 kb/d based on $60-65/bbl. Higher prices of $75/bbl or more could lead to growth in shale output of 800 kb/d to 1 mb/d per annum by 2020, one participant added. In effect, the projected growth in shale oil production based on a price range of $50-65/bbl can provide around 25-40 percent of forecast

2 U.S. Energy Information Administration, *Drilling Productivity Report* (Washington, DC: U.S. Energy Information Administration, November 2016).

global oil demand growth of 1.2 mb/d. The most significant increase in output is expected from the Permian Basin, where prices at around $50-55/bbl can drive total tight oil production increases of 500 kb/d per year. Permian production is seen rising from 2 mb/d in 2016 to 3.6 mb/d by 2020 and to as much as 5 mb/d by 2025, or 300 kb/d per annum, one expert forecast.

Even as prices recover, OPEC can take comfort from expectations that the relentless pace of growth in shale over the past five years will not be repeated going forward. After posting a sharp increase of 3.75 mb/d between 2010 and 2015, or an average 750 kb/d a year,[3] growth in shale oil output is expected to slow markedly in the future. The surge in shale output took place against a backdrop of exceptionally strong price levels, which averaged around $85-95/bbl over the same period. However, going forward oil prices are not forecast to reach such lofty levels, at least in the medium term. Moreover, shale oil producers are focusing on adopting best business practices and maximizing returns rather than relentlessly pursuing production growth. When oil prices were hovering around $100/bbl, U.S. shale producers focused on maximizing output at the expense of developing operating efficiencies, with thousands of uneconomic wells drilled and capital wasted. Lower oil prices have now forced more discipline on many exploration and production operators.

After posting a sharp increase of 3.75 mb/d between 2010 and 2015, or an average 750 kb/d a year, growth in shale oil output is expected to slow markedly in the future.

The industry's knowledge base of the reserve basins has also significantly improved in recent years, which in turn has added a much higher degree of confidence to tight oil production forecasts than in the past. Approximately 90 percent of all U.S. tight oil is located in six plays, with the three biggest being the Bakken, Permian, and Eagle Ford. There are very few unexplored "sweet spots" remaining in the major plays, one expert noted. The quality of the rock is the key determinate of productivity. Going forward, the cost reductions of 20-40 percent posted by many operators over the past few years are not sustainable, with oil service companies expected to claw back some of the costs as oil prices rise. Well cost savings have largely bottomed out. Well productivity gains are also slowing, forecast at only 5 percent a year going forward, with 2 percent of the increase due to longer lateral drilling and 3 percent to improved completion design. The same pioneering tech-savvy companies that ushered in the era of shale, however, will continue to push new frontiers and a steady increase in production, albeit at slower rates than the past, is forecast for decades to come.

Swing Supplier: Saudi Arabia Versus U.S. Shale Producers

The breathtaking pace of U.S. shale oil growth in the past eight years has led many industry analysts to hail the technology-driven production as the new swing supplier for global markets but, when measured by volume, it is no replacement for Saudi Arabia in the event of a major disruption in global supplies such as the sudden loss of Libya's 1.7 mb/d production as a result of the country's 2011 civil unrest, several analysts noted. While shale oil can be brought to market relatively faster than conventional production, what makes shale a potential new

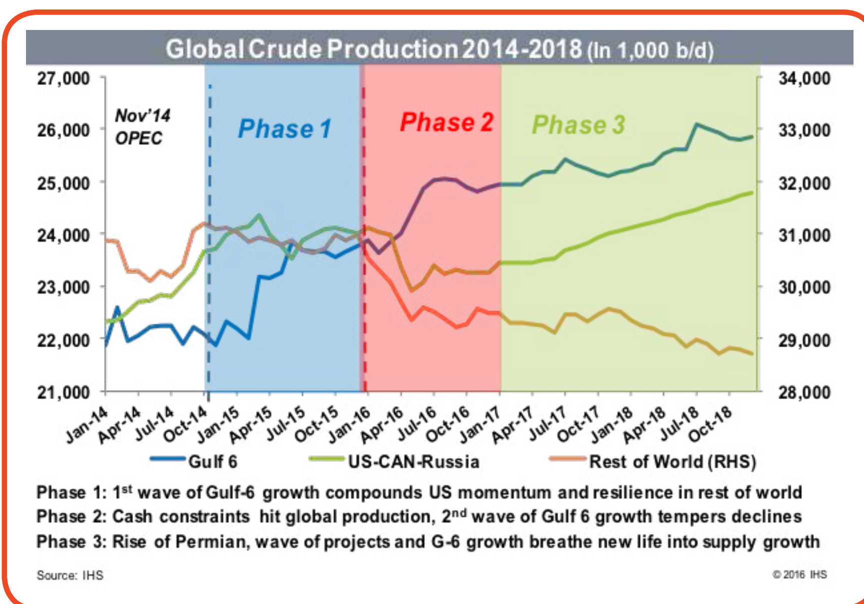
3 U.S. Energy Information Administration, *Annual Energy Outlook 2016* (Washington, DC: U.S. Energy Information Administration, August 2016).

swing supplier is its large inventory of DUCs. As a result, this frack log represents a new source of ready supply since it takes as little as a month to complete the wells.

However, the volume of extra production from DUCs that could quickly be brought to market is constrained by the severe industry staff cutbacks in the wake of falling prices over the past few years. Unlike major integrated oil companies, many of the U.S. shale producers are only drillers and rely on contracting oil service companies to perform the fracking process and complete the wells, but these firms have had massive layoffs in their workforces over the past two years, making it more difficult for shale producers to ramp up output as fast as once thought in the event of a supply crisis. As a result, several participants estimate shale oil production could only "swing" higher by a relatively modest 250-300 kb/d within a few months if prices reached $50/bbl on a sustained basis. By contrast, Saudi Arabia can increase production by a much higher 600-700 kb/d within 30-90 days and 1-1.2 mb/d within three to six months, and at much lower prices of around $10/bbl.

OPEC Middle East Producers Key to Price Trajectory

Increased supplies from some OPEC producers are expected to add to the higher supplies in the near term, though increments will be fairly modest over the next few years after a strong increase between 2014 and 2016. The key Gulf-6 producers – Saudi Arabia, the United Arab Emirates, Kuwait, and Qatar, plus Iraq and Iran – remain the lowest-cost producers of incremental supply, with cost savings in drilling and other oil services partially offsetting the impact of lower oil prices on producer economies. Mirroring trends in U.S. producers, the Gulf-6 producers reduced costs by more than 25 percent in 2015 and breakeven prices declined by 5-20 percent across the region.



The Gulf-6 countries raised production by a steep 3 mb/d to around 24 mb/d from 2014-16. Saudi Arabia, Iraq, and Iran accounted for most of the increase. However, production is expected to rise collectively by just 300-400 kb/d per year from 2017-18. Saudi crude oil output is forecast to edge marginally higher to meet growing domestic needs from expansion of its downstream refining and petrochemical industries as well as residential consumption. After a faster than expected ramp-up in production following the lifting of international sanctions in January, Iran's production growth will be more modest from 2017-18 and then plateau around the 4 mb/d mark by 2020. Increasing production above 4 mb/d has been stymied by Iran's delays in attracting international oil companies as partners for projects.

Iraq's production growth has largely stalled now due to the country's severe financial crisis. The UAE is on course to post modest growth from the current 3 mb/d to perhaps 3.3 mb/d by 2020.

Beyond the relatively small increases in production planned to 2020, OPEC states have very few projects in the pipeline to raise capacity in the next decade. Government spending on future oil developments is expected to remain severely constrained by the devastating financial crisis set in motion by lower oil prices at the same time global oil demand will start outpacing supply growth. In the current era of lower government oil revenue, some OPEC countries may be forced to improve existing contract terms for joint venture partnerships with international oil companies to sustain future growth levels.

OPEC Policy Response

OPEC's controversial market share defense strategy adopted at the end of 2014 in response to the relentless rise in U.S. shale oil has been criticized as wrongfooted by some members, yet the policy partially achieved its objective, with non-OPEC supplies forecast to decline by almost 1 mb/d in 2016. At the time, the Saudi-led strategy to raise production and increase market share was the only economically rational decision the group could take given the alternative of both lower prices and lower production while shale oil continued its ascent. But winning increased market share came at a steep cost in lost revenue and, after two years of protracted lower oil prices, OPEC appears to have reached its breaking point and is in search of a new strategy to support a price recovery. "It is better to maximize oil revenues than to count barrels," one expert argued.

With few options available to engineer a price increase in a world awash with oil, OPEC is banking on a return to its traditional playbook of production cuts to propel prices above the $50/bbl threshold. The catastrophic plunge in oil revenue may lead to a higher level of unity and cooperation among members when they convene on November 30 in Vienna to discuss a formal production agreement. Moreover, the threat of a further collapse in prices may encourage greater compromise during negotiations. The financial crisis has become so acute for government budgets that ministers have the political support necessary to compromise as needed to reach a formal agreement in Vienna.

Reaching an agreement during periods of acute financial crises is not without precedence. OPEC has been successful, to varying degrees, in implementing production agreements in previous oil price crashes, such as in 1998 and 2008, and the current market situation is even more calamitous now. In response to the Great Recession in the late 2000s and corresponding decline in oil demand, OPEC held three meetings in late 2008, with a final agreement to reduce production by a staggering 4.2 mb/d, effective January 2009. OPEC collectively reduced production by only half that level but nonetheless prices gradually recovered over 2009, from around $40/bbl to $80/bbl by the end of the year.

An argument can also be made that OPEC capacity growth is limited and therefore maximizing revenue should be driving its strategy. The last few years of high levels of unplanned supply outages have shown OPEC was not capable of raising production to meet the shortfalls. Moreover, the lack of transparency over reserves masks OPEC's capacity constraints and

what data is reported is very inflated, one OPEC expert noted. Most countries are focusing on maximizing output from their aging fields at higher costs. Even Saudi Arabia's costs have risen from $3/bbl to $10/bbl due to the use of more expensive enhanced oil recovery at maturing fields. Only Iran and Iraq have the potential for significant capacity increases but political obstacles continue to constrain growth.

Only Iran and Iraq have the potential for significant capacity increases but political obstacles continue to constrain growth.

Whether financial pressures will be enough to compel OPEC to work together to implement a credible production agreement remains to be seen. Skeptics doubt the group can deliver on its promises given a history of poor compliance with targets among some members in the past. Whatever the outcome of the meeting, OPEC's actions will dictate either a higher or lower oil price trajectory and a faster or slower pace of the market rebalancing in 2017. Ultimately, the global oil market is set to strengthen – albeit slowly – and remain volatile due to continued uncertainty in macroeconomic conditions, supply and demand fundamentals, and geopolitics.

The Uneven Path to Economic and Energy Policy Reforms

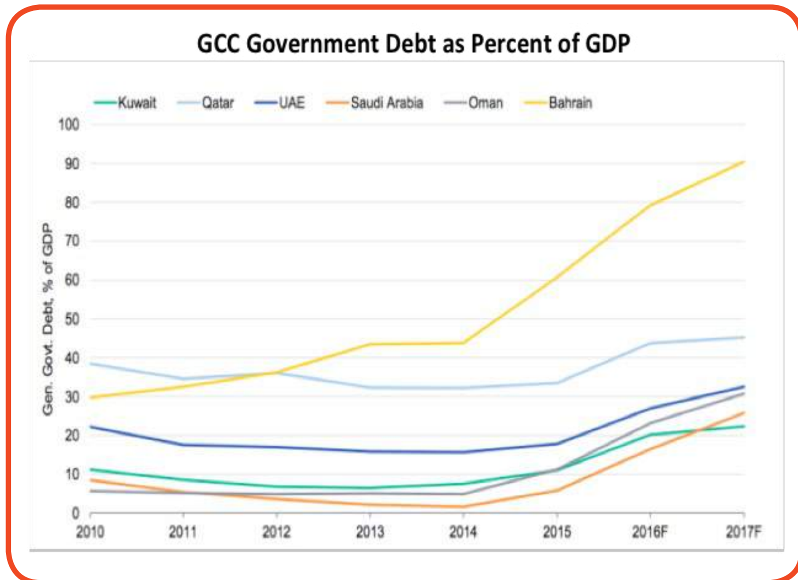
New economic policy initiatives, fiscal reforms, budget cuts, and relatively severe austerity measures in the Gulf Arab countries gathered pace in 2016 amid the lower oil price environment and, with them, public angst over the unprecedented changes underway. In the wider regional and international financial markets and economic community, public discourse has focused on whether the proposed changes are either too modest or overly ambitious. While progress has been uneven and slow, especially when measured against market-oriented Western standards, economic reforms such as reduced energy subsidies and fiscal discipline with sharp budget cuts would have been unimaginable before the latest price shock, and signal government policymakers are willing to make hard decisions to alleviate the current financial crunch as well as implement difficult structural changes needed to reach long-term goals of more diversified economies.

Gulf Arab states have long acknowledged the need to diversify their oil-based and heavily government-funded economies, but progress in enacting reforms has been slow and disappointing. For decades, government officials in the oil-producing region prepared national development plans aimed at transforming their state-run economies based on generous subsidies, free health care and education, and bloated public sector jobs, among many other benefits, recognizing this model was not sustainable but wary of disrupting the sacrosanct cradle-to-grave social contract with its citizens. Experts argued that critics of the changes underway and the threat they pose to the long-standing social and political order are underestimating the resiliency of the Gulf's citizens and their adaptability to withstand the economic shock therapy underway.

The current economic reform proposals are actually not much different than previous plans but the prospects for success this time appear measurably improved. One key difference is the apparent political will to enact long overdue reforms among the more dynamic younger

generation of government officials now increasingly in positions of power. Indeed, this new hierarchy of political and industry leaders view the current oil price downturn as a pivotal moment to chart a new course for the future.

Gulf Arab states are also much better positioned financially to withstand the dramatic reform measures being proposed than in previous downturns, which should provide a significant lever for an improving outcome. Much more of the countries' wealth is being created by the private and public sectors, debt levels are exceptionally low, and foreign reserves are much higher than in previous oil shocks in 1985 and 1998, which will all act as shock absorbers this time around. From 2010 to late 2014, oil prices traded in a lofty $80/bbl to over $100/bbl at times, enabling governments to shore up foreign reserves and sovereign wealth funds, albeit against a backdrop of rising expenditures and expanding budgets.



Oil states are also accessing domestic and international debt markets to ease liquidity problems. Borrowing from capital markets has risen to 12-13 percent of gross domestic product compared to around 6 percent before the crisis, but overall levels are still low by international standards.

Policymakers Need to Tread Carefully to Achieve Economic Goals

However promising the initial policy steps have been in addressing the crisis, they are merely just the beginning of what will be a long, arduous process. The Gulf Arab states initially focused on short-term measures to offset lower oil revenue such as cutting budgets and reining in spending. Experts emphasized, however, significant policy and economic reforms needed to lay the ground work for sustainable non-oil growth will take at least a decade and cautioned the blueprint for reforms is still a work in progress and a vast array of challenges and obstacles will need to be addressed along the way given the socioeconomic impact of the reforms being considered.

Concerns focus on a lack of institutional capacity at the government level to implement the proposed complex and ambitious reforms. Observers noted that a prioritizing and sequencing of the new initiatives is still vague for almost all countries at this early stage. Indeed, across the Gulf there are considerable challenges to ushering in major economic reforms and expansion of non-oil services and industries, among them: new and improved investment and legal frameworks to attract both domestic and international companies; a shift in the public

and private workforce to drive the change; societal backlash to change, especially reduced government benefits; and training a burgeoning unskilled youth population.

Rewriting the Social Contract

While long considered etched in stone, the Gulf Arab states are forging ahead with rewriting social contracts that have governed for decades but are no longer sustainable in the lower oil price and revenue environment. In an urgent effort to offset lower oil revenue and slash fiscal deficits, states have, to varying degrees, reduced subsidies on fuel, electricity, gas, and water; raised or implemented new taxes; increased government fees on public services and cut public sector jobs and salaries; among numerous other initiatives.

More severe and expansive measures that cut across the broader society are either planned or under consideration. Officials are exploring options and gradually implementing measures that may ultimately dismantle this long standing model so the path forward is not without risks. While recognizing a go-slow approach is the norm for the region, participants argued that governments should consider providing a lump sum payment to their citizens to replace state social benefits, such as energy subsidies and generous salaries and benefits for public employees, to minimize the impact on their societies and hasten economic reform initiatives.

It has long been documented that subsidies have corrosive effects that structurally distort the fiscal and long-term economic growth potential of states and are an inefficient use of resources that leads to wasteful consumption as well as depresses direct foreign investment. According to an expert citing World Bank data, the Middle East North Africa region accounts for 8 percent of the world's population, but 50 percent of its energy subsidies. One major unintended repercussion of subsidies is the impact they have on water depletion, which is particularly alarming given the region is one of the most water-scarce in the world. Heavily subsidized diesel consumption, particularly for the agricultural sector, effectively leads to subsidized, wasteful pumping of water.

Across the Gulf Arab countries, once inviolable energy subsidies have been reduced to ease the burden on government revenue. With the exception of Kuwait, Gulf Cooperation Council countries have been implementing changes to energy, utility, and water subsidies since late 2015 and early 2016. The UAE has led the way in the region, first raising utility rates for both non-nationals and private sector businesses and followed by reducing fuel subsidies for the general population. Saudi Arabia has gone a step further than some countries by raising heavily subsidized natural gas prices to industries. Kuwait's experience has been less successful, rescinding increases for fear of exacerbating political tensions. While many of the changes adopted so far are relatively modest, they are having a big impact on government revenue, one expert noted. Greater adjustments are needed, but public backlash will likely temper the pace of changes, with even the UAE limiting its second round of subsidy reforms to expatriates.

Wary of further disquieting their citizens, new tax levies, albeit relatively modest, have been imposed only on corporations and foreign workers. However, a GCC-wide value added tax at 5 percent is expected to be introduced in 2018, which will broaden the tax base and provide a stable income for governments during periods of lower, volatile oil prices. Further reductions

in subsidies, tax reforms, and increased fees for public services are also on the drawing board.

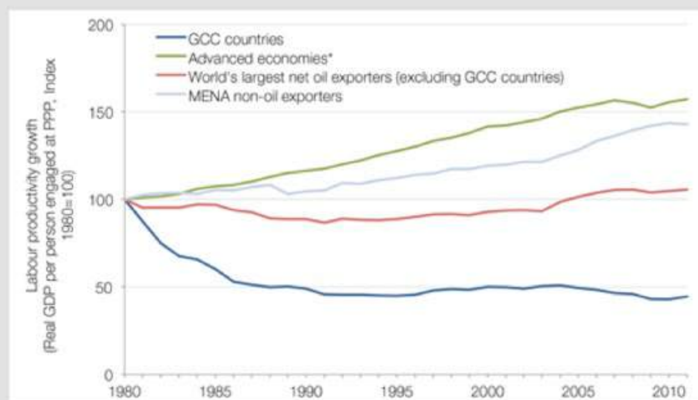
The Elephant in the Room

Even when oil prices were hovering at $100/bbl, governments were struggling to provide public sector employment for their nationals at artificially inflated salary levels, especially compared to those of immigrant workers in the private sector. Inflated levels of public employment distort economic bases and reduce productivity levels. GCC governments have long recognized that the time-honored tradition of lifetime job guarantees for nationals is not sustainable, especially as the workforce population grows exponentially over the coming decades. Much of the private sector is run on cheap labor costs for immigrants.

Government policies targeting higher levels of employment for nationals in the private sector have failed miserably and given rise to "phantom employees," i.e., private firms hire nationals so they don't run afoul of quota laws but the employees never show up for work. Kuwait provides subsidies to nationals who work in the private sector but the cost to the government is staggering.

When the social contract evolved in the 1970s, populations were small and citizens were eager for new work opportunities in the increasingly important government and state company sectors. When the system became overwhelmed, policymakers were unwilling to break with this antiquated economic model and adopt more rational limits. Instead, government and state-owned company operations and payrolls remained bloated and inefficient. GCC nationals have come to expect, as a right, a secure, relatively less demanding job than available in the private sector and at a much higher salary.

Overall Labor Productivity in GCC Countries Dropped in the Early 1980s and Has Stagnated Since



*OECD countries
Source: International Labour Organization, Key Indicators of the Labour Market; World Economic Forum calculations

The low oil price environment, however, has made public sector reform more critical than ever. Given flawed efforts to nationalize work forces and faced with no alternative but to drastically downsize public sector employment, discussants debated a number of possible extreme scenarios. The most radical was a proposal that governments go straight to shock therapy by eliminating guaranteed government jobs and at the same time sharply increasing taxes on foreign workers to a level that would make hiring them uneconomic, which would lead to a mass exodus of cheap labor. A severe shortfall of skilled workers would wreak havoc for a number of years but eventually force more nationals to learn a trade or pursue college degrees that would ensure a living.

At the other end of the spectrum were proposals that the government provide a monthly

dividend in the form of cash payments to all citizens that would provide for basic living costs but no more. For the citizens that opt not work, the government could argue that it meets its obligation to still provide basic support for its nationals. At the same time, nationals would be able to supplement their basic government-funded revenue by pursuing government or private sector jobs and considerably improve their economic situations.

Managing Expectations

The sudden decline in oil prices after five years of robust economic expansion has had a profound impact on a large segment of the population across the Gulf region, with reports that citizens are now following the daily price movements of international benchmark Brent crude oil. Though largely off the radar screens of international media headlines, public discourse in the region ranges from excitement over the planned market-oriented reforms and potential changes, to worrying discontent and escalating fears of more financial hardship. Indeed, policymakers' ability to manage expectations may be half the battle in implementing complex and arduous reforms.

While government officials have largely focused on slashing budgets, cutting costs and maximizing government revenue, some compensation for a beleaguered public to limit the financial impact of reduced government support may be essential in the not too distant future. The region's massive legions of foreign workers were the first to suffer the financial fallout but the changes underway will increasingly impact nationals, especially the burgeoning youth populations. Sociopolitical and educational reforms are a must to lessen the impact of continued low oil prices.

For many oil producing governments, subsidies and public employment are the major mechanism to redistribute oil revenue to their populations. In reducing or removing these ineffective policies governments should consider some other mechanism to redistribute oil wealth to avoid undermining economic growth and destabilizing their societies, experts argued. In rewriting the social contract, government officials need to offer some compensation for the benefits being taken away or risk civil unrest and demands for more political rights, especially if the ruling families want to maintain the existing political order. Indeed, governments need to think out of their comfort zones and consider new policies that redistribute oil wealth via direct cash payments. Lump sum payments or monthly oil dividends to citizens have proved to be effective for a number of countries and also have the benefit of stimulating the economy. Iran even eliminated subsidies with little protest by making a one-off payment to its citizens as compensation before the policy change went into effect. Other oil wealth distribution plans also have been highly successful in Alaska, Alberta, and Norway.

Near-Term Challenges

Near term, the low oil price environment will continue to act as a brake on economic growth, which could undermine already fragile public support for reforms. The double-edged sword of reduced government spending and severe austerity measures will have a negative impact on already weak economic growth. Policymakers will need to tread softly in managing fiscal cuts and austerity measures against an imperative to increase spending in key sectors to spur economic growth. Indeed, the pace of change will be tempered by the need to maintain

a delicate balance against a backdrop of a multiyear, low growth, economically challenging environment.

Economic growth for GCC countries declined from 3.5 percent in 2015 to a projected 1.7 percent for 2016, with a partial recovery to 2.3 percent forecast for 2017, according to the International Monetary Fund.[4] Weaker regional growth in 2016 reflects a combination of lower oil prices and sharply reduced spending. Government spending among GCC members is projected to decline a further 8 percent in 2016 after posting a 12 percent decline in 2015. That compares with annual increases of 15 percent from 2003 to 2014, according to the Institute of International Finance.[5]

Government spending among GCC members is projected to decline a further 8 percent in 2016 after posting a 12 percent decline in 2015.

Over the past few years GGC governments have cancelled or deferred major infrastructure projects given the billions of dollars required for capital investment in non-oil industries and services at a time when government revenue is under severe stress and financial reforms needed to attract foreign investment are still evolving. Going forward, however, government planners will need to carefully realign priorities and increase capital expenditures to fuel economic recovery.

Expanding opportunities for the private sector, which will also require reform at the institutional and financial level in many countries, could provide an important economic engine for the region in the short and medium term. Yet some governments' plans to target the private business sector with higher taxes, increased fees, and further reduced subsidies as a means to raise revenue are causing a great deal of unease in business communities. Rather than encouraging much-needed expansion, these short-sighted plans could derail one of the most important pillars of economic reform policies – critical development of the private sector.

Geopolitical Challenges of Volatile Oil Prices

The economic fallout from lower oil revenue comes as the region struggles with a costly military effort to eradicate the Islamic State in Iraq and the Levant and civil wars in Syria and Yemen that are straining relations among the Gulf states. Saudi Arabia's already frayed relationship with Iran has worsened due to Tehran's growing interference in conflicts in Yemen, Syria, and Iraq. In response, Riyadh has adopted a much more muscular military posture in the region. Indeed, higher oil prices from 2009 to mid-2014 enabled some countries to exert greater influence on regional conflicts but competing domestic demands for shrinking oil revenue may lead to a retrenchment and reprioritizing of effort. Two years of exceptionally weak oil revenue has led governments to reorder their priorities, with domestic economic challenges balanced against regional geopolitical issues. Low oil prices are having the biggest impact on the political agendas of the region's three largest countries, Saudi Arabia, Iran, and Iraq, which ultimately impact international oil markets.

4 International Monetary Fund, *World Economic Outlook Update* (Washington, DC: International Monetary Fund, July 2016).

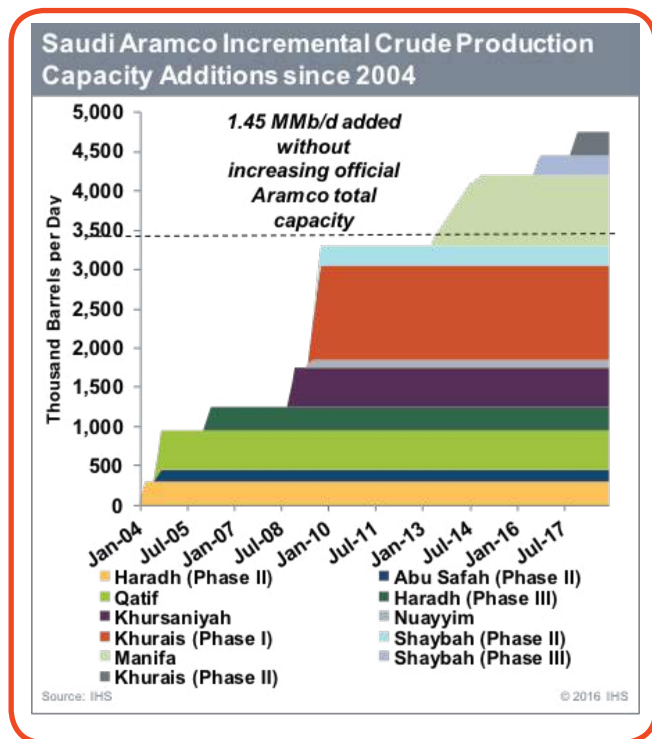
5 "GCC Economies are Responding Well to the Fiscal Reforms: IIF," *Gulf News*, October 20, 2016.

Saudi Arabia Battles on All Fronts

Saudi Arabia, one of the largest oil producers in the world, is a major player on the global stage as well as a major power broker in regional geopolitical affairs but the latest financial crisis is straining government resources to fund military expenses and meet domestic needs. Saudi Arabia has been particularly vexed by Iran's interference in Syria, Yemen, and Iraq, which has exacerbated long-strained relations with many of its Gulf neighbors. The easing of international sanctions in January served to further heighten Riyadh's concern over Tehran's role in the region. In a departure from past policy, the kingdom under the new regime of King Salman bin Abdulaziz, has taken a more aggressive military role in the Yemeni and Syrian conflicts, which has further strained its budget.

Indeed, increased military and weapons spending appear to come at the expense of maintaining higher production capacity. To a certain extent, Saudi Arabia's global influence and power has been closely tied to its role as the oil supplier of last resort – the lone producer to hold substantial readily available spare capacity to bring oil into the market during times of disruption. This position provides the kingdom with unique leverage and influence in the world economy. Saudi Arabia has maintained a policy of holding strategic spare capacity of at least 2 mb/d for decades.

However, as part of its OPEC-led market share policy, production has ramped up to record levels, which has led to a corresponding reduction in spare capacity. In the past, Saudi Aramco maintained a catalogue of project developments it could greenlight to maintain capacity but the government now appears to have temporarily suspended its 2 mb/d rule due to competing revenue demands from increased military spending and domestic priorities.



Saudi Arabia is producing closer to capacity than in the past, especially given its consistently rising domestic demand. Many market analysts believe the kingdom's capacity is at most 11 mb/d, which implies spare capacity is just 350 kb/d at current production levels of around 10.65 mb/d. The International Energy Agency estimates capacity at a higher 12.2 mb/d with spare capacity at 1.65 mb/d.[6] Crude oil production capacity is forecast to remain unchanged until at least 2021, in part because Saudi Aramco is focusing on development of its natural gas resources. Whether these new dynamics will reduce the kingdom's influence on the world stage longer term is unclear but globally, it is no longer seen as the swing producer able to adjust and stabilize markets during disruptions, one participant argued.

6 International Energy Agency, *Oil Market Report* (Paris: International Energy Agency, November 10, 2016).

Escalating geopolitical tensions between Riyadh and Tehran also spilled over into OPEC affairs in April when Saudi Arabia thwarted an agreement to freeze the group's production levels, since the plan would have allowed Iran to be exempt. Iran argued it should not be forced to participate in the agreement since its production has been constrained for years by sanctions and freezing output would mean it would not be able to benefit from the lifting of sanctions. After previously indicating Saudi Arabia would accept the agreement, at the eleventh hour Deputy Crown Prince Mohammed bin Salman (MbS) instructed the country's oil minister to reject the deal, unwilling to make an exception for Iran.

By and large, regional political problems have not played a role in OPEC negotiations, with more pragmatic economic factors the overriding driver of agreements. Long simmering conflicts between Saudi Arabia and Iran previously were not a factor in OPEC decision making and the last-minute intervention by MbS took the market by surprise. The king has always been the final arbiter of Saudi oil policy but previous monarchs have stayed above the fray of OPEC negotiations. However, the rapid rise of the powerful deputy crown prince has blurred these lines and led to speculation that political issues will play a larger role in OPEC affairs. It is unclear if the April debacle was a one-off incident coming on the heels of a particularly heated period with Tehran or if political issues will be interjected in the future. The retirement of long-serving Oil Minister Ali al-Naimi and replacement with veteran Aramco executive Khalid al-Falih also brings a new negotiating approach to OPEC affairs.

Indeed, the new power hierarchy under King Salman, with the young, ambitious MbS taking an outsized role in economic and political affairs and the appointment of former Ambassador to the United States Adel al-Jubeir as foreign minister has, to a certain degree, upended the old political order, one expert noted. The changes in Saudi leadership have created a deeper chasm with Iran given the lack of working history among the players. When Iranian President Hassan Rouhani came to power he brought with him pragmatists from the oil ministry who had been driven out by former President Mahmoud Ahmadinejad. Now there is a more experienced group of professionals who have had direct and mostly positive experiences with their Saudi counterparts in past oil crises.

The changes in Saudi leadership have created a deeper chasm with Iran given the lack of working history among the players.

Despite the long history of turmoil between Iran and Saudi Arabia, in the past there was an underlying commitment for de-escalation and stabilization of crisis on both sides. Overtures typically came from Riyadh, not Tehran, but now there is very little traction on Saudi reciprocity with the new regime and the Iranians are struggling to connect with their counterparts in Riyadh, whether on oil policy or broader political issues. They knew the address of Saudi Foreign Minister Saud al-Faisal for 40 years and Naimi for more than 20 years but there has been little experience with the new establishment. As a result, there is a real potential for escalation of tensions in the Gulf, one expert cautioned.

Iran's Machinations Reap Regional Discord

While the international community has brought Iran back into the global market with the lifting of sanctions, Tehran's interference in Syria, Iraq, and Yemen has led to even further deterioration of relations with its neighbors. When Rouhani came to power he said he wanted to shape foreign policy to benefit the economy instead of using the economy to fund Iran's foreign policy objectives. While a welcome new strategy, there has been very little change so far in Iran's machinations with neighboring countries. Rouhani is dealing with a balancing act between the country's nationalistic "resistance economy" policy and trying to bring in foreign investment to maximize the full economic potential of the country. Despite the disdain of Supreme Leader Ayatollah Ali Khamenei for the West, he has supported Rouhani's determination to achieve economic growth and stability.

The lifting of some international sanctions against Iran raised the specter of an improved outlook for the economy, with foreign participation in the oil sector a key plank. However, Tehran's frustration that the accord has delivered fewer tangible benefits than the government promised and is fueling internal political opposition is straining its relationship with the Western governments that negotiated the nuclear agreement. That said, the lifting of sanctions under the Joint Comprehensive Plan of Action as a quid pro quo for Iran to suspend and scale back its nuclear weapons program has actually been fairly successful, but domestic discontent has been a result of the government's overselling the deal to the public to gain support. In addition, when negotiations were taking place oil prices were cresting over $100/bbl but the current lower price levels have limited the bonanza from oil revenue from higher production in the reduced-sanctions era.

Rouhani is dealing with a balancing act between the country's nationalistic "resistance economy" policy and trying to bring in foreign investment to maximize the full economic potential of the country.

Though the JCPOA opened the door for foreign investment, the international financial community remains hesitant to enter the country in part because of the continued rhetoric on the need to maintain the resistance economy. Indeed, expectations that Iran would attract billions of dollars into its oil sector from international oil companies have failed to materialize in large part because the new contracts specify that Iranian companies must have a majority ownership in joint venture projects, which in effect is a redline for foreign investors. While a flurry of memoranda have been signed, international oil companies are reluctant to finalize deals because of the weak financial and legal controls on domestic companies and fear that they will run afoul of existing U.S. sanctions by inadvertently signing contracts with companies linked to the Islamic Revolutionary Guard Corps.

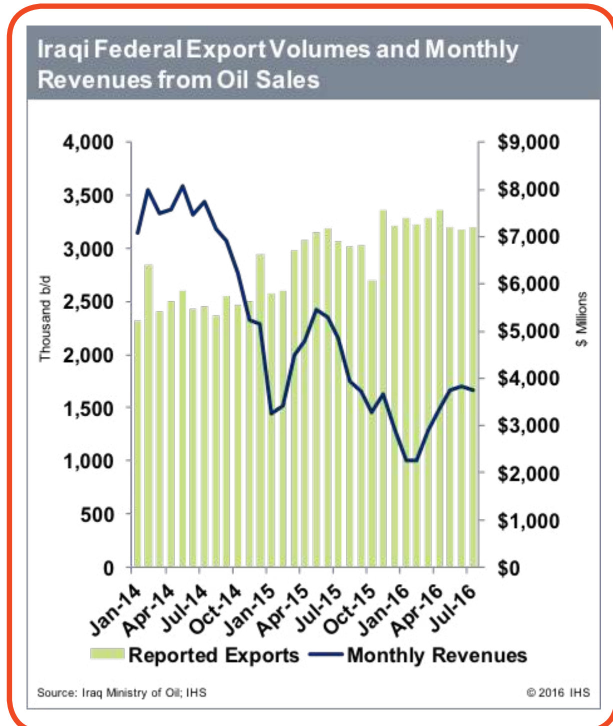
Iranian rhetoric complaining that the international community, especially the United States, is not meeting its obligations has only served to inflame disappointment domestically, with a more tempered assessment likely to encourage an improved outlook. Contrary to expectations, the JCPOA was not a get out of jail free card and enormous difficulties within the country need to be addressed, one analyst argued. Iran needs to clean up its banking system and enact long overdue financial reforms if it wants to achieve the full benefits of sanctions relief. Progress is being made, albeit slowly, with private companies in Iran taking the initiative

to improve financial transparency instead of waiting for government directives and many are even shunning Islamic Revolutionary Guard Corps-controlled companies.

For its part, Washington also had unrealistic expectations, especially hopes that lifting sanctions would bring Iran in from the cold and lead to rapprochement with the United States and within the region. As long as Iran continues to play such a divisive role in the region it is not possible for it to have a more normal role on the global stage or in oil markets. U.S. unilateral sanctions will continue to exert pressure on Iran and limit its re-emergence in the region, especially when the new administration assumes power. For Iran, the nuclear deal was really only possible because President Barack Obama and Secretary of State John Kerry had such a deep commitment to it, but a tougher line is inevitable, and is especially expected with the incoming administration of President-elect Donald Trump. A harder line taken by the Treasury Department versus the State Department is also expected to prevail under the new administration.

Iraq in Critical Condition

Iraq's fragile government is struggling to fund its military operations against ISIL and maintain its financial commitments to its joint venture partners in its oil sector. It is difficult to overstate just how severe Iraq's financial problems are, with the country's foreign reserves falling to an estimated $38 billion in 2016 compared with $83 billion in 2013. At this rate, reserves could disappear before the 2018 parliamentary elections. The government needs to drastically reform its budget but internal political disarray has left it unable to tackle this critical problem. The country had a budget deficit of 23 percent in 2014, and is now forecast to reach 55 percent in 2017. A major burden that needs to be addressed is the massive state payroll, which has jumped from 1.8 million people in 2003 to 4.5 million people, reaching 7 million when including retirees. The budget is also under severe strain from the estimated 3.5 million internally displaced persons in the country and this number is expected to increase by 700,000 to 1 million due to the Mosul offensive.



As a result, Iraq has asked to be exempted from the next OPEC agreement, arguing it is shouldering a huge portion of the cost to eradicate ISIL, which is affecting the entire region. Indeed, the country has pushed hard to raise production after its oil sector underproduced for 23 years and now needs to make up for lost revenue, which is estimated by OPEC Secretary General Mohammad Barkindo at $1 trillion over 2015 and 2016.

Iraq has now doubled production to 4.4 mb/d from 2010 levels of around 2.2 mb/d due to its partnerships with international oil companies. However, production has largely plateaued,

since the government is unable to finance its share of planned increases. The government's share of financing costs was estimated at $12 billion a year or 10-12 percent of the $100-120 billion budget when sustained by $100/bbl prices. In 2016, the country has only earned $45 billion in revenue, and $700 million of that has been for the Kurdistan region.

There is potential for much higher production but the government will need to be more open to different types of contracts, including production sharing agreements, which were not considered in the first two licensing rounds, in order to attract interest. If Iraq were to improve its contract terms, it would be able to increase production in three to five years.

Iraq's oil revenue woes have been compounded by the loss of its key 220 kb/d Baiji refinery to ISIL. As a result, the government has been forced to import refined products at staggering costs. In addition, Iraq's domestic demand has been steadily climbing, reflecting surging population growth, and is now forecast to rise by a further 1.5 mb/d by 2020. Development of the country's natural gas industry could help offset domestic use of crude for burning but this is a long-term solution.

Domestic Politics Eclipse Geopolitics

Geopolitics have come to be perceived as a key factor in oil price formation but market players often overemphasize the relationship. The argument that geopolitics drive oil prices is not always persuasive, with domestic political events often having a far larger impact on oil markets. The Iranian Revolution took more barrels off the market than any other geopolitical event or war has, and for a longer period of time. The more recent civil war in Libya shut-in the country's entire production in 2011 and, with the exception of a brief recovery, Libya has produced at sharply lower levels over the past five years.

The argument that geopolitics drive oil prices is not always persuasive, with domestic political events often having a far larger impact on oil markets.

Indeed, while geopolitical events are often sensationalized, it is domestic politics that oil market analysts should focus on, one expert noted. The collapse of state authority has created a political vacuum in Iraq, Libya, and Yemen and forced the loss of millions of barrels a day. Political analysts are now closely following events unfolding in Venezuela as the next casualty of domestic unrest and its potential to impact oil supplies.

Conclusion

Oil prices are forecast to stay lower for longer, with a high level of uncertainty surrounding the timing of a sustained recovery. This low oil price environment will eventually lead to tighter oil supplies and stronger prices but a return to $100/bbl is not in the future. Mainstream forecasts are merging around a $50-60/bbl range to 2020 but industry analysts see a much wider band of $40-75/bbl through the end of the decade. A recovery in faltering U.S. shale production will be a key driver in forecasting the future supply curve. In the short term, output could rise by 250-300 kb/d if prices hold above $50/bbl in 2017 but a significant increase in drilling and new production is not likely until prices reach the $60-65/bbl mark. Going forward, a repeat of sharp year-on-year production increases of 1 mb/d or more is not expected, with

growth rates more tempered in the coming decades.

OPEC is expected to change tack in policy, at least in the short term, with efforts aimed at maximizing oil revenue over the market share strategy in place since late 2014. OPEC experts reasoned that the cataclysmic collapse in oil revenue will lead to a much higher degree of cooperation and compromise among members at the November 30 meeting in Vienna. Failure to reach an agreement could see oil prices fall back below $40/bbl and, once again, raise the question of OPEC's relevance.

The Gulf Arab states are moving apace with fiscal constraint, subsidy reductions, and economic reforms in the wake of the financial crises engulfing the region, with a new generation of political and business leaders a driving force. Cautious optimism emerged from the conference's discussions but participants emphasized that significant risks to the outlook remain. The region's leaders have committed to fairly significant substantive reforms, and have taken some nascent steps already, but much more needs to be done. Experts emphasized that current policy and reform plans are a work in progress that will need to be continually adapted as challenges arise given the socioeconomic impact of the reforms being tackled. Strengthening financial and institutional frameworks is a critical priority, including unveiling an unparalleled level of transparency in a region that has long been opaque.

Oil will remain the main source of state revenue for decades and governments will continue to be the primary conduit for the distribution of this income. Relatively low prices will make implementation of reforms more politically and socially difficult. Plans to rewrite the social contract by removing subsidies, eliminating jobs, and reducing salaries, among other benefits, as a means to restructure flawed economic models need to also include an offsetting mechanism to redistribute oil revenue among the citizens, such as a one-off cash distribution plan or a monthly oil dividend payment.

An array of financial shock absorbers is also available to help lessen the impact of fiscal austerity and reforms. Nonetheless, governments will need to be mindful of maintaining a balance between the urge to impose severe budget cuts and more austerity measures against a need to maintain spending and support expansion in the current low growth, economically challenging environment.

Heightened political turmoil in the region has created further financial strains on government budgets, with a costly effort to eradicate ISIL and civil wars in Syria and Yemen. Iran's interference in the Yemeni and Syrian conflicts has exacerbated already tense relationships with some of the Gulf Arab states. Events unfolding in Saudi Arabia, Iran, and Iraq, as the region's three largest countries, will have the biggest impact on oil markets. Riyadh's concerns over Tehran's ambitions in the region have been compounded by the lifting of international sanctions at the start of 2016. The escalating tensions between Saudi Arabia and Iran also have spilled over into OPEC affairs and it is unclear if economic imperatives will trump political issues in setting policy in the future.

Iraq and Iran are the two countries that hold the most potential to significantly increase production capacity but political obstacles are expected to constrain increases up to 2020. Iraq's extreme financial crisis is already at a breaking point from its costly battle with ISIL and continued low oil prices will exacerbate the situation. By contrast, Iran's poor outlook for

capitalizing on the removal of sanctions and to increase production is largely self-inflicted. After much debate and internal political opposition to new contracts aimed at attracting foreign investment in the oil sector, the final framework offered to international oil companies falls short of expectations. Moreover, foreign investors remain wary of the country's weak financial institutions with their lack of transparency and controls. With a new U.S. administration taking over in January 2017, Iran may wish to show more goodwill and less intransigence over its ballistic missile program and at minimum scale back its destabilizing behavior in the region.

Indeed, while geopolitical conflicts are perceived as a key driver of oil price direction, domestic political events often have a far larger impact on oil markets, with developments unfolding in Saudi Arabia, Iran, and Iraq currently set to play a pivotal role.

Agenda

September 19, 2016

Executive Breakfast:

Welcome Remarks:

Ambassador Marcelle M. Wahba, President, Arab Gulf States Institute in Washington

Keynote Address:

Chakib Khelil, Former Algerian Minister of Energy and Mines; Former President of OPEC

Oil expert and industry veteran Chakib Khelil shared his view of the role of OPEC amid the paradigm shift in the international oil market, the impact of lower oil prices, and the formidable challenges ahead for OPEC as the most important source of global oil supplies.

Session 1: Oil Market Dynamics, Investment Challenges, and Policy Responses

Moderator:

Kate Dourian, MENA Energy Analyst, International Energy Agency

Speakers:

Michael Cohen, Head of Energy Commodities Research, Barclays

William R. Thomas, Chairman of the Board and CEO, EOG Resources

Roger Diwan, Vice President, IHS Financial Services, IHS Markit

Oil markets are in uncharted territory, transformed by the advent of U.S. shale oil, set adrift by OPEC's policy of pursuing market share, weighed down by a massive supply surplus, and searching for a new, higher price floor. Low oil prices eventually beget high prices and, indeed, the unprecedented cuts in capital expenditure point to tighter supplies and stronger prices in the future, but when and to what level is still under debate.

Session 2: The Uneven Path to Economic and Energy Policy Reforms

Moderator:

Karen E. Young, Senior Resident Scholar, AGSIW

Speakers:
Shantayanan Devarajan, Chief Economist, Middle East and North Africa Region, World Bank

Monica Malik, Chief Economist, Abu Dhabi Commercial Bank

Ali Al-Shihabi, Author and Analyst, Founder, Rasmala Investments

Lunch Keynote:

Introduction:

Ambassador Edward W. Gnehm, Jr., Kuwait Professor of Gulf and Arabian Peninsula Affairs, The George Washington University

Keynote Address:

Sara Akbar, Chief Executive Officer and Member of the Board of Directors, Kuwait Energy

Sara Akbar is the co-founder of Kuwait Energy, one of a few privately-owned oil and gas firms in the region. She shared her views on the impact of lower oil prices on energy firms in the GCC states and the effects that political discord has on the development of the oil sector in Kuwait.

Session 3: Geopolitical Challenges of Volatile Oil Prices

Moderator:

Diane Munro, Energy Analsyt and Contributing Writer, Arab Gulf States Institute in Washington

Speakers:

F. Gregory Gause, II, John H. Lindsey '44 Chair, Professor of International Affairs, and Head of the International Affairs Department, Bush School of Government and Public Service, Texas A&M University

Luay al-Khatteeb, Executive Director, Iraq Energy Institute; Fellow, Center on Global Energy Policy, SIPA at Columbia University

Suzanne Maloney, Deputy Director, Foreign Policy Program, Brookings Institution

Persistently lower oil prices have wide-ranging implications for regional and international geopolitical developments. The economic fallout comes as the region struggles with a costly military effort to eradicate the Islamic State in Iraq and the Levant and escalating civil wars in Syria, Yemen, and Libya. Saudi Arabia's already strained relationship with Iran has worsened due to Tehran's growing interference in conflicts in Yemen, Syria, and Iraq.

Public Forum

Moderator:

Karen E. Young, Senior Resident Scholar, AGSIW

Speakers:

Kate Dourian, MENA Energy Analyst, International Energy Agency

F. Gregory Gause, II, John H. Lindsey '44 Chair, Professor of International Affairs, and Head of the International Affairs Department, Bush School of Government and Public Service, Texas A&M University

Monica Malik, Chief Economist, Abu Dhabi Commercial Bank

Speakers summarized the day's discussions and presented conclusions and recommendations.

Petro Diplomacy 2016 Highlights

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