

Three Things Keeping Gazprom Managers Awake at Night



Undervalued shares, the risk of sanctions and increasing competition with liquefied natural gas are all causing sleepless nights for Gazprom PJSC's managers.

At an investor meeting in Singapore on Thursday, when asked about what keeps Gazprom managers awake at night, board member Oleg Aksyutin said it was the need to "take into account all the aspects" for the future of its gas exports to Europe and Asia.

It's "in particular the black swans, and trying to understand the extent to which we can whiten these swans and expect them to appear, is something that continuously keeps us alert," Aksyutin said.

The remarks indicate the company's board sees the need to firm up its competitive position against alternatives such as LNG and new pipeline routes reaching into Europe from the south and the Caspian Sea region.

Russia's biggest gas producer aims to strengthen its position in Europe, where it increased its market share to almost 37 percent last year, according to Gazprom. The company also aims to become the top gas supplier to China where it plans to

start deliveries by the end of this year.

While Gazprom's projects to expand export routes in Europe, such as the TurkStream pipeline across the Black Sea and the Nord Stream 2 link across the Baltic Sea, have faced criticism both within and outside the European Union, the company sees them as one of the reasons its shares should be valued higher.

Germany Preparing to Draw More Russian Gas, Disregarding Trump

Once Russia's biggest company by market capitalization, Gazprom is now surpassed by domestic oil companies Rosneft PJSC and Lukoil PJSC. The nation's state-run gas producer has been losing investor appeal in recent years as spending plans have eclipsed the promise of higher dividend payouts.

Gazprom management has signaled it sees the possibility of paying half of its profit out as dividends after its current investment cycle ends in 2020, according to Chief Financial Officer Andrey Kruglov. The final decision will be made by shareholders, Kruglov said.

"Raising its market cap is one of the fundamental objectives that the management of the company is pursuing," Kruglov said at the same event. The company budgeted for record high dividends of 10.43 rubles (16 cents) per share for 2018, or 27 percent of net income under International Financial Reporting Standards.

Besides the valuation of the company, which depends "on the effort contributed by every office and every employee," said Elena Burmistrova, director general of the company's export unit, sanctions and "certain pressure" from U.S. LNG deliveries to Europe are also "worrisome" for Gazprom.

Earlier this week in Hong Kong, Gazprom's top executives dismissed the impact of LNG on the company's position in the European gas market and said U.S. sanctions had little impact on its operations.

Russia's proposed TurkStream 2 pipeline sparks Bulgaria, EU energy worries



Russia is pushing for a new gas pipeline running through Bulgaria that could supply Western Europe with energy.

But does the TurkStream 2 proposal threaten to strengthen the

Kremlin's influence over the European Union?

Bulgaria is considering joining Russia's TurkStream 2 pipeline proposal and, according to the country's Ministry of Energy, is ready to invest €1.4 billion (\$1.6 billion) in the project.

Russian Prime Minister Dmitry Medvedev is set to travel to the country next week, where he is expected to discuss the pipeline. However, its completion is dependent on approval from the necessary authorities, including the European Commission. Experts have already expressed doubts over whether the pipeline will be profitable (in fact, only the third market test was successful), implying that the government in Sofia is working to further Russian interests.

The original 910 kilometer-long (565 mile) TurkStream gas pipeline runs under the Black Sea, linking Russia and Turkey. This project is due to be completed by the end of this year, along with the Power of Siberia pipeline, which links Russia to China, and the Nord Stream 2 pipeline from Russia to Germany. Turkey is Russian energy giant Gazprom's second biggest client after Germany.

arket. Gazprom has two options for reaching Western Europe: either through Greece and Italy or through Bulgaria, Serbia, Hungary and the Baumgarten hub in Austria. Earlier in February, Gazprom CEO Alexei Miller met Serbian President Aleksandar Vucic to discuss the pipeline project. However, the chairman of Greece's main opposition party, New Democracy, said on Thursday ahead of a two-day visit to Moscow that his country was considering whether to allow the new pipeline through Greek territory.



The original TurkStream pipeline runs under the Black Sea, connecting Russia and Turkey

Russian gas an EU dependence

The European Union currently imports most of the natural gas it uses. According to Eurostat data, for the first semester of 2018, 40.6 percent of this imported gas came from Russia, followed by Norway and Algeria. Until recently, most of the Russian gas supplied to the EU ran through pipelines crossing Ukraine. After the revolution that forced pro-Russian President Viktor Yanukovych from office, and the subsequent annexation of Crimea by Russia in 2014, relations between Moscow and Kyiv deteriorated. The Nord Stream and TurkStream pipelines allow Russia to supply natural gas to Western Europe without running through Ukrainian territory, thus denying Kyiv transit fees and billions of euros in profit.

Sixty-seven percent of Russia's tax revenues come from energy exports, particularly gas, which is a powerful political instrument for the Kremlin. Companies such as Gazprom, as well as virtually all Russian resource oligarchs, operate under the Kremlin's benevolent eye. And, in numerous cases, the elites in countries such as Bulgaria, Serbia and Turkey are tempted by Russian overtures. Furthermore, the supporters of the Nord Stream pipeline in Germany and within the Hungarian government, including Prime Minister Viktor Orban, have been accused of enabling Russia's geopolitical power games.

Bulgaria is highly dependent on the import of Russian energy: more than two-thirds of the gas it consumes domestically comes from Russia. On the eve of Bulgaria's accession to the EU in 2007, Vladimir Chizhov, Russia's ambassador in Brussels, playfully called the country "our Trojan horse in the EU, in the good sense."

In 2014, the Bulgarian government abandoned TurkStream's predecessor, the South Stream gas pipeline, due to pressure from Brussels, which said the project wasn't compliant with EU legislation. In an effort to avoid potential sanctions, Gazprom has now chosen a Russian company – oil and gas pipe maker TMK, which arguably has "no connections" to Gazprom – to

construct the pipeline, according to the Russian news outlet RBC.ru.



The Nord Stream 2 pipeline, which bypasses Ukraine on the way to Germany, has been a source of controversy

The Russian lobby in Bulgaria

The pro-Russia lobby is a powerful force within Bulgarian politics. Volen Siderov, the leader of the populist right-wing party Ataka, is a great admirer of Russian President Vladimir Putin, for instance. What's more, Valentin Zlatev, a key figure in the energy sector and the CEO of Lukoil Bulgaria, which belongs to Russian multinational corporation Lukoil, has been described as the kingmaker of Bulgarian politics.

According to Transparency International, Bulgaria continues to have the highest level of corruption within the public sector among EU member states. While relations between power brokers in Sofia and Moscow are often based on pragmatism, the majority of the country's population still harbors a special sympathy for Russia.

However, two particularly thorny issues between Bulgaria and Russia threaten to complicate progress on the TurkStream 2 project. The deputy chair of Bulgaria's ruling party, GERB, has warned that the upcoming European Parliament elections could be vulnerable to Russian interference. Furthermore, the poisoning of the Bulgarian arms dealer Emilian Gebrev in 2015 has been linked to the case of Sergei Skripal and his daughter in the United Kingdom last year. There are allegations that both Skripal and Gebrev were targets of Russian intelligence operatives.

Turkey's gas consumption decreases 8 pct in 2018

Turkey's natural gas consumption retreats to around 49 billion cubic meters in 2018



Turkey's natural gas consumption decreased year-on-year by 8.28 percent to around 48.9 billion cubic meters in 2018, according to official figures from Energy Market Regulatory Authority (EMRA) on Thursday.

Turkey's natural gas consumption declined because of the consistent above-average temperatures in the first half of 2018.

The country's natural gas consumption saw a record high in 2017 with 53.85 billion cubic meters.

In January 2018, the country also broke a record in natural gas imports, exceeding 6 billion cubic meters for the first time on a monthly basis. This was due to reduced production at hydropower plants, which was compensated by higher production in gas-fired plants.

Turkey's natural gas imports also decreased by 8.85 percent to 50.36 billion cubic meters in 2018 from 55.25 billion cubic meters in 2017.

The country exported 673 million cubic meters of gas in 2018 – an increase of 6.76 percent compared to 2017.

Last year, Turkey also produced 428 million cubic meters of gas, an increase of 20.90 percent compared to the previous year.

Saudi Arabia: Women's Rights Activists Charged



(Beirut) – Saudi Arabia's public prosecution agency announced

on March 1, 2019 that the country's leading women's rights activists who have been detained following arrests that began in May 2018 would face charges and be put on trial, Human Rights Watch said today. The prosecutors did not specify the charges.

Human rights organizations began reporting in November that Saudi interrogators tortured at least four of the women, including with electric shocks and whippings, and had sexually harassed and assaulted them.

"The Saudi prosecution is bringing charges against the women's rights activists instead of releasing them unconditionally," said Michael Page, deputy Middle East director at Human Rights Watch. "The Saudi authorities have done nothing to investigate serious allegations of torture, and now, it's the women's rights activists, not any torturers, who face criminal charges and trials."

On March 1, Saudi public prosecution issued a statement referring to people arrested for undertaking "coordinated and organized activities... that aim to undermine the Kingdom's security, stability, and national unity" who will face charges and the prosecution is in the process of referring them for trial. There was no mention of any investigation into the torture allegations.

The crackdown on women's rights activists began just weeks ahead of the much-anticipated lifting of the driving ban on women on June 24, a cause for which many of the detained activists had campaigned. While some were quickly released, others remain detained without charge. They include Loujain al-Hathloul, Aziza al-Yousef, Eman al-Nafjan, Nouf Abdelaziz, Mayaa al-Zahrani, Samar Badawi, Nassima al-Saada, Hatoon al-Fassi, Shadan al-Onezi, and Amal al-Harbi, all women's rights activists, as well as male supporters of the movement, including Mohammed Rabea, a social activist. On February 26, Jared Kushner, United States President Donald Trump's son-in-

law and adviser, met with the Saudi king and Crown Prince Mohammed bin Salman in Saudi Arabia.

Lebanon: How advanced technology can help power the country's future



Lebanon – a vibrant country with a lively culture, high ambitions for the future – and a strong demand for additional power. Right now, Lebanon has an energy shortfall of 1.5 gigawatts (GW), which will become *more critical* as the country's energy consumption continues to rise. It's estimated that power demand in Lebanon will grow by about 5% each year between now and 2021, and by 3% each year from 2022 through 2030.[1]

Compounding the energy shortage situation is an outdated energy grid that is unable to handle current—much less future—energy transmission needs. The result is frequent blackouts across the country, which residents and businesses alike have to address with private generators—a costly and unsustainable option.

Lebanon's energy roadmap

In response to the country's increasing energy needs, Lebanon's Ministry of Energy and Water developed an extensive plan to improve and modernize Lebanon's power infrastructure that addresses the entire energy chain, from generation to transmission and distribution to consumption.

This plan requires advanced technology, deep industry expertise, and solid financing models to be successful. In support of this plan, GE (General Electric) presented a comprehensive roadmap in November 2018 at the seminar "Powering Lebanon Forward" held in Beirut under the patronage of the Ministry of Energy and Water.

The right energy mix at the right time

The energy roadmap illustrates how a tailored mix of reliable, flexible, efficient and cost-effective energy technologies can help address Lebanon's energy shortage in the near-term and provide ongoing power for the future.

Under this comprehensive plan, and in partnership with the Minister of Energy and Water and other stakeholders, GE proposes to:

- In the short-term: Add up to 1.5 GW—enough to close the country's current energy gap—through fast-track gas power technology, simple-cycle power plants that can run on heavy fuel oil, light diesel oil and natural gas, and wind power plants that can generate clean energy.
- In the medium-term: Increase power generation capacity

by up to an additional 1.3 GW through new combined-cycle power plants, the conversion of simple-cycle power plants to combined-cycle (so that more power can be generated from the same amount of fuel), and new wind power farms.

- In the long-term: Bring online up to another 2.7 GW to meet the country's energy needs through new combined-cycle power plants and renewable energy facilities.

This additional amount of power needs to be manageable by the grid so that it can be transmitted and distributed while keeping the network stable. For that reason, the roadmap also includes solutions to strengthen the grid by upgrading up to 6 existing substations and developing up to 17 new substations. Moreover, the roadmap also plans to implement an Integrated Energy Management system that tracks generation, transmission and distribution to allow the Ministry to identify losses in the network.



GE's roadmap for Lebanon is a custom-tailored plan that not

only addresses the country's current needs but includes the buildout of Lebanon's infrastructure to allow future adoption of new technologies and fuels.

"In developing our proposed roadmap for Lebanon, GE considered the most effective mix of machinery, technologies and timing, based on the grid size and the fuel availability in the region, now and in the future", says Joe Anis, President & CEO of GE's Gas Power business. "For example, GE's suggested mix of technologies includes the implementation of our highly efficient 9E gas turbines. These units are a perfect fit for Lebanon, as they can burn heavy fuel oil—currently used in the country—as well as tri-fuel configurations when natural gas becomes available in the future."

GE commissioned its first gas turbines in Lebanon more than 30 years ago, and the company is now looking to help build the foundation by strengthening the country's power infrastructure with technologies that will support Lebanon's current *and* future energy needs. "History has brought GE and Lebanon together, and *together* we can build a future that is even brighter", concludes Joe Anis.

Oil dips as U.S. crude production hits record



Oil prices dipped on Thursday, dragged down by weakening factory output in China and Japan and record United States crude output, although markets remained relatively well supported by supply cuts led by producer club OPEC.

International Brent crude futures were at \$66.20 per barrel at 0525 GMT, down 19 cents, or 0.3 per cent from their last close, *Reuters* and the *News Agency of Nigeria* reported.

U.S. West Texas Intermediate crude oil futures were at \$56.90 per barrel, down four cents from their last settlement.

Prices were dragged down by surging American crude oil production which has risen by more than two million barrels per day over the last year to an unprecedented 12.1 million bpd .

Traders said China's weakening economy also weighed on oil prices.

Factory activity in China, the world's biggest oil importer, shrank for a third straight month in February as export orders fell at the fastest pace since the global financial crisis a decade ago, official data showed on Thursday.

Amid weak demand from China, oil producers are having to cut

prices.

Russia's Surgutneftegaz is selling April-loading ESPO crude oil at the lowest level in three months, charging \$2.20 to \$2.40 per barrel over benchmark Dubai quotes.

In Japan, Asia's second-biggest economy, factory output posted the biggest decline in a year in January as China's slowdown affected the entire region.

But oil markets remain relatively well supported by supply cuts by OPEC, which together with some non-affiliated producers like Russia known as 'OPEC+' agreed late last year to reduce output by 1.2 million bpd to prop up prices.

Because of these cuts, U.S. commercial crude inventories fell 8.6 million barrels in the week to February 22 to 445.87 million barrels.

"Crude imports into the U.S. fell 1.6 million bpd last week, to a two-decade low," ANZ bank said on Thursday.

Energy exports to fuel Euro-Med revival Expert says. Greece should play a lead role



Yannis Maniatis - Member of the Hellenic Parliament; former. Minister of Environment, Energy and Climate Change, Greece
Roudi Baroudi - CEO, Energy & Environment Holding, Qatar
Christos Folias - Former Minister of Development, Greece



DELPHI, Greece: Oil and gas deposits under the Mediterranean could restore momentum to the European Union in general and its Euro-Med cooperation project in particular, an industry veteran told a conference in Athens on Saturday.

“Many of the problems facing the EU today stem from a failure

to ensure that political and security partnerships between governments and militaries would come part and parcel with direct benefits for every-day citizens from all walks of life,” Roudi Baroudi, CEO of Doha-based Environment and Energy Holding, told the second day of the Delphi Economic Conference. “The consequences of this failure have been particularly troublesome for several key members of the Euro-Med family.”

As a cornerstone of the region and a victim of the global economic meltdown, “no country has a more important role to play in this process than Greece does,” added Baroudi, who has worked in several parts of the energy sector for more than 40 years.

“The real tragedies are the personal ones involving jobs lost, families scattered, and dignity under assault,” he told an audience of high-profile figures from the private and public sectors. “These are the indicators that have to change if we are to make good on the European dream, and if we are serious about inclusiveness, the Euro-Med region is actually a great place to start.”



Baroudi, who has advised governments and companies on three

continents and helped draft significant parts of European Union energy policy, also seconded remarks by Greek President Prokopios Pavlopoulos, who reminded guests at Thursday's opening ceremony that technological advance has often come at a heavy price in terms of jobs. Accordingly, Pavlopoulos argued, greater effort had to be made to find ways for technology and its applications to offer more human benefits alongside usual pluses like cost reduction and efficiency.

"Human civilizations have always struggled with how to balance these factors, and a similar approach must apply to oil and gas development" Baroudi warned, but "today the energy industry is better-equipped than ever" to achieve sustainable development while minimizing environmental impacts.

Referring to the massive gas fields discovered in the Mediterranean in recent years, he said the resulting revenues and savings could be decisive for several countries. "We also have global standards, including the recommendations of the COP 21 and COP 24 climate summits," he noted, "and the governments in question just need to be muscular about implementing and enforcing these rules. Greece's role will no doubt include continued leadership on this score, too."

"If all of the countries involved agree to be bound by the United Nations Charter and other international laws and regulations," Baroudi predicted, "the tools are available to carve out a happier future for all of our peoples [and] ... so are the resources."

ExxonMobil makes biggest

natural gas discovery in two years off the coast of Cyprus



- ExxonMobil announced on Thursday that it has made the world's third biggest natural gas discovery in two years off the coast of Cyprus in the Eastern Mediterranean.
- Based on preliminary interpretation of the well data, the discovery could represent a natural gas resource of approximately 5 trillion to 8 trillion cubic feet.
- The EU is considering developing a gas hub in the Mediterranean key to diversifying its energy sources and reducing its dependence on Russia.

ATHENS- Exxon Mobil announced on Thursday that it has made the world's third-biggest natural gas discovery in two years off the coast of Cyprus in the Eastern Mediterranean at the Glaucus-1 well. The region is already know for some of the world's largest such discoveries. It wants to become an alternative energy source for Europe.

Based on preliminary interpretation of the well data, the discovery could represent a natural gas resource of approximately 5 trillion to 8 trillion cubic feet (142 billion to 227 billion cubic meters). Further analysis in the coming

months will be required to better determine the resource potential.

"These are encouraging results in a frontier exploration area," said Steve Greenlee, president of Exxon MobilExploration Co. "The potential for this newly discovered resource to serve as an energy source for regional and global markets will be evaluated further."

Glaucus-1 was the second of a two-well drilling program in Block 10. The well was safely drilled to 13,780 feet (4,200 meters) depth in 6,769 feet (2,063 meters) of water. The first well, Delphyne-1, did not encounter commercial quantities of hydrocarbons.

Block 10 is 635,554 acres (2,572 square kilometers). In 2017, Exxon Mobil and state-owned Qatar Petroleum won the rights to explore for oil and gas in offshore areas south of Cyprus. The east Mediterranean island is located in the Levant basin, where both Israel and Egypt have found some of the largest reserves of natural gas in the past decade.

In 2017, Exxon Mobil and state-owned Qatar Petroleum won the rights to explore for oil and gas in offshore areas south of Cyprus. Exxon Mobil owns a 60 percent stake in the block, while Qatar Petroleum holds the rest.

At a press conference in Nicosia, CyprusEnergy Minister George Lakkotropis said he is excited about the findings. "It is an amazing development for all of Cyprus. This is the greatest discovery within our Exclusive Economic Zone (EEZ). In the coming months, the amount of natural gas will be more accurately estimated," he said.

Tristan Aspray, vice president of exploration for Europe, Russia, and the Caspian, at Exxon Mobil told reporters Thursday that the next few months will be devoted to data analysis. "We need to see multiple factors such as the quality," he stated. He also noted that Exxon Mobil will carry

out additional drilling most likely next year.

The Turkish factor

The gas finding now has energy analysts wondering how thorny it will be working with Cyprus – a divided country, between Greece and Turkey – and its split maritime zones.

Perched on the maritime edge of two massive gas finds in the Levant Basin – Leviathan off Israel and Zohr off Egypt, Cyprus, lies in a region of overlapping rivalries and geopolitical risk. Cyprus is ethnically divided, and Turkey, which supports a breakaway Turkish Cypriot state in north Cyprus, says Greek Cypriots have no jurisdiction to explore for natural gas. Greek Cypriots say it is their sovereign right.

Greek Cypriots, who run Cyprus' internationally recognized government, have licensed several offshore blocks to multinational energy companies for exploration on Cyprus' Exclusive Economic Zone. Last year the Italian company Eni and its partner France's Total announced a breakthrough gas discovery at the Calypso block off the island's coast that looked geologically similar to the mammoth Zohr field off Egypt. Zohr holds an estimated 30 trillion cubic feet of gas, the largest ever discovered in the Mediterranean. Calypso in Cyprus's waters is an estimated 80 km away. But just days after the discovery the ENI drill ship was stopped by Turkish military vessels on its way to the its drilling site.

There are worries now that the ExxonMobil gas discovery could worsen preexisting tensions in the area despite the fact that Cyprus has the support of the European Union to explore and exploit its natural resources.

The EU is considering developing a gas hub in the Mediterranean key to diversifying its energy sources and reducing its dependence on Russia, which supplies roughly one-

third of the bloc's gas. Ideas on how to accomplish this goal are three-fold according to Sohbet Karbuz, director of the hydrocarbons division, Mediterranean Energy Observatory: 1) to build a massive EastMed pipeline to ship natural gas from Israel and Cyprus to the EU through Greece and Italy; 2) develop an LNG plant to liquefy the gas and then ship it to Europe, or 3) a combination of both.

"The dream was that the discovery of gas in the Eastern Mediterranean would bring cooperation and peace in the region. The reality is that it may trigger more disputes," Euthymius Petrou, former advisor to the Greek Ministry of Defense and expert on Turkish affairs told CNBC.

So far no international energy company has expressed interest in investing and supporting the EastMed gas pipeline project. Politicians and industry analysts in Greece and Cyprus hope ExxonMobil will take on this role. ExxonMobil would not comment on that prospect.

'Seismic market on the rise': Polarcus



Dubai-based contractor eyes increased awards and pricing after boosting backlog despite Q4 loss Polarcus is bullish about seismic market prospects this year, despite recent oil price volatility, as it sees higher tendering activity after boosting its contract backlog by around 40% over the past year. The Oslo-listed seismic contractor has recently notched up eight contract awards to lift its backlog to \$232 million at the end of the fourth quarter, up from \$164 million a year earlier, and now has its four operating vessels fully booked for the first half of this year and 70% booked for the full year, though another vessel, Polarcus Nadia, remains laid up. The company saw tendering activity increase more than 20% last year on 2017, with pricing improvement throughout the year, and has a “strong pipeline of opportunities in 2019”.

It said strong vessel employment prospects provide “good visibility of future earnings and the ability to further increase pricing levels”.

Dubai-based Polarcus notched up its highest-ever vessel utilisation of 96% in the latest quarter, fuelling higher revenue of \$58.4 million, up from \$37.2 million a year earlier. Steve Marshall 27 Feb 2019 08:49 GMT However,

increased costs due to higher utilisation left the company with a net loss of \$13.3 million, albeit narrowed from a year-earlier loss of \$26.2 million, while it also suffered an operating loss of \$5.8 million compared with a loss of \$19.3 million in the same period of 2017. Chief executive Duncan Eley said the contractor has a “positive outlook” for 2019 after a crippling four-year market slump in which seismic players have been severely hit by exploration cutbacks by oil companies.

“With the oil price around current levels, pricing in the seismic market is expected to continue to improve over the short to mid-term driven by continued increase in demand from E&P companies and supply discipline from a reduced number of global vessel operators,” he said. He stated that Polarcus is “in the midst of a transforming competitive landscape” with fewer players offering a tighter supply of high-end 3D and 4D seismic vessels as the active global fleet has been cut by a third to only around 20 units from 32 in late 2016, while at the same time demand is on the rise. “Pricing levels of recent awards represent an improvement in the global marine acquisition market,” Eley said, adding “we expect to see our margins continue to improve as pricing levels increase”.

As energy world focuses on Permian, Gulf makes its own comeback



The attention of the energy industry has focused in recent years on the Permian Basin, the once tired West Texas oil field that roared back to life when hydraulic fracturing and horizontal drilling freed the vast reserves locked in its shale. But as the Permian gathers the attention, another aging oil field is making its own comeback.

The Gulf of Mexico is producing a record of almost 2 millions barrel of crude oil a day and expected to increase its output each year over at least the next five years as new projects begin operation and new discoveries in deeper waters are made. After struggling in the aftermath of the oil bust as investment shifted onshore, the Gulf has found new life as oil companies have succeeded in lowering costs, and market dynamics have made the heavier crude produced in the Gulf more valuable and sought after by refineries from the Gulf Coast to Asia.

The energy research firm Wood Mackenzie projects Gulf drilling activity to jump 30 percent this year after four consecutive years of declines. The federal government forecasts production to grow another 15 percent next year to 2.3 million barrels a day as oil companies, particularly the biggest players, find advantage in deepwater wells that deplete far more slowly

than shale reservoirs.

“The quality of Gulf crude as well as the longer life of offshore wells make it just as attractive as shale to large producers today,” said Sandy Fielden, Morningstar’s director of oil and products research.

As in the Permian and other shale plays, producers that have found ways to make money with lower crude oil prices have opened the spigots. The Permian Basin and the Gulf of Mexico account for about half nation’s output, now at a record 12 million barrels a day.

Cutting costs

The average cost of extracting oil barrels from deepwater wells has plunged by more than 50 percent in five years, according to Wood Mackenzie, as companies have standardized project designs and equipment. They also focused drilling projects near existing platforms that can be connected to the new wells via underwater pipelines and umbilicals, which is far less costly than building and installing new platforms.

The breakeven price for profiting off of deepwater wells has fallen from about \$70 a barrel a few years ago to closer to \$40, according to the top Gulf producers BP and Royal Dutch Shell. As one measure of the vast gains in efficiency, consider this: Gulf producers are pumping twice as much crude with a quarter of the drilling rigs used in the mid-1990s.

“The deepwater is thought of as an expensive and difficult place to be,” said Starlee Sykes, BP’s regional president for the Gulf. “Recent developments are changing that.”

The world’s biggest oil companies, including BP, Shell and Chevron dominate much of the Gulf, and other top global players such as the French oil major Total, Norway’s state energy company Equinor and The Woodlands’ Anadarko Petroleum als are investing more in the region. Asian energy companies,

valuing the political stability of the United States over potentially bigger returns in more volatile regions such as Africa and Latin America, also are developing projects in the Gulf.

Those firms include include China National Offshore Oil Corp., called CN00C, and the Japanese companies Inpex Corp., Mitsui Oil and Marubeni Oil & Gas.

Shell completed a series of smaller expansions last year and, this fall, will put its multibillion-dollar Appomattox platform in operation about 80 miles off the Louisiana Coast to target deep geologic layers believed to hold much on the undiscovered oil in the Gulf. Appomattox will be followed in 2021 with the Vito platform about 150 miles southeast of New Orleans.

After Vito, Shell expects to hone in on its Whale discovery – announced a year ago – in the southwest Gulf almost 200 miles south of Houston. Rick Tallant, Shell vice president for production in the Gulf, said a final decision for a multibillion-dollar development of Whale is likely in 2020.

“The industry in general is starting to reinvest back into the Gulf of Mexico,” Tallant said.

In January, for example, BP said it would spend \$1.3 billion to expand its Atlantis development about 150 miles south of New Orleans. BP said it produces more than 300,000 barrels of oil equivalent a day from the Gulf and plans to exceed 400,000 barrels daily by the mid-2020s.

The Gulf also is attracting further investments from smaller players such as the Houston companies Talos Energy, Fieldwood Energy, W&T Offshore and Houston Energy.

Ron Neal, co-founder of Houston Energy, said these companies are taking a contrarian approach, targeting the Gulf when shale is all the rage and buying leases at significant

discounts to acreage in the Permian Basin. The Gulf's wells are costlier to develop up front, he said, but they can churn out high volumes of oil for many years, unlike shale wells, in which production drops sharply after the first year or so.

"The deepwater is healthy," Neal said. "We just try to be consistent and not reactionary, and it's worked pretty well."

To Mars and beyond

Wood Mackenzie predicts the next big project to move forward could be Chevron's and Total's 2017 Anchor discovery more than 100 miles south of New Orleans. That development could trigger more than \$10 billion in investments.. Last last year, Chevron's new Big Foot platform came online east of the Anchor find.

In addition to lower lease costs and longer well life, another factor is driving increased activity in the Gulf of Mexico: premium prices for its oil. Gulf wells produce a medium grade crude and the benchmark, called Mars, is selling at \$6 a barrel more than lighter crude produced in West Texas – a premium of about 15 percent and the highest differential for Mars since 2013.

The reason: a global shortage of the heavier crudes preferred by refiners from the Gulf Coast to Asia. Several developments have cut the supply of heavier crudes on the market, including OPEC's production cuts, U.S. sanctions on Iran and Venezuela, and OPEC-style output reductions put in place the government of Alberta, Canada to try to lift prices of the heavy crude produced in the province's oil sands.

Analysts expect Gulf of Mexico oil to fetch higher prices at least through the end of this year.

"As the U.S. consolidates its position as one of the world's largest producers and a major exporter," said Fielden, the Morningstar analyst, "the long-term value and importance of

offshore production shouldn't be underestimated."