

ECB's Draghi warns of weaker growth ahead



Reuters/Frankfurt

European Central Bank President Mario Draghi acknowledged yesterday that economic growth in the eurozone was likely to be weaker than earlier expected due to the fall-out from factors ranging from China's slowdown to Brexit. The region's economy is already suffering its biggest slowdown in half a decade, raising questions over whether the ECB will be able to increase interest rates for the first time in a decade later this year as its current guidance indicates.

The ECB left that guidance and interest rates unchanged at its meeting yesterday.

But Draghi's downbeat comments, including a reference to "downside" risks, will fuel market speculation that the bank will delay any rate hike, mirroring a more cautious approach by the US Federal Reserve, and may offer new cheap loans to banks.

"The risks surrounding the euro area growth outlook have moved to the downside on account of the persistence of

uncertainties,” Draghi told a news conference, citing trade and geopolitical threats and emerging market volatility.

“The near-term growth momentum is likely to be weaker than previously expected.”

His comments pushed the dollar to a more than five-week high against the euro.

The single currency was 0.45% lower against the dollar at \$1.1329, after falling as low as \$1.1308, its weakest since December 17.

Despite citing the rising risks, Draghi nonetheless reeled off reasons for not changing policy now, notably the strength of the region’s labour market and rising wage growth, which he said would help push underlying inflation up over the medium term.

“The key factor to assess is the persistence of the uncertainty,” he said, adding he was confident that those uncertainties – ranging from the outcome of Brexit to China’s slowdown and trade protectionism – were being addressed.

“The Governing Council will give itself more time to assess whether all these risk factors have affected confidence and we are going to have another discussion in March when we will also have the new (growth) projections.”

Draghi said the Governing Council was unanimous both in acknowledging the growth slowdown and the factors causing it but some policymakers were less optimistic than others about the economic outlook.

With the ECB already owning a quarter of the eurozone’s outstanding governing debt, analysts were expecting it to turn to other instruments to keep credit flowing. A new round of cheap multi-year loans to banks, known as Targeted Long-Term Refinancing Operations (TLTRO), was widely seen as the first port of call.

“We do expect an announcement in March that (T)LTROs will be extended, most likely via two-year, variable rate operations,” Frederik Ducrozet, an economist at Pictet Wealth Management, said.

Draghi said yesterday TLTROs had been raised by several

policymakers but no decision had been taken.

Having ended a landmark €2.6tn (\$3tn) bond purchase scheme just weeks ago, the ECB said yesterday it still expected to keep interest rates at record lows “through” the summer, sticking with its long-standing guidance even though markets now see a much later move.

Investors see a rate hike only in mid-2020 while a Reuters poll of economists predicted the first rise in nearly a decade in the fourth quarter.

“When markets place the first rate hike in 2020, they are using the state contingent part of our forward guidance...and it shows that they have understood our reaction function,” Draghi said.

With yesterday’s decision, the ECB’s deposit rate, now its main benchmark, remains at -0.40% while the main refinancing rate, its key rate during normal times, stands at 0.00%. Germany, France and Italy, the eurozone’s biggest economies, barely grew in the fourth quarter of 2018 and survey data showed yesterday business activity across the eurozone expanded at the slowest pace since 2013 at the start of this year.

Draghi said yesterday that the ECB did not see recessions as likely in Germany or Italy but the reference to downside risks meant the central bank had now given up its facade of optimism and joined the Federal Reserve in signalling a more cautious stance.

Some policymakers have in the past objected to changing the risk assessment since such a move would raise expectations of policy action and the ECB is not yet prepared for such a move just weeks after ending its biggest stimulus scheme.

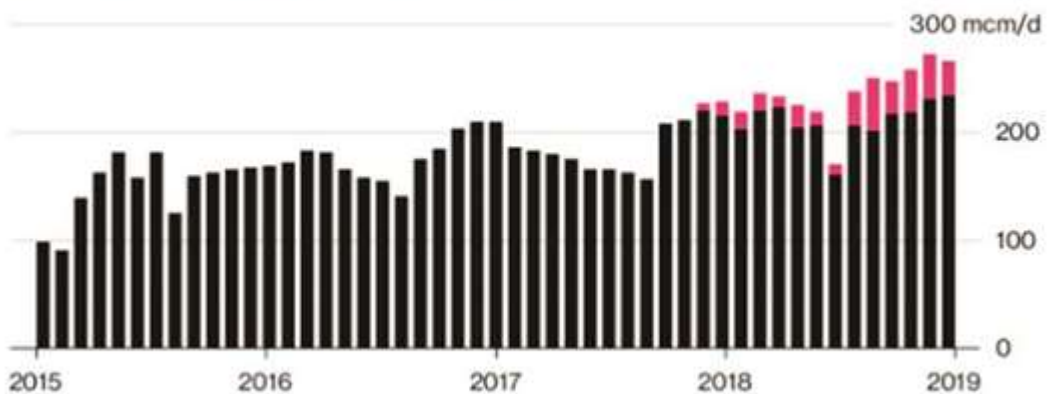
“With today’s meeting, the ECB has joined the crowd of concern,” Carsten Brzeski, an economist at ING, said. “The return of a downside risks to the growth assessment does not, yet, signal any policy changes but only a slight easing bias.”

Siberian LNG is unexpected rival for Gazprom in key EU markets

Russian Expansion

Novatek's LNG now adds to already record Gazprom's pipeline gas flows to Europe

■ Pipeline (Gazprom) ■ LNG Deliveries (Novatek)



Note: Jan. data is month to date on Jan. 16; data for U.K., Belgium, Germany, Netherlands and France

Source: S&P Global Platts Analytics

Bloomberg

Bloomberg/London

Russia's two biggest natural gas producers have for years competed only at home, but that rivalry has unexpectedly spilled into Europe.

Instead of shipping liquefied natural gas to Asia from a new Siberian plant, lower prices meant Novatek PJSC sent most of those supplies to northern Norway, where it is transferred and taken to European markets. The shipments encroach on a region state-owned Gazprom PJSC has dominated for decades just as it faces increased competition from new suppliers including the US.

"Many people think there was a truce between Novatek and Gazprom to not touch the European market, to save the price

for Gazprom,” said Jean-Baptiste Dubreuil, a senior natural gas analyst at the International Energy Agency. “Recently there has been a lot of reloads from Norway, which ended up in some markets in northwest Europe in direct competition with Gazprom.”

Although Gazprom is unlikely to lose its crown in Europe, where it is pumping record volumes to offset declining domestic production and meets more than a third of demand, the increased LNG supply may force it to pare back some flows or risk lower prices. That would be another blow for the state-owned company after Novatek last year briefly overtook it in terms of market capitalisation, despite its far superior production and reserves and its monopoly on Russian pipeline gas exports.

Gazprom and Novatek declined to comment.

Shrinking prices for LNG in Asia made it more attractive for shippers to land the fuel in Europe. That’s expected to remain the case through the next winter. The result is that most of the fuel shipped from Novatek’s Yamal plant has ended up in Europe since the facility started more than a year ago, though some has gone to other regions. The plan was for those supplies to mainly head to Asian markets, which usually offer a premium for the fuel.

Other pipeline-gas suppliers to Europe, such as Norway, Algeria and the Netherlands, have already had to make room to accommodate that extra gas, but Gazprom’s volumes haven’t yet been impacted, said James Huckstepp, lead European gas analyst at S&P Global Platts. Gazprom has also topped up sales under long-term contracts with volumes sold on electronic platforms. “Those platform sales have shifted toward those northwestern European markets, which have seen also an uptick of LNG deliveries,” Huckstepp said in a telephone interview. “It is definitely an area where there is the most competition between the two sources.”

The Yamal LNG has also meant Europe’s dependency on Russian gas has increased but supplies from other sources, including US LNG, have also risen. As the year progresses with a more

comfortable storage situation in Europe than last year, Gazprom is unlikely to maintain its record flows, while Yamal LNG volumes will continue to stay in Europe, according to S&P Global Platts.

“We are expecting a pullback of Russian gas at least from the very strong levels that we saw over the last year as we go into summer 2019,” Huckstepp said, envisaging a decline of 24mn cubic meters per day in the summer and also a contraction next winter. “Part of that is down to the amount of LNG coming to Europe.”

US oil just a few years from eclipsing its two largest rivals combined



The world's biggest petroleum producer isn't far from pumping more than its two largest rivals combined. By 2025, the US will produce more than 24mn bpd of crude, condensate and natural-gas liquids, exceeding the collective output of Saudi

Arabia and Russia, consultant Rystad Energy AS said in a report. That would continue the pattern of meteoric growth in the American oil industry since Opec and its allies began supply cuts in 2017. Opec producers cut back production sharply during December before their next reductions were due to take effect. "US oil activity and production has built significant momentum," Rystad said on Wednesday. "The growth in US liquids production will naturally be driven by the continuous development of unconventional reservoirs." America's shale revolution has curtailed Opec's power, a shift highlighted when the country briefly became a net oil exporter for the first time in seven decades late last year. That followed 12 months of record crude production, a surge that's continued into 2019. A recent push to 11.9mn bpd topped Saudi output and Russian supply, both of which are subject to cutbacks. Nevertheless, the boom comes at a cost. Capital spending of \$150bn to \$190bn will be needed every year between now and 2025 to meet the forecast level, according to Rystad.

UN chief: We are losing race on climate change



AFP/Davos

The world is “losing the race” against climate change, UN chief Antonio Guterres warned yesterday, demanding bolder action from governments to arrest runaway warming.

Guterres delivered a no-holds-barred appraisal to business and political leaders gathered at the World Economic Forum (WEF) in Davos, which has featured much hand-wringing on the planetary crisis this week.

“In my opinion it is the most important global systemic threat in relation to the global economy,” the UN secretary-general told his high-calibre audience.

“Climate change is running faster than what we are,” he said. “I believe we are losing the race.”

The business community and civil society are increasingly engaged, “but the political will is still very slow”, he said, lamenting the position of climate doubters.

“We are moving dramatically into a runaway climate change if we are not able to stop it.”

A UN summit last month in Poland, which was designed to advance the Paris climate accord, laid bare continuing fissures over the share of responsibility among countries to cap temperature rises.

The Paris accord has been shaken by the withdrawal of the United States under President Donald Trump, and by threats to do the same by Brazil's new hard-right leader, Jair Bolsonaro. Guterres, on an earlier Facebook Live broadcast, said that the commitments made in Paris were already "not enough" but was "not hopeful" that nations would find the necessary resolve. "If what we agreed in Paris would be materialised, the temperature would rise more than 3.0° (Celsius)," he said. "We need countries to make stronger commitments," Guterres said, calling for more measures to mitigate climate change and adapt to it, along with financial aid for poorer countries. A WEF survey ahead of the Davos meeting found that climate change was the leading concern of forum participants around the world, noting in particular the growing frequency of extreme weather events.

Corporate executives in Davos such as Patrick Pouyanne, the chief executive of French energy giant Total, have been touting their own measures to transition to a greener economy. "We don't look to renewables to be green," he told the CNBC channel in Davos yesterday, noting that electricity is the fastest-growing segment of the energy market.

"We look to renewables because it's the best way to go in to this electricity market, but the electricity market will require also natural gas, so natural gas and renewables."

However, activists say companies are not doing nearly enough. One vocal voice in Davos this week has been Swedish 16-year-old Greta Thunberg, who has inspired a wave of climate protests by schoolchildren around the world after delivering a fiery speech at the UN climate summit in Katowice, Poland last month.

"They (companies) have known exactly what priceless values they have been sacrificing to continue making unimaginable amounts of money," she told AFP in an interview.

Former US secretary of state John Kerry, who signed the Paris accord for the United States in 2016, said that 38 out of the 50 US states were implementing their own climate policies despite Trump's withdrawal and vocal scepticism on climate

change.

The Paris pact was based partly on the expectation that the private sector would step up with new investment in areas such as batteries and solar panels, he noted.

“It’s not happening enough, and even in Katowice recently, you saw the fight that was taking place, just to be able to try to be reasonable here,” Kerry said in Davos on Tuesday, also on CNBC.

“We’re heading towards 4.0° Centigrade increase in this century, and the passive indifference that most countries are accepting is basically a mutual suicide pact.”

Another idea long in the mix of the climate debate is a carbon tax, which would factor in the polluting price of fossil fuels so as to discourage their use over time.

That has been anathema for many governments, including the United States well before Trump.

However, it is gaining ground anew under an initiative by the Climate Leadership Council that is backed by 27 Nobel economics laureates and four former chairs of the Federal Reserve.

Ted Halstead, president of the US organisation, has been in Davos this week selling the idea of US households getting back the revenue raised, in the form of lump-sum rebates.

Greenpeace welcomed the intervention by Guterres.

“The UN secretary general’s speech once again drives the urgency of the climate emergency home,” said the environmental group’s executive director Jennifer Morgan. “Guterres’s argument is compelling and has to be heard.”

All Together Now: ‘Shukran,

Qatar' (Again)



The Amir of Qatar HH Sheikh Tamim bin Hamad al Thani was in Lebanon only for a few hours over the weekend, but the impact of his visit will last far longer– and help improve the lives of all Lebanese in the process.

The mere fact of Sheikh Tamim's presence spoke of a vision of partnership that sets Qatar apart from a great many countries on the world stage these days, and this on multiple levels, because the circumstances of his visit make the substance even weightier.

For observers of Arab politics unaccustomed to such phenomena, this is what genuine principle looks like. The Amir's visit was not only a powerful gesture of support for the right of

each and every Arab League member state to have a voice of its own, it also was a firm rejection of the dangerous and increasingly common notion that alliances are purely transactional relationships bereft of loyalty, shared interests, or any other marker of genuine friendship. In addition, the Qatari leader also concretised his country's support to a fellow Arab state by agreeing to have it purchase some \$ 500 million worth of Lebanese government bonds.

That Qatar can afford to do this is in itself an indicator of strong governance, because it comes despite the billions of dollars it has had to spend propping up its own national economy since June 2017, when several of its Arab brethren imposed an unlawful blockade. Now that it has reoriented its trade to more reliable partners and revamped its agrofood sector to increase self-sufficiency, the economy is once again growing strongly and sustainably, and public finances are as robust as ever. The purchase comes at a crucial juncture. Lebanon's economy faces major challenges, including sluggish growth, a massive public debt, tight credit markets for the private sector, and weak confidence among both consumers and investors, be they foreign or domestic. In addition, the political arena is so sharply divided that more than eight months after the May 2018 parliamentary elections, a government is yet to be formed, further hamstringing efforts to institute reforms that would unlock billions in soft loans from friendly governments.

The resulting logjam even led to downward pressure on the Lebanese Pound (LBP), causing the Banque du Libnan (BDL) to take a variety of supportive measures, and sparking rumours that Beirut might not be able to make payments on sovereign debt maturing later this year. (In fact, just a day after the summit ended, Moody's Investors Service downgraded Lebanon's creditworthiness, although it also improved the outlook from "negative" to "stable".

This decision would have been taken before the Qatari cash

infusion, but it nonetheless gives a very good idea of how analysts view Lebanon's predicament.) Enter Qatar and its bond deal, which confers multiple benefits. First, the cash signals to any currency speculators that a bet against the Lebanese Pound is also one against the financial muscle of the world's richest country per capita-wise. Second, it substantially reduces the likelihood of debt rescheduling, which should calm nervous investors. Third, it significantly cuts the risks of holding LBP, which benefits each and every Lebanese – regardless of address, income, and/or sectarian/political affiliation – but especially the poor because they would be the most vulnerable to the consequences of currency depreciation, including higher inflation and even, potentially, the gutting of whatever savings they have been able to accumulate. Perhaps most importantly, both the actual and perceived impacts of Qatar's largesse will be magnified because it is being channelled through the BDL, probably Lebanon's most universally respected public institution. Under the leadership of Riad Salamé, the BDL has earned the respect of local and outside experts alike, as well as that of the US Federal Reserve and other leading central banks around the world, so observers can be confident that the funds provided by the Qataris will be put to their intended use. Finally, it more than bears mentioning that this is hardly the first time Qatar has been there for Lebanon, and for all Lebanese. During the bloody war waged by Israel against Lebanon in 2006, Sheikh Tamim's father, the then Emir HH Sheikh Hamad bin Khalifa al Thani, made a similar demonstration of authentic friendship. Unlike most countries, Qatar threw open its land, air, and sea borders to any and all Lebanese, suspending visa requirements and even covering the cost of food, shelter, and utilities to those who could not afford it. Once the war was over, Qatar also forked over the equivalent of more than USD 1 billion for Lebanon, helping to rebuild homes, churches, and mosques, and to revive the Lebanese National Library in Beirut.

In 2008, when street clashes appeared to push Lebanon down the

road to another civil war, it was Qatar that stepped in to mediate a reconciliation that restored some degree of functionality to the presidency and other key institutions. Since then, Qatar has repeatedly gone out of its way to assist the government and people of Lebanon, including last year, when it once again lifted visa restrictions on Lebanese travellers, the only Gulf Arab state to do so. In 2006, Qatar earned the gratitude of all Lebanese, not just because (unlike many others) it made good on its pledges, but also because its assistance was distributed without regard to the recipients' religious or political persuasions. In fact, most of its generosity was disbursed in areas whose populations are heavily Shiite. To Sheikh Hamad, whose country's citizenry is overwhelming Sunni, these details were irrelevant to the task of restoring hope, dignity, and the basics of modern life – not to Muslims, Christians, Sunnis, or Shia, but to human beings. Thanks to this brave humanitarian approach, the phrase 'Shukran, Qatar' made itself heard wherever there were Lebanese: at cafés and restaurants, at home and abroad, in print and over the radio, through satellite television and myriad emails and text messages. Now that Sheikh Tamim has so emphatically replicated his father's courage, fairness, and wisdom, the time has come to say it again: Shukran, Qatar!

Roudi Baroudi is CEO of Energy and Environment Holding, an independent consultancy based in Doha. He is also a proud and grateful Lebanese.

Even more LNG set for Europe?

Gas market is already under pressure



Bloomberg/London

Europe's natural gas market is tanking and it's hard to see why prices should stop falling now.

Storage levels are above average for the time of year because of the mild winter – curbing demand at a time sales should delight the region's utilities. And with liquefied natural gas cargoes arriving at Europe's ports in record numbers, the market looks saturated, according to Julius Baer Group Ltd.

The mild winter in the Northern Hemisphere has not only hit Europe's energy markets. Asian LNG prices have slumped for eight straight weeks as buyers haven't felt much of a need to top up buying done ahead of the winter. That has reduced incentives for exporters from Russia to the US to send tankers to Asia, instead leaving northwest Europe as their preferred destination.

"Europe has become the dumping ground for LNG," said Norbert Ruecker, head of macro and commodity research at Julius Baer, who expects prices could fall another 20%, without giving a

time frame.

Northwest Europe imported a record 32.5 cargoes in December, according to data compiled by Bloomberg. And purchases are strong this month too.

To some extent, LNG has for now supplanted the need for huge storage sites.

“Storage has just been building and building,” Ruecker said. “Given that this trend could continue, it will put pressure on European gas prices.”

Another bearish factor is that demand this month may be much lower than traders earlier expected. Temperatures are now forecast near normal by the end of the month, versus forecasts last week for temperatures about 6 degrees Celsius below the usual level.

“The market balance is the key fundamental prices follow and somehow it does not seem to be really mirrored in the price,” Ruecker said.

Dutch front-month gas is trading at about €22 a megawatt hour on the ICE Endex exchange. The option to sell with the most open interest below that level is at a strike price of €18, according to data from the bourse. Last year, prices dropped as low as €16.78, while in 2017 the low was €14.43.

News Oil Majors Chevron, Total, and Reliance Join Blockchain Venture



Oil majors Chevron Corp, Total SA and Reliance Industries Ltd are investing in blockchain-backed digital trading platform Vakt Holdings Ltd, signaling more industry buy-in for the technology. The addition of the US, French and Indian oil companies means that Vakt has won investments and participation from half of the world's 10 biggest oil and gas firms by market capitalisation, the London-based technology startup said in a statement. Widespread adoption of a uniform system will be key to the success of any digital trading platform using blockchain – a digital ledger process that has the potential to reduce trading costs by cutting down on paper work, and increasing the security of transactions. “Total has been supporting industry initiatives to digitize cargo post-trade processes for some time,” said Thomas Waymel, president of trading and shipping at Total’s trading arm Totsa SA. “We view them as a major step forward towards safer, faster and cheaper logistical operations,” he said. The oil trading units of BP Plc, Equinor ASA, Royal Dutch Shell Plc, as well as trading houses Gunvor Group Ltd and Mercuria Energy Group Ltd were among the first investors in Vakt. The platform went live in November, trading crude cargoes underpinning North Sea Brent, one of the world’s most important crude oil benchmarks. In addition to oil majors and trading houses, Vakt’s other investors include trade finance banks ABN Amro Group, ING Groep NV and Societe Generale SA. The three largest independent trading houses Vitol Group, Glencore Plc and Trafigura Group haven’t joined Vakt nor a similar blockchain-

driven digital trade finance platform based in Geneva called Komgo SA, that has many of the same backers as Vakt.

Halliburton posts flat revenues at \$5.94bn as N America lags January 22 2019 11:00 PM



Shares of oilfield firm Halliburton Co fell sharply yesterday after the company forecast lower revenues in key business areas next quarter, overshadowing a quarterly profit beat and a pledge to reduce 2019 spending.

Clients in North America, Halliburton's biggest market by revenue, began pulling back on some drilling services last year amid transportation bottlenecks in the largest US production region and after oil prices slid sharply in the

fourth quarter.

An oil glut and concerns about a global economic slowdown have pushed US crude futures down about 30% since October to around \$53 a barrel.

The company anticipates mid- to high-single digit revenue declines in its Completion and Production and its Drilling and Evaluation divisions next quarter.

Halliburton said it will reduce its 2019 capital spending budget by nearly 20% to \$1.6bn.

Further reductions could be made if market conditions erode, executives said on the company's fourth quarter earnings call. Although Halliburton beat profit expectations, Wall Street analysts questioned chief executive officer Jeff Miller during the call on the lack of investor returns from the oilfield service sector, which has struggled to recover from the 2014 downturn in oil prices.

Halliburton's share price in December fell to its lowest level since 2010, trading under \$25.

Houston-based Halliburton said revenue from North America fell about 2% to \$3.3bn from a year earlier and dropped 11% from the third quarter.

International revenue rose to \$2.6bn from \$2.5bn from a year earlier.

It rose 7% from the third quarter.

"In North America, the demand for completions services decreased during the fourth quarter, leading to lower pricing for hydraulic fracturing services," Miller said in a statement.

The number of active hydraulic fracturing fleets in the Permian basin fell to 140 in January, versus 192 in June of 2018, a 27% decline, according to data from consultancy Primary Vision.

Halliburton's international business "continues to show signs of a steady recovery," Miller added.

The company saw an increase in demand for services in Argentina, which help offset some lower activity in North America.

Halliburton said net income attributable to the company was \$664mn, or 76 cents per share, for the fourth quarter ended December 31, compared with a loss of \$824mn or 94 cents per share, a year earlier.

Excluding one-time items, the company earned 41 cents per share, beating analysts' estimates of 37 cents per share, according to IBES data from Refinitiv.

Fourth-quarter revenue was largely flat at \$5.94bn.

Future is for LNG as derivatives trading takes off



Bloomberg/Singapore

With natural gas demand growing faster than for any other fossil fuel, LNG futures may be finally taking off.

Derivatives represented about 2% of global LNG production at the beginning of 2017 as an array of contracts around the world struggled to gain traction. But by the end of last year,

volumes had grown to almost 23%, led by a burgeoning Intercontinental Exchange Inc contract based on S&P Global Platts' Japan-Korea Marker spot price assessments.

While volumes are a long way off established global energy benchmarks such as Brent crude – where trade dwarfs worldwide oil production many times over – the accelerating growth in LNG derivatives illustrates how the market is maturing. An explosion in supply, from the US to Australia, is bringing more market participants and a shift away from traditional pricing.

“There’s more short-term physical trading indexed to JKM and new counterparties active in the market,” said Tobias Davis, head of LNG–Asia at brokerage Tullett Prebon. “This creates more liquidity and in turn, builds more confidence in trading the swap and using it as a viable hedging tool.”

There are now at least six derivative contracts for LNG, ranging from US Gulf Coast futures on ICE to Kuwait-India on Singapore Exchange Ltd. The most established by far is ICE’s Japan-Korea Marker, launched in 2012. More than 17,000 contracts traded in December, a 10-fold increase from January 2017. The next most active is CME Group Inc’s futures contract, also based on S&P Global Platts’ JKM assessment. Its monthly volume peaked in November last year at 3,335 contracts.

The need for a liquid LNG benchmark has been the subject of much debate. Traditionally, when oil was used more commonly in power generation and production, it was almost exclusively valued relative to crude oil and bought and sold under long-term contracts. One advantage of that system is that oil has a liquid and established futures market that gives market participants visibility and the confidence to hedge.

But oil and gas don’t move in lockstep and buyers have become increasingly reluctant to be tied to crude markets. The expansion in global supply, most notably with the development of shale reserves that transformed the US into a major natural gas exporter, has opened up other options and stimulated a shift to more spot trading.

About 27% of LNG was sold under spot-or short-term deals in 2017, up from 12% in 2003, according to the International Group of LNG Importers.

That just increased the need for a reliable price benchmark and liquid futures market for hedging. Regional gas benchmarks such as Louisiana's Henry Hub, the UK's National Balancing Point or Dutch Title Transfer Facility reflect local fundamentals and therefore may not be ideal proxies for the global LNG trade, where the vast majority of sales are in Asia. So that's where LNG futures come in.

JKM "is much more trusted, much more accurate, and the paper market is helping make it be more responsive to price movements," Gordon D Waters, the global head of LNG at ENGIE, said by phone on Friday. JKM contracts could reach the level of NBP or TTF "most likely within the next 5 years." NBP and TTF volumes both averaged about 37,000 contracts a day in 2018.

There's still a long way to go. ICE JKM is still much smaller than other global oil and gas benchmarks. Exchange open interest, or the amount of outstanding bets at the end of every day, accounted for about \$2bn at the end of 2018, compared with \$36bn for US natural gas and more than \$100bn for Brent oil, according to Bloomberg estimates.

For a futures market to be considered truly liquid, volumes should be about 10 times the size of the actual physical trade, according to Total SA, one of the world's biggest producers and a major participant in the JKM market. With volumes multiplying by about three times a year, JKM should reach that level in about five years, Philip Olivier, Total's general manager of global LNG, said in October.

Brent and US gas traders also have much more flexibility, as they're able to buy and sell futures by the second, with prices updating to reflect the fast-moving market. Most JKM LNG trades are still brokered offline and then cleared by exchanges. Contract values are based on a monthly average of Platts assessments, so the price updates once a day when the new assessment is added.

Still, LNG has already surpassed one energy derivative. ICE's JKM contract now has more value in open interest than the exchange's Newcastle coal contract. The two fuels, of course, also vie in the real world for space in power plants in some regions.

"If you have a look at how the coal market developed in the mid-2000s, it took over a decade to transition to a liquid exchange order book," said Gordon Bennett, managing director for utility markets at ICE. "It definitely feels like JKM is evolving quicker."

Athens Energy Forum 2019: January 28-29, 2019



MONDAY, JANUARY 28 | DAY 1

11.30

REGISTRATION

12.00

WELCOME REMARKS

Achilles Tsaltas, Vice President, International Conferences,
The New York Times

12.05

OPENING ADDRESS

George Stathakis, Minister of Energy and Environment, Greece

12.30

IN CONVERSATION

Geoffrey Pyatt, U.S. Ambassador in Greece

with **Tom Ellis**, Editor in Chief, Kathimerini English Edition

12.45

PANEL DISCUSSION 1 | THE REGIONAL GEOPOLITICAL PERSPECTIVES

- Increasing the substance of trilateral cooperation between Cyprus, Israel and Egypt
- Greece as an East Med Security player
- The Greek-FYROM and Serbia-Kosovo Disputes

Chair: **Dr. Aristotle Tziampiris**, Professor of International Relations, University of Piraeus

George Katrougkalos, Alternate Foreign Minister for European Affairs, Greece

Konstantinos Skrekas, MP, Head of Energy and Environment Sector, Former Minister of Development and Competitiveness, New Democracy Party

Victor Grigorescu, Former Minister of Energy, Romania

Q & A

13.30

UPDATE ON THE PRIVATIZATION AGENDA

In conversation

Aris Xenofos, Chairman of the BoD, Hellenic Republic Asset Development Fund

with **Achilles Topas**, Journalist, SKAI TV

13.45

LIGHT LUNCH

14.45

PANEL DISCUSSION 2 | CYPRUS ENERGY OUTLOOK

Chair: **Theodore Tsakiris**, Assistant Professor, Geopolitics & Hydrocarbons, University of Nicosia, Program Adviser AEF 2019

Dr. Andreas Poullikkas, Chairman, Cyprus Energy Regulatory Authority

Dr. Symeon Kassianides, Chairman, Natural Gas Public Company

Roudi Baroudi, CEO, Energy & Environment Holding

Q & A

15.30

PANEL DISCUSSION 3 | UPDATE ON UPSTREAM DEVELOPMENTS

- Greek offshore exploration
- Developments in Israel and Egypt
- Developments in the Black Sea and the Adriatic

Chair: **Alexandra Sdoukou**, Energy Advisor

Yannis Bassias, President, Hellenic Hydrocarbons Resources Management S.A.

Yannis Grigoriou, CEO, Hellenic Petroleum Upstream S.A.

Orit Ganor, Director of Natural Gas International Trade, Ministry of Energy, Israel

Q & A

16.15

PANEL DISCUSSION 4 | UPDATE ON REGIONAL MIDSTREAM DEVELOPMENTS

- The IGB pipeline project
- The Alexandroupolis FSRU project and planned regional LNG terminals
- The feasibility of the East Med Gas Pipeline
- The TAP and Turkish Stream projects and associated

vertical corridors

- Latest developments in the National Natural Gas System
- Existing and future gas storage available in the region

Chair: **Prof. Nikolaos Farantouris**, Chair, Legal Affairs, EUROGAS, Brussels

Konstantinos Karayannakos, Executive Officer, ICGB

Katerina Papalexandri, Country Manager Greece, TAP

Theodore Tsakiris, Assistant Professor, Geopolitics & Hydrocarbons, University of Nicosia, Program Adviser AEF 2019

Panayotis Kanellopoulos, Managing Director, M&M Gas S.A.

Nikos Katsis, NNGS Operation Division Director, Hellenic Gas Transmission System Operator (DESFA)

Ioannis Arapoglou, Vice Chairman, Gastrade

Alex Lagakos, Founding Chairman, Greek Energy Forum

Q & A

17.30

END OF THE 1ST DAY OF THE FORUM

TUESDAY, JANUARY 29 | DAY 2

09.00

ARRIVAL OF DELEGATES

09.30

WELCOME REMARKS

Symeon Tsomokos, Chairman, SGT SA

09.35

PANEL DISCUSSION 5 | THE DOMESTIC AND REGIONAL POWER & ELECTRICITY MARKET DYNAMICS

- Back-to-the-future: Lignite Power Generation in Greece
- Progress report on Island interconnectivity

- New network developments
- The evolution of wholesale and retail markets

Chair: **Harris Floudopoulos**, Journalist, Capital.gr

- **The evolution of the power generation market and the rise of the domestic competition in electricity**

Andrea Testi, Chairman, Elpedison

Dimitri Tzanninis, Deputy CEO & Member of the BoD, Public Power Corporation, Greece

Dinos Benroubi, General Manager Electric Power Business Unit, Protergia/MYTILINEOS

- **The target model and the new challenges**

Manousos Manousakis, Chairman & CEO, Independent Power Transmission Operator

Nektaria Karakatsani, Member of the Board, Regulatory Authority for Energy

Constantine Couclelis, Chairman, Hellenic Union of Industrial Consumers of Energy

Intervention: **Michael Philippou**, CEO, Hellenic Energy Exchange

Q & A

11.00

KEYNOTE ADDRESS

Megan Richards, Director, Energy Policy, DG Energy, European Commission

11.15

NETWORKING BREAK

11.45

PANEL DISCUSSION 6 | DIGITAL TRANSFORMATION OF ENERGY. SEIZING THE POTENTIAL OF BIG DATA

Chair: **George Passalis**, Managing Director, Accenture Applied

Intelligence

Professor Miltiades E. Anagnostou, School of Electrical & Computer Engineer, NTUA

Yannis Vougiouklakis, Member, National Committee for Energy and Climate Plan

Tim Fairchild, Practice Director, Global Energy Practice, SAS

Q & A

12.30

PANEL DISCUSSION 7 | RENEWABLE ENERGY SOURCES & ENERGY EFFICIENCY

- The importance of RES in the Greek 2030 energy mix
- Is the market-test process working?
- Finance: Moving beyond the FIT-Premium

Chair: **Dr. Ioannis Tsipouridis**, Renewables Consultant Engineer, Editor of e-mc2.gr

Maria Spyraiki, Member of the European Parliament

Professor Yannis Maniatis, MP, Democratic Coalition, f. Minister of Environment, Energy & Climate Change

Dr. Arthouros Zervos, Chair, REN21

Harry Boyd-Carpenter, Director, Head of Power and Energy Utilities, EBRD

Marios Zangas, Head, Greece & Cyprus, Vestas Hellas

Q & A

13.30

NETWORKING BREAK

14.00

PANEL DISCUSSION 8 | ENERGY FINANCE

Chair: **Achilles Topas**, Journalist, SKAI TV

Athanassios Savvakis, President, Federation of Industries of Northern Greece & Hellenic Energy Exchange

Vassilis Karamouzis, Assist. General Manager, Corporate & Investment Banking, National Bank of Greece

Q&A

14.25

PANEL DISCUSSION 9 | CLIMATE CHANGE AND SUSTAINABLE GOALS

- Will the Paris Climate Change agreement goals be met
- What is the role of the EU
- What challenges for Greece

Chair: **Zoi Vrontisi**, Chairwoman, National Center for the Environment & Sustainable Development

Keynote Address: **Socrates Famellos**, Alternate Minister, Ministry of Environment & Energy

Prof. Christos Zerefos, Head, Research Center for Atmospheric Physics & Climatology, Academy of Athens

Sabina Dziurman, Director Greece & Cyprus, EBRD

Demetres Karavellas, CEO, WWF Greece

Xavier L. Rousseau, Head of Corporate Strategy, Snam

Q & A

15.15

END OF ATHENS ENERGY FORUM 2019