



What's in store for energy investments in 2019? APICORP's Chief Economist's top picks

- Oil price to recover slightly, Brent at \$60-\$70/barrel into H2 2019
- Geopolitics, social media and computerized trading accentuating volatility
- Private and government investment gaps leave room for MDBs funding
- APICORP's research in 2019 to focus on gas, energy storage and technology services

2018 ended with more red flags than ringing bells for global energy markets. Analysts looked for historical comparisons to make sense of declining stock prices, and fluctuating commodity and currency markets. In times of great uncertainty, comparing with history can be reassuring, at times insightful. What do we have this time around? An oversupplied oil market with lower demand growth, similar to the 1997-98 Asian financial crisis or Russian default? A repeat of 2000 and 2008, with overvalued assets and bubbles? Or elements of the post-1990 oil price shock and emergence of a new world order?

This "bit of everything" leads to continued volatility and an impact on sentiment across the energy sectors. Political interventions on social media add a modern twist. By the way, is there enough liquidity for lending? Let's call the banks, but more importantly, let's not forget to tweet that we did (see US Secretary of the Treasury Steven Mnuchin below).

Learning to live with volatility, perceptions and computerised speculation

First, this time, there is one additional factor impacting volatility. Authorities want to act on perceptions, using social media more than traditional communication outlets.

Presidents, finance or energy ministers, (see examples of US President Donald Trump and H.E. Suhail Mohamed Al Mazrouei, UAE Minister of Energy & Industry) are changing traditional ways they project policy-making. Some stabilise markets, others can bring in more volatility. Tweets affect short-term sentiment rather than longer-term structural fundamentals. Today, 20% of the US population are active Twitter users. This share increases to 30% in Saudi Arabia.

Second, unlike in previous periods of volatility, computerised trading, quantitative hedge funds, passive funds and others drive much of the trades, maybe more than supply and demand fundamentals.

According to JP Morgan, 85% of trading in stocks and commodities is now automated. As such trades rely on momentum as an input, downward movements in bearish markets are exacerbated. Algorithms are programmed to sell more if they perceive signals of a slowdown in economic growth, an end to low interest rates, the rolling back of an unprecedented stimulus programs, lower growth in corporate profits (after the one-off tax cut boost in the US), or inconsistent policy signals. Does that ring any bells? The Dow Jones Industrial Average had its worst Christmas Eve in history. After hitting \$86 a barrel early October, Brent fell to less than \$51 on December 24, and returned to around \$60 mid-January. Automated trading will continue to cause price spikes.

Energy market analysts face the same routine in 2019. They will just have to do more iterations, more often, with increasingly sophisticated data.

This is the usual routine in a few steps: assess the economy, global demand and the call on OPEC, keep a close eye on non-OPEC production, as well as on political tensions in Afghanistan, Iran, Nigeria, Sudan, Syria, Ukraine, Venezuela and Yemen, to name a few; on upcoming elections, on the wider US-China competition and trade wars, doublecheck where currencies stand, adjust oil price outlooks. Repeat as necessary.

There will be a few new factors to watch. For example, the International Maritime Organisation (IMO) sent a strong message that it will fully implement the sulphur caps in January



Donald J. Trump
@realDonaldTrump

Gas prices are low and expected to go down this year. This would be good!



Steven Mnuchin
@stevenmnuchin1

Today I convened individual calls with the CEOs of the nation's six largest banks. See attached statement.



سهيل المزروعى
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نستقبل عام 2019 بنظرة تفاؤلية تجاه تحقيق التوازن في سوق النفط خلال الربع الأول خصوصاً بعد اتفاق تخفيض الإنتاج مع الدول من خارج المنظمة. وفي هذا الوقت نسترجع التوقعات المتشائمة قبل عام والتي كنا نخالفها بنصرتنا التفاؤلية التي تحققت فكان عام 2018 عاماً تصحيحياً وإيجابياً.

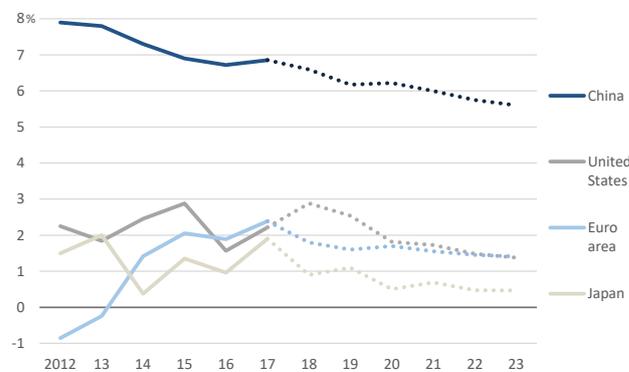
2020. Shipping companies are ordering more scrubbers and refiners are preparing for “IMO 2020” (commissioning conversion/desulphurisation projects, bringing maintenance forward during 2019).

Luckily this time, Kayrros, Genscape, and a few others who are combining satellite imagery, social media data, and Artificial Intelligence (AI) are incrementally improving the quality of information and data in energy markets.

APICORP sees fundamentals to continue to govern oil prices in the face of a highly volatile market.

The consensus view is that US production will grow by around 1.2 million barrels per day in 2019. The Permian has room to expand production, depending on how operators and service companies will manage debottlenecking and Drilled but Uncompleted Wells (DUCs).

Slowdown Real GDP annual percentage change



Source: IMF January 2019

OPEC+ cuts (OPEC and allies) try to balance the market in the short term. By the second half of 2019, Brent would trade between \$60-70/b, barring a sharp economic slowdown. Then, if additional supply growth materialises in a context of weaker demand, we might be back to “lower for longer”.

Increasing interest rates reduce pool of investors in energy, MDBs have a role to close funding gaps

In parallel, the International Energy Agency (IEA) tells us that global energy investment declined for the third consecutive year in 2017 to \$1.8 trillion. Among the traditional energy players, we see a new cycle of convergence and integration between upstream, downstream and utilities. Clean and digital energy still represents less than 3% of capital spend since 2010 by oil and gas companies. However, with climate concerns, all players are investing to reduce the carbon intensity of their operations and their products lifecycles. Diversification into mobility, logistics, petrochemicals, utilities and storage, is driving the strategies of several majors and NOCs. Despite more capital discipline expected in 2019, the US energy industry, including unconventional, continues to have relatively easy access to capital, through publicly issued securities, foreign backers and domestic private equity. The picture in the rest of the world is mixed.

Another major break with the past is that we are amid a major questioning of globalisation and multilateralism, coupled with rising populism and isolationism around the world. There is no shortage of hypotheses as to why trade and

finance liberalisation, equal access to information through the internet or binding global climate agreements are being questioned. The multilateral institutions that were created to foster this cooperation are also under pressure.

Around 80% of energy investments in MENA are still government-led but budgets are squeezed as governments have no choice but to run expansionist budgets because of populism elsewhere. APICORP estimates that energy projects worth \$337 billion were underway in the MENA region in 2017. \$622 billion were planned over the next five years. In 2018, the level of committed MENA projects increased to \$345 billion, but the planned projects decreased to \$574 billion. This decrease is due to the ongoing downward revisions to supply and demand needs, changing export strategies, reform programs affecting local markets (as in Saudi Arabia- APICORP’s February 2018), strained government finance.

With private and government capital holding back or focused on selected strategies, Multilateral Development Banks (MDBs) can close the funding gap (See our July 2018 report on their role in financing renewable energy). They prioritise sectors which are instrumental to development and of substantial economic importance. They typically enter sectors where other commercial banks are reluctant to join, e.g. in countries with high political or economic risks. Energy and transportation are usually two of the main recipients of MDB financing. Given the challenges highlighted earlier, targeted forms of multilateral financing and structuring are needed.

Multi-faceted multi-paced energy transitions bring a fascinating mix of opportunities

So, the world is gradually building its 21st century’s energy system, in which fossil fuels and renewables will coexist. Gas, the fastest growing and ubiquitous fuel, with Renewables, thanks to a battery of policy support measures, account for 35% of the world’s primary energy consumption. The desired electrification of our economy will continue to require high power density of energy supply (cf. Vaclav Smil) but will transform the way energy is produced, traded and consumed.

These structural transformations inevitably change the way energy is financed. Therefore, APICORP’s research this year will expand on the following three themes where investment support is particularly needed to facilitate energy transitions and support sustainability agendas.

- **Gas: More investments are needed in the value chain, particularly on the consumers’ side**

The LNG industry seems to emerge from the “investment impasse” of 2016-2017 (5-10 MMtpa of FIDs per year vs. 20-30 MMtpa during 2011-2014), thanks to the marketing structure adopted by LNG Canada’s sponsors. However, long-term contracting is still a major requisite for investment decisions. US LNG positioning, coal demand, among others, will dictate whether we face a future glut or not. This will affect prices and interfuel competition, including in MENA where LNG imports fell 41% in 2018, and in other growing energy markets.

- **System flexibility: Lower solar PV and onshore wind costs will continue to challenge conventional power generation, investment in storage solutions (where costs also declined 60-80% since 2010) becomes vital.**

Lithium-ion batteries may have benefitted from R&D efforts in the Electric Vehicles market (less than 0.5% of the global car fleet). However, exciting developments are happening in other storage technologies such as Redox Flow and high temperature batteries which could upend the economics of intermittent renewables while addressing critical supply chains concerns (e.g. cobalt).

- **Targeted debt and equity are required to support the private sector, particularly to facilitate the convergence between service companies and emerging technologies.**

Traditional service companies were hit by declining margins, lower investments and successive market downturns. In parallel, digitalisation of energy production and trading is introducing rapid efficiency improvements. In Exploration & Production, data analytics, AI, machine learning are increasingly applied to geosciences to manage performance and uncertainty. Also, Blockchain, when combined with the Internet of Things and AI, adds to market transparency, enabling the faster sourcing of data and facilitating the financing of oil, gas and electricity trading. Three additional oil and gas companies just joined Vakt, the blockchain-based platform for energy commodity trading.

Geographically, Asia, and a few large energy and financial players, will continue to bring proof of concept at large scale, for almost every form of energy. North America and Europe, with active and large funding, will continue to lead innovation centred on energy consumers or prosumers (producers and consumers). India and Australia are

experimenting decentralised, digital energy and storage.

MENA investment is picking up pace as efforts are deployed to improve enabling environments. That is in countries in transition such as Egypt, Kuwait and UAE, countries in transformation (Saudi Arabia, Algeria) and countries like Libya and Iraq in post-war reconstruction.

Investment opportunities remain numerous, from multi-billion dollar crude-to-chemicals complex and refineries, to smaller enabling ventures in tech, distressed service providers, transmission, distribution and pipelines. More details will be shared in our Investment Outlook in March.

We have a busy agenda at APICORP for 2019.

With all my best wishes.

**Leila Benali,
Chief Economist, Energy Economics & Sustainability**

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