FIPI

July 2018

Policy & Economic Report - Oil & Gas Market

Federation of Indian Petroleum Industry (FIPI)

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Policy & Economic report – Oil & Gas market

Economy in Focus

Storm before the calm

A busy week seems to be ahead for all those running or monitoring the world economy, just before they begin to enjoy the summer vacations in the Norther Hemisphere. Despite speculation, for eventually adjusting stimulus, it is widely predicted by economists that the Bank of Japan will maintain the current setting on interest rates. While the purchasing manager index in China is expected to show how the manufacturing has expanded at a slower pace in July, the euro area statistics show inflation ticking up above 2 percent in France, unemployment staying put in Germany and the economy slowing slightly in the second quarter in Spain and Italy. US sees the end of the review period for potential tariffs on $16 billion of Chinese products.

While heading towards an August lull, the global economy today is a function of fears about a trade war, about the distortions caused by a decade of ultra-low interest rates, and about unresolved weaknesses in the global financial system. The top things to think about in this state of unease are as follows:

1. **Worries about a trade war –** One can only hope that what is in the short term, a disruption is actually a resetting of global trading conditions that will ultimately boost world trade rather than undermine it. In the medium term, if a renegotiation of present trading arrangements takes place, the outcome could be to make cross-border trade more acceptable politically in both developed and emerging countries.
2. **Brexit –** While disruption is never good, a breakdown in negotiations would damage both sides.
3. **A breakdown in the European financial system –** Global interest rates are rising. Eventually they have to, and when they do there will be debts that cannot be serviced. Italy's sovereign debt hangs over the entire eurozone.
4. **China's relationship with the rest of the world –** China is on the path to become the world's largest economy with it passing the US in 10 to 15 years' time. The management of US-China relationship is the most important issue in the world and rest are problems of second order.

Emerging economic nations sign ‘open world economy’ declaration

The 10th BRICS summit saw leaders of Brazil, Russia, India, China and South Africa agree to fight unilateralism and protectionism. Coming in midst of global trade tension, after the US issued tariffs on steel and aluminum, which has triggered retaliation from other countries, such as China, Canada and the European Union, this declaration recognized the “unprecedented challenges” that the trading system is currently facing but stated as to how a global open world economy would benefit everyone.

With digital revolution being the next threshold for BRICS countries, a need was felt for the nations to work together to ensure that emerging economies have a level playing field. The Fourth Industrial Revolution, encompassing digital technologies as well as nanotechnology, biotechnology, robotics and artificial intelligence is being considered the fourth technological leap for mankind since the 18th century.

Blue Economy, the "New Frontier of African Renaissance"

Thirty-eight of Africa's 54 states are coastal. The island nation of Mauritius, for example, is one of the smallest countries in the world. But it has territorial waters the size of South Africa and lying on the ocean bed are potential sources of metals, minerals, and oil and gas.

A new offshore deep-sea mining industry is already taking shape in Namibia, vacuuming diamonds from the ocean floor. Proponents see a sparkling future in the ocean, as onshore mineral deposits dry up.

The blue economy has the capacity to provide desperately needed jobs. However, the challenge is all about how to exploit water resources in a sustainable way.

India among 9 other Asian economies to pull ahead of US in terms of GDP by 2030

A DBS report states that the ten major economies of Asia, including India are expected to see robust growth and amount to over USD 28 trillion in real GDP terms on aggregate, more than the US by 2030. However, fears remain astute on the similar nature of problems plaguing these economies, in the form of climate change, rising inequality, worsening environment for trade, and technological disruption. The report also emphasized as to how it was essential for India and Philippines create employment for its young population; while aging countries like Singapore, Japan and China need to offset the demographic drag through the active use of new technology.

Clouds of election, oil overcast, but Indian economy has the momentum

Manufacturing and services sectors which make up for 80 percent of the $2.6 trillion economy have rebounded in June with new orders picking pace. Bank loan disbursals are growing while auto sales -- a barometer of overall demand -- are expanding at double-digits.

What provides a gloomy outlook is the export industry. Still recovering from the double blow of demonetization and implementation of Goods and Services Tax (GST), now with trade war clouds gathering, the outlook isn’t too great. The only silver lining is a weaker rupee which is probably going to make software exports more competitive.

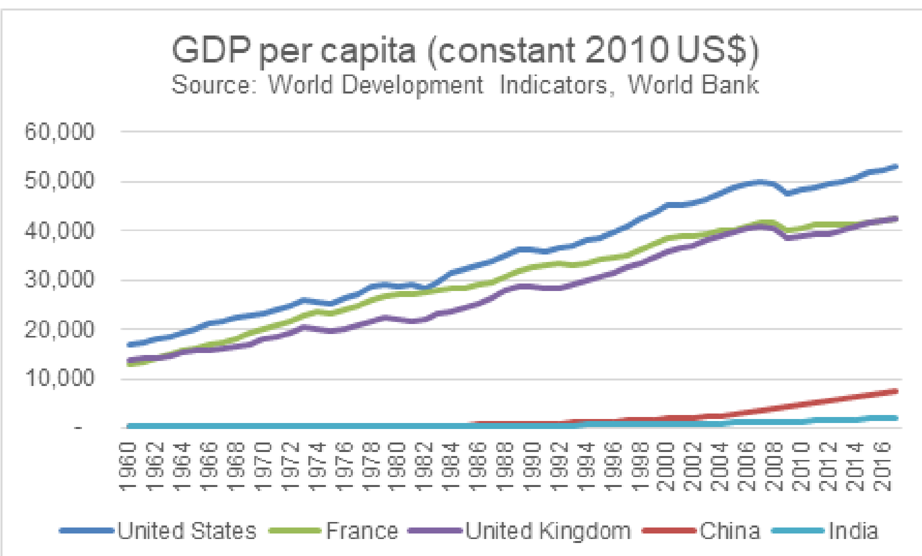
From the point of view of consumer industry, the April-June quarter saw nearly 17 per cent more vehicles than a year ago. While passenger sales grew close to 20 per percent, data also shows commercial vehicles sales rose more than 50 percent and two-wheelers more than 15 percent. Credit to various sectors including agriculture has risen 12.3 per cent year-on-year, data available as of July show.

Improvement in Human Development Index (HDI) a must for reaching 10% growth

In the 2016 UN Human Development Report, India had slipped one place to rank 131st among 188 countries in the HDI. NITI Aayog CEO Amitabh Kant stated that although we are growing at around 7.5%, if India's ambition is to grow at high rates like 10% over a three-decade period, it is impossible to do so with high infant-mortality and maternal-mortality and one in three children being stunted. It is imperative that India's HDI be improved and the underlying concerns addressed.

The past week has been abuzz with news of India overtaking France as the sixth biggest economy. Recent World Bank data puts India's GDP at $2.597 trillion, surpassing France's $2.582 trillion in 2017. Later this year, India is likely to overtake the United Kingdom in terms of economic output.

While in absolute terms, the economy has grown. However, if India's GDP is translated in per capita terms, India's GDP per capita is $1964 with a population of 1.3 billion as opposed to France's per capita of close to $42,568. In other words, India's GDP per capita is currently 4.6 percent of French GDP per capita.



Source: World Bank

Oil & Gas Market

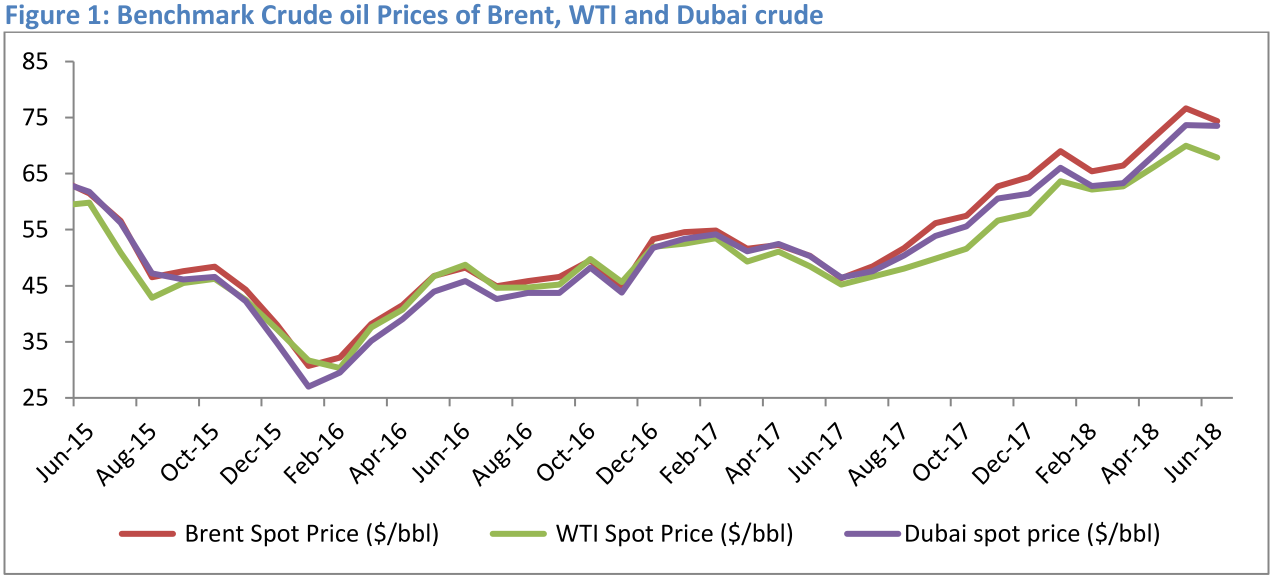
Crude oil price

Global benchmark crude oil prices came down in June 2018 from their respective high in May 2018 and mostly remained range bound; Brent traded in the range of $ 73 - $ 77 per barrel. Oil prices however spiked up significantly towards end of June, with WTI settling at its highest level since 2014 as crude oil supplies in US notched their biggest weekly drop of the year. The U.S. Energy Information Administration reported that crude supplies declined by 9.9 million barrels for the week ended June 22—the largest weekly decline so far this year.

US government has also issued a statement telling companies that buy Iranian crude oil to completely cut those exports by Nov. 4, or they will face powerful U.S. sanctions, which is further going to put upward pressure on prices. Iran currently exports around 2.4 million barrels a day of crude. Globally analysts had estimated that around 0.4 to 1 million barrels could be at risk once sanctions are fully reinstated in six months.

In the recently concluded OPEC meeting, it was agreed to increase the oil output by 1 mbpd, with Saudi Arabia and Iran coming to an agreement. According to OPEC member Iraq, the real increase will be around 770,000 bpd, because several countries that recently suffered production declines will struggle to reach full quotas. The United States, China and India had urged OPEC to release more supply to prevent an oil deficit that would hurt the global economy.

Figure 1: Benchmark Crude oil Prices of Brent, WTI and Dubai crude



Source: EIA, OIL PRICE

- Brent crude price averaged $74.4 per bbl in June 2018, and was down -2.9% and up 60.4% on a month on month (MoM) and year on year (YoY) basis, respectively.
- WTI crude price averaged $67.9 per bbl in June 2018, and was down 3.0% and up 50.2% on a month on month (MoM) and year on year (YoY) basis, respectively.
- Dubai crude price averaged $73.5 per bbl in June 2018, and was down 0.2% and up 58.3% on a month on month (MoM) and year on year (YoY) basis, respectively.

Table 1: Crude oil price in June, 2018

Crude oil	Price ($/bbl) in June 2018	MoM (%) change	YoY (%) change
Brent	74.4	-2.9%	60.4%
WTI	67.9	-3.0%	50.2%
Dubai	73.5	-0.2%	58.3%

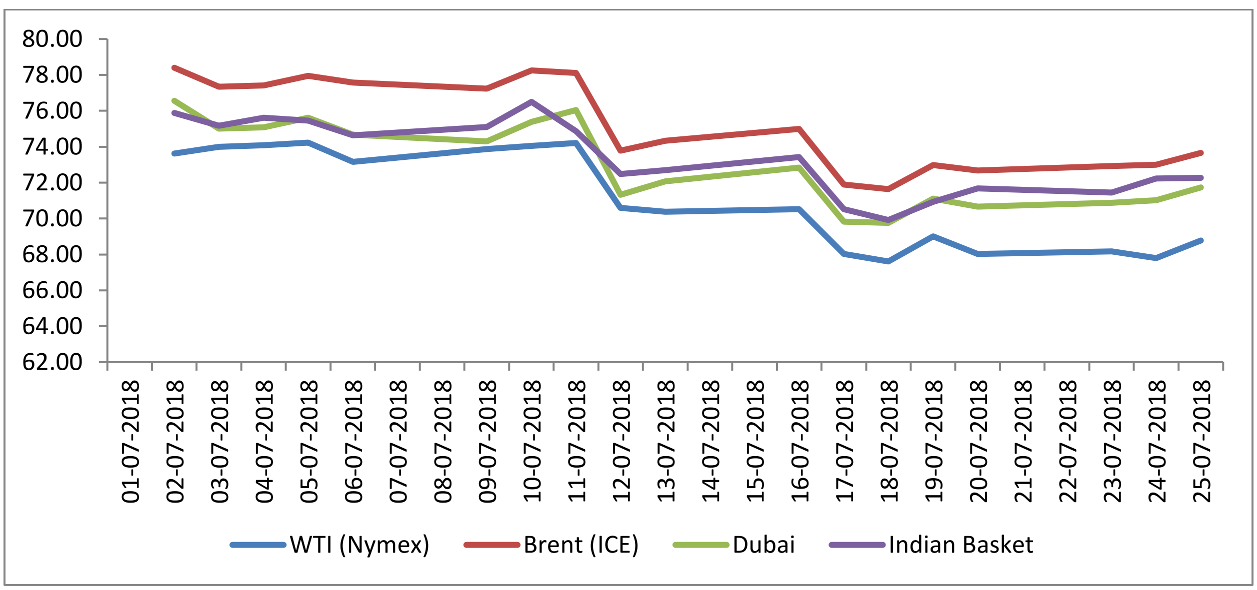
Source: EIA, OIL PRICE

Crude oil prices remain volatile in July

Global benchmark crude oil prices remained volatile in July 2018 and mostly remained range bound; Brent traded in the range of $ 71 - $ 78 per barrel. Although the oil markets got a boost after OPEC decided to relax its tight policies, the combination of backing out of the Iran nuclear accord and the declines in Venezuelan output have created a pressure on oil prices.

Oil demand has continued to strengthen as a primary driver of rising prices. Demand should start to ease, along with the slowing of the recent economic expansion. Thus, oil demand could be greatly inhibited if we see continued Middle Eastern tensions, which are looking to worsen rather than improve.

Figure 2: Crude oil price in July 2018

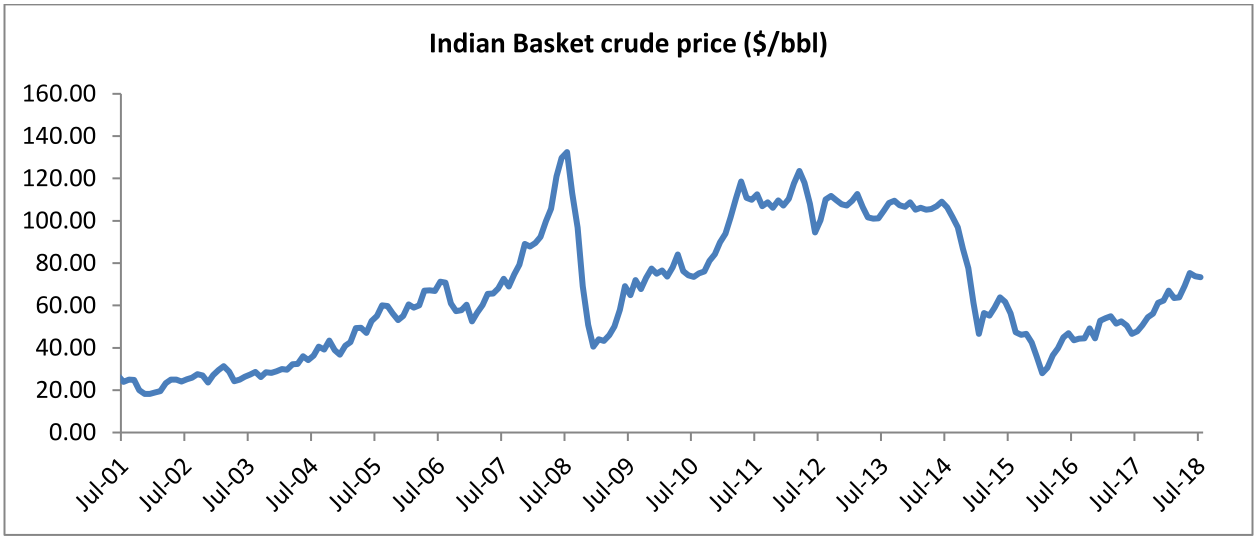


Source: EIA, PPAC

Indian Basket Crude oil price

- The Indian basket of Crude Oil represents a derived basket comprising of Sour grade (Oman & Dubai average) and Sweet grade (Brent Dated) of Crude oil processed in Indian refineries in the ratio of 72.38:27.62 during 2016-17.

Figure 3: Indian crude oil basket price in $ per bbl



Source: Petroleum Planning & Analysis Cell

- Indian crude basket price was $ 72.26 per barrel on July 25, flat on a Month on Month (MoM) basis and up 53.3% on a year on year (YoY) basis, respectively.

Oil demand & supply

- According to OPEC, World oil demand is expected to grow by 1.70% in 2018* to 98.85 mbpd from 97.20 mbpd in 2017. India's demand for oil in 2017 was 4.47 mbpd and is projected to increase to 4.67 mbpd in 2018.

Table 2: World Oil demand in mbpd

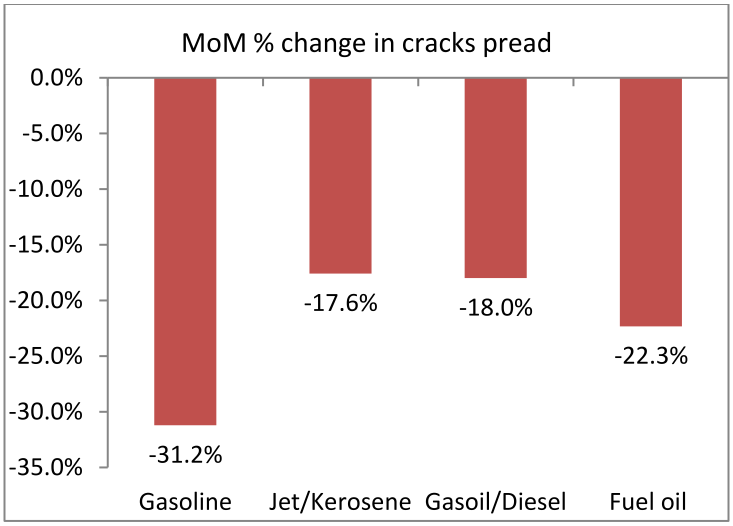
	2017	1Q18	2Q18	3Q18	4Q18	2018	Growth	%
Total OECD	**47.41**	**47.66**	**47.35**	**47.96**	**48.31**	**47.82**	**0.41**	**0.86**
Dev. Countries	**32.04**	**32.33**	**32.66**	**33.13**	**32.79**	**32.73**	**0.69**	**2.14**
~ of which India	*4.47*	*4.75*	*4.66*	*4.32*	*4.97*	*4.67*	*0.21*	*4.66*
Other regions	**17.74**	**17.68**	**18.03**	**18.33**	**19.15**	**18.30**	**0.56**	**3.15**
~ of which China	12.32	12.28	12.84	12.71	13.12	12.74	0.42	3.40
Total world	**97.20**	**97.66**	**98.04**	**99.42**	**100.25**	**98.85**	**1.65**	**1.70**

Source: OPEC monthly report, July 2018

*Note: *2018 = Forecast*

Global petroleum product prices

The Asian gasoline markets weakened in June as cracks showed a reversal trend and declined steeply to levels not seen since July 2016. The poor performance is attributed to the oversupplied regional gasoline market observed in the recent months driven by slower demand in Indonesia and Saudi Arabia.



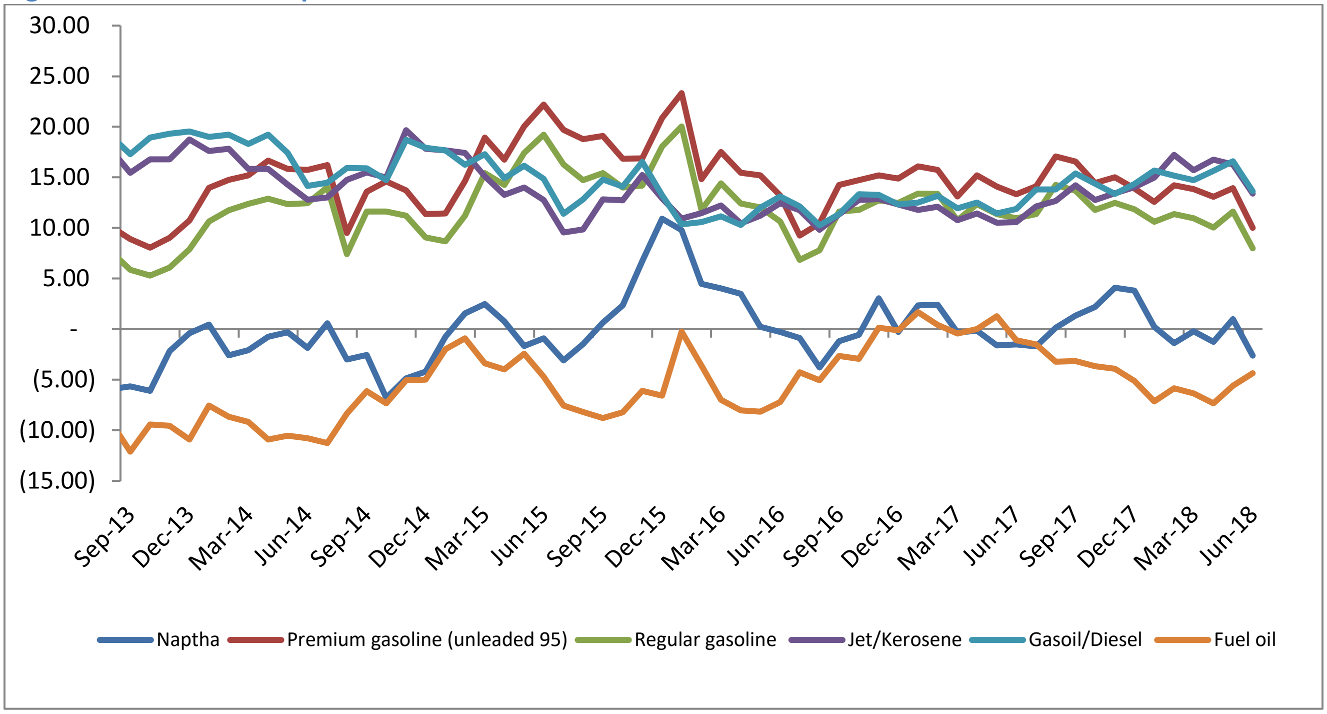
The Singapore light distillate naphtha crack spreads switched again to negative territory in June for the third time this year to reach a 22-month low.

The jet/kerosene market lost some ground, pressured by high inventory levels and higher retail prices. This resulted in a negative impact on jet fuel demand in June compared to the previous month amid positive growth on a yearly basis. A seasonal pick-up in jet/kerosene demand during the summer season in and outside the region is expected to open up more export opportunities from Asia as well as provide some support to the jet/kerosene crack in the near term.

Asian gasoil crack spreads declined due to pressure by high refinery intakes and slower demand from India. Despite the disappointing regional demand from the transport sector, firm demand from the industrial sector contributed to keeping yearly gasoil crack gains in positive territory.

The Singapore fuel oil crack spread strengthened on higher fuel oil demand amid lower output as independent refiners shifted feedstock preferences to fuel oil in order to pass on the consumption tax enforced by the new tax invoicing system implemented on 1 May in China. As a result, high crude import costs have prompted Chinese independent refiners to crack fuel oil through continuous reformers instead of processing crude.

Figure 4: Product crack spreads vs. Dubai crude



Source: OPEC, FIPI

Table 3: Singapore FOB, refined product prices ($/bbl)

Products	Price ($/b) in June 2018	MoM (%) change	YoY (%) change
Naptha	70.89	-5.0%	57.7%
Premium gasoline (unleaded 95)	83.53	-4.6%	39.7%
Regular gasoline (unleaded 92)	81.50	-4.4%	42.0%
Jet/Kerosene	86.91	-3.4%	52.4%
Gasoil/Diesel (50 ppm)	87.12	-3.5%	49.4%
Fuel oil (180 cst 2.0% S)	69.15	1.6%	52.5%
Fuel oil (380 cst 3.5% S)	56.56	-15.7%	26.8%

Source: OPEC

Petroleum products consumption in India

- With the push by government on promotion of LPG, its Consumption has steadily increased in India. In June, LPG consumption increased 2.6% on MoM basis.
- Consumption of gasoline increased (15.2% YoY) driven by higher demand from transport segment.
- Demand for diesel also witnessed robust increase of 7.8% on YoY basis in the month of June.

Table 4: Petroleum products consumption in India, June 2018

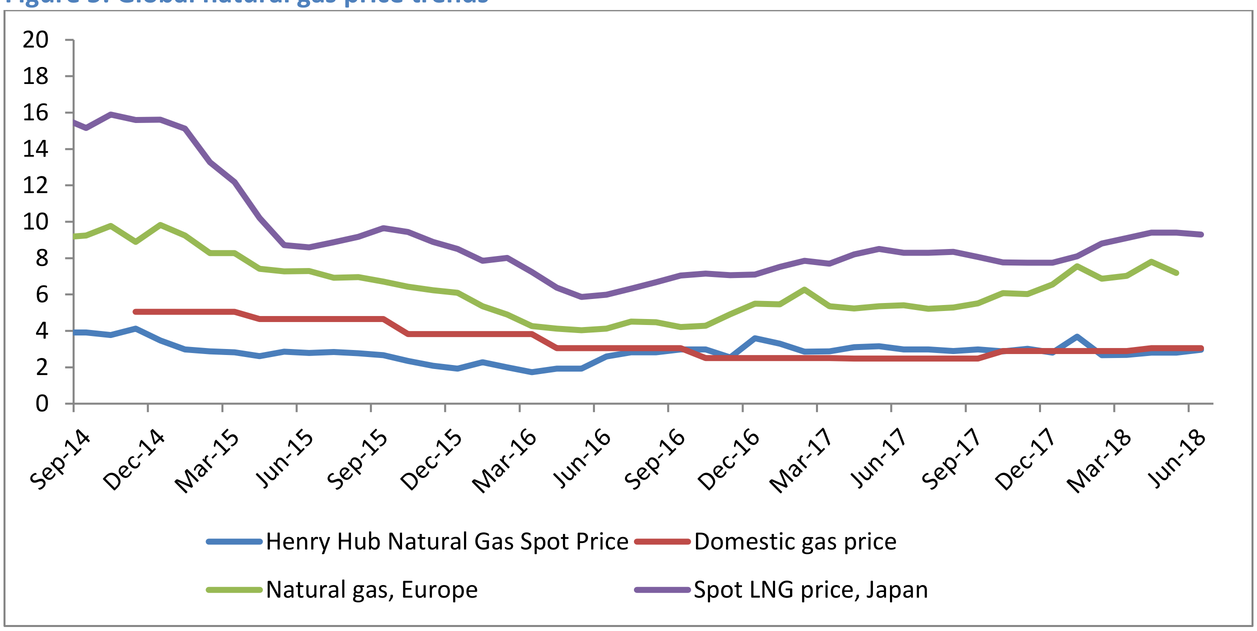
Petroleum products	Consumption in '000 MT June 2018	MoM (%) change	YoY (%) change
LPG	1,934	-5.6%	2.6%
Naphtha	1,073	3.1%	10.9%
MS	2,379	-3.2%	15.2%
ATF	679	-2.6%	13.1%
HSD	7,326	-2.9%	7.8%
LDO	44	1.9%	26.1%
Lubricants & Greases	320	0.3%	18.9%
FO & LSHS	508	-6.6%	-2.8%
Bitumen	580	-18.0%	28.6%
Petroleum coke	2,207	-8.6%	12.7%
Others	631	2.1%	-2.2%
TOTAL	**17,994**	**-3.9%**	**8.7%**

Source: PPAC

Natural Gas Price

Natural gas prices in US remained low due to higher US production. LNG prices saw an upswing over previous year due to higher natural gas demand.

Figure 5: Global natural gas price trends



Source: EIA,

Table 5: Gas price

Natural Gas	Price ($/MMBTU) in June 2018	MoM (%) change	YoY (%) change
India, Domestic gas price	3.06	0.0%	23.4%
India, Gas price ceiling – difficult areas	6.78	0.0%	21.9%

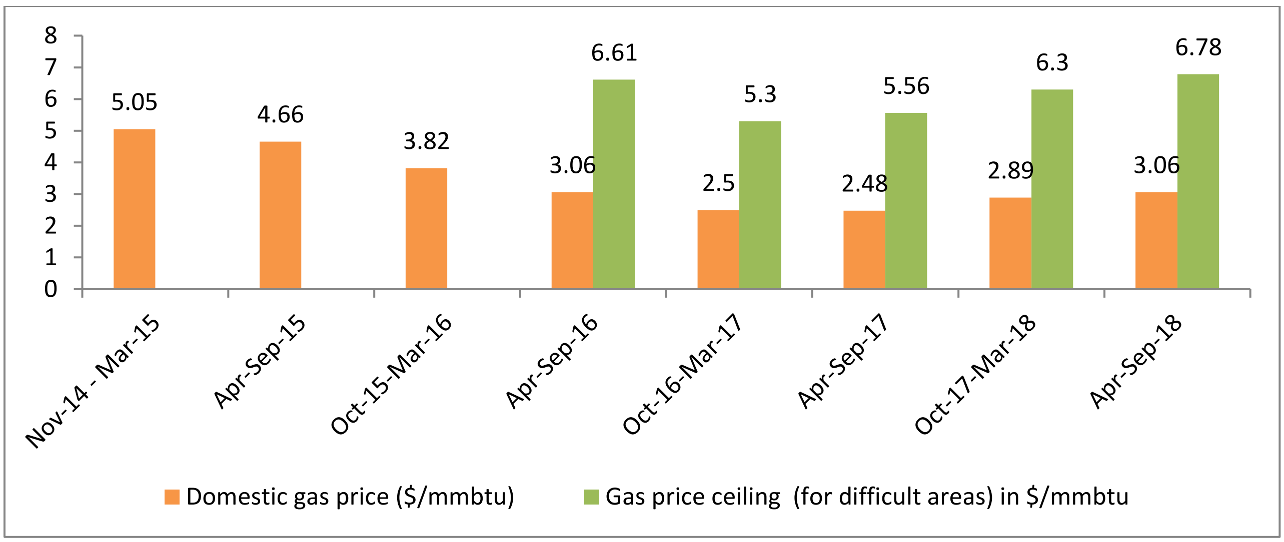
Natural Gas	Price ($/MMBTU) in June 2018	MoM (%) change	YoY (%) change
Henry Hub	2.97	6.1%	-0.3%
Liquefied Natural Gas, Japan	9.30	-1.1%	12.0%

Source: EIA, PPAC,

Domestic natural gas price which takes into account international benchmarks including Henry Hub, Alberta hub, Russia and UK National Balancing Point, has increased around 22% as compared to a year before, thus capturing the international gas price trends.

A notification was issued by MoP&NG on 21st March 2016, for marketing including pricing freedom for gas to be produced from discoveries in deep water, ultra-deep water, and high pressure high temperature areas. For the Apr-Sep-18 period, the price of gas from such areas was notified at $6.78 per MMBTU.

Figure 6: Domestic natural gas price

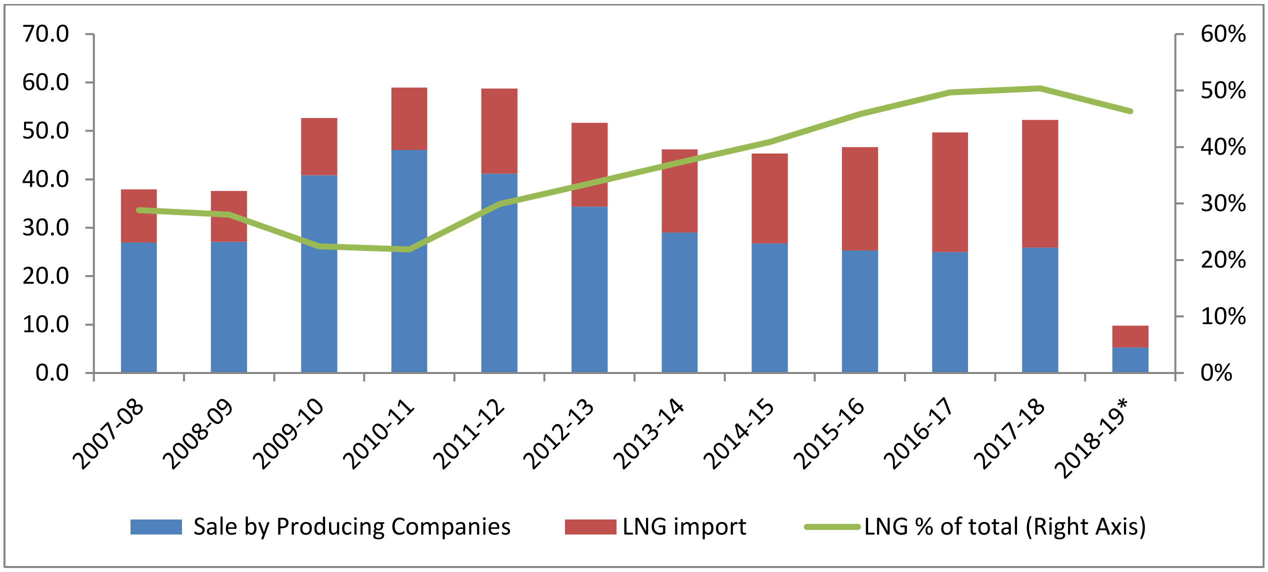


Source: PPAC

Natural gas production, consumption and import in India

- Natural gas constitutes for 6.5% of total energy primary mix of India
- Natural gas consumption in India has grown at a very slow pace in the past 3 – 4 years, with share of LNG imports increasing in the overall consumption mix

Figure 7: Domestic natural gas consumption, domestic production and LNG import in BCM



Source: PPAC

**Figures for 2018-19 are for the period of April & May only. Sale by producing companies includes internal consumption*

Key policy announcements in energy sector during the month

- **Cabinet approved Policy framework for streamlining the working of Production Sharing Contracts (PSCs) in Pre-NELP and NELP Blocks**

  The Cabinet Committee on Economic Affairs chaired by Prime Minister Shri Narendra Modi has approved the policy framework for streamlining the operations of Production Sharing Contracts (PSCs) for increased domestic production of hydrocarbon resources. The policy framework includes:

- **Special dispensation for E&P activities in North Eastern Region (NER):**
  Based on recommendations in 'Hydrocarbon Vision 2030 for North East', Government has extended timelines for exploration and appraisal period in operational blocks of North Eastern region of India considering geographical, environmental and logistical challenges. The exploration period has been increased by two years and appraisal period by one year. Further, to stimulate natural gas production in NER, Government has also allowed marketing including pricing freedom for natural gas to be produced from discoveries which are yet to commence production as on 1st July, 2018. PSC blocks in NER will be benefited from this special dispensation.

- **Sharing of Royalty and Cess in Pre-NELP Exploration Blocks**
  Government has created an enabling framework for sharing of statutory levies including royalty & cess in proportion to the participating interest of the Contractor in Pre-NELP Exploration Blocks, and same has been made cost recoverable with prospective effect. This will benefit Pre-NELP Exploration Blocks in which fresh investment for additional development & production activities is expected as sharing of royalty and cess, and cost recoverability of same will help in making additional investment commercially viable for Licensee Company.

- **Extending tax benefits under Section 42 of Income Tax, 1961**
  Extending tax benefits under Section 42 of Income Tax, 1961 prospectively to operational blocks under Pre-NELP discovered fields for the extended period of contract under PSC extension policy dated 28th March, 2016. Section 42 of Income Tax allows the companies to claim 100% of expenditure incurred under a PSC as tax deductible for computing taxable income in the same year. While signing PSC of Pre-NELP discovered fields, 13 contracts out of 28 contracts did not have provision for tax benefit under Section 42 of Income tax Act. Now, this will bring uniformity and consistency in PSCs and provide incentive to contractor to make additional investment during the extended period of PSC.

- **Relaxing timeline for reporting Force Majeure events**
  Relaxing the timeline from 7 days to 15 days for giving written notice to notify the occurrence of a Force Majeure event in the PSCs.

- **IXth round of PNGRB CGD bidding round concluded**

Petroleum and Natural Gas Regulatory Board (PNGRB) launched 9th CGD Bidding Round on 12th April, 2018 for 86 Geographical Areas (GAs) covering 174 districts in 22 states/ union territories, 24% of India's geographical area and 29% of its population.

As part of the bidding process, PNGRB organized 16 roadshows in major cities across India and internationally in Dubai during May-June 2018. Last date of bid submission was 10th July, 2018. More than 400 bids were received in respect of all the 86 GAs offered in the 9th CGD Bidding Round.
During roadshows, it was announced that the successful entities would be finalized by October, 2018 after technical and financial evaluation of bids. However, PNGRB is now trying to expedite the process. Once awarded, it is envisaged that this initiative would help in creating a robust infrastructure by bringing investment of about Rs. 70,000 Crore, generate employment and play a significant role in achieving the shift towards a gas-based economy, with natural gas as the next-generation, cheaper and environment friendly fossil fuel.

- **Amendment in Petroleum & Natural Gas Rules, 1959**

There has been an amendment in Petroleum & Natural Gas rules, 1959 in rule 3, clause (k). The following shall be substituted:

"Petroleum" means naturally occurring hydrocarbons, whether in the form of natural gas or in a liquid, viscous or solid form, or a mixture therof, but does not include coal, lignite and helium occurring in association with petroleum, or coal, or shale."

- **Iran provides ships, insurance cover to Indian companies to continue oil trade**

While the suspense prevails over India's decision to continue oil imports from India in the wake of crippling economic sanctions by the U.S., Iran has started providing ships as well as insurance cover to Indian companies to continue the oil trade. The U.S. sanctions threaten to cut off access to the American banking system for foreign financial institutions that trade with Iran, due to which European re-insurers have refused to give insurance cover to firms importing crude oil from Iran.
According to reports, Iran is using its own ships to transport oil to India as not many shipping lines participated in recent tenders for transportation of Iranian crude oil. A few weeks ago, Hindustan Petroleum Corp Limited (HPCL) had to cancel the purchase of an Iranian cargo after it faced issues related to insurance cover.

Other major Indian companies like Indian Oil Corporation (OIL) would renew their insurance cover in next few months and by that time the situation on Iran would be clearer, the reports said. India is now the top oil client for Iran after China, having shipped in 5.67 million tonnes or about 457,000 barrels per day (bpd) of oil in the first three months of this fiscal year.

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