Research

CRISIL
An S&P Global Company

Oil's not well

Crude oil output war, demand slump drubbing prices
Good for government, not so for oil marketers

CRISIL Impact Note | March 2020

Snapshot of a roil

- Crude oil output war between major producers and demand contraction following the Novel Coronavirus (Covid-19) pandemic have sent prices on a free fall
- We foresee the average price of Brent at $35-40 per barrel in calendar 2020, with risks tilted to the downside
- Supply-side actions by Saudi Arabia and Russia, and the spread of Covid-19 are the key monitorables
- Depressed prices will impact oil producers across the globe, while the demand slump is expected to affect the financials of oil marketing companies (OMCs) in India
- The government will benefit by hiking taxes on oil, while consumers will enjoy some trickle-down benefit of lower fuel prices

Why the price of crude is crashing

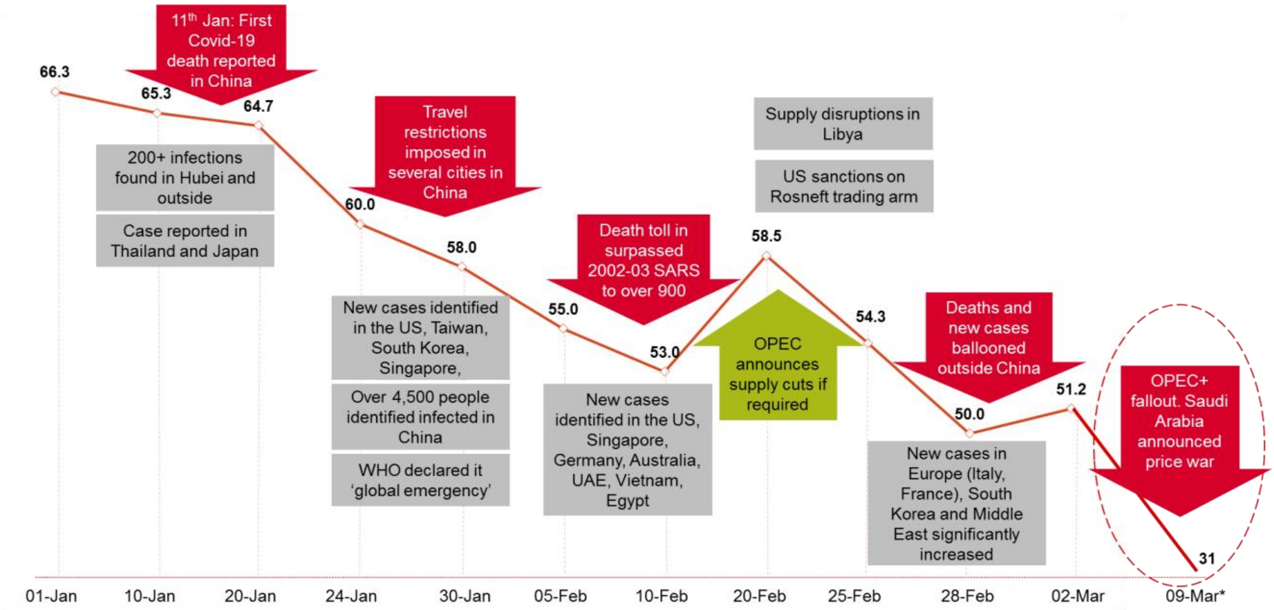
Oil prices collapsed on March 8, 2020, after Saudi Arabia announced a material increase in production to defend its market share.

Prices had already plunged to $45 per barrel on March 6, as Russia broke ranks with the Organization of Petroleum Exporting Countries and allies (OPEC+), following differences over a cut in production during their meeting in Vienna.

That triggered Saudi Arabia – OPEC's largest oil producer - to announce a price war by offering enormous discounts of $6-8 per barrel on its April selling price. Not surprisingly, crude prices nosedived, with Brent losing as much as ~30% to $31 per barrel on March 9.

The roil comes at a time the Covid-19 pandemic has renewed worries of a fresh decline, in an already sagging market because of the global economic slowdown.

Brent crude prices on skid row since January 2020



** After the market opened on 09th March*

Source: CRISIL Research

The impact on supply

In a falling market, US shale producers with high operating costs will face the heat first

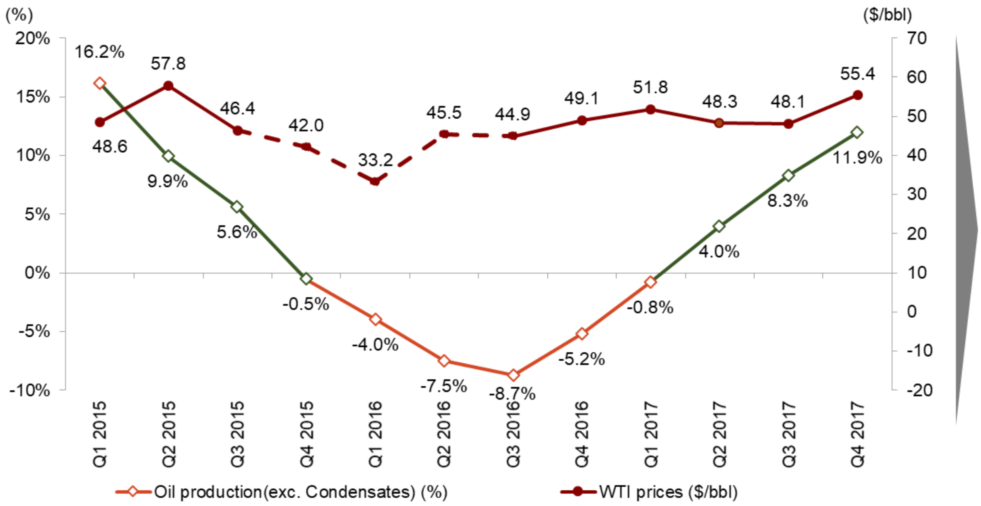
The convergence of geopolitics, economic slowdown, and the Covid-19 pandemic should keep oil prices low for a long while from here. High-cost producers are in trouble, especially the shale gas industry in the United States (US), which went off rails similarly in 2014 (see chart below).

Shale production accounts for ~50% of the total oil production (including condensates) in the US. If Brent prices hover at $35-40 per barrel for the next couple of years, expected incremental shale production of 1.5-2.0 million barrels per day (mbpd) over next 3-4 years, may not bear out, as exploration and extraction becomes unviable. This supply would only come through if crude prices are at $55-60 per barrel or higher, which is the break-even cost of US shale.

However, current US shale production is taking place at an operating cost of $25-35 per barrel-- unsustainable at current West Texas Intermediate, or WTI, price of ~$30 per barrel.

How US oil production responded to plunging prices in the past

Output plummeted when prices crashed in 2014-16

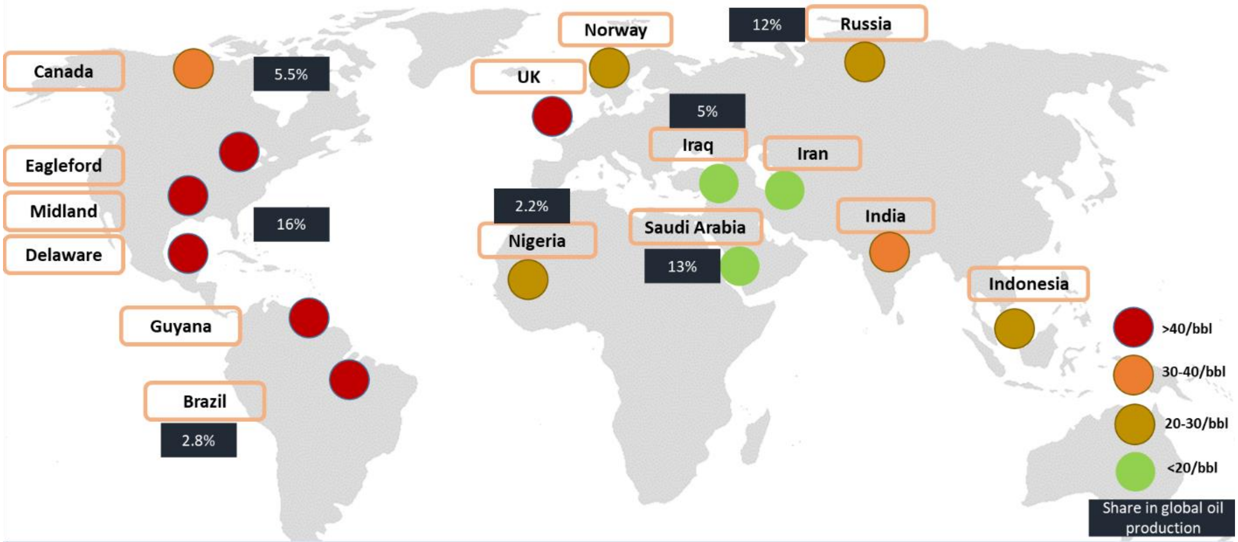


- Oil production loss of >6% on year in 2016, which equals 0.6 mbpd
- Operating margins for a set of 54 US shale oil companies fell to -136% in 2015 from over 25% in previous year
- Over 67 US oil & gas companies, having debt of $34-35 billion, filed for bankruptcy in 2015

Source: CRISIL Research

CRISIL Research analysed the regions/countries at higher risk of supply/production loss because of the current price war, taking into account production costs in each region (see chart below).

Countries with higher production costs are at greater risk



The cost of production of shale oil and deep-water oil are higher at $40-60 per barrel. On the other hand, extraction from conventional fields costs $10-30.

Source: CRISIL Research

Thus, a substantial share of the current crude oil supply from North and South America could be at immediate risk, especially where the operating costs are higher than the current oil price of $30-35 per barrel. Further, lower crude oil prices would also de-rail the economic growth of the countries heavily dependent on oil revenues to support their fiscal budget.

The impact on demand

Blindsided by Covid-19, global demand could contract this calendar year

The Covid-19 pandemic has made the already subdued demand outlook even grimmer. The spread has led to demand disruption in major crude oil-consuming nations. At the start, China, especially Hubei and the eastern provinces, were completely shut, putting brakes on industrial and manufacturing activities. China’s manufacturing Purchasing Managers’ Index for February plunged to 35.7 from 50 in January.

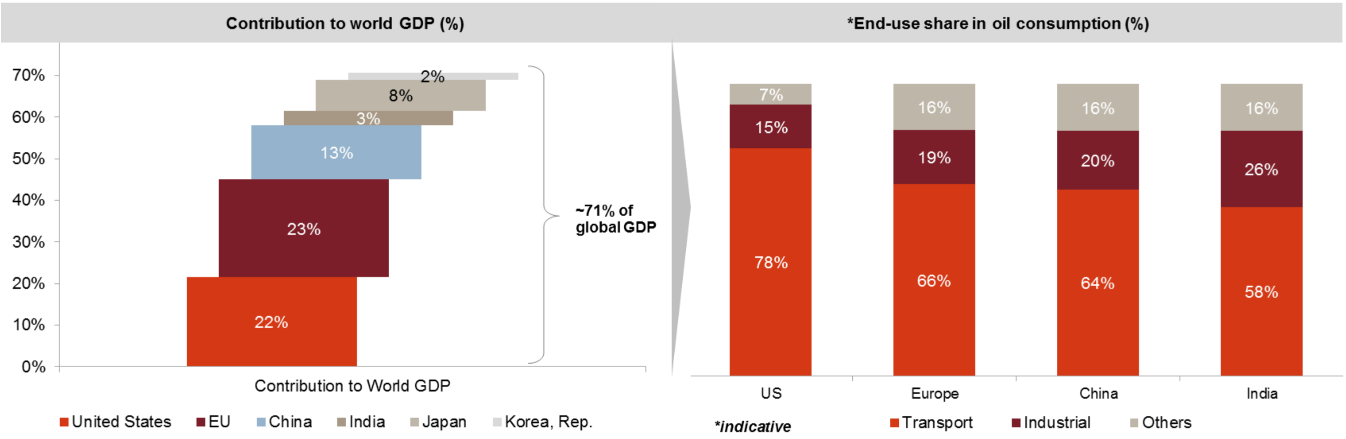
With Covid-19 spreading fast to other geographies, the impact could be felt in stalling trade and manufacturing globally, affecting oil consumption from the road and marine transportation. Inter-country travel restrictions is choking oil demand from the airlines sector as well.

Some countries/regions with increasing Covid-19 cases such as the US, Europe, China, Japan, South Korea, and now even India, account for ~71% of the global economy. The spread of the virus would deal a severe blow to their industries and supply chains, and impact oil demand from these geographies.

In January, the International Monetary Fund (IMF) revised its global economic growth for 2020 downward by 10 basis points to 3.3%. Now, it is estimated to drop even below 2.9%, the expected growth for 2019.

CRISIL
An S&P Global Company

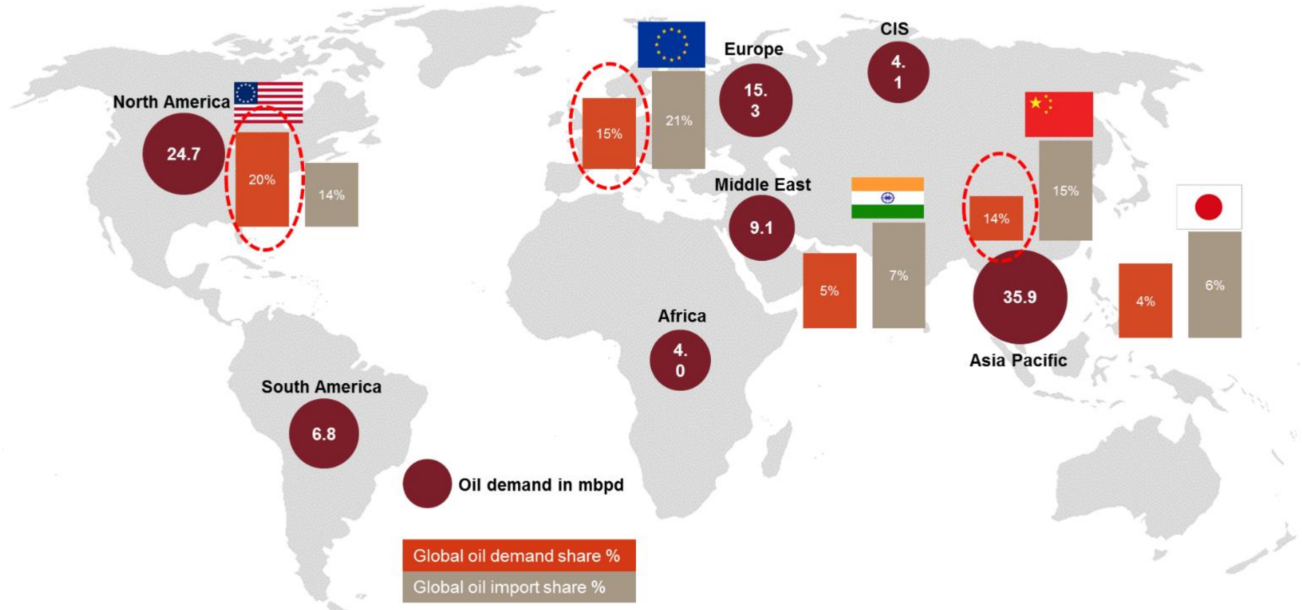
Crude cascade



Source: World Bank, US Energy Information Administration (EIA), CRISIL Research

Considering that the US, Europe, China, India, Japan, and South Korea together account for ~60% of global crude demand and oil imports, the risk of demand disruptions from these countries is the highest.

Region-wise share in oil consumption



Source: BP Statistics 2018, CRISIL Research

The worst-case scenario is here

The airlines industry accounts for 6-8% of total crude consumption. As more countries are implementing bans over Covid-19 in both international and domestic travel, the impact is likely to worsen. And if the pandemic is not contained over the next 2-3 months, the consequences will be severe.

In 2019, oil demand is estimated to have risen just ~0.8 million bpd compared with the average annual increase of 1.6 million bpd over the past five years. Before Covid-19, some green shoots of global recovery after the truce between US and China on trade war had sent hopes up that oil demand would bounce back by 1.0-1.2 million bpd in 2020.

But now, demand could stagnate at 2019 levels, or even shrink, with the latter looking like a more plausible scenario.

The impact on prices

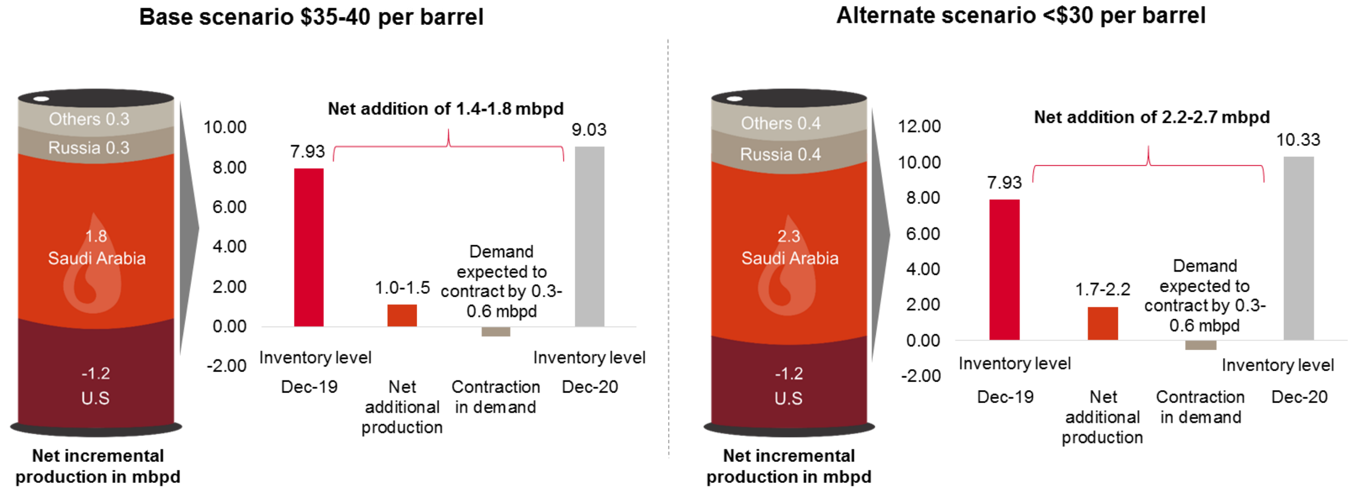
Expect average of $35-40 per barrel in 2020, with downside risks

The demand slump and the price war will drub prices. If the spread of Covid-19 is contained, or moderates over the next 2-3 months, average crude prices could range $35-40 per barrel in 2020, with risks tilted to the downside.

However, the impact on prices will depend on the extent of near-term supply increases from Saudi Arabia and Russia. CRISIL evaluates two scenarios to understand the impact of change in supply on international oil prices:

Two scenarios

How incremental supply will impact crude oil prices



Note: US oil supply decline of 1.2mbpd in two scenarios, is above the incremental production (excluding condensate) of ~0.7 mbpd so far in 2020

Source: EIA, CRISIL Research

Base-case scenario

Supply - limited increase from Saudi Arabia, other OPEC nations, and Russia and a decline by 1.2 mbpd in US; *demand* - to decline by 0.3-0.6 mbpd from 2019 levels; considering the huge impact on economic growth due Covid-19, and taking into account that during 2009 economic meltdown, global oil consumption shrunk by ~0.8 mbpd; *prices* - to range $35-40 per barrel.

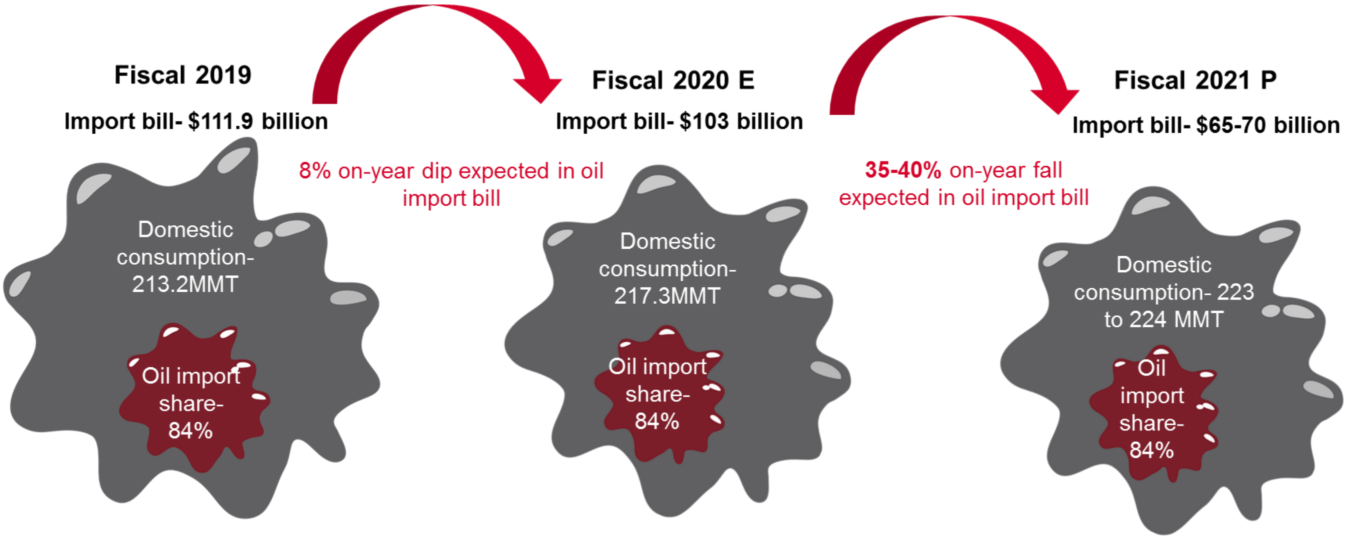
Alternate scenario

Supply - Higher increase than scenario 1, *demand* – to decline by 0.3-0.6 mbpd from 2019 levels, *prices* – to range below $30- per barrel.

What falling crude prices mean for India

Import bill: On the one side, global slowdown is having a ripple effect on India's growth and exports. But on the other, low prices is positive for the crude imports bill. If prices move in the $35-40 per barrel band, the oil import bill would fall ~8% on-year in fiscal 2020 and 35-40% in fiscal 2021.

A smaller outgo



MMT = Million metric tonne

Source: Petroleum Planning & Analysis Cell (PPAC), CRISIL Research estimates

If prices average ~$30, the oil bill for next fiscal will be halved

Government revenue: The sharp decline in crude prices will also provide a cushion to the government to hold back some gains in the form additional tax revenue. That is exactly what it did by increasing excise duty on petrol and diesel by Rs 3 per litre recently. This would rake in an additional revenue of ~Rs 40,000 crore, resulting in some fiscal bandwidth to spend on infrastructure projects.

Consumers: The benefit of lower crude prices may not be completely passed on to the end consumer on account of excise duty hikes. However, they will still stand to gain. Petrol and diesel prices are gradually declining, as they are fixed on the basis of 15-days' average international crude prices. Going forward, we expect petrol prices to further fall by Rs 6-8 per litre and diesel, Rs 4-6 per litre as the drop gets fully reflected. At the same time, impact of rupee depreciation would be passed on to the end consumers.

OMCs: Covid-19 is further drying up demand from the road transport and airlines segments in India as well. Hence, consumption growth of petroleum products is expected to be low at 2-3% in fiscal 2021. This, along with lower product prices, will have a direct impact on the revenue of oil marketing companies (OMCs). A sudden decline in crude prices will also lead to inventory losses for OMCs. Additionally, slowdown in global demand is putting pressure on product spreads, impacting gross refining margins. Both these factors will have a substantial impact on revenue growth and margins for downstream OMCs. For domestic oil explorers, the crash in crude prices would adversely impact revenue, and hence, profitability.

Analytical contacts

Miren Lodha
Director
CRISIL Ltd
miren.lodha@crisil.com

Mayur Patil
Associate Director
CRISIL Ltd
mayur.patil@crisil.com

Akanksha Vashishth
Senior Research Analyst
CRISIL Ltd
akanksha.vashishth@crisil.com

About CRISIL Limited

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.

It is India's foremost provider of ratings, data, research, analytics and solutions, with a strong track record of growth, culture of innovation and global footprint.

It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers.

It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

About CRISIL Research

CRISIL Research is India's largest independent integrated research house. We provide insights, opinion and analysis on the Indian economy, industry, capital markets and companies. We also conduct training programs to financial sector professionals on a wide array of technical issues. We are India's most credible provider of economy and industry research. Our industry research covers 86 sectors and is known for its rich insights and perspectives. Our analysis is supported by inputs from our large network sources, including industry experts, industry associations and trade channels. We play a key role in India's fixed income markets. We are the largest provider of valuation of fixed income securities to the mutual fund, insurance and banking industries in the country. We are also the sole provider of debt and hybrid indices to India's mutual fund and life insurance industries. We pioneered independent equity research in India, and are today the country's largest independent equity research house. Our defining trait is the ability to convert information and data into expert judgments and forecasts with complete objectivity. We leverage our deep understanding of the macro-economy and our extensive sector coverage to provide unique insights on micro-macro and cross-sectoral linkages. Our talent pool comprises economists, sector experts, company analysts and information management specialists.

Argentina | China | Hong Kong | **India** | Poland | Singapore | UK | USA | UAE

CRISIL Limited: CRISIL House, Central Avenue, Hiranandani Business Park, Powai, Mumbai – 400076. India

Phone: + 91 22 3342 3000 | Fax: + 91 22 3342 3001 | www.crisil.com

/company/crisil @CRISILLimited /CRISILLimited /user/CRISILLimited /lifeatcrisil

CRISIL

An S&P Global Company