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Coal: Sector Update and Outlook

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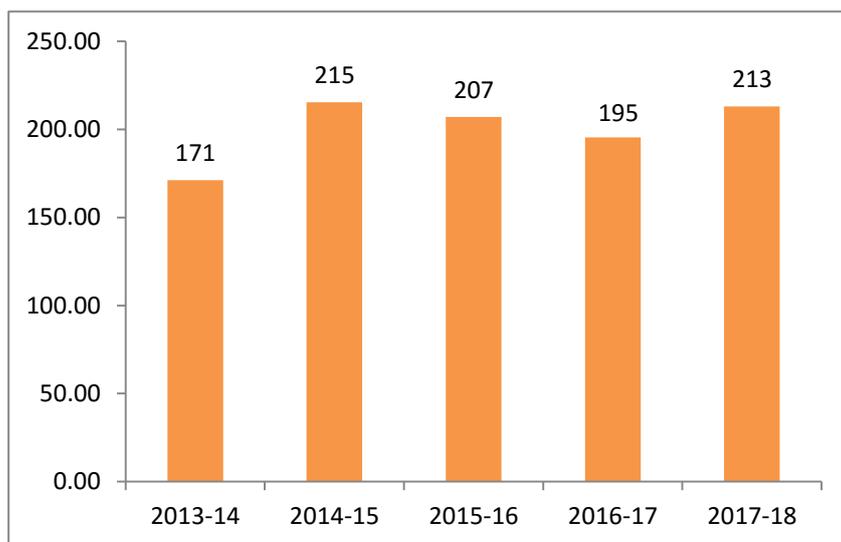
Coal production in India touched 688.4 million tonnes (MT) in FY18, clocking a 2.5% increase over last year's production.

The two large state-run coal miners, Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) together accounted for 91.6% of the total coal produced in the country during FY18.

Imported Coal Volume witnesses sharp growth

Coal imports grew by 8.1% in FY18 on the back of sustained demand from steel sector for coking coal and steady demand from the power and cement industry. Total Coal import in FY18 stood at 213 MT, against 195 MT in FY17. Australia, Indonesia and South Africa are the three largest exporters of coal to India and contribute to 75-80% of the country's total coal import.

Graph 1. Coal Import (in Million Tonnes Apr-Mar)



Source: CMIE

Coal imports were widely anticipated to fall during FY18. The Government has been pushing steam coal consumers especially power producers to replace imported coal with domestic coal. But inadequate coal transportation infrastructure especially availability of rakes has been hampering supply to power producers.

Coal import trend is expected to continue as power, cement and steel industry are expected to witness improvement in demand and capacity utilization.

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Global trend:

- China continues to be the largest coal producer globally and accounts for 45% of the world coal production. USA, India, Australia and Indonesia together account for 33% of the world coal production. Global coal production stood at 7,270 MT.
- Globally, coal production has been declining and 2016 marked the largest single-year global production volume decline as per data available from International Energy Agency(IEA).
- Developed economies namely USA, China and Europe continued to report fall in demand for coal and have reported growth in gas-based and renewable energy generation.
- India remains among the top-3 coal producers in the world and as per data for 2016 by IEA, overtook USA. USA as mentioned above reported fall in production, whereas India has been reporting growth in production to fuel its large thermal power capacity which contributes to 72% of the country's electricity generation.
- Australia accounts for 18-20% of the world coking coal production. India, China and Japan are the largest importers of coking coal from Australia. China is the largest coking coal consumer and accounts for 60-62% of the world consumption. India which is the second largest coking coal consumer accounts for 10-11% of the world consumption.
- **Global trade:** Australia and Indonesia continued to be the largest coal exporting nations in the world and accounted for 57% of the total coal export volume. The top-4 destinations of exported coal were China, India, Japan and South Korea and accounted for 58.5% of the total global coal import volume.

Table1. Volume: Domestic Coal Production, Import of Coal, Steel, Cement and Electricity

	Production		Growth (%)	
	2016-17	2017-18	2016-17	2017-18
Domestic Coal Production (MT)	672	689	3.2%	2.5%
Coal import (MT)	195	213	-4.8%	8.1%
Total	867	902	1.2%	4.1%
Steel Production (MT)	101	106	10.7%	5.6%
Cement production (MT)	280	298	-1.2%	6.3%
Electricity Generation (By Thermal plants in MU)	9,10,135	9,52,754	5.6%	4.6%

MT- Million Tonnes MU- Million kWh Source: CEA, eaindustry.nic.in, CMIE

India: Performance of demand driving sectors for coal

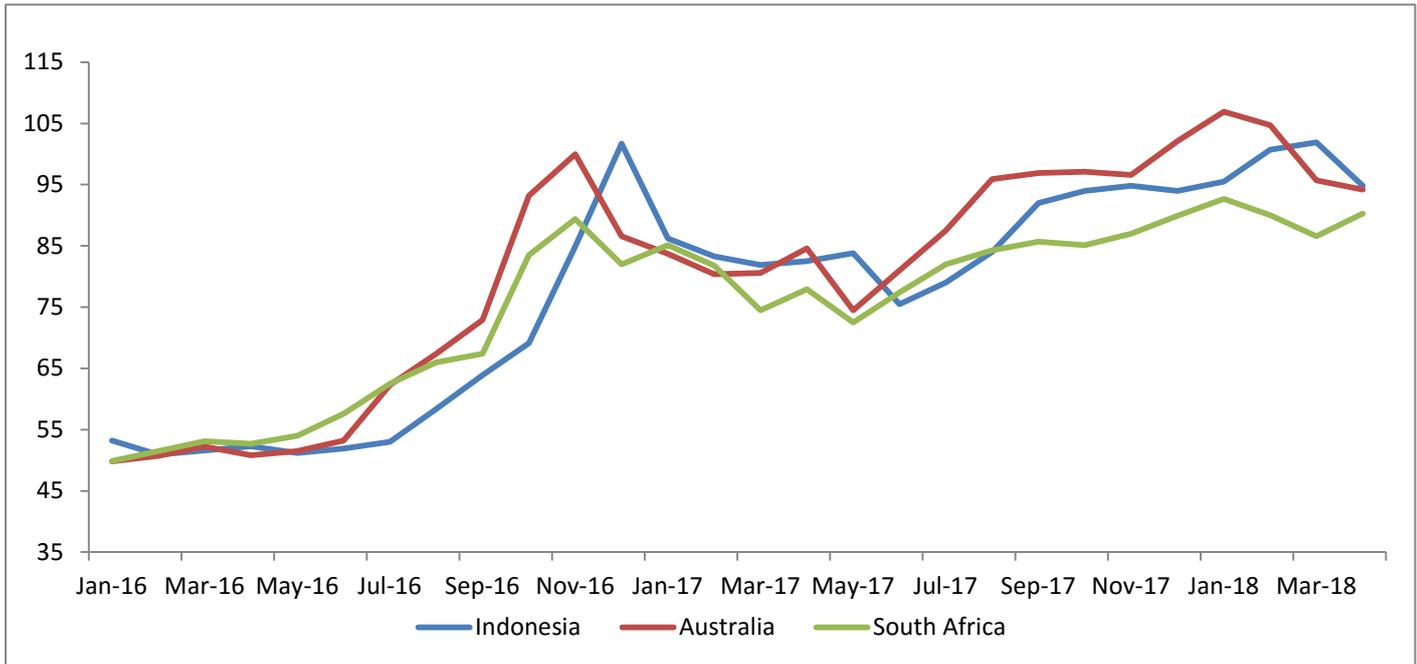
- The year witnessed sustained demand for steam coal from power sector. Other sectors like cement and steel which use thermal coal as feedstock and coking coal as raw material reported steady growth in production.
- Thermal power plants in the country reported capacity utilisation above 60% after having touched 59% levels in 2016-17.
- The power sector reported shortage in supply of coal from state-run coal miner's which has been affecting the operational performance of thermal power plants. The shortage can be roughly equated to the shortfall in CILs coal production target i.e. 33 MT.
- Inadequate rail-connectivity and rake availability have been some of the major hurdles which led to shortage of coal during the year at thermal power plants. State-run miner CIL has is expected to invest significantly into

developing railway infrastructure over the next 12-18 months which is expected to improve the connectivity of pitheads.

- In the absence of unavailability of cheap domestic coal, thermal power plants, in and around coastal regions and ports opt for imported coal.
- Steel production has been growing steadily and reported 5.6% growth in FY18. Cement production grew by 6.3% in FY18.

Coal prices:

Graph 2. Global Steam Coal Prices (in \$ per tonne)



Source: CMIE

- During the last 12-months, average global coal prices have been in the range of \$ 70-106 with prices hitting the peak in January 2018 after having bottomed out at \$72.5 per tonne in May 2017.
- Global steam coal prices have been on a steady rise after having touched a low of \$ 50 per tonne in May 2016, on the back low demand from China.
- Coal India, countries largest coal producer hiked coal prices by 10% in January 2018. The average coal price depending upon the Gross Calorific Value (GCV) of coal ranged between Rs. 530-3290 per tonne
- Domestic coal shortage has been widely reported especially for thermal power plants. The state-run miners (CIL and SCCL) on their part have been trying to address the issue of coal shortage at power plants. During the year, 580.3 MT of coal has been made available to the consumers, 7% increase over previous year.
- CIL has introduced new pricing methodology based on energy content of coal starting April 1, 2018. The same would not have a significant impact on the prices of domestic coal. The price of each tonne of coal will be based on its total energy content.

Coal import:

Coal accounted for 4.9% of total imported goods by value (approx. \$22 bn) and is the 4th most imported commodity behind Petroleum, Precious stones and gold.

Steam/ Thermal Coal import:

- India imported around 155-158 MT of steam or steam coal used as fuel for thermal power plants. Roughly 80-85 GW of thermal power capacity in India is partially or fully dependent on imported coal to fuel these power plants. Additional 6-7 MT of other types of bituminous and coke was imported for other industries.
- Indonesia (81.5 MT), South Africa (33.5 MT), USA (6 MT), Mozambique (3.1 MT) and Australia (1.7MT) are the largest exporters of Steam coal to India between April-Feb 2018.

Table 2. Factsheet: Coal import

Total Coal Import (April-March 2018)	212.5MT
Total coal import (by value in \$ billion)	19.2 (April-Feb 2018)
Top 5 ports handling coal in Value (in \$ billion) (April-Feb 2018)	Paradip (\$ 2.6 bn), Gangavaram (\$1.7 bn), Dhamra (\$1.6 bn), Kolkata (\$1.5 bn), Goa (\$1.5 bn)
Top Countries exporting coal to India in value (in \$ billion) (April-Feb 2018)	Australia (\$7.4 bn), Indonesia (\$ 5.6 bn), South Africa (\$ 2.8 bn), USA (\$ 1.3 bn), Mozambique (\$ 0.7 bn)
Volume of Coking Coal (April- March 2018)	46.5 MT (Estimated)
Volume of Steam and Other coal (April- March 2018)	166 MT (Estimates)

Source: CMIE, DGFT

Coking/Metallurgical coal:

- Coking coal, also known as metallurgical coal, is used to create coke, one of the key inputs for the production of steel. China, India, South Korea, Japan and European Nations are major global demand centres of coking coal for manufacturing steel.
- India imported roughly 46.5 MT (estimates) of coking coal in FY18, 8.1% growth over import volumes in FY17. India also has coking coal reserves but the quality of domestic coking coal is inferior to imported coking coal. Imported coking coal fulfils 65-70% of the total coking coal demand from steel industry.
- Around 3/4th of India's coking coal imports come from Australia, and the remaining from Canada, USA, Russia, Indonesia etc.

Performance of CIL and SCCL

Coal India Limited and Singareni Collieries Company Limited are the two largest coal miners in the country. The two companies together produced 629.4 MT of coal which includes both steam and coking coal. India's largest coal producer CIL has been unable to meet its annual target set by Government. CIL meeting its coal mining target would easily help cut coal imports by up to 10-15% depending upon the quality of coal produced.

Table 3. Performance of State-Miners (Volume)

Company	April-Mar 2018		April-Mar 2017		% Achievement
	Target(MT)	Actual(MT)	Actual(MT)	Growth(%)	
CIL	600	567.4	554.1	2.4	94.6
SCCL	62	62	61.3	1.1	100
Total	662	629.4	615.4	2.3	95

Source: Ministry of Coal

CARE Ratings View

- Total coal production may stagnate during the year given no visible improvement in availability of rakes or increase in evacuation infrastructure for mined coal.
- We expect the total domestic coal production to grow in the range of 2.5-3.5% (705-712) MT for FY19.
- There is an immediate requirement to auction private coal blocks of coking and steam coal for 50 MT per annum, in order to control import of steam and coking coal.
- Total import of coal including coking coal and steam coal could touch 235-245 MT if the government approves an order to ban use of pet coke which is a feedstock in cement industry. Additional 35- 40 MT of imported steam coal would be required to compensate for the pet coke ban.