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$5 trillion GDP by 2024 – significance of resources sector in Indian GDP: an opportunity for Australia's resources sector?

1. Indian GDP – current status

India is characterised as being a developing market economy. It is the world's fifth-largest economy by nominal GDP ($2.972 trillion in 2019) and the third-largest by purchasing power parity (est. $11.468 trillion PPP in 2019).

In this article all Dollars are USD unless otherwise stated.

With a massive population of 1.353 billion people, India's GDP has the potential for rapid growth with its GDP per capita ranking just 142nd on a nominal and 119th on a PPP basis. Since 1991 economic liberalisation and free market orientated reforms have propelled India to achieve annual average GDP growth rates of 6-7%. From 2014 to 2019 it has been the world's fastest growing economy, surpassing China. Facilitating this is its ease-of-doing-business ranking which has significantly improved to 63rd from 142nd since 2014. Inflation remains under control at 3.05% (May 2019) and India has a significant workforce of just over half a million people with an unemployment rate of 6.1%.

2. India GDP $5 trillion by 2024 – Is it achievable? An analysis

The IMF expects India's GDP to reach $3 trillion in 2019, having grown from just $0.19 trillion in 1980. This increase was most pronounced during the tenure of Dr. Manmohan Singh when it increased from $0.7 trillion to $2.1 trillion between 2004 and 2014. Since then growth has continued to exceed 7%.

The IMF forecasts that India will achieve a GDP of $4.7 trillion if it can maintain real growth rates between 7 and 8% for the next five years. Fig.3 shows that historical growth rates indicate this is achievable, however it may be challenging if a global recession strikes at any time during this period. A recession may be quite likely, so India may need higher growth rates in some years to compensate for weaker years.

Based on China's experience, growth rates of 10% are achievable. From 1961 to 2018 China grew by more than 10% in a year 22 times. But it did also experience negative growth five times due to economic cycles.

India's population is expected to exceed that of China in the next ten years, however the key to India's GDP growth is GDP per capita. In 1990 India's GDP per capital of $385 actually exceeded that of China which was $349. However by 2019 China's GDP per capita has grown to nearly five times that of

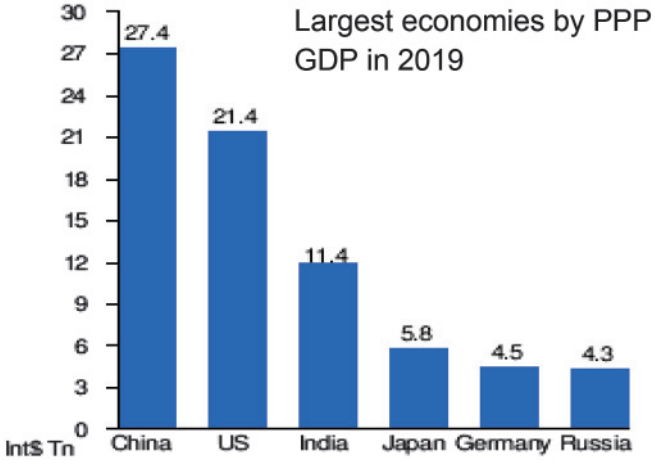

Fig.1: Largest economies by PPP GDP in 2019.
Source: https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP)

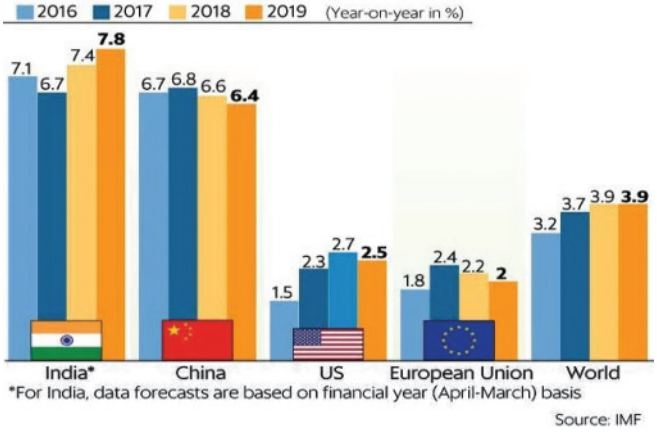

Fig.2: Comparison of real GDP growth rate per year

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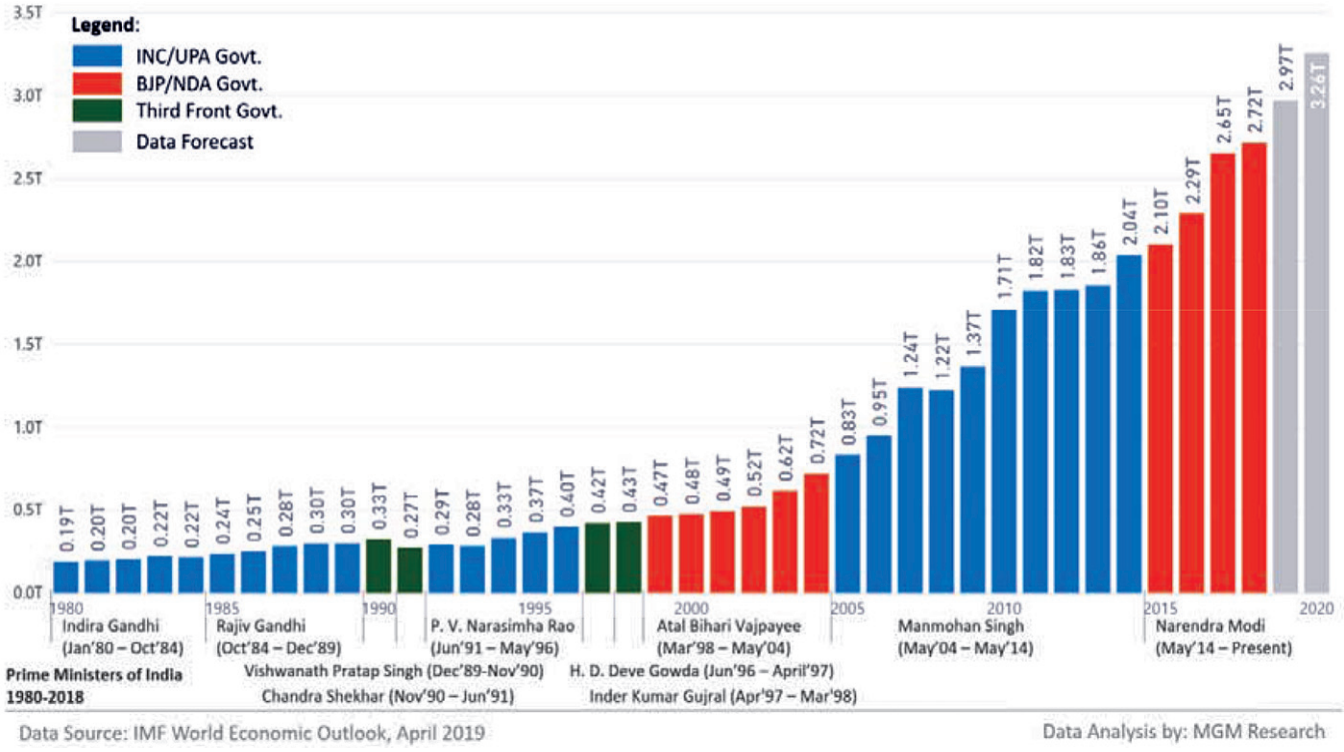


Fig.3: India GDP 1980-2020 graph

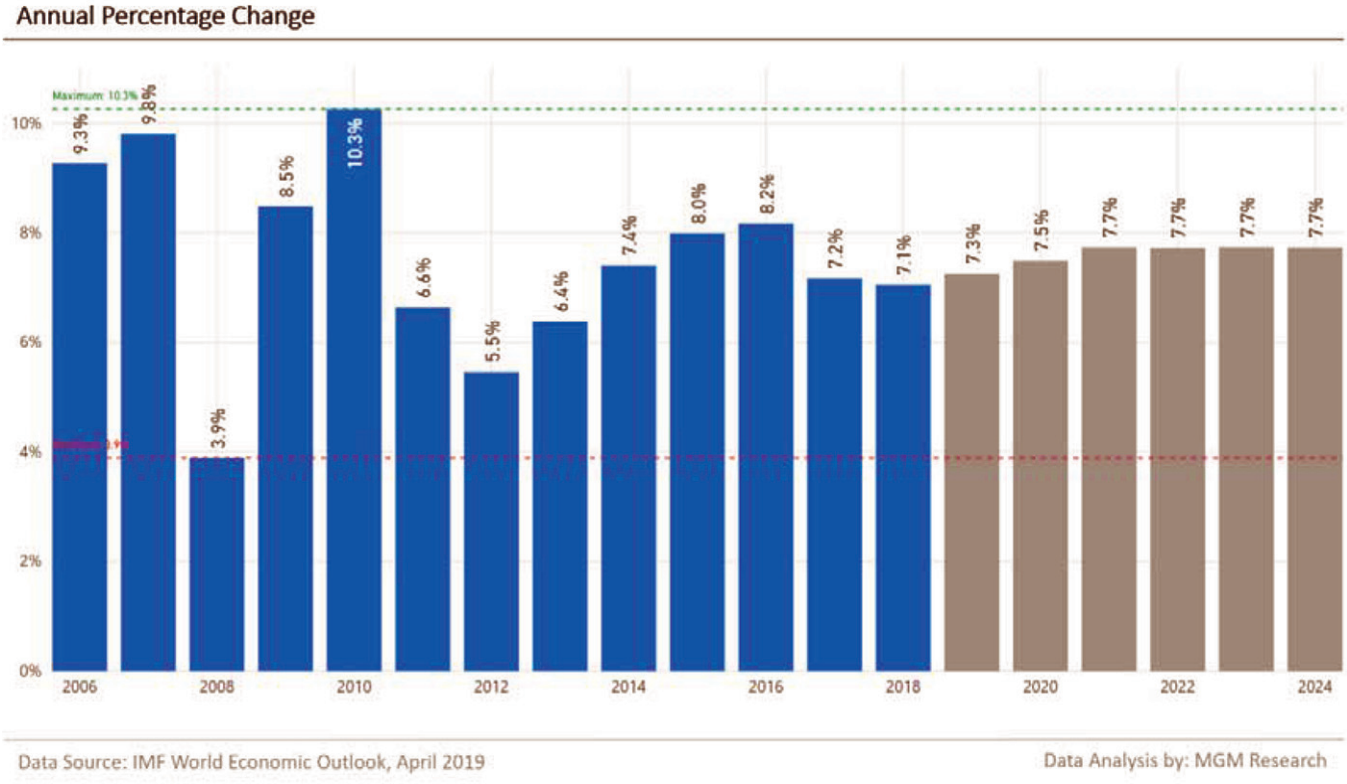


Fig.4: India real GDP growth forecast 2019-2024

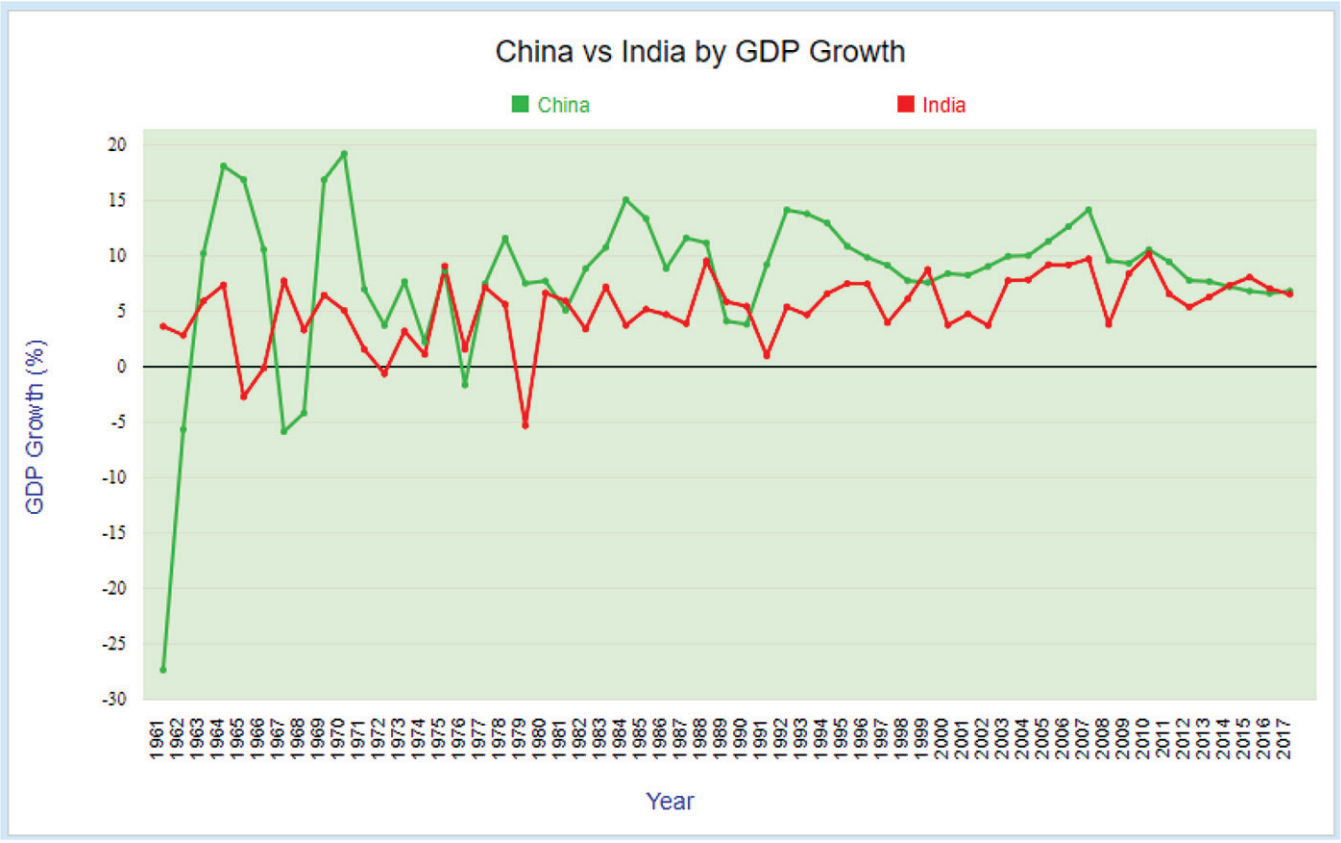


Fig.5: Comparing China and India by economy – GDP growth rates

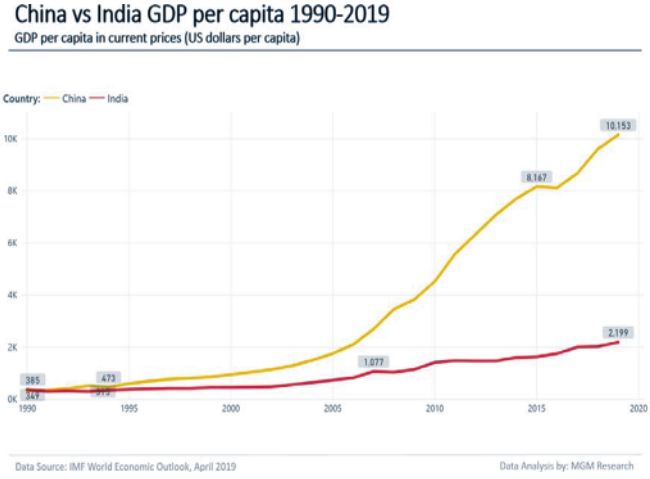


Fig.6: Comparing China and India by economy – GDP per capita

India, and this reflects the difference in the two countries' GDP today.

The IMF forecasts India's GDP per capita to grow from $2,199 in 2019 to $3,277 in 2024, increasing from number 145 in the world in 2019 to 137 by 2024. At this time it is forecasted to remain the world's 5th largest economy, but it will then be approaching that of Germany and Japan. However, in 2024 India's forecasted per capita GDP of $3,277 has much greater potential for growth in comparison with Japan's $55,407 and Germany's $59,405. India is already a mega economy, but within ten years it is expected to have the world's largest population, and between 2030 and 2035 it is forecasted to become the world' 3rd largest economy. Yet even then its per capita GDP will remain modest and can be expected to continue to drive India's GDP growth for many years into the future.

3. Role of mineral resource sector in Indian GDP

The Arthashastra, an ancient Indian handbook for running an empire, states that "Mines are the source of wealth; from wealth comes the power of the state." (Arthashastra 2.12.37; 7.14.25).

India's GDP is growing despite a relatively stagnant mining sector which was 1.93% of GDP in 2012-13 and has fallen to 1.53% in 2017-18.

Its mining sector's 1.53% of GDP is much smaller than other mineral-rich countries such as South Africa (7.50%), Australia (6.99%) and Brazil (2.00%). This may reflect the much greater size and breadth of the Indian economy, but one impact is that its economy will become increasingly import dependant. One of the challenges India faces is that its imports are already 6-7 times that of its in-country production, and yet as India's GDP grows its needs will become greater.

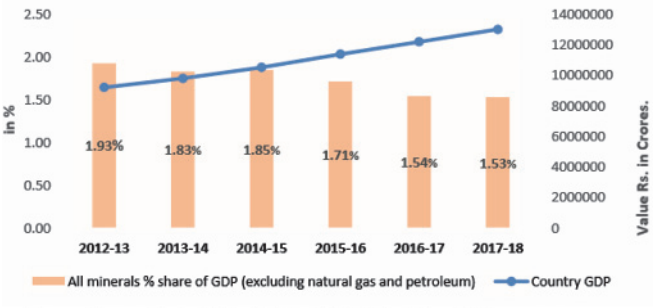
India's middle class is expected to grow from 80 to 580

GDP Rank	Country Name	GDP 2019	GDP PC Rank	GDP PC 2019
1	United States	21,345	9	64,767
2	China	14,217	70	10,153
3	Japan	5,176	25	41,021
4	Germany	3,964	18	47,786
5	India	2,972	145	2,199
6	United Kingdom	2,829	22	42,310
7	France	2,762	21	42,473
8	Italy	2,026	28	33,353
9	Brazil	1,960	74	9,344
10	Canada	1,739	19	46,419
11	Korea	1,657	31	31,937
12	Russia	1,610	67	11,191
13	Spain	1,429	32	30,631
14	Australia	1,417	11	55,421
15	Mexico	1,241	71	9,858
16	Indonesia	1,101	118	4,123
17	Netherlands	914	12	53,016
18	Saudi Arabia	762	43	22,507
19	Switzerland	708	3	82,412
20	Turkey	706	79	8,507

GDP Rank	Country Name	GDP 2024	GDP PC Rank	GDP PC 2024
1	United States	25,729	9	75,456
2	China	21,310	65	15,102
3	Japan	6,849	19	55,407
4	Germany	4,912	17	59,405
5	India	4,729	137	3,277
6	United Kingdom	3,399	25	49,569
7	France	3,354	24	50,420
8	Brazil	2,468	79	11,411
9	Italy	2,323	30	38,345
10	Canada	2,242	18	57,151
11	Korea	2,151	28	40,631
12	Russia	1,921	71	13,440
13	Australia	1,801	12	65,106
14	Spain	1,766	32	37,067
15	Indonesia	1,607	112	5,705
16	Mexico	1,570	77	11,936
17	Netherlands	1,120	13	64,019
18	Turkey	1,106	74	12,559
19	Saudi Arabia	920	47	24,596
20	Switzerland	884	3	97,041

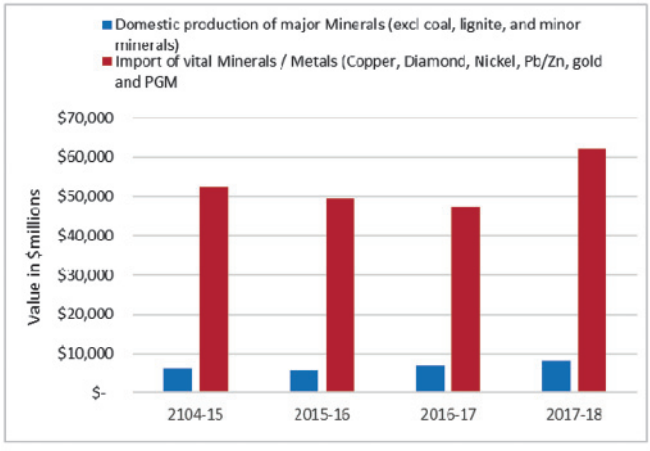
Data Source: IMF World Economic Outlook, April 2019 — Data Analysis by: MGM Research

Fig.7: World Top-20 countries by GDP during 2019 and 2024 and their GDP per capital (GDP PC) rankings



Source: Reserve Bank of India (RBI); Central Statistics Office (CSO); Ministry of Mines; Indian Bureau of Mines (IBM)

Fig.8 All minerals % share of GDP.



Source: Indian Bureau of Mines (IBM) for domestic production of major minerals; Ministry of Commerce and Industry for imports of minerals / metals

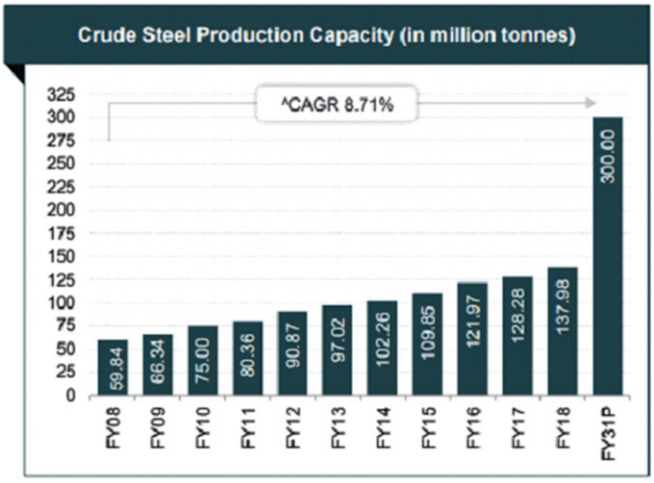
Fig.9: Domestic production of major minerals versus import of vital minerals.

million people by 2025. With this increased living standard comes the demand for white goods, vehicles and building materials that demand the use of minerals. Metallurgical coal and iron ore, both essential ingredients in making steel, are projected to approximately double from 52 to 90 million tonnes and 154 to 290 million tonnes respectively between 2016 and 2030. Figs.10 and 11 illustrate the incredible growth required in iron ore production to keep pace with the demand for steel.

The growing steel sector will drive the demand for coal, with India's share of world trade in coal projected to increase from 4% in 2000 to over 25% in 2040. It is expected to replace China as the world's largest coal importer by 2025.

Likewise copper is expected to grow from 511,000 tonnes to between one and 1.2 million tonnes in the same period, and yet the Indian economy is already almost entirely dependent on imports with negligible domestic copper production.

The same impact applies to gold. India gold demand has averaged 838 tonnes over the last ten years, but gold production remains at less than three tonnes per year. The burgeoning middle class is likely to further exacerbate this shortfall.



Source: *Joint Plant Committee, Ministry of Steel, Aranca Research*

Fig.10: Crude steel production capacity

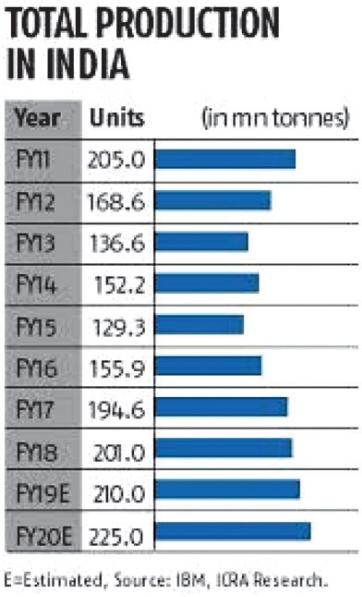


Fig.11: Total iron ore production in India

This import dependence has provoked a response from the Indian government to increase its ability to supply minerals domestically. The Indian mineral sector has already been subject to various reforms, including being open to foreign domestic investment (FDI) since 1993. The sector is already a significant part of the Indian economy. India is the world's third largest producer of steel, fourth largest producer of iron ore, third largest producer of coal, seventh largest producer of bauxite and the largest producer of sheet mica. It produces a total of 88 minerals, four being fuel related, 10 metallic, 50 non-metallic and 24 minor minerals.

Clearly more needs to be done if it is to keep pace with India's rapid growth and its increasing demand for minerals. For example, despite already producing 90 million tonnes of steel in 2015 as the third largest crude steel producer in the world, the Ministry of Steel now aims to increase steel production to 300 million tonnes by 2030-31. Actions undertaken to build the mineral sector include an airborne geophysical survey of obvious geological targets that was inaugurated in April 2017. Policy changes include the use of auctions as the sole method for allotting mineral concessions in 2015 and mandating the establishment of the District Mineral Foundation. FDI has been further relaxed, and the Government of India is encouraging private ownership of steel operations and other high priority industries. Companies producing specified metals are being given tax concessions under the Income Tax Act, and companies who mine in backward districts are eligible for a complete tax holiday for five years from the commencement of production and a 30% tax holiday for five years thereafter. Low custom duty is being offered for capital equipment used for mineral production.

One problematic area for India is its high rates of tax which remain at 64% for existing mines and compare most unfavourably with that of competing countries. However the government is taking action with new mines being taxed at 60%, and corporate tax has been reduced by 10% (Fig.15). This is a critical area, and further announcements regarding reduced taxes and royalties are expected.

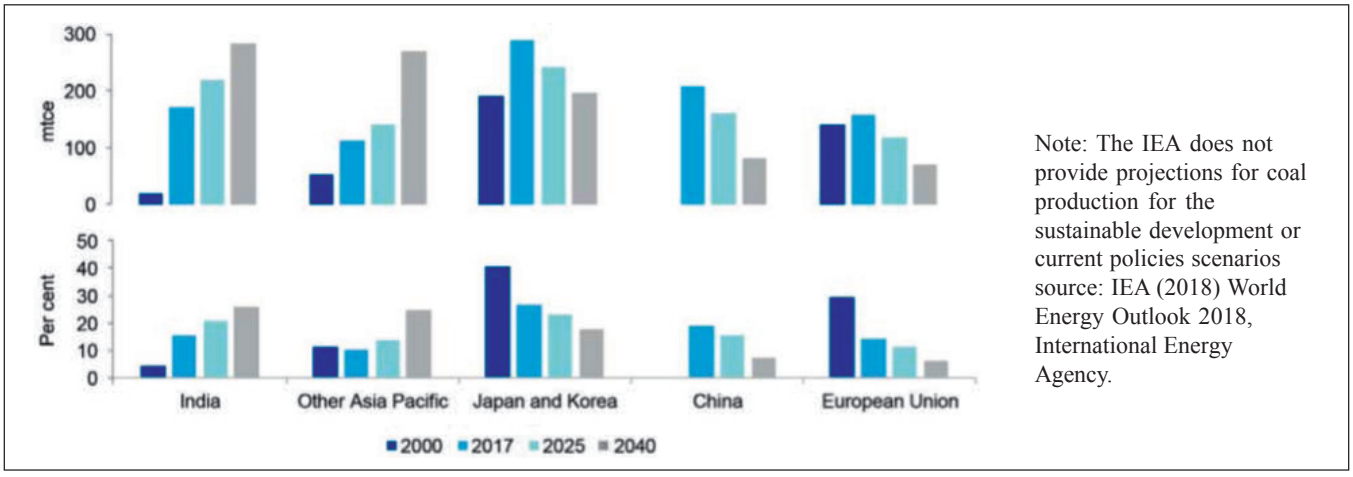
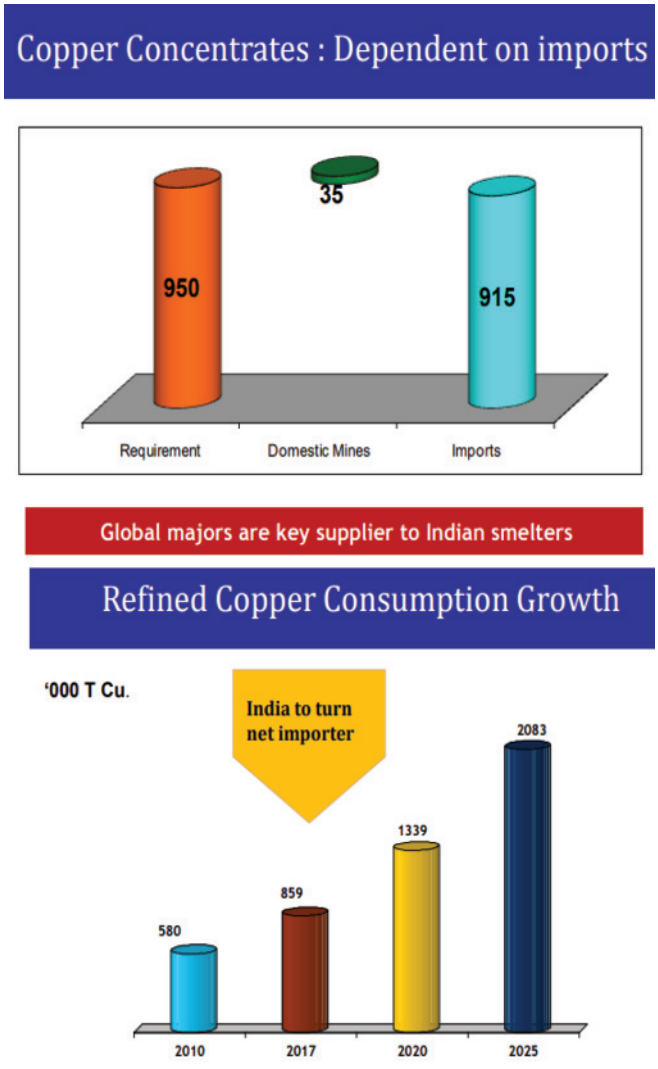


Fig.12: Comparison of expected coal requirements by region



Figs.13&14: Copper concentrates: dependant on imports, refined copper consumption growth

Reforms like these are required to boost investment in the sector that has been fading since the spike in 2015-16.

4. Impact of reformed Indian mineral sector

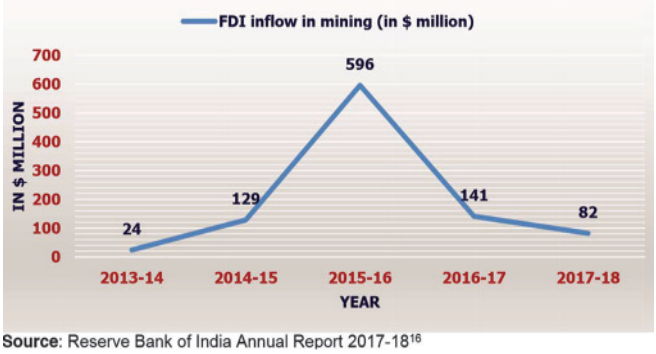
The rapid growth of India's GDP offers clear opportunities for Australia's mining sector. India's requirement to import minerals is likely to keep increasing and providing more opportunities for Australian producers. Additionally, reform in India to encourage production domestically recognises the need for FDI. Examples of Australian investment in India include BHP, Rio Tinto and Deccan Gold/Geomysore Gold. Examples of Indian investment in Australia include Adani Coal and Legacy Iron. Joint initiatives include the CSIRO-NMDC collaboration in Zero Waste Mining and the Australia IIT Dhanbad collaboration in coal technology.

There is also a range of ways in which the Australian mining sector can add value to India's, such as:

- Mining services enhancing productivity and sector

Typical case of iron ore and includes the following components of taxes which are specific to mining as per MMDR Amendment Act, 2015, besides common components like corporate tax, CSR etc. Ø Royalty on minerals – Section 9 and Schedule II (royalty on iron ore @ 15%). Ø Dead rent on mining leases – Section 9A and Schedule III. Ø Contribution to District Mineral Foundation (DMF)

Fig.15: Comparative rates of tax between selected countries



Source: Reserve Bank of India Annual Report 2017-18[16]

Fig.16: FDI inflow in mining

modernization:

  - Geo-mining consultancy, especially where new and high productive technologies would be deployed.
  - Mining IT and mine management systems.
  - Safety, including safety systems and equipment.
- Mapping and the generation of baseline data.
- Skill and training – human capital in mining.
- Help in the area of sustainable environmental management.
- Underground mining equipment.
- Niche mining equipment, such as special pumps, valves and electricals.
- Mineral beneficiation systems and components.
- Mineral analysis and weighing, particularly for in motion situations.
- Simulation and training, including virtual reality.

5. Conclusion

India's expected rapid growth in the coming decades will demand mineral resources, and this will offer opportunities for trade between India and Australia.

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