

Unipolar World – The China Way!

S N.	Items / Goods	Category	No. 1	Value	No. 2	Value	% of China	Remarks
1	Crude Steel ¹	Traditional Metal	China	1032.8	India	118.2	11.4%	
2	Cotton ²	Cloth/ Apparel	China	5879	India	5334	90.7%	
3	Titanium ³	High-end Metal	China	150	Japan	50	33.3%	India (0.25)
4	Solar PV (Modules) (%)	Renewable Energy	China	74.6	APAC	15.3	20.5%	India's share 3.1%.
5	Wheat ⁴	Food	China	2.4	India	1.8	75.0%	
6	Motor vehicle ⁵	Transport	China	26082	USA	9167	35.1%	India is 4 th (4399.12)
7	Toys, Games and Sport Requisites ⁶	Consumer Goods/ Misc.	China	101849	USA	6771	6.6%	India not in top 10.
8	Computer Devices (%)	Technology	China	46.3	Mexico	7.5	16.2%	India not in top 15.
9	Machine Tools Consumption (%)	Heavy Machinery	China	32	USA	12	37.5%	India not in top 5.
10	Rare Earths Production (%)	Metal/Mineral (Low content but high utility)	China	70	USA	14	20.5%	India at 7 th . (0.97%)

Exhibit 1: China Vs. Rest of the World

¹in million tonnes, crude steel production, ²in 1,000 metric tons, ³in 1000 tons, Sponge Metal Production

⁴in Billion Tonnes, ⁵in 1,000 units (Cars + Commercial vehicles), ⁶leading exporters in million US Dollars

We listen to several commentators around the world talking that the power has been shifting from west to east and more precisely toward China. Knowing that economics goes hand-in-hand with the military might and diplomatic wisdom, many world leaders have accepted the dominance of China in the current world order, directly or indirectly, on various occasions. We would like to understand the situation with rudimentary analysis and anecdotal experience at this place and try to discern the way forward for the world and India, in particular.

From the exhibit-1, we can see China, the most populous country, is also the no. 1 and undisputed leader in various sectors of industrial and consumer goods. The data shown is only illustrative and collated from various sources and is latest as per the source for the given category. With the highest forex reserves (in USD), China is no. 2 in the Gross domestic product (GDP) at current prices and likely to top the list by 2030 surpassing the United States. Just to emphasize the scale, let us compare China's steel capacity vis-à-vis India's. India aims to have total crude steel production capacity at 300 million tonnes by FY 2030-31, which is one-third of what China has already done in 2021. It explains the obvious – the no. 1 is far ahead of its nearest competitor.

Taking an example of Flue Gas Desulphurization (FGD) equipments market in India for last 5-6 years, it is seen that the equipment(s) sourcing is heavily skewed in the favour of companies of Chinese origin. Given the relatively newer technology of such equipments especially in terms of provenness in FGD application which is somewhat disadvantageous to Indian manufacturers and higher priced non-Chinese global Original Equipment Manufacturers (OEMs), the market has seen complete dominance of Chinese firms. Few European firms do propose to design in west but manufacture equipments in their China facility to be competitive. Initiatives like AtmaNirbhar Bharat for promoting Make in India and mandatory DPIIT registration requirement for firms

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originating from land border sharing countries have led to some level playing field for India based OEMs to capture significant market share over the past year. Still, the FGD market needs to correct upward and should be valued around Rs 1 Crore per MW for a typical scope for this segment to become lucrative for the reputed Indian EPC players to remain active in the FGD business having major contribution to clean environment.

The market of rare earths has an uncanny similarity to the FGD business. Many companies of non-China origin found it difficult to make money in producing rare earths within three (3) years after China opened supply as a result of World Trade Organization (WTO) intervention in the year 2012. This led to US players either go bankrupt (Molycorp) or close the processing and send semi-processed ore to China for final processing.

During multiple waves of Covid-19 pandemic, world realized the importance of realigning supply chain to have multi-location distribution and avoid extreme concentration of production at one geographical place. Some movements did happen as per reports but a lot more must materialize to secure uninterrupted supply chain. Ukraine-Russia conflict and any such unrest has potential to disrupt the world economy and many countries including India have felt it hard. Rising metal prices in 2021-2022 has dealt a blow to many projects of national importance in the country. Whenever there is a rising trend in prices, manufacturers get benefitted. However, when there is excess supply from low-cost sources, the genuine manufacturers of quality products despite focus on optimization in their systems/ processes bear the brunt as seen in rare earth example cited above.

Generally, it is seen that the government agencies and regulatory authorities respond by calibrating policies and incentivizing production of goods of strategic importance. However, even 'non-strategic' sectors must receive adequate attention to ensure more even distribution of production and jobs in the country supported by measures to enhance technological capability and/ or alternative processes. Among all this, a silver lining is India with 89.5 million digital transactions, has topped the list of five countries in digital payments in year 2022.

An obvious question comes to the mind: "How is it possible to have such a concentrated capacity in one country and what can be done to make it evenly spread?" The world needs to answer it and find the 'magic wand' China holds, and ensure the answers are turned into definite action plan and implemented subsequently. What should be the approach of world leaders (people and/or agencies) in the areas of polity and business to respond to an imminent need for rationalizing the cost-structures across the world and not just knee-jerk reactions.

Newer avenues to achieve net zero targets and sustainability goals have opened relatively unexplored territories like alternate usage of coal (gasification, methane et al.), hydrogen economy, space resources exploitation, clean energy, exotic technology, recycling processes et cetera. We must ensure a more equitable and streamlined supply chain in such upcoming sectors to have a just world order for the humankind's welfare.

Source/ Reference:

1. <https://worldsteel.org/steel-topics/statistics/world-steel-in-figures-2022/>
2. <https://www.statista.com/statistics/263055/cotton-production-worldwide-by-top-countries/>
3. <https://www.usgs.gov/centers/national-minerals-information-center/titanium-statistics-and-information>
4. <https://www.iea.org/data-and-statistics/charts/solar-pv-manufacturing-capacity-and-production-by-country-and-region-2021-2027>
5. <https://www.weforum.org/agenda/2022/08/top-10-countries-produce-most-wheat/>
6. <https://www.statista.com/statistics/616732/toy-and-game-exporters-worldwide/>
7. <https://www.statista.com/statistics/584968/leading-car-manufacturing-countries-worldwide/>
8. <https://www.worldstopexports.com/computer-device-exports-country/>
9. <https://www.statista.com/statistics/264216/world-machine-tool-consumption-by-country/>
10. <https://www.statista.com/statistics/270277/mining-of-rare-earths-by-country/>
11. <https://www.statista.com/statistics/247231/currency-reserves-of-selected-countries/>
12. <https://www.statista.com/statistics/1070632/gross-domestic-product-gdp-china-us/>
13. <https://www.census.gov/popclock/world>
14. <https://sciencehistory.org/education/classroom-activities/role-playing-games/case-of-rare-earth-elements/history-future>
15. <https://timesofindia.indiatimes.com/india/india-dominating-digital-payment-landscape-leading-the-way-towards-a-cashless-economy-centre/articleshow/100891543.cms>

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