

Metals & Mining

On the road in China - Fresh learnings



Metals & Mining ➤ Sector Report ➤ April 25, 2025

NIFTY 50: 24,247

We spent two weeks in China, travelling the cities of Beijing, Shanghai, and Suzhou, as well as the Anhui province. The intent was to gauge on-ground insights on the demand front as well as developments on supply of metals. Our broad takeaways are that China's domestic economy is doing well, internals are in shape, and economic momentum is solid. China is transitioning toward an advanced economy which is highly aluminium-/copper-intensive. Consumer sentiment appears to be improving. On tariffs, the people sounded better prepared vs the first trade war back in 2018. Our sense is that there is no margin of error when competing with Chinese manufacturing efficiency.

The Good

Our on-ground checks indicate favorable economic momentum with meaningful ongoing developments in new energy vehicles (EV), construction, infrastructure, and technology.

1) Construction activity: We note there is meaningful construction activity especially with some 'emerging tier 1' cities developing rapidly with rising manufacturing capabilities through economic zones. We also saw undeveloped areas within city limits of Beijing that are being taken up for development.

2) EV value chain: EVs are a new fad in China. There is a whole set of long value chains for EVs supporting such growth with strong policy push.

3) Consumption: The Chinese government has taken various measures to stimulate consumption – one that has seen success is consumer goods trade-in which is improving consumer sentiment. Implications on metals demand: As the economy transitions from basic to technology-driven growth, demand for aluminium and copper is growing – this was the consensus belief in all our discussions.

The Bad

1) Aging demographics: We visited public parks, subway stations, shopping malls – there are relatively lesser children than in Mumbai, albeit a higher number than in Tokyo. Also, we had discussions with a few 25-year-olds on their perspective of marriage (not enough to make a sample, though); the answer is not encouraging owing to rising cost of living, reduced availability of time, and improving girl-child education. 2) Peak steel: Travelling in China felt much like travelling in any developed country which means that a large portion of what needed to be built has been built and this translates into reduced steel consumption intensity ahead. Nevertheless, steel consumption remains healthy in absolute terms, but is expected to decline at 2% pa.

The Achilles' Heel

Tariffs have potential to play spoilsport in the otherwise positive economic momentum we observed. We note that metals tend to be the first to react to external shocks which hence poses a downside bias, should existing tariffs not be reversed. Nevertheless, sentiment was largely firm, with the tariff threat undaunting so far.

India Metals & Mining – Equity implications

Rating, Target Price and Valuation

We came back with a positive overall read for Gravita and aluminium producers, neutral for steelmakers, negative for iron ore miners. Favored picks: VEDL, TATA, NACL, GRAV.

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		CMP	TP	Upside	EV/EBITDA (x)		P/E (x)		P/B (x)	
	Rating	(Rs)	(Rs)	(%)	FY26	FY27	FY26	FY27	FY26	FY27
Tata Steel	BUY	142	185	31	6.4	6.0	12.3	11.0	1.6	1.5
JSW Steel	ADD	1,045	1,100	5	8.5	7.2	17.5	13.6	2.5	2.2
Jindal Steel & Power	REDUCE	908	825	(9)	7.0	6.0	13.2	10.6	1.5	1.3
SAIL	ADD	118	120	2	5.9	5.8	11.0	11.6	0.8	0.7
Hindalco	SELL	628	600	(5)	6.2	5.7	10.8	9.6	0.9	0.8
Vedanta	BUY	420	550	31	4.0	3.7	7.6	6.7	3.4	3.0
National Aluminium Co	BUY	162	225	39	4.9	4.2	8.1	6.9	1.3	1.2
Coal India	BUY	400	475	19	4.1	3.7	6.8	6.2	1.9	1.6
Gravita India	BUY	1,947	2,100	8	24.5	20.7	31.6	26.9	4.9	4.3

Source: Company, Emkay Research is intended for Gaurav Narkar (gaurav.narkar@emkayglobal.com) use and downloaded at 06/22/2025 12:25 PM

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The Good

Construction activity everywhere

We started the trip in Beijing, first seeing hutongs (which are undeveloped areas). Back in the 1990s, Beijing had thousands of hutongs that were redeveloped during China's major development phase of 1990-2010. Even now, there are an estimated few hundred hutongs. New development work has started in the south of Tiananmen Square area called Xianyukou hutong, which has already been vacated and taken up by construction workers. This indicates that Beijing is still developing and there is more scope for construction work in coming years.

There is a market perception of property oversupply in China which we understand is mainly a problem area in tier 3 cities though not so much in tier 1 and 2 cities.

We visited Beijing, Shanghai, Suzhou cities, and the Anhui province. In Anhui, we visited tier 4 cities – Chizhou and Anqing – as well as modern villages like Qingyang County. We witnessed construction across these cities.

This indicates that while steel demand has peaked, it is not falling off a cliff and is instead sustaining at elevated levels of 850-870mtpa, which is supported by new construction and infrastructure activity.

Exhibit 1: Construction work in Shanghai



Source: Emkay Research

Exhibit 2: Construction work in the city (tier 4) of Chizhou



Exhibit 3: Construction work in Beijing



Exhibit 5: Construction work in the emerging...



Source: Emkay Research

Exhibit 7: Beijing hutong taken up...



Source: Emkay Research

Exhibit 4: Infrastructural work in Shanghai



Source: Emkay Research

Exhibit 6: ...tier 1 city of Suzhou



Source: Emkay Research

Exhibit 8: ...for redevelopment

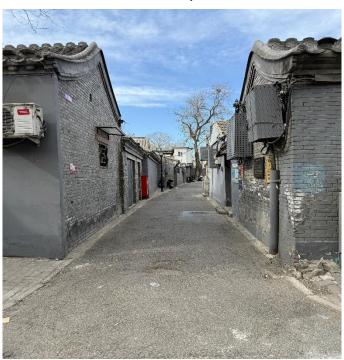


Source: Emkay Research

Exhibit 9: There are many hutongs in Beijing...



Exhibit 10: ...that could be redeveloped in future



Source: Emkay Research

Exhibit 11: Residential project in a tier 4 city in Anhui province



Double-skin façade

In several commercial buildings across China, especially in rapidly developing urban centers, architects are increasingly adopting designs that feature dual-layered facades. These layered facades serve multiple functional and aesthetic purposes. By incorporating an external skin separate from the main structure, buildings benefit from enhanced thermal insulation, improved airflow regulation, and reduced energy consumption. This design helps minimize reliance on artificial heating and cooling systems, contributing to greater energy efficiency. At the same time, it supports modern visually-striking architecture that aligns with contemporary urban design trends.

This trend also contributes to China's higher steel intensity per capita. The construction of layered facades requires additional structural elements, supports, and framing—most of which are made of steel. As a result, the volume of steel used per person has increased, driven not only by the scale of construction but also by the complexity and innovation in building designs.

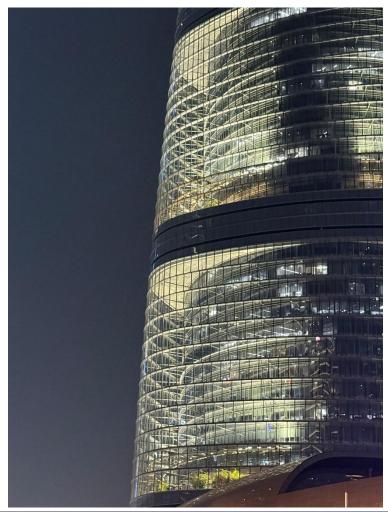


Exhibit 12: Double-skin facades show massive consumption of steel

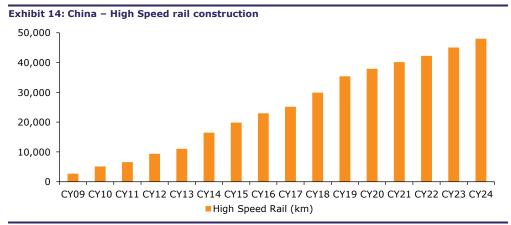
High-speed rail to grow 25% in five years

China has 48,000km of high-speed rail with plans to increase this to 60,000km by 2030. For context, the second longest high-speed rail capacity is in Spain which is only $1/10^{th}$ of the length in China. We also saw new construction activity of rail bridge laying out a new high-speed line.

Exhibit 13: China's high-speed rail



Source: Emkay Research



Source: Bloomberg, Emkay Research

Rapid development in 'emerging tier 1' cities

China recognized 15 cities as 'emerging tier 1' cities in 2024 – Chengdu, Hangzhou, Chongqing, Suzhou, Wuhan, Xi'an, Nanjing, Changsha, Tianjin, Zhengzhou, Dongguan, Wuxi, Ningbo, Qingdao, and Hefei. These cities have exhibited considerable economic development and entrepreneurial aspiration to become like Shanghai and Shenzhen in future.

Interestingly, there are already 27 cities in China with GDP of RMB1trillion, driving regional economic growth.

With favorable policy support, these cities have developed economic and technological development zones and attracted fresh capital and factories. They have provided tax incentives and ease of doing business.

We visited Suzhou, which collaborated with Singapore during its development phase and its infrastructure is quite similar to Singapore's. Specifically, we heard mention of Suzhou, Hangzhou, and Hefei often, with regard to rapid economic development.

Exhibit 15: Infrastructure in Suzhou city...



Source: Emkay Research

Exhibit 16: ...appears as good as Singapore's



Source: Emkay Research

Quality of roads in tier 4 cities as good as Shanghai's

What stands out is the quality of roads and the amount of steel consumption involved. The roads in Chizhou are as good as they are in Shanghai.

Exhibit 17: Quality of roads in...



Source: Emkay Research

Exhibit 18: ...the tier 4 city of Chizhou



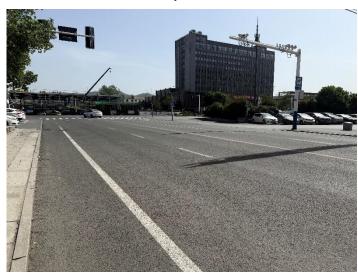
Source: Emkay Research

Exhibit 19: Road in a modern village in Qingyang County



Source: Emkay Research

Exhibit 20: Road in the tier 4 city of Chizhou



EVs thriving

We visited experience centers of Huawei, Nio, Xioami, and Tesla in Beijing and Shanghai. We came back impressed with the progress on designs, interiors, battery range, charging, and battery swap infrastructure. We are particularly impressed with the designs and other aspects of Nio cars.

The country is rapidly developing an entire ecosystem of new energy vehicles, with different regions developing as hubs for different components of the long EV value chain. For example, Anhui is developing as an EV hub, Sichuan is developing battery storage, the north-west region of China is developing renewables capacity.

We also had an opportunity to meet academicians of a university who are doing research on lithium technology.

Overall, we get a sense that there is considerable progress in development of the EV value chain which is expected to provide a favorable demand backdrop for aluminium, copper, and lithium. EVs are less steel-intensive, so incrementally steel demand from automotive is likely to decrease.

In few of our meetings, it was highlighted that research for the production of light weight steel that could be used in EVs is ongoing. Also worth noting is that low-end EVs still have steel content while high-end ones are largely built with aluminium.

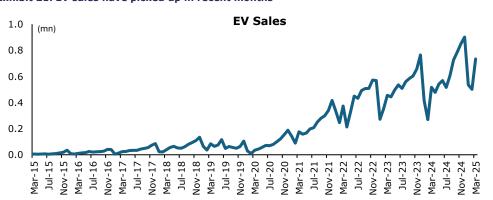


Exhibit 21: EV sales have picked up in recent months

Source: Bloomberg, Emkay Research

Exhibit 22: Nio electric car



Exhibit 23: Interior of Nio EV has gone to a different level



Exhibit 24: Huawei's Stelato to compete with S-class



Source: Emkay Research

Exhibit 25: Xiaomi racing electric car



Exhibit 26: Luxeed has impressive interiors



Exhibit 27: Tesla charger



Source: Emkay Research

Consumption reviving

China tried various measures to stimulate domestic consumption. One program that really worked was consumer goods trade-in where the effective discount is 15-20% on exchange of old electronics. This applies to mobile phones, TVs, refrigerators, washing machines, and various other consumer durable products. The scheme became effective last year, and has been extended to 2025-end; it is likely to see further extensions.

China also renewed the vehicle trade-in subsidy scheme of RMB15,000-20,000, to encourage consumers trade-in old vehicles for new ones. In addition, registration charges for petrol cars are as high as RMB100,000 while being negligible for EVs – essentially enticing a switch to new energy vehicles.

We visited Apple, Samsung, and Huawei stores to check the benefits of this program. iPhone ownership is considerably high in China, per our observation.

In terms of metals demand, close to 20% of total aluminium consumption in China is used in electronics and consumer durables.

In addition to this, we visited shopping streets of Nanjing Road in Shanghai and Wangfujing Street in Beijing. There were no signs of a slowdown in consumer demand. Retail sales data has been indicating a lack of growth, however the base level of activity appeared healthy.

Lastly, Shanghai's electricity consumption per capita is 4x that of emerging cities like Mumbai, so power consumption is high; with new capacity development of renewables, we think this segment is growing and driving demand for aluminium and copper.

Exhibit 28: Consumer goods trade-in program...



Source: Emkay Research

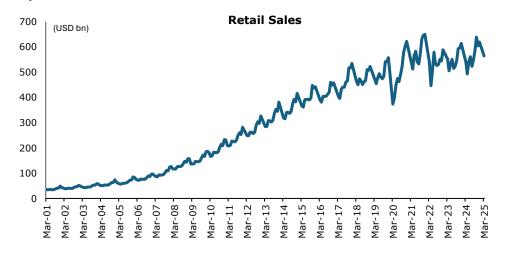
Exhibit 29: ...in an electronics store



Exhibit 30: Nanjing Road East shopping street in Shanghai

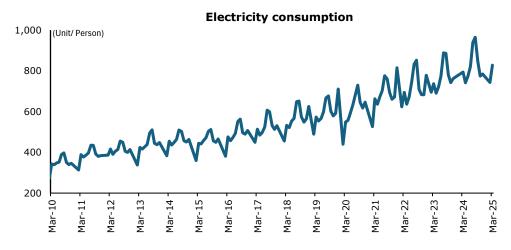


Exhibit 31: Consumption had seen significant pickup over the years but peaked out in the last 3-4 years



Source: Bloomberg, Emkay Research

Exhibit 32: Per capita electricity consumption is seeing a rising trend



Source: Bloomberg, Emkay Research

Technological advancements

There are visible technological advancements in mundane life in China.

Superapps

China is largely a cashless economy with payments run on Wechat and Alipay superapps, which have integration with ride-hailing service of Didi – a food delivery service of Meituan, as well as various other similar functionalities.

With use of mobile phones taking up increasingly longer time in everyday life, there are power bank vending machines everywhere where one can take a charger on rent from one place and deposit back to any other vending machine. This functionality is also embedded in these superapps.

Quick commerce

Quick commerce delivery time is around 25-30 minutes. We note India's quick commerce companies like Zepto and Blinkit have achieved superior delivery times of less than 10 minutes.

Robotaxi

We took a ride in a driverless taxi that is run on the outskirts of the city of Beijing. There is newsflow that Tesla is looking to launch an autonomous taxi service in China.

Other

Traffic systems are well advanced, with the timer on signals also appearing on the car dashboard map. To add to this, the system is advanced enough to show the timer applicable to the lane one is driving on.

There are robots installed in hotels and select public places for delivery service. We also saw robots in aluminium factories, used for organizing and packing the final product making production lines less labor-intensive.



Exhibit 33: Robotaxi on road in China

Exhibit 34: Robots installed in hotels and select public places for delivery purpose



Exhibit 35: Charging points at railway stations



Source: Emkay Research

Exhibit 36: Power bank vending machine



Source: Emkay Research

Thriving aluminium industry on the supply front, with focus on high-quality development

Aluminium demand in China is strong and growing. Our overall discussions revealed a consensus-positive outlook. China's new three – entailing EVs, batteries, and solar, have been growing at a fast pace in recent years and have offset the decline in construction and ICE cars.

Consumption intensity per capita for aluminium is still growing in China. In the last 2-3 years, China developed significant capacity of renewables and achieved its 1.2TW of renewables target by 2030, six years ahead of schedule. Now the economy is developing EV space, from making raw materials like aluminium and copper cathodes to manufacturing batteries, to charging infrastructure and electric cars.

In Mar-25, China's Ministry of Industry and Information Technology released a new plan for achieving high-quality growth in aluminium, to boost resource security, green development and technological innovation. The plan outlines tangible targets for raising aluminium recycled output to 15mt from 2024 production of 10.6mt. The primary aluminium capacity cap of 45mt stays in place.

With this supply/demand backdrop, we think the aluminium market is likely to tighten further, with 2-3% pa demand growth and tighter supply, as scrap availability is also shrinking. In addition, China now imports clean scrap which would improve ESG dynamics.

This is likely to support higher prices – our base case is aluminium prices ranging at USD2,500-2,600/t. Should prices cross this range, there is possibility of new supply response in rest of the world which would act as a limiting factor to any price upside. Nevertheless, any supply response is unlikely to come up for commissioning before 2029; hence we are looking for 2-3 years of favorable supply/demand conditions with higher prices.

We note that the current cost curve sits at USD2,300/t for aluminium and USD400/t for alumina, in China. This cost curve support provides a margin of safety to India aluminium producers, given the India cost of production at USD1,900/t.

Secondary aluminium market dynamics

China's aluminium recyclers operate on 3% margins (USD70-80/t) when making aluminium ingots from scrap aluminium. A stable value chain ecosystem combined with world-class infrastructure helps them operate at low spreads, as the focus is more on scalable cashflows instead of chasing margins and ROEs.

With growing need of scrap to increase production, China has increased import of scrap in recent years and scrap prices have been bid up.

For Novelis, about a fourth of its revenue comes from automotive, where the expectation is for a tightness in scrap availability, increase in scrap cost, and compression in margins.

Exhibit 37: Chin	a's scran	aluminium	supply/	demand I	nalance
EXHIDIC 37: CHILL	a s sci av	alullillillulli	SUDDIV/	aemanu i	Jaialice

(kt)	2024E	2025E	2026E	2027E	2028E
Imported scrap aluminium	1,620.0	1,710.0	1,620.0	1,530.0	1,620.0
Domestic scrap aluminium new material supply	3,840.0	3,921.0	4,026.0	4,169.0	4,139.0
Domestic scrap aluminium supply	6,918.0	7,418.0	7,908.0	8,597.0	9,272.0
China's total supply of scrap aluminum	12,378.0	13,049.0	13,554.0	14,296.0	15,031.0
Demand for recycled aluminium and scrap aluminum	7,597.0	7,704.0	8,186.0	8,453.0	8,721.0
Demand for scrap aluminium	3,033.0	3,071.0	3,157.0	3,240.0	3,444.0
Demand for scrap aluminium	1,700.0	2,000.0	2,200.0	2,300.0	2,400.0
Other scrap aluminum demand (cables, Aluminium powder, etc.)	425.0	480.0	550.0	620.0	650.0
China's total demand for scrap aluminium	12,755.0	13,255.0	14,093.0	14,613.0	15,215.0
Imported aluminum alloy ingots	384.0	356.0	320.0	292.0	240.0
China Market Balance	7.0	150.0	-219.0	-25.0	56.0

Source: SMM, Emkay Research

Exhibit 38: China's recycled aluminium production capacity to reach 20mt by CY27E

20,000

15,000

5,000

2020

2021

2022

2023

2024E

2025E

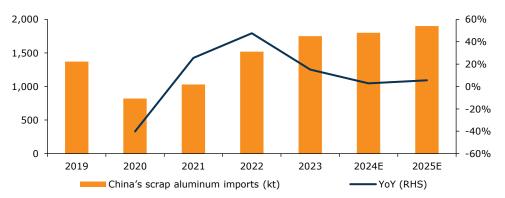
2026E

2027E

Recycled aluminum alloy production capacity (kt)

Source: SMM, Emkay Research

Exhibit 39: China's scrap aluminium import is expected to reach 2mt in CY25E vs 1.4mt in CY19



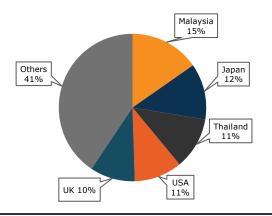
Source: SMM, Emkay Research

Exhibit 40: Aluminium scrap spread has spiked in recent months on news flow around tariffs



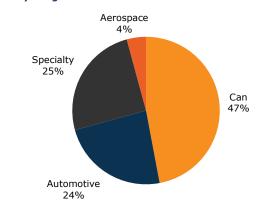
Source: SMM, Emkay Research

Exhibit 41: Proportion of scrap aluminum imported from different countries in 2023



Source: SMM, Emkay Research

Exhibit 42: 24% of Novelis's revenue from automotive where scrap availability is tight



Source: Company, Emkay Research

Exhibit 43: Aluminium recycling plant visit in Qingyang County



Exhibit 44: Aluminium tense scrap



Source: Emkay Research

Exhibit 45: Copper scrap



Source: Emkay Research

Exhibit 46: Baled UBC scrap



Exhibit 48: Robot for packaging aluminum ingots



Source: Emkay Research

Exhibit 47: Leaner process to put scrap into furnaces



Source: Emkay Research

Exhibit 49: Aluminium ingots made from UBC



Source: Emkay Research

Exhibit 50: Aluminium downstream enterprise

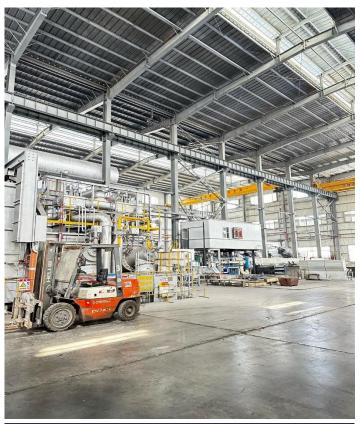


Exhibit 51: Aluminium downstream product



Source: Emkay Research

Exhibit 52: Alloy wheel made from recycled aluminium



Source: Emkay Research

The Bad

Aging demographics

We visited public parks, subway stations, and shopping malls – there are relatively lesser children than in Mumbai, while Tokyo has relatively more children.

We also had discussions with a few 25-year-olds about their perspective on marriage (not enough to make a sample though); the answer was not encouraging owing to rising cost of living, reduced availability of time, and improving girl-child education.

In 2021, China did away with its decades-long 1-child policy, to make it a 3-child policy for reviving birth rates. Our sense is that the change in policy has so far been ineffective.

China's population is projected to decline in coming years, and the median age is 40 years in 2025. For context, India's median age is 29 years.

Globally, there is no precedent of any large country having revived fertility rates (closest example is Japan). Whether or not China can solve this is unclear.

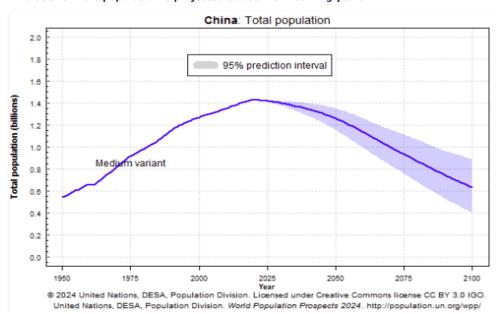


Exhibit 53: China's population is projected to decline in coming years

Source: UN, Emkay Research

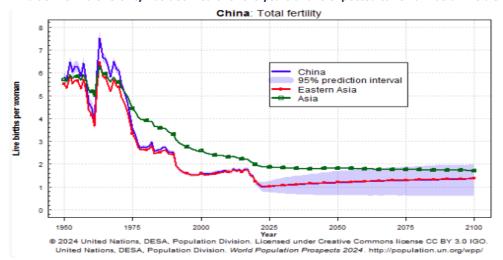


Exhibit 54: China's fertility has declined over the years and is expected to remain below Asia's

Source: UN, Emkay Research

Peak steel and the ongoing reset

Travelling in China felt much like travelling in any developed country which means that a large portion of what needed to be built has been built; this translates into reduced steel consumption intensity ahead.

During the supercycle phase of China's expansion, its steel consumption grew to unprecedented levels of 1bn tonne. The previous example of rapid expansion is of Japan, which saw growth of 150mt. Naturally at some point, it had to peak out and normalize. This economic reset process, which has been ongoing for the past five years, has been painful for the economy, more specifically for property prices.

We see that the economy is doing reasonably well excluding the construction sector. GDP growth contribution by infrastructure is still growing at 0-1%, which is supportive of steel demand. However, steel demand growth is certainly out of sight. Nevertheless, steel consumption remains healthy in absolute terms but is expected to decline at 2% pa. It is hard to pinpoint a number for where the baseline demand would settle in the medium term.

Per our discussions, we get a sense that China's steel production could decline by 100mt from now until 2030. Concurrently, there is expectation of production cuts owing to the lower demand. Recently, a production cut case was put up for review of China's NDRC, with details around capacity that is uneconomical. The indication is that production cuts are not easy to implement as it is not clear who would be willing to absorb the restructuring cost. Therefore, though the case for production cuts exists, the timing is unknown.



Exhibit 55: Much of the large-scale development already in place

Source: Emkay Research

Exhibit 56: China's steel consumption could decline by 2% pa

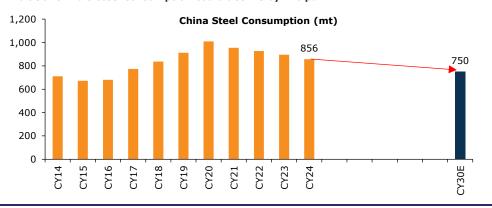
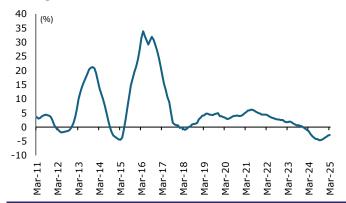
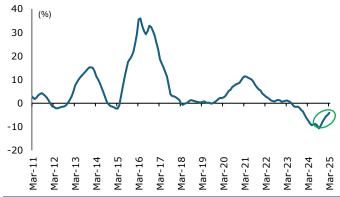


Exhibit 57: YoY price growth trend in China's 1st tier cities' new buildings



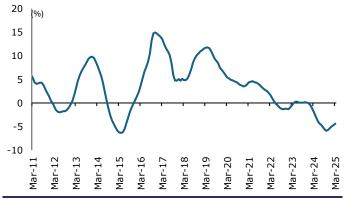
Source: Bloomberg, Emkay Research

Exhibit 58: Price growth in China's 1st tier cities' second-hand buildings – YoY growth shows positive trend



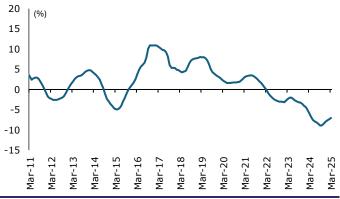
Source: Bloomberg, Emkay Research

Exhibit 59: YoY growth trend in prices of China's 2nd tier cities' new buildings



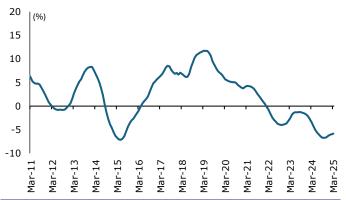
Source: Bloomberg, Emkay Research

Exhibit 60: Growth in prices of China's 2nd tier cities' secondhand buildings – YoY growth shows commencement of improvement in recent months



Source: Bloomberg, Emkay Research

Exhibit 61: YoY growth trend in prices of China's $3^{\rm rd}$ tier cities' new buildings



Source: Bloomberg, Emkay Research

Exhibit 62: YoY growth trend in prices of China's 3rd tier secondhand buildings has stabilized in recent months



Source: Bloomberg, Emkay Research

Read across for India

While China is still growing and the outlook on ground is better than our expectations, the aggregate demand for steel is still expected to decline at 2% pa. At the margin, this is still positive for India steelmakers, especially with the added advantage of safeguard duty.

However, we think the safeguard wall is not high enough to deter Indian importers to reduce the volumes imported. Therefore we think that while safeguard is expected to improve EBITDA spreads, it is unlikely to reduce net imports and inventories. In addition, there is supply ramp-up in India over the next 12 months which would limit upside to steel prices.

Exhibit 63: Emkay's steel supply/demand model

(mt)	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
India Production																	$\overline{}$
Tata Steel	9.2	9.3	10.0	11.7	12.5	13.2	18.5	17.2	19.5	19.8	20.8	21.8	25.2	26.0	28.5	30.0	30.0
Jindal Steel	2.8	3.6	3.2	3.4	4.0	5.3	5.9	6.9	7.5	7.5	7.6	8.0	10.0	12.0	13.0	13.0	13.0
JSW Steel	12.2	13.1	12.7	16.5	16.4	16.7	16.0	14.8	18.0	23.6	25.6	27.0	31.9	33.1	35.4	38.3	38.3
SAIL	13.6	13.9	14.3	14.5	15.0	16.3	16.2	15.2	17.4	18.3	19.2	18.7	19.9	19.9	19.9	21.9	23.8
AM/NS	3.2	2.9	3.7	5.4	6.8	6.8	7.1	6.7	7.3	6.7	7.7	7.7	7.7	9.0	13.1	13.5	15.7
Others	40.7	46.2	45.0	46.4	48.5	52.6	45.5	42.8	50.7	51.3	63.3	65.3	67.4	70.6	76.7	79.8	83.0
Total Production	81.7	89.0	88.8	97.9	103.1	110.9	109.1	103.5	120.3	127.2	144.3	148.5	162.1	170.5	186.6	196.4	203.8
Net Imports	-0.5	3.7	2.5	-3.0	0.6	-0.8	-1.6	-6.0	-8.8	-0.7	0.8	3.5	3.5	3.5	3.5	3.5	3.5
Supply	81.2	92.7	91.3	94.9	103.7	110.2	107.6	97.5	111.5	126.5	145.1	152.0	165.6	174.0	190.1	199.9	207.3
Apparent Consumption	81.6	89.7	91.6	91.9	102.1	106.1	106.7	102.2	112.4	123.9	141.7	153.1	164.5	176.9	189.3	202.5	216.7
Supply/Demand Balance	-0.4	3.0	-0.3	3.0	1.6	4.0	0.9	-4.7	-1.0	2.6	3.4	-1.1	1.0	-2.8	0.8	-2.6	-9.4
Inventory Level	1.5	4.5	4.1	7.2	8.8	12.8	13.7	9.0	8.0	10.6	14.0	12.9	13.9	11.1	11.9	9.4	0.0

Source: Company, Ministry of Steel, Emkay Research; Note: Supply/demand model on crude steel basis

Luxury retail lacks enthusiasm

While broader consumption is stable and consumer sentiment is improving, the luxury retail segment showed a lack of enthusiasm. We saw almost-empty upscale retail stores in Wangfujing Street in Beijing, and Nanjing Street and Xiantiandi mall in Shanghai.

'China's elite see in China but buy in Europe' is an old saying, regarding luxury goods. This was expected to reverse post-Covid but we feel the shift has not happened.

Exhibit 64: Considerable number of luxury brands in China



Exhibit 65: Luxury stores...



Exhibit 66: ...lack crowds



Source: Emkay Research

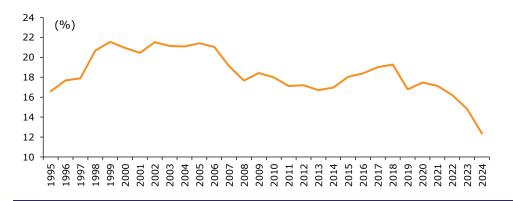
The Achilles' Heel

Steel overcapacity to widen if tariffs are not reversed

Actual impact from tariffs a negative for metals demand

China's share of exports to the US has been consistently declining over the years. It seems China was preparing for this all along and that resonates in our discussions with people who stated they are better prepared and more resilient in this trade war compared with the first one that started back in 2018.

Exhibit 67: Share of US in China's total exports



Source: UNCTAD, China Customs, Emkay Research

Nevertheless, a protracted trade war would have made a dent in China's GDP, and metals tend to be the first to react to global shocks. During our discussions, experts talked about a 100bps impact on the GDP.

Coming to steel, China produces 1bt of steel every year with its apparent consumption at 860-870mt. This leaves a surplus production of 130-140mt available for exports. Now adding the actual and more worrisome complication, China's manufactured goods that are exported contain about 150mt of steel. Lets take an assumption where 20% of these products become subject to 100%+ tariffs would mean that there is another 30mt of surplus steel that becomes available. This would mean total surplus steel production of 160-170mt. For context, this surplus would be more than India's aggregate steel consumption/production of 150mt.

Existing tariffs on China not reversing would be negative for steel prices.

Why is a trade war with China a losing proposition to start with

Our ground level understanding indicates that China manufacturing operates on thin margins and, clearly, there is no margin of error for anyone globally standing in competition with it. The businesses focus on scalable cashflows over margins and return ratios which makes it difficult for market-based public money that chases ROEs to compete. In addition, they have built fully integrated value chains and supporting infrastructure that helps reduce logistics costs and lead-times associated with the manufacturing supply chain.

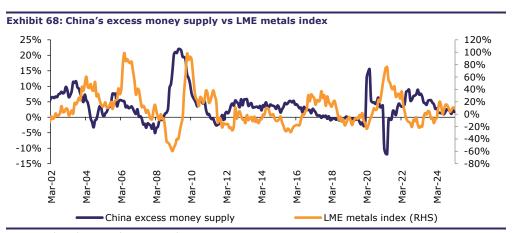
In addition, advanced/developed economies tend to have services sector orientation with lowend product manufacturing taken care of by more industrialized economies.

China also has access to rare earth minerals, which would make a trade war difficult for any country dependent on them. However, we understand that rare earth deposits are not so rare indeed. The capacity to smelt and process the minerals is not available to rest of the world, for now. However, smelting capacity could be built over time, with more findings of these mineral deposits.

'Policy put' appears in place

Our discussions with market experts indicate that China has both, fiscal room as well as identified measures, that could help stimulate the economy if growth worsens due to the tariff impact. One interesting takeaway is that no amount of CNY devaluation would be able to mitigate >100% tariffs and, therefore, a devaluation might not be on the cards to start with.

Specifically on stimulus discussions, we hear whispers of possibly RMB1trn – we think this is not significant, but certainly provides clarity on policy intent.



Source: Bloomberg, Emkay Research

India Metals & Mining - Equity Implications

Beneficiaries: Vedanta, Nalco, Hindalco, Tata Steel, Gravita

Aluminium – Growing demand intensity alongside a constrained supply-side

Aluminium is of those commodities where the demand intensity from China has not yet peaked. With about 2-3% pa growth in demand and constrained supply, we expect aluminium prices to remain well supported at higher levels. Our base case forecasts for aluminium are ranging over USD2,500-2,600/t. We expect such price levels to hold and even overshoot, till a new supply response in the form of capacity expansion announcements comes in. Nevertheless, actual supply response from incremental volumes is unlikely before 2029 and hence we expect a positive price trajectory over the next 2-3 years.

Aluminium scrap availability, especially scrap that caters to the automotive sector, should remain tight as Chinese producers could bid up scrap prices if LME prices move up. We expect recycling market to remain competitive and our sense is that Chinese recyclers are happy to produce USD80-100/t EBITDA spreads.

Against this backdrop, we expect Indian aluminium producers to generate above-average margins in the near-to-medium term, and we keep a positive bias. We think VEDL is most favorably placed, followed by NACL, and then HNDL.

Specifically for Hindalco, we are not convinced on USD1,000/t spread on the new Bay Minette project. We do not see a compelling reason to a beverage can manufacturer in the US paying such hefty margins when these margins are not generated elsewhere in the world.

Steel -Slower and longer demand reset in China

A positive case for Indian steelmakers emerges from acceleration in domestic steel consumption with matching capacity expansions, improving EBITDA spreads from a decline in raw material prices, potential production cuts in China, and safeguard duty benefits. We note that large-scale infrastructure projects such as Mumbai roads upgradation are supportive in accelerating domestic demand for steel. Should all these fall into place simultaneously, steel equities are likely to benefit.

However, we do not see all these factors aligned for now, as 1) we think safeguard wall is not high enough to deter Indian importers of steel to reduce imports from China. Second, the new import parity price is still in a mid-cycle range, which steel consumers are either willing to pay or have been paying in the past. While safeguard clearly increases EBITDA spreads for steelmakers, it is unlikely to be effective for decoupling Indian prices from Chinese import parity; and 2) the production cuts in China might not be as swift and come ahead of demand normalization. Our base case is that production cuts would take place at some point, but they could lag.

Against such a backdrop, with the safeguard duty benefits broadly in the price, we have a neutral stance on the sector. Tata Steel remains our key pick in the ferrous space, to play a recovery in China as well as in Europe, alongside reasonable valuation comfort (read: <u>Steel – Priming for a mid-cycle recovery</u>).

Lead and Lithium – China's growing focus on ESG leaves the recycling window open for rest of the world

China's next leg of focus is on cleaner scrap and high-quality development. Lead-acid batteries are hazardous for the environment; hence China is unlikely to be a party to lead recycling, especially by procuring lead battery scrap from rest of the world. That leaves this market wide open for lead recyclers who procure scrap from Europe and recycle it in India/Africa. In this process, lead scrap prices are unlikely to shoot up, keeping margins steady for incumbents.

We also met with university researchers who are part of the lithium battery research and recycling technologies. The sense we get is that lithium battery recycling technology has been developed and would be put to use in coming years.

We think Gravita and Pondy Oxides (non-covered) are beneficiaries of China staying out from the lead/lithium recycling business. This could help these players retain their valuation premia.

TATA STEEL RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	127	185	Buy	Amit Lahoti
26-Mar-25	156	185	Buy	Amit Lahoti
19-Mar-25	159	185	Buy	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

JSW STEEL RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	946	1,100	Add	Amit Lahoti
26-Mar-25	1,056	1,100	Add	Amit Lahoti
19-Mar-25	1 033	1 100	hhΔ	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

JINDAL STEEL & POWER RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	787	825	Reduce	Amit Lahoti
26-Mar-25	900	825	Reduce	Amit Lahoti
19-Mar-25	925	825	Reduce	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

SAIL RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst	
09-Apr-25	105	120	Add	Amit Lahoti	
26-Mar-25	113	120	Add	Amit Lahoti	
19-Mar-25	113	120	Add	Amit Lahoti	

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

HINDALCO RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	564	600	Sell	Amit Lahoti
02-Apr-25	661	600	Sell	Amit Lahoti
19-Mar-25	699	550	Sell	Amit Lahoti
20-Feb-25	639	550	Sell	Amit Lahoti
15-Feb-25	606	550	Sell	Amit Lahoti
15-Jan-25	592	550	Sell	Amit Lahoti
08-Jan-25	587	550	Sell	Amit Lahoti
07-Jan-25	585	550	Sell	Amit Lahoti
01-Jan-25	593	600	Sell	Amit Lahoti
17-Dec-24	639	600	Sell	Amit Lahoti
13-Nov-24	627	600	Sell	Amit Lahoti
07-Nov-24	648	600	Sell	Amit Lahoti
12-Oct-24	747	650	Reduce	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

VEDANTA RECOMMENDATION HISTORY - DETAILS

KECOMMEND	ATTON HISTORY	DETAILS		
Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	371	550	Buy	Amit Lahoti
19-Mar-25	461	575	Buy	Amit Lahoti
04-Mar-25	407	575	Buy	Amit Lahoti
20-Feb-25	434	575	Buy	Amit Lahoti
01-Feb-25	440	575	Buy	Amit Lahoti
15-Jan-25	435	600	Buy	Amit Lahoti
07-Jan-25	448	600	Buy	Amit Lahoti
01-Jan-25	444	600	Buy	Amit Lahoti
21-Dec-24	477	600	Buy	Amit Lahoti
17-Dec-24	503	600	Buy	Amit Lahoti
12-Oct-24	498	600	Buy	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

NATIONAL ALUMINIUM CO RECOMMENDATION HISTORY - DETAILS

Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	143	225	Buy	Amit Lahoti
19-Mar-25	186	275	Buy	Amit Lahoti
20-Feb-25	193	275	Buy	Amit Lahoti
11-Feb-25	183	275	Buy	Amit Lahoti
15-Jan-25	195	275	Buy	Amit Lahoti
07-Jan-25	206	275	Buy	Amit Lahoti
01-Jan-25	214	275	Buy	Amit Lahoti
17-Dec-24	227	275	Buy	Amit Lahoti
14-Nov-24	220	275	Buy	Amit Lahoti
12-Oct-24	223	275	Buy	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

COAL INDIA RECOMMENDATION HISTORY - DETAILS

KECOMMENT	ATTON HISTORY	DETAILS		
Date	Closing Price (INR)	TP (INR)	Rating	Analyst
09-Apr-25	375	475	Buy	Amit Lahoti
19-Mar-25	396	525	Buy	Amit Lahoti
27-Jan-25	376	525	Buy	Amit Lahoti
07-Jan-25	380	525	Buy	Amit Lahoti
02-Jan-25	393	525	Buy	Amit Lahoti
01-Oct-24	509	600	Buy	Amit Lahoti
31-Jul-24	522	600	Buy	Amit Lahoti
03-May-24	475	550	Buy	Amit Lahoti
26-Mar-24	436	550	Buy	Amit Lahoti

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

GRAVITA INDIA RECOMMENDATION HISTORY - DETAILS

Closing Price (INR)	TP (INR)	Rating	Analyst
1,593	2,100	Buy	Amit Lahoti
1,725	2,600	Buy	Amit Lahoti
2,060	2,600	Buy	Amit Lahoti
2,174	2,700	Buy	Amit Lahoti
2,331	2,700	Buy	Amit Lahoti
2,291	1,650	Buy	Amit Lahoti
1,449	1,650	Buy	Sabri Hazarika
948	1,345	Buy	Sabri Hazarika
943	1,325	Buy	Sabri Hazarika
1,119	1,300	Buy	Sabri Hazarika
1,049	1,300	Buy	Sabri Hazarika
670	915	Buy	Sabri Hazarika
564	650	Buy	Sabri Hazarika
508	650	Buy	Sabri Hazarika
	Price (INR) 1,593 1,725 2,060 2,174 2,331 2,291 1,449 948 943 1,119 1,049 670 564	Price (INR) IP (INR) 1,593 2,100 1,725 2,600 2,060 2,600 2,174 2,700 2,331 2,700 2,291 1,650 948 1,345 943 1,325 1,119 1,300 1,049 1,300 670 915 564 650	Price (INR) IP (INR) Rating 1,593 2,100 Buy 1,725 2,600 Buy 2,060 2,600 Buy 2,174 2,700 Buy 2,331 2,700 Buy 2,291 1,650 Buy 1,449 1,650 Buy 948 1,345 Buy 943 1,325 Buy 1,119 1,300 Buy 1,049 1,300 Buy 670 915 Buy 564 650 Buy

Source: Company, Emkay Research

RECOMMENDATION HISTORY - TREND



Source: Bloomberg, Company, Emkay Research

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