

Metals & Mining

Straight out of the Blast Furnace: Week 1, July 2024

LatAm Metals & Mining

Main takeaways on China:

(i) Official industrial PMI measured by the NBS in yet another month in the contraction zone, flat m/m at 49.5pts; **(ii)** According to data from Caixin, in June activity in China's industrial sector grew at the fastest pace since May 2021. The manufacturing PMI measured by Caixin rose to 51.8pts (+0.1pt m/m); **(iii)** Some important sub-indexes remain in the contraction zone of the NBS measurement, including the volume of raw material purchases, which fell for the second time in a row, reaching 48.1pts (-1.2pt m/m). This indicator, therefore, does not favor sentiment in the steel and iron ore industry; **(iv) Housing:** The government's willingness policy of buying up housing inventory has reached medium-sized cities; **(v)** Beijing has reduced down payment requirements by -10p.p, to 20% for first buyers and 35% for second homes in urban areas, with a drop of -5p.p (or 30% in non-urban areas), in line with easing measures in other Tier I cities; **(vi)** In the first 23 days of June, new home sales fell -28% y/y, indicating a still fragile environment; **(vii)** In 33 smaller cities, new home sales fell -31% y/y in the first 23 days of June, despite a slight increase of +3% m/m; **(viii)** Recovery in home sales is concentrated in larger cities (Tier I), even favoring the increase in launches, which reached 4.7k units in the week (+8% w/w). In the first 23 days of June, there were sequential increases in the sales rate of +33% m/m to +39% m/m in cities such as Shenzhen, Guangzhou, and Hangzhou; **(ix) Iron ore:** Traders are closely monitoring possible expansions of PBoC-funded support for the housing market, following the improvement in home sales indicators in Tier I cities. The 62% Fe iron ore futures contract for July closed last week at ~US\$117/t in Dalian, +4% vs. 2 previous sessions. For the August contract, prices are at ~US\$115/t. The spot price closed at ~US\$107/t, up +6% y/y; **(x) Steel:** Stocks held by traders and in steel mills continue to rise. Chinese steel mills recorded an increase of +2.3% w/w in steel inventories at the close of June 28, reaching ~5.5Mt. Meanwhile, the volume of steel held by traders in China increased for the fourth consecutive week, rising +0.4% w/w to reach 21Mt; **(xi) Blast furnace utilization rate** fails to sustain last week's rise and falls again. Production at blast furnace (BF) steel mills fell due to maintenance stoppages and lower profit margins (higher coke prices). During the week, the capacity utilization rate at the ~240 steel mills we monitor fell to 89.13% (-0.63p.p w/w), reflecting a drop in daily hot metal production to 2.39Mt/day (-0.2% w/w).

We present another edition of our **weekly report** on the **Metals & Mining** sector for week 1 of July 2024, based on data from the week prior to publication (**from June 21 to 28**). We continue to update the market on **important indicators** for monitoring the **fundamentals of steel supply and demand in China** and, consequently, **iron ore** in the seaborne system. We have also added a **chapter on Brazil** (page11), indicating market sentiment as well as domestic steel premium dynamics for long and flat steel benchmarks vs. imported prices.

Analysts

Igor Guedes

+55 (11) 99464-8234
igor.guedes@genial.com.vc

Rafael Chamadoira

+55 (11) 99464-8236
rafael.chamadoira@genial.com.vc

Iago Souza

+55 (11) 99464-8235
iago.souza@genial.com.vc

Companies

VALE US Equity

Buy

Price: US\$ 11.37 (03-Jul-2024)

Target Price 12M: US\$ 14.50 (NYSE)

VALE3 BZ Equity

Target Price 12M: R\$ 78.50 (B3)

CMIN3 BZ Equity

Buy

Price: R\$ 5.49 (03-Jul-2024)

Target Price 12M: R\$ 6.00

GGBR4 BZ Equity

Buy

Price: R\$ 18.34 (03-Jul-2024)

Target Price 12M: R\$ 23.40

CSNA3 BZ Equity

Neutral

Price: R\$ 13.29 (03-Jul-2024)

Target Price 12M: R\$ 15.50

USIM5 BZ Equity

Neutral

Price: R\$ 8.07 (03-Jul-2024)

Target Price 12M: R\$ 8.70

China

Macroeconomics

Industrial sector grows income, with a slow but ongoing recovery. We see China's industrial sector with gross profits growing +3.4% y/y, reaching ¥2.75 trillion (~US\$380bn) in the first 5M of 2024. In May alone, profits rose +0.7% y/y. Among 41 sub-sectors, 32 recorded year-on-year increases. The electricity production and supply sub-sector, within the infrastructure machinery segment, led gross profits with ¥272bn (~US\$37bn), an increase of +35% y/y.

Official manufacturing PMI in another month of contraction. China's official industrial PMI for June, calculated by the NBS (China Bureau of Statistics) and released on July 1, stood at 49.5pts (flat vs. May). Among the highlights, the production sub-index remained above the 50pts threshold, but still fell -0.1pt m/m to stand at 50.5pts. According to data from Caixin, in June, activity in China's industrial sector grew at the fastest pace since May 2021. The manufacturing PMI measured by Caixin rose to 51.8pts, an increase of +0.1pt m/m. This indicates expansion, although manufacturers have become less optimistic about the outlook.

Table 1. PMI China (July-24, ref Jun)

	jun/24	Zone	Δ m/m	Δ y/y
Manufacturing PMI Oficial	49.5	Contraction	0.0pt	-3.1pt
Manufacturing PMI Caixin	51.8	Expansion	0.1pt	1.3pt
New Orders PMI	49.5	Contraction	-0.1pt	0.9pt
PMI Output Index	50.5	Expansion	-0.5pt	-1.8pt
Non-Manufacturing	50.5	Expansion	0.6pt	-2.7pt

Source: Bloomberg, Genial Investimentos

Our take on macroeconomics

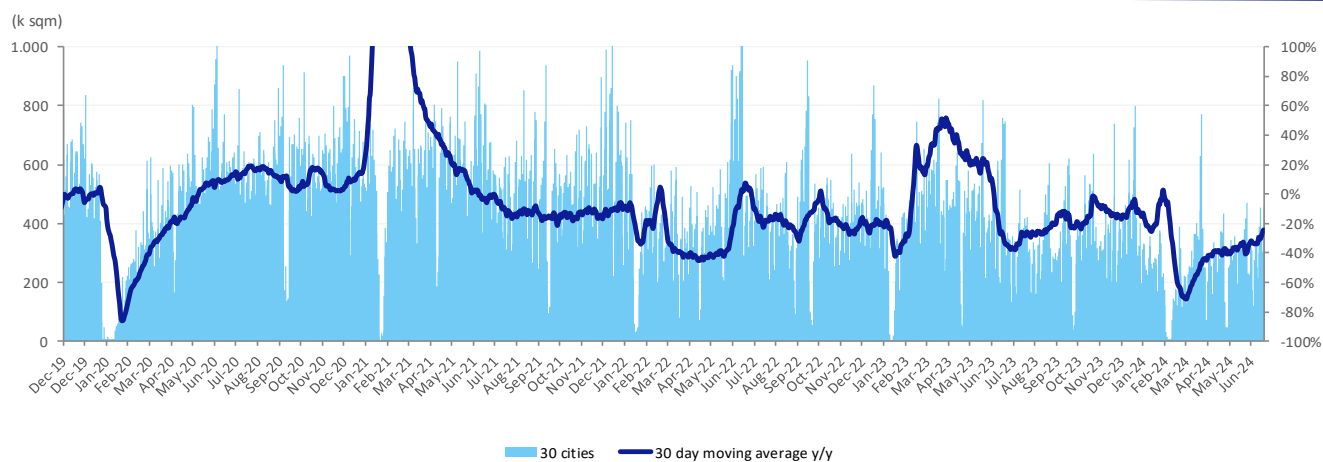
Even with production above the 50pt limit measured by the NBS, some important sub-indexes remain in the contraction zone, including the volume of raw material purchases, which fell for the second time in a row, reaching 48.1pts (-1.2pt m/m). This sub-index includes the purchase of metals for the manufacture of durable goods in the downstream segments. This indicator therefore does not favor sentiment in the steel and iron ore industry.

We would point out that it has become common for the readings measured by Caixin to be higher than the official PMI measured by the NBS, since Caixin considers a higher weighting than the NBS for exporting companies in its survey. This is in line with our thesis that China is exporting a greater volume of durable goods to try to compensate for weaker domestic demand. So, real industrial activity is probably stronger than the official NBS data suggests. The export index will be released on July 11 (for June). Last month (May), growth was +7.6% y/y. We expect +5% y/y for June.

Policy updates and market sentiment

Government policy attempt to buy up housing inventory reaches medium-sized cities. China's Ministry of Housing released a statement last week encouraging cities at the county level to buy unsold homes to reduce inventory, expanding the policy that was announced in May beyond large cities (Tier I). Local governments must consider the demand for affordable housing and the levels of housing stock, buying properties to rent out at low cost. It is not yet clear how the government will buy this inventory. We believe that it will be partly made possible through LGFVs, supported by the lots totaling ¥1 trillion (~US\$138bn) in government-issued bonds (we commented on this in last week's edition of the report).

Graph 1. Daily sales of primary housing (30 major cities)



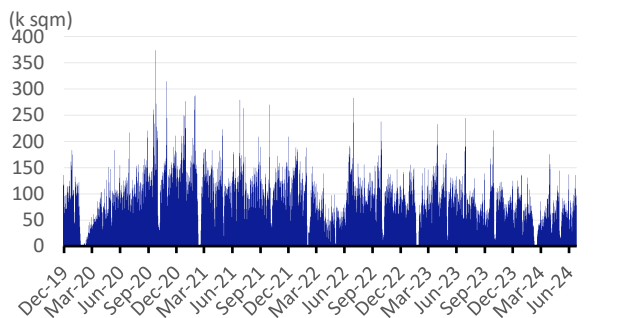
	12-Jun-24	13-Jun-24	14-Jun-24	15-Jun-24	16-Jun-24	17-Jun-24	18-Jun-24	19-Jun-24	20-Jun-24	21-Jun-24	22-Jun-24	23-Jun-24	24-Jun-24	25-Jun-24	Average
GFA sold (k sqm)	325	326	360	253	213	299	390	377	454	340	305	277	349	453	337
Daily y/y	-19%	-31%	-19%	-46%	-13%	37%	-5%	-35%	-26%	57%	55%	54%	-31%	-27%	
30d MA y/y	-34%	-33%	-33%	-34%	-33%	-31%	-29%	-30%	-30%	-29%	-27%	-26%	-24%	-24%	

Source: Wind, Genial Investimentos

Our take on policy updates and market sentiment

The central government authorized each province to relax the requirements for down payments on mortgages in May. Beijing has therefore aligned itself in recent weeks with other Tier I cities such as Shanghai, Shenzhen and Guangzhou, and data has started to come out more positively amid the collapse of the sector. This initiative is part of a wider ¥300bn (~US\$41bn) financing package for the purchase of unsold homes, which could boost residential real estate transactions and reinvigorate domestic steel demand somewhat. As we commented above, this package seems to us to be linked to the structuring of LGFVs, supported by the issuance of lots totaling ¥1 trillion (~US\$138bn). Daily primary transactions on June 27 (7-day moving average) increased by +25% in Shanghai, +51% in Guangzhou and +40% in Shenzhen after the policy easing on May 27 (all Tier I cities).

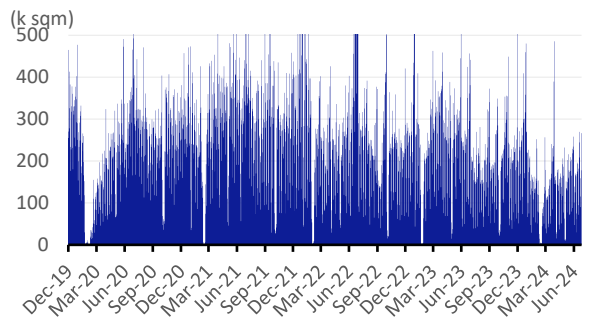
Graph 2. Daily sales of primary housing GFA (Tier 1)



	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	Average
GFA sold (k sqm)	109	136	93	97	78	102
Daily y/y	98%	161%	73%	-1%	-43%	57%

Source: Wind, Genial Investimentos

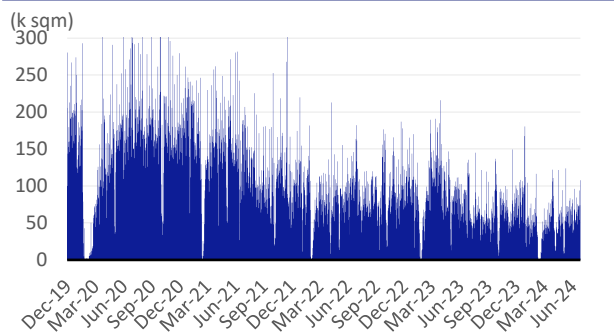
Graph 3. Daily sales of primary housing GFA (Tier 2)



	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	Average
GFA sold (k sqm)	159	115	91	178	267	162
Daily y/y	38%	6%	-6%	-36%		1%

Source: Wind, Genial Investimentos

Graph 4. Daily sales of primary housing GFA (Tier 3)



	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	Average
GFA sold (k sqm)	72	54	94	74	108	80
Daily y/y	54%	51%	213%	-44%	-8%	53%

Source: Wind, Genial Investimentos

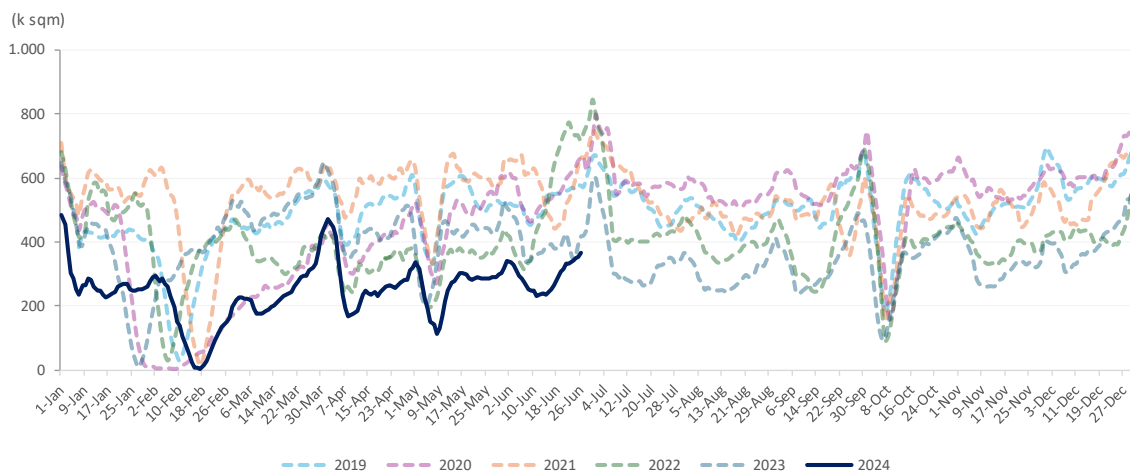
Nevertheless, even though the sector showed improvements in June, the challenges seem very serious to us, with new home sales falling -23.6% y/y and property investment shrinking -10.1% y/y in the 5M accumulated (Jan-May). Our take is that the easing of policy at local government level could create an improvement in the figures for Tier I cities lasting 9 to 12 weeks, effective from early June data.

Real Estate

Stimulus in large cities may worsen the buyer sentiment hierarchy for smaller cities. Our biggest concern, however, is that the stimulus in larger cities ends up further "hollowing out" the priority hierarchy of buyer sentiment for small and medium-sized cities, which were already in the background of new buyer momentum even before the measures. Although the figures do represent an improvement for Tier I cities, to go beyond that, the recovery still depends on the details of the local government's acquisition of inventory (information has not yet been released), which would now move on to medium-sized cities. As a result, the market sentiment for increased steel demand today is "wait and see".

Beijing was one of the last major cities to embrace the relaxation. Beijing reduced payment requirements by -10p.p, to 20% for first buyers and 35% for second homes in urban areas, with a drop of -5p.p (or 30% in non-urban areas), in line with easing measures in other Tier I cities. This follows the central government's plan to tackle the housing crisis. Although Beijing's rules now favor families with 2 plus+ children, skepticism persists due to the PBoC's minimal funding (which seems to us to be an obstacle, as we commented last week) and the slow progress of the social housing programs being tested. For example, despite similar measures, primary sales of new homes in Shanghai rose by only +8% in the first 23 days of June, far from ideal to compensate for the total of the 70 largest cities reaching a contraction of -9% y/y in the weekly analysis.

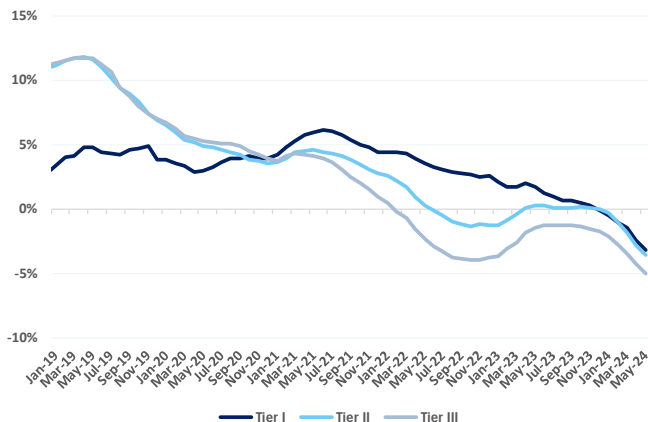
Graph 5. Daily primary housing GFA sales (30 major cities / 7 days Moving Average)



	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	Average
GFA sold (k sqm)	325,7	359,7	252,5	212,7	298,6	389,6	377,1	454,3	340,2	305,2	277,3	327
Daily y/y	-31%	-19%	-46%	-13%	37%	-5%	-35%	-26%	57%	55%	54%	
7d Moving Average y/y	-39%	-37%	-35%	-30%	-23%	-19%	-22%	-21%	-16%	-4%	1%	

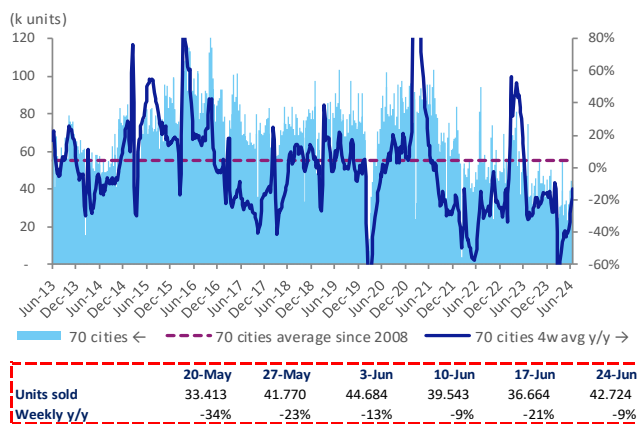
Source: Wind, Genial Investimentos

Graph 6. Price of newly built housing (by Tier)



Source: Wind, Genial Investimentos

Graph 7. Weekly primary housing sales (70 major cities)

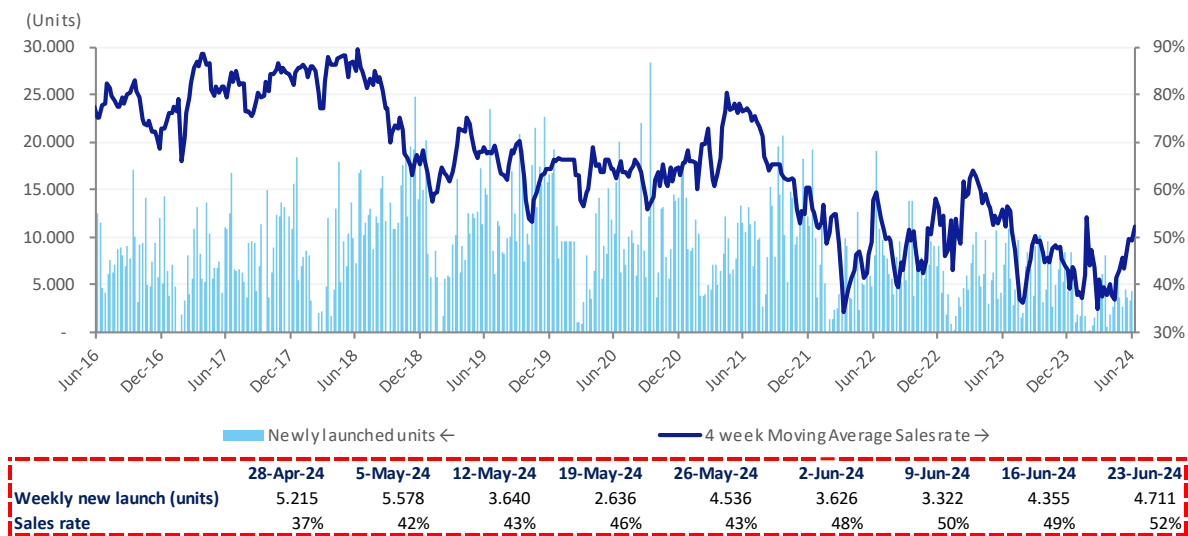


	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun
Units sold	33.413	41.770	44.684	39.543	36.664	42.724
Weekly y/y	-34%	-23%	-13%	-9%	-21%	-9%

Source: Wind, Genial Investimentos

Contracted sales are still expected to fall, even with the easing measures. As June draws to a close, we expect Chinese developers to face a -30% y/y drop in contracted sales (last year's figures was already weak). Although new mortgage easing policies were introduced from mid-May, our perception is that they have not significantly increased demand for real estate, especially in Tier III cities. On the other hand, the recovery in home sales concentrated in larger cities (Tier I) is already a reality, even favoring the increase in launches, which reached 4,7k in the week (+8% w/w). In the first 23 days of June, we found sequential increases in the sales rate of +33% m/m to +39% m/m in cities such as Shenzhen, Guangzhou and Hangzhou, in contrast to an increase of only +3% m/m in smaller cities. The weekly average in the 9 largest cities totaled 52% (+3p.p w/w).

Graph 8. Weekly housing launches and sales rate (9 major cities)



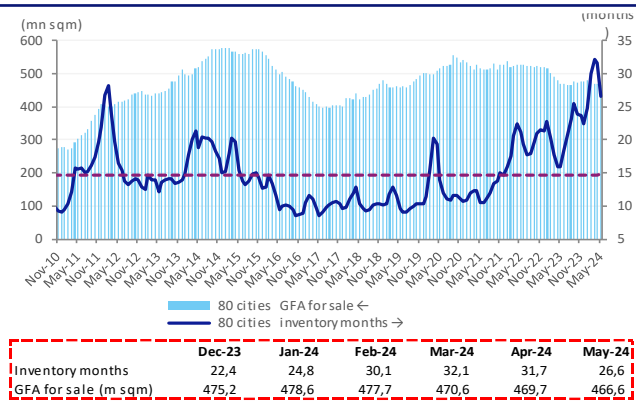
Note: The 9 major cities analysed are Guangzhou, Shanghai, Shenzhen, Chengdu, Chongqing, Hangzhou, Nanjing, Wuhan and Suzhou.

Source: CREIS, Genial Investimentos

We've been talking for some time; the big deadlock is in smaller cities. Medium and small cities (Tier II and III) contribute with ~2/3 of total new home sales in China. As the improvement in sales performance is focused on Tier I cities, we believe that eventually data from smaller cities will provide reasons for market sentiment to remain bearish, due to oversupply and slowing demand.

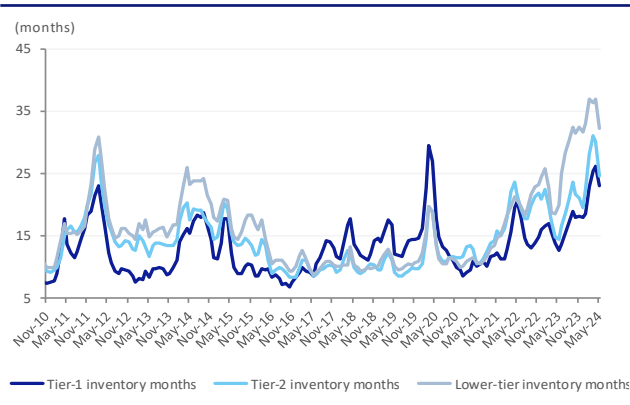
Months of inventory in smaller cities is the most worrying indicator. In 33 smaller cities, new home sales fell -31% y/y in the first 23 days of June, despite a slight increase of +3% m/m. The mid-year increase was soft and typical for the seasonal period, even with reduced mortgage rates and down payment ratios. This could particularly affect developers such as Country Garden, Seazen and Agile, who have significant landbanks in these smaller towns. So even though the months needed to clear the housing inventory is actually decreasing in the consolidated 80 largest cities, when we look at Tier III cities, the number is still +2x the average of the last 10 years.

Graph 9. Inventory months (80 major cities)



Source: CRIC, Genial Investimentos

Graph 10. Inventory months (By city tier)



Source: CRIC, Genial Investimentos

Focus on larger cities obscures the real obstacle to overcoming the crisis.

Stimulus efforts in China may favor large cities over smaller ones, which poses a challenge for Longfor (top 6 among China's largest developers), for example, with 67% of its land in less populated Tier III and Tier II cities. As we have already mentioned, we believe it is likely that relaxed purchase restrictions will shift demand to larger cities even further, and large properties may not meet the size criteria for social housing.

Developers focused on smaller cities will continue to face falling prices.

Our take is that Longfor and Agile (among others focused on the low tier) will need to offer greater discounts on properties launched in order to clear inventory, which was evidenced by a -15% m/m drop in May, to ¥11.8K/sqm. Despite this, Longfor recorded a moderate decline in sales of -4% m/m in May, compared to -16% m/m in April. Weak pricing power could result in an anemic gross margin for the year.

Stock index of real estate developers continues to suffer.

The indicator that tracks the shares of China's main real estate developers felt -1.1% last Thursday (June 27), extending this year's decline to -15%. Beijing faces the worst oversupply of housing among the 30 major cities monitored, with inventory needing 48.9 months to sell. New home prices in Beijing fell -1.1% in May, the worst drop in almost a decade. Policymakers are calling for "creative and bold" measures to deal with more than 60mn unsold homes nationwide, which would take at least 4 years without any launches taking place in that period to clear the inventory (excluding government aid).

Steel and Iron Ore

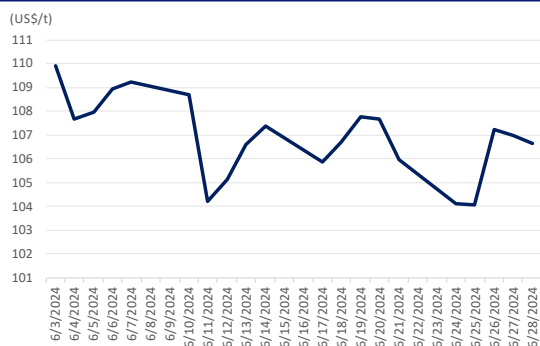
Steel: Domestic demand still weak due to seasonality, with "wait and see" sentiment. Last week, steel prices on the spot market fluctuated due to high temperatures and the rainy season (low seasonal demand), with transactions focused on low-price sales. The upward pressure on pig iron production is noticeable. In the short term, we expect that steel prices may come under pressure from increased supply without domestic demand. For the time being, the "wait and see" sentiment has ensured a certain stability. For example, the price of square billet in Tangshan closed the week at ~¥3,300/t (~US\$455/t), unchanged y/y. Daily billet production among the 25 Tangshan steel mills we monitor was 43.3Kt/day between June 21 and 28 (+3% y/y). Some mills increased production due to improved sales (durable goods for export), but most kept production stable.

Inputs: Scrap prices continue to slow and coal mines resume production. The fall in steel scrap prices in China (which began at the end of May) persisted last week, driven by still-weak domestic demand from steel mills. The national composite steel scrap price fell to ¥2,805/t (~US\$386/t) on June 28 (-1% y/y). Meanwhile, operating rates at 110 coking coal washing plants increased by +2.4p.p, reaching an average of ~69% between June 22 and 26, hitting a three-week high. According to our interpretation, this recovery was partly due to the resumption of production at the coking coal mines in the city of Yan'an, which had temporarily halted operations during President Xi Jinping's visit.

Inputs: Coke producers' margins begin to rise. Production at China's coke plants increased slightly as profits improved. In the week of June 21-28, total metallurgical coke production rebounded by 600t/day to an average of 537t/per day at the 230 producers we follow, driven by increased activity at coal mines. Although the increase is still modest, we believe that the advances in coke producers' margins promoted incentives for slightly higher production during the week, especially after they had just won the first price increase from their steel customers for this month.

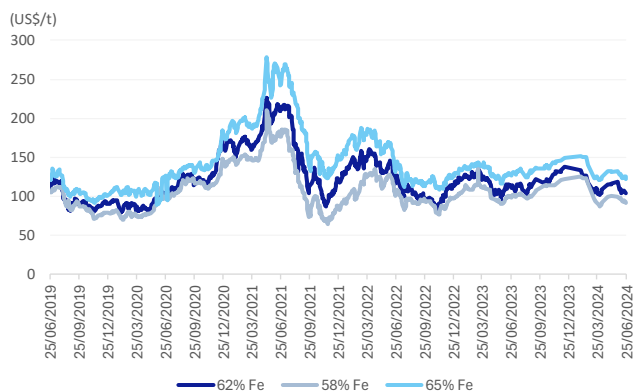
Iron ore: Prices rebound, boosted by house sales data. Traders are closely monitoring possible expansions of PBoC-funded support for the real estate market, following the improvement in home sales indicators in Tier I cities. Therefore, we see increased expectations for the Politiburo meeting section, which takes place at the beginning of the 2H. The 62% Fe iron ore futures contract for July closed last week at ~US\$117/t in Dalian, +4% vs. 2 previous sessions. For the August contract, prices are at ~US\$115/t. The spot price closed at ~US\$107/t, up +6% w/w.

Graph 11. 30 Days Iron ore prices (Spot - S&P Platts)



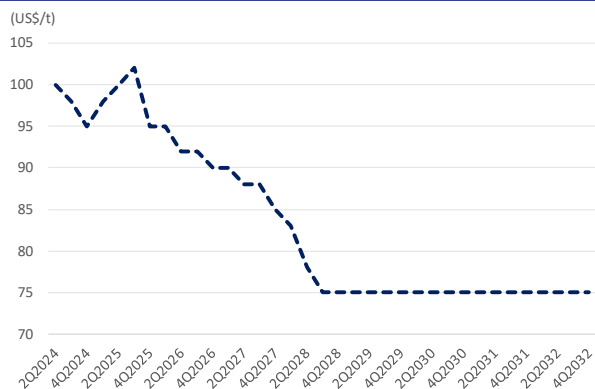
Source: S&P Platts, Genial Investimentos

Graph 12. Iron ore price (Spot - S&P Platts)



Source: S&P Platts, Genial Investimentos

Graph 13. Iron ore price (Genial Est. 24-32E)

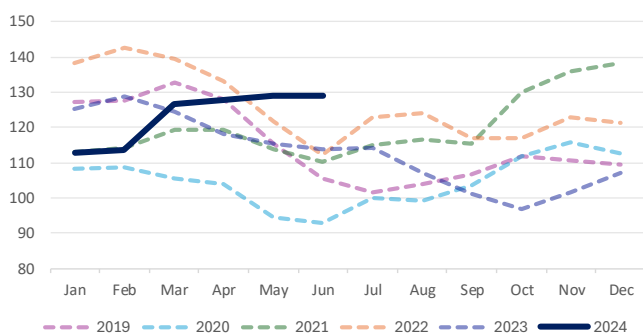


Source: CRIC, Genial Investimentos

Iron ore: Real estate market data gives relief, but port inventory levels worry.

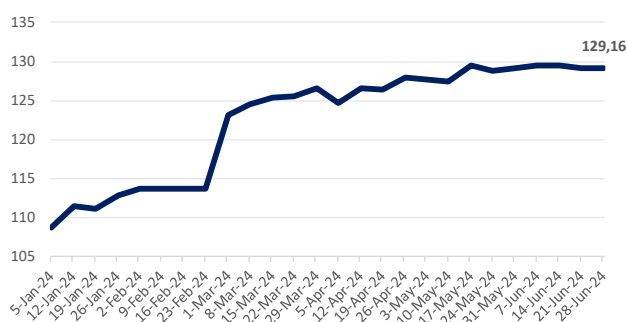
After 2 weeks of declines, stocks of imported iron ore at the 40 Chinese ports we follow rose slightly by +0.3% w/w to 129Mt. This volume is 14% higher than in the same period in 2023. As we had already identified in last week's report, we believe that the breach of the 5-year level at the beginning of June is due to the boost in iron ore cargo arrivals at the ports vs. a lower discharge rate due to weak domestic demand. Shipments arrivals between June 21 and 28 increased by +2.7Mt (+12% w/w) to 24.7Mt, with Australian miners recovering and Brazilian miners continuing their strong pace since the beginning of the year. Although they reinforce the operationally positive side of the mining companies, the accumulation of supply at the ports should cause the price to fall back.

Graph 14. Iron ore port inventory vs. 5Y (Mt)



Source: Bloomberg, Genial Investimentos

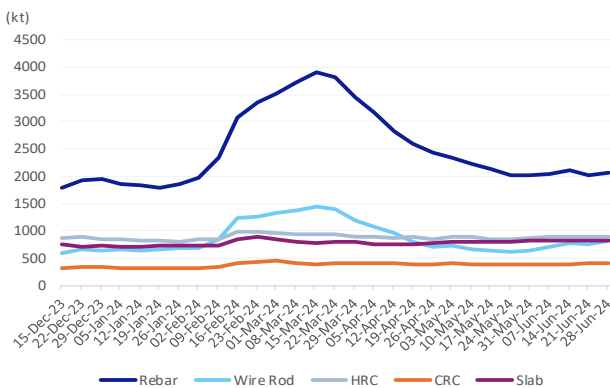
Graph 15. Iron ore port inventory 2024 (Mt)



Source: Bloomberg, Genial Investimentos

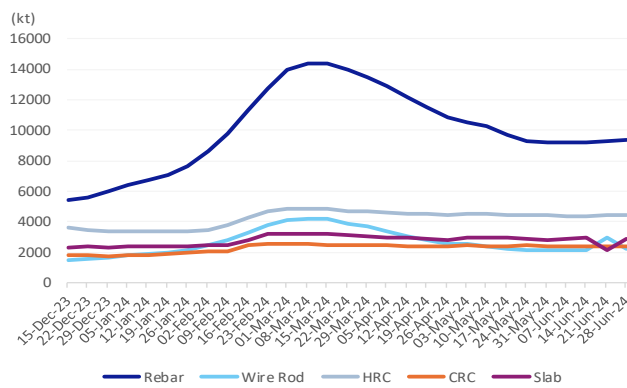
Steel: Inventory held by traders and steel mills continue to rise. Chinese steel mills recorded a +2.3% w/w increase in steel inventories at the close of June 28, reaching ~5.5Mt. Meanwhile, the volume of steel held by traders in China increased for the fourth consecutive week, rising +0.4% w/w to reach 21Mt. Our analysis indicates that the increase in inventory, containing rebar, wire rod, hot-rolled coils (HRC), cold-rolled coils and slabs, is due to weak domestic demand during the low steel season.

Graph 16. Steel mills inventory (130 major cities)



Source: My Steel, Genial Investimentos

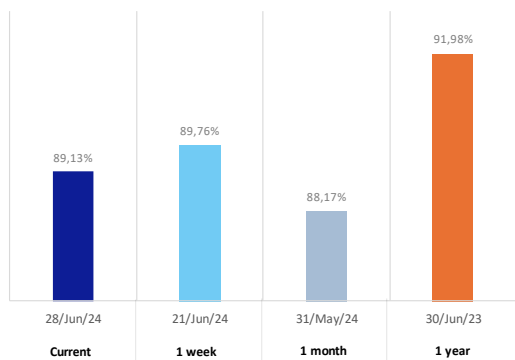
Graph 17. Traders' steel inventory (130 major cities)



Source: My Steel, Genial Investimentos

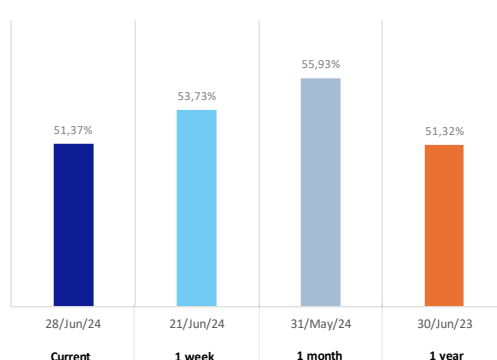
Steel: Blast furnace utilization rate fails to sustain last week's rise and falls again. The production of blast furnace (BF) steel mills has decreased due to maintenance shutdowns and narrow profit margins (increase in the coke price, as we commented). In the week ending June 28, the capacity utilization rate at the ~240 steel mills we monitor fell to 89.13% (-0.63p.p w/w), reflecting the daily production of hot metal falling back to 2.39Mt/day (-0.2% w/w). Similarly, electric arc furnace (EAF) producers also slowed down, as more plants reduced working hours to cut financial losses. The capacity utilization rate of ~85 monitored EAF plants fell to 51.37% (-2.36p.p w/w).

Graph 18. BF capacity % (weighted average)



Source: My Steel, Genial Investimentos

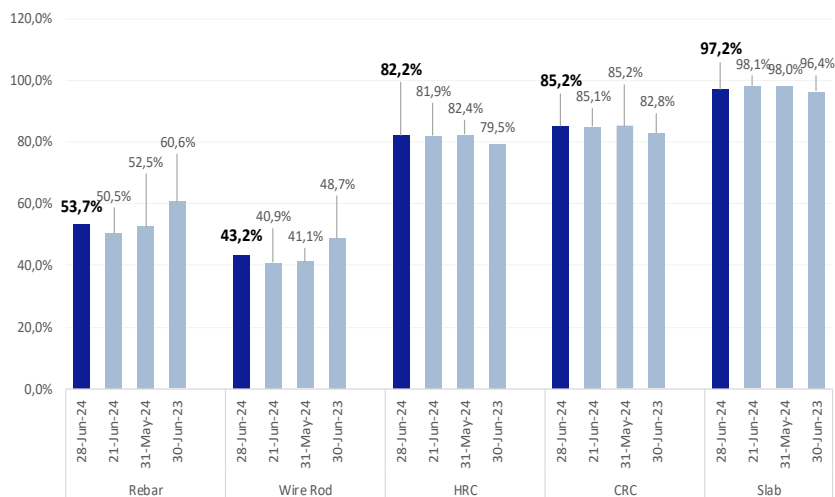
Graph 19. EAF capacity % (weighted average)



Source: My Steel, Genial Investimentos

Steel: Rebar production reaches the highest level of the year, coming off last week's low. After falling for three consecutive weeks, China's rebar production at the 137 steel mills tracked increased to 2.45Mt (+6.2% w/w) closing in June 28, marking the highest weekly output of the year, reaching a utilization rate of 53.7% (+3.2p.p w/w). Some blast furnace manufacturers in Xinjiang (northwest China) put their rolling mills back into operation last week, leading to a significant increase in rebar production. So, the increase seems to have been driven mainly by mills in northwest and central China. On the other hand, production in eastern and southern China remained stable due to poor rebar margins.

Graph 20. Blast-furnace capacity utilization (by product)



Source: CREIS, Genial Investimentos

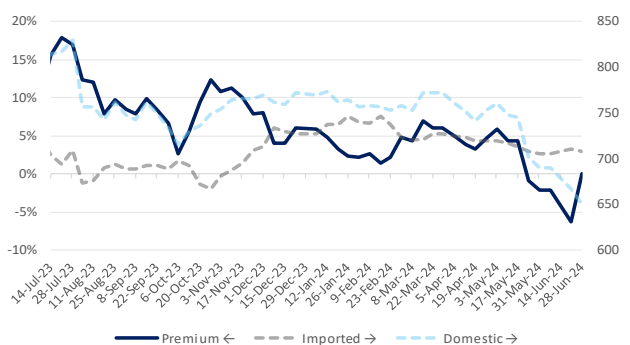
Steel: HRC production also rises, but at a milder level. China's HRC production among 37 monitored steel mills reached 3.2Mt (+0.35% w/w), closing on June 28. Unlike the rebar mills, which haven't raised output in a while, the HRC mills went through a boom cycle, which was only interrupted last week. Although this week it started to rise again, the figure seems to have been more moderate. Still, it shows that output has remained resilient, with the utilization rate reaching 82.2% (+0.3p.p w/w). We expect output to fall back next week, because of the smoothing in the weighted utilization rate of the blast furnaces that took place this week.

Brazil

Brazilian steel: Rebar prices stable, awaiting negotiations on an increase. Last week, we saw stable prices for the long steel benchmark at R\$3,625/t (~US\$650/t), with a range of R\$3,500-3,750/t, according to S&P Platts. Mills are seeking a price increase of up to +8% in the July negotiations, as we already mentioned in last week's report. Despite the decrease in demand, we stress that the customer base is likely to be receptive to price increases, since Brazilian rebar is at a negative premium of -8.3% vs. imported steel, quoted at ~US\$708/t.

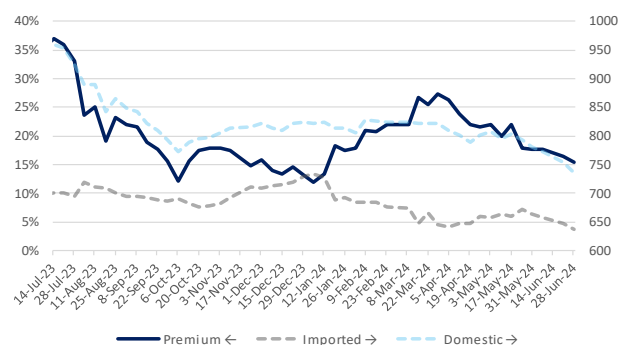
Brazilian steel: For HRC, the situation is the opposite, premiums are high. Our analysis suggests that the quota system implemented by the MDIC (Ministry of Development and Trade), as we commented in last week's edition, has not yet taken effect. As a result, we don't feel any repercussions within the import database, which hasn't cooled down clearly enough, so the premium remains very high. Therefore, the benchmark for domestic flat steel, HRC closed last week with a premium of +15.5% vs. imported, a reduction of -5p.p w/w, because of the USD/BRL exchange rate, which rose last week. Domestic HRC was quoted at US\$734/t (-2.5% w/w), with the price in USD holding steady against the price in BRL, in the R\$4,000-4,200/t range, according to S&P Platts, with the center point stable at R\$4,100/t vs. US\$507/t for imported.

Graph 21. Premium on Rebar (Brazil vs. imported)



Source: S&P Platts, Genial Investimentos

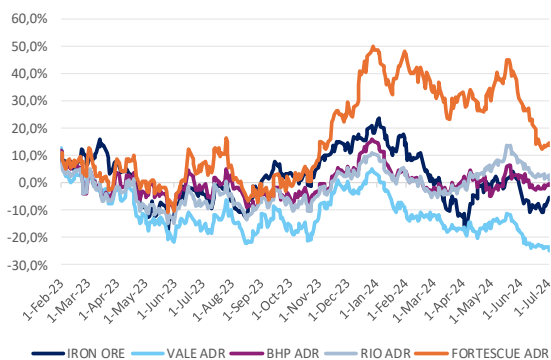
Graph 22. Premium on HRC (Brazil vs. imported)



Source: S&P Platts, Genial Investimentos

Key data to keep up with on companies' side

Graph 23. Mining majors (since Jan/23)



Source: Bloomberg, Genial Investimentos

Graph 24. Vale's ADRs vs. iron ore discount



Source: Bloomberg, Genial Investimentos

Table 2. Short position

Company	Ticker	Lending Interest Ratio	Change in LI Ratio	Float (%)
Vale	VALE3	5,7	-2,4	3,9
CMIN	CMIN3	5,7	-6,0	19,01
Gerdau	GGBR4	9,4	1,4	4,79
Usiminas	USIM5	4,4	-0,9	7,84
CSN	CSNA3	9,2	-2,2	6,84

Source: Bloomberg, Genial Investimentos

Appendix: Vale

Figure 1. Vale – Income Statement in US\$ Millions (Genial Est. 2024-2029)

Income Statement	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	37.042	41.308	42.539	44.345	45.317	48.849
(-) COGS	(23.877)	(26.217)	(26.498)	(27.575)	(29.043)	(31.387)
Gross Profit	13.165	15.091	16.042	16.770	16.273	17.461
(-) Expenses	(3.420)	(3.321)	(3.186)	(2.796)	(2.448)	(2.584)
Adjusted EBITDA	12.894	15.535	16.332	17.612	17.636	18.850
(-) D&A	(3.194)	(3.373)	(3.543)	(3.715)	(3.895)	(4.066)
EBIT	9.700	12.162	12.789	13.897	13.741	14.785
(+/-) Financial Result	(1.865)	(1.927)	(2.244)	(2.321)	(2.286)	(2.353)
(-) Taxes	(1.010)	(1.395)	(1.509)	(1.661)	(1.644)	(1.791)
Net income	6.825	8.840	9.037	9.914	9.811	10.641
Profitability						
Net margin (%)	18,43%	21,40%	21,24%	22,36%	21,65%	21,78%

Figure 2. Vale– Cash Flow in US\$ Millions (Genial Est. 2024-2029)

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	37.042	41.308	42.539	44.345	45.317	48.849
(-) COGS	(23.877)	(26.217)	(26.498)	(27.575)	(29.043)	(31.387)
Adjusted EBITDA	12.894	15.535	16.332	17.612	17.636	18.850
Adjusted EBIT	9.700	12.162	12.789	13.897	13.741	14.785
(-) Taxes	(1.010)	(1.395)	(1.509)	(1.661)	(1.644)	(1.791)
(+) D&A	3.194	3.373	3.543	3.715	3.895	4.066
(+/-) Brumadinho and Samarco	(570)	(2.198)	(1.874)	(1.389)	(1.221)	(923)
(+/-) Δ WK	3.444	835	151	(49)	(176)	(70)
(-) Capex	(6.719)	(6.792)	(6.792)	(7.333)	(7.333)	(7.333)
FCFF	8.039	5.984	6.308	7.179	7.261	8.732

Appendix: CMIN

Figure 1. CMIN – Income Statement in R\$ Millions (Genial Est. 2024-2028)

Income Statement	2024E	2025E	2026E	2027E	2028E
Net Revenue	13.366	16.842	19.948	20.607	16.959
(-) Cash COGS	(7.635)	(8.548)	(10.263)	(11.133)	(10.455)
Gross Profit	4.149	6.427	7.516	6.999	3.724
(-) SG&A and others	(1.702)	(2.114)	(2.452)	(2.456)	(1.928)
Adjusted EBITDA	4.253	6.540	7.715	7.527	4.942
(-) D&A	(1.582)	(1.867)	(2.169)	(2.475)	(2.780)
EBIT	2.297	4.163	4.914	4.394	1.647
(+/-) Financial Result	(1.087)	(993)	(911)	(934)	(1.002)
(-) Taxes	(377)	(989)	(1.248)	(1.079)	(201)
Net income	832	2.181	2.755	2.381	444
Profitability					
Net margin (%)	6,23%	12,95%	13,81%	11,55%	2,62%

Figure 2. CMIN – Cash Flow in R\$ Millions (Genial Est. 2024-2028)

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E
Net Revenue	13.366	16.842	19.948	20.607	16.959
(-) COGS	(7.635)	(8.548)	(10.263)	(11.133)	(10.455)
Adjusted EBITDA	4.253	6.540	7.715	7.527	4.942
EBIT	2.297	4.163	4.914	4.394	1.647
(-) Taxes	(377)	(989)	(1.248)	(1.079)	(201)
(+) D&A	1.582	1.867	2.169	2.475	2.780
(+/-) Δ WK	254	(110)	23	146	290
(-) Capex	(1.589)	(2.681)	(3.867)	(5.411)	(5.480)
FCFF	2.166	2.249	1.991	525	(964)

Appendix: Gerdau

Figure 1. Gerdau - Income Statement in R\$ Millions (Genial Est. 2024-2028)

Income Statement	2024E	2025E	2026E	2027E	2028E
Net Revenue	65.957	66.628	67.907	69.433	71.736
(-) COGS	(56.697)	(55.257)	(54.833)	(55.976)	(56.782)
Gross Profit	9.261	11.371	13.074	13.458	14.954
(-) Expenses	(1.875)	(1.777)	(1.802)	(1.823)	(1.871)
Adjusted EBITDA	10.615	14.122	15.989	16.449	18.253
(-) D&A	(3.230)	(3.569)	(3.900)	(4.197)	(4.464)
EBIT	7.714	10.258	11.947	12.323	13.795
(+/-) Financial Result	(1.041)	(1.067)	(880)	(711)	(780)
(-) Taxes	(1.127)	(1.807)	(2.153)	(2.218)	(2.510)
Net income	5.545	7.384	8.914	9.394	10.505
Profitability					
Net margin (%)	8,41%	11,08%	13,13%	13,53%	14,64%

Figure 2. Gerdau- Cash Flow in R\$ Millions (Genial Est. 2024-2028)

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E
Net Revenue	65.957	66.628	67.907	69.433	71.736
(-) COGS	(56.697)	(55.257)	(54.833)	(55.976)	(56.782)
Adjusted EBITDA	10.615	14.122	15.989	16.449	18.253
EBIT	7.714	10.258	11.947	12.323	13.795
(-) Taxes	(1.127)	(1.807)	(2.153)	(2.218)	(2.510)
(+) D&A	3.230	3.569	3.900	4.197	4.464
(+/-) Δ WK	(822)	220	(430)	(474)	(212)
(-) Capex	(5.998)	(6.063)	(6.130)	(6.198)	(6.267)
FCFF	2.997	6.177	7.135	7.631	9.270

Appendix: CSN

Figure 1. CSN - Income Statement in R\$ Millions (Genial Est. 2024-2028)

Income Statement	2024E	2025E	2026E	2027E	2028E
Net Revenue	45.901	53.974	59.329	59.891	60.646
(-) COGS	(29.066)	(30.548)	(31.526)	(33.403)	(33.448)
Gross Profit	16.835	23.426	27.803	26.488	27.198
(-) SG&A and others	(5.478)	(5.584)	(5.350)	(4.796)	(4.089)
EBITDA	11.358	17.842	22.453	21.692	23.109
(+/-) Financial Result	(3.127)	(3.761)	(4.309)	(4.288)	(4.245)
EBT	4.059	9.247	12.846	11.730	12.786
(-) Taxes	(1.618)	(3.144)	(4.368)	(3.988)	(4.347)
Net Income	2.441	6.103	8.479	7.742	8.439
Profitability					
Net Margin (%)	5,32%	11,31%	14,29%	12,93%	13,92%

Figure 2. CSN - Cash Flow in R\$ Millions (Genial Est. 2024-2028)

Cash Flow	2024E	2025E	2026E	2027E	2028E
Net Revenue	45.901	53.974	59.329	59.891	60.646
(-) COGS	(29.066)	(30.548)	(31.526)	(33.403)	(33.448)
Adjusted EBITDA	11.358	17.842	22.453	21.692	23.109
EBIT	7.186	13.008	17.155	16.018	17.031
(-) Taxes	(1.618)	(3.144)	(4.368)	(3.988)	(4.347)
(+) D&A	4.172	4.834	5.298	5.674	6.078
(+/-) Δ WK	19	(689)	(236)	(298)	(78)
(-) Capex	(5.452)	(6.142)	(6.113)	(5.586)	(5.629)
FCFF	4.306	7.867	11.737	11.819	13.055

Appendix: Usiminas

Figure 1. Usiminas – Income Statement in R\$ Millions (Genial Est. 2024-2028)

Income Statement	2024E	2025E	2026E	2027E	2028E
Net Revenue	26.690	26.956	27.619	27.985	27.707
(-) COGS	(24.033)	(23.371)	(23.699)	(24.035)	(23.603)
Gross Profit	2.657	3.585	3.921	3.949	4.104
(-) Expenses	(1.105)	(1.301)	(1.445)	(1.365)	(1.324)
Adjusted EBITDA	2.590	3.377	3.626	3.834	3.769
(-) D&A	(1.038)	(1.093)	(1.150)	(1.250)	(990)
EBIT	1.552	2.284	2.476	2.585	2.779
(+/-) Financial Result	545	391	469	746	837
(-) Taxes	(319)	(402)	(441)	(497)	(538)
Net income	1.885	2.380	2.611	2.941	3.185
Profitability					
Net margin (%)	7,06%	8,83%	9,45%	10,51%	11,50%

Figure 2. Usiminas– Cash Flow in R\$ Millions (Genial Est. 2024-2028)

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E
Net Revenue	26.690	26.956	27.619	27.985	27.707
(-) COGS	(24.033)	(23.371)	(23.699)	(24.035)	(23.603)
Adjusted EBITDA	2.590	3.377	3.626	3.834	3.769
EBIT	1.552	2.284	2.476	2.585	2.779
(-) Taxes	(319)	(402)	(441)	(497)	(538)
(+) D&A	1.038	1.093	1.150	1.250	990
(+/-) Δ WK	978	20	(188)	(18)	158
(-) Capex	(1.813)	(1.559)	(2.573)	(2.058)	(1.955)
FCFF	1.436	1.435	425	1.261	1.434

Disclosure Section

1. GENERAL DISCLAIMER

This report has been produced by the research department (“Genial Institucional Research”) of Genial Institucional Corretora de Câmbio, Títulos e Valores Mobiliários S.A. (“GENIAL INSTITUTIONAL CCTVM”). Genial Institucional is a brand name of Genial Investimentos CCTVM.

Genial Rating

	Definition	Coverage
Buy	Expected return above +10% in relation to the Company's sector average	49%
Neutral	Expected return between +10% and -10% relative to the Company's industry average	41%
Sell	Expected return below -10% in relation to the Company's sector average	5%
under Review	Under review	5%

This report may not be reproduced or redistributed to any other person, in whole or in part, for any purpose, without the prior written consent of GENIAL INSTITUTIONAL CCTVM. GENIAL INSTITUTIONAL CCTVM accepts no liability whatsoever for the actions of third parties in this respect.

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither GENIAL INSTITUTIONAL CCTVM nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report’s preparation or publication, or any losses or damages which may arise from the use of this research report

GENIAL INSTITUTIONAL CCTVM may rely on information barriers, such as “Chinese Walls” to control the flow of information within the areas, units, divisions, groups, or affiliates of GENIAL INSTITUTIONAL CCTVM.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by GENIAL INSTITUTIONAL CCTVM with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

The locally listed shares of Brazilian companies may only be purchased by investors outside of Brazil who are “eligible investors” within the meaning of applicable laws and regulations.

2. ANALYST(S) DISCLOSURES AND CERTIFICATION

The principal analyst, IGOR GUEDES, is responsible for the content of this report and for meeting the requirements of Securities and Exchange Commission of Brazil (CVM) Instruction 598/2018.

The analysts hereby certify that the views expressed in this research report accurately reflect their personal views about the subject securities or issuers and it was prepared in an independent manner, including with respect to the person and to GENIAL INSTITUTIONAL.

The analyst hereby certifies that he (she) has no connection with any individual who works for the issuer(s) discussed in this report.

The analyst hereby certifies that he (she), or his (her) spouse or companion, either directly or indirectly, in his or her own name or on behalf of a third party, does not hold any of the securities covered in this report.

The analyst hereby certifies that he (she), or his (her) spouse or companion, is not directly or indirectly involved in the purchase, disposal or brokering of the securities covered in this report.

The analyst hereby certifies that he (she), or the his (her) spouse or companion, has no direct or indirect financial interest in the issuer covered in this report (other than trading shares in investment funds, in which the analyst cannot control, directly or indirectly, the administration or management of the fund, or which do not concentrate investments in sectors or companies that are covered by reports produced by the analyst).

The analyst's compensation is, directly or indirectly, determined by income from GENIAL INSTITUTIONAL's business and financial operations.

In addition, the analysts certify that no part of their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

The compensation of the analyst who prepared this report is determined by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues, however, compensation may relate to the revenues of GENIAL INSTITUTIONAL CCTVM, its affiliates and/or subsidiaries as a whole, of which investment banking, sales and trading are a part. Compensation paid to analysts is the sole responsibility of GENIAL INSTITUTIONAL CCTVM.

The analyst hereby certifies that he (she), or his (her) spouse or companion, does not serve as an officer, director, or advisory board member of the subject company.

The principal analyst is responsible for the content of this report and for meeting the requirements of Securities and Exchange Commission of Brazil (CVM) Instruction 598/2018.

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

3. ADDITIONAL DISCLOSURE

- (i) This document was prepared by GENIAL INSTITUTIONAL Research and is hereby supplied for the sole purpose of providing information about companies and their securities.
- (ii) The information contained herein is provided for informational purposes only and does not constitute an offer to buy or sell, and should not be construed as a solicitation to acquire, any securities in any jurisdiction. The opinions expressed herein regarding the purchase, sale or holding of securities, or with respect to the weighting of such securities in a real or hypothetical portfolio, are based on careful analysis by the analysts who prepared this report and should not be construed by current or future investors as recommendations for any particular investment decision or action. The investor's final decision should be made considering all of the risks and fees involved. This report is based on information obtained from primary or secondary public sources, or directly from companies, and is combined with estimates and calculations prepared by GENIAL INSTITUTIONAL CCTVM. This report does not purport to be a complete statement of all material facts related to any company, industry, security or market strategy mentioned. The information has been obtained from sources believed to be reliable, but GENIAL INSTITUTIONAL CCTVM does not make any express or implied representation or warranty as to the completeness, reliability or accuracy of such information. The information, opinions, estimates and projections contained in this document are based on current data and are subject to change. Prices and availability of financial instruments are indicative only and subject to change without notice. GENIAL INSTITUTIONAL CCTVM is under no obligation to update or revise this document or to advise of any changes in such data.
- (iii) The securities discussed in this report, as well as the opinions and recommendations contained herein, may not be appropriate for every type of investor. This report does not take into account the investments objectives, financial situation or particular needs of any particular investor. Investors who wish to buy, sell or invest in securities that are covered in this report should seek independent financial advice that takes individual characteristics and needs into consideration, before making any investment decision with respect to the securities in question. Each investor should make independent investment decisions after carefully analyzing the risks, fees and commissions involved. If a financial instrument is denominated in a currency other than an investor's currency, changes in exchange rates may adversely affect the price or value of, or the income derived from the financial instrument, and the reader of this report assumes all foreign exchange risks. Income from financial instruments may vary, and therefore their price or value may rise or fall, either directly or indirectly. The information, opinions and recommendations contained in this report do not constitute and should not be interpreted as a promise or guarantee of a particular return on any investment. Past performance does not necessarily indicate future results, and no representation or warranty, express or implied, is made herein regarding future performance. Therefore, GENIAL INSTITUTIONAL CCTVM, its affiliated companies, and the analysts involved in this report take no responsibility for any direct, indirect or consequential loss resulting from the use of the information contained in this report, and anyone using this report undertakes to irrevocably indemnify GENIAL INSTITUTIONAL CCTVM and its affiliates from any claims and demands.
- (iv) Prices in this report are believed to be reliable as of the date on which this report was issued and are derived from one or more of the following: (i) sources as expressly specified alongside the relevant data; (ii) the quoted price on the main regulated market for the security in question; (iii) other public sources believed to be reliable; or (iv) GENIAL INSTITUTIONAL CCTVM's proprietary data or data available to GENIAL INSTITUTIONAL CCTVM.

- (v)** No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein, except with respect to information concerning GENIAL INSTITUTIONAL CCTVM, its subsidiaries and affiliates. In all cases, investors should conduct their own investigation and analysis of such information before taking or omitting to take any action in relation to securities or markets that are analyzed in this report.
- (vi)** GENIAL INSTITUTIONAL CCTVM makes no representations herein that investors will obtain profits. GENIAL INSTITUTIONAL CCTVM will not share with investors any investment profits nor accept any liability for any investment losses. Investments involve risks and investors should exercise prudence in making their investment decisions. GENIAL INSTITUTIONAL CCTVM accepts no fiduciary duties on behalf of recipients of this report and in communicating this report is not acting in a fiduciary capacity. This report is not to be relied upon in substitution for the exercise of recipient's independent judgment. Opinions, estimates, and projections expressed herein constitute the current judgment of the analyst responsible for the substance of this report as of the date on which the report was issued and are therefore subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of GENIAL INSTITUTIONAL CCTVM as a result of using different assumptions and criteria. The information, opinions and recommendations contained in this report do not constitute and should not be interpreted as a promise or guarantee of a particular return on any investment.
- (vii)** Because the personal views of analysts may differ from one another, GENIAL INSTITUTIONAL CCTVM, its subsidiaries and affiliates may have issued or may issue reports that are inconsistent with, and/or reach different conclusions from, the information presented herein. Any such opinions, estimates, and projections must not be construed as a representation that the matters referred to therein will occur. Prices and availability of financial instruments are indicative only and subject to change without notice. Income from financial instruments may vary, and therefore their price or value may rise or fall, either directly or indirectly.
- (viii)** This document may not be: (a) photocopied or duplicated in any manner, in whole or in part, and/or (b) distributed without GENIAL INSTITUTIONAL CCTVM's prior written consent. GENIAL INSTITUTIONAL CCTVM accepts no liability whatsoever for the actions of third parties in this respect.
- (ix)** Neither GENIAL INSTITUTIONAL CCTVM nor any of its affiliates, nor any of their respective directors, employees or agents, accepts any liability for any loss or damage arising out of the use of all or any part of this report.
- (x)** GENIAL INSTITUTIONAL CCTVM (or its affiliates, officers, directors or employees) may, to the extent permitted by law, have acted upon or used the information herein contained before the publication of this report and may have a position in securities issued by the companies mentioned herein and may make a market or act as a principal in any transactions in any such securities. Genial Institucional may from time to time perform investment banking or other services to, or solicit investment banking or other business from, the companies mentioned herein.

4. IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by Genial Institucional CCTVM, a company authorized to engage in securities activities in Brazil. Genial Institucional CCTVM is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to “major U.S. institutional investors” in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”) and is not being provided pursuant to a soft-dollar arrangement.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Brasil Plural Securities LLC, a registered broker dealer in the United States with an office at 545 Madison Ave., New York, NY 10022, (212) 897-3737. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Genial Institucional CCTVM.

Brasil Plural Securities LLC accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority (“FINRA”) and may not be an associated person of Brasil Plural Securities LLC and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

The disclosures contained in research reports produced by GENIAL INSTITUTIONAL CCTVM and distributed by Brasil Plural Securities LLC in the U.S. shall be governed by and construed in accordance with U.S. law. This report may not be reproduced or redistributed to any other person, in whole or in part, for any purpose, without the prior written consent of GENIAL INSTITUTIONAL CCTVM. Additional information relative to the financial instruments discussed in this report is available upon request.

UK Disclaimer:

(i) This document is STRICTLY CONFIDENTIAL to the recipient, may not be distributed to the press or other media and may not be reproduced in any form. this document is directed only at persons who are “INVESTMENT PROFESSIONALS” falling within article 19(5) of the FSMA 2000 (FINANCIAL PROMOTION) ORDER 2005, or HIGH NET WORTH BODIES falling within ARTICLE 49(2) of that order (together THE “RELEVANT PERSONS”). This document must not be acted on or relied on by persons who are not RELEVANT PERSONS.

(ii) The distribution of this document in other jurisdictions may be restricted by law and persons into whose possession this document comes should inform themselves about, and observe, any such restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of any such other jurisdiction.

Copyright 2023 GENIAL GENIAL INSTITUTIONAL CCTVM