Metals & Mining

A sigh of relief for the steel industry

LatAm Metals & Mining

Main takeaways:

(i) What to expect after China's interest rate cut (-10bps) and what insights we were able to extract; **(ii)** China has changed, and investors will have to get used to a real estate market growing less, which is not necessarily bad and we explain why; **(iii)** It is possible that real demand at the top will not allow HRC and rebar prices to advance, although we now recognize the beginning of positive sentiment reverberating in the sector; **(iv)** Apparent steel consumption in Brazil at levels below recent history, what to expect going forward? **(v)** Improved sentiment of market conditions in China's steel industry should increase the spread of steel, thus reducing the appetite of the downstream in Brazil for the imported product, and increasing consumption domestically; **(vi)** Exports turn into an escape route for domestic producers; **(vii)** Subsidies to the auto sector may help, but are not yet enough to revive demand; **(x)** Fall in interest rates continues to be a trigger, we expect SELIC cut (-25bps) in September; **(ix)** Retrospective of 1Q23 results of Gerdau, Usiminas and CSN; **(x)** Looking ahead, which dynamics should we focus on to understand which of the three companies should stand out in the short term?

As per our last report about the mining sector, whose link is attached: (Metals & Mining: Has the bearish scenario been fully priced in?) we will continue the update, now focused on the steel sector. Despite the relatively small interval between our last report and this one, there have been some **potentially important changes** in the last few days, even if they may seem subtle at first. Through **changes in the supply and cost of credit**, we believe that the **Chinese government should begin to calibrate the consumption of goods**, which is (moderately) lifting the confidence sentiment of the steel sector, as we will detail in more depth throughout this report.

We will start by giving some context about the steel market in China, then we will move on to the consequences on the market in Brazil, and we will close by looking back at the main points in 1Q23 for **Gerdau, Usiminas and CSN**, as well as commenting on **which dynamics we expect for each of the investment thesis** going forward.

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Companies

GGBR4 BZ Equity
Buy

Price: R$ 25,33 (Jun-26-2023)
Target Price 12M: R$ 31,00

USIM5 BZ Equity
Neutral

Price: R$ 7,28 (Jun-26-2023)
Target Price 12M: R$ 8,10

CSNA3 BZ Equity
Neutral

Price: R$ 12,98 (Jun-26-2023)
Target Price 12M: R$ 15,00

What's New?

China

Exactly following the guideline that we anticipated in our last report, we believed that the Chinese government was in the process of lowering compulsory deposit rates and also promoting a cooling in the cost of credit. Both measures came a few days after our publication.

- **Compulsory rate cut:** The cut in compulsory came first. On June 8, 6 state-owned commercial banks in China cut their rates in 5 to 15bps. We believe the compulsory rate cut was in order to stimulate growth in the economy in the face of weakened consumption of goods, which in turn are highly dependent on credit. In terms of intensity, the cut was below what we expected (-10bps vs.) Still, we believe that it will have a positive effect on increasing credit supply, and that the government may make the additional -10bps cut in 2H23, to match the -25bps reduction in the compulsory that was made last year. The upcoming manufacturing PMIs, as well as the fixed asset investment indicator, may give signs whether this additional cut will indeed take place.

- **Interest Rate Reduction:** The interest rate reduction, on the other hand, came right after the compulsory rate cut. On June 13, the People's Bank of China (PBoC) injected ¥2b (US$ 279.9m) of liquidity into the market through a 7-day reverse repo at an interest rate of 1.9%, down from the previous rate of 2%. This injection of funds was expected to have an impact on the country's key interest rate (LPR), which was subsequently announced on Tuesday, June 20, with a reduction of -10bps to the 5-year rate. Our expectation was for a cut of -15bps, this time in line with the consensus view. We know that the PBoC's decision did not please the market. Despite the cut, investors expected that the intensity of the cut could be higher (-10bps vs. -15bps Genial Est.), in order to increase the supply of credit, thus loosening the cost. We believe that the acquisition of goods is extremely sensitive to credit conditions. As the expectation was for a more aggressive cut in interest rates, the iron ore price interrupted the upward movement and retreated soon after the announcement. Even so, we maintain our expectation of a -20 bps cut in 2H23, reaching a rate of 2.5% by the end of this year. We believe in a slightly more elastic monetary loosening than the consensus, which is at a rate of 2.55%.

Our view is that the lower interest rate cut is part of a more conservative stance that the Chinese government has been adopting in recent years, as they themselves have started to dismantle the bloated structure of the real estate sector, through the application of the Three Red Lines and other measures to contain the advance of leverage in real estate developers. Although the -10bps reduction is below expectations, our interpretation is that the PBoC may have found itself in a dilemma: larger magnitudes of stimulus would be out of step with the current conservative, more pragmatic approach to solve the real estate issue, which we have already mentioned has bubble-like characteristics.

Although the loosening of interest rates is crucial for the entire steel downstream, not only the real estate market, in our last report we anticipated to investors that we did not believe that the Chinese government will return (in the short term) to giving much direct stimulus to developers and construction companies. We understand that the PBoC should phase in the easing process more slowly and monitor the activities in the real estate market. If it were to lower interest rates too fast, it could once again heat up sales to second buyers too much, and we would be back to the same problem that took away confidence in the sector in the first place.

Was there room to cut interest rates further? China's year-to-date inflation (CPI YTD) was weaker than anticipated due to several factors, such as: **(i)** Fuel and oil prices trended lower than anticipated, with current global Brent prices 12% lower than projected future curves in early 2023. This has had a direct impact on energy and utility prices in China, as well as keeping consumer and manufacturing goods prices low due to the weak Producer Price Index (PPI). We believe that the quantitative approach reveals the extent of the deviation from the expected trend, highlighting the implications on inflation cooling. **(ii)** The significant decline in pork prices (widely consumed in China), which was reduced by ~30% between December 2022 and April 2023, had an impact of approximately 0.5p. p on the deterioration of the CPI, which shrank -1.6p.p year-to-date. **(iii)** The recovery in services prices was less robust than anticipated, registering an increase of only +0.9% year-to-date. This can be attributed to the weak recovery in activities, slow growth in income and consumer sentiment, an abundance of labor in reserve, high levels of youth unemployment (above 20%) and moderate utility and rental costs.

To answer the question objectively, yes... in our assessment, there was room for the PBoC to be more aggressive in cutting interest rates. In addition to the reasons we mentioned above, the -0.8% year-to-date drop in consumer goods prices can be attributed to subdued domestic consumption demand and low capacity utilization, which were further exacerbated by the below-consensus export performance (ahead of consensus, we also anticipated this earlier in the year). With inflation still shrinking, the market expected a larger interest rate cut. However, we believe that China's official entities possibly intend to monitor the pace of stimulus and better control the expansion of the real estate market, which is highly dependent on the interest rate. In other words, a more aggressive interest rate cut could once again overstimulate the real estate sector.

Graph 1. China's Interest Rate Cut

Source: Genial Investimentos, SMM.

China has changed, get used to it... In our opinion, investors will have to face reality: the housing market will grow less, and this will indeed be beneficial for the gain of confidence in the sector, although it initially seems contradictory. Growing at the fast pace that was seen in the last decades until the pandemic does not seem healthy and sustainable to us in the long term, taking into account the inversion of the age pyramid, a point that we have been trying to make for a long time now. There are many more houses than residents willing to pay the inflated prices, especially in medium-sized cities. As we have already commented, we have found that middle-class families that belong to the economically active population, in cities that are not part of Tier I, already own three houses and only 1.8 children, and cannot rent or sell their properties because there are no interested parties. The population is starting to shrink, and investors who speculate often look for properties to buy in larger cities, but Tier I cities do not even represent 10% of China's total population. In other words, medium and small cities still carry a very large weight in the GDP. It doesn't seem rational that the government, even in the hypothesis of stimulating the sector, will be able to convince middle-class Chinese in smaller cities to keep buying more properties, without many children to inherit them, and with the cost of living rising over the years.

Nevertheless, we believe that the compulsory cut and subsequent drop in interest rates should help to boost the Chinese economy, facilitating greater access to credit for purchasing goods (not just housing), raising the outlook for steel and iron ore demand, which is currently below the consensus reopening forecast.

Gaining confidence in the sector begins to take shape. After government measures, the average price of rebar traded in China increased by ~US$12/t compared to a week earlier. Some blast furnace mills went through a maintenance period in Shanxi, which according to our calculations, would have led to a reduction in production of ~6.2Mt in the accumulated period, compared to what we estimate for production if the blast furnaces were running at a utilization rate of ~92% (current average). Even with the reduction, we saw that total rebar production rose by 18.5Mt. We believe that the combined effect of a higher price and higher production volume signals the beginning of the gradual process of gaining confidence in the sector.

As for arc electric furnaces, the East China region experienced more routine maintenance, resulting in a slight drop in the utilization rate of this type of plant, which fell to a median of 30.06% over the year (-2.53p.p vs. Dec 22), affecting the supply of building materials.

Table 1. Changes in forecast

	Δ Forecast 3Q23
Oversees Shipment of Iron Ore	Up
Arrivals of Iron Ore in Ports	Up
Port Inventory of Iron Ore	Down Slightly
Operating rate of Coking Companies	Up Slightly
Coke Inventory of Coking Enterprises	Down Slightly
Blast Furnace Operating Rate	Up Slightly
Electric Arc Furnace Operating Rate	Stable
Total Rebar Inventory	Stable
Total Wire Coil Inventory	Down
Total HRC Inventory	Up Slightly
Scrap	Up

Source: Genial Investimentos

As steel prices have increased this mid-June, we see an interruption in a cycle of price cuts that were repeating sequentially until the end of May. However, we believe that steel demand will (slowly) shift to the traditional off-season situation. In our assessment, electric arc furnace steel mills will continue to operate at low production levels due to sustained losses in profitability. The market is experiencing a significant gap between supply and demand, but the continued decline in inventories is beginning to reduce the degree of market uncertainty.

However, it is still too early to talk about a recovery. Currently, the market has witnessed a mild acceleration in iron ore prices (~3.5% since the announcement of the compulsory cut), causing a rise in exports and an expected increase in the volume of shipments. In addition, the continued decline in steel mills' profits from the successive price cuts on steel promoted until the end of May, coupled with the rise in iron ore prices experienced over the last 10-15 days, has negatively affected demand for steel mills. Consequently, iron ore fundamentals have become weaker, especially after the interest rate cut came in lower than the consensus expectation, as we commented above. Given the projected increase in iron ore prices, market participants should remain alert to regulatory risks.

Last week we saw an increase in steel rebar prices, yet the final demand continued to decrease during the rainy season. We anticipated in our last report that some developers are focusing on interior construction projects to get around the rainy season, but still most of the sample we have access to give us the impression that they are holding back on launching projects out for a "wait and see" feeling.

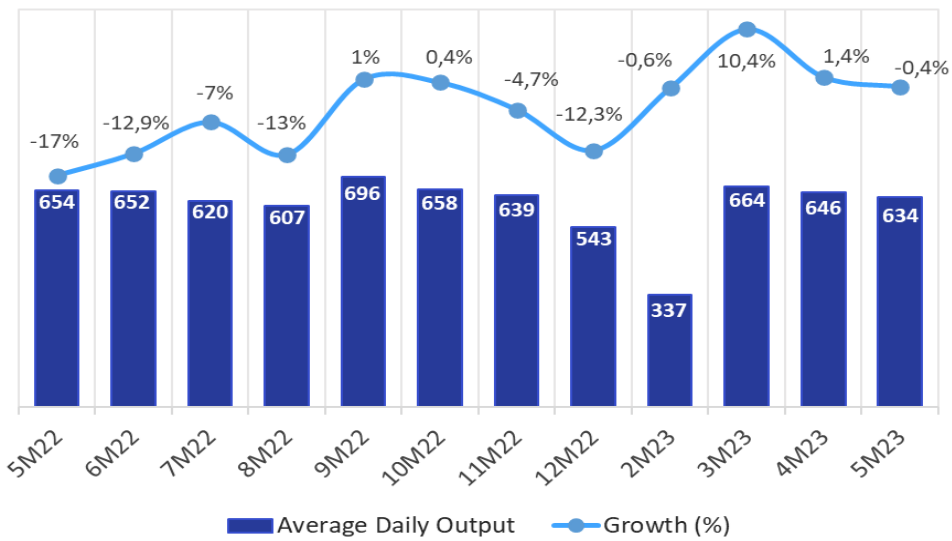
Under this monitoring, driven by strong political expectations, production levels below historical levels and inventory being sequentially reduced, our view is that the movement in favor of steel prices will continue to gradually expand the profit margin of steelmakers. Bearing in mind that before the government's announcements on interest rates, some mills were already working close to the breakeven line, showing that there would be no business sustainability in the absence of some visibility of confidence gain.

Therefore, we believe that the weakening in real demand seen thus far will lead to a rise in steel price points, because in an antagonistic way, the cuts seen from the beginning of the year until May have brought the situation to a not very sustainable point. Our assessment is that there is still a lot of volatility and uncertainty being priced into futures contracts, both iron ore and steel. Still, our view is that the price of steel could rise further with the support of positive news, which has proved increasingly crucial at this stage of slowing demand. We expect more interest rate cuts in 2H23, and this should continue the process of positive news flow.

However, trying to purge the effects that the news may have on commodity prices and sticking strictly to supply and demand data, we believe that there is indeed a positive movement underway, but it is still too embryonic to say that the sector is recovering. The production of construction materials, especially cement and steel, fell in May compared to the same month last year. This can be attributed to a combination of lower-than-expected manufacturing activity and continued weakness in the housing sector, which resulted in subdued demand. We explored more about the May PMI for downstream steel in our latest report, which can be accessed via the link.

Specifically, steel output retreated -7% y/y and -3% m/m, with an average daily output of 2.9Mt in May, down from 3.1Mt in April. Similarly, cement production shrank, although more mildly, by -0.4% y/y with a daily run rate of 6.3Mt vs. 6.5Mt in April. The real estate investment sector suffered a more significant contraction of -10.2% y/y, indicating that the sector is still far from stabilizing. As a result, HRC steel and cement prices in China decreased by approximately -4% m/m and -6% m/m, respectively.

Graph 2. Cement production y/y slightly down



Source: Genial Investimentos, China Statistics Bureau.

So, the steel price increase is not sustainable? We understand that the HRC market should still show weak terminal transactions, and we advise investors to beware of the possibility of a drop in prices after the sudden increase we have seen in the last few days. Nevertheless, our understanding is that steel mills producing HRC will see profits at more acceptable levels from now on, which could lead to an increase in steel output in the near term. In light of improving margins, mills increased their output during the previous week, resulting in a soft +0.7% rise in HRC production to 2.4Mtpd.

Conversely, the volume of iron ore unloading at the 35 ports we monitor in China has shrunk slightly, due to the fact that steel mills are consuming their built-up stocks directly on-site. Consequently, the total level of on-factory inventories at a sample of nearly 250 mills retreated -0.8% last week to a historical low of 33.8Mt. Currently 46% of mills within the sample have ~20 days of inventory turnover on hand, which is 12% below the annual average. This, coupled with pre-holiday buying for the upcoming Dragon Boat Festival, will likely increase demand for iron ore in the coming weeks, keeping prices near the US$110/t level in the 62% Fe reference.

However, despite the increase in HRC output, we believe it is unlikely that there will be a corresponding rise in downstream demand during the off-season. The truth is that the confidence gain is only beginning to modulate after the seasonal construction peak, which lasts until April. We believe this also affects the durability of the HRC price hike, where the downstream steel industry also moves around this seasonality of projects in the annual calendar.

Table 2. Variation in steel demand per sector

	Main Indicator	Growth during Jan-16Jun-2023	Growth during Jan16-Jun-2022	Δ Variation	Growth in 2022
Supply	**Crude Steel Output**	**4,1%**	**-10,3%**	**14,4%**	**-2,1%**
Demand					
Real Estate	Property Investments	-5,7%	-4%	-1,7%	-10%
	Floor Space of Home Sales	-3,6%	-23%	19,9%	-24,3%
	Floor Space of Newly-Started Buildings	-9,4%	-30,6%	21,2%	-39,4%
	Floor Space of Land Purchases	-100%	-45,7%	-54,3%	-53,4%
Infrastructure	Investiments in Infrastructure	9,0%	6,7%	2,3%	9,4%
Machinery	Cement Production	2,5%	-14,8%	17,3%	-10,8%
	Excavator Production	-16,4%	-27,3%	10,9%	-21,7%
Automobile	Production	11,1%	-9,6%	20,7%	3,4%
	Sales	11,1%	-12,2%	23,3%	2,1%
Home Appliance	Air-Conditioners	12,2%	-0,7%	12,9%	1,8%
	TVs	3,3%	3,8%	-0,5%	6,4%
Shipbuilding	New Orders	29%	-45%	74%	-32%
	Orders on Hand	12,3%	21,7%	-9,4%	10,2%
	Completed Orders	9,3%	-8,6%	17,9%	-4,6%

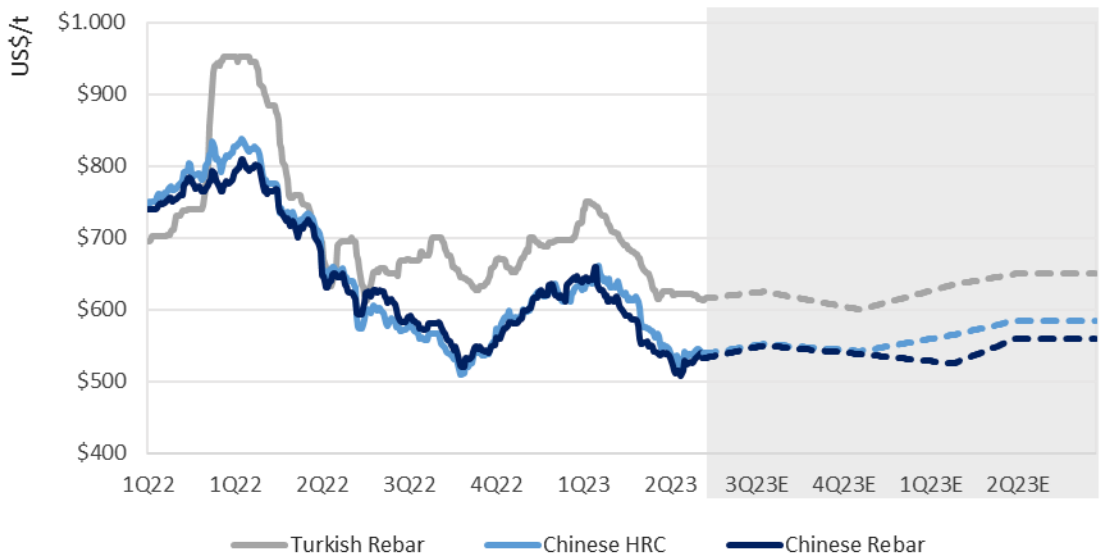
Source: Genial Investimentos, SMM.

In other words, although the market has put on the expectation curve a rise in HRC price points, we believe it is important for investors to be aware of two factors: (i) potential cost hikes due to the pass-through of raw material values, as the market seems to be reviving its engines again regarding reliability; and (ii) transactions still weak of steel products at the end of the chain. Rationally, we believe that HRC2310 contracts may even continue to move higher in the near term, surpassing the US$550/t barrier, but retreating later in the year to ~US$540/t.

As for rebar price dynamics, we also observed an increase in prices together with a slight increase in volume, as already mentioned. However, during the rainy season, final demand continued to slow down as the seasonally weaker period for the construction industry entered. Although the interest rate cut was not as extensive as the consensus forecast, generating pessimism, we believe that it has only a transitory negative impact. If we look at the price of iron ore, after reaching the maximum of the last few months at ~US$115/t on the day before the announcement of the interest rate cut, the appreciation movement was quickly reversed on the day after the announcement. Still, we highlight that after a few days, the market does not seem to have continued to price such an intense mood, with iron ore still in the ~US$113/t range.

Thus, from a monitoring point of view, we affirm that the reduction of compulsory rates by commercial banks was adequate to start the process of improving the fragile steel price dynamics, which was mainly influenced by high political expectations and low production. Our assessment at this point is that the improvement in price dynamics is likely to continue to increase the level of the steel spread, which was low even as inputs were also being cut. However, acting in the opposite way, the weakening of real demand with the real estate market still sluggish in launching new projects will result in a further pullback for rebar prices, which should break through the US$530/t range for a very limited time and come back to trade near US$525/t by the end of 2023.

Graph 3. International steel prices are to maintain weak



Source: Genial Investimentos, SMM.

Despite Coal prices are still stable, it may rise. In general, the availability of coke has been reduced, and we believe it has cost support due to the steel sector showing a recovery lately. As we have already commented, the coke producers were promoting successive rounds of price cuts (more than 10 in a row), due to the low interest of the steel industry in buying volume. However, the cuts have stopped and demand is starting to come back, although slowly. According to the Shanghai Metals Market (SMM) assessment with last week's data, coking plants had an increase in profits of ~US$3.5/t, reaching the US$16.6/t level. Currently, the steel sector is showing some signs of progress, bringing a rise in coke appetite. Thus, we believe that as producers' margins were well below the normalized historical spread, we project that metallurgical coal prices will not only stabilize in the near term, but recover within a few months, raising the cost for steelmakers.

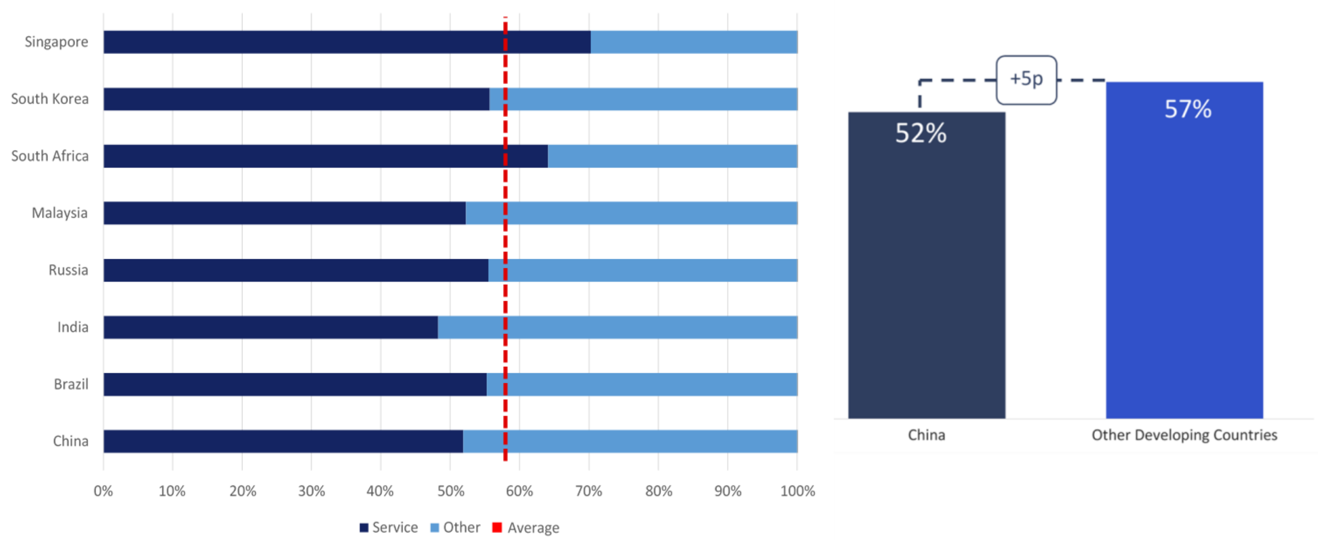
The utilization capacity rate of coking plants registered an increase of +0.4p.p last week, reaching 78%. In terms of profitability, the Shanxi and Shandong coke plants recorded an increase in profits. This can be attributed to the fall in the cost of coke, which as we commented above, suffered successive rounds of price cuts until the end of May. However, the incentive to produce in the coking plants may diminish if the demand for steel is not supported in real terms by the downstream industry at the end of the chain, due to the excess inventory accumulated by steel mills and the return of a higher level of profits for coal producers, squeezing the spread again.

In other words, we are forecasting that the coke stocks inside the coking plants will start to decrease in the next few days. On the other hand, the effect on steel mills should be in the opposite direction, with most of them promoting the purchase and continuing to raise their stock levels, under the impression that the sector would be showing signs of recovery, but facing a still cruel reality, of a demand that may be weak due to the low season.

Depressed housing market is still likely to hinder a continued recovery movement for steel demand. The China Bureau of Statistics reported a +12.7% y/y increase in total retail sales in May, totaling ¥3.8 trillion (~US$530b). Year-to-date from January to May, total retail sales focused only on consumer goods reached ¥18.7 trillion (~US$2.5 trillion), an increase of +9.3% y/y. Private fixed asset investment totaled ¥10.2 trillion (~US$1.5 trillion), basically flat y/y, while domestic fixed asset investment (excluding rural households) was ¥18.9 trillion (~US$2.6 trillion), a still timid acceleration of +3.7% y/y.

Private investment in fixed assets works as a good proxy for the appetite of the real estate market in China. If investment is at a sluggish pace of acceleration, it means that the housing market is still sluggish. These numbers have been proving our thesis about the level of industrial growth still being low, with the latest manufacturing PMI having almost half of the 21 subsectors within the contraction zone, and the services PMI gaining ground within the expansion zone (+0.7pt. m/m). It is very clear to us; the release of economies post Covid-19 lockdown is mostly hinged on consumption of services rather than goods. Since the services sector in China does not carry as much GDP as in other emerging economies, it may lead to the impression that China is growing less than it should.

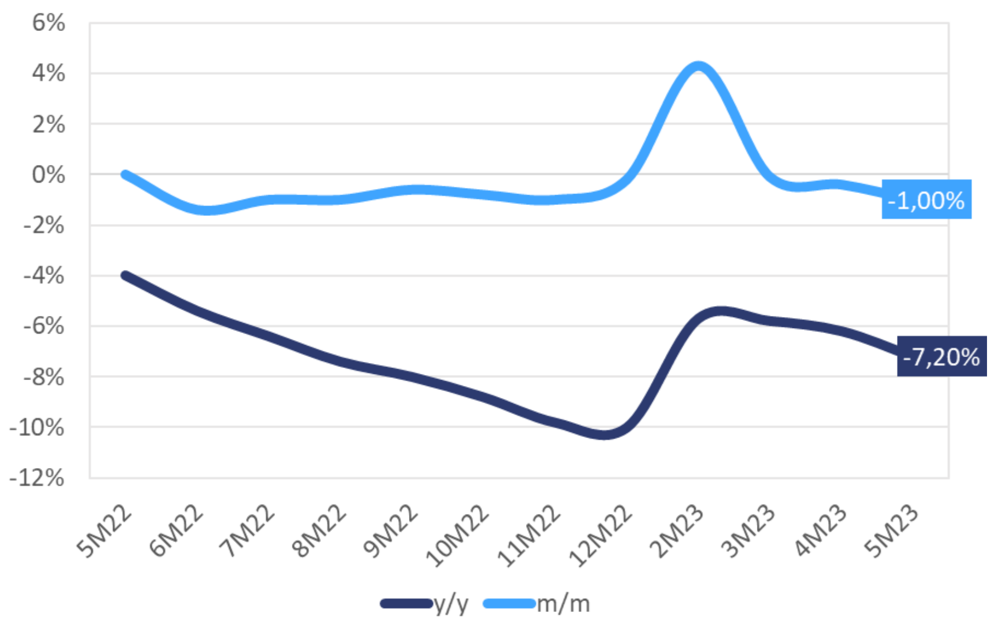
Graph 4 & 5. Weight of services sector in China's GDP compared to other developing countries



Source: Genial Investimentos, SMM.

The problem we identified was that much of the market failed to make the correct reading on China's release from the Covid-zero policy, and many investors placed unrealistic expectations on the voracious appetite for consumer goods. The degree of intensity about this appetite, where much was said about the accumulation of savings by the Chinese, is not occurring in the way that was expected. That is, this accumulated savings, which is beginning to show slight signs of receding in the last two months (~15% of GDP 2022 vs. 17% at the beginning of the year) is being spent mostly on services and not on goods, and especially not on housing.

Graph 6. Accumulated growth rate of investment in Real Estate Development (y/y vs. m/m)



Source: Genial Investimentos, SMM.

From January to May, there was a -7.2% y/y decline in domestic investment in real estate development. However, there was a significant +22.6% y/y increase in total construction area and a +19.6% y/y increase in housing completions. In contrast, if we look at the composition of this double-digit growth in real estate, much of it is tied to other types of buildings, considering that there was a more considerable reduction in the area of new housing construction (-6.5% y/y) and a -0.9% y/y drop in the area of commercial property sales.

As we have commented in previous reports, sales of housing in the final stages of construction or already finished will recover faster. This is exactly what is happening. The double-digit y/y increase in the completed housing area reflects that there is an increased appetite for properties where delivery is at a more advanced stage, leading to greater assertiveness about meeting buyers' needs. On the other hand, the above mid-single digit drop in the area of new housing construction indicates that there is still no appetite for consumers to absorb launches of new real estate projects with an emphasis on housing, since these projects still have to be built, decreasing assertiveness about delivery conditions desired by buyers. New commercial real estate projects are also not performing well, yet they consolidate a much less worrisome situation.

This is why we say that the real estate market needs to suffer the consequences of its past. It was largely stimulated by the government for decades, growing at absurd rates, with developers leveraging themselves at an average of 140% Net Debt/Equity. Even with the three red lines, a large group of developers have not brought their leverage back below 100%. Continuing to offer stimulus to the sector, while good for the short term in the Chinese economy, carries dynamics with heavy consequences for the long term.

Which is why we say that there is a crisis of confidence of mortgage payers in the Chinese real estate sector, because it seems to us that it was a monster generated and nurtured by the government itself. To resolve the situation and improve the buyers' sense of confidence, the government will indeed have to be tougher and resist the temptations to encourage the intense expansion in project numbers that has been seen through 2020. This is likely to continue to annoy investors, who have grown accustomed to seeing the booming industry pulling in demand for steel over the years.

Although NPLs for real estate loans are in a continuous cooling movement, there is little appetite for credit lines linked to the sector. As a reflection of the confidence crisis that was set in motion, the real estate sector was affected by frequent defaults between 2H21 and 2H22, resulting in a drop in value of ferrous metals (iron ore and steel), until the time of the relaxation of the Covid-zero measures. Looking a bit in the rear-view mirror, Chinese banks have experienced mementos of increasing pressure on their net interest income (NII) due to the repricing of mortgages to lower rates and continued competition for deposits. The average NII of the Chinese banking sector contracted to 1.9% in 2022 vs. 2.1% in 2021, mainly due to weak demand for consumer goods loans, policy initiatives to reduce borrowing costs for the real economy, and migration of term deposits. However, this pressure on the NII, which was already easing in 2023, should continue on a downward trajectory through the reduction in the compulsory rate we mentioned at the beginning of the report, from 5 to 15bps.

Looking at loan portfolio exposure, the non-performing loan (NPL) ratio of major Chinese banks averaged ~1.3% at the beginning of 2023, reducing year-on-year. We believe this is due to ongoing NPL resolutions and limited direct exposure to property development loans, where the industry average has regressed to 5% by end-2022, well below historical representativeness (~18%).

Our expectation is that the compulsory cut will help in the continued strengthening of banks' NIIs and the reduction in interest rates (which are not expected to stop at 10bps) promoting stability in the quality of loan portfolios as the economy recovers, although slowly. The likely consequence will be the continued downward movement of NPLs through 2023. Still, the NPL ratio of portfolios in the real estate lending segment has increased to 4.4% at the end of 2022 vs. 1.9% in 2021, so there is still a long way to go to bring real estate NPLs back to the historical average (~1.5%). As we ascertained, the percentage of loans to the sector gained little representation in the portfolio of the main commercial banks in this first half of the year, evolving only +2p.p, indicating the lack of appetite that the Chinese consumer has today to finance the purchase of housing.

Mills reacted by reducing electric arc furnace exposure, but ferrous scrap prices tend to rise again. The unfavorable dynamics for the real estate segment generated a significant impact on market fundamentals, with a further weakening of consumption of downstream goods, leading to a rapid drop in steel prices through successive rounds of cuts in 1H23. Steel mills responded to weakening demand by decreasing the proportion of iron scrap in their production, thus contributing to the drop in scrap prices. We believe that coke prices were squeezing the spread in the coking plants, as we have already mentioned in this report, thus reducing the value of the input used by steelmakers in the blast furnace, the trade-off between using the electric arc furnace versus the coal-fired furnace started to rise, consistently lowering the utilization rate of electric furnaces.

However, there is renewed optimism regarding the future of iron scrap prices as expectations of new economic stimulus policies should start to set the wheels in motion and improve demand for steel. As a result, iron scrap prices are expected to show significant growth after reaching relatively low levels.

The current increase in demand for restocking in anticipation of the Chinese holiday season (dragon boat festival) has led to a greater than normal increase in steel scrap prices in recent days. The Chinese market for steel scrap experienced a significant increase last week, which has since stabilized due to consistent operating rates at blast furnace and electric arc furnace steel mills. As the supply of steel scrap is not expected to increase, favorable market conditions are expected to drive steel scrap prices in the immediate future. We believe scrap steel purchase prices in China will rise ~US$15/t over the next month.

Based on the SMM survey results, the blast furnace operating rate last week reached 93% (+0.29p.p increase). We believe that the recovery in steel prices fueled both the desire to resume blast furnace production and started the process of raising profits from the significantly low electric arc furnaces.

Given the current drop in profits, steelmakers are unlikely to relax production constraints. Moreover, the possibility of administrative restrictions on product policies should be minimal in the short term. The average operating rate of 34 electric furnace steel mills, which produce mainly rebar, came to 35.59% (+5.53% y/y increase). Our view is that while the recent increase in steel prices has restored electric arc furnace profits, the reduced supply of steel scrap continues to pose a challenge.

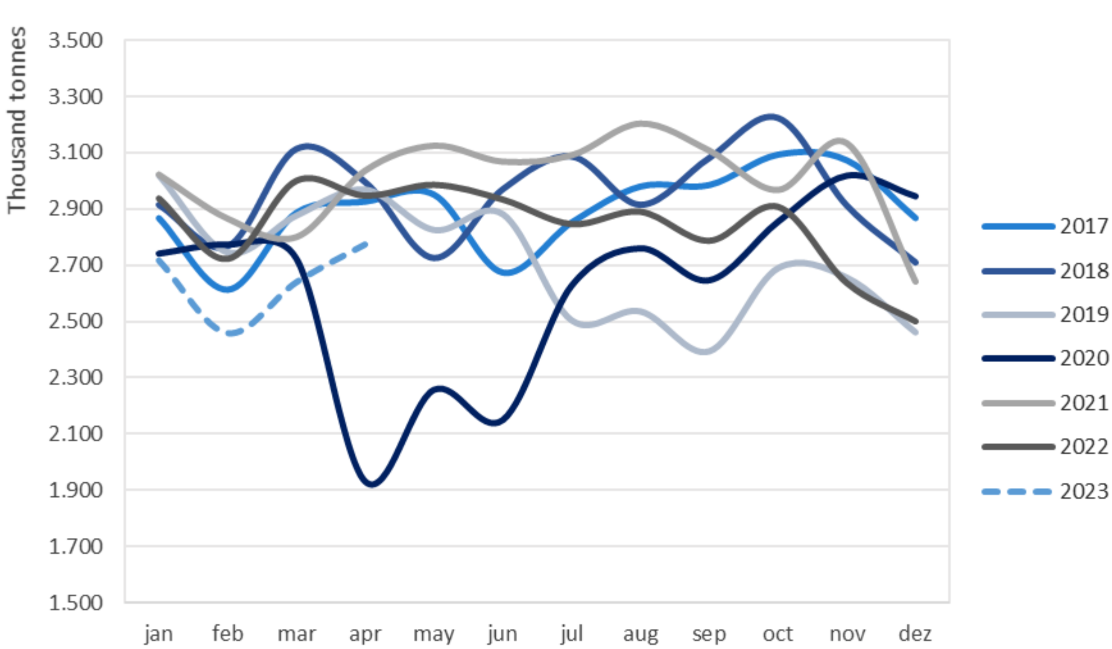
Brazil

Until this point, we have sought to provide investors with comprehensive insights into the dynamics of China's economic landscape, as well as the prevailing patterns of the balance between supply and demand for steel and its main inputs, such as coal, ferrous scrap and iron ore. Although our coverage is LatAm, and we look at Brazilian steel companies, we believe that monitoring market conditions in China is essential to understand what the prospects are for the companies we cover.

As we have mentioned, we believe there are positive signs seen in recent weeks that could indicate a resurgence in Chinese demand. Our view is that this should favor Brazilian steelmakers, who had also been suffering from weak demand since 2H23.

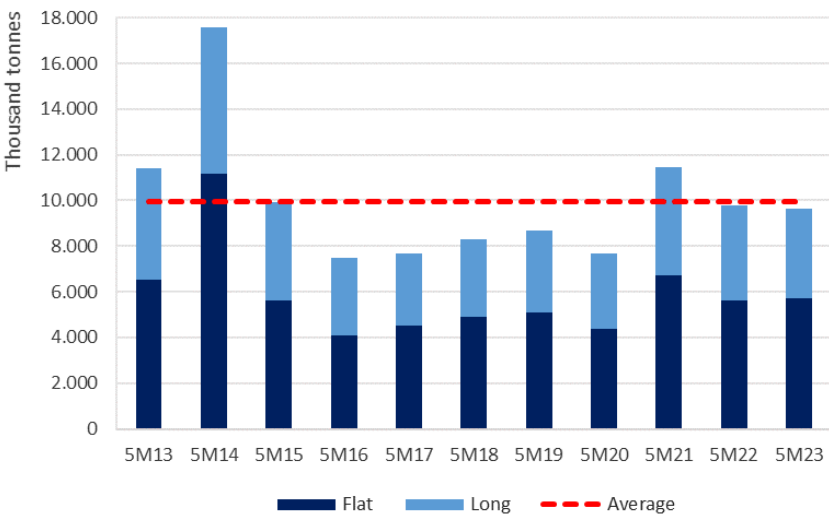
In the latest report from the Brazilian Steel Institute (IABr), based on the May numbers for the steel industry, we observed a trend of continued decline in crude steel production on a year-over-year basis. Steel output reached 2.8Mt, which despite representing a -5.5% y/y drop, shows a slight sign of recovery by growing +1.8% m/m. Apparent consumption also decreased -3.0% y/y, but rose by +6.5% m/m. Domestic sales followed a similar trend, decreasing on an annual basis, but increasing on a monthly basis, reaching 1.7Mt. Year-to-date, crude steel production fell -8.1% compared to the same period last year, going in the same direction as domestic sales, which fell -4.6%, with apparent consumption being less affected (-0.6%).

Graph 7. Steel ouput lower than historical levels



Source: Genial Investimentos, Bloomberg.

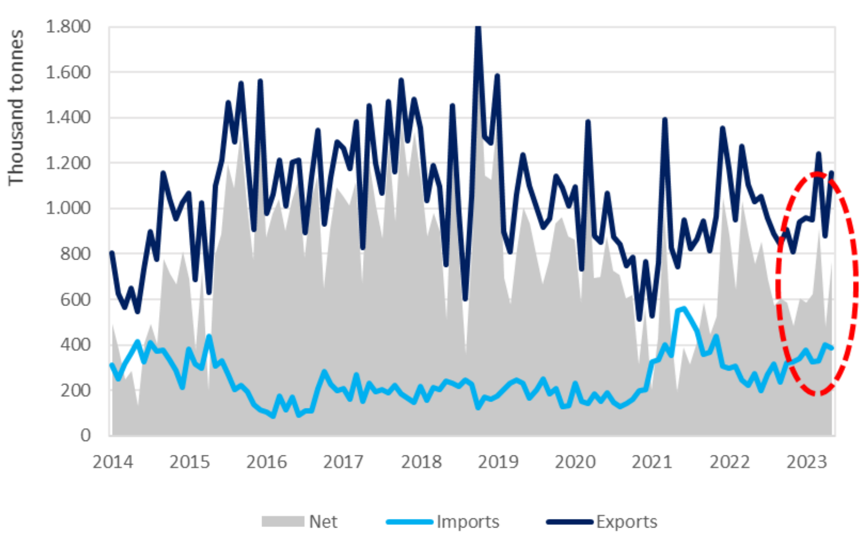
Graph 8. Steel apparel consumption decelerating



Source: Genial Investimentos, Bloomberg.

Steel exports had a significant increase of +12.5% y/y and +37.3% m/m, reaching a total of 1.2Mt. The main factor in this growth was the increase in exports of semi-finished products, which reached 995kt. In addition, exports of long steel increased to 114kt, offsetting the drop in flat steel exports. Meanwhile, imports of rolled products totaled 339kt, representing an increase of +22.4% y/y and +4.5% m/m. The penetration rate of imported steel also rose by +3.5 p.p. y/y. YTD, the penetration rate seems to have reached stability in a higher pattern, reaching 16.6% (+2.9 p.p.).

Graph 9. Steel exports rising



While steel producers' exports are up, domestic sales are still having a tough time. Macroeconomic uncertainty and low credit accessibility are reflected in weaker economic activity in the sector. As demand is not buoyant, the Brazilian downstream steel sectors are looking for ways to curb costs, through the inflationary process with monetary tightening movements in the credit cycle. Our perception is that two factors have acted together to cause an increased appetite for imported steel at the expense of domestic steel: (i) recent USD/BRL devaluation was one of the main factors driving the increase in imports, as foreign products became more attractive relative to domestic steel, (ii) the successive price cuts that occurred until early June in China, as we mentioned earlier, causing the price of the imported to decrease, considering that historically domestic steel already trades at a premium over the value of the imported. This premium would either have to be shrunk, with the domestic steelmakers themselves making the cuts (we have observed this in recent months), seeking to level the price parity, or the domestic product would increasingly lose market share to the imported one.

We believe that the domestic steel sector could benefit from a normalization in the entire supply chain, taking into consideration that the price of inputs has also dropped in recent months, such as metallurgical coal and to a lesser extent, iron ore (~US$110/t vs. US$130/t). However, in principle it seems more likely that this will be offset by weaker domestic demand, driven mainly by macroeconomic uncertainty and deteriorating access to credit. The domestic steel market may see an improvement in demand starting in 2H23, driven by the beginning of the SELIC rate cut process promoted by the Central Bank, which we believe should take place starting in September (consensus points to August). This should potentially unlock some level of additional demand that has been off the radar due to the high cost of financing and a cloudy macroeconomic outlook.

Improved conditions in China will bring relief to steelmakers in Brazil. According to our assessment, there is a positive change underway in the dynamics of prices and sentiment in China, given the stimulus that the government has been signaling in recent weeks (compulsory + interest rate, for more information, read the chapter on China in this report). This change in sentiment, even if it is still small and likely to be diluted by the fact that the interest rate cut was smaller than the consensus expected, should still start the process of "revving up the engines" of the Chinese steel industry, which was working very close to cost lines, suffering from a slower recovery than the average investor was expecting for the economic reopening event in 2023, after the end of Covid-zero. Our perception is that some positive news was needed for the sector to start to put aside the "wait and see" sentiment, and actually start on a path of demand recovery.

In case the steel prices in China demonstrate more vigorously this upward trend, in view of this positive sentiment (for us the real demand in low season will still be a difficulty), we believe that the reflex for the steel companies in Brazil will be **(i)** interruption of cuts, followed by **(ii)** higher probability of execution of more favorable arrangements in the price/volume dynamics, as well as improvement of the product mix; and **(iii)** reduction of the stimulus to purchase imported steel given the market conditions and the gradual return of the market share of domestic steel.

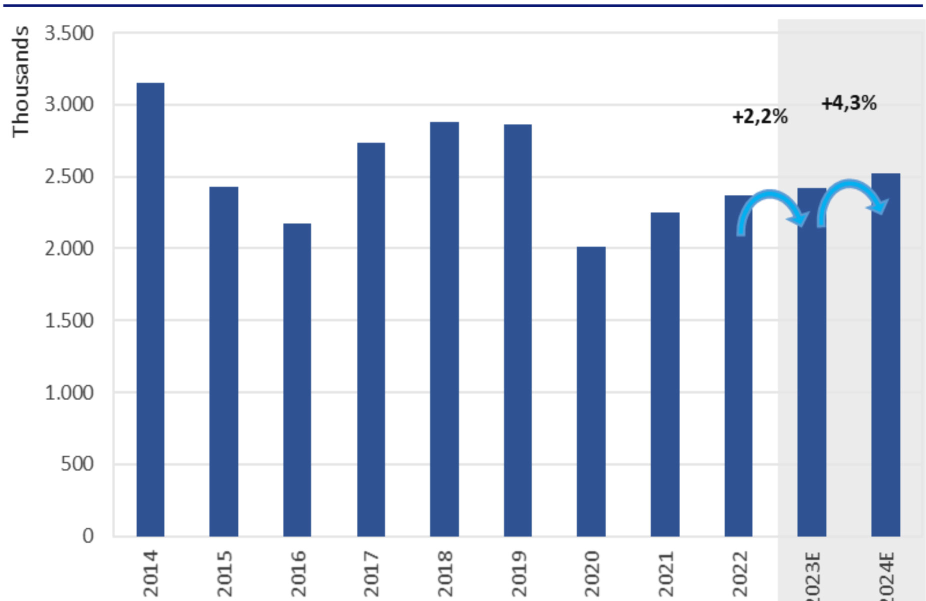
Automotive segment: back to the past. The federal government and the industry have sealed an agreement with the intention of making the popular car feasible in Brazil. Besides the tax burden, the meeting also addressed the recovery of the assemblers' idle capacity and the creation of credit lines. According to Alckmin, the tax reduction will be staggered, and may result in cuts in the final price of vehicles between 1.5% and 10.79%. The vice-president announced that the tax package under study involves the reduction of 3 federal taxes, the IPI, PIS, and COFINS, for companies that meet 3 requirements:

- **Price:** The lower the price, the greater the tax reduction;
- **Pollution:** The lower the level of CO_2 emissions, the greater the tax reduction;
- **Nationalization:** More than 50% of the parts manufactured in Brazil.

The tax reduction will only apply to models priced up to R$120k. The minister also mentioned that BNDES will make available dollar financing in the amount of R$3.5bn for the industry, with R$2bn for exports and R$1.5bn for investments. Of this investment amount, R$500mn will go to light and low-polluting vehicles, R$700mn to trucks, and R$300mn to buses. The Ministry of Finance has requested additional time to study possible tax reductions and other measures that include using the FGTS to buy vehicles, something that so far only exists in the housing sphere.

Interest rates continue to be a trigger. We believe that, from what is known to date, only the discount incentives (maximum 10.8% depending on the vehicle) would not tip the scales so much as to create a heating up of demand. In other words, there will be a slight increase in demand compared to what we had projected, but the scenario, according to our view, was already very pessimistic for this segment. Therefore, if the discount policy is not combined with interest rate incentives for the consumer, it will not completely reverse the depressive scenario.

Graph 10. Vehicle production is slowly recovering



Source: Genial Investimentos, ANFAVEA.

We then conclude that the measure will only be efficient if the policy of using the FGTS balance for car purchases is continued, along with a decline in the SELIC rate. Additionally, we emphasize that the measure does not affect the heavy-duty segment, whose financing interest rate also impacts demand. For the time being, even if the central bank begins to promote monetary easing by cutting the SELIC in 2H23, rates should remain at high levels for some time yet, which in our view minimizes the positive effects for steelmakers.

1Q23 Earnings Review

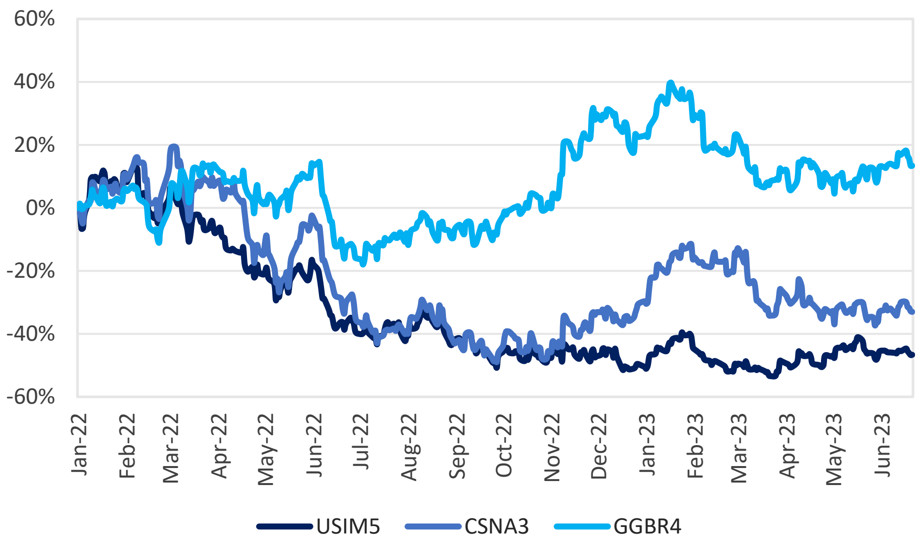
After presenting our sector outlook, we will briefly analyze the main factors that influenced the 1Q23 performance of the three companies that are part of our coverage of the Brazilian steel market. Next, we will present our assessment of the future trends we expect for each of the companies.

Gerdau: (i) With a positive highlight in volume at ON North America and recovering share at Brazil BD, volume rose q/q and was in line with our projections, which were more optimistic than the rest of the steel companies. **(ii)** In terms of prices, ON Brazil disappointed, but the resilience of North America BD offset the effect. **(iii)** Forming then a solid quarter in performance, even in the face of expectations already higher than peers, the Company posted in 1Q23 a consolidated EBITDA 7% above our estimates and a net income growing q/q even excluding non-recurring effects, which also boosted the numbers.

Usiminas: The dynamics of the result came mostly above our expectations with the help of: **(i)** good cost management in steelmaking, substantially decreasing COGS/t; **(ii)** higher availability of pellets in the mining division, causing a higher-than-expected realized price increase; **(iii)** ending 1Q23 with an EBITDA of R$782m, 32% vs. On the other hand, there are other points to consider that do not play in favor of Usiminas; such as **(iv)** loss of realized price at steelmaking, observed both in Domestic M. and External M.; **(v)** for 2Q23 further price reductions are still expected; and finally **(vi)** a softening of 2Q23 steelmaking sales guidance, to 900-1000kt, implying a drop between -3.4% to -13.0% in relation to the upper and lower band of guidance vs. 1Q23 sales.

CSN Holding: (i) We saw that during the last quarters, only one of the five businesses of the holding was positive in revenue formation: Mining (CMIN). With mixed dynamics in the consolidated, we saw that **(ii)** the company experienced production problems at the steel unit, which was cooled by an inventory burn, bringing a **(iii)** good dilution in COGS/t, but tied to market prices much lower than estimated. Even though it caused a greater dilution effect in COGS/t, the inventory burn did not favor the overall dynamics of the result, with the effect on the cost being neutralized precisely by the mining industry showing a worsening in efficiency due to the effect of the **(iv)** interruption of the MRS railway line, delaying shipments.

Graph 11. Steel stocks performance



Source: Genial Investimentos, Bloomberg.

Looking Forward

As we have commented, in this chapter we will explore some more specific points of each of the theses, focusing on what we believe is next for Gerdau, Usiminas and CSN.

Gerdau

Entry Point

Macro scenario showing slight signs of improvement, but far from causing a considerable increase in demand. Despite maintaining a cautious base scenario for the global economy, a slightly lower expectation of a recession in the U.S. ends up diminishing pessimism about a continued economic slowdown, easing the scenario for North America. Some effects of the contractionary monetary policy, adopted both in Brazil and the US, are clear hindering agents of volume growth on a year-on-year basis. It is notorious how much the downstream steel segments depend on interest rates to increase appetite for consumption. Among the segments that we believe suffer more from the supply of restricted credit are automotive, industrial and real estate, two of which Gerdau has 7%, 30% and 20% exposure to Brazil DB, respectively. However, we believe that demand for oil and gas and infrastructure in the US is more resilient and deteriorates less with the interest rate hikes promoted by the FED. With ~25% exposure in this segment through North America BD, we continue to see a more positive outlook for a more balanced market.

Even though North America BD gives Gerdau a great competitive edge through geographic diversification in relation to other more regionalized players, the base scenario for Brazil BD continues to be somewhat conservative. This benefit of having a relevant percentage of sales tied to a more resilient segment does not seem to be true in the case of the Company's Brazilian operations.

In the domestic market, Gerdau will continue to suffer the impacts of a sluggish economy on consumption of goods, in the face of high interest rates, even if the Central Bank begins to make cuts in 2H23. We observed the latest COPOM statement signaling interest rate cuts later this year, by removing the harsher passages of the previous statements. Among the excerpts excluded are **(i)** mention of the possibility of raising interest rates again and **(ii)** the alternative scenario of maintaining the SELIC rate at 13.75% until the beginning of next year in order to make inflation converge to the target in 2024. By excluding these two passages the Central Bank indicates that the direction of monetary policy is to cut interest rates still in 2023.

We understand that the consensus expected the Central Bank to follow a more dovish line, and that many investors ended up feeling disappointed by evaluating the speech as too harsh, precisely because the Central Bank did not signal a cut in August. However, for us, the tone was not excessively harsh, but rather balanced. Our analysis points to a short-term increase in the 12M inflation rate when the effect of deflation from July, August and September of last year begins to be expunged. It is important to remember that in 2022, in these months, Brazil had deflation due to a temporary measure that lowered the ICMS tax on energy, fuels and cooking gas. Taking into account that the quarterly moving average of the inflation rate, after being seasonally and annualized, was until last month at ~7.5%, and that the reduction movement is very recent, only in the last release of the IPCA, we believe that the Central Bank did not want to commit to the exact moment that it will cut interest rates, i.e. whether it will be in August, September or November.

Therefore, as long as local demand continues to be weakened by high interest rates, the dynamics of price increases will also be impaired. Our perception is that Gerdau usually presents better resilience in the realized prices of ON Brazil compared to its domestic competitors, even if it has to postpone payment terms to release a more attractive flow to its customers, leading to a slight additional pressure on working capital. Therefore, we expect the continuation of the tug-of-war drawn between typical low-cycle volumes and apartment realized prices. The major positive points should come from the demand for the yellow and green lines, driven in particular by agrobusiness. We believe that these segments will be more easily passed on by the Company, in the face of stronger demand.

Biden administration's infrastructure package taking effect in 2H23. The hope is that the Infrastructure Bill, the Biden administration's US$1.2 trillion infrastructure stimulus package, will begin to take effect in 2H23, essentially leading to an increase in volumes for North America, and with prices for the mix of products with more specific, higher value-added demands.

While talking to some institutional investors, we received questions regarding the delay to converge the effect of the package, which was signed in November 2021. Even so, our view is that an investment package of this magnitude has an additional complexity to articulate. There is a need to select the companies in bidding processes with the government, which takes time, and given the extent of the investment volume, there is more rigor and slowness for the government to make the payments to the winning companies, and in turn a lag effect between the selection of companies and the movement of demand for steel linked to these projects.

We believe that in 2H23 there is a positive outlook that this lag effect will start to fade. In other words, we estimate that ON North America will see an increase in volume and an improvement in product mix starting in 3Q23. This increase will still be mild at first, but should reverberate higher in 2024, and in our view, this volume increase is not in the asset price today.

However, a marginal drop in volume is expected in 2Q23. Naturally, steel companies are affected by reductions in sales when the economy is less buoyant, but we believe that this negative impact should be less intense for Gerdau. With a strong first quarter in sales, management believes that 1Q23 could be a good proxy for the year 2023, in a slight reduction, but at levels similar to recent quarters.

However, the structured business model with competitive advantages, plays in favor of the profitability of the companies' operations, with a focus on the delivery of a value-added product, and operations in geographies of developed economies. Thus, the North America ON should continue with better numbers, with some stimulus packages such as the **(i)** Inflation Reduct act, **(ii)** Chips and Science act and **(iii)** Infrastructure Bill helping in the US, while the part linked to Mexico remains heated.

Domestic to imported price parity affects Gerdau less. The international curve that has been operating in decline, and this reflected in the potential elasticity of the price premium of domestic steel vs. imported steel, and loss of market share by most of the steel companies in Brazil, that may have made price cuts to try to control the level of parity and stop the loss of market for imported steel. However, we believe that this ends up being less relevant for Gerdau, given the full service provision with **(i)** better mix of rebar fabricating products, **(ii)** logistics with off-peak delivery, avoiding traffic, and **(iii)** the security of delivery, against all the risks that importers assume. We know that even so, there is naturally a loss of sales for the imported product, but the tendency is for Gerdau to suffer less than some competitors that have less developed logistics in distribution.

COGS/t is expected to cool in Brazil BD and rise in North America BD in 2Q23. COGS/t in Brazil is expected to cool down, with the drop in iron ore prices in the last quarter and the ~120-day delay in accounting, as well as the stability in prices seen for coal. On the downside, North America should suffer further pressures, caused by rising scrap costs, which should represent a bulk of its COGS as the Company is experiencing unfavorable dynamics in the BD regarding this matter.

Scrap impacts COGS furthermore in North America BD than in Brazil. The ferrous scrap used as input for the production of steel in the electric arc furnace ends up having a higher price in the U.S. than in Brazil, mainly due to a greater availability in the Brazilian market, which causes a difference in cost that reaches ~US$80/t between the two. In addition, at Brazil BD the Company has greater market power, with direct exposure to local recyclers, in a more diversified manner, which results in a gain in cost predictability. We believe that scrap-related costs will still be an issue at North America BD through 2023, which could increase Gerdau's cost in the US.

Low leverage should keep returns interesting even in a bearish cycle. With all the uncertainties surrounding the steel sector, Gerdau is internally opting for responsibility in capital allocation, keeping its leverage low (0.31x Net Debt/EBITDA LTM) so that it can bring returns to investors. The way we see it, both with **(i)** a significant increase in its payout to 50% 23E Genial Est. vs. 34% historical average, even if it represents a slight drop compared to 2022 (-8p.p) and **(ii)** with a new share buyback program.

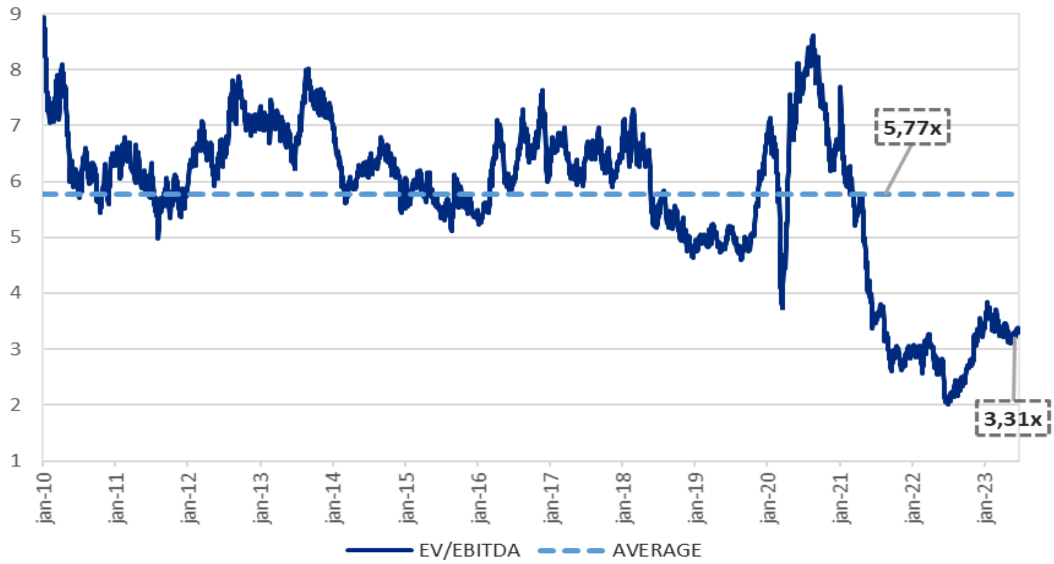
Even though leverage has an upward trend in transition periods between bullish and bearish steel's cycle, as LTM EBTIDA tends to decrease as more low performance quarters become proportionally weighted to the accumulated 12M, our outlook for leverage at the end of 2023 is that it will remain basically stable, since the slight increase in cash positions plus the effect of a slight reduction in gross debt should lead net debt to a downward trajectory, therefore neutralizing the drop in EBITDA y/y. Nevertheless, CAPEX is expected to remain high for the coming years, with guidance for 2023 at ~R$5bn (vs. R$4.2bn in 2022 and R$3.0bn in 2021), with possible increases for 2024 and 2025, but gradually.

Our take on Gerdau

Despite all of its qualities, we see that Gerdau has failed to trade at a more significant premium in its multiples relative to its peers, given that the historical average shows that the multiple usually hovers above an **EV/EBITDA** of **5.0x**, and that it is currently trading at **3.31x** in the consensus view, and **3.0x 23E Genial Est.**

We tie this to all the uncertainty that the current economic scenario brings to the sector, but we see that its competitive advantages cited, guarantee a value generation above its local peers, justifying its position as a **Top Pick in LatAm Metals and Mining.**

Graph 12. Gerdau EV/EBITDA LTM



Source: Genial Investimentos, Bloomberg.

Furthermore, in the expectation of a possible turn in the interest rate cycle with a expansionary monetary policy in Brazil, and in the face of a more resilient demand in the US, with the injection of resources by the infrastructure bill, whose effects do not seem to be measured in the price of shares today, we see Gerdau positioned more efficiently to surf the beginning of the downward slopping of the yield curve; with a fragmented exposure in different economies, but with a large differential in the US, Gerdau's a golden goose.

Entry point. For us, the market is not currently paying an additional premium for the Company's competitive differentials, which makes the valuation very attractive. We understand that there are still uncertainties on the way, both in relation to macro in Brazil and in the US, Gerdau's main markets. However, we believe that the shares are priced at a good entry point for investors, since the steel market recovery process should start to clear up in China in 2H23, helping to accelerate the steel spread in the international market and reducing the appetite for imports in Brazil. The domestic market should also benefit from the fall in interest rates still in 2023. Even if it takes some time for the new expansionary monetary policy to reach a desired pace that carries the expansion of downstream steel consumption at the top, which should only occur in 2024, we believe that the beginning of the process of interest rate cuts will bring until then some short-term encouragement for the Company to flirt with investors again.

Thus, projecting a **23E Dividend Yield of 8.7%** and an **EV/EBTIDA** of **3.0x 23E**, the company seems quite discounted in relative terms, even considering the current bearish steel cycle. For this reason, we reiterate our **BUY** recommendation, with a **12M Target Price of R$31.00**, implying an **upside of +22.38%.**

Usiminas

Rock bottom?

Impacts of the automotive sector subsidies. The announcements made by the government to subsidize the automotive sector, through tax rate reductions (IPI, PIS and COFINS) and investment lines for automakers, may give some breathing space in the short term, but it still does not seem to be enough to cause a turnaround in terms of demand. ANFAVEA projects that the stimulus should bring sales of ~100k new light vehicles, a rather timid volume increase, in our opinion. The projection for year-on-year production remains with unimpressive growth, at around +2% year-on-year. Although any growth is welcome for the industry, which is going through very difficult times, we still believe it will be a very marginal gain, considering that 2022 was already a very weak year.

On the heavy vehicle side, the expectation of fleet renewal may be favorable for the steel sector, but the theme seems an endless soap opera. The government has extended the measure to allocate R$1b of investment to the sector, through the BNDES, as we commented above. However, our view is that there is little credit space for the sector on the consumer side, which is even more dependent on the offers and cost of financing than the light vehicle segment.

Are bigger discounts still on the way? In a challenging scenario, the Company's management has been betting on shorter duration contracts than usual, in order to avoid low prices being maintained for a long period. On top of this, we expect the scenario in 2H23 to be extremely key in defining in which direction prices should move.

Since ~1/3 of Usiminas' sales are tied to the automotive segment, we still see a very weak demand. Although we are no longer as pessimistic as we were right after the release of the 1Q23 results in April, we believe that the recent government measures to encourage the sector, and our expectation of the beginning of the SELIC decrease process in September (-25bps) will bring in 2023 some marginal effect to avoid the more catastrophic scenario we had previously projected. It is worth remembering that Usiminas usually makes two price readjustments for the automotive segment during the year. The company regularly adjusts 20%-30% of the segment's customer portfolio in Q1, and 80%-70% of the portfolio in Q2. For this 2Q23, instead of a price adjustment, we will observe a discount of 12% for ~80% of the automotive segment base, which started counting from the beginning of April.

In recent conversations with Usiminas, we have found that the Company has already implemented the 12% discount for part of this 80% base, and should continue negotiating until the end of the quarter, so that the government incentives are not changing the pricing policy that was initially disclosed by management to market analysts at the 1Q23 earnings conference call. We had previously projected that discounts would continue to be given throughout 2H23, and would exceed what was already given in 1Q23 and what is now being effected in 2Q23. In other words, we believe that the marginal improvement brought by the incentives can only prevent our scenario, which was already more pessimistic than the consensus, from materializing.

Guidance for 50kt volume weaker q/q. Due to weaker market conditions, along with 1Q23 results, management released guidance for 2Q23 sales, which were 900-1000kt (vs. 950-1050kt in 1Q23). Considering the usual seasonality of the steel market, the -50kt q/q drop occurs even in a quarter in which volumes historically show gradual improvements, resulting in a signal from the Company itself that the market is now expecting weaker volumes throughout the year.

We expect a drop in the realized price in the domestic market for 2Q23. With the discounting of 80% of the customer base in the automotive segment, we believe that the realized price will decline by -4.5% q/q Genial Est. to R$6,600/t for the domestic market, which should result in lower revenues in 2Q23.

Attempted readjustment for industry and distribution. Starting in April, Usiminas announced an increase between +4-6% for industrial and distribution customers, aiming to recover a margin gain. However, we assess that the increases have probably already been partially returned after new waves of discounts. Therefore, they ended up serving more to "stop" the problem, than necessarily to expand the realized price.

Prices Normalized in the External Market. With no new volumes for the Néstor Kirchner oil and gas project in Argentina, the External Market suffered a big drop in realized prices, and for the time being, should remain at a level more similar to those realized historically, leading to a slight drop of -1.2% q/q, reaching ~R$6,000/t. Still, the Company is looking for some opportunistic bids capable of adding to the result, but with no major news for the short term.

Although exports are not very relevant in total sales (~10%), the deceleration is felt as a reflection of worse numbers in the result, mainly in Argentina, very related to the automotive sector, in which the country is also a strong producer and exporter of automobiles, including to Brazil. Despite the favorable dynamics between emerging currencies and the dollar, allowing greater penetration of imported steel, stimulating exports of domestic manufacturers to foreign markets. In the case of Usiminas, the concentration is considerable in the automotive segment, our view is that the Company cannot capture this effect through a weak performance of the segment not only in Brazil but also in several countries.

COGS/t more dependent on slabs already purchased than on own production in 2Q23. With the stoppage of Blast Furnace 3 (BF3), which started in April, our expectation is that the COGS of the steel industry will be directly linked to the cost of acquiring slabs stockpiled during the last quarters, decreasing the relevance of coal and iron ore momentarily. When creating its stockpile, Usiminas was able to acquire slabs at an attractive value due to market conditions. However, we believe that there will still be some level of pressure on margins since the price of steel is falling faster than the already reduced slab value. In other words, even though the Company was able to purchase slabs at a lower value compared to the historical pattern, the successive discounts to the customer portfolio cause an accelerated drop in the realized price to such an extent that the slab destocking price starts to lose attractiveness in terms of profitability.

Although this slab dynamic does not directly affect the cost via increase, but rather the margins via reduction, we project a COGS/t of R$5,325/t, which represents an increase of +4.0% t/t Genial Est., due to the fixed cost pressured by inflation and the loss of dilution power due to the lower sales guidance. In addition, planned maintenance should bring some additional costs for 2Q23, mainly due to layoffs, and a higher fixed cost for hiring personnel; but these are one-offs and should not continue in case the production ramp-up occurs as expected. The Company has recently issued a statement reinforcing that the remodeling of BF3 is proceeding at the expected pace, with the 110-day deadline still being maintained, and that while it recognizes the possibility of a common margin for delays, there is nothing at this time to indicate any setbacks that need to be addressed.

Efficiencies after the BF3 Reform. Keeping a conservative tone, Usiminas continues to give no official guidance or indicator on efficiency gains after the reform is complete. Still, we believe that some triggers are practically certain. Through conversations with the Company and some math we have done in our models, we assess that the revitalization of the equipment will bring quite notorious points for the Company, such as **(i)** restoration of full production capacity to ~3Mtpa vs. 2Mtpa prior to revamping, which would indicate a capacity expansion 2x larger than already disclosed (+20%) and **(ii)** cost efficiencies, in which a technologically updated Blast Furnace consumes ~0.5t of coal to produce 1t of steel, while BF3 consumed ~0.6t, and this would represent, given current metallurgical coal price dynamics, something around 5% reduction in annualized COGS/t, according to our estimates.

Increasing the emphasis to BF3 of Ipatinga, the idea is to operate the furnace at full capacity, while BF1 and BF2, which are smaller in size, must operate under the cost conditions that would be provided by the dynamics between high and low cycles of steel, in the trade-off of producing the slab itself or buying it ready in the market. Thus, Usiminas expects to operate with the lowest possible cost at the rolling mill in Cubatão (MG).

A release of working capital is expected, partially offset by coal restocking. Our view is that working capital should go through a relevant release, following the movement seen in the quarter through 2Q23, taking pressure off working capital needs as receivables start to increase and slab inventories start to decrease. However, on the other hand, coal inventories that were not needed due to the loss of production capacity during the reform will have to be replenished and will eventually mitigate the working capital depressurization effect that the retained slabs sales should cause. Therefore, we believe that the cash generation capacity gain movement observed in 1Q23 should not be followed again in 2Q23. We project a cash burn of -R$255mn in 2Q23 (FCFF) vs. +R$580mn in last quarter. The substantial reduction and potential cash burn should occur due to **(i)** higher costs linked to temporary hiring of employees for the BF3 retrofit, raising Usiminas' payroll quite intensively; **(ii)** higher CAPEX, reaching R$900mn (+55% vs. 1Q23) and **(iii)** coal restocking process, taking away part of the positive effect on cash flow by freeing up working capital on increased accounts receivables and reduction of slab accumulated inventories.

Despite weaker CAPEX in 1Q23, the guidance of R$3.2bn is reiterated. Consuming a CAPEX of only R$580mn in 1Q23, the Company expects to increase investments in the rest of the year, focusing on the refurbishment of BF3 but also on other necessary maintenance. Total CAPEX should be close to R$3.2bn in 2023, so we are not putting down some sort of pessimistic scenario with the possibility of misreading of budget on BF3 reform, at least not for now.

Our take on Usiminas

In addition to being exposed to the difficulties the steel industry faces with the economic slowdown, its large exposure to the automotive sector (~34% of sales) brought into the company the challenges of the automotive sector from the time when the market faced a lack of semiconductor supply to the credit crunch experienced more recently, which resulted in an unfavorable environment for its top line in the short term, losing both in volume and realized price.

Rock bottom? Nevertheless, Usiminas had scheduled still in 2021 the execution of the reform of the Ipatinga Blast Furnace 3 (BF3) for 2023, which despite renovating its main equipment, required a large amount of CAPEX and working capital to keep the current contracts standing. The Company has run the last 5 years with average production at the Ipatinga mills of ~3.0Mtpa, even with a production capacity of 3.6Mtpa, which implies utilization of about ~75% of installed capacity. If we assume that the 3 furnaces at Ipatinga, which have different capacities, were utilized at the same percentage of own capacity, we would have BF1 and BF2 with a total productive capacity of 620ktpa, and due to idleness, effectively producing 525ktpa, reaching a sum of ~1Mtpa.

On the other hand, BF3, which is capable of producing 2.3Mtpa, considering idleness, delivered an average of 1.95Mtpa. Thus, with the 110-day shutdown scheduled for the renovation of BF3, the Company would stop producing about ~587kt of slabs, which would have to be replenished as extra third-party purchases, if the intention is to maintain the average sales level of the last 5 years (considering the average between high and low cycles). For this, there was a strong pressure on working capital for 3 consecutive quarters, and the release of this compression started to occur last quarter. However, 2Q23 will be the first quarter where the revamp will already be under execution, so we see that the major capital outlays have already been made, and the Company can start enjoying the effects of the revamp, mainly with an increase in volume and improvement in COGS/t after the ramp-up is over.

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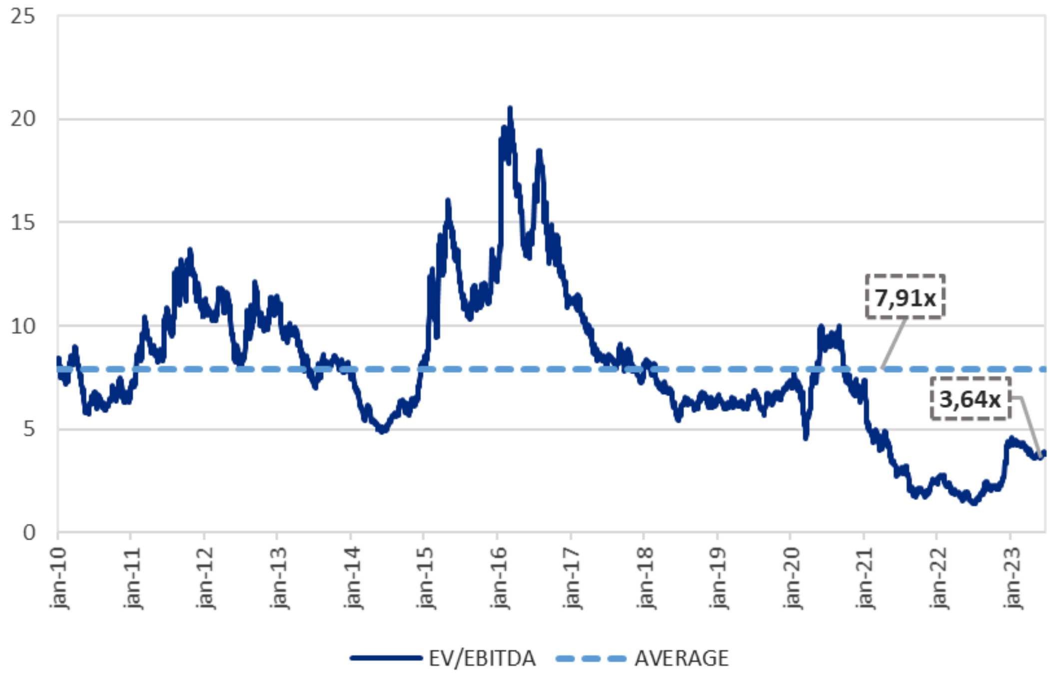
Graph 13. Usiminas EV/EBITDA LTM



Source: Genial Investimentos, Bloomberg.

Trading at an **EV/EBITDA of 4.9x 23E** in our estimates as we update our model, we have had a big change in multiples since the 1Q23 result, given **(i)** further signaling of price discounts for the auto sector in domestic M., **(ii)** maintenance of low prices in foreign M. and **(iii)** a -50kt cut in guidance for the quarter. We believe that the consensus has not yet updated the estimates. The market should price near the 2Q23 result period a worsening in the 2023 EBITDA, which will lead to an elasticity of the multiple.

The perception that the Company was discounted occurred before the update of the impacts on the realized price discounts. We still believe that the benefits of the BF3 reform are not fully measured in the trading price at the current valuation level, however, the uncertainties are still diverse, and the multiple is failing to provide an entry point. Therefore, we reiterate our **Neutral** rating , with a **12M Target Price of R$8.10**, which implies an **upside of +11.26%** for Usiminas' shares.

CSN

Small mistakes, big impacts

Premium increase of domestic steel vs. imported steel has been closing the windows for CSN's readjustments. Even with the easing of Covid-Zero policies, steel prices in China remain at very low levels, with major players operating near the marginal cost line. Although we believe that the recent price movement in the Chinese market should be reflected in higher steel spreads, the truth is that as prices have been very low for a considerable period in the international market, the gap between the price of the imported product and domestic steel has expanded to such an extent that the premium is reaching +19%, and ends up frustrating the price readjustment attempts that CSN announces to its customers.

The first attempt in January, with announcements of +10%, ended up not being effective, while the announcement in April of new +10%, happened partially, between +3% and +5%. Despite the partial increase at the beginning of 2Q23, in May the Company needed to make new discounts, which should end up resulting in flat prices qq.

Production inefficiencies in 1Q23 should have a residual impact in 2Q23. With the limitations in production due to internal locomotion difficulties in the production plants, a relatively small problem, which had a big impact due to the inertia for the company to take an attitude of solution, CSN ended up with a volume in the domestic market much lower than normalized (644kt in 1Q23 vs. 755kt in 1Q22), with customers in the queue that were not fulfilled. We still expect some impact on 2Q23 production, but to a lesser extent, and with a prospect of improvement in 2H23. We project 2Q23 sales volume to be 680kt, which would represent a slight increase of +1.7% q/q Genial Est.

Problems in production make it difficult to achieve sales guidance for 2023. The target announced for the year, with a volume of 4.6Mt, did not consider the production stoppage that occurred in 1Q23, leaving a very challenging scenario to beat the guidance, even in case of an improvement in the scenario. With an exposure to the automotive sector, government incentives for the segment may bring an increase in sales, but this should be very subtle due to the low availability of credit, as we have already explained, which ends up not providing a solution to one of the biggest pains in the sector. Our projection points to a sales volume of 4.1Mt 23E (-11% vs. guidance), which would represent a drop of -6.4% y/y.

Cement unit begins to gain efficiency. Our expectation is that in 2Q23 CSN Cements will have sales growth, with an improving margin, but still at a slight pace. The commercial strategy has been aggressive in seeking to gain market share in the short term, increasing the production capacity of the plants acquired from LaFarge, which were around 75% to 95%, practically at full utilization. Firstly seeking to become a consolidated player in the local market, with a presence in the middle of the Brazilian territory, to then turn the key in the search for margin expansion. We believe then that there is a slightly more aggressive commercial strategy in terms of price to gain space, which hinders profitability, even with some cost efficiency synergies to be captured throughout 2H23 and 1H24.

Iron ore logistics problems at MRS were 100% solved. Despite delivering a strong production volume + third party purchases in 1Q23, at 8.94 Mt (-4.3% q/q and +38.2% y/y), the seasonal rainfall typical of 1Qs ended up causing landslides on MRS railroads. CSN Mining (CMIN) faced difficulties in shipping its production, which even when opting to use other routes, caused a gap of about 1Mt between production and sales during the quarter.

With the adversities fully resolved, the 2Q23 numbers should come in cleaner, since the month of May the mining company broke records by producing the highest monthly volume ever, confirming the end of the logistical obstacles brought about by the strong seasonality to the rains.

CMIN's sales guidance should be easily achieved. With the increase in production volume, our expectation is that the guidance of 3.9Mt to 4.1Mt for 2023 will be easily beaten, and possibly surpassed, in case no new surprises come to hinder the ramp-up of production, as happened in 2022. The company still seeks to gain the credibility of institutional investors after successive revisions of production guidance and postponement of expansion plans, especially the P15, which makes the company's valuation very sensitive to postponement of deadlines.

Although solved, logistical problems will reflect in lower cost cooling capacity in 2Q23. Due to a delay in the recognition of the sale, accounting only upon arrival at the port of destination, the effects that increased COGS/t to R$229/t in 1Q23 (+39.7% q/q and +23.1% vs. Genial Est.), should still be reflected in the 2Q23 numbers, even so, we expect a reduction of 5% q/q.

CMIN's thesis is still extremely dependent on management execution, for the ramp-up of the projects, with a focus on Itabirito's P15, which represents the highest value generation in the medium term. Dependent on the ferrous commodity prices in the long term, the scenario in which China, buyer of ~75% of the ore in the transoceanic market, finds itself, shows some negative signs for the thesis. Even though sentiment in China is starting to turn around as a rehearsed recovery, the timing of the Chinese government's stimulus for consumption of goods through compulsory and interest rate cuts turns out to be off-season, in a calendar where the hottest period for the real estate market in the seasonal construction peak goes until April. The actual peak demand for downstream steel consumption will still be a challenge for the acceleration of ore prices. We maintain our projected curve of the 62% Fe benchmark retreating to US$95/t by the end of 2023.

Holding company's leverage should remain high, missing the target. With worse than expected results, our expectation is that the high leverage (2.3x Net Debt/EBITDA in 1Q23) will continue to weigh on the results, with difficulties in reaching the target of 1.75-1.95x. Some cards up the sleeve still make it possible to achieve the range by 4Q23, such as **(i)** bringing a partner for its operations in CSN Energy division, which removes the debts related to the unit from its balance sheet and transfers them to an eventual JV, in addition to increasing cash from the sale, **(ii)** prepayments on iron ore sales, and **(iii)** an IPO of CSN Cements, which seems very unlikely to us due to the unfavorable dynamics in which the capital markets currently operate.

The deleveraging expected by guidance was compromised by the major acquisitions made, in CSN Cements with LaFarge, and in CSN Energy division with CEE-G, but also by the payment of large dividends under the shareholders' agreement. Going forward, the expectation is that dividend distribution should be normalized, returning to a minimum payout after the payouts in 2H23 in order to deleverage.

We believe that it is more likely that the Company will seek a strategic partner to share the financial costs of the acquisition of the CEE-G asset as well as to better monetize the operation of selling surplus energy, after achieving self-sufficiency.

Our take on CSN

Within its holding, we see different dynamics among its businesses, with mining as a positive highlight and steel as a negative one, while the cement part still shows few signs of margin gains, both because of the normal vagariness of capturing synergies in M&A of this magnitude (CSN Cimentos went from being the 7th largest player to being the national vice-leader), and because of the use of a somewhat more aggressive commercial pricing strategy.

Small mistakes, big impacts. Thus, we see that CMIN should easily surpass its sales guidance for 2023 (39-41Mt), given the volume produced in 1Q23 and the high expectation for an even stronger 2Q23. At the other end, the steel industry suffered from problems in logistics management in the internal space of its mills. What seemed at first to be a small error, ended up taking on significant proportions due to CSN's reaction time in the search for equating it, limiting production in 1Q23 and causing damage, to a lesser extent, in the numbers to be released by the Company in 2Q23. In view of this situation, our assessment is that the steel guidance (4.6Mt) becomes even more challenging, in addition to the whole issue of lack of appetite and competition with imported product that has haunted the Company throughout the year so far.

The thesis of a holding company contains as a key point the generation of value through business diversification, but that has not yet been catalyzed in a joint manner in the Company, as only one business has been able to bring strong results, and this business is still seeking to gain investor confidence after guidance cuts and expansion plan revisions. CMIN needs to go through a time of probation, even with a positive outlook for 2023.

Graph 14. CSN EV/EBITDA NTM

Source: Genial Investimentos, Bloomberg.

In our model, CSN holding trades at an **EV/EBITDA 23E** multiple of **4.9x**, an increase from the one mentioned in 1Q23, given a **relevant drop in sales due to own inefficiencies that limited its production** in the domestic market, which presented a retreat of -20% q/q. Therefore, we reiterate our **Neutral** rating, but **we cut our Target Price** to **R$15.00** vs. R$16.50 previously, which leaves the shares with an upside of **+15.56%**.

Appendix: Gerdau

Figure 1. Gerdau– Income Statement in R$ Million (Genial Est. 2023-2028)

Income Statement	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**80.555**	**83.882**	**85.383**	**85.479**	**85.981**	**85.715**
(-) COGS	(65.545)	(67.416)	(69.247)	(69.596)	(70.364)	(70.825)
Gross Profit	**15.010**	**16.466**	**16.136**	**15.883**	**15.617**	**14.891**
(-) Expenses	(2.160)	(2.249)	(2.287)	(2.297)	(2.292)	(2.288)
Adjusted EBITDA	**17.575**	**16.502**	**15.008**	**14.104**	**14.077**	**14.312**
(-) D&A	(3.155)	(3.293)	(3.328)	(3.325)	(3.297)	(3.268)
EBIT	**12.850**	**14.217**	**13.849**	**13.586**	**13.325**	**12.603**
(+/-) Financial Result	(1.273)	(1.039)	(973)	(945)	(898)	(919)
(-) Taxes	(3.936)	(4.481)	(4.378)	(4.298)	(4.225)	(3.973)
Net income	**7.641**	**8.698**	**8.498**	**8.343**	**8.202**	**7.711**
Profitability						
Net margin (%)	9,49%	10,37%	9,95%	9,76%	9,54%	9,00%

Figure 2. Gerdau – Cash Flow in R$ Million (Genial Est. 2023-2028)

Cash Flow (FCFF)	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**80.555**	**83.882**	**85.383**	**85.479**	**85.981**	**85.715**
(-) COGS	(65.545)	(67.416)	(69.247)	(69.596)	(70.364)	(70.825)
Adjusted EBITDA	**17.575**	**16.502**	**15.008**	**14.104**	**14.077**	**14.312**
EBIT	**12.850**	**14.217**	**13.849**	**13.586**	**13.325**	**12.603**
(-) Taxes	(3.936)	(4.481)	(4.378)	(4.298)	(4.225)	(3.973)
(+) D&A	3.155	3.293	3.328	3.325	3.297	3.268
(+/-) Δ WK	(1.790)	(561)	42	(46)	(402)	162
(-) Capex	(5.123)	(4.102)	(3.152)	(3.023)	(2.997)	(2.971)
FCFF	**5.157**	**8.366**	**9.690**	**9.544**	**8.998**	**9.089**

Appendix: Usiminas

Figure 3. Usminas– Income Statement in R$ Million (Genial Est. 2023-2028)

Income Statement	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**30.215**	**29.697**	**28.851**	**29.384**	**30.031**	**31.163**
(+) Domestic Market	24.415	24.673	23.995	24.765	25.386	26.310
(+) Extern Market	5.800	5.024	4.855	4.619	4.644	4.852
(-) COGS	(26.791)	(26.366)	(24.361)	(23.976)	(23.431)	(23.675)
Gross profit	**3.849**	**5.336**	**4.875**	**5.952**	**6.356**	**6.522**
(-) Expenses	(1.819)	(1.757)	(1.674)	(1.687)	(1.706)	(1.753)
EBIT	**2.030**	**3.579**	**3.201**	**4.265**	**4.650**	**4.769**
(+/-) Financial Result	833	585	896	1.085	1.395	1.697
EBT	**2.864**	**4.164**	**4.097**	**5.350**	**6.045**	**6.466**
(-) Taxes	-1.186	-786	-1.418	-1.354	-1.821	-2.054
Net income	**1.678**	**3.379**	**2.679**	**3.996**	**4.224**	**4.411**
Profitability						
Net margin (%)	5,55%	11,38%	9,29%	13,60%	14,07%	14,16%

Figure 4. Usiminas – Cash Flow in R$ Million (Genial Est. 2023-2028)

Cash flow (FCFF)	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**30.215**	**29.697**	**28.851**	**29.384**	**30.031**	**31.163**
(-) COGS	(26.366)	(24.361)	(23.976)	(23.431)	(23.675)	(24.641)
Adjutes EBITDA	**3.240**	**4.886**	**4.529**	**5.600**	**5.967**	**6.052**
EBIT	**2.030**	**3.579**	**3.201**	**4.265**	**4.650**	**4.769**
(-) Taxes	(786)	(1.418)	(1.354)	(1.821)	(2.054)	(2.198)
(+) D&A	996	1.094	1.114	1.121	1.104	1.070
(+/-) Δ WK	1.929	736	591	(23)	(212)	(463)
(-) Capex	(3.317)	(1.518)	(1.276)	(1.150)	(601)	(623)
FCFF	**853**	**2.472**	**2.277**	**2.392**	**2.886**	**2.555**

Appendix: CSN

Figure 5. CSN – Income Statement in R$ Million (Genial Est. 2023-2028)

Income Statement	2023E	2024E	2025E	2026E	2027E	2028E
Net Operating Revenue	**43.494**	**46.427**	**48.252**	**53.634**	**58.105**	**55.869**
(-) COGS	(27.924)	(28.909)	(31.526)	(35.341)	(37.585)	(36.464)
Gross Profit	**15.570**	**17.518**	**16.726**	**18.293**	**20.520**	**19.405**
(-) Expenditures	(5.036)	(5.838)	(6.574)	(7.078)	(7.541)	(7.883)
EBITDA	**10.534**	**11.680**	**10.152**	**11.215**	**12.979**	**11.522**
Financial Results	(3.338)	(3.671)	(4.064)	(4.448)	(4.791)	(5.045)
EBIT	**7.196**	**8.009**	**6.088**	**6.767**	**8.188**	**6.477**
Financial Results	(3.070)	(3.327)	(3.164)	(3.175)	(3.339)	(3.276)
EBT	**4.126**	**4.682**	**2.924**	**3.592**	**4.849**	**3.201**
(-) Taxes	(1.403)	(1.592)	(994)	(1.222)	(1.649)	(1.088)
Net Profit	**2.723**	**3.090**	**1.930**	**2.370**	**3.200**	**2.113**
Rate of Return						
Net Margin (%)	6,26%	6,66%	4,00%	4,42%	5,51%	3,78%

Figure 6. CSN – Cash Flow in R$ Million (Genial Est. 2023-2028)

Discounted Cash Flow (DCF)	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**43.494**	**46.427**	**48.252**	**53.634**	**58.105**	**55.869**
COGS	(27.924)	(28.909)	(31.526)	(35.341)	(37.585)	(36.464)
EBITDA Adj.	**3.858**	**4.338**	**2.024**	**2.319**	**3.397**	**1.432**
EBIT	**7.196**	**8.009**	**6.088**	**6.767**	**8.188**	**6.477**
(-) Taxes	(1.403)	(1.592)	(994)	(1.222)	(1.649)	(1.088)
(+) D&A	3.338	3.671	4.064	4.448	4.791	5.045
(+/-) Δ WK	(1.014)	(430)	(16)	(182)	(175)	76
(-) Capex	(5.126)	(4.174)	(6.034)	(6.005)	(5.478)	(5.521)
Unlevered FCFF	**2.991**	**5.484**	**3.108**	**3.806**	**5.677**	**4.989**

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	Definition	Coverage
Buy	Expected return above +10% in relation to the Company's sector average	**46%**
Neutral	Expected return between +10% and -10% relative to the Company's industry average	**44%**
Sell	Expected return below -10% in relation to the Company's sector average	**5%**
under Review	Under review	**5%**

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