



E5 Capital

23.10.2020 / 16354

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Rolling Mill Project

September- 20

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Executive Summary

- Construction and operation of a world scale Rolling Steel Mill in Brazil's Northeast region, at Suape Industrial District, near one of the most relevant ports in Brazil – Suape Port
- The plant will have an installed capacity of 800,000 metric tons per year to supply flat hot and cold rolled steel to markets in the North and Northeast regions
- Capital expenditure is estimated to total US\$ 496 million, for plant and equipment under an EPC contract with a Chinese engineering company
- The building of a state-of-the-art plant with Chinese technology will entail significant cost savings compared to local steel producers, resulting in sustainable high margins in its operations
- The Project has a reserved area of 250,000 m2 in Suape Industrial District, with the environmental licensing process at an advanced stage, supply of utilities, tax incentives and special credit lines from regional development bank (BNB/Sudene), Credit facilities are available up to 80% of capital expenditure with up to 15 years of financing

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Summary

1. *Country Profile*
2. Investment Opportunity
3. Appendix

Country Profile | Brazil



The Brazilian economy is the largest in South America and ranks 7th in the world in terms of Gross Domestic Product (GDP). Brazil is one of the most open and receptive countries to foreign investment in the region

With a nominal GDP of USD 1,8 trillion in 2019 and 212 million inhabitants, it is also the largest country by population in South America

Source: <https://data.worldbank.org/country/brazil>

Brazil's Geoeconomy



Brazil has five geographical regions with distinct economic characteristics:

North: seven states in the Amazon basin, containing most of the Amazon Rainforest; the main drivers of the economy are mining, extraction of forest products, and the free trade zone in Manaus, capital of Amazonas State.

Northeast: nine states with a tropical climate, almost all big cities on the coast and a semi-arid hinterland. The region represents 27% of Brazil's total population. Starting with sugarcane monoculture and African slaved labor in the sixteenth and seventeenth centuries, when Brazil was a Portuguese colony, the region's economy began diversifying in the 1950s and after 2000's has a thriving service sector as well as plenty of industry, construction and agriculture. The industrial sector is also diversified, producing consumer nondurables (apparel, textiles, beverages, processed foods, footwear), consumer durables (cars, auto parts, appliances), industrial inputs (petrochemicals, pulp, cement, ceramics, glass), capital goods (machinery) and technology, besides Soybean chain growing in Bahia, Piauí and Maranhão.

Brazil's Geoeconomy



Brazil has five geographical regions with distinct economic characteristics:

Southeast: the richest and most industrialized region, with the largest cities (São Paulo and Rio de Janeiro) as well as major companies and large-scale logistical infrastructure. The industrial sector is highly diversified (steel, petrochemicals, pulp and paper, shipbuilding, automotive vehicles, aircraft, capital goods, consumer durables and nondurables, building materials). Agriculture and service is also important (coffee, orange juice, sugar and ethanol, soybeans, dairy, beef, poultry; banks, capital market, technology, the biggest and traditional universities). São Paulo is the economic hub and home to leading banks, corporations, the stock exchange, and the commodity and futures exchange, and all sort of companies headquarters.

South: also a prosperous region, with many descendants of European immigrants and a combination of industry and agriculture (soybeans, wheat, pigs, poultry, wine and grapes, timber), The industrial sector is diversified (automotive, auto parts, equipment's and machinery, petrochemicals, processed foods, beverages, textiles, footwear, wood products).

Center-West: mostly high-yield mechanized agriculture specializing in commodities (soybeans, corn, sorghum, rice) and beef for export, particularly to China.

North and Northeast Regions | A growing market

75 million

people live in the North and Northeast, representing 36% of the total population

20% of national GDP

is produced by these regions

Above-average growth

The economy of these two regions has become increasingly dynamic and diversified, with a strong presence of commerce and services as well as civil and industrial construction. The growth of these the constructions sector was possible given the rise in household income in recent decades thanks to some government investment programs to develop the regions, like the constitutionally mandated Funds driven to infrastructure and social development (FNE and FNO) and social programs, especially the “Bolsa Familia”, a school conditional income transfer scheme.



Suape Industrial Complex | Rolling Mill Site

The Project is located in Suape Industrial Complex, near Suape Port, the main cargo hub in the Northeast and one of the most significant in Brazil

With an area of 13,500 ha and capacity to receive large ships (Sammex class, 330mts), Suape Port is the Northeast's main hub for general and specialized cargo in Northeast region

The port has a draft of 15,5 meters and is equipped with modern physical and operational infrastructure, including container terminals that can handle 400,000 TEUs per year, It has a general cargo terminal and specialized terminals for ore, grains, and solid bulk



Suape Industrial Complex

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Da plataforma Bing

Suape Industrial Complex and Port Location | Economic Center of the Region



90% of GDP

The region is within a radius of up to 800 km from the port, which makes the port a natural cargo distribution hub for the North and Northeast of Brazil

The State of Pernambuco is the second largest economic center in the Northeast region, The population is predominantly urban and strongly concentrated in its capital, Recife, which is a service hub for all northeastern cities

Suape Industrial Complex and Port | Privileged Location

Connection with Strategic Regions

The Suape industrial complex has great development potential, and is one of the main competitive advantages of Pernambuco and the Northeast to attract domestic and foreign investment, It has a privileged and strategic location in relation to the main shipping routes, connecting with more than 160 ports in all continents

The anchorage is within 800 kilometers of seven of the Northeast region's nine state capitals and 12 airports (six international), with direct lines to countries in Europe, South America and North America

The port of Suape also offers easy access to the port of Aratu in the state of Bahia and the port of Pecém in the state of Ceará, Both ports are strategically located in the regional economy, The North region can be supplied via rivers in the Amazon region



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CSS Rolling Mill Project

Proximity to markets with growing demand



Suape Industrial Complex



Rolling steel mill project

A Rolling Steel Mill Project for hot rolled, cold rolled and galvanized rolled steel

- Located at Suape Industrial Complex near Suape Port
- A world-class steel mill project with estimated production of 800,000 tons of flat rolled steel per year to serve North and Northeast demand
- The project is in the environmental licensing process and already has preliminary environmental licensing permits
- It also has state and federal tax incentives
- Access to world-class port facilities
- It is easily connected to water, industrial gas and electricity supply
- Access to local long-term credit facilities
- EPC contract with Chinese industrial engineering company

A Modern Cost-Effective Project

Steel spread model ...

- The project's CAPEX will minimize the fixed cost of capital, due to the import of materials and equipment from China, which supplies these products with a very competitive cost benefit in the market,
- CSS can buy slab on the Brazilian or international market and transform it into flat rolled steel (HCR, CRC and HDG) to sell in the North and Northeast Low margin exposure to steel price volatility
- The Project site area allows for plant expansion
- There is an abundant supply of slab locally and abroad

... with structural high margins

- **High price of the finished product:** HCR, CRC and HDG have high margins due to:
 - Entry barriers on imported steel as import duty and distribution costs
 - Old integrated plants in Southeast with higher structural costs
 - Transportation cost makes price of steel produced in Southeast expensive on reaching North and Northeast
- **Low operating cost:** steel slab is available in Brazil and abroad (slab is not subject to import restrictions and is priced on a competitive basis)

Rolling Mill Project | Expected Investments

Investments expected to be deployed in 3,5 years, in USD

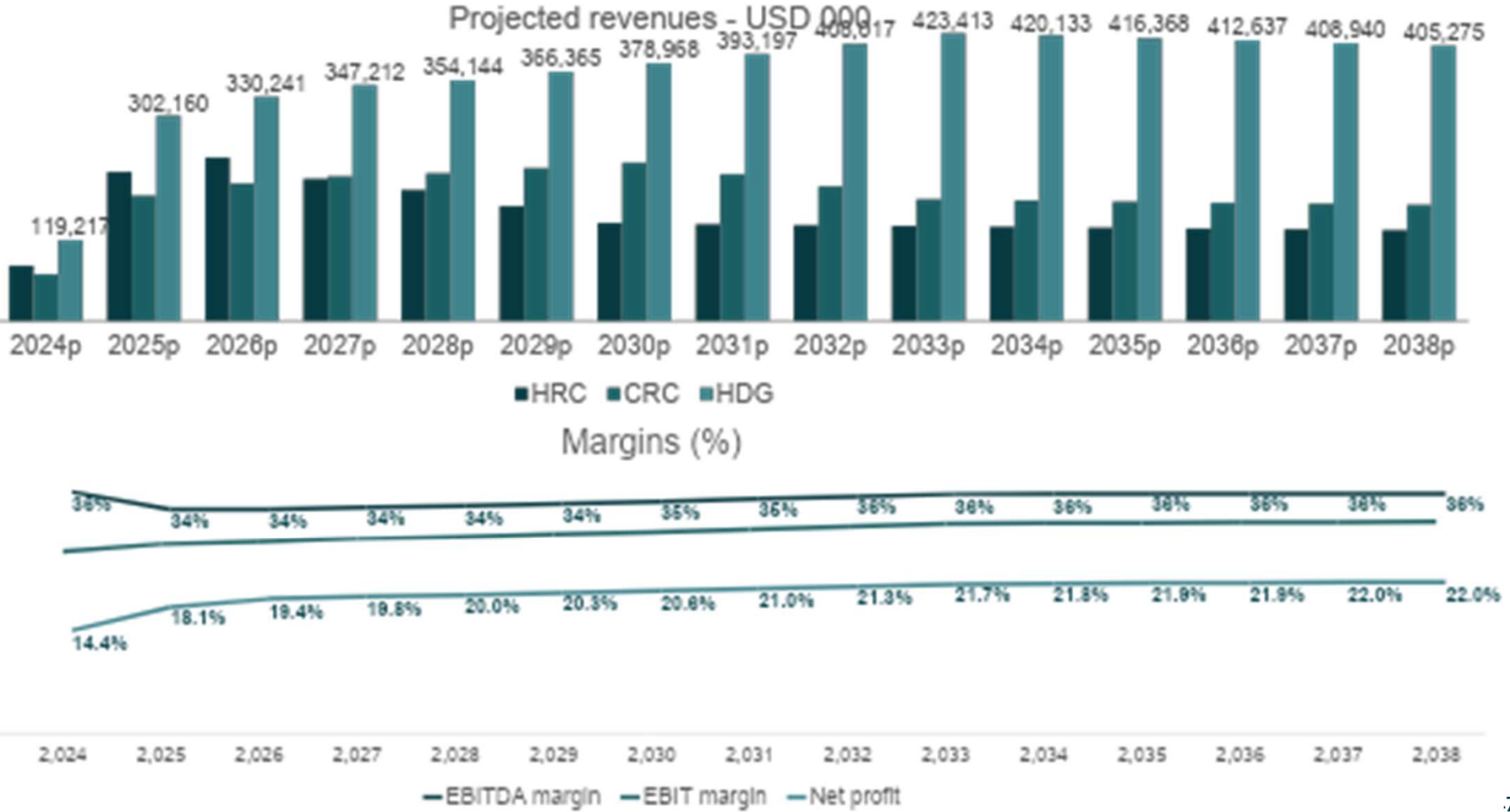
Engineering, supervision and administration	16,225,957
Infrastructure, buildings, land, access, premises	141,219,066
Equipment, credit and assembly	284,298,683
Industrial plant	441,743,705
Working capital and maintenance capex	53,607,000
Total Funding	495,350,705

Rolling Mill Project | Product Mix

- Installed capacity of 800,000 tons/year of hot rolled steel (HCR) that will be transformed into cold rolled (CRC) and galvanized (HDG) steels

Products	Thousand tons / year
HCR	178
CRC	196
HDG	404

Rolling Mill Project | Gross Revenues and Margins



Rolling Mill Project | Payback and ROI Forecast

Indicator	Result
Payback	6,72 years
ROI	42%

Rolling Mill Project | Local Sponsors

Ricardo Antunes

- Metallurgical Engineer, MSc from Imperial College London, with solid track record in steel and mining industry. Currently partner and CEO, Fabrica Participações. Former CEO, LLX Logistics, and former Managing Director, Companhia Vale do Rio Doce (Vale) and MMX Mineração e Metálicos

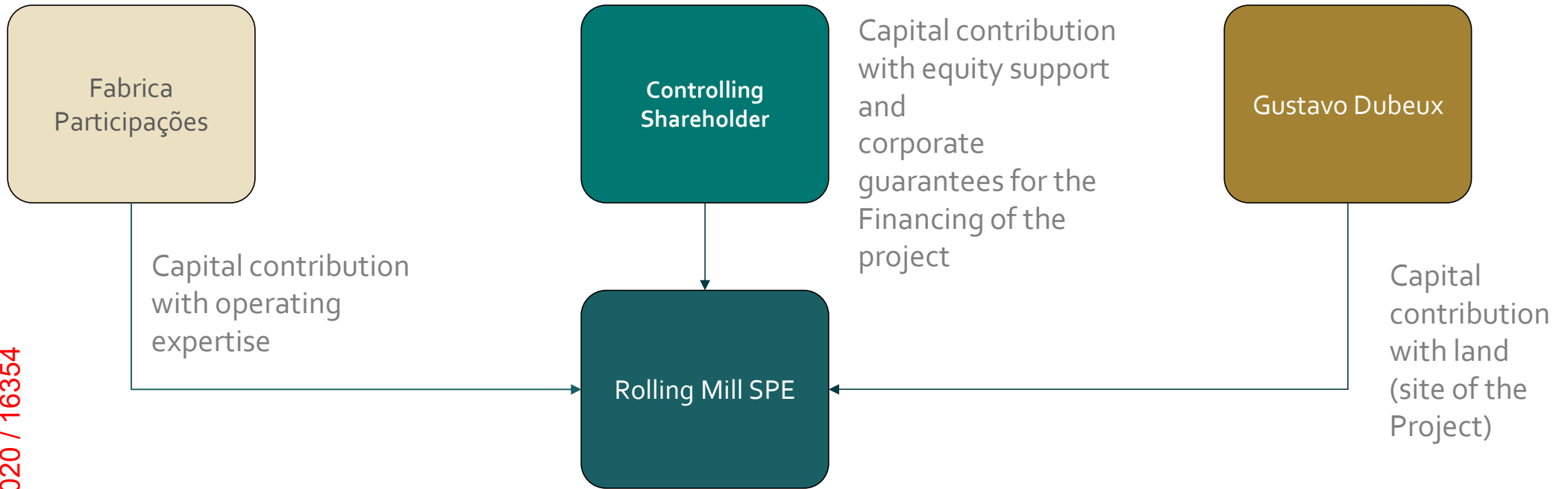
Gustavo Dubeux

- CEO and Controlling Shareholder, Moura Dubeux Engenharia, one of the largest construction companies in the Northeast

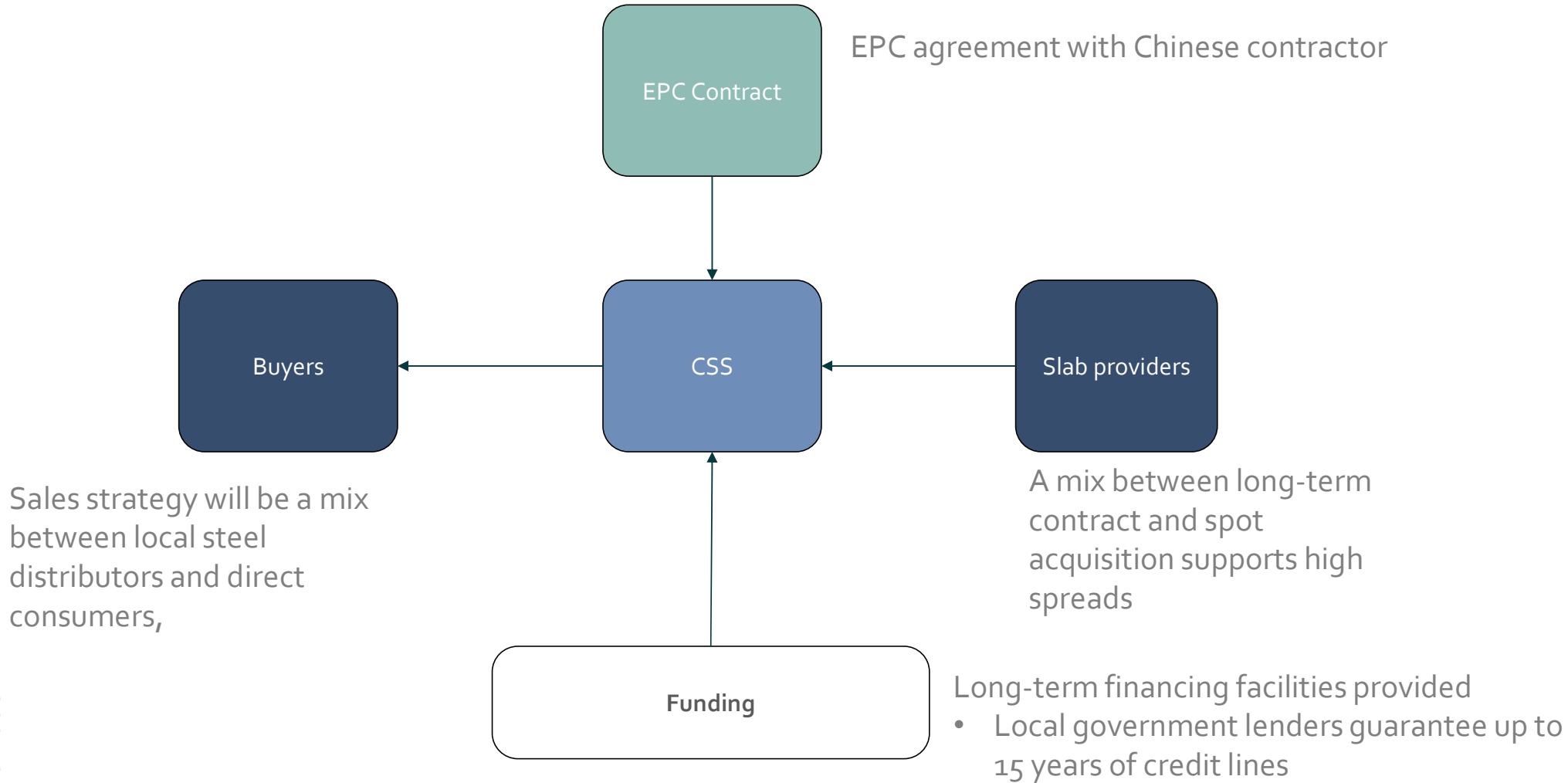
Business Proposition

Acquisition of a controlling equity interest in the Rolling Mill project

- Local sponsors may join the project as minority shareholders in a Joint Venture or a partnership, with the new shareholder contributing land and expertise in local market and steel processing



Project Strategy Summary



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Rolling Mill Project

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Appendix A

Demand, Supply and Margins in Northeast and North of Brazil

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Economy of the North Region

North Region

The region has seven states, with Amazonas and Pará accounting for over 60% of the economy

Pará

Pará has the largest economy of any state in the North, led by mining. The main ores produced are iron, copper, manganese, gold, tin and limestone, Agriculture is also important. The service sector, including commerce, is very active and led by tourism, with many thousands visiting the region 's religious, cultural and ecotourist attractions every year

Amazonas

Amazonas is located at the heart of the world's largest tropical forest. Services account for 50% of the economy (commerce, communications, transportation, tourism, ecotourism). Industry is the second-largest sector. The Manaus free-trade zone is an important industrial center, with more than 700 suppliers of motorbikes, TV sets, computers, smartphones, appliances, air conditioners and other consumer durables marketed throughout Brazil. Fruit production is also significant (assai, banana, watermelon), as is timber. In mining, the main ores produced are bauxite, copper and iron. The state also has diamond mines

Economy of the Northeast Region

Northeast Region

The Northeast has nine states, Bahia, Pernambuco and Ceará account for over 60% of the region's economy

Bahia

Bahia is the richest state in the Northeast. The industrial sector is diversified (chemicals, petrochemicals, agroindustry, automotive vehicles). In agriculture the main crops are fruit (cocoa, coconuts, passionfruit), sugarcane, legumes and grains. Its beef cattle herd is one of the largest in Brazil. Mining is important as Bahia has large deposits of several ores (gold, copper, manganese) and petroleum

Pernambuco

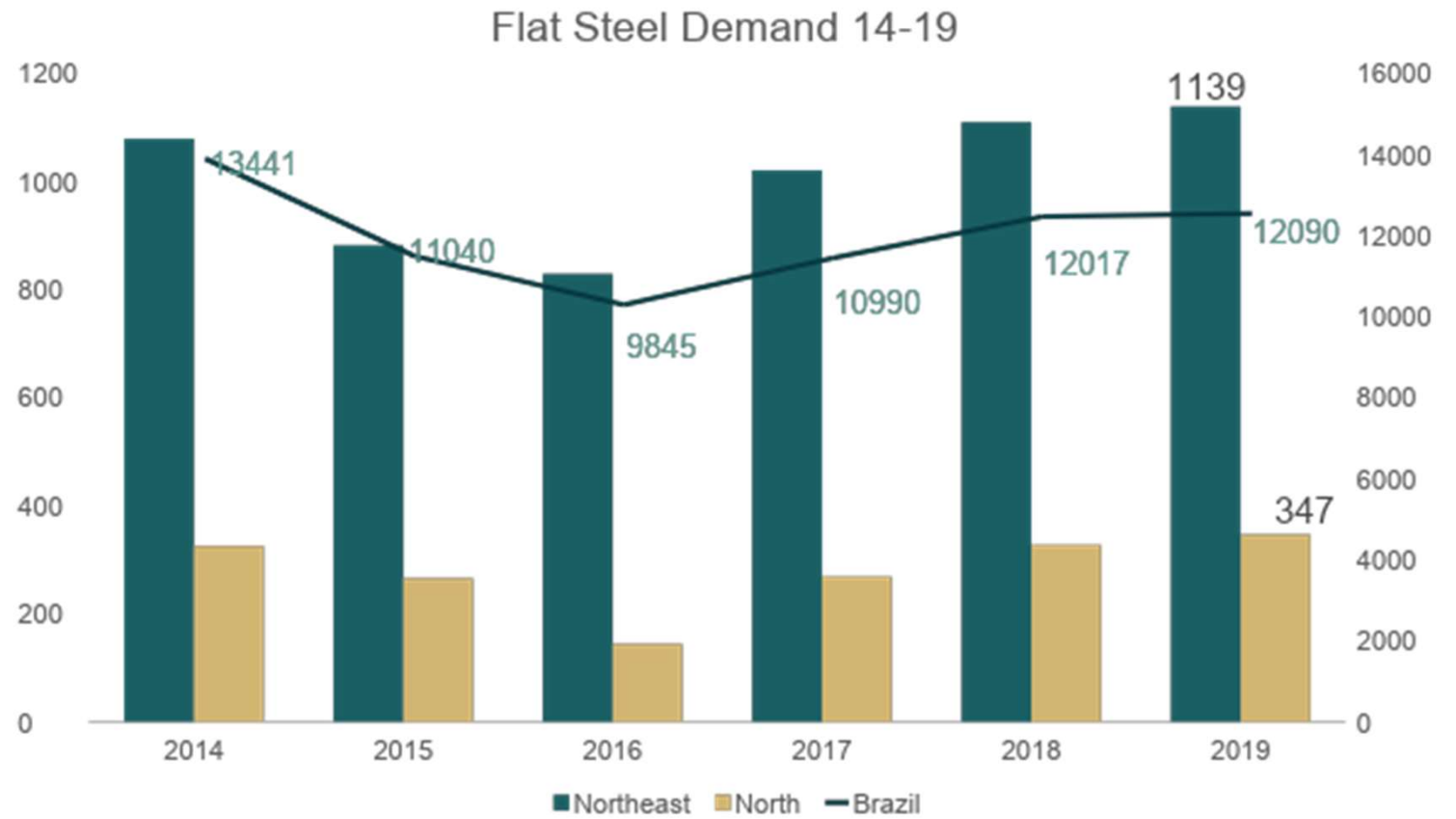
Pernambuco has the second-largest economy in the Northeast in terms of GDP. The mainstays of its economy are the service, industrial and agricultural sectors. Sugarcane and cotton monoculture formed the basis of the economy for many years, but diversification has picked up recently thanks to substantial investment in infrastructure and logistics, not least in the Port of Suape, reinforcing its role as the region's main trade hub. Light industry comprises food and beverages, apparel and textiles, while heavy industry consists mainly of automotive, metals, oil refining, machinery, ceramics, cement, and gypsum products. The state is a major producer of fruit, legumes and grains, and is also one of the largest producers of sheep and goats in the region

Ceará

Ceará's economy is one of the most diversified in the Northeast. The main industries are apparel, food, metallurgy, pharmaceuticals and chemicals. The Pecém Industrial and Port Complex is home to major ventures and companies. In mining, the state has Brazil's largest uranium deposit. It is a large producer of grains (dry beans, rice), fruit (melons, grapes and tomatoes) and cotton. It also produces cattle, pigs and poultry

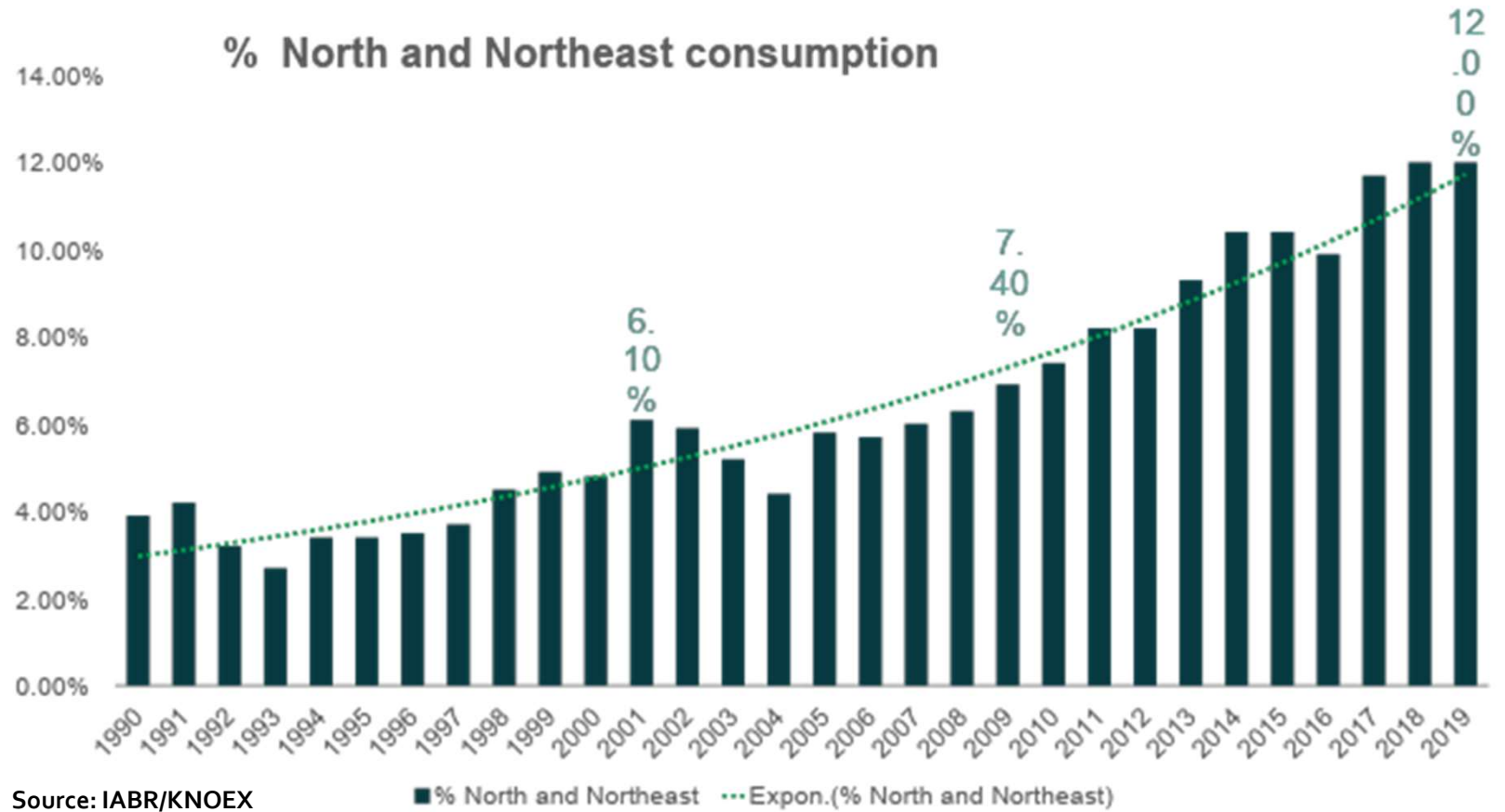
North and Northeast demand for flat steel

- During 2019, Brazil's consumption of flat steel was 12 mm tons, The North and Northeast regions consumed 1,5 mm tons



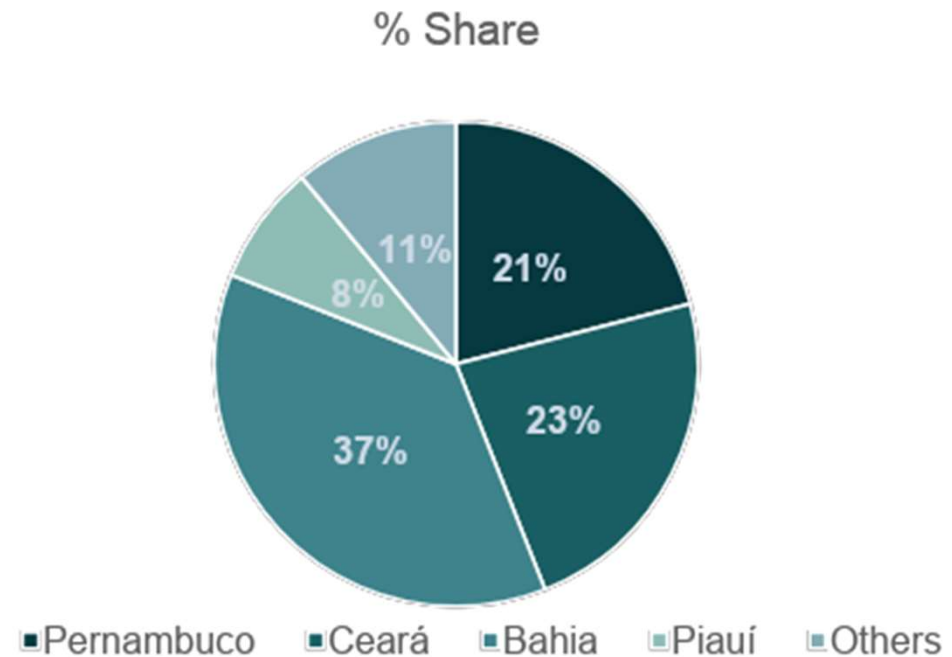
North and Northeast demand for flat steel

- Rising demand for flat steel in these regions increased their share of Brazil's flat steel consumption



Demand in Northeast states

- The major markets for flat steel in the Northeast are in the states of Pernambuco, Ceará and Bahia given their diversified industrial activities (e,g, construction, automotive, oil refining, petrochemicals and consumer durables)
- Piauí and Maranhão are natural hubs for distribution of these products to the other areas of the region



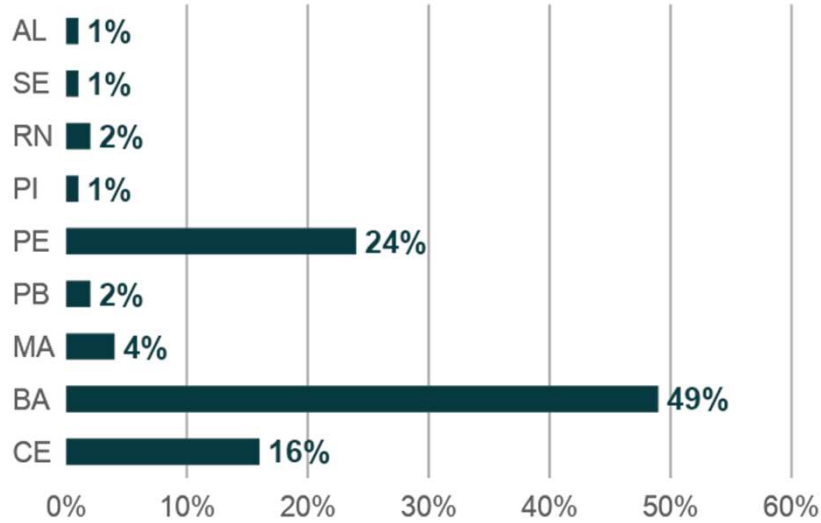
Source: IABR/KNOEX

Supply | Direct Sales from Steel Mills to Consumers

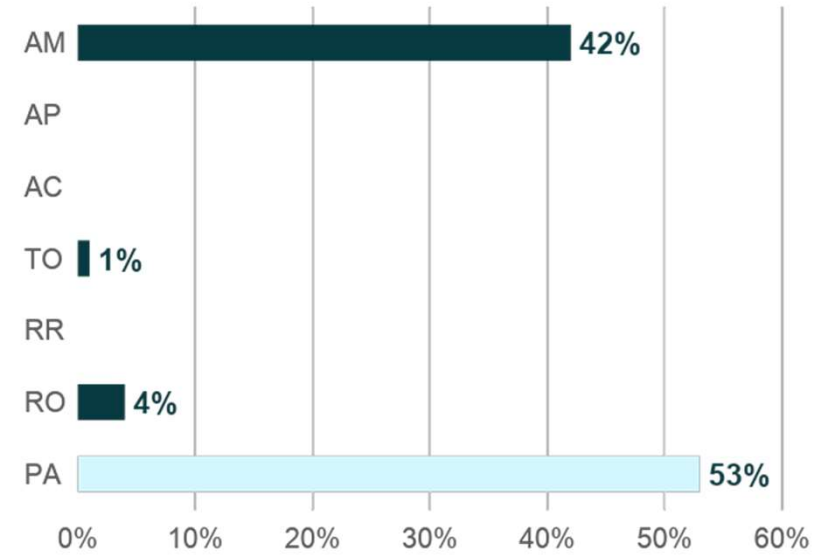
Direct sales by rolling mills are a significant part of the total supply of steel for these regions

Sales by states

Northeast states



NORTH states



Tons

AL	BA	CE	MA	PB	PE	PI	NR	SE	NE
9	387	127	33	16	193	8	15	9	797

AC	AP	AM	PA	RO	RR	TO	NO
0	0	72	92	7	0	2	173

Supply | Sales Through Distributors

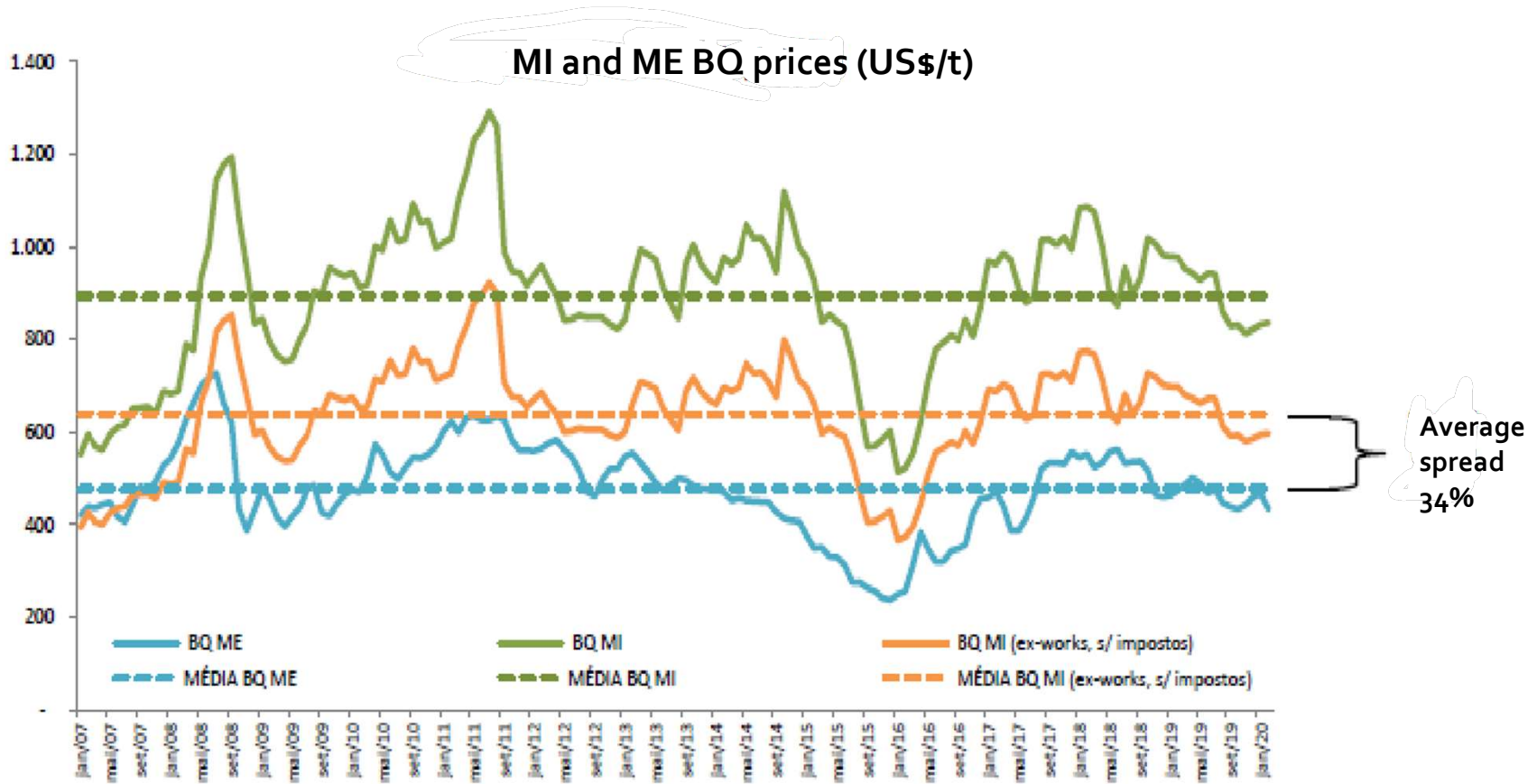
- Distributors still have an important role in this market, contributing 515,000 tons per year in sales for this region

(thousand tons)	AL	BA	CE	MA	PB	PE	PI	RN	SE	Northeast
Imports	2	0	80	0	2	23	71	0	1	180
- Hot Rolled steel	0	0	34	0	0	1	21	0	0	56
- Cold Rolled steel	0	0	6	0	0	0	21	0	0	27
- Galvanized steel	2	0	40	0	2	23	29	0	1	96
Brazilian Steel Mills	2	79	26	7	3	39	2	3	2	162
Medium and large distributors	4	79	106	7	5	63	73	3	3	342

(thousand tons)	AC	AP	AM	PA	RO	RR	TO	North
Imports	0	0	142	0	4	0	0	147
- Hot Rolled steel	0	0	39	0	0	0	0	40
- Cold Rolled steel	0	0	38	0	0	0	0	38
- Galvanized steel	2	0	65	0	4	0	0	69
Brazilian Steel Mills	0	0	11	14	1	0	0	26
Medium and large distributors	0	0	153	14	5	0	1	173

Pricing | Spreads

- In spite of cyclical variations, average domestic price spreads remained steady in comparison to international prices (China FOB), due to import barriers

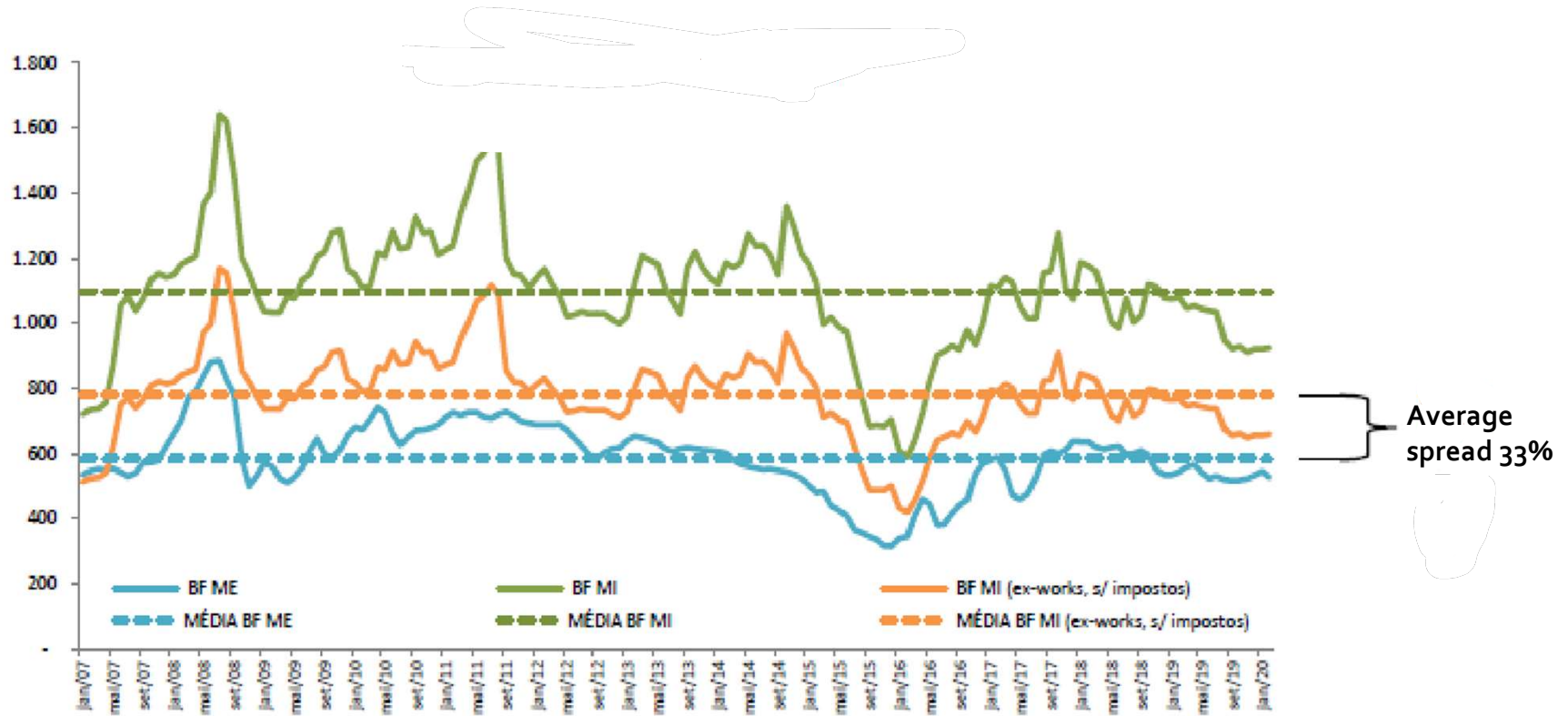


Source: IABR/KNOEX

Pricing | Spreads

- Average spreads for flat steels have long been relatively stable in the range of 33%-34%,

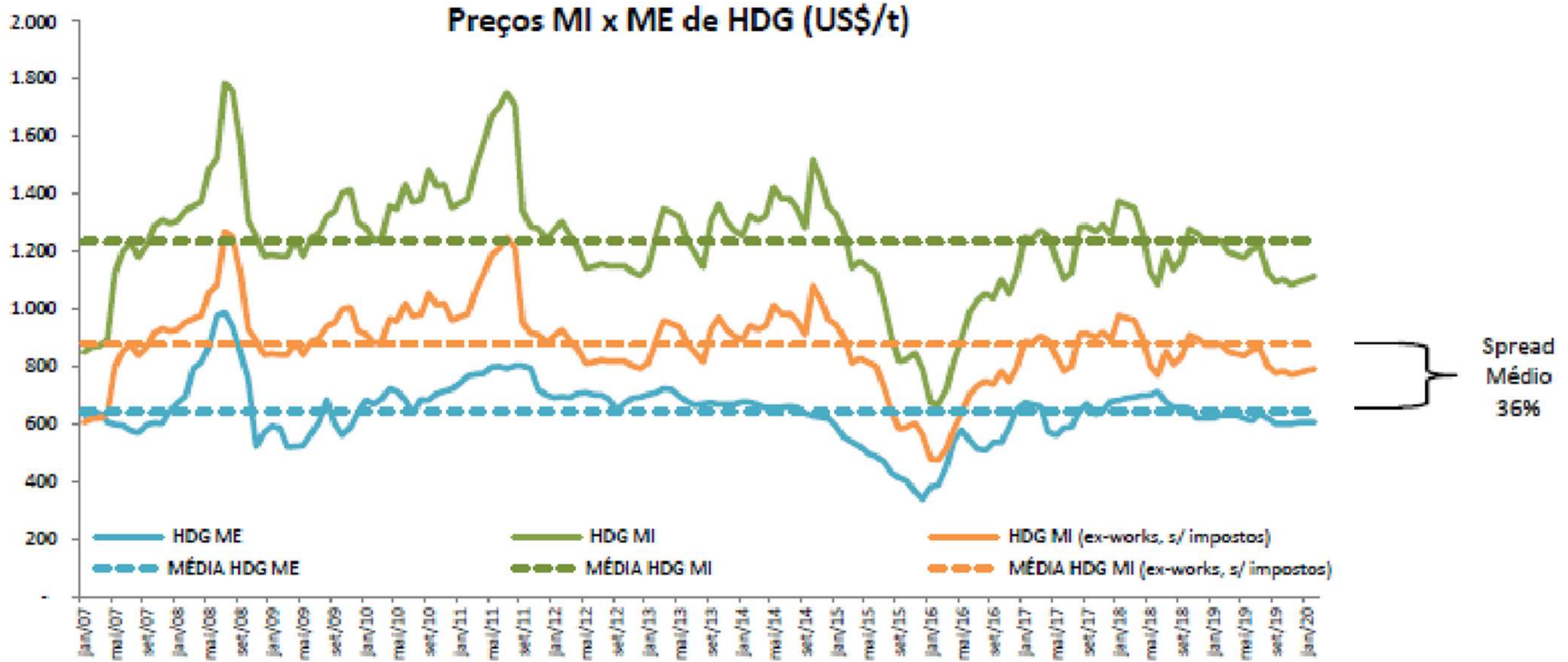
Cold Rolled Steel Prices (MI x MF BF (US\$/t))



Source: IABR/KNOEX

Pricing| Spreads - Galvanized

- In the case of galvanized steel, average spreads were somewhat higher, reaching 36%



Source: IABR/KNOEX

Main competitors and their sales strategies



- Direct sales by 9 units: 1 Amazonas, 2 Pará, 1 Ceará, 1 Paraíba, 1 Pernambuco, 1 Sergipe, 1 Salvador



- Direct sales through Prada Distribution: 1 Bahia, 1 Pernambuco



- Direct sales 24 units: 1 Manaus, 1 Pará, 1 Rondônia, 2 Maranhão, 1 Piauí, 4 Ceará, 2 Rio Grande do Norte, 2 Paraíba, 2 Pernambuco, 1 Alagoas, 1 Sergipe, 5 Bahia



- Direct sales in Pernambuco and indirect through several independent distributors