

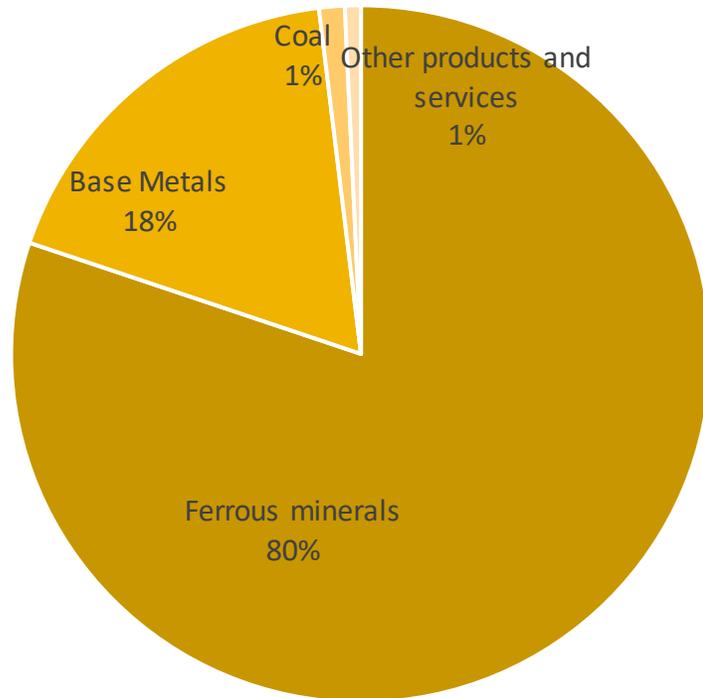


VALE

Buy Recommendation

# Company overview

Net Operating Revenue by Segment

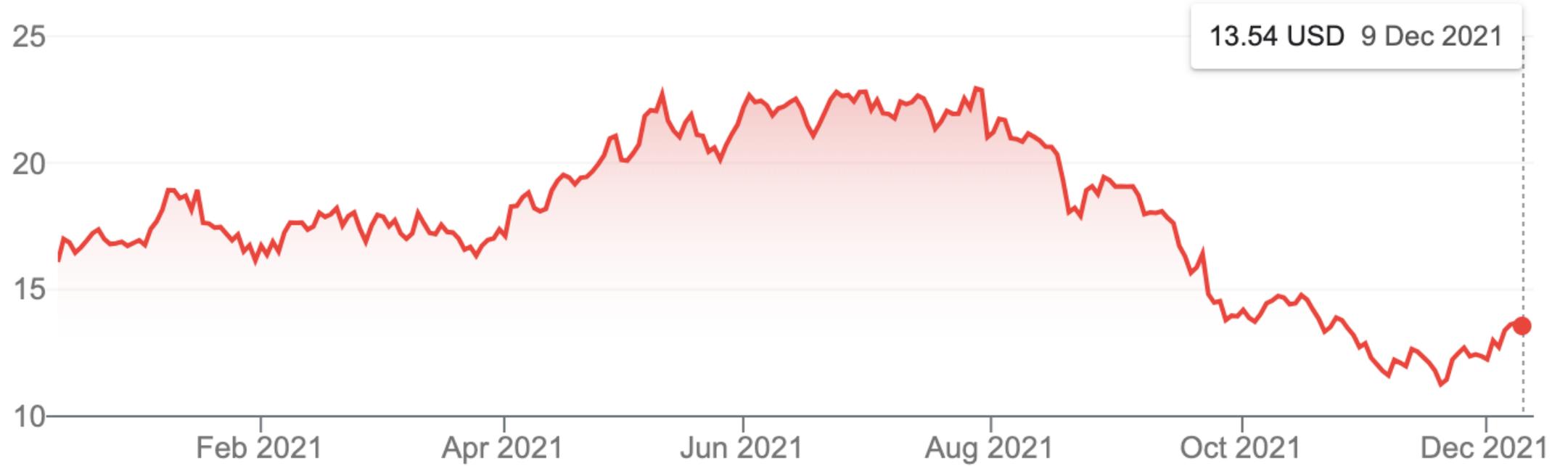


■ Ferrous minerals ■ Base Metals ■ Coal ■ Other products and services

- Originally established on June 1, 1942, as the state-owned Companhia Vale do Rio Doce, Vale became a private company ranking among the largest miners in the world. Their operations abroad cover approximately 30 countries that share their mission to transform natural resources into prosperity and sustainable development.
- In addition to mining, Vale works with logistics – railways, ports, terminals and state-of-the-art infrastructure – energy, and steel making.



# Context – Share Price Decline



# Context – Share Price Decline

- The decline in VALE's share price can be seen in the context of the recent decline in the price of iron ore, starting in late July 2021
- VALE was hit particularly hard by this decline given that iron ore is its number one product
- VALE responded to the decline by slowing down production of low-margin iron ore in Q4 2021 by around 4 million tonnes (Reuters)
- The decline in the price iron ore can be linked to a fall in demand from the Chinese real estate sector
- However, we believe that the market has overreacted to this decline. VALE's financials are fundamentally sound, and increased demand for iron ore from North America will arise due to the Biden infrastructure bill's passage and recovering Chinese steel demand

# Context – Iron Ore Price

Price of iron ore up to 09/12/21 (Source: TradingEconomics)



# Context – Iron Ore Price Recovery

- The market has taken an increasingly optimistic view of recovering demand for iron ore
- In the past three weeks, the spot price of iron ore for delivery to Northern China has increased by almost 25% in the past three weeks due to the market taking an optimistic view of recovering Chinese steel demand
- November 2021 saw the strongest Chinese iron ore import data since July 2020
- There is an expectation that Beijing will enact economic stimulus in the first half of 2022, boosting steel demand. Some indication of this came in Dec 6, when Chinese authorities lowered banks' reserve requirements
- In addition, Morgan Stanley analysts have said that a US infrastructure bill would increase steel demand, with increased demand for finished steel products such as rebar. Therefore, the passage of the US infrastructure bill in November is positive news for iron ore.

# Expansion Opportunities

## 1. The Serra Sul 120 Project

- Increase capacity by 2024, which will approximately require £1.5bn
- Investment in new mining areas, duplicating the TCLD, implementing new process lines, and increasing the capacity of storage areas

## 2. Capanema Project

- Investment to resume facilities, acquire new equipment, implement TCLD, and adjustments in stockyard
- \$495 million, with capacity 18Mtpy

## 3. Inauguration of Grinding Hub

- Three production lines and totaling capacity of 3Mtpy
- GF88 provides environmentally friendly solution for pellet production

## 4. Establishment of NewVen, through joint venture between Vale, Mitsui, Kobe Steel

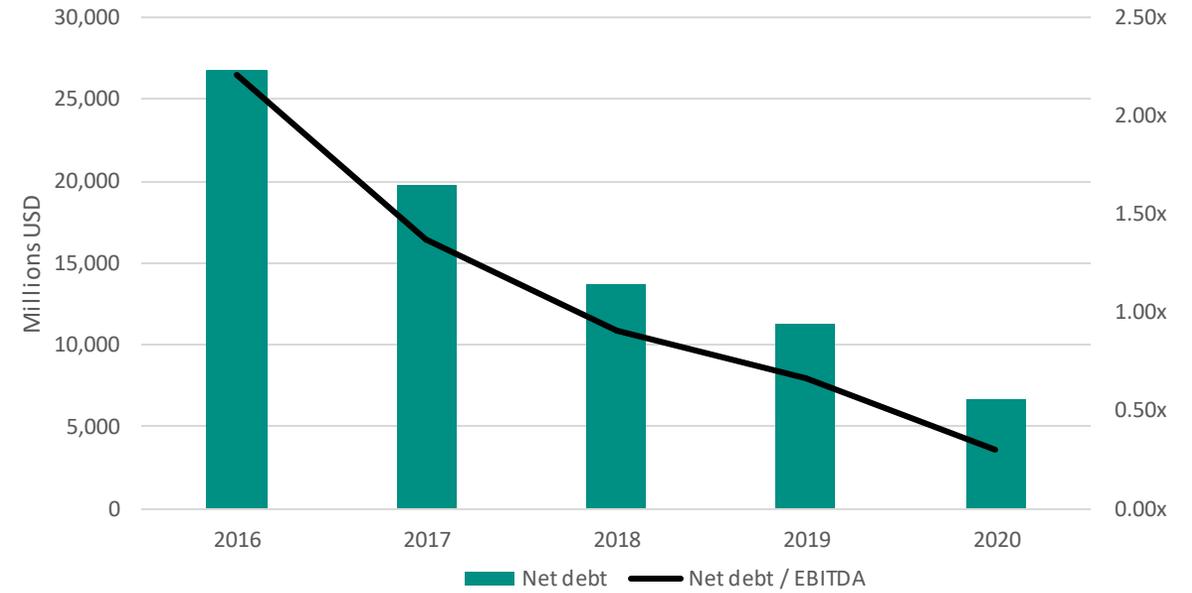
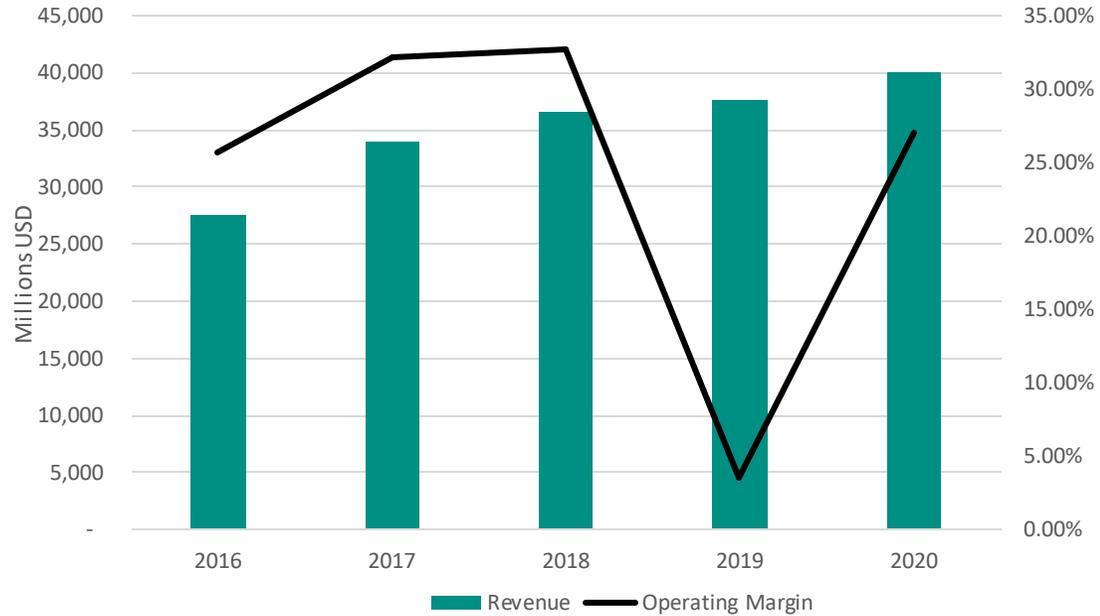
- Supply low greenhouse metallics and steel making solutions
- Vales' Technored technology and Kobe Steel's Midrex process

## 5. Decarbonisation Plan

- Invest \$2 bn over the next decade to develop low carbon solutions



# Financials



- Consistent revenue growth (10% CAGR) and operating margins
- 2018 and 2019 negatively impacted by Brumadinho Dam rupture

- Continued repayment of debt
- Large decline in Net Debt / EBITDA ratio
- Strong cash generation – FCF Conversion averaged 80% last 4 years<sup>1</sup>
- Attractive FCF yield at 16%

1. Excluding 2019 and FCF Conversion calculated as (CFO-Capex)/Operating Income

# VALUATION

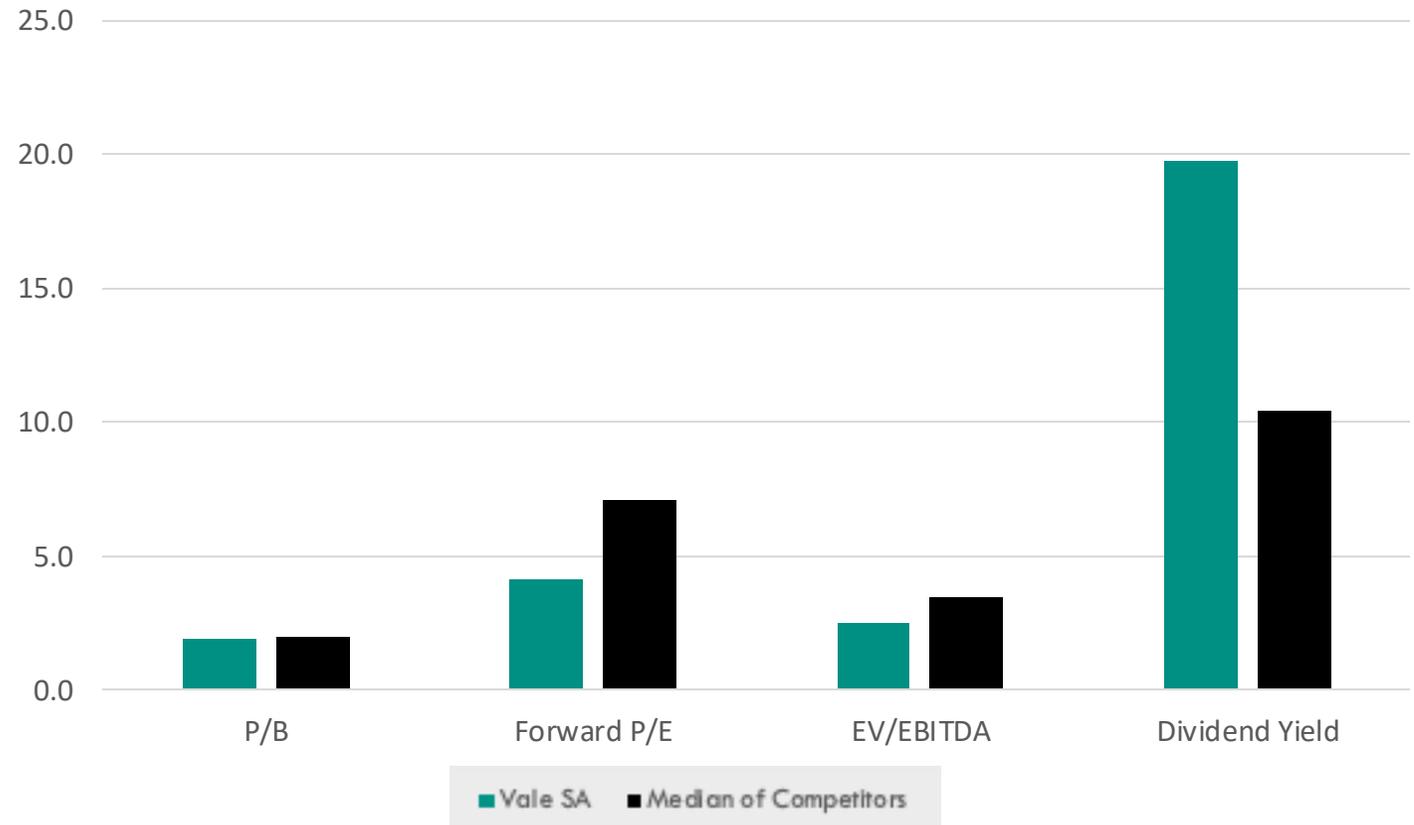
## Comparable Company Analysis

### Competitors:

- Glencore
- Anglo American
- BHP
- Vedanta
- Fortescue
- Rio Tinto

Applying the industry multiple of 7.1 to VALE's EPS of 3.35 results in a share price estimate of 23.78

However, our estimate is a more conservative 1-year estimate of 18.44, representing a 36.6% increase



# Risk evaluation

## 4 Key risks to Vale SA

### 1. Cyclical Mining Sector

- Commodity demand is cyclical. Vale's mining operations are particularly exposed to economic downturns. Covid-19 developments heighten this risk:
- Recent Austrian and German lockdowns for unvaccinated (November 2021) – Compulsory vaccines from February 2022 (Austria)
- Omicron variant – the most transmissible – 336 cases (6.12.21). Outcome and impact is uncertain

### 2. Poor ESG performance – future concern

- According to Sustainalytics – 39 ESG score (indicates high near severe rating)
- Poorest performance in Social risk (15.1), followed by a high Environment risk score (13.9).
- Solutions: ESG Gaps Action Plan - Meeting guidelines, environmental certifications and disclosing information regarding waste management.

# Risk evaluation

## 4 Key risks to Vale SA

### 3. Uncertain profitability reductions

- Whilst most stocks in alternative sectors are reporting profits above analyst estimates, recently Vale reported Q3 net profit of \$3.9bn below the \$6.3bn forecast, due to low iron ore prices and problems with their coal business
- Net income fell by almost a half from the previous quarter
- Confident management - buying back 200 million shares, about 4.1% of the firm's outstanding shares.

### 4. Potential PR issues

- Brazilian police have recommended multiple criminal charges against miner Vale SA ([VALE3.SA](https://www.vale.com)) and Germany's TUV SUD for their role in a 2019 dam burst that caused extensive environmental damage
- Vale SA said on Monday it is halting operations at its Onca Puma nickel mine after a state agency suspended its operating license due to alleged non-compliance with local regulations
- Received the highest level of 'controversy (5) from Sustainalytics - Competitor average is near 3.2
- In a recent meeting with investors – value has acknowledged structural problems and aim to resolve these problems by 2025.



- Initiative not started
- Initiative in progress
- Already addressed/concluded

ESG GAPS			
DAMS			
#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
1	Greater disclosure on the Plano de Ação de Emergência de Barragens de Mineração (PAEBMs)	2019	<a href="#">Evidence</a>
2	Greater transparency in the external auditing process	2019	<a href="#">Evidence</a>
3	Quantitative evidence of compliance with the ICMM guidelines	2021	<span style="color: green;">●</span>
COMMUNITY DEVELOPMENT			
#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
4	Disclosure of the systematic involvement of local stakeholders in the community development planning	2020	<a href="#">Evidence</a>
5	Structure social KPIs with short, medium and long term goals	2021	<span style="color: green;">●</span>
6	Statement on the socioenvironmental impact of Onça Puma on indigenous communities	2019	<a href="#">Evidence</a>
HUMAN RIGHTS			
#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
7	Stablish a human rights due diligence process	2021	<a href="#">Evidence</a>
ETHICS AND CORRUPTION			
#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
8	Have a supplier compliance verification program	2019	<a href="#">Evidence</a>
9	Disclosure of the sorts of problems reported to the Ombudsman	2019	<a href="#">Evidence</a>
10	Demonstrate that the Board of Directors is capable of providing significant oversight of the Executive Board	2019	<a href="#">Evidence</a>
WORKFORCE			
#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
11	Have a program to address illness in the workforce	2019	<a href="#">Evidence</a>
12	Establish maximum working hours allowed in a week	2019	<a href="#">Evidence</a>
13	Goal to increase the percentage of women on the workforce	2019	<a href="#">Evidence</a>

## ENVIRONMENTAL MANAGEMENT

#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
14	Have all operations with the ISO 14001 certification	2022	●
15	Perform sensitivity analyses and/or stress test related to water and climate risk	2020	<a href="#">Evidence for water risk</a> <a href="#">Evidence for climate risk</a>
16	Include waste management in the environmental management policy	2020	<a href="#">Evidence</a>
17	Disclose environmental violations in a consolidated form	2020	<a href="#">Evidence</a>
18	Establish goals for waste management	2019	<a href="#">Evidence</a>
19	Establish goals for greenhouse gas emissions	2019	<a href="#">Evidence</a>
20	Establish goals for SOX emissions	2021	<a href="#">Evidence</a>
21	Establish goals for NOX emissions	2021	<a href="#">Evidence</a>
22	Establish goals for particulate matter	2021	<a href="#">Evidence</a>
23	Better disclosure of sustainability KPIs	2019	<a href="#">Evidence</a>
24	Devise climate change scenarios in strategic planning	2020	<a href="#">Evidence</a>
25	Inform annual monetary value for investments in reducing CO2 emissions	2020	<a href="#">Evidence</a>
26	Define internal carbon pricing	2019	<a href="#">Evidence</a>
27	Implement water management policy for units operating in water-stressed areas	2020	<a href="#">Evidence</a>

## COMPENSATION

#	Initiative	Estimated Conclusion	EVIDENCE/STATUS
28	Sustainability and/or health and safety targets in long term goals	2019	<a href="#">Evidence</a>
29	Increase disclosure of executive compensation	2020	<a href="#">Evidence</a>
30	Disclosure of the results of long-term executive compensation metrics	2019	<a href="#">Evidence</a>
31	Have the variable remuneration component paid in company shares	2019	<a href="#">Evidence</a>
32	Present minimum ownership requirements for the CEO and members of the Executive Board	2019	<a href="#">Evidence</a>
33	Have part of the CEO short-term incentives granted in the form of company's shares	2019	<a href="#">Evidence</a>
34	Inclusion of malus clause	2019	<a href="#">Evidence</a>
35	Report information on compensation, segmented by men and women	2019	<a href="#">Evidence</a>

# Questions