

INITIATE COVERAGE

OM Holdings (OMH MK)

Entering A Golden Age Of Commodities

As an eco-friendly and the world's lowest-quartile-cost manganese smelter operator, OMH stands to be a prime beneficiary of the commodities supercycle, amid strong demand due to economic recovery and structural supply shortage caused by global decarbonisation trend. It is a major recovery play in 2022, as herd immunity against COVID-19 will allow production to recover. OMH is dual-listed following its listing on Bursa Malaysia in Jun 21. Initiate coverage with BUY and target price of RM3.27.

- **Upswing in commodity prices and robust demand support growth.** We expect OM Holdings (OMH) to post a strong earnings CAGR of 138.6% for 2020-23 coming off the low base in pandemic-stricken 2020, backed by the commodities supercycle and greater traction for manganese (Mn) alloy due to surging demand for steel. In 1Q21, Mn ore prices rose 39% yoy (US\$5.32/dmtu), ferrosilicon alloy (FeSi) prices jumped 44% yoy (US\$1,465/mt) and Mn alloy prices increased 19% yoy (US\$1,280/mt). Mn alloy demand is expected to achieve a 7.4% CAGR (2019-27) to US\$42b, reflecting stronger demand from the infrastructure, lithium-ion battery and electric vehicle industries. The pandemic has disrupted supply among smelters globally, leading to a market shortage. Decarbonisation efforts by the US and China will prolong the current global supply-demand imbalance further as non-compliant smelters will be forced to shut down, restricting capacity expansion while supporting strong prices and margins.
- **Low-cost advantage over global peers and healthy ESG practices.** OMH's smelters in Sarawak offer lower costs than its peers' mainly due to the 20-year take-or-pay power purchase agreement with Sarawak Energy. The agreement provides OMH with 300MW of low-cost environmentally-friendly hydropower. We estimate electricity costs at US\$0.04-0.06/kwhr, with a 1.5-2.5% p.a. escalation (c.40% of smelting cost), placing OMH in the lowest quartile for production costs (fifth-largest FeSi producer, ex-China). This gives OMH a significant advantage over its peers, enhancing its strategic position. Note that comparable Chinese smelters run at a cost that is about 30% higher.
- **Future expansion to ensure long-term earnings growth.** On top of its four existing mining operations in Australia and Africa, it has recently entered into a JV with Great Sandy in Western Australia to conduct a mining feasibility study in that area. This is part of its plan to further explore potential Mn-related opportunities. It also plans to expand smelting capacity by 50%, or an additional 150,000mt/year of Mn alloy, by end-23 (currently: c.300,000 mt), equipped with 2-4 33MVA-furnaces that are much bigger than the existing capacity. In addition, OMH plans to venture into silicon metal in 2022 to produce higher value-added products, which offer better margin.
- **Initiate coverage on OMH with BUY and SOTP-based target price of RM3.27,** implying 13x 2022F PE, close to its 5-year PE mean of 15x. Our blue-sky earnings suggest a potentially higher target price of RM4.78 (A\$1.67).

KEY FINANCIALS

Year to 31 Dec (RMm)	2019	2020	2021F	2022F	2023F
Net Turnover	2,976.7	2,275.4	2,612.9	3,239.9	3,440.5
EBITDA	317.0	164.1	245.5	317.4	343.6
Operating Profit	176.2	22.2	133.6	185.7	200.6
Net Profit (Reported/Actual)	164.3	15.5	117.3	167.3	189.6
Net Profit (Adjusted)	185.3	14.0	117.3	167.3	189.6
EPS (sen)	22.3	1.9	15.9	22.7	25.7
PE (x)	10.7	126.3	15.0	10.5	9.3
P/B (x)	1.6	1.4	1.5	1.4	1.2
EV/EBITDA (x)	10.1	18.2	11.7	8.8	7.6
Dividend Yield (%)	1.2	-	1.0	1.4	1.6
Net Margin (%)	6.2	0.6	4.5	5.2	5.5
Net Debt/(Cash) to Equity (%)	96.5	88.1	73.0	60.1	41.1
Interest Cover (x)	1.9	0.3	1.8	2.7	3.4
ROE (%)	13.3	1.2	9.3	11.8	11.9

Note: Currency conversion assumption: A\$1 = RM2.87

Source: OMH, Bloomberg, UOB Kay Hian

BUY

Share Price	RM2.57 (A\$0.82)
Target Price	RM3.27 (A\$1.05)
Upside	+27.3%

COMPANY DESCRIPTION

ASX-listed OM Holdings is an integrated manganese player engaged in the mining, smelting, trading and marketing of manganese ores, manganese alloys and ferrosilicon. Its smelting plants in Sarawak operate using low-cost sustainable energy – hydropower.

STOCK DATA

GICS sector	Materials
Bloomberg ticker	OMH MK
Shares issued (m)	736.7
Market cap (RMm)	1,893
Market cap (US\$m)	473
3-mth avg daily t'over (US\$m)	n.a.

Price Performance (%)

52-week high/low		A\$1.00/A\$0.29		
1mth	3mth	6mth	1yr	YTD
0.0	12.3	53.6	132.4	56.4

Major Shareholders

	%
Huang Gang	14.0
Amplewood Resourced Ltd	13.6
Low Ngee Tong	9.2
FY21 NAV/Share (RM)	2.0
FY21 Net Cash/Share (RM)	(1.3)

ANALYST

Hazmy Hazin
+603 2147 1934
noorhazmy@uobkayhian.com

Contents

Investment Highlights	3
Valuation	5
Earnings Outlook.....	6
Industry Outlook	8
Financial Statements.....	10
Appendix I: Risk Factors	12
Appendix II: Company Background	13

This report uses the closing prices of 22 June 2021

Investment Highlights

UPSWING IN COMMODITY PRICES AND ROBUST DEMAND SUPPORT GROWTH

An extended commodities supercycle driven by structural demand growth and... OMH is entering a prolonged period of high selling prices and margins, driven by strong global demand growth and structurally favourable supply-demand dynamics for the Mn ore smelting industry. OMH will also benefit from the structural adoption of next-generation technologies. The Mn alloy market's value is expected to achieve 7.4% CAGR (2019-27) to US\$42b, reflecting stronger demand from the infrastructure, lithium-ion battery and electric vehicle industries. FeSi is also expected to grow in market value, albeit at a slower pace of about 1% CAGR (US\$11b) until 2027. This growth is supported by the rising demand from the automobile and electrical steel industries, especially from China, which consumes about 60% of global FeSi, followed by Japan, South Korea, India, Europe and the US.

...structurally favourable supply dynamics as decarbonisation trend takes grip. The COVID-19 pandemic has disrupted supply among smelters globally, leading to a market shortage. Global decarbonisation efforts, especially by the US and China, will prolong the current global supply-demand imbalance as non-compliant smelters will be forced to shut down, restricting capacity expansion while supporting strong prices.

Strong prices to provide earnings surprises. We expect OMH to register stronger earnings for 2021-23, primarily supported by higher alloy prices. Alloys are expected to account for over 80% of 2021 net earnings. In 1Q21, Mn ore prices grew 39% yoy (US\$5.32/dmtu), FeSi prices jumped 44% yoy (US\$1,465/mt) and Mn alloy prices rose 19% yoy (US\$1,280/mt). This is mainly attributable to the ongoing commodities supercycle resulting from the pent-up demand and supply disruption due to the pandemic.

We see more room for immediate upside in the current price trajectory which could continue until at least 2H21, benefitting from returning demand amid the economic recovery, coupled with low inventory levels and slow supply response due to logistics disruptions and capacity resumption. Note that in Jun 21, FeSi and Mn alloy prices continue to climb to US\$1,865/mt and US\$1,400/mt respectively. While prices may ease gradually entering 2022, we believe prices will remain firm in the long run, albeit not at the current high, especially for Mn alloys as the supply cannot catch up with the increasing demand.

Leveraging on growing demand for steel. Ore and alloy prices move in tandem with steel prices as they are considered the primary inputs in steel manufacturing with no comparable substitute. This is reflected by the fact that 94% of global Mn alloy supply is used to make steel and iron. In 1Q21, hot rolled coil prices rose 74% yoy (to RM3,663/mt) while bar prices rose 64% yoy (to RM3,432/mt). According to the World Steel Association, steel demand from the world and ASEAN countries are projected to grow 5.8% and 6.2% respectively this year, supported by China's robust demand and the US' proposed \$1t infrastructure plan. OMH's proximity to major markets (ex-China) will give it a logistical advantage in the region.

Steel supply-demand dynamics should remain favourable even with potential curbs by China which recently announced its intention to limit speculation and soaring commodity prices that are near the highest levels in almost a decade. Recently, it has announced its plan to release copper, aluminium and zinc from its national reserves to improve market supply. Nevertheless, even with China's intervention, we believe the global supply-demand dynamics will still support lofty prices in the long term, albeit perhaps not at the current high.

LOW-COST ADVANTAGE OVER GLOBAL PEERS AND HEALTHY ESG PRACTICES

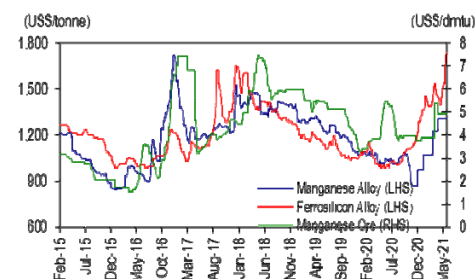
Clear cost price leader. OMH's smelters in Sarawak boast production costs that are in the lowest quartile in the world (fifth-largest FeSi producer, ex-China). This is due to the 20-year take-or-pay power purchase agreement with Sarawak Energy. This agreement provides OMH with 300MW of low-cost environmental-friendly hydropower. In general, about 8,500kwh is required to produce one tonne of FeSi, and about 3,500kwh for one tonne of Mn alloys. We estimate electricity costs at US\$0.04-0.06/kwh, with a 1.5-2.5% p.a. escalation (c.40% of the smelting cost). As a result, OMH is able to produce FeSi and Mn alloys at about US\$1,000/mt. This gives OMH a competitive advantage over its peers, enhancing its position. Comparable Chinese smelters run at a cost that is about 30% higher.

OMH stands to benefit from the rallying of selling prices as a result of strong demand growth.

Decarbonisation efforts by the US and China will caused a prolonged shortage of supply.

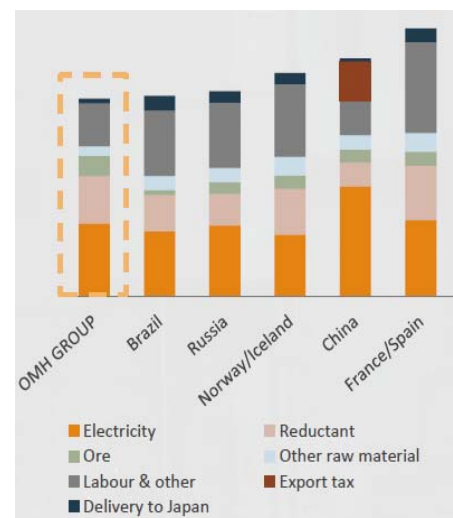
Sturdy alloy prices ahead will provide OMH with healthy margins and earnings visibility.

FIGURE 1: ALLOY AND ORE PRICES



Source: Bloomberg

FIGURE 2: FESI PRODUCTION COST COMPARISON



Source: OMH

Ahead of global competitors. For Mn alloy, OMH is in the first quartile of the global cash cost curve. We believe over time higher-cost producers like India and South Korea will feel more pressure from the rising cost of domestic electricity. For China, its environmental policy will force non-compliant smelters to shut down, reducing supply further. For FeSi, the global supply mostly comes from China, Brazil and Europe. However, China consumes most of its own supply. Moving forward, low electricity cost will be the key differentiator and OMH stands to be the beneficiary of this factor. Low costs in terms of power and labour, coupled with its proximity to markets like India and Japan, will make OMH the global leader.

Strong ESG integration in producing greener alloys. OMH is strategically positioned to reap the positive spillover effect of structural demand for environmentally-friendly commodities as: a) the US' proposed \$1t infrastructure plan will focus on green energy and decarbonisation, and b) China has committed to achieving carbon neutrality by 2060. OMH, via its subsidiary OM Materials (Sarawak) (OMS), managed to reduce CO₂ emissions by 2.2m mt p.a. by using hydropower at its smelters, which puts it ahead of most competitors. For this reason, Cahya Mata Sarawak (CMS), which owns 25% of OMS, was made a constituent of the FTSE4Good index. We hope OMH can follow suit now that it is listed in Malaysia. China's pro-green policies to curb high-emission smelters will further enhance OMH's competitive advantage as an eco-friendly Mn alloy smelter.

Outstanding growth in responsible investments. Environmental, social and governance (ESG) themes are gaining importance among investors. Based on Bursa Malaysia data, global assets under management (AUM) invested using sustainable strategies grew 35% to RM127.4t in just two years. As of Jan 21, there were 12 sustainable and responsible investment funds in Malaysia. According to Bloomberg Intelligence, global ESG assets are on track to exceed US\$53t by 2025, representing more than a third of the projected US\$140.5t in total AUM. OMH will benefit from the global trend of ESG investment thanks to its hydropower-centric smelters in Sarawak.

FUTURE EXPANSION TO ENSURE LONG-TERM EARNINGS GROWTH

Sustainable supply of Mn ores moving forward. OMH is working with various parties to ensure a continuous supply of Mn ores (Figure 5). This supply will complement OMH's main Mn ore mine, Bootu Creek Mine in Australia. Commencing mining operations in 2006, the mine's reserve life is expected to end in early-22. Thus, OMH is pursuing its last mile strategy to accelerate mining and production for this year. Production target for 2021 is 1m mt (vs historical average of 700,000mt/year). Thereafter, it will be able to sustain an additional 250,000mt/year of production for seven years via its Tailings Retreatment Project (TRP) that involves processing tailings material to produce a fine Mn product that is fed to its sinter plant. OMH is also exploring for manganese and quartz in Malaysia.

Planned capacity expansion for smelting operations in 2023 provides long-term earnings visibility. OMH plans to expand its smelting business' capacity growth significantly, yielding an additional 150,000mt/year of Mn alloys by end-23 via 2-4 33MVA-furnaces that are much bigger than the existing capacity. Historically, its smelting plant in Sarawak operates 16 25.5MVA furnaces, consisting of 10 FeSi units (capacity: 200,000-210,000mt/year) and 6 Mn alloy units (capacity: 250,000-300,000mt/year). Due to the pandemic, only 12 furnaces are in operation (6 FeSi and 6 Mn alloy) while the remaining 4 have been idled due to a shortage of skilled foreign manpower (Sarawak's borders remain closed). OMH plans to convert 2 of the idled furnaces to produce Mn alloys as it pivots towards Mn alloy production as Mn alloys offer:

- a) higher average returns over the full price cycle
- b) improved hedging ratio with ore
- c) stronger demand from a wider range of customers coupled with shortage of supply
- d) higher efficiency – more output (50,000mt/furnace vs 21,000mt/furnace for FeSi) with less manpower required

Diversification of product offerings to capture further growth potential. OMH will venture into silicon metal in 2022 to produce higher value-added products, which offer better margins. Silicon metal is generally used for manufacturing microchips, steel and solar cells. This marks OMH's first step in diversifying into the aluminium, chemicals and solar downstream industries. The silicon metal furnaces are expected to also be able to produce FeSi for more flexibility in terms of product mix.

Access to the long-term supply of low-cost electricity puts OMH's production costs in the lowest quartile globally.

OMH's smelters in Sarawak that run on eco-friendly hydropower help to reduce CO₂ emissions by 2.2m tonnes annually.

FIGURE 3: GROWTH OF PRINCIPLES FOR RESPONSIBLE INVESTMENT AUM



Source: Principles For Responsible Investment

FIGURE 4: BRYAH JV KEY MINING RESULTS

Hole No	Mn Intersection
HERC039	9 metres (24-33m) @ 22.6% Mn
HERC040	8 metres (23-31m) @ 22.0% Mn
HERC012	3 metres (2-5m) @ 33.8% Mn
HERC016	5 metres (2-7m) @ 24.2% Mn
HERC018	4 metres (1-5m) @ 25.8% Mn

Source: OMH

FIGURE 5: OMH'S MANGANESE ORE SUPPLY IN THE PIPELINE

Hole No	Mn Intersection
Element 25	Offtake agreement: 365,000 mt/year with grade of 30-35%
Great Sandy	Mining exploration: Rights of 80% over the Mn ores and iron minerals in the area
Bryah	Mining exploration: Entitled to 100% of the Mn ores in the area

Source: OMH

More furnaces with bigger capacities will further strengthen the company's earnings and margins in the future.

Product diversification ensures the organic growth of OMH in the long term.

Valuation

Initiate coverage with a BUY call and SOTP-based target price of RM3.27 (A\$1.05), implying 13x 2022F PE, close to its 5-year PE mean of 15x. We like the company for its: a) growth potential as it is in a sweet spot to benefit from the spillover effect of strong alloy prices from favourable structural demand; b) use of low-cost environmentally-friendly hydropower, putting it ahead of its global peers; and c) clear future plan to ensure earnings visibility. These factors will provide OMH with a strong net profit CAGR of 138.6% for 2020-23. We have not incorporated the abovementioned plans (new capacity and product offering) into our valuation. The completion of those plans will prompt a valuation re-rating.

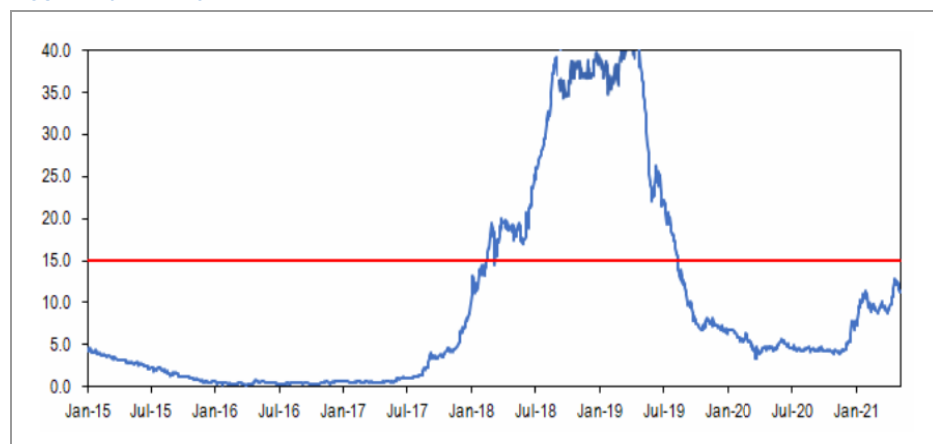
OMH is expected to achieve a robust earnings CAGR of 138.6% for 2020-23.

FIGURE 6: SOTP VALUATION

	Value (AU\$m)	Remarks
Core Business		
Mining – Australia	150.5	DCF @ 9%
Mining – South Africa	270.7	DCF @ 9%
Smelting – Malaysia	771.3	6x EV/EBITDA 2022F profit
Smelting – China	27.0	6x EV/EBITDA 2022F profit
FY22F net cash/(debt)	(450.0)	Projected debt in 2022F
Total RNAV	774.6	
RNAV/share	1.05	
Target Price (RM)	3.27	

Source: UOB Kay Hian. Currency conversion assumption: A\$1 = RM3.11 (based on Bank Negara Malaysia's exchange rate on the listing date).

FIGURE 7: 5-YEAR FORWARD PE



Source: Bloomberg

FIGURE 8: PEER COMPARISON

Company	Tickers	Rec	Share Price 22 Jun 21	Target Price	Market Cap (US\$m)	PE			ROE 2020 (%)	P/B 2020 (x)	Dividend 2022F (cent)	Dividend Yield 2022F (%)
						2020 (x)	2021F (x)	2022F (x)				
OM Holdings	OMH MK	BUY	RM2.83	RM3.27	457	126.3	15.0	10.5	1.2	1.4	1.2	1.4
Malaysia												
Press Metal	PMAH MK	BUY	RM4.78	RM6.30	9,292	40.3	29.6	23.8	11.8	9.4	17.0	3.2
Malaysia Smelting Group	SMELT MK	NOT RATED	RM1.95	n.a.	190	18.2	9.9	9.1	3.9	2.2	n.a.	n.a.
International												
Jupiter Mines	JMS AU	NOT RATED	AUD0.29	n.a.	427	6.2	8.3	11.3	22.8	1.4	2.5	8.6
Lynas Rare Earths	LYC AU	NOT RATED	AUD5.38	n.a.	3,630	(197.8)	43.5	19.9	(3.7)	7.5	0.0	0.0
South32	S32 AU	NOT RATED	AUD2.85	n.a.	10,080	(229.3)	21.5	13.0	(0.7)	1.6	n.a.	n.a.
Ferroglobe	GSM US	NOT RATED	USD5.31	n.a.	898	(3.3)	n.a.	n.a.	(42.1)	2.2	n.a.	n.a.

Source: Respective companies, Bloomberg, UOB Kay Hian

Earnings Outlook

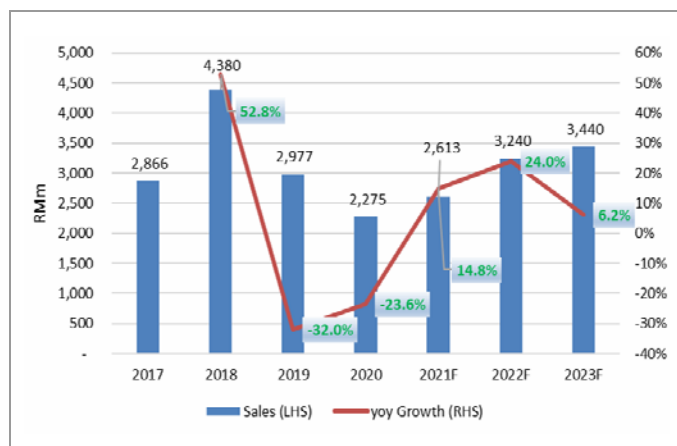
Strong earnings CAGR of 138.6% for 2020-23 coming off the low base in 2020. We expect OMH to achieve this growth on the back of strong commodity prices, robust structural demand and its future capacity expansion. Moving forward, with its access to the long-term supply of low-cost electricity in Sarawak, OMH is deemed the lowest-quartile-cost smelter operator in the world, enabling it to generate healthy margins throughout the market cycle. Expansion of smelters, a growing product mix and robust structural demand growth will continue to improve earnings and further strengthen OMH's financial position.

FIGURE 9: KEY ASSUMPTIONS

Year to 31 Dec	2021F	2022F	2023F
Production Volume (mt)			
- Mining (Australia) – Mn Ore	1,000,000	615,000	700,000
- Mining (South Africa) – Mn Ore	3,527,134	3,703,490	3,888,665
- Smelting (Malaysia) – FeSi Alloy	115,000	180,000	185,000
- Smelting (Malaysia) – Mn Alloy	170,000	300,000	350,000
- Smelting (China) – Mn Alloy	68,597	85,000	90,000
ASP – Mn Ore (US\$/dmu)	5.15	4.70	4.50
ASP – FeSi Alloy (US\$/mt)	1,500.0	1,300.0	1,250.0
ASP – Mn Alloy (US\$/mt)	1,400.0	1,200.0	1,150.0
Core Earnings (RMm)	117.3	167.3	189.6

Source: UOB Kay Hian

FIGURE 11: SALES AND YOY GROWTH



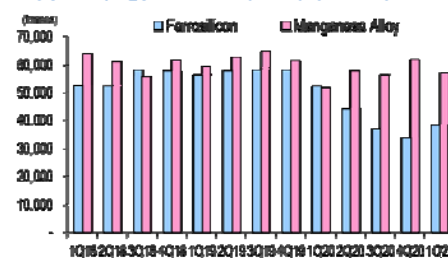
Source: OMH, UOB Kay Hian

Mining – Australia. For 2021-23, gross profit contribution from OMH's Australian unit could grow to RM145m/106.0m/123m respectively from RM35m in 2020. Note that Bootu Creek Mine's reserve life is coming to an end in 2021 so the company is ramping up production as its last mile strategy. From 2022 onwards, OMH will obtain its Mn ore supply from Element 25 for 365,000mt/year and another 250,000mt/year from its Ultra Fines Plant (UFP). Production will be further strengthened once its mining exploration with other mining companies bears fruit in the coming years.

Mining – South Africa. We assume Tshipi Borwa Manganese Mine (Tshipi) would make a profit of RM671m/RM691m/RM711m over 2021-23, and ultimately contribute RM87m/RM89m/RM92m to OMH (13% share) over the period.

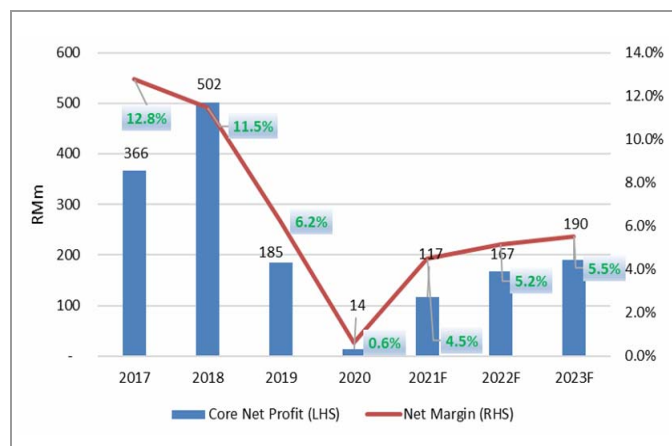
The key element that will provide OMH with healthy margins is its access to long-term supply of low-cost power.

FIGURE 10: QUARTERLY SALES OF ALLOY



Source: OMH

FIGURE 12: CORE NET PROFIT AND MARGIN



Source: OMH, UOB Kay Hian

A sustainable supply of Mn ores will ensure a healthy profit contribution from OMH's mining operations in Australia.

The strategic stake in Tshipi will further boost OMH's earnings moving forward.

Smelting – Malaysia. With the rising number of COVID-19 infections and continued implementation of the Movement Control Order (MCO) in Malaysia, we assume OMS' 6 FeSi furnaces and 6 Mn alloy furnaces will be operating in 2021 (following the utilisation rates during MCO 1.0 in 2020). Meanwhile, our ASP assumptions for FeSi and Mn alloys are US\$1,500/mt and US\$1,400/mt respectively, riding on the commodities supercycle. In addition, with the plants in Malaysia being temporarily shut down due to the growing number of COVID-19 cases, we assume zero production for three months in 2021. For 2022-23, we assume the 2 idled FeSi furnaces will resume full operations, bringing the total to 8 FeSi furnaces in operation. For Mn alloy, we assume another 2 idled furnaces have been successfully converted into Mn alloy furnaces.

Based on these assumptions, we forecast OMS would generate net profit of RM85m/RM123m/RM131m for 2021-23, and ultimately contribute RM63m/RM92m/RM98m to OMH as the company holds 75% of OMS while CMS owns the remaining shares. Based on our sensitivity analysis, every US\$100/mt increase in our forecasts for FeSi and Mn alloy prices could raise OMH's 2021-23 earnings by about RM140m.

Smelting – China. For 2021-23, we assume gross profit contribution of RM20m/21m/22m respectively, up from RM2m in 2020. Note that OM Materials (Qinzhou) Co (OMQ) has upgraded its furnaces this year and will have a capacity of 80,000-95,000mt of Mn alloys p.a.

Estimated payout ratio of 15%. OMH does not have a dividend policy. However, it paid 13-20% of its core net profit as dividends in 2018-19. Taking into consideration OMH's focus on paring down borrowings and hence net gearing, we conservatively assume a 15% payout for 2021-23, which translates into yields of 1.0-1.8%.

Despite short-term challenges posed by the pandemic, OMH's smelting business is expected to generate strong earnings ahead.

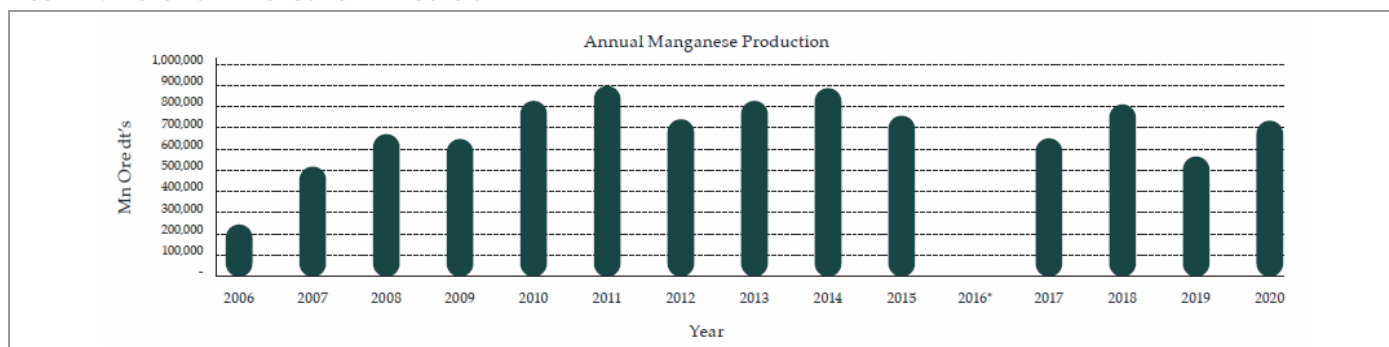
Profit contribution from its smelting operation in China will support its long-term earnings visibility.

FIGURE 13: HISTORICAL PRODUCTION OF FESI AND MN ALLOY

Product (tonnes)	Years ended 31 December				
	2020	2019	2018	2017	2016
Production					
Ferrosilicon (FeSi)	167,443	230,735	220,515	174,540	126,261
Manganese Alloys (SiMn, HCFMn)	227,406	248,163	242,341	173,911	876

Source: OMH

FIGURE 14: HISTORICAL PRODUCTION AT BOOTU CREEK MINE



Source: OMH

Industry Outlook

MANGANESE ALLOY

Mn alloy is a mixture of metals and metalloids combined with Mn. It is a key input for the production of steel as steel accounts for 94% of global Mn alloy consumption. Almost all steel will have 0.2-2.5% of Mn that helps to desulphurise and strengthen steel. While there are various types of Mn alloys in the market, the three main ones are high carbon ferromanganese (HCFMn), refined ferromanganese (MCFMn) and silicomanganese (SiMn). They vary in terms of their Mn, carbon, silicon and iron content. Note that OMH produces only HCFMn and SiMn. The entry barriers to the Mn alloy market are higher than those for FeSi as Mn ores are more scarce and expensive than FeSi's raw materials.

Due to its reliance on steel market, OMH's growth is largely driven by global steel consumption. In 2020, SiMn and HCFMn production totalled 14.6m mt and 4.1m mt respectively, with OMH accounting for 3.8% of the market shares (top 10) ex-China. HCFMn is mostly produced by South African and Asian players for use in flat steel products. For SiMn, it is preferred by China as it can be used in long steel and also can be produced from lower-grade (cheaper) Mn ores. This is proven as China alone accounts for 71% of global SiMn production, most of which is for its own consumption. Lately, the market has seen a shift in production activities towards Asian countries due to high demand and cheap labour. This was evident when South Africa reduced its production of Mn alloys from 880,000 to 400,000 mt in 2014-18 while production in Malaysia jumped from 80,000 to 600,000 mt. Other Mn alloy players in Malaysia are Pertama Ferroalloys and Sakura Ferroalloys, which produce SiMn and HC FeMn respectively.

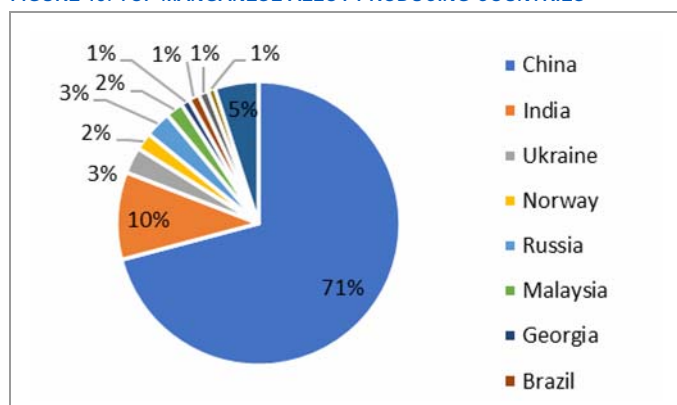
The global steel market is projected to grow 2.5% to US\$963b by 2027. Moving in tandem, the Mn alloy market is expected to achieve a CAGR of 7.4% by 2027, reaching US\$52.0m. This growth is supported by pump-priming activities and accommodative fiscal policies as the world economy starts to rejuvenate itself post-pandemic peak, led by superpowers such as China and the US. In addition to its traditional target segments of construction and infrastructure industries, Mn alloys are also increasingly being used in automobiles, dry cell batteries, chemicals, fertilisers, animal feed and dyes, which will provide further growth potential. With Malaysia emerging as the new production hub for Mn alloy, domestic production is expected to grow robustly by 2030, driven by higher demand from Asian countries. OMH's key customers are mainly from ASEAN, Japan, South Korea and Taiwan.

More than 90% of demand for Mn alloys comes from steel production.

The growth of Mn alloy output is driven by global steel demand.

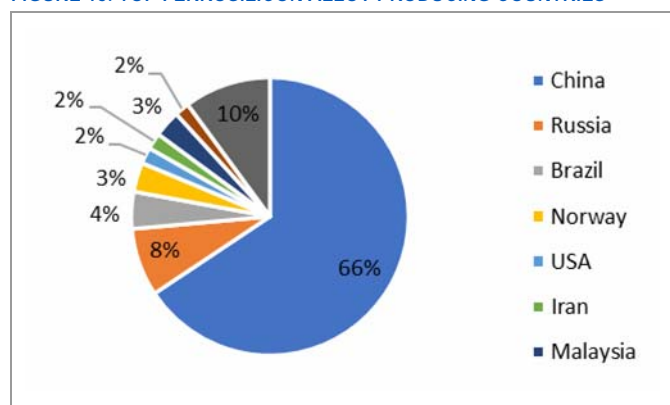
The Mn alloy market is expected to benefit from the global expansionary fiscal policy.

FIGURE 15: TOP MANGANESE ALLOY PRODUCING COUNTRIES



Source: AlloyConsult

FIGURE 16: TOP FERROSILICON ALLOY PRODUCING COUNTRIES



Source: AlloyConsult

FERROSILICON

FeSi is used mainly to deoxidise, improve electrical conductivity, provide corrosion resistance and preserve the carbon content in steel. 70% of global FeSi consumption is from steel, while the remainder is used in cast iron and magnesium production. Due to global overcapacity, FeSi prices are driven by cost and not so much by demand, in contrast to Mn alloys which are in shortage and almost always cheaper than FeSi. For the past decade, FeSi use has been declining gradually as more companies utilise more SiMn instead. This is one of OMH's main reasons for pivoting towards Mn alloy production moving forward.

Global FeSi output was 6.4m mt in 2020 (2.2m mt ex-China). The FeSi market is projected to grow at a 1.0% CAGR (US\$11b) by 2030, driven by increasing demand from the automobile and electrical steel industries, especially from China, which consumes and produces about 60% of global FeSi, followed by Japan, South Korea, India, Europe and North America. However, we expect China to trim production gradually because recently, FeSi production in China has been subjected to increasingly stringent government policies on emissions, including plans to phase out furnaces rated below 25MVA. OMH is the fifth-largest FeSi producer globally (ex-China), accounting for 7.6% of the market (ex-China) in 2020.

Similar to Mn alloy, FeSi alloy prices experienced a sharp surge towards end-20, as the global market tightened and production costs rose. A faster-than-expected demand recovery, especially from China, was also crucial in contributing to stronger prices well into 1Q21. In addition, increases in raw materials prices and freight costs pushed prices higher. Note that OMH is in the first cost quartile globally (ex-China). Despite the robust demand, global supply remains subdued. Production is still struggling to return to pre-COVID levels and match current demand, and is expected to further raise prices that will incentivise production and lead to supply-demand balance, as consumption rebounds. Recently, the US has imposed final duties of 12.27% on all silicon metal imports from Malaysia. However, there is no immediate impact to OMH as silicon metal is not part of its product offerings.

MANGANESE ORE

Mn ores are used to produce SiMn, ferromanganese and electrolytic manganese metal, which are then used in the crude and stainless steel markets. 90% of demand for Mn ores comes from the production of Mn alloys. Mn ores are also used in the manufacturing of aluminium alloys, battery cathodes, chemicals, fertilisers and animal feed. Note that Mn is the fourth most consumed metal in the world. Global Mn ore output was 20.1m mt in 2020.

Mn ores mostly come from South Africa and Australia. China's Mn ores are generally of a lower grade (13% vs industry average of 30%) and insufficient to even meet its local demand. Mn ore prices are driven by supply-demand tied to global steel market. Although Mn ore prices followed the same uptrend as FeSi and Mn alloys in 2Q20 given concerns over future supply caused by the pandemic, prices started to stabilise from 3Q20 onwards as South African mines resumed operations faster than expected post-lockdown while Australian mines were relatively unaffected. Hence, even with the strong demand from China, supply is able to keep up, with stocks at Chinese ports reaching record levels and peaking in Dec 20.

OMH is the 14th-largest Mn ore producer globally, accounting for 1.0% of market share in 2020, while its associate Tshipi is the 6th-largest producer. The Mn ore market is expected to achieve a CAGR of 3.1% by 2030, primarily driven by the growth of steel, cathode chemistries and battery technologies for electric vehicles, particularly nickel-metal hydride (NiMH), lithium-ion (Li-ion) batteries and lithiated manganese dioxide (LMD) batteries. Barriers to entry remain high as it is more capital-intensive to locate and operate reserves.

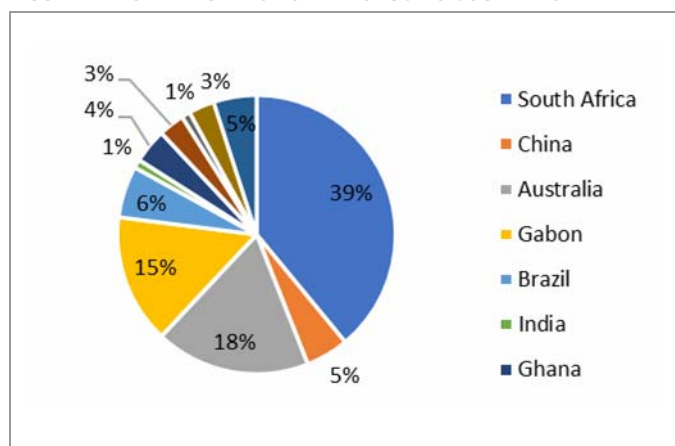
FeSi's growth will be driven by demand from the automobile and electrical steel industries.

Prices of FeSi and Mn alloys are supported by the robust demand from China, coupled with the current supply shortage.

Mn ore prices stabilised faster than those of FeSi and Mn alloys due to the swift supply recovery.

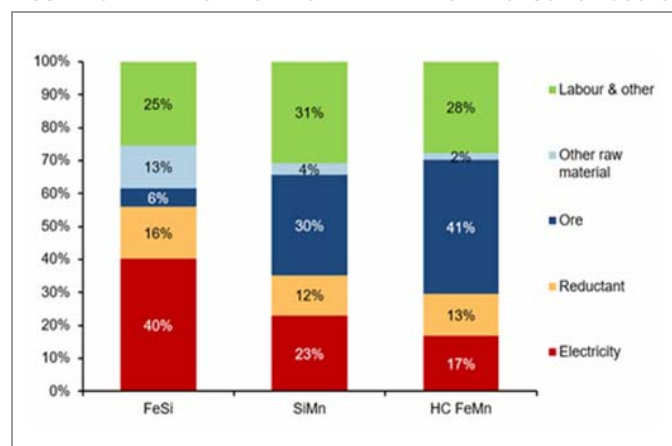
Mn ore's growth will be driven by demand for steel, cathode chemistries and battery technologies.

FIGURE 17: TOP MANGANESE ORE PRODUCING COUNTRIES



Source: AlloyConsult

FIGURE 16: BREAKDOWN OF FESI AND MN ALLOY PRODUCTION COSTS



Source: OMH

Financial Statements

FIGURE 19: PROFIT & LOSS

Year to 31 Dec (RMm)	2019	2020	2021F	2022F	2023F
Net turnover	2,977	2,275	2,613	3,240	3,440
EBITDA	317	164	245	317	344
Depreciation & Amortisation	(141)	(142)	(112)	(132)	(143)
EBIT	176	22	134	186	201
Associate Contributions	88	48	87	90	92
Net Interest Income/(Expense)	(93)	(84)	(75)	(68)	(58)
Pre-tax Profit	171	(14)	146	208	235
Tax	(8)	5	(22)	(31)	(35)
Minorities	2	24	(6)	(9)	(10)
Net Profit	164	16	117	167	190
Net Profit (Adjusted)	185	14	117	167	190

Source: OMH, UOB Kay Hian

FIGURE 20: BALANCE SHEET

Year to 31 Dec (RMm)	2019	2020	2021F	2022F	2023F
Fixed Assets	2,025	1,777	1,913	2,116	2,279
Other LT Assets	492	502	277	34	(209)
Cash/ST Investment	185	183	191	117	169
Other Current Assets	785	826	946	1,169	1,240
Total Assets	3,488	3,287	3,327	3,436	3,480
ST Debt	256	368	368	368	368
Other Current Liabilities	381	499	540	664	704
LT Debt	1,118	836	749	604	459
Other LT Liabilities	260	226	211	195	179
Shareholders' Equity	1,232	1,159	1,267	1,422	1,597
Minority Interest	241	199	192	183	173
Total Liabilities & Equity	3,488	3,287	3,327	3,436	3,480

Source: OMH, UOB Kay Hian

FIGURE 21: CASH FLOW

Year to 31 Dec (RMm)	2019	2020	2021F	2022F	2023F
Operating	286	222	183	210	311
Pre-tax Profit	171	(14)	146	208	235
Tax	(8)	5	(22)	(31)	(35)
Depreciation & Amortisation	141	142	112	132	143
Working Capital Changes	117	85	(53)	(99)	(32)
Other Operating Cashflows	(134)	0	-	-	-
Investing	(121)	(31)	(30)	(117)	(88)
Capex (Growth)	(19)	(4)	(30)	(117)	(88)
Investments	0	0	-	-	-
Proceeds from Sale of Assets	(222)	(45)	-	-	-
Others	120	18	-	-	-
Financing	(254)	(192)	(102)	(167)	(170)
Dividend Payments	(68)	(21)	(15)	(22)	(25)
Issue of Shares	0	0	-	-	-
Proceeds from Borrowings	67	38	-	-	-
Loan Repayment	(196)	(96)	(87)	(145)	(145)
Others/Interest Paid	(57)	(112)	-	-	-
Net Cash Inflow (Outflow)	(88)	0	50	(75)	53
Beginning Cash & Cash Equivalent	223	142	141	191	117
Changes Due to Forex Impact	0	0	-	-	-
Ending Cash & Cash Equivalent	136	133	191	117	169

Source: OMH, UOB Kay Hian

FIGURE 22: KEY METRICS

Year to 31 Dec (%)	2019	2020	2021F	2022F	2023F
Profitability					
EBITDA Margin	10.6	7.2	9.4	9.8	10.0
Pre-tax Margin	5.7	(0.6)	5.6	6.4	6.8
Net Margin	6.2	0.6	4.5	5.2	5.5
ROA	5.3	0.4	3.5	4.9	5.5
ROE	13.3	1.2	9.3	11.8	11.9
Growth					
Turnover	(32.0)	(23.6)	14.8	24.0	6.2
EBITDA	(59.8)	(48.2)	49.6	29.3	8.3
Pre-tax Profit	(75.1)	(107.9)	(1,178.5)	42.7	13.0
Net Profit	(63.1)	(92.5)	740.5	42.6	13.3
EPS	(67.4)	(91.5)	740.5	42.6	13.3
Leverage					
Debt to Total Capital	(0.4)	(0.4)	(0.3)	(0.3)	(0.2)
Debt to Equity	(1.1)	(1.0)	(0.9)	(0.7)	(0.5)
Net Debt/(Cash) to Equity	1.0	0.9	0.7	0.6	0.4
Interest Cover (x)	1.9	0.3	1.8	2.7	3.4

Source: OMH, UOB Kay Hian

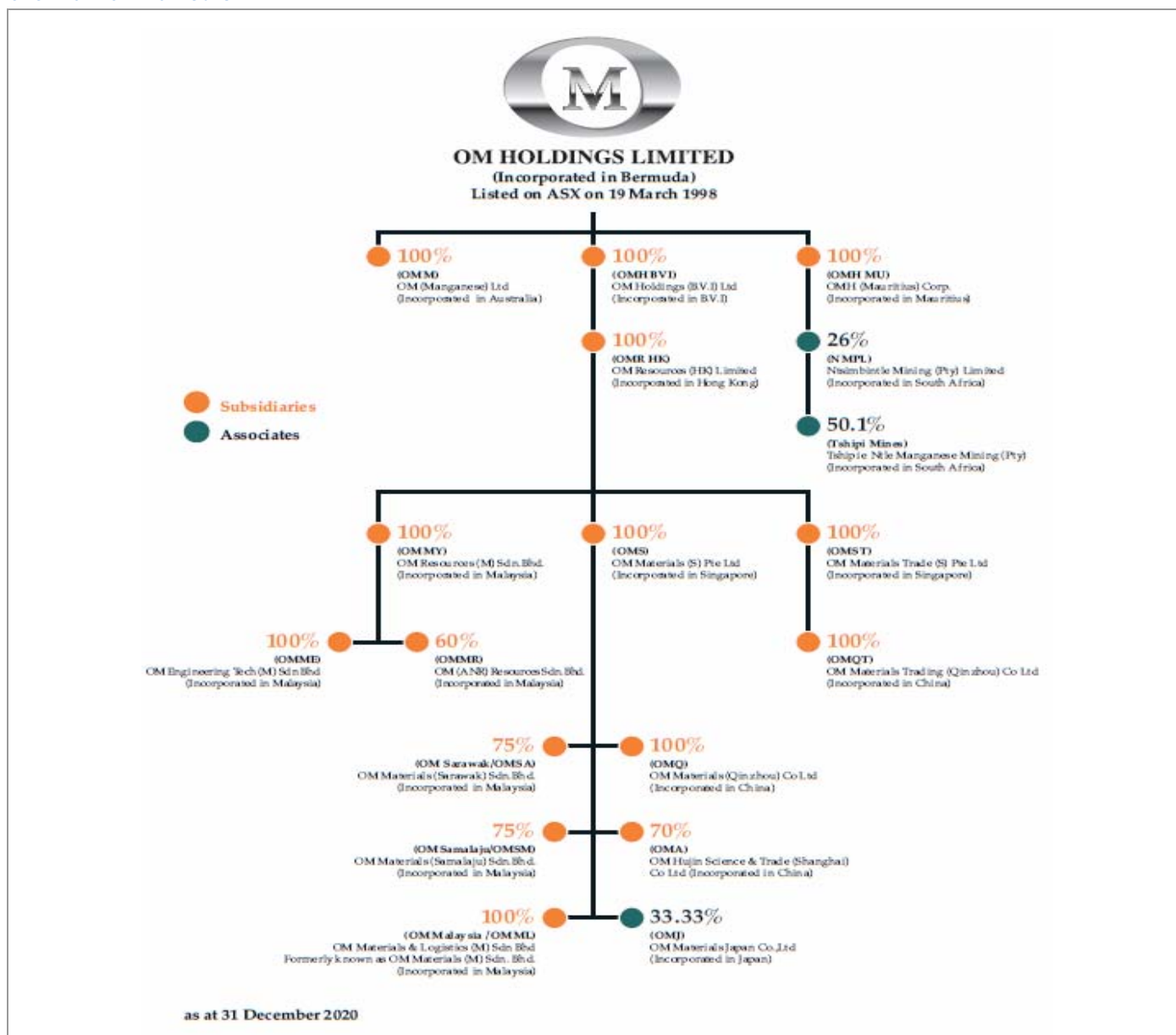
Appendix I: Risk Factors

- a) **Commodity prices.** As OMH mainly produces Mn and FeSi alloy, it is susceptible to fluctuations in global alloy prices as they are closely linked to steel prices which are known for their volatility. For example, China has announced its plan recently to limit its soaring commodity prices by releasing some commodities such as copper, aluminium and zinc from its national reserves by batches every month-end until end-21 to improve market supply. As such, OMH might suffer from thin margins or even losses, should prices plunge. OMH also faces the risk of cost escalation in terms of raw materials. Prices of raw materials tend to move in tandem with prices of Mn and FeSi alloy, but there are times when prices of raw materials rise more than the ASP of alloys due to their own supply-demand imbalance. This could put pressure on OMH's margins. However, OMH enjoys significant cost advantages over its global peers due to its lower cost of electricity. We estimate its net profit breakeven point at an all-in price of about US\$1,000/mt.
- b) **Prolonged pandemic outbreak.** OMH's smelting operation in Malaysia (Sarawak) was badly impacted by the pandemic last year with the implementation of MCO that placed restrictions on its operating hours and manpower deployment. Revenue and earnings dropped 24% and 92% yoy respectively as a result. Currently, due to the rising number of COVID-19 cases, Malaysia has entered another lockdown, which may put further pressure on OMH's production. The MCO might be lifted in 2H21, which will help improve OMH's performance. Conversely, any prolonged restrictions will hamper its recovery.
- In Apr 21, some of OMH's on-site employees tested positive for COVID-19, resulting in a temporary shutdown until all the remaining employees test negative (at least for two weeks). This will lower production and hurt OMH's earnings for 2021.
- c) **Currency risk.** Operating in about five countries with a heavy reliance on the US dollar may expose the company to the volatility of the foreign exchange market. OMH stands to benefit from the strengthening of the greenback against the ringgit, but a sharp depreciation of the greenback against the ringgit will hurt OMH's earnings.
- d) **Electricity supply.** An uninterrupted and reliable power supply is crucial for OMH's smelting operations. Should the power supply shut down for a few hours, it will be costly and time-consuming to restart production. This will disrupt OMH's operations, hurting both its top-line and bottom-line for the year.

Appendix II: Company Background

OMH is a vertically-integrated Mn ore and ferroalloy company, engaged in the business of mining and trading raw ores together with the smelting and marketing of processed ferroalloys, namely ferrosilicon and Mn alloys. Founded in 1993, OMH has a reputable track record of over 20 years in the industry. In 1998, OMH was listed on the ASX in Australia to capture further value across the entire process chain in Australia, China, Japan, Malaysia, Singapore and South Africa. OMH's greenfield flagship asset, which is its smelting plants in Sarawak, Malaysia, commenced operation in 2014. Access to the long-term supply of low-cost electricity at the Sarawak smelters makes OMH the lowest-quartile-cost Mn alloy smelter operator in the world, providing it with healthy margins. Today, OMH is among the world's leading Mn ore and ferroalloy suppliers with mining operations in Australia and South Africa and smelting businesses in China and Malaysia.

ORGANISATIONAL STRUCTURE



Source: OMH

MINING

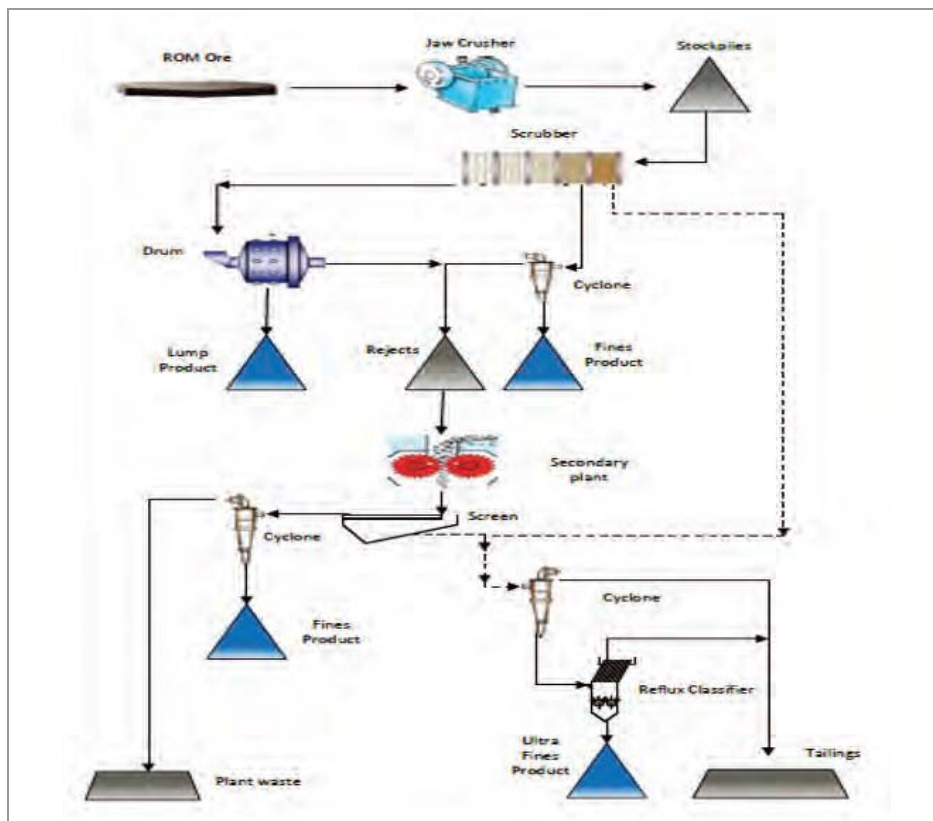
Australia. OM (Manganese) Ltd (OMM) is a wholly-owned subsidiary of OMH. Its core business is the exploration and mining of Mn ores at Bootu Creek Mine, which is located 110km north of Tennant Creek in the Northern Territory of Australia. OMM's administration office is located in Perth.

Exploration and development of Bootu Creek Mine began in Sep 01. Mining operations commenced in Nov 05 while the first batch of ores was processed in Apr 06.

The mine utilises the conventional open-cut method of mining, blasting and excavation using hydraulic excavators and dump trucks. It is a crushing and screening operation, followed by heavy media separation (HMS) to concentrate the Mn minerals. The mine has two processing plants: a) a primary processing plant (PPP), which was commissioned in 2006 and helps process the Run of Mine (ROM) ores; and b) a secondary processing plant (SPP) that was commissioned in Dec 09 and helps process drum plant rejects and washed fines from the PPP, as well as stockpiled drum plant rejects. The combined production capacity of these two plants is about 1m mt/year.

In addition, the TRP helps process tailings material in producing a fine Mn product to feed its sinter plant. While the life of Bootu Creek Mine is expected to come to an end this year, the TRP will be able to contribute an additional 200,000-300,000mt/year, effectively increasing the mine's life to 2027. Bootu Creek Mine's area contains Mn deposits located along the western and eastern limbs of the Bootu syncline. The individual mineralised horizons are generally strata-bound in character and can persist over strike lengths of up to 3km. The Mineral Resources defined to date at the project are long shallow, gently dipping deposits amenable to open-pit mining. The Renner Springs Project's area is about 70km northwest of Bootu Creek Mine's site, covering an extensive dolomite-siltstone sequence which hosts several shallow dipping and flat lying Mn occurrences.

BOOTU CREEK MINE'S MANGANESE PROCESSING PLANT SCHEMATIC



Source: OMH

The main mineral lease (ML24031) is in the Bootu Creek area on pastoral leases, where the mining and processing operations are based and where the currently defined Mineral Resources (excluding Renner West deposit, located on EL28041) and Ore Reserves have been identified. A preliminary feasibility study of the Renner West Inferred Resource commenced last year with a view to upgrading the deposits to Ore Reserves status. It is located about 70km northwest of Bootu Creek Mine, covering an extensive dolomite-siltstone sequence which hosts several shallow dipping and flat lying Mn occurrences.

Mn products from the mine site are transported 60km to the Muckaty Rail Siding on a sealed private road and then 800km to the Port of Darwin via the Alice Springs to Darwin rail line. Mn products are stockpiled at the rail head at the Port of Darwin prior to being transported to the port ship loader and loaded onto vessels for shipping overseas. The FOB Darwin price of A\$4.52/dmtu, as used for the 31 Dec 20 Ore Reserves for a 26% Mn product grade, was reduced from the A\$6.62/dmtu applied to a 35% Mn product grade for the 31 Dec 19 Ore Reserves. The current lower product grade is a function of fresher ores being harder to beneficiate..

For 2021, mining will continue in the eastern limb in Chugga Far North E and F and the Shekuma 8 deposits, with planned cutbacks at the Masai 5 and Zulu South pits later in the year. The mining operational requirement will be reduced to 2 digger fleets and 8 haul trucks for the rest of the year. This will result in lower mining costs, with the possibility of revisiting the strategy if the market becomes more favourable. Higher-grade ores from the Shekuma and Chugga Far North pits combined with additional lower-grade Mn ore, which was previously defined as waste, will form the base plant feed for 2022, maintaining the current processing plants' mass yields. The current Indicated Mineral Resources for Tourag will be revised, and the Masai 5 and Zulu South deposits will be upgraded to Ore Reserves status in 2021, subject to satisfactory geotechnical assessment and optimised pit designs. For 2020, 637,873 tonnes of Mn products were exported through the Port of Darwin, with an additional 4,858 tonnes sold domestically.

ULTRA FINES PLANT



Source: OMH

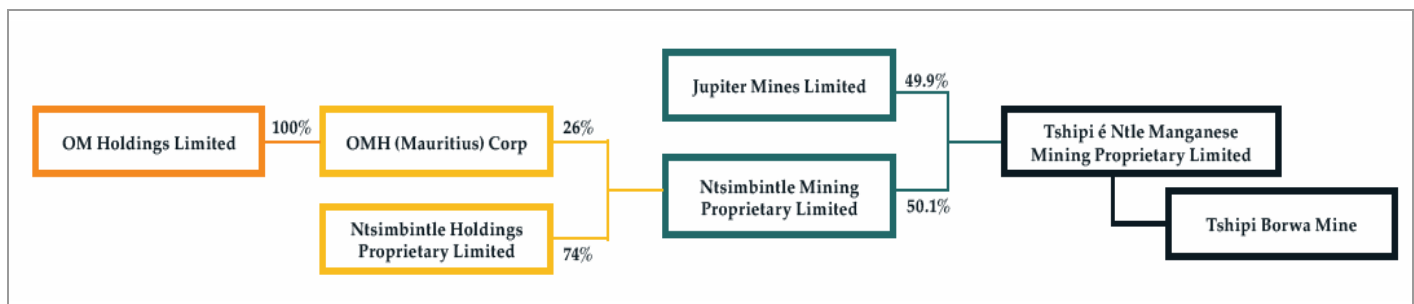
South Africa. OMH has an effective 13% stake in the tier-1 Tshipi in South Africa, the largest world-class, low-cost, long-life Mn mine in South Africa in terms of production and exports, and one of the five largest Mn mines in the world. OMH's stake in Tshipi is via its 26% strategic partnership with Ntsimbintle Holdings Proprietary, the majority 50.1% owner of Tshipi. The remaining 49.9% share is owned by Jupiter Mines, an Australian-listed mining company. Tshipi began exporting Mn ores in Oct 12, including both lumps and fines.

Tshipi owns a Mn property in the Kalahari Manganese Field in the Northern Cape of South Africa. The Kalahari Manganese Field, which is 35km long and 15km wide, is the largest Mn-bearing geological formation in the world. Tshipi Borwa Mine is an open pit Mn mine with an integrated ore processing plant. As of 29 Feb 20, Tshipi Borwa Mine had a total Mineral Resources estimate of 427m mt in accordance with JORC Code (2012). In 2020, 3,359,175 tonnes of Mn ores were exported. Tshipi Borwa Mine is located on the southwestern outer rim of the Kalahari Manganese Field, hence the ore resources are shallower and more amenable to open pit mining.

The Tshipi Borwa ore body commences at a depth of 70m below the surface and the ores are contained within a 30m-45m thick mineralised zone which runs along the entire Borwa Property. The ore layer dips gradually to the northwest at about 5 degrees. Tshipi's strategy is to mine and process the lower 15m of the mineralised zone, commonly known as the bottom cut, as it bears higher-grade ores. A portion of the upper 15m mineralised zone, referred to as the top cut, is planned to be stockpiled for possible use later.

Mining at Tshipi is a relatively simple truck and shovel open cast operation. Once exposed, the Mn ores are drilled, blasted and loaded onto trucks and hauled to the main ROM stockpile. The ROM stockpile feeds the processing plant which is designed to treat 3.3m-3.6m tonnes p.a. of Mn ores. These products are stockpiled before loading through a state-of-the-art load-out station onto railway trains or road trucks. Inland transportation of Mn products from the mine site is carried out by rail, and complemented by a combination of road and rail solutions to increase logistics capacity. Tshipi's products are then exported through: a) the Port Elizabeth bulk terminal; b) the Port Elizabeth multi-purpose terminal; or c) the Saldanha multi-purpose terminal. Current expected life of the mine is 29 years based on total ore reserves estimate of 86.4mt.

TSHIPI OWNERSHIP STRUCTURE



Source: OMH

SMELTING

Malaysia. OMS and OM Materials (Samalaju) Sdn Bhd, which are 75:25 JVs between OMH and CMS, a public-listed listed company on Bursa Malaysia, own the smelting plant in Sarawak, Malaysia. The plant consists of 16 25.5MVA furnaces, of which 10 furnaces are allocated for the production of FeSi and 6 for Mn alloys. Originally, it had a design production capacity of 200,000-210,000mt of FeSi and 250,000-300,000mt of Mn alloys a year. The smelting complex consists of a sinter plant that has a design production capacity of 250,000mt of sinter ores per year.

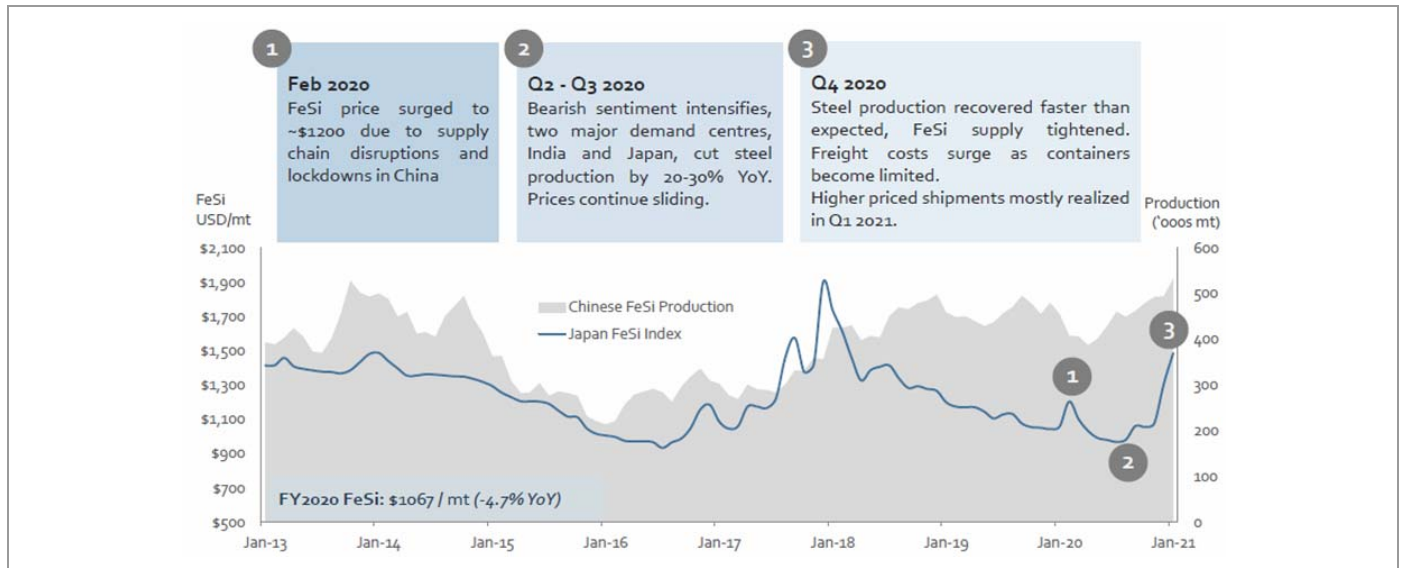
The key value driver of the Sarawak smelters is the 20-year take-or-pay power purchase agreement that provides 300MW of stable and very low-cost hydropower to the complex. The smelters have reportedly secured power at US\$0.04/kwh for 25 years with a 1.5% p.a. price escalation. Electricity accounts for 40-45% of the cost of smelting. A long-term low price for a key input places OMH at the bottom of the cost curve, giving it a significant advantage over competitors. We believe comparable Chinese smelters run at a cost that is about 30% higher than that in Sarawak. OMH also enjoys a tax holiday until 2028, adding to the Sarawak smelters' competitive edge.

OM SARAWAK SMELTING COMPLEX



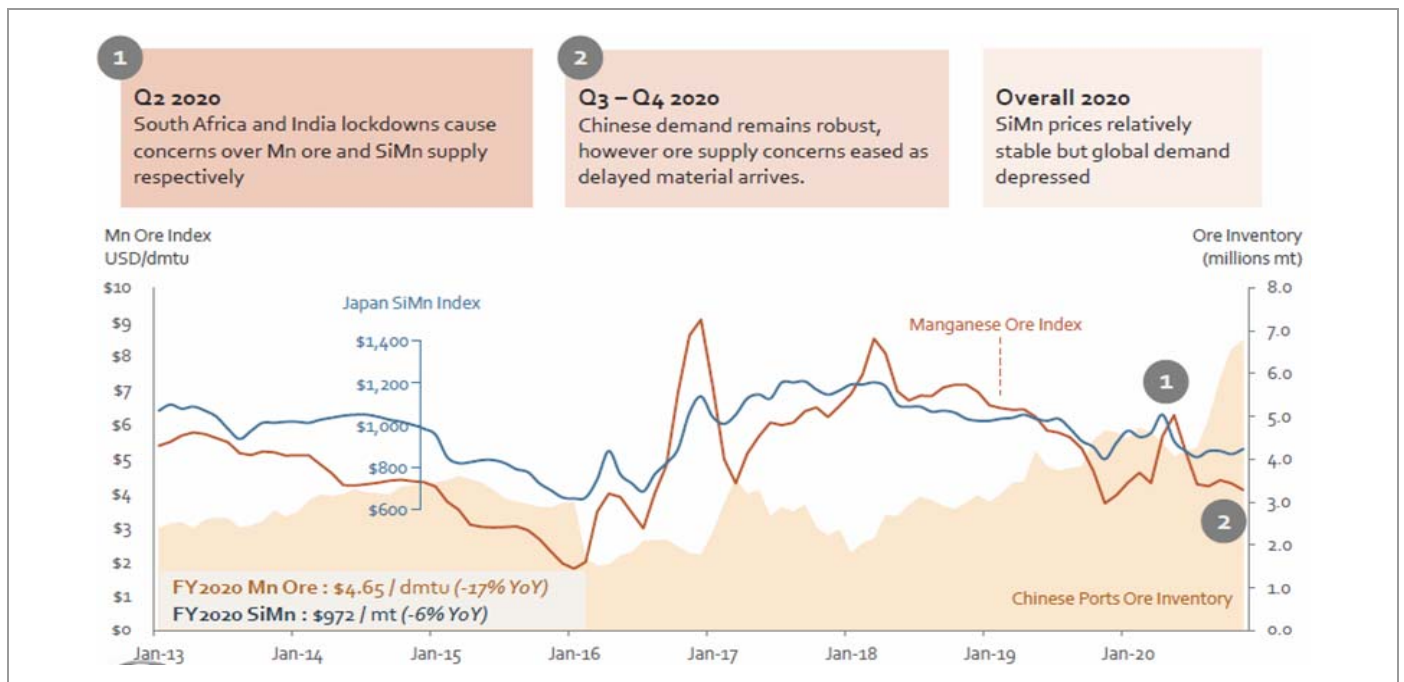
Source: OMH

HISTORICAL TIMELINE FOR FERROSILICON ALLOY



Source: OMH

HISTORICAL TIMELINE FOR MANGANESE ALLOY



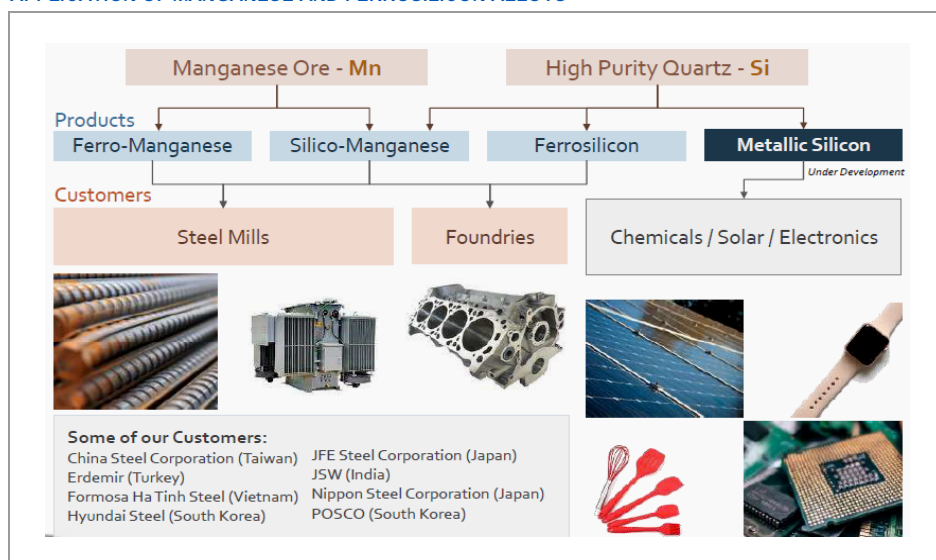
Source: OMH

China. OMQ is OMH's wholly-owned subsidiary that operates smelters in Qinzhou. The smelting plant was built and designed using in-house engineering capabilities. Construction commenced in 2002 and first production began in 2004.

The Qinzhou ferroalloy smelters in China have a production capacity of 80ktpa of HCFemn and 300ktpa of Mn sinter ores. The smelters are located about 1km from Qinzhou port and is in the Qinzhou Port Economic Development Zone Jingjiang Industrial Park, which provides OMQ with an advantage in accessing imported raw materials and gives OMH a footing in the Chinese market. Intangible benefits of the operation include market intelligence and insight into smelter economics in China, as well as access to skilled labour familiar with smelting operations.

OMQ's plant consists of 1 25.5MVA furnace, 1 16.5MVA furnace and 21 36m² sinter lines, with a closed furnace design that enables the recycling of fuel gases for sintering. OMQ has won accolades from local and regional authorities for its performance in safety, innovation, and economic contribution. Prior to China levying an export tax on ferroalloy exports, OMQ was recognised as the second-largest exporter in Qinzhou for four years running.

APPLICATION OF MANGANESE AND FERROSILICON ALLOYS



Source: OMH

HISTORICAL SALES BY GEOGRAPHICAL SEGMENT

	2020	2019	2018	2017	2016
Region	%	%	%	%	%
Asia Pacific	86.1	83.6	82.1	77.0	93.2
Europe	5.5	7.7	9.8	12.2	3.6
Middle East	6.3	3.9	5.5	6.1	1.6
Africa	0.4	0.2	0.1	0.7	0.2
Others	1.7	4.6	2.5	4.0	1.4
Total	100.0	100.0	100.0	100.0	100.0

Source: OMH

BOARD OF DIRECTORS

Low Ngee Tong – Executive Chairman & CEO. A qualified mechanical engineer, he graduated from the National University of Singapore and has over four decades of experience in the steel, ferroalloy and building materials industry in Asia. His experience was gained with Chiyoda, a global Japanese civil engineering group, Intraco, Intraco Resources, and C Itoh, a significant Japanese metals trading house. Mr Low has a significant marketing network in China and globally. He founded OMH and held the position of CEO from incorporation to the subsequent listing on ASX in 1998. In 2008, he became the Executive Chairman of OMH. Mr Low's business relationships with and reputation among multinational corporations in Asia have enabled OMH to successfully base its profitable operations in Singapore and expand into China, Malaysia, South Africa and Australia.

Zainul Abidin Rasheed – Independent Deputy Chairman. He graduated with a Bachelor of Arts (Honours) degree in Economics and Malay Studies from the University of Singapore. Besides an extensive career in journalism, he served as Member of Parliament of Singapore and in a number of government agencies. He was also Non-resident Ambassador to the State of Kuwait and the Foreign Minister's Special Envoy in the Middle East. Mr Zainul Abidin is a member of OMH's Audit and Remuneration Committees.

Julie Wolseley – Independent Non-Executive Director & Joint Company Secretary. She holds a Bachelor of Commerce degree and is a Chartered Accountant. She has over 29 years' experience as Company Secretary to a number of ASX-listed companies operating primarily in the resources sector. Previously an audit manager in Australia and overseas for an international accounting firm, Ms Wolseley is also a board member of Aquinas College in Perth, Australia. Ms Wolseley is a member of OMH's Audit and Remuneration Committees.

Tan Peng Chin – Independent Non-Executive Director. He founded Tan Peng Chin LLC, a Singapore-based law firm, and was formerly its MD and consultant until he retired from the firm in 2015. Legal expertise includes corporate finance, banking, company and commercial laws, international trade, JVs, and shareholder issues. Currently, he holds directorships at a number of companies in Asia. He is presently an Accredited Mediator with the Singapore Mediation Centre. With his board experience in various companies in Asia and his legal expertise, Mr Tan is able to assist OMH in its strategic pursuits. He has been a Non-Executive Director since 14 Sep 07, and is the Chairman of the Remuneration Committee.

Thomas Teo Liang Huat – Independent Non-Executive Director. He holds a Master of Business in Information Technology from the Royal Melbourne Institute of Technology and a Bachelor of Accountancy from the National University of Singapore. Mr Teo is a fellow member of the Institute of Singapore Chartered Accountants and CFO of GK Goh Holdings. His current executive responsibilities extend to financial and investment management as well as being a board representative for various subsidiaries and associates. Mr Teo joined the Board on 17 Jul 08. He is the Chairman of the Audit Committee and a member of the Remuneration Committee.

Peter C Church OAM (FAICD) – Independent Non-Executive Director. Mr Church is an Australian commercial lawyer with over 30 years of experience in providing legal and corporate advisory services in Southeast Asia and India. He holds various executive roles which includes the Chairman of AFG Venture Group, Special Counsel to Stephenson Harwood and a non-executive director of a number of corporations and not-for-profit organisations. Awarded the Medal of Order of Australia (OAM) for his promotion of business between Australia and Southeast Asia, he is also a Fellow of the Australian Institute of Company Directors (FAICD). Mr Church joined the Board on 12 Dec 11. He is a member of the Audit Committee.

Disclosures/Disclaimers

This report is prepared by UOB Kay Hian Securities (M) Sdn. Bhd. ("UOBKHM") which is a licensed corporation providing investment advisory services in Malaysia.

This report is provided for information only and is not an offer or a solicitation to deal in securities or to enter into any legal relations, nor an advice or a recommendation with respect to such securities.

This report is prepared for general circulation. It does not have regard to the specific investment objectives, financial situation and the particular needs of any recipient hereof. Advice should be sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of any person in receipt of the recommendation, before the person makes a commitment to purchase the investment product.

This report is confidential. This report may not be published, circulated, reproduced or distributed in whole or in part by any recipient of this report to any other person without the prior written consent of UOBKHM. This report is not directed to or intended for distribution to or use by any person or any entity who is a citizen or resident of or located in any locality, state, country or any other jurisdiction as UOBKHM may determine in its absolute discretion, where the distribution, publication, availability or use of this report would be contrary to applicable law or would subject UOBKHM and its associated persons (as defined in the Capital Market Services Act 2007) to any registration, licensing or other requirements within such jurisdiction.

The information or views in the report ("Information") has been obtained or derived from sources believed by UOBKHM to be reliable. However, UOBKHM makes no representation as to the accuracy or completeness of such sources or the Information and UOBKHM accepts no liability whatsoever for any loss or damage arising from the use of or reliance on the Information. UOBKHM and its associate may have issued other reports expressing views different from the Information and all views expressed in all reports of UOBKHM and its connected persons are subject to change without notice. UOBKHM reserves the right to act upon or use the Information at any time, including before its publication herein.

Except as otherwise indicated below, (1) UOBKHM, its associated persons and its officers, employees and representatives may, to the extent permitted by law, transact with, perform or provide broking, underwriting, corporate finance-related or other services for or solicit business from, the subject corporation(s) referred to in this report; (2) UOBKHM, its associated persons and its officers, employees and representatives may also, to the extent permitted by law, transact with, perform or provide broking or other services for or solicit business from, other persons in respect of dealings in the securities referred to in this report or other investments related thereto; (3) the officers, employees and representatives of UOBKHM may also serve on the board of directors or in trustee positions with the subject corporation(s) referred to in this report. (All of the foregoing is hereafter referred to as the "Subject Business"); and (4) UOBKHM may otherwise have an interest (including a proprietary interest) in the subject corporation(s) referred to in this report.

As of the date of this report, no analyst responsible for any of the content in this report has any proprietary position or material interest in the securities of the corporation(s) which are referred to in the content they respectively author or are otherwise responsible for.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report is prepared by UOBKHM, a company authorized, as noted above, to engage in investment advisory in Malaysia. UOBKHM is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution by UOBKHM (whether directly or through its US registered broker dealer affiliate named below) to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). All US persons that receive this document by way of distribution from or which they regard as being from UOBKHM by their acceptance thereof represent and agree that they are a major institutional investor and understand the risks involved in executing transactions in securities.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through UOB Kay Hian (U.S.) Inc ("UOBKHUS"), a registered broker-dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through UOBKHM.

UOBKHUS accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to and intended to be received by a U.S. person other than a major U.S. institutional investor.

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

Analyst Certification/Regulation AC

Each research analyst of UOBKHM who produced this report hereby certifies that (1) the views expressed in this report accurately reflect his/her personal views about all of the subject corporation(s) and securities in this report; (2) the report was produced independently by him/her; (3) he/she does not carry out, whether for himself/herself or on behalf of UOBKHM or any other person, any of the Subject Business involving any of the subject corporation(s) or securities referred to in this report; and (4) he/she has not received and will not receive any compensation that is directly or indirectly related or linked to the recommendations or views expressed in this report or to any sales, trading, dealing or corporate finance advisory services or transaction in respect of the securities in this report. However, the compensation received by each such research analyst is based upon various factors, including UOBKHM's total revenues, a portion of which are generated from UOBKHM's business of investment advisory.

Reports are distributed in the respective countries by the respective entities and are subject to the additional restrictions listed in the following table.

General	This report is not intended for distribution, publication to or use by any person or entity who is a citizen or resident of or located in any country or jurisdiction where the distribution, publication or use of this report would be contrary to applicable law or regulation.
Hong Kong	This report is distributed in Hong Kong by UOB Kay Hian (Hong Kong) Limited ("UOBKHHK"), which is regulated by the Securities and Futures Commission of Hong Kong. Neither the analyst(s) preparing this report nor his associate, has trading and financial interest and relevant relationship specified under Para. 16.4 of Code of Conduct in the listed corporation covered in this report. UOBKHHK does not have financial interests and business relationship specified under Para. 16.5 of Code of Conduct with the listed corporation covered in this report. Where the report is distributed in Hong Kong and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKHHK (and not the relevant foreign research house) in Hong Kong in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Hong Kong who is not a professional investor, or institutional investor, UOBKHHK accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Indonesia	This report is distributed in Indonesia by PT UOB Kay Hian Sekuritas, which is regulated by Financial Services Authority of Indonesia. Where the report is distributed in Indonesia and contains research analyses or reports from a foreign research house, please note recipients of the analyses or reports are to contact PT UOBKH (and not the relevant foreign research house) in Indonesia in respect of any matters arising from, or in connection with, the analysis or report.
Malaysia	Where the report is distributed in Malaysia and contains research analyses or reports from a foreign research house, the recipients of the analyses or reports are to contact UOBKHM (and not the relevant foreign research house) in Malaysia, at +603-21471988, in respect of any matters arising from, or in connection with, the analysis or report as UOBKHM is the registered person under CMSA to distribute any research analyses in Malaysia.
Singapore	This report is distributed in Singapore by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser regulated by the Monetary Authority of Singapore. Where the report is distributed in Singapore and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKH (and not the relevant foreign research house) in Singapore in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, UOBKH accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Thailand	This report is distributed in Thailand by UOB Kay Hian Securities (Thailand) Public Company Limited, which is regulated by the Securities and Exchange Commission of Thailand.
United Kingdom	This report is being distributed in the UK by UOB Kay Hian (U.K.) Limited, which is an authorised person in the meaning of the Financial Services and Markets Act and is regulated by The Financial Conduct Authority. Research distributed in the UK is intended only for institutional clients.
United States of America ("U.S.")	This report cannot be distributed into the U.S. or to any U.S. person or entity except in compliance with applicable U.S. laws and regulations. It is being distributed in the U.S. by UOB Kay Hian (US) Inc, which accepts responsibility for its contents. Any U.S. person or entity receiving this report and wishing to effect transactions in any securities referred to in the report should contact UOB Kay Hian (US) Inc. directly.