

## China VTM Mining (893.HK)

### Commodities Sector

2 Sep. 2010

### Building on Economic Growth in Western China

- **Second-largest producer of iron concentrates and pellets in Sichuan (9% provincial market share).** Beneficiary of growth in Western China as its products are mostly consumed domestically.
- **Steel demand underpinned by Western China GDP growth,** which led overall China by an average of 7 pts during 2003-09. Demand drivers: 1) urbanization; 2) *China Western Development* program.
- **Steel demand will in turn drive iron ore demand.** To meet steel demand, Sichuan will add 10.1 mt of crude steel production capacity (66% of 2009 output) over 2010-12. This suggests a 22% sales-volume CAGR for iron ore over FY09-FY12, which translates into an additional 1.6 mt of iron ore demand for VTM (given its 9% market share), equal to its entire FY09 output.
- **Government policies encourage the use of vanadium-bearing resources,** which should further drive demand for VTM's products. Beijing mandated the use of high-strength steel for construction after the Sichuan earthquake.
- **VTM is more resilient to any iron price drop and should grow faster than peers** due to: 1) low-cost producer; 2) strong cash flows from efficient working capital management; 3) better access to funding; 4) close ties with major Sichuan steel producer Chuan Wei.
- **VTM's profitability is more stable than its peers** due to stable Sichuan iron ore prices and its low financial leverage.
- **Strong support for current ASPs.** Sichuan iron ore prices are correlated to import prices, which are supported by: 1) the consolidated nature of global iron ore suppliers; 2) an iron ore shortfall in China; 3) higher Indian export tariffs on iron ore, which would increase export costs and limit supplies.

#### Valuation

- **Attractive at 6.2X FY11 ex cash P/E, given 29% EPS CAGR over 2009-11 with 11% FY12 FCF yield.** Our worst-case scenario suggests a 7% FY12E FCF yield and 14% OCF yield if ASP drops back to the FY09 level, which is unlikely. EBT growth is expected to stay strong in FY12 at 31% following the expiry of tax concessions. Furthermore, we have not factored in higher growth from the potential acquisition of Jingzhi Mine, which could boost output by an additional 900 kt (47% of FY10E output). M&A can be fueled by net cash of RMB905m as at end-1H10, equal to 17% of market cap.
- **Initiate with Buy,** target price HK\$4.00, equivalent to 9X FY11E ex cash P/E.

Figure 1: Earnings Summary

Year ending 31 Dec.	FY07	FY08	FY09	FY10E	FY11E	FY12E
Revenue – RMBm	366.7	791.2	1,083.9	1,489.9	1,918.4	2,469.6
Net profit – RMBm	53.7	248.7	327.9	525.1	694.0	772.6
Net-profit growth – %	133.0	363.2	31.8	60.1	32.2	11.3
EPS – RMB fen	4.0	17.0	20.0	25.3	33.4	37.2
EPS growth – %	100.0	325.0	17.6	26.5	32.2	11.3
P/E – X	62.5	14.7	12.5	9.9	7.5	6.7
DPS – RMB fen	0.0	0.0	0.0	5.1	6.7	7.4
Dividend yield – %	0.0	0.0	0.0	2.0	2.7	3.0
BVPS – RMB	N/A	N/A	1.2	1.5	1.9	2.2
P/B – X	N/A	N/A	2.1	1.6	1.4	1.1
Oper. cash flow per share – RMB fen	(6.5)	28.2	21.0	29.7	42.6	46.8
Free cash flow per share – RMB fen	N/A	N/A	4.0	(32.9)	13.9	27.7
Free-cash-flow yield – %	N/A	N/A	1.6	(13.2)	5.6	11.1
Net debt per share – RMB fen	N/A	N/A	(86.0)	(50.0)	(58.4)	(78.7)
Net debt/ price – %	N/A	N/A	(34.4)	(20.0)	(23.4)	(31.5)
EBIT margin – %	21.3	44.5	41.1	47.3	48.0	48.4
Issued shares – millions	N/A	N/A	2,075.0	2,075.0	2,075.0	2,075.0

Sources: Bloomberg and Sun Hung Kai Financial

12-month rating

**Buy**

12m target price

**HK\$4.00**

(40% upside potential)

**View at a Glance**

(+ / O / -)

Fundamental

+

Valuation

+

**Performance (%)**
**1m**
**3m**
**12m**

Absolute

(6.9)

(11.3)

N/A

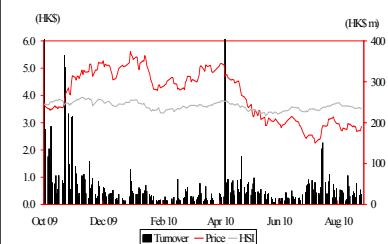
Relative to HSI

(5.2)

(17.3)

N/A

VTM – Price vs. HSI, Share Data



Price – HK\$	2.86
52W high/low (HK\$)	5.7/2.22
Shares in issue – millions	2,075.00
Market cap – HK\$m (US\$m)	5,934 (763)
Free float – %	42.19
3M avg. t/o – HK\$m (US\$m)	31.84 (4.1)
Major shareholder – %	
Trisonic International Ltd.	48.52

Sources: Bloomberg and Sun Hung Kai Financial

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## Executive Summary

We initiate coverage of leading Sichuan iron ore producer VTM with a Buy rating and target price of HK\$4.00, based on 9X FY11 ex cash P/E, a 10% discount to the average 10X for steelmaking-input companies and steel companies due to VTM's smaller market cap. We see this as reasonable given its estimated 29% EPS CAGR for FY09-FY11.

**High transport costs make VTM a local play.** Transport costs equal more than a third of ASPs for cross-province sales, so Sichuan iron ore is more subject to local demand.

**Strategic location in Sichuan makes VTM a beneficiary of Western China growth,** with the establishment of Sichuan-Chongqing Economic Zone and as it is the most iron-rich province in the West.

**Steel demand underpinned by Western China growth.** Western China's GDP growth led the overall PRC figure by an average of 7% over 2003-09. This growth will continue to outpace the rest of the nation, as ongoing wealth disparities will necessitate ongoing investment in the region. Going forward, steel demand will be driven by:

- **Rising urbanization**, which averages just 38% in the Western region vs. the national average of 46%. Continuous urbanization would drive steel demand, as construction steel accounts for more than 50% of steel consumption.
- **China Western Development program**, which included RMB682bn of investment for 2010, 45% higher than in 2009. We expect investment to rise further given ongoing wealth disparities; disposable income per capita in the Western region averaged only RMB13,007 in 2008, still 18% less than China's average.

**Steel demand will in turn drive iron ore demand.** Sichuan will add 10.1 mt of crude steel production capacity (66% of 2009 output) over 2010-12, translating into an additional 1.6 mt of iron ore demand for VTM, equal to its entire FY09 output.

**Government policies encourage the use of vanadium-bearing resources** to produce high-strength steel, which should further drive demand for VTM's products. Beijing mandated the use of high-strength steel for construction after the Sichuan earthquake.

**VTM is more resilient to any iron price drop and should grow faster than peers due to:** 1) **Low-cost producer**, at the lowest 10-20% of PRC cost curve, mainly due to use of open-pit mining; 2) **Strong cash flows** from efficient working capital management, as VTM only gives 30 days of credit to its customers; 3) **Better access to funding**, as it is the only listed Sichuan iron ore producer, which should enable faster expansion from M&A; 4) **Close ties with Chuan Wei**, the second largest steel company in Sichuan (VTM's controlling shareholder is also a majority shareholder of Chuan Wei), which minimizes operational risks from transport bottlenecks and enables VTM gets priority when selling to Chuan Wei.

**VTM's profitability is more stable than its peers** due to: 1) stable Sichuan iron ore prices, with volatility much less than Hebei iron ore prices and 2) low financial leverage, at a net cash position of RMB905m at end-1H10.

**Strong support for current ASPs.** Sichuan iron ore prices are correlated to import prices, which are supported by: 1) **The consolidated nature of global iron ore suppliers** (top three account for 69% of global seaborne trade); 2) **an iron ore shortfall in China** (only half of demand was met over 2005-09); 3) **Higher Indian export tariffs on iron ore and iron ore fines**, which would increase export costs and limit supplies. We expect Sichuan iron ore prices to trend higher in the medium term when the Sichuan-Hebei price gap narrows with improving transport infrastructure, leading to lower transport costs.

**Key risks include:** 1) **Reliance on only one mining contractor**, which could pose operational risk if contracting fees cannot be agreed, where operations could come to a halt; 2) **Higher than expected production costs** could hurt profits, especially from mining costs which is one-third of total costs; 2) **Production disruption from natural disasters** such as earthquakes or droughts, which have disrupted production in the past.

**Attractive at 6.2X FY11E ex cash P/E, given 29% EPS CAGR over FY09-FY11 with 11% FCF yield in FY12.** Our worst-case scenario suggests a 7% FY12E FCF yield and 14% OCF yield if ASP drops back to the FY09 level, which we believe is unlikely. VTM's over 30% FY11 P/E ex cash discount to steel companies are unjustified, given 1) its higher net margin at 30% in FY09 vs. steel companies' 6%, 2) higher ROE (VTM's 21.5% vs 3%-7% average) and 3) no margin pressure due to its upstream business. We have not factored in higher growth from the potential acquisition of Jingzhi Mine, which could boost output by an additional 900 kt (47% of FY10E output).

## High transport costs make VTM a local play

VTM's sales are currently all in Sichuan. We believe its end users (steel mills) are mostly based in Sichuan or neighboring provinces, as cross-province transport costs are high due to Sichuan's underdeveloped infrastructure. For instance, transport of iron ore from Sichuan to Guangxi could cost more than RMB200/t, over a third of VTM's ASP for iron concentrate. This makes VTM subject to changes in local steel demand rather than global demand.

## Strategic location in Sichuan makes VTM beneficiary of Western China growth

VTM is the second-largest iron ore mine operator in Sichuan, with a provincial market share of 9%. Its strategic location in Sichuan makes it a direct beneficiary of development of China's Western region.

First, the establishment of Sichuan-Chongqing Economic Zone has made Sichuan one of the most important provinces in the region, which will become a flagship for overall growth in the Western region. This arrangement will be particularly beneficial to Sichuan, as Chongqing's economy is currently much stronger.

Figure 2: Economic metrics – Sichuan and Chongqing

	Most recent annual figure	Sichuan	Chongqing
Urbanization	2008	37%	50%
GDP per capita	2009	RMB17,289	RMB22,836
Disposable income per capita	2009	RMB13,839	RMB15,749

Sources: CEIC and Sun Hung Kai Financial

Second, as the only Western province rich in iron ore resources, demand for iron ore in Sichuan will benefit from crude steel production growth in the overall Western region. Sichuan (2900mt) ranks behind Liaoning (7,000 mt) and Hebei (4,400 mt) in terms of iron ore resources, which together account for 65% of China's reserves. Economic and FAI growth in the Western region will pull up local steel demand and directly increase iron ore/steel demand in Sichuan.

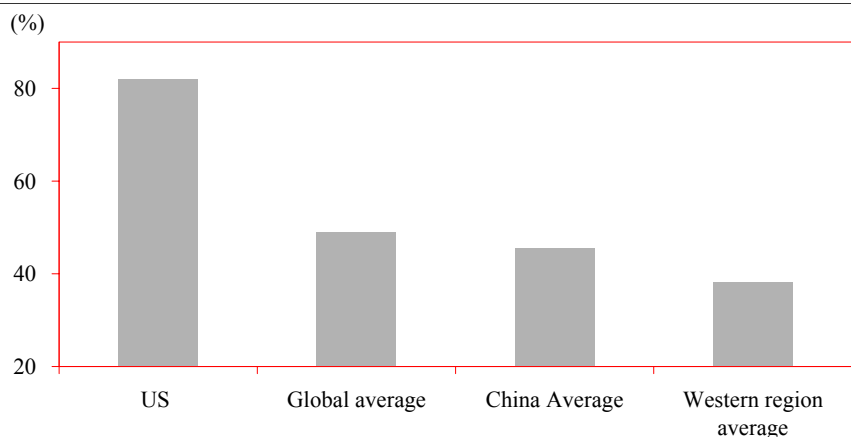
## Steel demand underpinned by Western China growth

Western China's GDP growth led the overall PRC figure by an average of 7% over 2003-09. We believe growth in Western China will continue to outpace the rest of the nation, as ongoing wealth disparities will necessitate ongoing investment in the region. Going forward, steel demand will be driven by:

### Urbanization and infrastructure spending in Sichuan

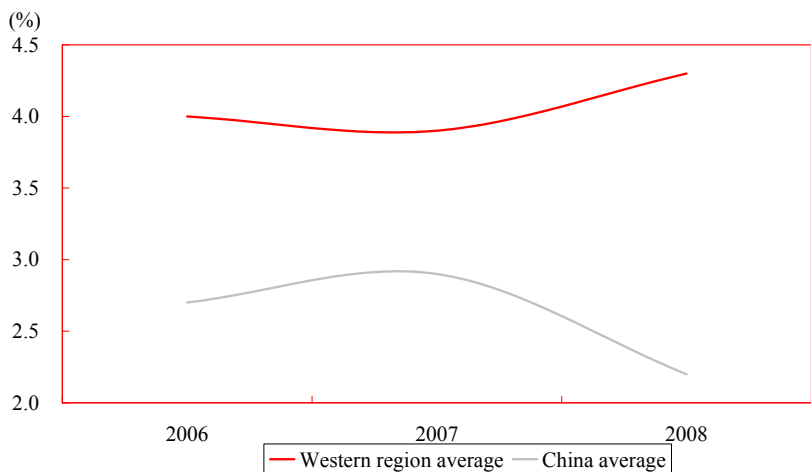
Average urbanization is only 38% in the Western region, below China's average of 46% and the global average of 49%. In addition, average urban population growth in the Western region over 2006-08 was 4.1% p.a., outpacing the national average 2.6%. As more than 50% of total steel consumption is for construction steel, we expect ongoing urbanization to drive local steel demand.

Figure 3: Urbanization in China Western region vs. other regions, 2008



Sources: CEIC, United Nations and Sun Hung Kai Financial

Figure 4: Urban population growth in Western China vs. overall China, 2006-08

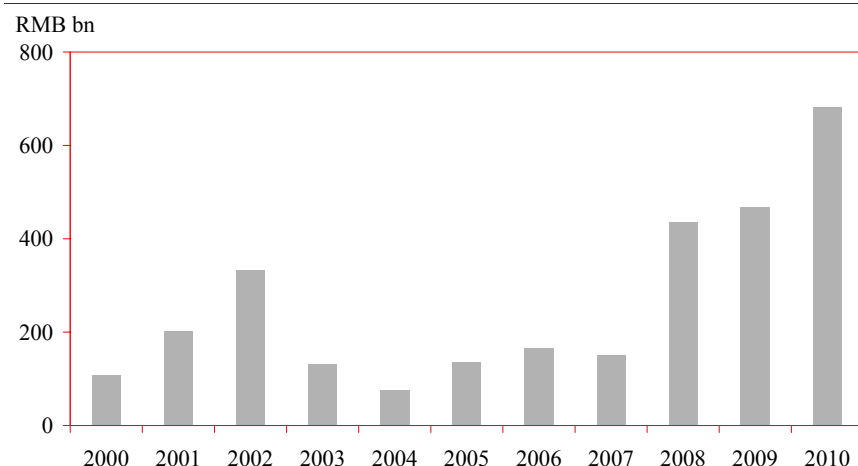


Sources: CEIC and Sun Hung Kai Financial

**China Western Development program**

Infrastructure spending under the program will also drive steel demand in Sichuan. The government targets RMB682bn of investment in the region for 2010, 45% more than 2009 and the most since 2000. Going forward, we expect further investment due to ongoing wealth disparities (disposal income per capita in the Western region averaged RMB13,007 in 2008, 18% less than China’s average). Such investments will drive economic and FAI growth in the Western region.



Figure 5: Investment under the *China Western Development* program, 2000-10

Sources: State Information Centre and Sun Hung Kai Financial

Figure 6: FAI growth in China, 2005-09



Sources: CEIC and Sun Hung Kai Financial

Beijing introduced the *China Western Development* program in 1999 to reduce wealth disparities. It aims to promote economic growth in the Western region by improving infrastructure and encouraging foreign investment. The program covers six provinces, five autonomous regions and one municipality, which together account for 71% of China's land by area, but only 18% of GDP in 2009. Even 10 years into the program, Western region GDP per capita averaged only RMB18,205 in 2009, still 33% less than China's average of RMB27,139. This will drive further investments into Western region.

## Steel demand will in turn drive iron ore demand

Given ongoing wealth disparities, we expect investment under the *China Western Development* program to remain high in coming years, particularly in view of Beijing's goal of strengthening domestic demand. This investment will involve substantial construction demand, which will be met by a 10.1-mt increase in Sichuan crude steel production capacity (66% of 2009 output) over 2010-12. This translates into a total of 18 mt of demand for iron ore, as 1.8 tons of iron ore are needed to cast each ton of steel.

Given VTM's 9% share of the Sichuan iron ore market, this would bring an additional 1.6 mt of demand for VTM, in itself equivalent to VTM's FY09 output. In addition, the extra capacity will be equipped to use vanadium-bearing titanomagnetite, which implies all the new capacity can use VTM's products (unlike much existing capacity).

Figure 7: Major crude steel production capacity ramping up in Sichuan, 2010-12

Year	Company	Crude steel capacity increase (mtpa)
2H10	Desheng Steel	1.1
	Dazhou Steel	1.2
	Chongqing Steel	1.5
2011	Panzhuhua Steel	4.1
2012	Chuanwei Steel	2.2
<b>Total</b>		<b>10.1</b>

Sources: The Company and Sun Hung Kai Financial

## Government policies encourage use of vanadium resources

We expect ongoing strong demand for VTM's products, as Beijing is promoting the use of high-strength steel. This bodes well for demand for vanadium-bearing iron (adding 0.1% vanadium content to steel can improve strength by 10%-20%).

Policies include the *Standard for Classification of Seismic Protection in Building Construction*, introduced in response to the Sichuan earthquake in May 2008, which mandated and raised standards for the use of high-strength steel in construction. In March 2009, the government announced the *Adjustment and Revitalization Plan for the PRC Steel Industry*, which promotes the use of hot rolled ribbed bars (HRB) of Grade III (400 Mpa) or stronger in construction, and targets these to account for 60% of total HRB by 2011. The *Revitalization Plan* also calls for the phasing out of HRB at 335 MPa or below.

Vanadium and titanium steel are also among Sichuan's 10 priority industries, which are targeted to account for more than 90% of provincial industrial production by 2020, from 76% in 2008. We believe this government support will increase the use of vanadium-bearing iron ore and in turn benefit VTM.

Molybdenum can also be used to increase steel strength, but vanadium is more cost effective for Sichuan steelmakers given the abundant provincial supply (over 80% of China's reserves).

## VTM is more resilient to any iron price drop and should grow faster than peers

VTM's background, business model and close ties with Chuan Wei should help it enjoys higher than industry growth and make it more competitive than peers.

**1) Low cost producer**, as a result of i) using open-pit mining (lowest 10%-20% on the PRC cost curve); ii) very low transport costs; iii) economies of scale. Low production costs allow VTM to weather drops in iron ore prices much better than its peers, remaining profitable during difficult times and making earnings less sensitive to changes in ASP.

Transport costs are very low because most customers collecting direct from VTM's processing plants. In some cases where VTM transports goods from its processing plants to rail stations, it is reimbursed by adding these costs to the sales price (these costs are minimal anyway, as its mines are very close to rail stations on the Chengdu-Kunming Railroad). This has resulted in selling and distribution expenses at only 3% of revenue in 1H10.

In addition, VTM is the second largest iron ore producer in Sichuan, with 9% provincial market share. Economies of scale allow it to spread administrative costs over a larger base, achieving lower costs than its peers.

**2) Strong cash flows from efficient working capital management**, as VTM only gives its distributors 30 days of credit. 80% of sales are to distributors, with the remainder direct to steel mills (mainly Chuan Wei). We expect it to continue to sell mainly through distributors, as these pay much quicker than steel mills. As a result, VTM is set to generate a 12% FCF yield and 19% OCF yield in FY12. Strong cash flows/balance sheet will enable it to expand faster and withstand any drops in ASP better than its peers.

As at end-1H10, VTM had net cash of RMB905m, equal to 17% of its market cap. It can facilitate the acquisition of Jingzhi Mine, the fourth largest iron ore producing mine in Sichuan. The acquisition would boost VTM's output by an additional 900 kt (47% of FY10E output) assuming a 30-year mine life, enabling VTM to expand even faster.

**3) Better access to funding**, as the only listed Sichuan iron ore producer. We believe VTM will use its funding channels to strengthen its market leadership and competitiveness. For instance, VTM raised net proceeds of RMB1.44bn during its IPO in October 2009. After listing, it spent RMB1.1bn on capacity expansion and resource acquisition, raising its self-owned processing capacity by 92% to 2.3 mtpa and its iron ore resources by 125% to 366 mt. This is much higher than the overall Sichuan iron ore output growth of 31% yoy for January 2010 to July 2010.

**4) Close ties with Sichuan's second largest steel producer Chuan Wei**, which have: i) secured transport for VTM's customers, eliminating any problems from transport bottlenecks; ii) would help VTM record higher than industry growth.

VTM's controlling shareholder, Trisonic International, is held by the majority shareholders of Chuan Wei. Chuan Wei's subsidiary Tongyu gives VTM's customers priority use of the railway transport capacity it has secured from Chengdu Railway Bureau.

We believe Chuan Wei would also give VTM higher priority when purchasing iron ore, which will help VTM continue to post higher than industry growth in the future. Chuan Wei will add 2.2 mt of crude steel capacity in 2012, translating into iron concentrate demand of 4 mt, which is double VTM's FY10 output. This would greatly boost VTM's growth should Chuan Wei decide to purchase solely from VTM.

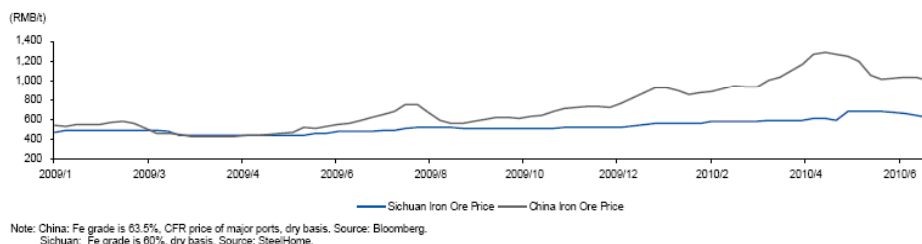
## VTM's profitability is more stable than its peers

With 1) stable Sichuan iron ore prices, with volatility much less than Hebei iron ore prices and 2) low financial leverage, at a net cash position of RMB905m at end-1H10, VTM's profitability is more stable than its peers.

Sichuan iron ore prices have historically been much more stable than Hebei iron ore prices. While Hebei iron ore prices dropped more than 20% from RMB1,200/t to below RMB1,000/t during April-June this year, Sichuan iron ore prices only dropped around 10%. This gives VTM a more stable ASP going forward compared to its peers.

Furthermore, with financial expenses only accounting for less than 3% of operating profit in FY10 resulting in a net cash position, VTM's profitability is relatively stable without a heavy financial burden, especially compared with the steel-company average net debt-to-equity of 79%.

Figure 8: Sichuan iron ore prices vs China iron ore prices, 2009-10



Sources: Company and Sun Hung Kai Financial

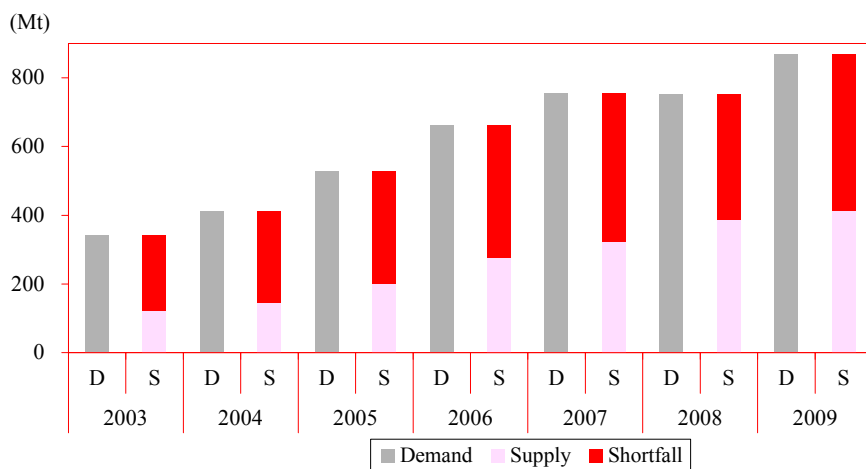
## Strong support for current ASPs

Sichuan iron ore is much cheaper than that in Eastern regions such as Hebei, because it is much lower grade (55% purity in Sichuan vs. 66% in Hebei) and transport costs are higher. Sichuan iron ore prices are still correlated to import/Hebei iron ore prices though, just much less volatile. This is because cross-province transport becomes cost effective once there is a sufficiently large price gap.

As a result, VTM still benefits from high global iron ore prices, which are supported by:

- **Consolidated nature of global iron ore suppliers.** The top three iron ore producers, BHP Billiton, Rio Tinto and Vale, account for a dominant 61% of seaborne trade. They recently pushed through a change in pricing from the 40-year tradition of annual contracts to quarterly contracts, which Chinese steelmakers oppose. This highlights bullish expectations for iron ore prices from both sides.
- **An iron ore shortfall in China equal to half of demand.** China is the largest global steel production base, accounting for 47% of global crude steel production in 2009. It also accounted for 65% of imports from global seaborne iron trade. Over 2005-09, China experienced persistent iron ore shortfalls equal to about half of demand. Iron ore imports have been on an uptrend to meet these shortfalls. Despite the threat of policy tightening in 1H10, iron ore imports have not declined significantly but fluctuated around historical highs.

Figure 9: China iron concentrate supply and demand, 2005-09

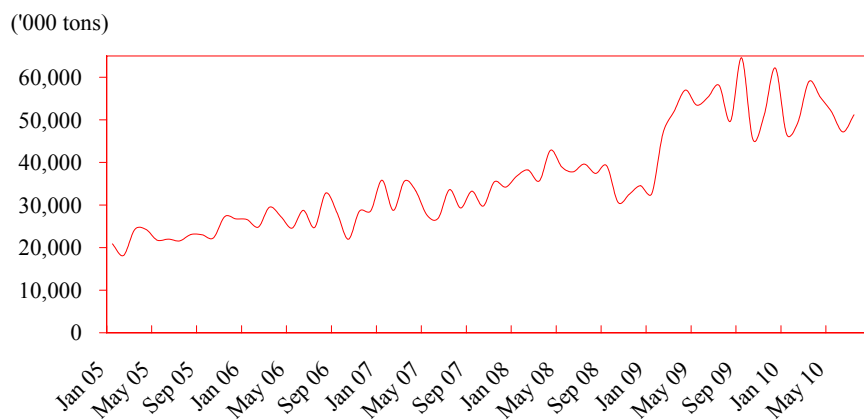


Sources: Company prospectus and Sun Hung Kai Financial





Figure 10: China iron ore imports, 2005-09



Sources: CEIC and Sun Hung Kai Financial

- **Higher Indian export tariffs on iron ore and iron ore fines**, which would increase export costs and limit supplies. India is China's third largest importer of iron ore, accounting for 17% in 2009. Any reduction in supplies could have a positive impact on global iron ore prices.

In an effort to discourage iron ore exports, India increased export tariffs to 5% from nil for iron ore fines and to 10% from 5% for iron ore lumps, effective from 24 Dec. 2009. India's iron ore export prices rose more than 20% within two weeks after the announcement. For instance, prices of 58% iron ore fines exported from India to China rose from RMB710/t on 24 Dec. to RMB870/t on 8 Jan. and RMB920/t on 20 Jan. The average price from 24 Dec. to now is around RMB880/t, much higher than the average price of RMB677/t a month before the announcement. We believe higher Indian export tariffs would support current price levels of RMB870/t.

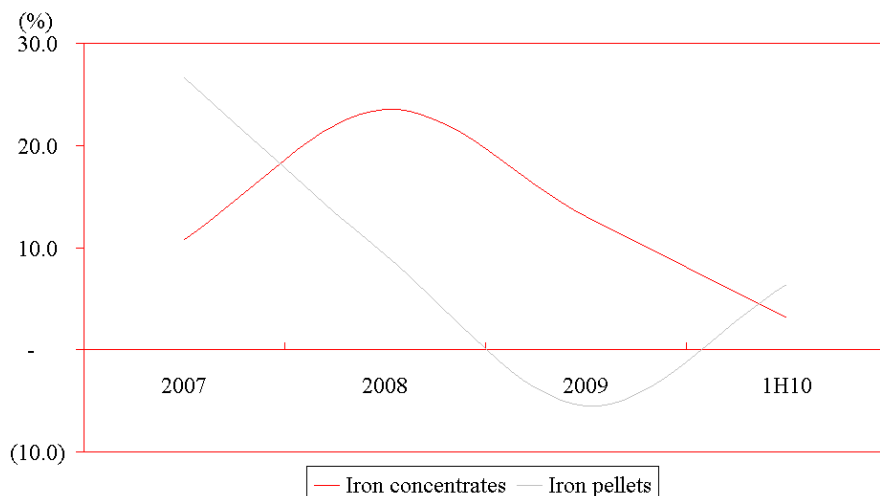
## Earnings Assumptions

Our sales forecasts take into account rising crude steel production in Sichuan over 2010-12, which is expected to generate 18 mt of iron ore demand in the province, and the company's increasing capacity for iron concentrate and pellets.

We estimate ASPs to rise 19% and 14% to RMB665/t and RMB880/t respectively for iron concentrates and iron pellets in FY10, in line with the 1H10 results. Iron concentrate ASP will trend higher in FY11 assuming no change in iron price in Sichuan, following the expiration of benchmark pricing agreements that VTM signed with its customers. The agreement only allows VTM to raise ASPs by 50% of the difference between spot and the benchmark price in FY10. Following expiration, we expect VTM to revert to spot pricing, which would lift its ASPs in FY11. We expect ASPs to remain fairly stable in FY12.

Previously rising unit costs showed signs of stabilization in the 1H10 results. Unit costs for iron concentrates and pellets only increased by 2% yoy and 6% yoy respectively in 1H10. The 6% yoy increase in iron pellet unit costs in 1H10 was mainly due to higher depreciation expenses from acquiring processing plants. We expect unit costs to remain stable going forward. As a result, we expect the gross margin to expand from 46% in FY09 to 53% in FY10-FY12 on higher ASPs and stabilizing unit costs.

Figure 11: Change in unit costs, FY07-1H10



Sources: Company and Sun Hung Kai Financial

The company is shifting toward more sales of high-grade titanium concentrate, and less sales of medium-grade, evidenced by a 43% yoy drop in medium-grade titanium concentrate sales in 1H10. We expect VTM to stop selling medium-grade titanium concentrate from 2H10. We estimate revenue contributions from titanium concentrate to increase from 2% in FY09 to 6% in FY12 once it finishes construction and acquisition of high-grade titanium concentrate production lines (raising production capacity to 420 ktpa by end-FY11 from the current 220 ktpa).

Given strong demand for vanadium-bearing bearing iron, we expect VTM to construct a processing plant of 1 mtpa over FY11-FY12, bring total processing capacity from the current 2.3 mtpa to 3.6 mtpa. This alone would require capex of RMB630m, considering the most recent acquisition cost of Heigutian and Hailong processing plants. Together with RMB1.3bn capex this year, in which RMB1.16bn had been utilized up to 1H10, we expect capex over FY10-FY12 of around RMB2.3bn. This will be mainly funded by unutilized IPO proceeds and VTM's strong operating cash flows of RMB2.5bn in aggregate over FY10-FY12 due to efficient working capital management (only 30 days of credit to customers). We have not factored the possible acquisition of Jingzhi Mine into our earnings assumptions.

We expect the company to complete the acquisition of Maoling Mine from Aba Mining in 4Q10, at an estimated consideration of around RMB150m, representing RMB15/ton (VTM's acquisition price for Yangqueqing Mine was around RMB11/ton of iron resources, but Maoling has higher-quality iron resources that can be processed into 66% iron concentrate vs. VTM's current 55%).

The effective tax rate is expected to increase from 17.5% over FY10-FY11 to 30% in FY12 following the expiration of tax holiday for its major subsidiary, Huili Caitong.

Figure 12: VTM – Key earnings assumptions

	FY07	FY08	FY09	FY10E	FY11E	FY12E
<b>Sales volume (kt)</b>						
Iron concentrates	398	797	950	1,100	1,350	1,850
Iron pellets	256	305	693	800	1,000	1,200
Medium-grade titanium concentrates	64	217	167	37	-	-
High-grade titanium concentrates	-	-	-	100	208	270
<b>ASP (RMB/t)</b>						
Iron concentrates	478	622	558	665	683	683
Iron pellets	646	826	775	880	890	890
Medium-grade titanium concentrates	176	200	102	86	86	86
High-grade titanium concentrates	N/A	N/A	N/A	512	512	512
<b>Gross margin (%)</b>						
Iron concentrates	61.4	63.3	53.8	60.0	60.7	60.3
Iron pellets	35.8	45.1	44.7	48.2	48.3	47.7
Medium-grade titanium concentrates	27.2	(1.3)	(134.9)	(177.3)	N/A	N/A
High-grade titanium concentrates	N/A	N/A	N/A	21.9	21.9	21.9

Sources: The Company and Sun Hung Kai Financial

Figure 13: VTM's gross margin trend, FY07-1H10



Sources: Company and Sun Hung Kai Financial

## Valuation

Attractive at 6.2X FY11E ex cash P/E, given 29% EPS CAGR over FY09-FY11 with 11% FCF yield in FY12. Even though we expect FY12E EPS growth to slow to 11% following the expiration of tax concessions, EBT will remain strong at 31%. Efficient working-capital management brings VTM strong operating cash flows and FCF, as it only gives its customers 30 days of credit.

Our target price of HK\$4.00, based on 9X FY11 ex cash P/E, is a 10% discount to the average 10X for steelmaking-input companies and steel companies due to VTM's smaller market cap. We see this valuation as reasonable given its estimated 29% EPS CAGR for FY09-FY11. VTM's current 6.2X FY11 ex cash P/E is attractive compared with China steel companies' 9.6X and China steelmaking input companies' 10.1X, especially given 1) its FY09 net margin of 30% vs. 23% for steelmaking input companies and 6% for steel companies 2) Much higher ROE at 22% vs 7% and 3% for steelmaking input players and steel companies respectively. In addition, VTM is in an upstream business with no margin pressure, which we believe is substantially superior to that of China steel companies. The current discount is not warranted.

Furthermore, we have not factored in higher growth from the potential acquisition of Jingzhi Mine, which could boost VTM's output by an additional 900 kt (47% of FY10E output). M&A can be fueled by net cash of RMB905m as at end-1H10, equal to 17% of market cap. We see it as further EPS upside catalyst.

Figure 14: Peer comparison

Company	Stock code	Share price (LC)	Market cap (HK\$m)	Gross margin (%)	Operating margin (%)	Net margin (%)	ROAA (%)	ROAE (%)
<b>China VTM Mining</b>	<b>893.HK</b>	<b>2.86</b>	<b>5,934.50</b>	<b>46.3</b>	<b>41.1</b>	<b>30.2</b>	<b>16.3</b>	<b>21.5</b>
<b>China steelmaking input companies</b>								
China Molybdenum	3993.HK	4.49	21,894.00	27.3	19.1	16.5	4.0	4.5
Hidili Industry	1393.HK	6.73	13,863.80	58.3	32.6	27.0	4.4	6.7
Fushan Energy	639.HK	4.16	22,383.15	67.8	48.6	25.2	5.4	8.5
<b>Average</b>				<b>51.1</b>	<b>33.5</b>	<b>22.9</b>	<b>4.6</b>	<b>6.5</b>
<b>China steelmaking companies</b>								
Angang Steel	347.HK	11.22	69,324.32	5.9	2.3	1.1	0.8	1.4
Maanshan Iron & Steel	323.HK	3.96	30,367.01	5.4	2.2	0.8	0.6	1.5
Chongqing Iron & Steel	1053.HK	1.89	6,610.45	11.0	3.4	0.8	0.6	0.3
Shougang Concord Int'l Ltd.	697.HK	1.16	9,483.44	(6.4)	(9.6)	0.6	0.3	0.9
Baoshan Iron & Steel	600019.CH	6.52	130,348.64	9.7	5.5	3.9	2.9	6.2
Wuhan Iron & Steel	600005.CH	4.70	42,056.65	7.7	3.6	2.8	1.7	1.2
<b>Average</b>				<b>5.6</b>	<b>1.2</b>	<b>1.7</b>	<b>1.2</b>	<b>2.8</b>
Company	Div.-payout ratio (%)	Div. yield (%)	FCF yield (%)	FY1 P/E (X)	FY2 P/E (X)	P/B (X)	FY2 EPS growth (%)	2-yr fwd. EPS CAGR (%)
<b>China VTM Mining</b>	<b>N/A</b>	<b>N/A</b>	<b>1.6</b>	<b>9.9</b>	<b>7.5</b>	<b>2.1</b>	<b>32.2</b>	<b>28.9</b>
<b>China steelmaking input companies</b>								
China Molybdenum	77.5	2.1	1.9	13.5	10.2	1.7	31.8	96.2
Hidili Industry	51.1	1.2	(7.9)	14.8	10.0	1.9	47.4	73.2
Fushan Energy	96.9	2.8	2.1	11.8	10.0	1.4	17.8	33.0
<b>Average</b>	<b>75.2</b>	<b>2.0</b>	<b>(1.3)</b>	<b>13.3</b>	<b>10.1</b>	<b>1.7</b>	<b>32.4</b>	<b>67.4</b>
<b>China steelmaking companies</b>								
Angang Steel	57.7	0.7	(3.1)	16.1	11.8	1.3	36.3	183.1
Maanshan Iron & Steel	0.0	0.0	11.4	15.2	10.8	1.0	40.4	150.4
Chongqing Iron & Steel	0.0	0.0	(50.7)	16.2	9.1	0.5	78.4	90.8
Shougang Concord Int'l Ltd.	0.0	0.0	(7.2)	9.5	6.3	1.1	50.8	347.2
Baoshan Iron & Steel	60.2	3.1	2.7	10.8	9.1	1.1	18.5	47.4
Wuhan Iron & Steel	51.7	2.1	5.3	14.4	10.8	1.3	33.6	50.4
<b>Average</b>	<b>28.3</b>	<b>1.0</b>	<b>(6.9)</b>	<b>13.7</b>	<b>9.6</b>	<b>1.1</b>	<b>43.0</b>	<b>144.9</b>

Sources: Bloomberg and Sun Hung Kai Financial

## Key risks

### Reliance on only one mining contractor

VTM uses only one mining contractor, which could pose an operational risk. Operations could come to a halt if contracting fees cannot be agreed, which could increase VTM's costs. This happened before in FY08, when mining fees increased 12% and stripping fees increased 35% per ton.

### Higher than expected production costs

Higher than expected production costs could lower net margins, especially from mining which is one-third of total costs. Higher than expected electricity costs could also hurt profits given its extensive use in iron ore processing.

### Production disruption from natural disasters

VTM's operations could be disrupted by natural disasters, such as droughts or earthquakes. This happened at Maoling Mine in 2008, where operations have yet to restart following the Sichuan earthquake. Droughts in southwest China earlier this year also adversely affected VTM's operations; we believe iron ore output has been reduced by around 100 kt in the first four months in FY10 as a result of the drought, representing 5% of FY10E output.

### Geological uncertainty

VTM's resource base of 366 mt is based on estimates by mining experts, where actual exploration results may be different. However, we believe this risk is small as it is generally easier to generate accurate resource estimates for open-pit mines.

### Lower steel demand

Demand for steel could drop on: 1) Further anti-dumping duties on Chinese steel product exports; 2) RMB appreciation, which would make steel exports more expensive; and 3) Possible policy tightening and expiration of car subsidies in China this year.

However, we believe steel demand would not drop significantly in the Western region. As transport costs are high, we believe Sichuan iron ore is mostly consumed locally. Thus, Sichuan iron ore demand is more localized and less export-oriented. Furthermore, we believe policy tightening is mainly focused on property markets in first-tier cities and that this is unlikely in Western China. Even though expiration of car subsidies could have some short-term negative impact on steel demand, we expect long-run auto demand to remain strong due to low domestic auto ownership.

### Lower iron ore demand from the closure of steel mills

China aims to close small, inefficient steel plants to ease overcapacity in steel production by 100 mt in 2010-11, from current capacity of more than 700 mt. This could reduce iron ore demand. However, we do not see this affecting VTM as Beijing targets to close only those steel mills with outdated technology. In our view, steel mills equipped for vanadium-bearing iron ore use more advanced technology and would not be targets for closure.

## Company Background

China VTM Mining (VTM) is the second largest Sichuan-based operator of iron ore mines, with a 9% provincial market share. It produces and sells iron concentrate, iron pellets and medium-grade titanium concentrate. Iron concentrate and pellets accounted for 98% of FY09 sales (2008: 95%). Sichuan iron concentrate is produced from vanadium-bearing titanomagnetite deposits, resulting in lower iron content of 55%. Thus local iron-concentrate prices are lower than in eastern regions.

VTM operated two iron mines as at end-FY09, Xiushuihe Mine and Baicao Mine, with total iron ore resources of 75 mt. Through a series of acquisitions and further explorations, particularly at Xiushuihe Mine which has a remaining life of only five years, VTM's iron ore resource base is expected to reach 366mt, sufficient for more than 30 years of production at the FY10 level. Options to acquire two more mines (Maoling Mine and Jingzhi Mine) could add another 110 mt to its resource base.

Figure 15: Iron resources owned by VTM

Location	Resources (mt)	Type of License	Remarks
Xiushuihe Mine	118	Mining Rights	In operation
Baicao Mine	122	Mining Rights	In operation
Yangqueqing Mine	100	Mining Rights	Post-IPO acquisition
Cizhuqing Mine	26	Exploration Rights	Post-IPO acquisition
<b>Total</b>	<b>366</b>		

Sources: The Company and Sun Hung Kai Financial

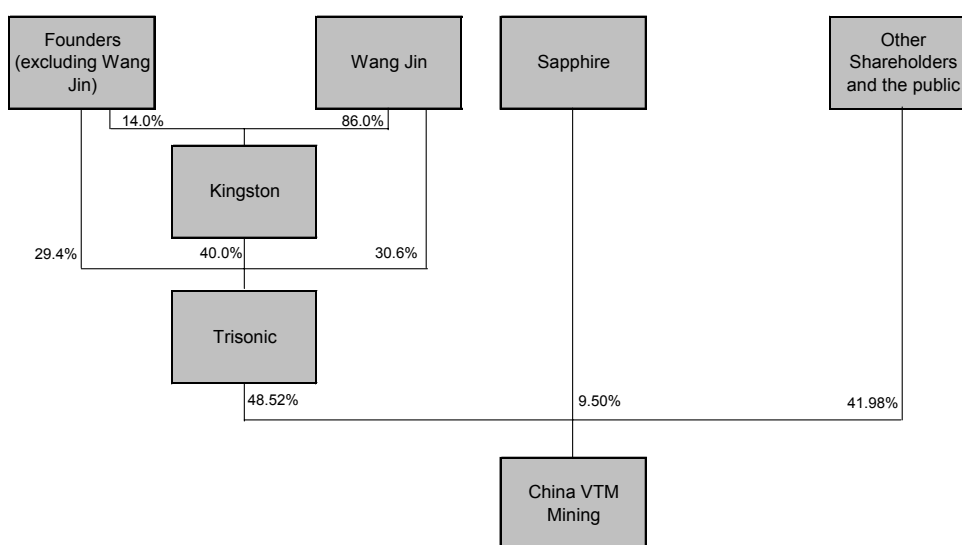
\* Resources include current reserves and potential resources after exploration

VTM has signed supplementary agreements with major customers to set benchmark sales prices for FY09-FY10, which would apply even if the market prices for iron concentrate/pellets are below the benchmarks. This limits ASP downside risk. However, when market prices are above the benchmarks, VTM can add only 50% of the difference to its final sale price. The market price for iron concentrate in Sichuan was only RMB620-RMB630/t as at end-June 2010, slightly above the FY10 benchmark of RMB590/t.

VTM listed in Hong Kong in October 2009, raising net proceeds of about RMB1.44bn, which will be used to acquire other mines, expand existing mine boundaries, and expand and upgrade production facilities.

Controlling shareholder Trisonic International holds a 48.36% equity interest, and the founders of VTM hold the entire equity interest of Trisonic. The founders are also majority shareholders of Chuan Wei, the second largest steel company in Sichuan and a current VTM customer.

Figure 16: Shareholding structure of VTM



Sources: The Company and Sun Hung Kai Financial

## Key Management Background

### Mr. Jiang Zhong Ping, Chairman and Executive Director

Mr. Jiang has more than 19 years of experience in production and quality control in the steel industry. He was formerly a technician, head of quality control department and chief manager of the audit department of Chuan Wei from August 1989 to April 2008. He is responsible for overall management and strategic planning and business development.

### Mr. Liu Feng, CEO and Executive Director

Mr. Liu has more than 20 years of experience in civil engineering, quality control and technology applications in the steel industry. He was formerly a technician, deputy head of civil engineering department, and deputy general managers of a number of subsidiaries of Chuan Wei from August 1988 to October 2005. He is responsible for management of daily operations and development of operations.

### Mr. Wang Yun Jian, COO and Executive Director

Mr. Wang has 19 years of experience in steel production, technology applications and operations management in the steel industry. He was formerly a technician, technical chief, deputy general manager and financial chief of Chuan Wei from October 1998 to November 2005. He is responsible for VTM's daily operations.

### Mr. Yu Xing Yuan, CIO and Executive Director





Mr. Yu has 15 years of experience in steel production, technology applications and operations management in the steel industry. He was formerly a technician, technical chief and head of technical development department of Chuan Wei from August 1992 to September 2003. He is responsible for VTM's business development.

### Mr. Kong Chi Mo, CFO

Mr. Kong was a senior audit manager at KPMG's Beijing Office. In his eight years with KPMG, he was the engagement manager on audits for the IPOs and annual audits of several Chinese companies listed in Hong Kong and the U.S.



Figure 17: China VTM Mining – SWOT analysis

 <h3>Strengths</h3> <ul style="list-style-type: none"> <li>▪ <b>Local leader</b>, the second largest iron mine operator in Sichuan, with 9% local market share.</li> <li>▪ <b>Pure iron play</b>. Upstream business has no margin pressure, with higher net margins than steel companies (30% vs. 2%), making profitability more stable.</li> <li>▪ <b>Only listed Sichuan iron ore producer</b>, giving better access to funding, which it can use to expand faster than peers.</li> <li>▪ <b>Low cost producer</b>, due to 1) use of open-pit mining (lowest 10%-20% on the PRC cost curve); 2) low transport costs, as most customers collect goods direct or from contractors' processing plants. Where it pays transport costs, it is reimbursed by adding these costs to the sales price.</li> <li>▪ <b>Ties with Chuan Wei, the second largest steel company in Sichuan, have secured transport and possibly faster growth</b>. Chuan Wei's controlling shareholder Trisonic International is 100% held by the founders of VTM. Chuan Wei subsidiary Tongyu gives VTM's customers priority use of the railway transport capacity it has secured from Chengdu Railway Bureau. We believe Chuan Wei gives it higher priority when purchasing iron ore, which will help it post higher than industry growth.</li> <li>▪ <b>Strong resource base allows rapid expansion</b>. Through acquisitions and further exploration, iron ore resources increased by 125% from 162 mt to 366 mt, sufficient for more than 30 years of production at the FY10 level. Options to acquire two more mines (Maoling and Jingzhi Mine) could add a further 110 mt.</li> <li>▪ <b>Efficient use of working capital; short trade-receivables turnover</b>. Cash conversion cycle was only 20 days and trade receivables turnover 38 days in FY09 because: 1) sales are mainly to distributors, who pay faster than steel mills; 2) gives only 30 days of credit to customers. Trade receivables balance accounted for only 3% of total assets and 8% of sales in FY09.</li> <li>▪ <b>Net cash of RMB905M</b> as at end-1H10, sufficient for planned capex of RMB140m for the rest of FY10 with a strong operating-cash-flow yield of 12% in 2010. High net cash can allow it to pursue more growth opportunities and withstand drops in iron ore prices better than peers.</li> </ul>	 <h3>Weaknesses</h3> <ul style="list-style-type: none"> <li>▪ <b>Expiration of tax concessions</b> could cut profitability. Starting from 2012, effective tax rate will increase from the current 16% to 30%.</li> </ul>
 <h3>Opportunities</h3> <ul style="list-style-type: none"> <li>▪ <b>Rapid growth in Sichuan crude steel production capacity of 10.1 mt over 2010-12</b>, equal to 67% of crude steel output in 2009. Sichuan is China's third largest province by iron ore reserves, making it an ideal crude steel production base. Steel demand driven by: <ol style="list-style-type: none"> <li>1. <b>Urbanization</b>, only 38% in the Western region, compared to China's average of 46% and global average of 49%.</li> <li>2. <b>China Western Development program</b>. Investment target for 2010 is 45% higher than 2009. Even after 10 years into the program, disposal income per capita in the West was still 18% less than China's average. We believe current wealth disparities will continue to drive investment and economic growth in the West, and iron and steel demand in Sichuan.</li> </ol> </li> <li>▪ <b>Government policy encouraging the use of vanadium-bearing resources</b>. Addition of vanadium to steel can increase steel strength. Government policy mandating the use of high-strength steel for construction would increase demand for vanadium. Vanadium and titanium steel are among Sichuan's 10 priority industries.</li> <li>▪ <b>Renewing sales contracts at favorable benchmark prices</b> after contracts end in 2010.</li> <li>▪ <b>Higher than expected iron prices</b>.</li> <li>▪ <b>Further cross-province sales opportunities and narrowing of Sichuan-Hebei iron ore price gap</b> due to improvement in Sichuan's transport infrastructure from construction of high-speed railways.</li> </ul>	 <h3>Threats</h3> <ul style="list-style-type: none"> <li>▪ <b>Operational risk from using third-party contractors</b>.</li> <li>▪ <b>Higher-than-expected production costs</b> could lower the net margin.</li> <li>▪ <b>Possible production disruption from natural disasters</b>, such as droughts or earthquakes. Water or electricity shortages could also adversely affect operations</li> <li>▪ <b>China's efforts to close small, inefficient steel plants</b> to ease overcapacity in steel production by 100 mt in 2010-11, from current capacity of more than 700 mt. This could cut iron ore demand, though we see no impact on VTM as steel mills using vanadium-bearing iron ore use more advanced technology and should not be targeted for closure.</li> <li>▪ <b>Lower steel demand due to:</b> <ol style="list-style-type: none"> <li>1. <b>Further anti-dumping duties</b> on China steel exports.</li> <li>2. <b>RMB appreciation</b>, which could dampen demand for steel exports.</li> <li>3. <b>Possible policy tightening and expiration of car subsidies in China</b> this year may reduce steel demand</li> </ol> <p>However, only limited risks as 1) Transport difficulties make iron and steel consumption in Western region much more a local demand issue and less affected by exports; and 2) We do not expect policy tightening on housing in the Western region and expect expiration of car subsidies to have a limited short-term impact.</p> </li> </ul>

Source: Sun Hung Kai Financial



Figure 18: China VTM Mining – Porter’s Five Forces

**Threat of substitute products – Low to medium**

- Blast furnace iron is the predominant method of steel production, accounting for 99% of total production. Recycling of iron/steel scrap can be used instead of mined iron for steel production, but is uncommon due to the high electricity costs involved. Aluminum could be a substitute for steel (mainly in autos), even though it is much more expensive.

**Threat of entry of new competitors – High**

- Sichuan is rich in iron ore reserves, ranking third among China’s provinces. Entry barriers are low given the abundant reserves, as new entrants only need to acquire an iron ore mine and outsource all mining or processing operations.

**Intensity of competitive rivalry – High**

- Iron ore/pellets are commodities with no differentiation. Competition is mainly based on price.

**Bargaining power of customers – Low**

- With iron ore shortages around China, bargaining power of customers is low, evident in VTM only granting 30 days of credit to customers.

**Bargaining power of suppliers – Low to Medium**

- VTM’s current largest supplier is its mining contractor. Given the low technology content of open-pit mining operations, the bargaining power of its suppliers is low. However, using only one mining contractor increases the contractor’s bargaining power.

Source: Sun Hung Kai Financial

## Financial Statements: Profit and Loss, Balance Sheet and Key Ratios

Figure 19: VTM – Profit and Loss Statement

Year ended 31 Dec., RMBm	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 CAGR (%)
Revenue	366.7	791.2	1,083.9	1,489.9	1,918.4	2,469.6	46.4
COGS	(187.8)	(364.1)	(582.1)	(706.2)	(906.4)	(1,168.1)	44.1
Gross profit	178.9	427.0	501.7	783.7	1,012.1	1,301.6	48.7
Operating expenses	(102.1)	(92.4)	(96.7)	(111.6)	(122.7)	(138.3)	6.3
Other operating income	1.4	17.1	40.6	32.0	32.0	32.0	87.9
Operating profit	78.2	351.7	445.6	704.1	921.4	1,195.3	72.5
Finance expenses	(1.9)	(3.0)	(7.8)	(19.8)	(16.9)	(8.4)	34.5
PBT	75.7	348.8	436.6	684.3	904.5	1,186.9	73.4
Tax	(1.4)	(30.1)	(69.7)	(119.8)	(158.3)	(356.1)	203.7
Net profit	53.7	248.7	327.9	525.1	694.0	772.6	70.5
EPS –RMB fen	4.0	17.0	20.0	25.3	33.4	37.2	56.2

Sources: Bloomberg and Sun Hung Kai Financial

Revenue growth over FY10E-12E will be driven by 86% sales volume growth, in line with a 1.6m iron ore demand growth for VTM due to rising crude steel production capacity in Sichuan.

Figure 20: VTM – Profit and Loss Statement (Year on Year Growth)

Year ended 31 Dec., %	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 CAGR (%)
Revenue	73.7	115.8	37.0	37.5	28.8	28.7	46.4
COGS	87.5	93.9	59.9	21.3	28.3	28.9	44.1
Gross profit	61.2	138.7	17.5	56.2	29.1	28.6	48.7
Operating expenses	71.7	(9.4)	4.6	15.3	9.9	12.7	6.3
Other operating income	1,472.4	1,152.2	136.9	(21.2)	0.0	0.0	87.9
Operating profit	51.5	349.8	26.7	58.0	30.9	29.7	72.5
Finance expenses	7.1	58.8	154.8	154.5	(14.6)	(50.0)	34.5
PBT	53.1	360.9	25.2	56.7	32.2	31.2	73.4
Tax	(92.0)	2,081.9	131.8	71.8	32.2	124.9	203.7
Net profit	133.0	363.2	31.8	60.1	32.2	11.3	70.5
EPS attributable to shareholders	100.0	325.0	17.6	26.5	32.2	11.3	56.2

Sources: Bloomberg and Sun Hung Kai Financial

Revenue growth in FY10E is driven by a 13%/19% increase in ASPs for iron concentrates/pellets. COGS will therefore grow slower than revenues.

EPS growth to slow to 11% in FY12E due to expiration of tax subsidies, which will lift the effective tax rate by 12.5 ppts.

Figure 21: VTM – Profit and Loss Statement (Common Size)

Year ended 31 Dec., %	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 Average
Revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0
COGS	(51.2)	(46.0)	(53.7)	(47.4)	(47.2)	(47.3)	(48.8)
Gross profit	48.8	54.0	46.3	52.6	52.8	52.7	51.2
Operating expenses	(27.8)	(11.7)	(8.9)	(7.5)	(6.4)	(5.6)	(11.3)
Other operating income	0.4	2.2	3.7	2.1	1.7	1.3	1.9
Operating profit	21.3	44.5	41.1	47.3	48.0	48.4	41.8
Finance expenses	(0.5)	(0.4)	(0.7)	(1.3)	(0.9)	(0.3)	(0.7)
PBT	20.6	44.1	40.3	45.9	47.2	48.1	41.0
Tax	(0.4)	(3.8)	(6.4)	(8.0)	(8.3)	(14.4)	(6.9)
Net profit	14.6	31.4	30.2	35.2	36.2	31.3	29.8

Sources: Bloomberg and Sun Hung Kai Financial

Gross margin is expected to be stable over FY10-FY12 with stable ASPs. Unit costs are expected to stabilize as indicated by 1H10 results.

Figure 22: VTM – Balance Sheet

As at 31 Dec., RMBm	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 CAGR (%)
Cash and securities	7.6	133.1	1,884.0	1,337.4	1,360.9	1,757.8	197.2
Accounts receivable	0.0	87.6	137.4	188.9	243.3	313.2	908.6
Inventory	31.8	65.6	70.9	86.0	110.4	142.3	34.9
Other current assets	266.9	119.3	140.9	193.7	249.4	321.1	3.8
Total current assets	306.3	405.7	2,233.3	1,806.1	1,964.0	2,534.3	52.6
Net fixed assets	122.9	380.4	544.7	1,443.8	1,785.7	2,057.4	75.7
Other long-term assets	163.7	165.2	295.5	661.8	771.4	731.0	34.9
Total assets	592.9	951.3	3,073.5	3,911.7	4,521.0	5,322.7	55.1
Short-term debt	44.3	0.0	100.0	150.0	25.0	25.0	(10.8)
Accounts payable	64.4	108.0	85.9	94.4	121.1	156.1	19.4
Other current liabilities	193.2	181.9	275.0	293.6	338.7	391.1	15.2
Total current liabilities	301.9	290.0	460.9	537.9	484.7	572.2	13.6
Long-term debt	0.0	0.0	0.0	150.0	125.0	100.0	N/A
Other long-term liabilities	5.0	57.2	5.7	34.3	72.4	114.8	87.2
Total liabilities	306.9	347.2	466.6	722.2	682.2	787.0	20.7
Shareholders equity	286.0	604.1	2,606.8	3,189.4	3,838.8	4,535.7	73.8
Minorities	83.0	64.8	92.8	132.3	174.7	219.8	21.5
Total equity and liabilities	592.9	951.3	3,073.5	3,911.7	4,521.0	5,322.7	55.1

Sources: Bloomberg and Sun Hung Kai Financial

*FY07 sales were to Chuan Wei on cash basis, therefore no A/R..*

*Fixed assets will increase as VTM started building processing and pelletizing plants in 2010.*

*Other long-term assets increase in FY10 due to acquisition of mines with IPO proceeds.*

Figure 23: VTM – Balance Sheet (Common Size)

As at 31 Dec., %	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 Average
<b>Total assets</b>							
Cash and securities	1.3	14.0	61.3	34.2	30.1	33.0	29.0
Accounts receivable	0.0	9.2	4.5	4.8	5.4	5.9	5.0
Inventory	5.4	6.9	2.3	2.2	2.4	2.7	3.6
Other current assets	45.0	12.5	4.6	5.0	5.5	6.0	13.1
Total current assets	51.7	42.6	72.7	46.2	43.4	47.6	50.7
Net fixed assets	20.7	40.0	17.7	36.9	39.5	38.7	32.3
Other long-term assets	27.6	17.4	9.6	16.9	17.1	13.7	17.0
Total assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Total equity and liabilities</b>							
Short-term debt	7.5	0.0	3.3	3.8	0.6	0.5	2.6
Accounts payable	10.9	11.4	2.8	2.4	2.7	2.9	5.5
Other current liabilities	32.6	19.1	8.9	7.5	7.5	7.3	13.8
Total current liabilities	50.9	30.5	15.0	13.8	10.7	10.7	21.9
Long-term debt	0.0	0.0	0.0	3.8	2.8	1.9	1.4
Other long-term liabilities	0.8	6.0	0.2	0.9	1.6	2.2	1.9
Total liabilities	51.8	36.5	15.2	18.5	15.1	14.8	25.3
Shareholders equity	48.2	63.5	84.8	81.5	84.9	85.2	74.7
Minorities	14.0	6.8	3.0	3.4	3.9	4.1	5.9
Total equity and liabilities	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Bloomberg and Sun Hung Kai Financial

Figure 24: VTM – Cash Flow Statement

Year ended 31 Dec., RMBm	FY07	FY08	FY09	FY10E	FY11E	FY12E
Profit before tax	75.7	348.8	436.6	684.3	904.5	1,186.9
Depreciation and amortization	11.6	26.6	42.5	96.6	145.1	165.1
Change in WC	(180.1)	72.1	(106.1)	(90.6)	(62.6)	(86.0)
Other adjustments	(4.1)	(24.5)	(31.0)	(73.1)	(102.2)	(295.7)
Cash flows from operations	(96.9)	423.0	342.1	617.2	884.8	970.3
Capex	(31.7)	(184.6)	(276.4)	(1,300.0)	(596.5)	(396.5)
Other adjustments	(4.5)	(82.5)	(51.4)	(62.0)	0.0	0.0
Cash flows from investing	(36.2)	(267.1)	(327.7)	(1,362.0)	(596.5)	(396.5)
Shares issues/(purchases)	0.0	0.0	1,661.7	0.0	0.0	0.0
Dividends	0.0	0.0	(20.0)	(1.8)	(114.9)	(151.9)
Change in debt	0.0	(30.0)	100.0	0.0	0.0	0.0
Cash flows from financing	137.4	(30.5)	1,736.6	198.2	(264.9)	(176.9)
Cash at beginning of year	3.3	7.6	133.1	1,884.0	1,337.4	1,360.9
Change in cash	4.3	125.5	1,750.9	(546.6)	23.4	396.9
Cash at end of year	7.6	133.1	1,884.0	1,337.4	1,360.9	1,757.8

Sources: Bloomberg and Sun Hung Kai Financial

Figure 25: VTM – Key Ratios

Year ended 31 Dec.	FY07	FY08	FY09	FY10E	FY11E	FY12E	FY07-12 Average
<b>Profitability ratios</b>							
Gross margin – %	48.8	54.0	46.3	52.6	52.8	52.7	51.2
Operating margin – %	21.3	44.5	41.1	47.3	48.0	48.4	41.8
Net margin – %	14.6	31.4	30.2	35.2	36.2	31.3	29.8
ROAA – %	13.4	32.2	16.3	15.0	16.5	15.7	18.2
ROAE – %	29.9	55.9	20.4	18.1	19.7	18.5	27.1
<b>Other ratios</b>							
A/R/sales – %	0.0	11.1	12.7	12.7	12.7	12.7	10.3
Capex/sales – %	8.6	23.3	25.5	87.3	31.1	16.1	32.0
Capex/depreciation – %	292.4	979.7	889.5	1,345.4	411.2	240.1	693.0
Net debt/equity (net cash) – %	12.8	(22.0)	(68.4)	(32.5)	(31.5)	(36.0)	(29.6)
Inventory/sales – %	8.7	8.3	6.5	5.8	5.8	5.8	6.8
Effective tax rate – %	1.8	8.6	16.0	17.5	17.5	30.0	15.2
Inventory turnover – days	50.8	49.0	42.8	40.6	39.6	39.5	43.7
A/R turnover – days	0.2	20.3	37.9	40.0	41.1	41.1	30.1
A/P turnover – days	88.9	79.3	60.3	45.6	42.2	42.2	59.8
Cash conversion cycle – days	(37.9)	(10.1)	20.4	34.9	38.4	38.4	14.0
<b>ROAA component analysis</b>							
Revenue/average assets – %	91.2	102.5	53.9	42.7	45.5	50.2	64.3
COGS/average assets – %	(46.7)	(47.2)	(28.9)	(20.2)	(21.5)	(23.7)	(31.4)
Gross profit/average assets – %	44.5	55.3	24.9	22.4	24.0	26.4	32.9
Operating expenses/average assets	(25.4)	(12.0)	(4.8)	(3.2)	(2.9)	(2.8)	(8.5)
Other operating income/average as %	0.3	2.2	2.0	0.9	0.8	0.7	1.2
Operating profit/average assets – %	19.5	45.6	22.1	20.2	21.9	24.3	25.6
Finance expenses/average assets –	(0.5)	(0.4)	(0.4)	(0.6)	(0.4)	(0.2)	(0.4)
PBT/average assets – %	18.8	45.2	21.7	19.6	21.5	24.1	25.1
Tax/average assets – %	(0.3)	(3.9)	(3.5)	(3.4)	(3.8)	(7.2)	(3.7)
Net profit/average assets – %	13.4	32.2	16.3	15.0	16.5	15.7	18.2
<b>ROAE component analysis</b>							
Revenue/average equity – %	203.9	177.8	67.5	51.4	54.6	59.0	102.4
COGS/average equity – %	(104.4)	(81.8)	(36.3)	(24.4)	(25.8)	(27.9)	(50.1)
Gross profit/average equity – %	99.5	96.0	31.3	27.0	28.8	31.1	52.3
Operating expenses/average equity	(56.8)	(20.8)	(6.0)	(3.8)	(3.5)	(3.3)	(15.7)
Other operating income/average eq %	0.8	3.8	2.5	1.1	0.9	0.8	1.7
Operating profit/average equity – %	43.5	79.0	27.8	24.3	26.2	28.5	38.2
Finance expenses/average equity –	(1.1)	(0.7)	(0.5)	(0.7)	(0.5)	(0.2)	(0.6)
PBT/average equity – %	42.1	78.4	27.2	23.6	25.7	28.3	37.6
Tax/average equity – %	(0.8)	(6.8)	(4.3)	(4.1)	(4.5)	(8.5)	(4.8)
Net profit/average equity – %	29.9	55.9	20.4	18.1	19.7	18.5	27.1

Sources: Bloomberg and Sun Hung Kai Financial

*Higher gross margin in FY10 due to 13%/19% higher ASP for iron concentrate/pellets vs. FY09.*

*ROE lower from FY08 due to larger reserves base built up from operations and IPO in FY09.*

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