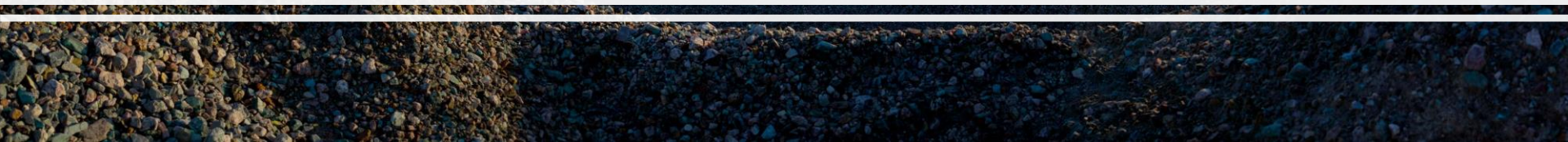




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# 2019 Annual Results Investor Presentation



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# Overview

## Financial performance

## Business review

**Revenue** **RMB68.68bn**



**Unique portfolio to counter cyclical risks**

**EBITDA** **RMB8.08bn**



**Strong focus on ESG practices and sustainable development**

**Net profit attributable to parent** **RMB1.86bn**



**Stable operations and cost rationalization programs underpin performance though the cycle**

**Net operating cash flow** **RMB1.71bn**



**Higher efficiency delivered by internal restructuring**

**Capex** **RMB2.72bn**



**Strong liquidity position and stable shareholder returns**

**Debt-to-asset ratio** **57.65%**



**Continued optimization of business portfolio fueled by the "two-wheel drive"**





## **Business review**

Financial performance

Outlook

Industry and market

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# Business review

Meritocracy, cost-control,  
continuous improvement, and achievement-sharing



## Portfolio of unique set of assets to counter cyclical risks

- Price volatility mitigated by diversification across commodities and geographical footprint;
- Trading arm IXM, exhibits strong counter-cyclical features providing additional stability in performance;
- Global expansion across products leads to the diversification of market and client base, and of revenue streams and cash flows.



## Enhanced ESG practices and efforts on sustainable development

- Recorded zero fatalities in 2019 and outperformed TRIR on industry average basis;
- Awarded top MSCI rating in mining;
- Application 5G technology to further support smart-mine development.



## Stable operations with benefits from cost reduction efforts

- Reported ~RMB70bn revenue from core operation in line with expectations;
- Reported record performance by IXM since it was founded;
- Achieved RMB1.469bn savings in cash cost incl.



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## Higher efficiency delivered by internal restructuring

- HQ realignment to deliver a more streamlined and efficient structure;
- Leveraged synergy with IXM to consolidate overseas sales;
- Restructured Cu&Co and Nb&P teams for higher efficiency



## Strong liquidity position and stable shareholder return

- Reported 57.65% debt-to-asset ratio (vs 51.36% excl. IXM) and RMB15.6bn ending cash balance;
- Bank credit facilities exceeded RMB110bn, 37% used;
- Maintained an annual payout ratio of over 50% since its listing on A-share market



## Continued optimization of business portfolio fueled by the “two-wheel drive”

- TFM 10K project is progressing on schedule;
- Acquisition of IXM helps extend business presence along the value chain and creates a model of mining + trading;
- Invest in the future: equity participation in HPAL in Indonesia;
- Acquired APT from Fanya Exchanges, increasing our tungsten reserves.

# 1. A unique counter cyclical portfolio



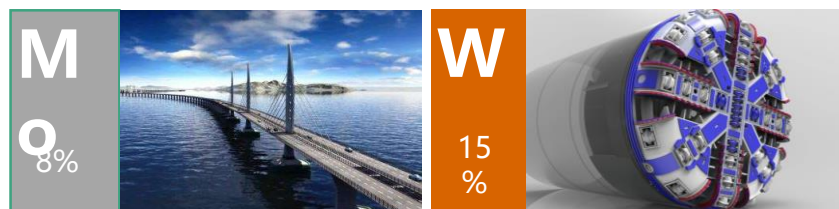
A diversified portfolio that mitigates price volatility and market risks. Molybdenum and tungsten prices remain stable throughout 2019.



World-leading copper producer



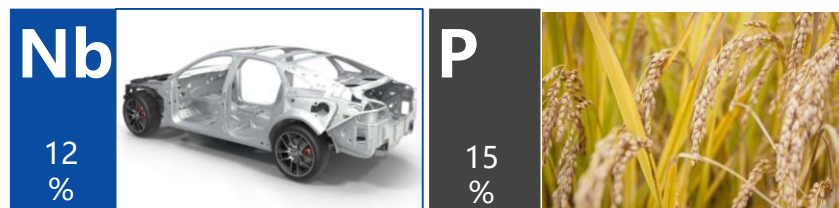
The 2<sup>nd</sup> largest cobalt producer globally



One of the world's top 5 moly producers



One of the world's largest tungsten producers



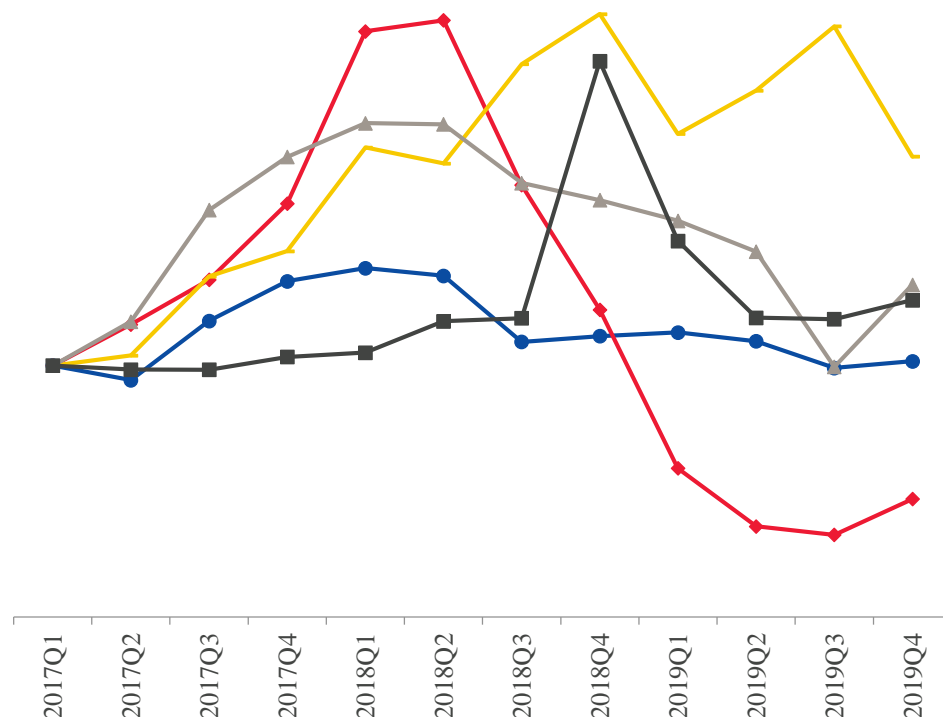
World's 2<sup>nd</sup> largest niobium producer



Brazil's 2<sup>nd</sup> largest phosphate fertilizer producer

Price curves of key products

—●— Cu    —◆— Co    — FeMo    —▲— W concentrate    —■— FeNb

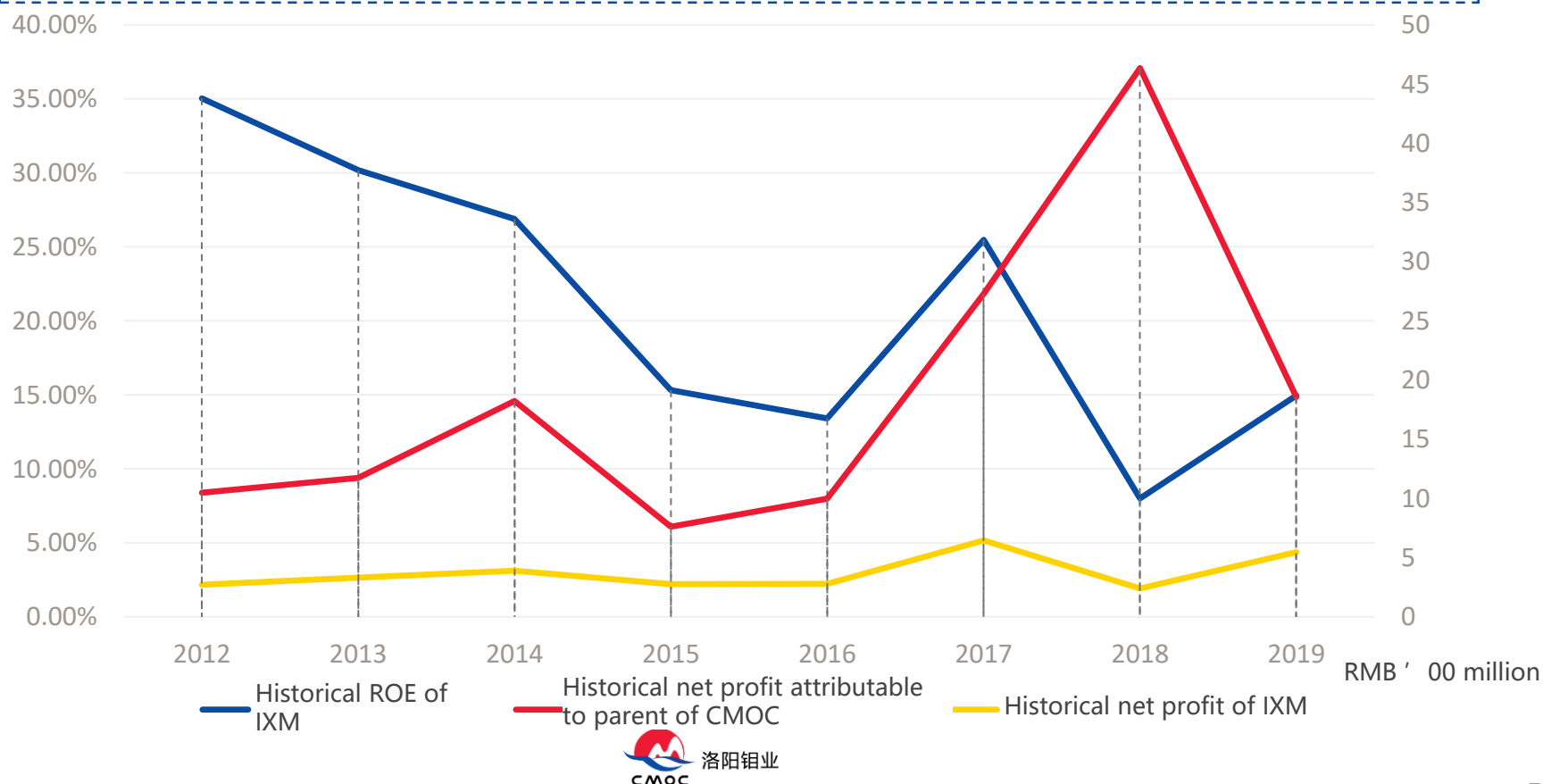


Source: LME copper spot, niobium import price in Brazil (Wind) , China 99.8% metal cobalt price (Asian Metal) , China 65% tungsten concentrate price (Asian Metal) , China 60% FeMo price (Asian Metal)

# 1. A unique counter cyclical portfolio (cont'd)

An extended presence along the supply chain enabled by the acquisition of IXM, the third largest base metal trader in the world, was completed in July 2019.

- Mining is an industry with strong cyclicality while trading is counter-cyclical. Average ROE of IXM during 2012-2019 is 21.2%;
- IXM has futures and spot allocation and sound risk control framework. It contributes stable income streams to the Company at ~15% following its consolidation in July 2019.





## 2. Enhanced ESG practices and efforts on sustainable development

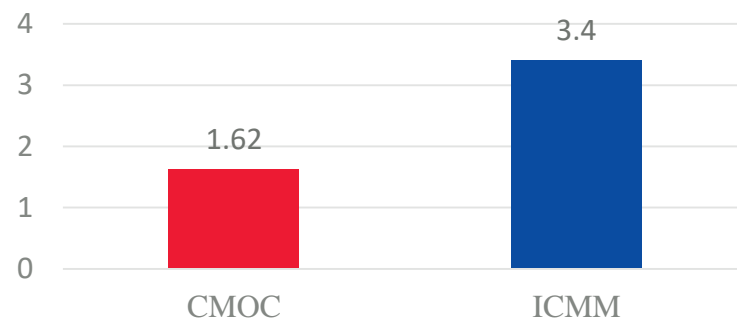
### Zero fatalities

- Safety is the core corporate value. In 2019, the Company achieved zero fatalities and zero material environmental incidents across its global operations;
- The Company recorded a TRIR of 1.62, outperforming the global industry average;
- Meanwhile, 14 LTIs were recorded, representing a LTIR of 0.32 per million man-hours

### Sound framework of sustainable development

- The Company enacted eight compliance and sustainability policies in 2019;
- It maintained a BBB rating by MSCI ESG Ratings as updated in January 2020, among the top performers in the industry;
- Sustainable Development Executive Committee was set up to oversee the execution of firmwide sustainability strategy;
- All mine sites receive regular ISO14001 and OSHAS18001 certifications.

### 2019 CMOC TRIR vs. industry



Note: ICMM: International Council on Mining and Metals. Data is average of 23 ICMM members in 2018.

### Achievement-sharing with all stakeholders

- In 2019, CMOC's total "key economic contributions" worldwide reached over RMB26.3bn\*;
- Total investment in community programs was RMB207.5mn;
- Total donations to Luanchuan county, home to our Mo&W business locates, was over RMB130mn, facilitating the county to shake off poverty.

\* Key economic contributions include payments to suppliers, payments to employees, and payments to investors (incl. dividend and interest payment), payments to governments, and investment in community programs. 2019 statistics does not include IXM.



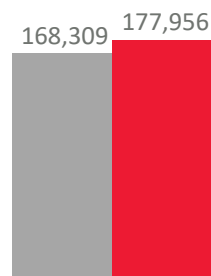
### 3. Stable operations performed in line with budget



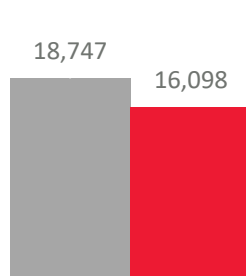
#### Stable production at all operations

In 2019, CMOC's global operations produced 210,000 tonnes of copper (TFM+NPM), 16,000 tonnes of cobalt, 15,000 tonnes of molybdenum, 11,000 tonnes of tungsten, 7,500 tonnes of niobium, and 1.1 million tonnes of phosphate fertilizer. Trade volume of IXM totaled 5.11 million tonnes.

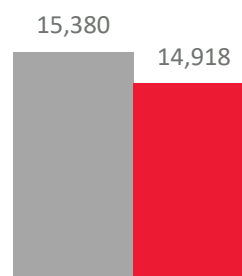
Cu (TFM) (t)



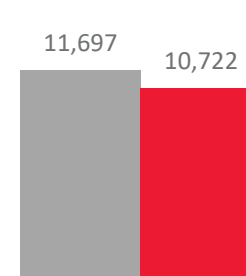
Co (t)



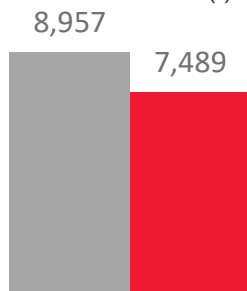
Mo (t)



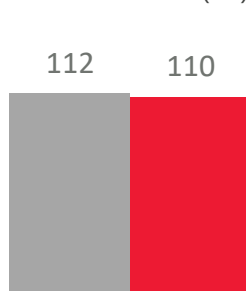
W (t)



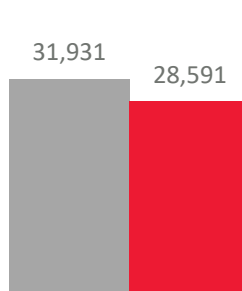
Nb (t)



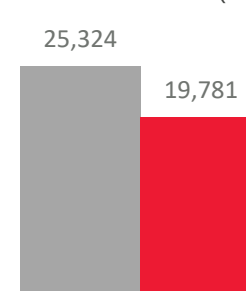
P (mt)



Cu (NPM) (t)



Au (oz)



■ 2018 production

■ 2019 production

### 3. Stable operations delivered significant cost reduction



Achieved RMB1.469bn savings in cash cost as 3-year COP implemented on schedule

Savings in cash cost across mining operations

**RMB1.288bn**

HQ cost savings by optimizing management structure

**RMB181mn**

**Cu&  
Co**

Savings in total cash cost as management restructured

**USD131.14mn**

**Mo&  
W**

Savings via management improvement and technical upgrade

**RMB22mn**

**Nb&  
P**

Savings in total cash cost through multiple initiatives

**USD45.03mn**

**Cu&  
Au**

Savings through cost control efforts

**USD6.84mn**

### 3. Stable operations delivered significant cost reduction (cont'd)



#### Cu&Co: Steadily improving production and operations

	2019 Production Guidance	2019A Production	2020 Production guidance	(kt)
Copper	170-200	178	163-200	
Cobalt	16.5-19	16	14-17	

#### || Restructuring of management team delivering higher efficiency

- New management team on site at end of April and restructuring accomplished in an orderly manner.

#### || Steady improvement in production during 2H2019

- In response to price movement of copper and cobalt, TFM had followed a strategy that focuses on maximizing copper production. Meanwhile, volume and quality of production steadily improving due to technical upgrade. Copper production reached a new monthly record since 2018. Annual copper production increased by nearly 6% over 2018 and recovery by 2.9 percent.

#### || Benefits from cost and efficiency programs started to show

- Cash cost was down USD130mn in 2019. Unit cost of mining was down by 29%, plant unit cost down 7%, and administrative costs down 11%.

#### || 10K expansion project on schedule

- Under leadership of the new management team, TFM launched the 10K project to increase throughput. The project is expected to commission in 4Q2020.

### 3. Stable operations delivered significant cost reduction (cont'd)

#### Mo&W: An example of low-cost and high-efficiency

	2019 Production Guidance	2019A Production	2020 Production Guidance	(kt)
Molybdenum	14.5-16	14.9	12-15	
Tungsten	9-10	10.7	7-9	

#### Stable operations and remarkable performance

- Maintain stable production despite declining ore grade;
- 2019 EBITDA contribution: RMB1.922bn

#### Technological innovation

- Pioneer in autonomous mining vehicles and application of 5G technology as the first smart mine in China;
- Developed and deployed over 40 electric mining trucks which reduced 50% of energy consumption and maintenance cost as compared to diesel trucks of the same power.

#### Refine operation structure and improve comprehensive utilization of resources

- Shangfanggou production resumed, representing a big step towards a more refined operation structure
- Comprehensive utilization: Fe recovery project was commissioned.



# 4. Higher efficiency delivered by internal restructuring



- Consolidation of sales of key products including copper, cobalt and niobium;
- Participate in large off-takes;
- More hedging opportunities against market volatility, supporting stable performance and demonstrating the counter-cyclical nature of trading business

Phoenix, Arizona, the USA

Over USD10mn savings in management cost by removing the management function of the Phoenix office

NioBras / CopeBras



- Management team changes aiming for higher efficiency;
- Technical experts from Luanchuan sent to Brazil to improve niobium recovery;
- Study comprehensive utilization of resources



Tenke Fungurume



- Stronger efforts to improve operations and reduce management and operational costs as the Chinese team went on site. The mid to long-range mining plan was developed;
- Close interaction with IXM on product sales;
- Continued efforts on cost and efficiency program.



Assets in China



- Smart-mine building: Sandaozhuang mine has achieved full coverage of 5G network and is the first in China that applies 5G technology to unmanned mine; a pioneer in deploying electric mining trucks, reducing 70% energy consumption as compared to diesel vehicles. Electricity became the source of energy for drilling works instead of oil;
- Speed up resumption of Shangfanggou production and upgrading of related processing plants and implement cost and efficiency programs;
- Comprehensive utilization of resources.

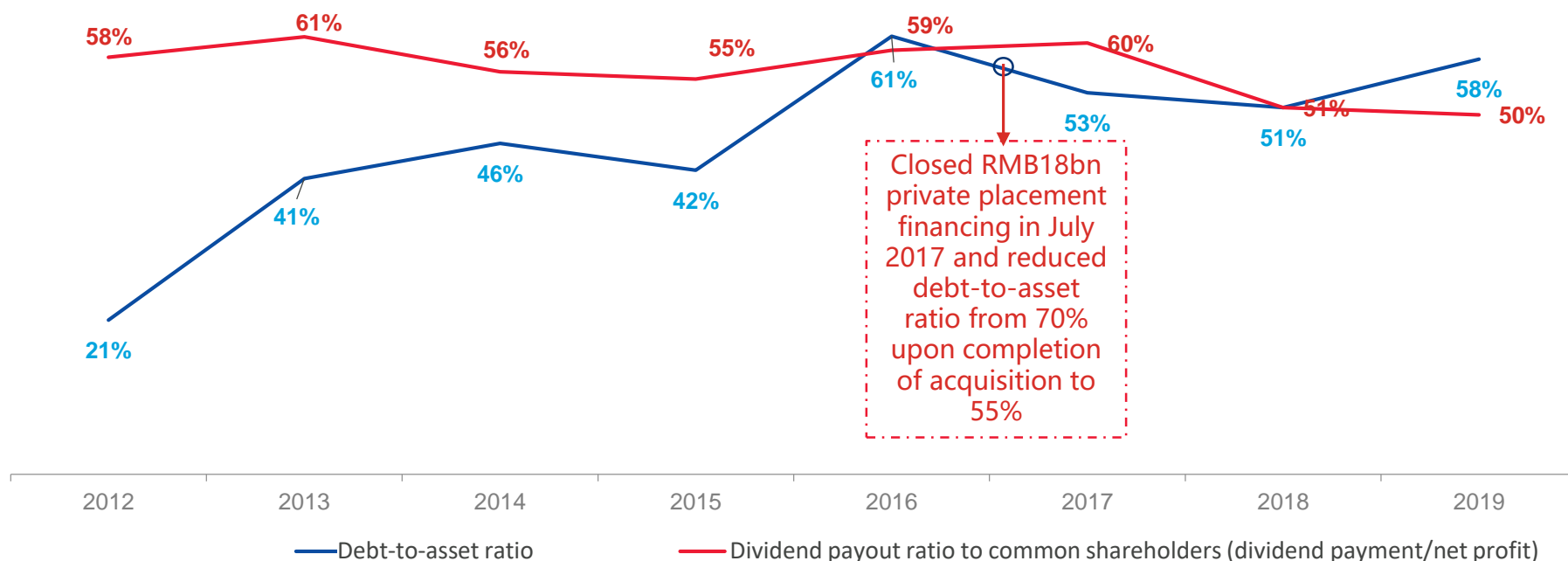
Northparkes



- Maintain stability of management team. Focus on development of new ore body;
- Targeted exploration for conversion of reserves and resources;
- Improve risk control and manage AUD forex risks via hedging and other strategy in coordination with IXM

## 5. Strong liquidity position and consistent shareholder return

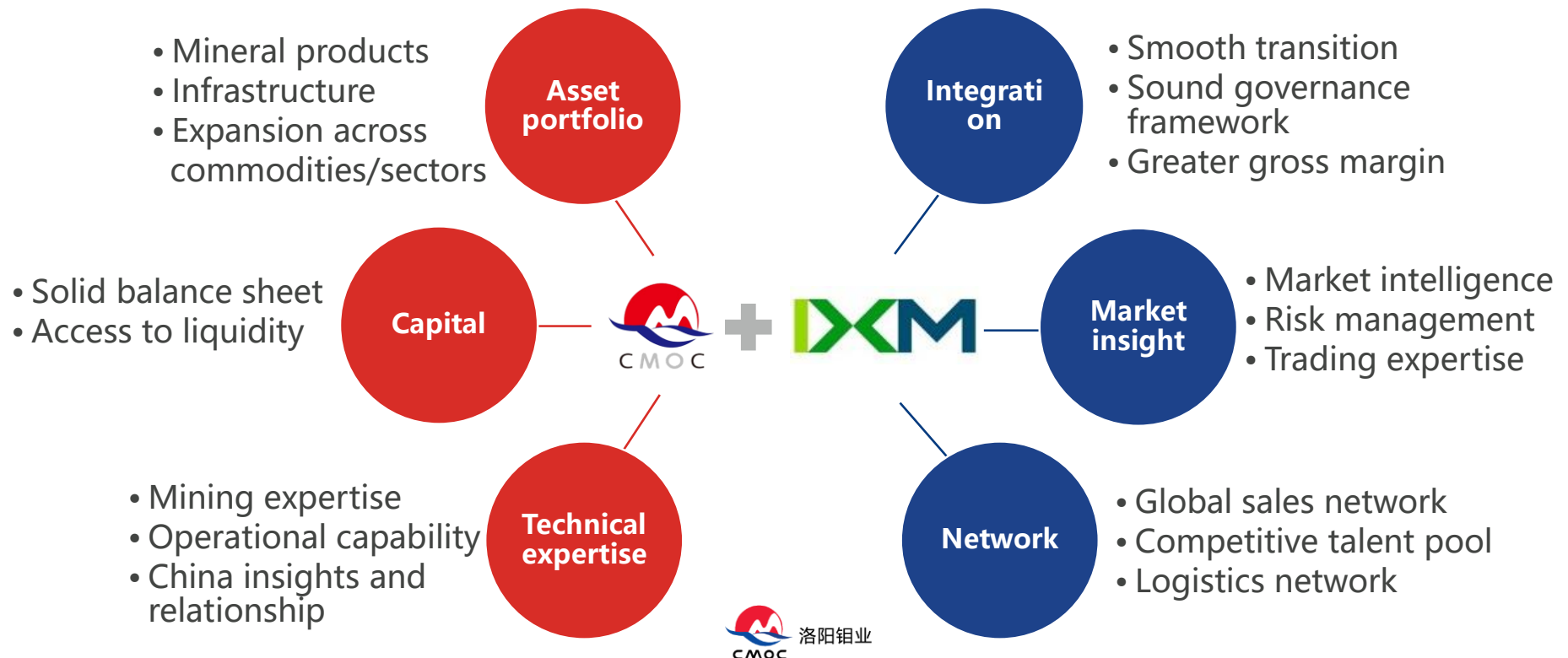
- Debt-to-asset ratio is 57.65% (incl. IXM) vs. 51.36% (excl. IXM). Ending cash and cash equivalents is RMB15.6bn;
- Bank credit facilities exceed RMB110bn and only 37% of the total is used;
- Closed USD 1 billion financing via offshore bond issuance and syndication, as well as RMB 4 billion financing via onshore SCP and corporate bond issuance, optimizing debt structure at an average financial cost of 4%;
- The Financial Management Committee was set up to manage liquidity and monitor ratios on a 3-year rolling basis;
- Over the past 5 years, the Company distributed RMB5.959bn dividend cumulatively at a payout ratio of over 54%.



## 6. Continued optimization of business portfolio fueled by the "two-wheel drive"

Extended along the supply chain and built a business model of mining + trading by completing acquisition of IXM, the 3<sup>rd</sup> largest base metal trader in the world.

- Consolidate global sales with IXM as the hub of CMOC sales overseas
- Capture value-adding synergistic opportunities across mining, investment and financing activities
- Leverage experience of IXM in risk management and sales and hedging
- Resource-sharing such as market research, treasury, and supply chain, and Financial Shared Service Center





## 6. Continued optimization of business portfolio fueled by the “two-wheel drive” (cont’ d)

### || Invested in the HPAL in Indonesia

- Partnered with Huayou and Tsingshan to invest in the HPAL in Morowali Industrial Park, Indonesia. The project will produce 60,000tpa of nickel in metal;
- The project is expected to reach full capacity in 2021. Product offtake will be in proportion to ownership of shareholders. It will each year deliver at least 15,000 tonnes (in nickel content) and part cobalt products to the Company;
- Follow the trend of high nickel in the future to further consolidate the positioning in new energy metals.

### || Tungsten reserves increased by acquiring 28,300 tonnes of APT

- Based on research of the tungsten market and positive view on its long-term prospect, the Company spent RMB3.268bn to acquire 28,300 tons of APT in 2019 at a unit price of RMB115,300, providing support to market stability;
- This alternative investment further consolidated our leading position in the sector, helped maintain market order and increased our influence and bargaining power. It is tantamount to acquisition of a large tungsten mine with over 10 years of life-of-mine.

### || Synergy with IXM to improve sales of specialty metals

- Sales of copper, cobalt and niobium merged into IXM and applied adjusted strategy;
- Revised LT cobalt contracts with more favorable pricing terms;
- Secured more favorable terms on pricing with other LT clients;
- LT contracts account for ~80% of the total, as they expire and as production moves to a higher level, volumes available for sales by IXM will further increase.

### || Organic growth supported by capacity expansion at TFM

- 10K expansion project is progressing as scheduled and is expected to reach full capacity 4Q2020;
- Higher copper and cobalt production expected as projects launches including heap-leaching;
- PFS of mixed ore and sulfide ore development started to speed up development of quality assets.

Inorganic growth

Organic growth



# 7. Impact of COVID-19



**No major impact on production and operations of the Company in 1Q2020; key commodity prices fell significantly starting from March.**

## Latest update

- Stable operations at all sites; some employees based in IXM Geneva, Brazil and Australia are working from home
- Multiple countries declared state of emergency and imposed cross-border travel restrictions; ports at South Africa will lock down for 21 days since March 26. The Company is assessing other alternatives

## Steps taken

- A Leading Work Group on COVID-19 Prevention and Control was set up in immediate response to the outbreak to guide work related to preventive measures, supply procurement, back-to-work guidelines, donations, and information update
- A total of RMB7.46mn in form of medical supplies and cash is donated to Luoyang, Brazil and the DRC
- Measures were taken to ensure liquidity position, including capex plan review, management expense control, and exchange rate/gold hedging

## Stress test

- Our stress test evaluates not only declining prices at different levels, but also global business shutdowns for a certain period of time.

## Prepare for the worst



The pandemic is very serious in nature and is spreading widely. This should be taken into consideration;

Hold sufficient liquidity and strengthen control on capex;

Diversification across products and geographic locations help counter risks and challenges.



## Low-cost is the only way out

Cost-control is the lifeline of any mining company; Survive and prosper when challenged with great difficulties;

Continued efforts on technical upgrade to tap the potential of our assets.



## Seize market opportunities

Where there is crisis, there is opportunity;

High volatility of commodity prices also brings opportunities for investment;


“Two-wheel drive” of organic and inorganic growth.



Business Review

# **Financial performance**

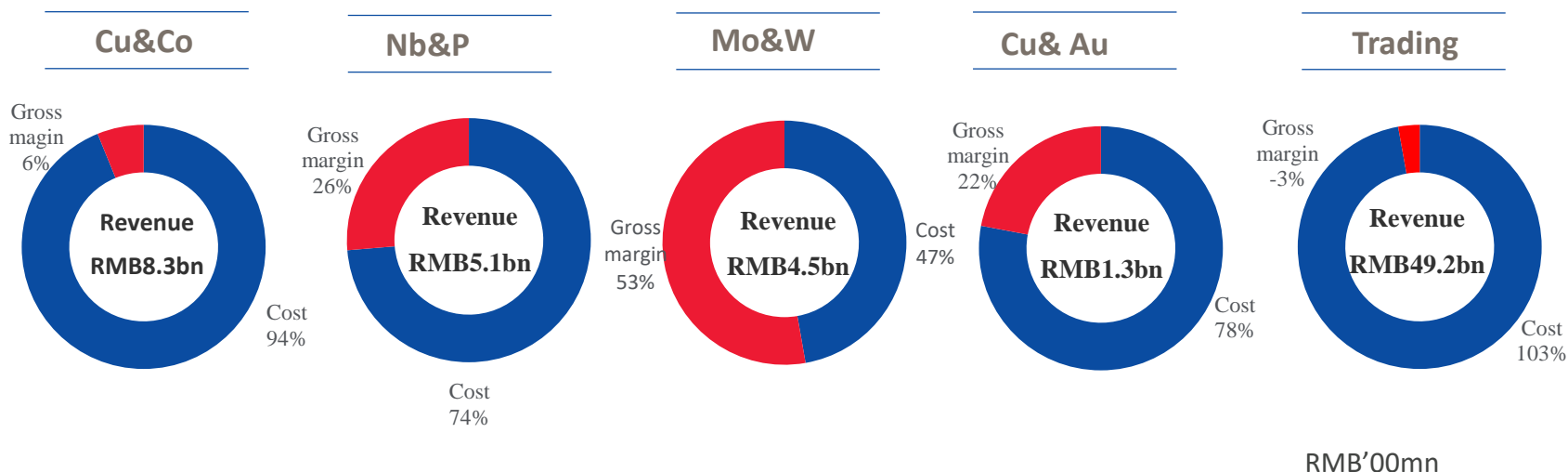
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# 1. Key financials

Revenue	EBITDA	Net profit attributable to parent
RMB <b>68.677</b> bn ↑ <b>165% YOY</b>	RMB <b>8.075</b> bn ↓ <b>36% YOY</b>	RMB <b>1.857</b> bn ↓ <b>60% YOY</b>
Net profit after extraordinary gains and losses	Net operating cash flow	Capex
RMB <b>747</b> mn ↓ <b>84% YOY</b>	RMB <b>1.705</b> bn ↓ <b>82% YOY</b>	RMB <b>2.719</b> bn ↓ <b>3% YOY</b>

## 2. Gross margin breakdown by business segment



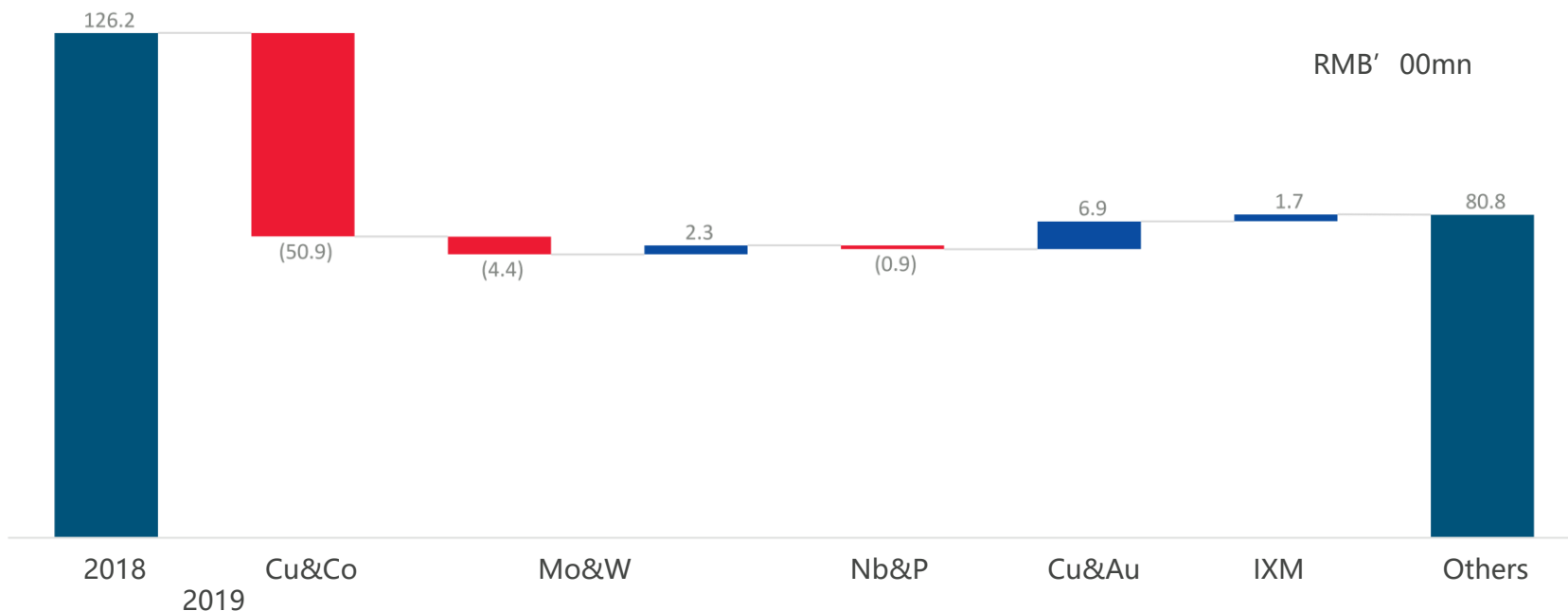
Gross margin	Cu&Co	Nb&P	Mo&W	Cu&Au	Trading
2019	6.17%	26.32%	52.77%	22.05%	(3.01%)
2018	36.19%	23.00%	60.23%	29.30%	-
Comment	Cobalt price fell by a large margin	Favorable foreign exchange rate and niobium price	Fall of tungsten price/declining grade	Copper price fell	Spot + futures model Losses from spot trading and gains from futures trading. Actual gross margin is <b>1.5%</b>

Note: Revenue breakdown by product

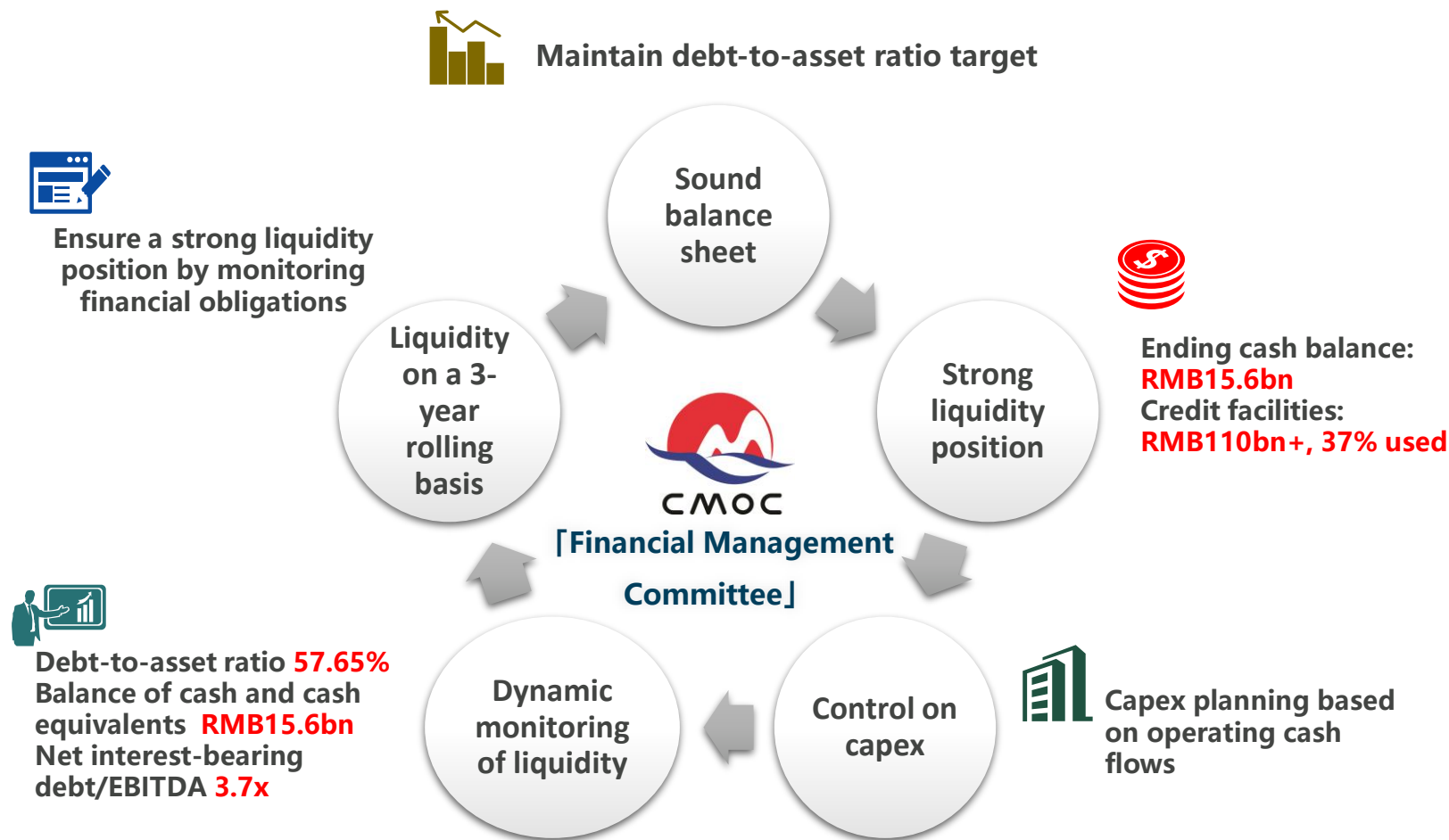


### 3. Key financials – EBITDA

- Impacted by falling prices of key products including cobalt and tungsten, EBITDA is down RMB4.4bn over 2018



## 4. Focus on strong balance sheet and liquidity management - framework





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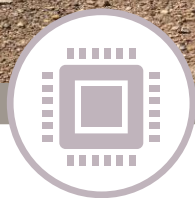


# Business outlook for 2020



## Mo&W (China)

- Sandaozhuang Mine will reach full coverage of 5G network and promote application of 5G technology and electric trucks. The mine will deploy 100 electric trucks in 2020;
- Shangfanggou Mine will resume production. No.1 Processing Company will process ores from the mine while No.1 Molybdenum Company will recover iron concentrates;
- Implement APT 1,000tpa upgrade project.



## Cu&Co (DRC)

- Tap the potential of our world-class mine through “Three-Step Strategy” ;
- Focus on 10K expansion project;
- Cost and efficiency programs will continue and are expected to see further savings in cash cost;
- Improve community relationship and promote sustainable development.



## Nb&P (Brazil)

- Optimize process and reagent usage and improve Nb recovery;
- Upgrade processing plants to increase capacity;
- Study comprehensive utilization of metals.



## Cu&Au (Australia)

- Accelerate throughput optimization of existing processing plants (6M->7.6M), expected to be finished in Q3 2020;
- Expedite development of new ore body E26L1N;
- Support larger-scale expansion plans with block-caving method.

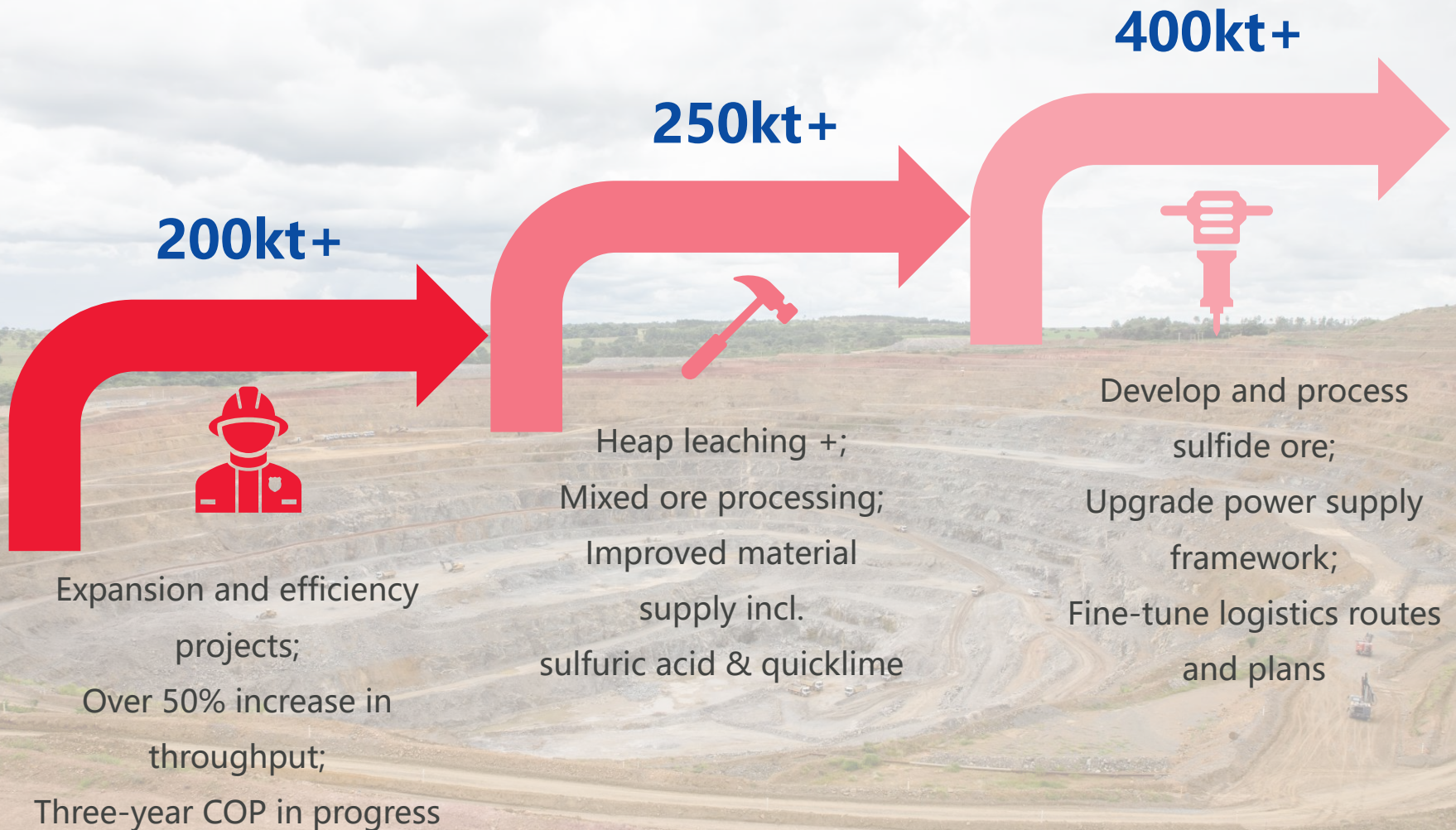


## Trading (IXM)

- Undertake sales of CMOC' s copper, cobalt and niobium products and create synergies;
- Participate in large-scale offtake and financing projects;
- Leverage the counter-cyclical nature of trading business to mitigate risks of market volatility or downturn.



# Cu&Co: Three steps towards a enhanced world-class asset



# Future growth propelled by “two-wheel drive”

## Organic growth

Technical improvement and expansion of the existing four key business segments ;  
Conversion of asset potential to production and profitability;  
Consolidation and synergy with IXM

## Mine production

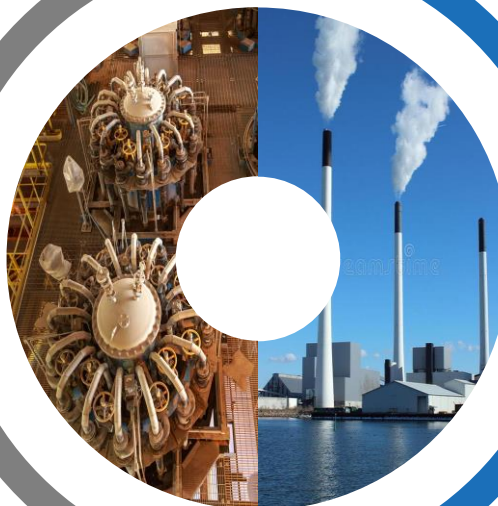
Continue efforts on cost and efficiency programs;  
Maintain high efficiency and low cost;  
Technical debottlenecking and comprehensive utilization

## Inorganic growth

Crisis and opportunity coexist – seize the opportunities;  
Remain disciplined;  
Be prepared based on diligent research

## Metal trading

Expand and strengthen metal trading business;  
Seek synergy with mining;  
Maintain industry research capability



## Consumption upgrades

New infrastructure stimulates the demand of special steel;  
Specialty metals such as molybdenum, tungsten and niobium;  
Consumer electronics market creates a new value chain

## New energy vehicles

EV penetration increases in Europe and America;  
Domestic subsidy policies remain in force;  
Trend of long-term growth along the value-chain will not alter



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# Outlook on major products

**Cu**

- Sino-U.S. phase-one trade agreement brings good news to copper.
- Epidemic leads to sharp slowdowns in industrial activities, stricken consumption of Q1, and commodity prices burdened by plummeting crude oil prices.
- China further reduces taxes, speeds up local debt approvals and encourages infrastructure investments.
- Copper price will find cost support at the 90th percentile line.

**Co**

- Short-to-mid term: new supply is limited, NEV subsidies won't be further reduced, and NEV industry will maintain its mid-to-long term trend despite the COVID-19 outbreak.
- European and American automobile enterprises and Tesla will deliver new demand and 5G will drive consumption of consumer electronics
- Long term: increasing demand and stronger awareness of standardizing cobalt sources will bring the market back to a deficit, and price is expected to stand above USD18/lb in the long term.

**Mo**

- Increasing infrastructure construction
- ACGR of crude steel production reaches 5.51% in China.
- Epidemic uncertainties may slow down steel industry demand in 2020.
- With worsened overseas epidemic, international market may face more supply and demand fluctuations in short term. If epidemic is controlled in future, demand expectation might be stabilized.

**W**

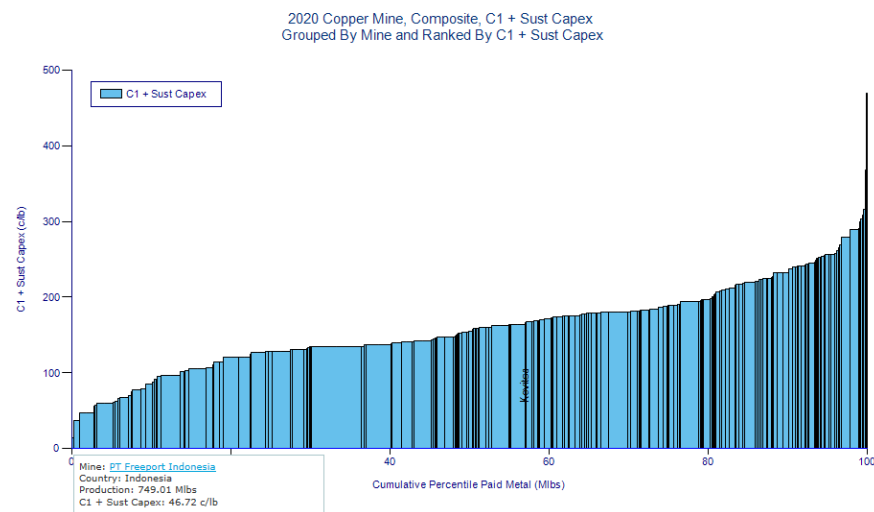
- Tightened environmental regulations and higher operating cost will cause significant tungsten production declines in China.
- Settlement of Fanya's APT issue is conducive to long-term development of the industry.
- China vigorously promotes industrial upgrading, increases infrastructure investment, and boosts tungsten demand.
- Spreading COVID-19 across the world imposes a negative impact on tungsten export, and the price will be pressured in short term.

**Nb**

- Niobium consumption is to pick with rapidly recovered infrastructure and manufacturing industries in China after the end of epidemic.
- Supply and demand remain in balance.
- FeV prices will rise on limited supply, providing support to FeNb prices.
- Stable rebar prices will calm expectation of niobium prices.

**Metal trading**

- Copper concentrate: China's new financial concerns, Chile's political uncertainties, a significant increase in mining and smelting capacity, and continued Sino-US trade war will bring uncertain prospects for trade decisions.
- Zinc and lead concentrate: minor oversupply expected
- Refined metals: potential opportunities in aluminum market; continuously tight zinc market

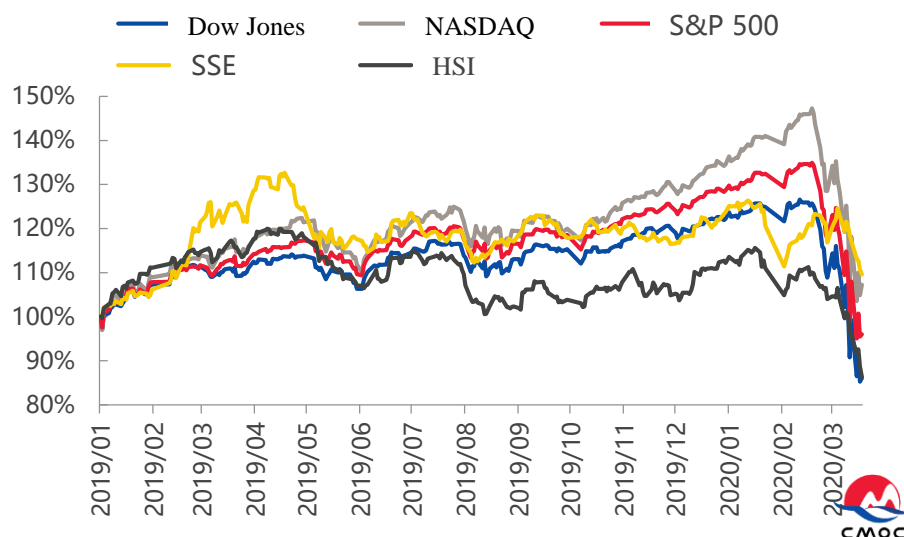




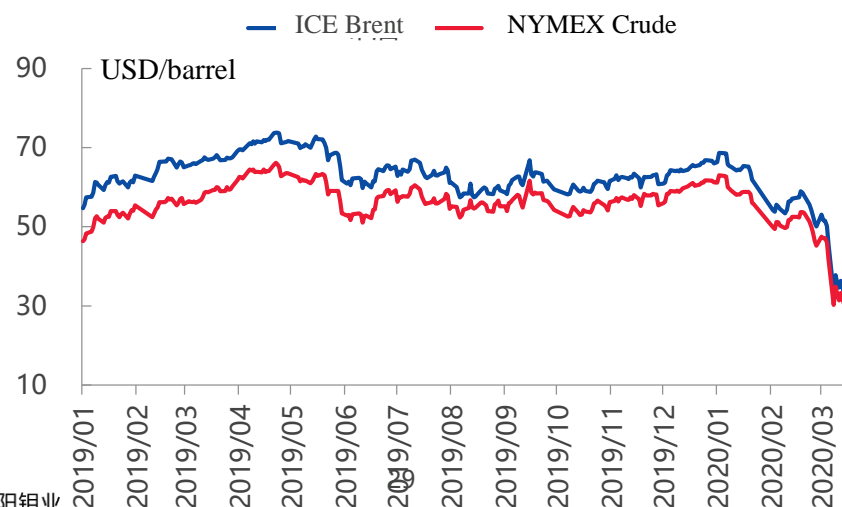
# COVID-19 weighs on metal prices

- Global macroeconomic growth is under pressure with spread of epidemic.** Impacted by global spread of COVID-19, 38 countries have declared a state of emergency as of March 20, and the US, Germany, India and Australia have upgraded their border controls. Although epidemic in China has been largely under control and production and business activities are being resumed in an orderly manner, the suspension of overseas industrial and commercial activities will put downward pressure on global demand of metals as raw materials.
- Falling oil price raises liquidity risks and deflation possibilities.** As of March 20, international crude oil prices have approached USD20/barrel, causing a wider interest rate differential in the US corporate bond market and an impact on liquidity of the real economy. Meanwhile, oil price declines directly influence the price of energy, chemicals and other industrial products and the fuel price of vehicles in CPI, which also put pressures on prices of other industrial products, leading to higher deflation risks.
- Closer attention on policy responses and COVID-19 updates.** In order to ease impacts of the coronavirus on economy, China and other countries have implemented relevant support policies. For example, People's Bank of China injected about RMB550bn of liquidity to cut reserve requirement ratio and the Federal Reserve cut interest rates by 100 basis points, taking the federal funds rate to 0-0.25% along with unlimited QE later. Relevant support policies will help smooth the epidemic impacts. Once the pandemic being controlled, global metal demand will pick up gradually. QE will also prop up commodity prices in mid- to long-term.

Sharper fluctuations in global stock market



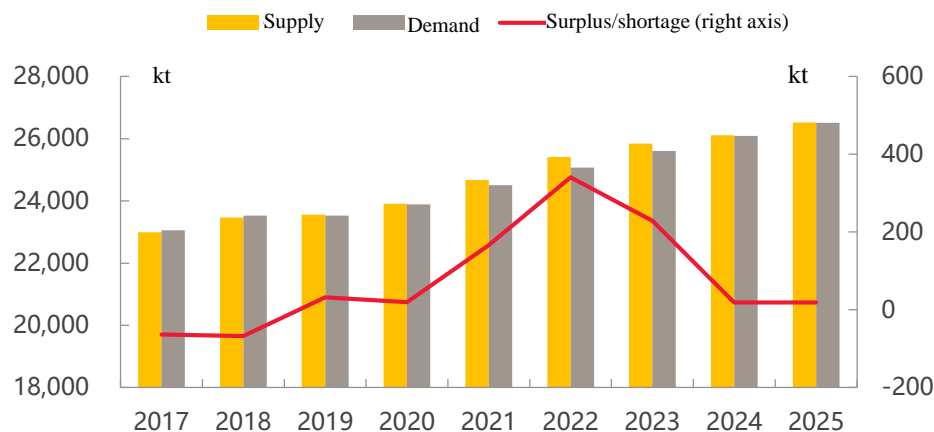
Accelerating declines in oil prices



# Cu: Overseas demand faces pressure in short term but soundness in long term

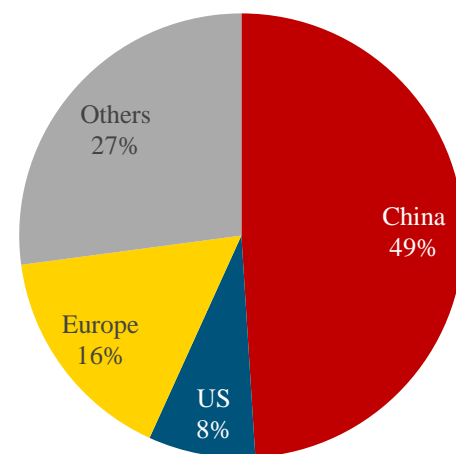
- In the short term, copper demand still faces downward pressure amid epidemic spread considering that overseas market contributes half of copper demand, although epidemic in China has been well controlled and Chinese government may adopt monetary and fiscal policies to promote domestic demand.
- In the mid-to-long term, traditional copper consumption sectors, as major copper consumers, remain steady globally (demand from emerging economies buffers the decline of China's growth) and the EV industry and construction of grid facilities will continue to generate new demand.
- However, global copper market is expected to see a tight balance for a long time as existing copper mines suffer from lower grades, less production and higher risks to develop new projects. In view of the 2%-5% volatility for annual growth of copper production, copper prices may rebound.

Short supply in 2018-2020

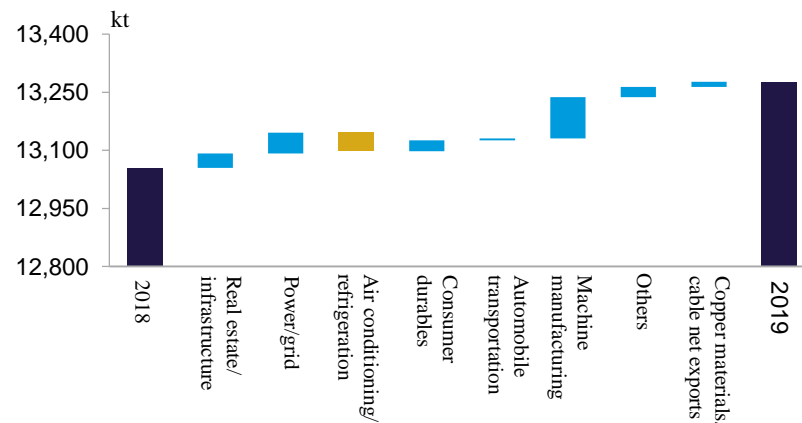


Source: Wood Mackenzie and broker reports

Half of copper demand comes from Ex-China market in 2019



Pure copper consumption keeps rising in China.

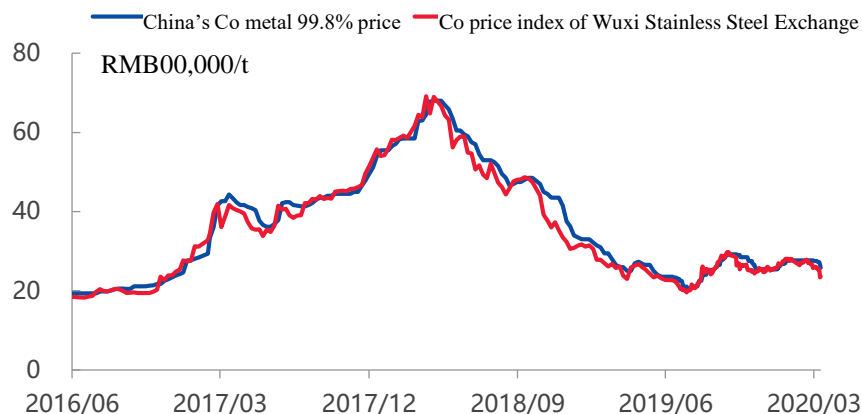


Source: NBS and CMOC's Strategic and R&D Dept.

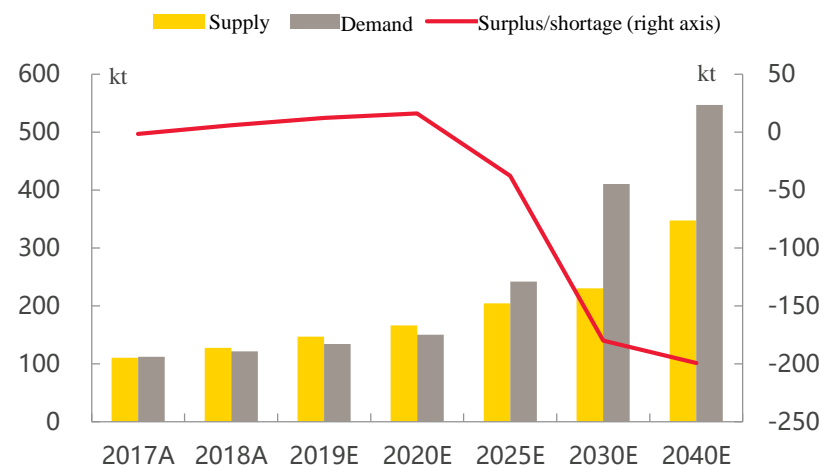
# Co: Trend of EV will continue, while spread of COVID-19 in Europe is the recent focus

- NEV sales is mainly supported by European carbon emission policies and the launch of new models. In the long run, the sustained growth of NEVs will not reverse.
- Last year, MB cobalt prices dropped to below USD13/lb, lower than break-even lines of many mines. Some mines chose to cut productions or shut down, and new projects were delayed or suspended, also positively impacting the supply side.
- However, the pandemic may impact global NEV sales in short term. Benefited from effective pandemic controls in China, sales recovered relatively fast. But the spread in Europe may have a broader impact on 2020 global cobalt consumption.

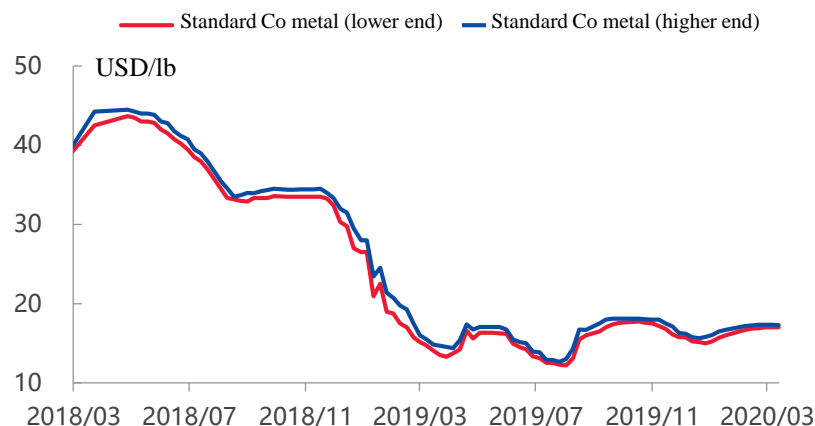
## Slight comeback of cobalt prices in H2 2019



## Half of copper demand comes from overseas market in 2019



## MB cobalt prices touched bottom in H2 2019



# EV is a key driver of Cu/Co demand

Average Cu and Co consumption per vehicle estimated on global average battery capacity at 53 kwh :

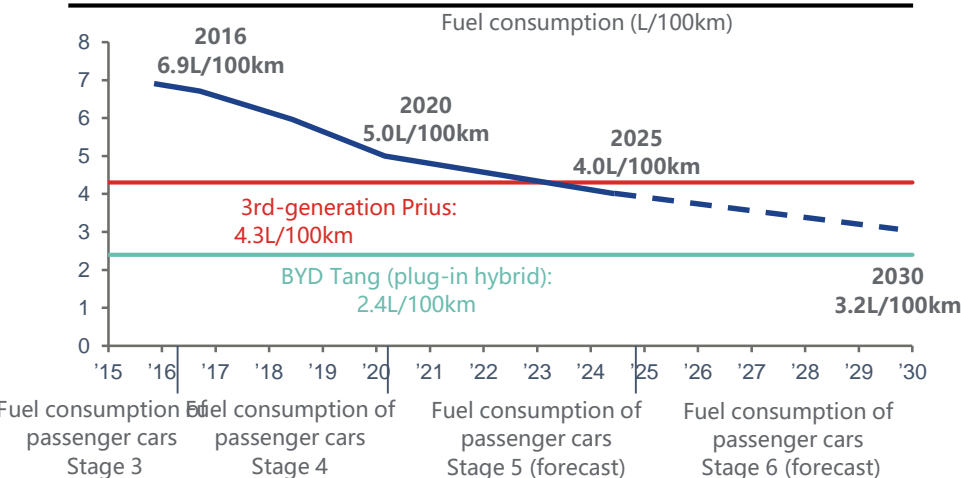
**Cu**  
84kg

**Co**  
8kg

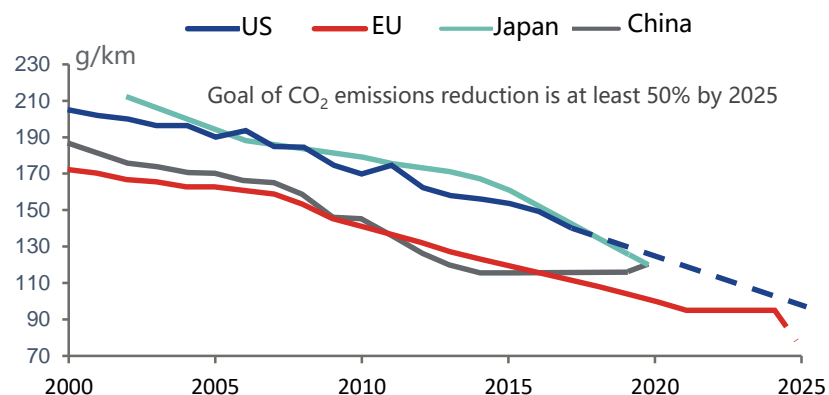
**Environmental considerations, government support and technological progress promote rapid development of EVs**

	Vehicle sales (million units)		
	2020F	2025F	2030F
Total	91	103	107
EV	2.1	10.1	31.7
%EV	2%	10%	30%

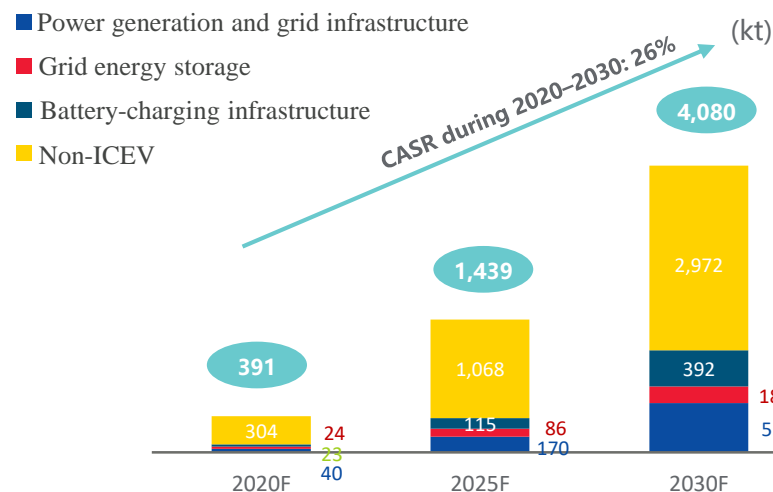
**China's regulations for average fuel consumption are consistent with the changing global CO<sub>2</sub> emission limits**



## Countries making effort to reduce CO<sub>2</sub> emissions



**The full value chain of EV means an additional copper demand of 4.08mt by 2030.**

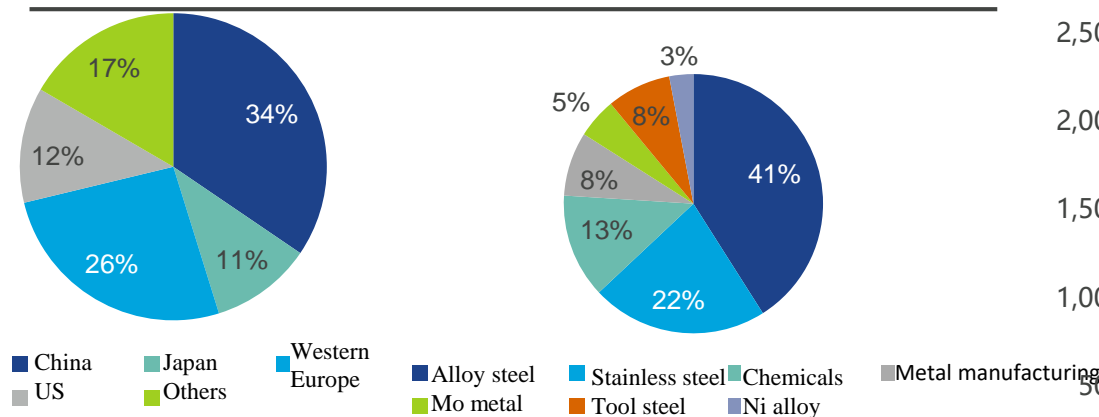




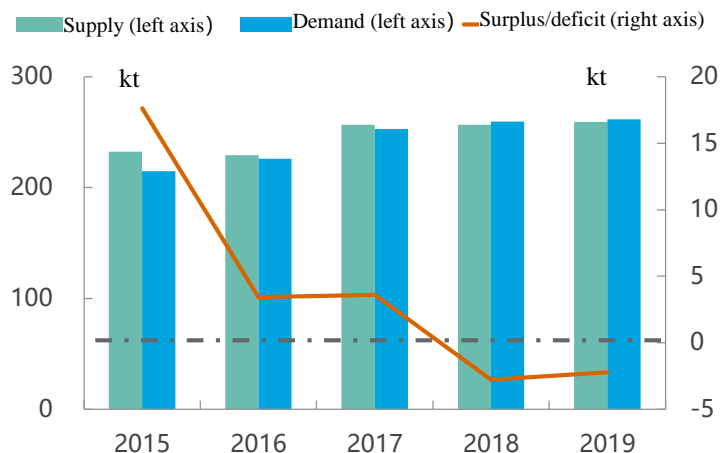
# Mo: Price expected to remain high

- In 2019, molybdenum production of major producers including Freeport, Codelco and Antofagasta declined. Development period of new molybdenum mine project is up to 1-3 years in China, and cost to restart the closed projects may exceed RMB10mn, imposing strong constraints on the growth of molybdenum supply in China.
- In 2020, China may invest more to mitigate impacts of the COVID-19s, and steel consumption is expected to rebound in the future, which is also a boost to mid-and-long term growth of demand for moly as a ferrous metal related product. Furthermore, proportion of special steel and alloy steel in China remains possible to increase, and the demand for alloys including molybdenum alloys is expected to maintain a moderate growth. Focus shall be given to the impacts of the COVID-19 on the steel industry in the near term.
- China's first Resource Tax Law will come into effect on 1st September 2020, offering a tax rate cutdown from 11% to 8% on molybdenum and reduction and exemption policies for associated and low-grade mines will be determined by provinces.

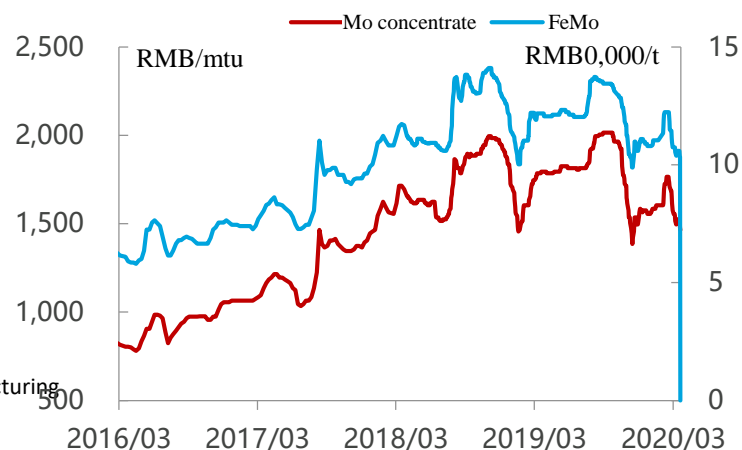
Breakdowns of Mo consumption by regions and end markets



Global Mo market starts to weaken from Q2



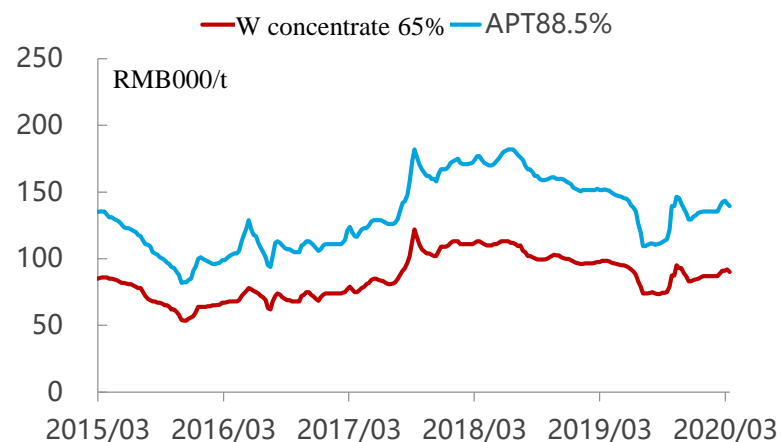
Mo product price has continued upward trend as of 2017



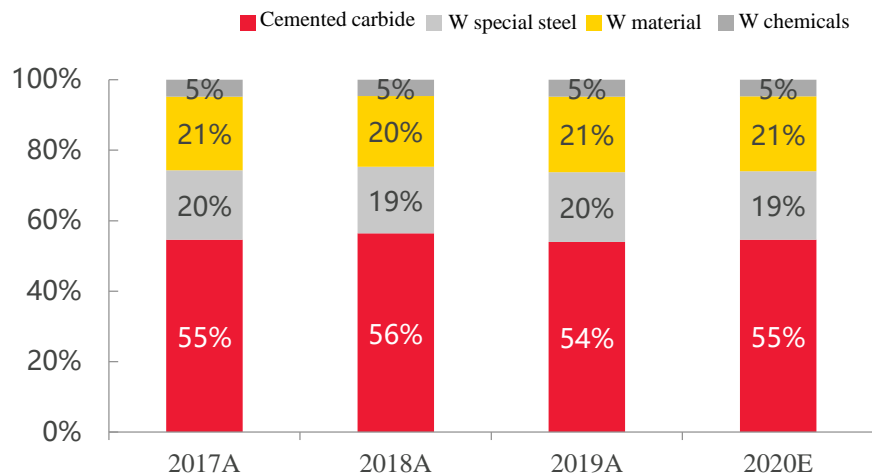
# W: Price to stabilize on shrinking supply despite serious coronavirus impacts

- Affected by the global epidemic spread, the tungsten demand in sectors like traditional industrial machine tools and cemented carbide may face some pressure in 2020. However, tungsten consumption in special steel, alloy steel and other fields still has room for growth.
- In 2019, tungsten prices tend to rebound from the bottom triggered by spontaneous production reduction of tungsten concentrate and APT producers. In 2020, tungsten industry may continue to "reduce capacity and control production". The narrowing supply will help stabilize tungsten price in 2020.
- CMOC acquired 28,000 tonnes of APT from Fanya Exchanges in September 2019. This move helps remove the worries over any potential shock that the APT stock would bring to the market.

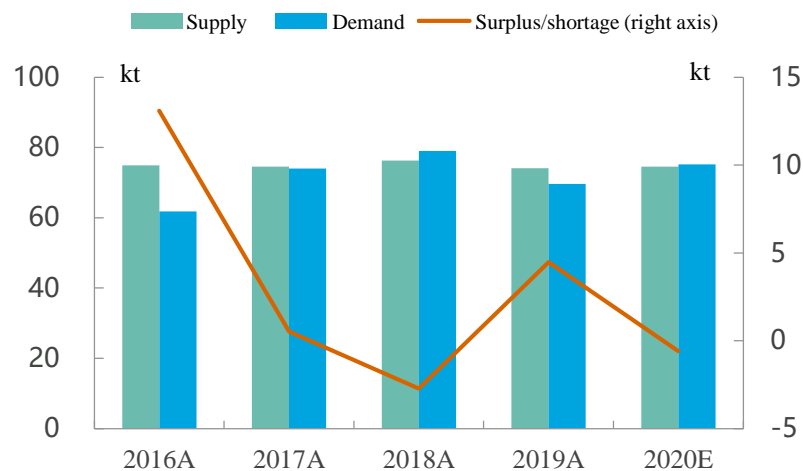
Tungsten prices in China have been marked down recently



Tungsten consumption breakdown by end market



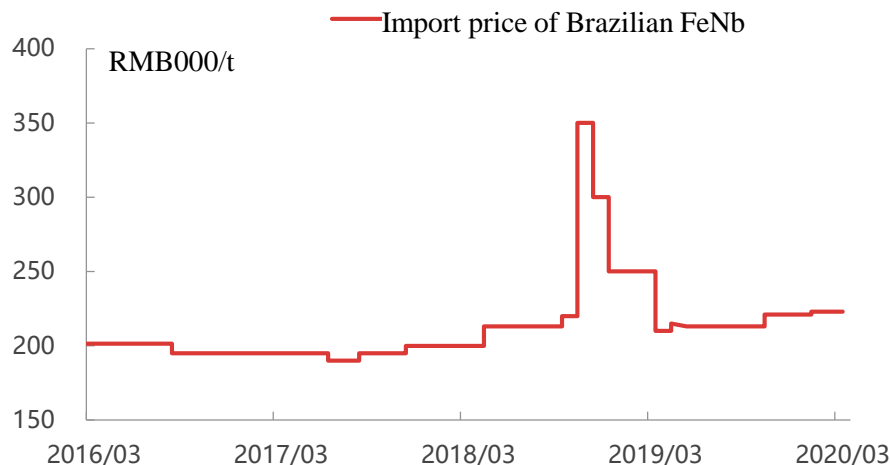
China's tungsten market showed a minor surplus in H1 2019



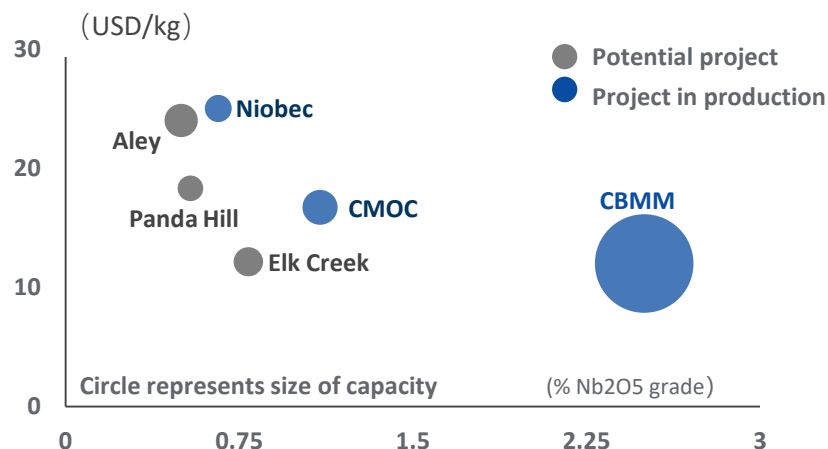
# Nb: Price is expected to rebound modestly and gain stronger momentum in the longer term

- Nb is mainly used in iron and steel industry and FeNb accounts for 90% of the total demand for Nb.
- In view of high vanadium prices in 2018, steel enterprises began to explore a technical path to use vanadium as a substitution of Nb, which might be positively affecting Nb consumption for a long time. China's new standards for rebar will create an opportunity to foster FeNb sales in the country.
- In 2019, China continued to report significant growth in FeNb trade volume with annual imports over 30%.
- In 2020, China is likely to remedy epidemic impacts by increasing investment, and steel consumption is expected to maintain strong momentum, which will also spur the demand growth for the ferrous metal related Nb.

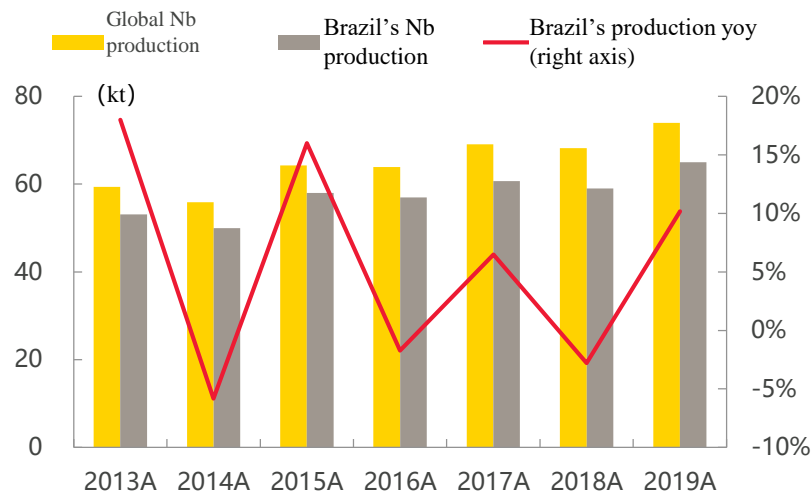
## Stable trend for Nb price in Brazil



## Leading position of CMOC in terms of capacity



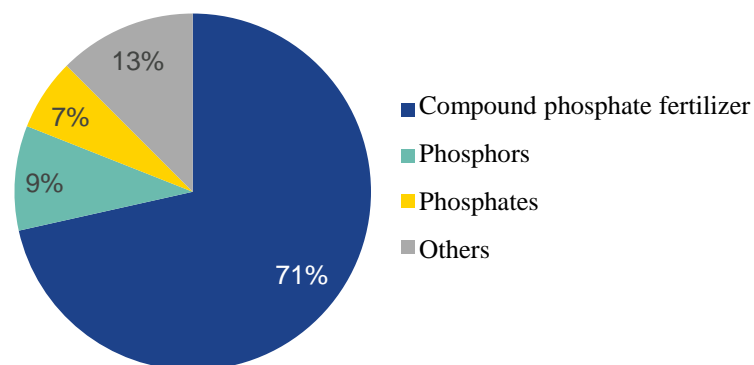
## Mild growth of global niobium supply



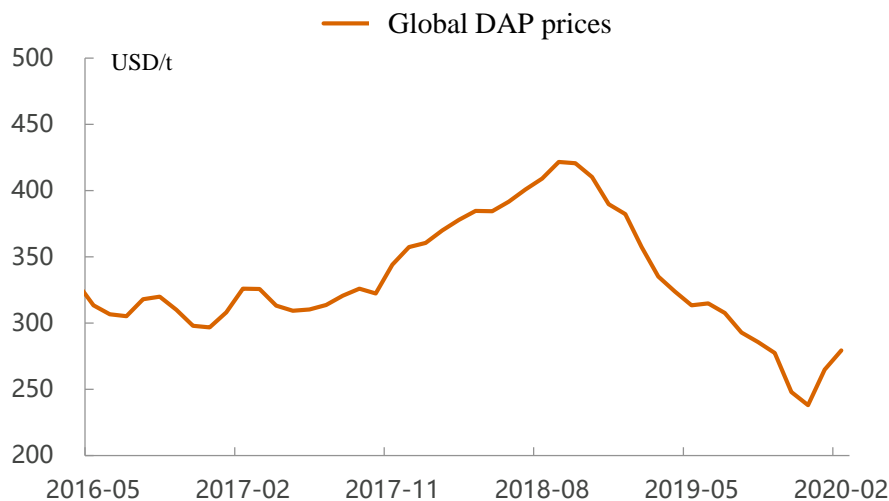
# Phosphate fertilizer: Improving global landscape with strong demand in Brazil

- In 2020, there will be limited additional capacity of phosphate fertilizer worldwide and closure of existing capacity in China and the US. Steady growth of global food demand is expected to help improve the global phosphate fertilizer outlook.
- IBGE report shows that grain output in Brazil will reach 249mt in 2020, up 3.1% yoy. This trend will help boost demand of fertilizer from agriculture sector in Brazil.
- Up to 60% of phosphate fertilizer in Brazil depends on imports. In face of the growing demand and deficit in supply, Brazil will continue to rely on import to satisfy its need of phosphate fertilizer.

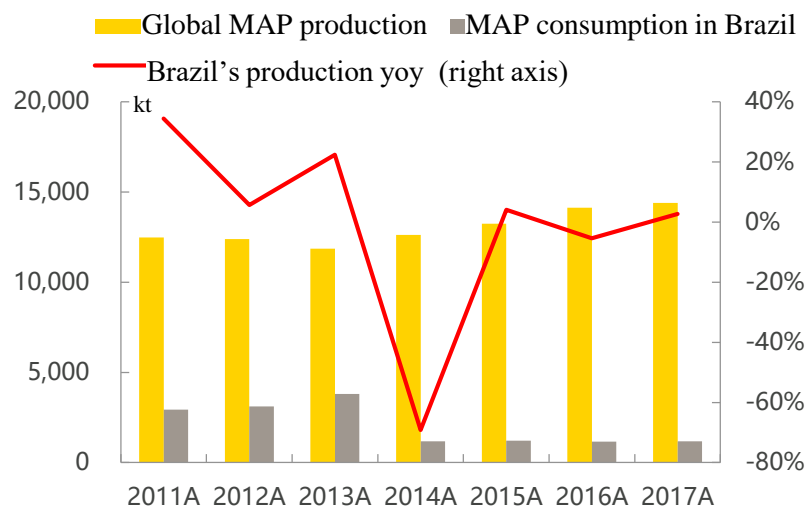
71% of global phosphate used for fertilizer production



Continued upward trend of DAP price from 2016 onwards



Stable fertilizer production in Brazil







Business review  
Financial performance  
Outlook  
Industry and market  
**Appendix**



# 2020 Production Guidance of Key Products

**Cu (TFM)**

**163~200kt**

**Co**

**14~17kt**

**Mo**

**12~15kt**

**W**

**7~9kt**

**Nb**

**10~12kt**

**P**

**1,009~1,234kt**

**Cu (NPM)**  
(NPM)

**24~29kt**

**Au**

**20~25k oz**

**IXM volumes**

**4,530~5,540kt**

The guidance is developed based on the economic environment and trend forecast in early March. The actual performance will rely on multiple factors including macroeconomic environment, industry development, market situation, and efforts by the Company's management. At this stage, uncertainties exist given the impact of COVID-19 on world economy and commodities.



Thank you