BEIJING LY METALS AND MINING CO LTD

China's Ferroalloy Export Market

CRU Ferroalloys Summit Miami

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October 2026

PROFESSIONALISM GLOBALIZATION WIN-WIN SUSTAINABILITY

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AND MINING CO LTD

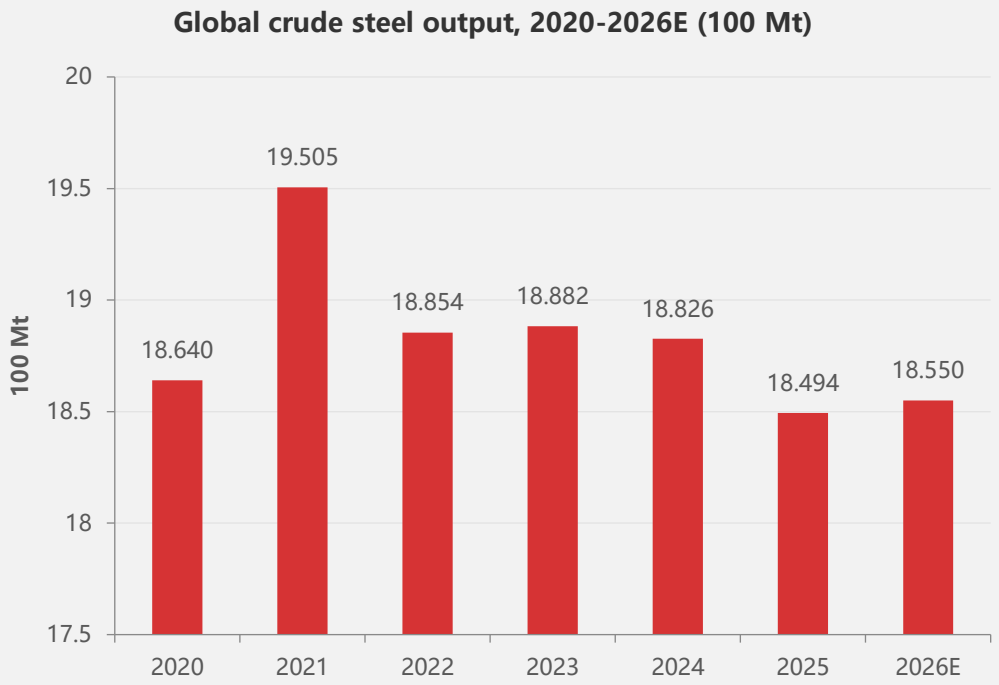
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PART. 1

China's Role in Global Supply

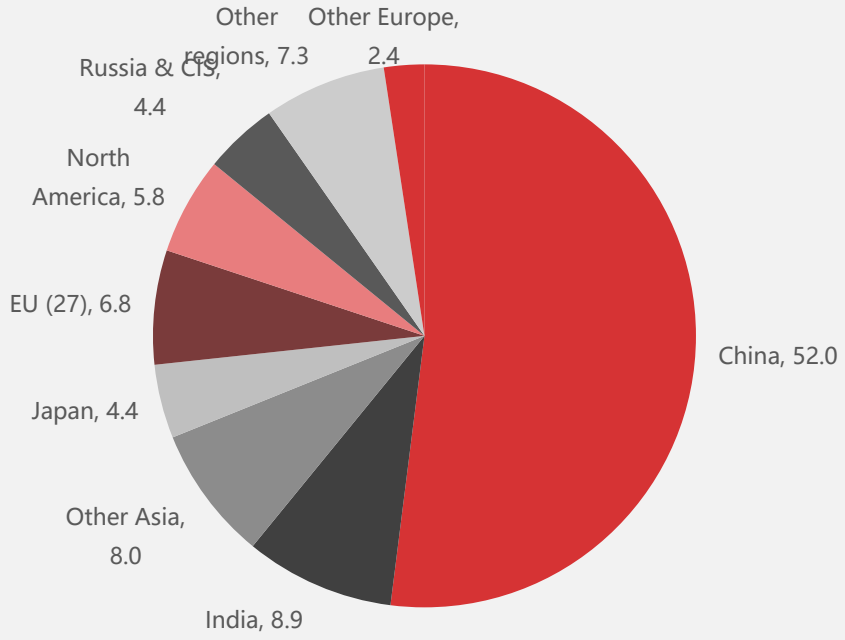
China is the world's core ferroalloy supply base

Crude steel is the core demand driver for ferroalloys



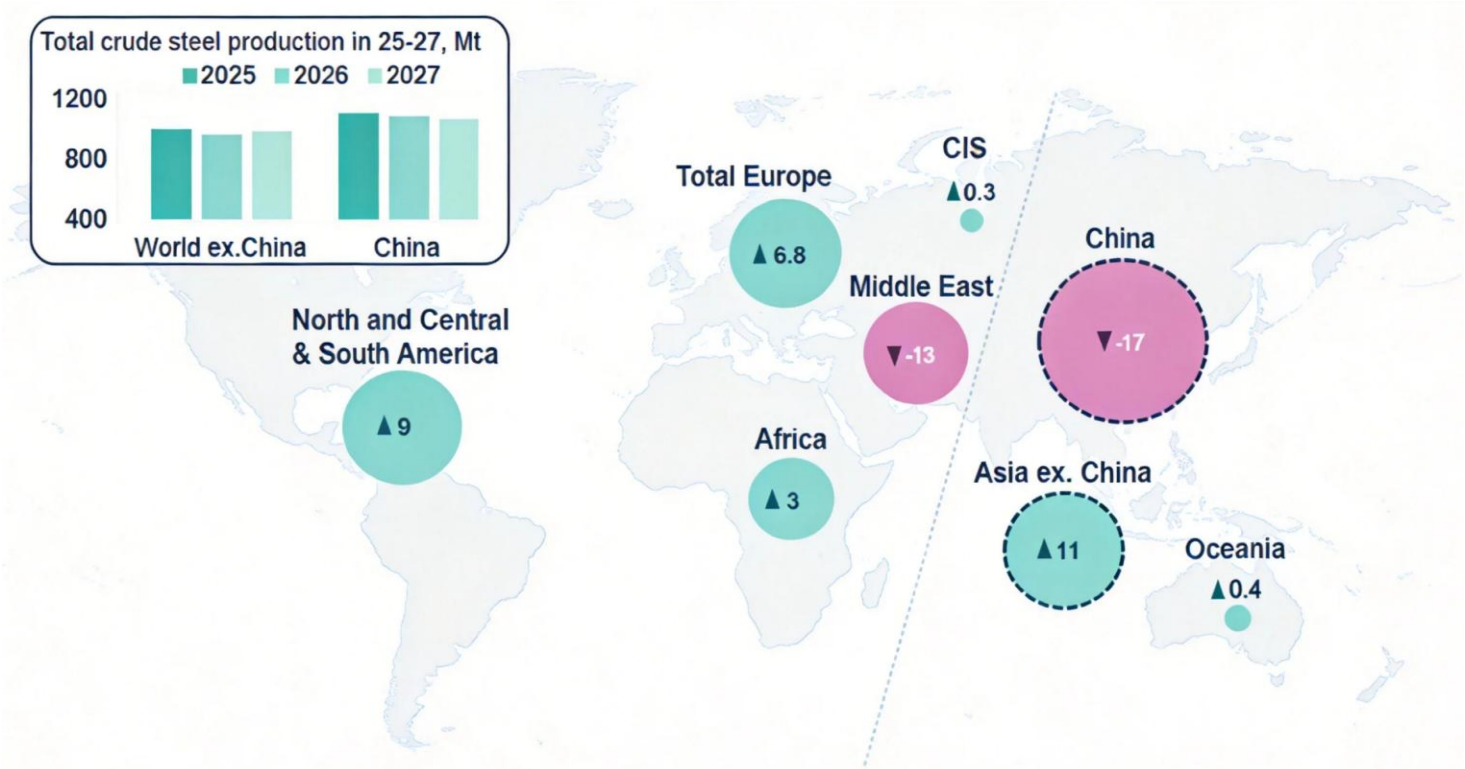
- Crude steel is the core demand driver for ferroalloys; each tonne of ordinary crude steel consumes about 20 kg of bulk ferroalloys
- Global crude steel output in 2025 was 1,849.4 Mt, down 2% from 2024
- Global crude steel output is expected at 1,850 Mt in 2026, broadly flat with a slight increase over 2025

Share of World Crude Steel Output by Country/Region, 2025



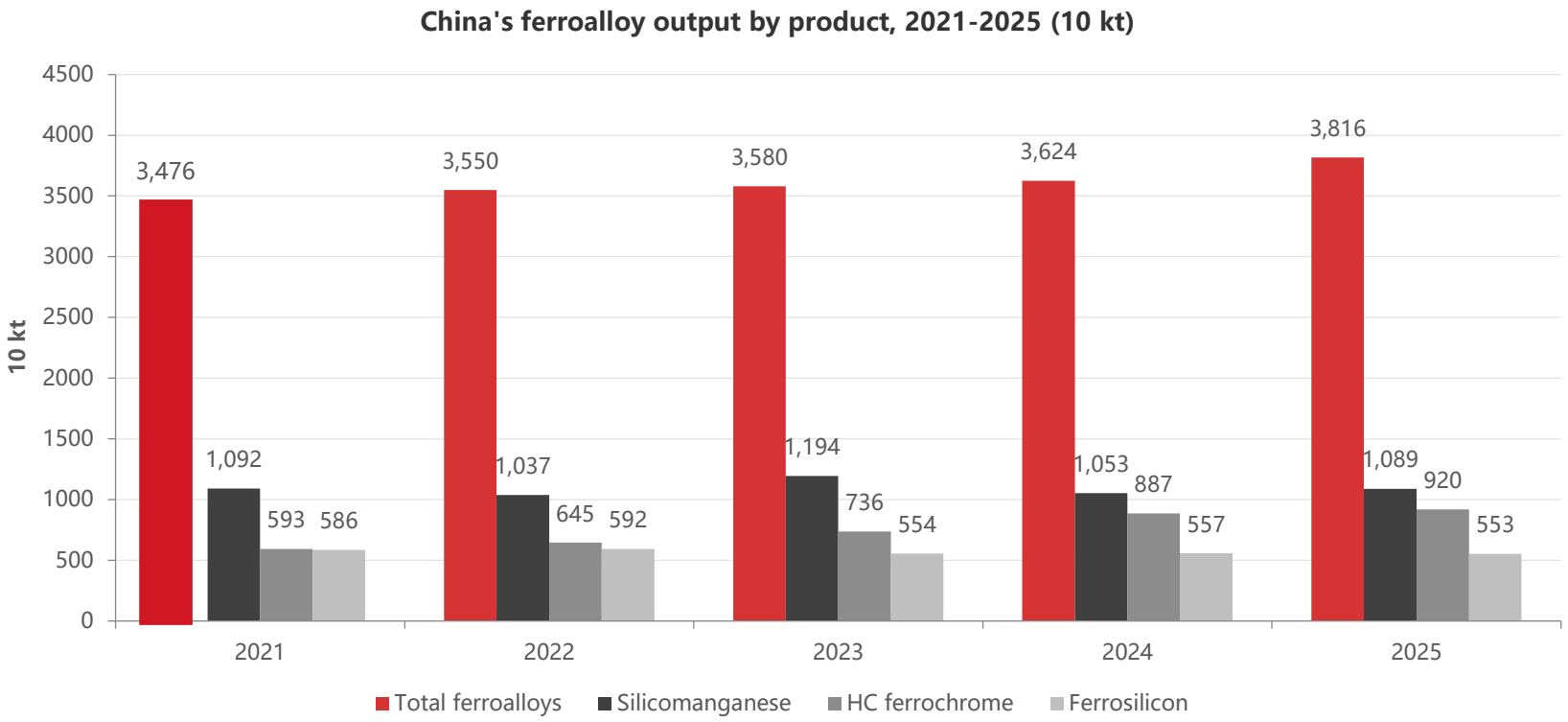
- China's crude steel output in 2025 was 961 Mt, falling below 1 Bt for the first time in six years; China still accounts for over 50% of global output, and Asia remains the world's core crude steel region

Changes in Total Crude Steel Output, 2025–2026 and 2027E (Mt)



- Global crude steel output is expected to be broadly flat in 2026–2027, with declines in China and the Middle East
- Europe, the US, Africa and India add volume
- Overall, gains and losses offset each other

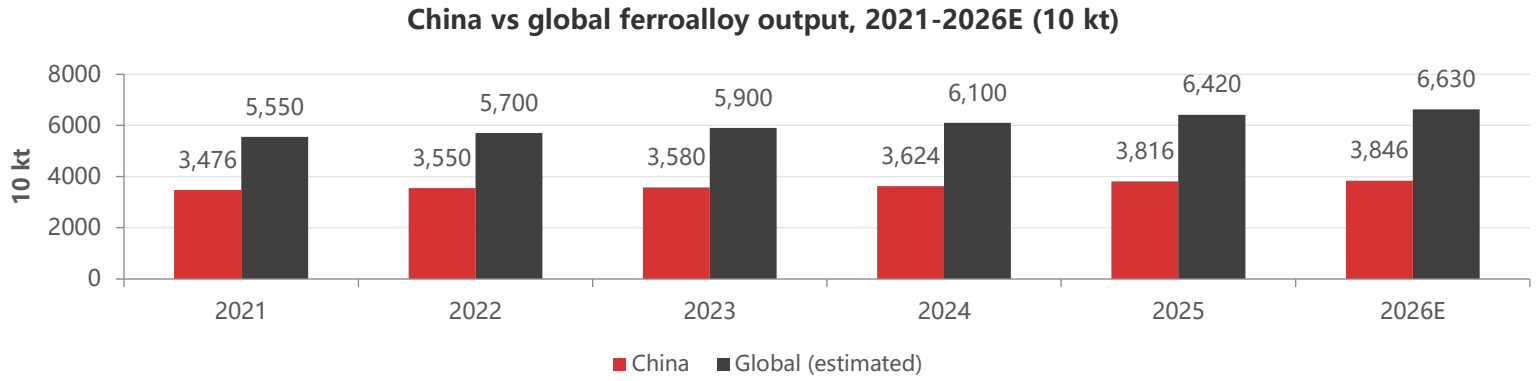
China's Total Ferroalloy Output and Main Products, 2021–2025

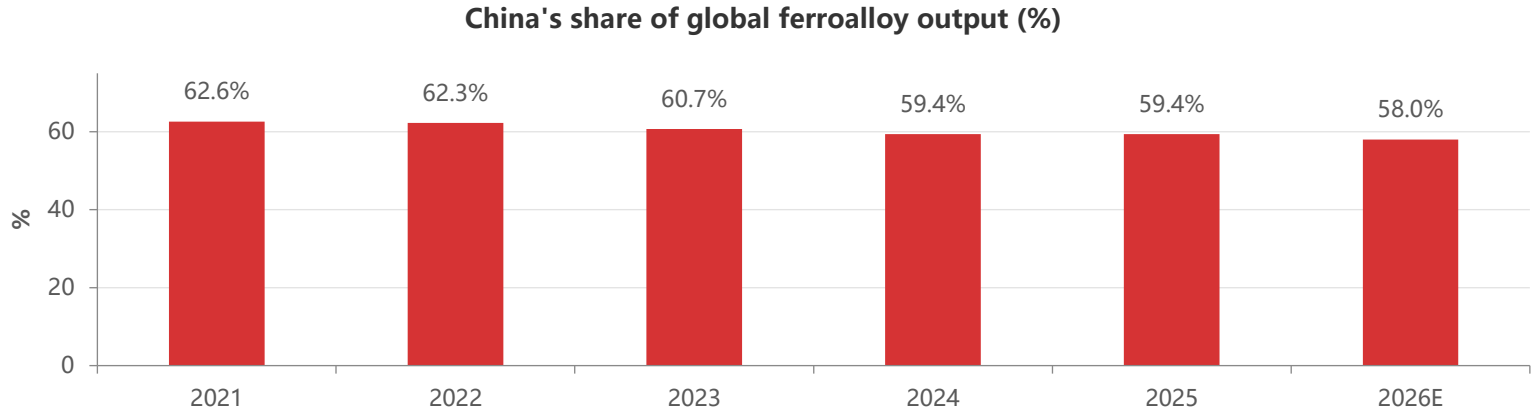


From 2021 to 2025, China's total ferroalloy output rose steadily. Products fall into bulk ferroalloys and special ferroalloys.

- Silicomanganese, ferrochrome and ferrosilicon are the three bulk ferroalloys, together accounting for more than 60% of domestic output.
- The remainder are special ferroalloys serving high-end special steel production.

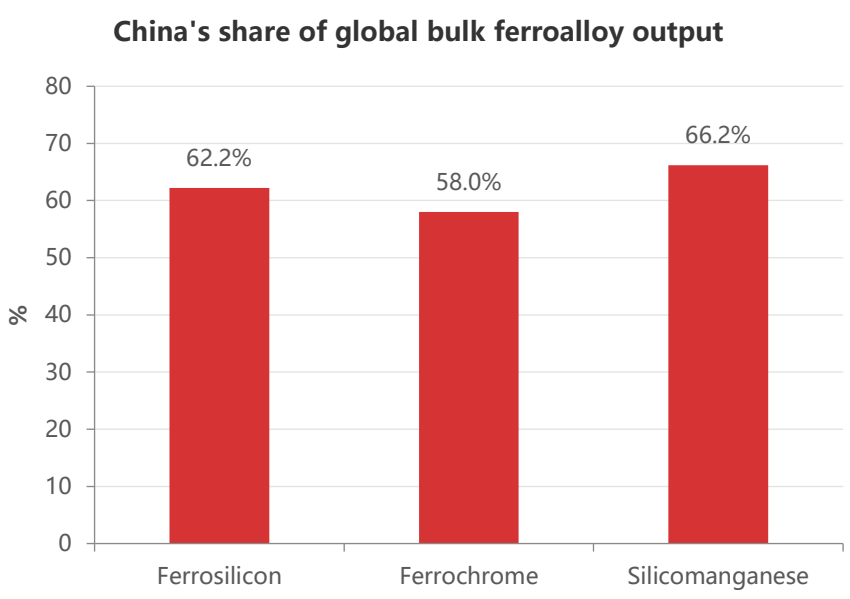
China's Total Ferroalloy Output vs. Global Output and China's Share, 2021–2026

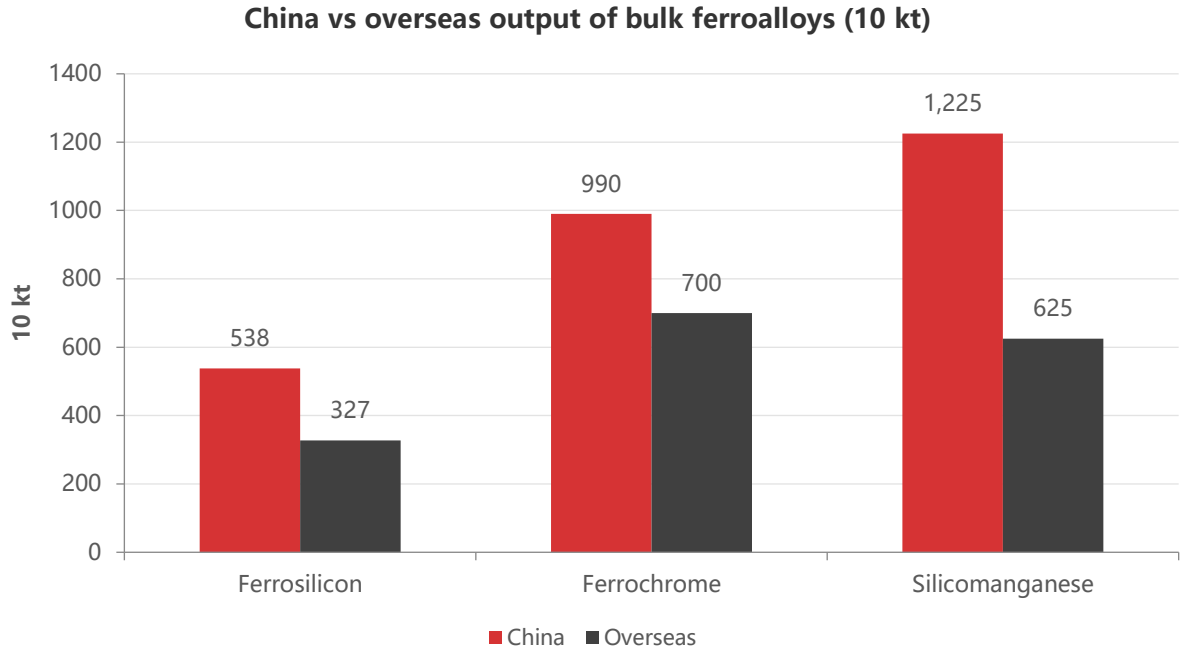




• Global ferroalloy output grew steadily from 2021 to 2026E. China's share edged down from 62% to an estimated 58%; despite this decline, China remains the world's leading ferroalloy producer

China vs. Overseas Output of FeSi, SiMn and FeCr





• For ferrosilicon, silicomanganese and ferrochrome, China accounts for more than 50% of global output, making China the core global source of ferroalloys

SUMMARY

- China remains the world's leading ferroalloy producer.
- Global steel capacity is being restructured geographically, creating more overseas demand and export opportunities.
- At the same time, shifting trade policies across countries bring uncertainty to import and export business.

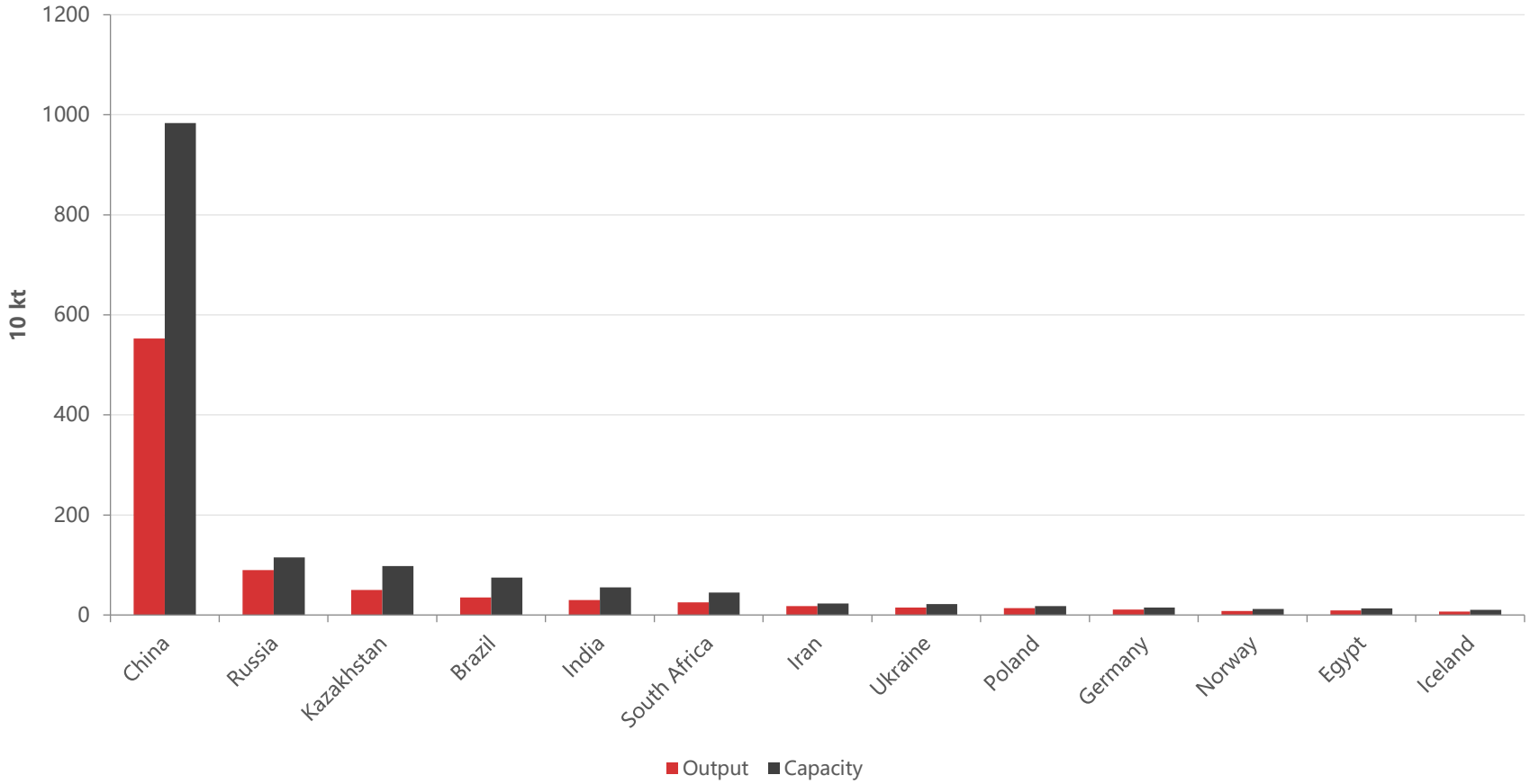
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PART.2

Competitive Advantages

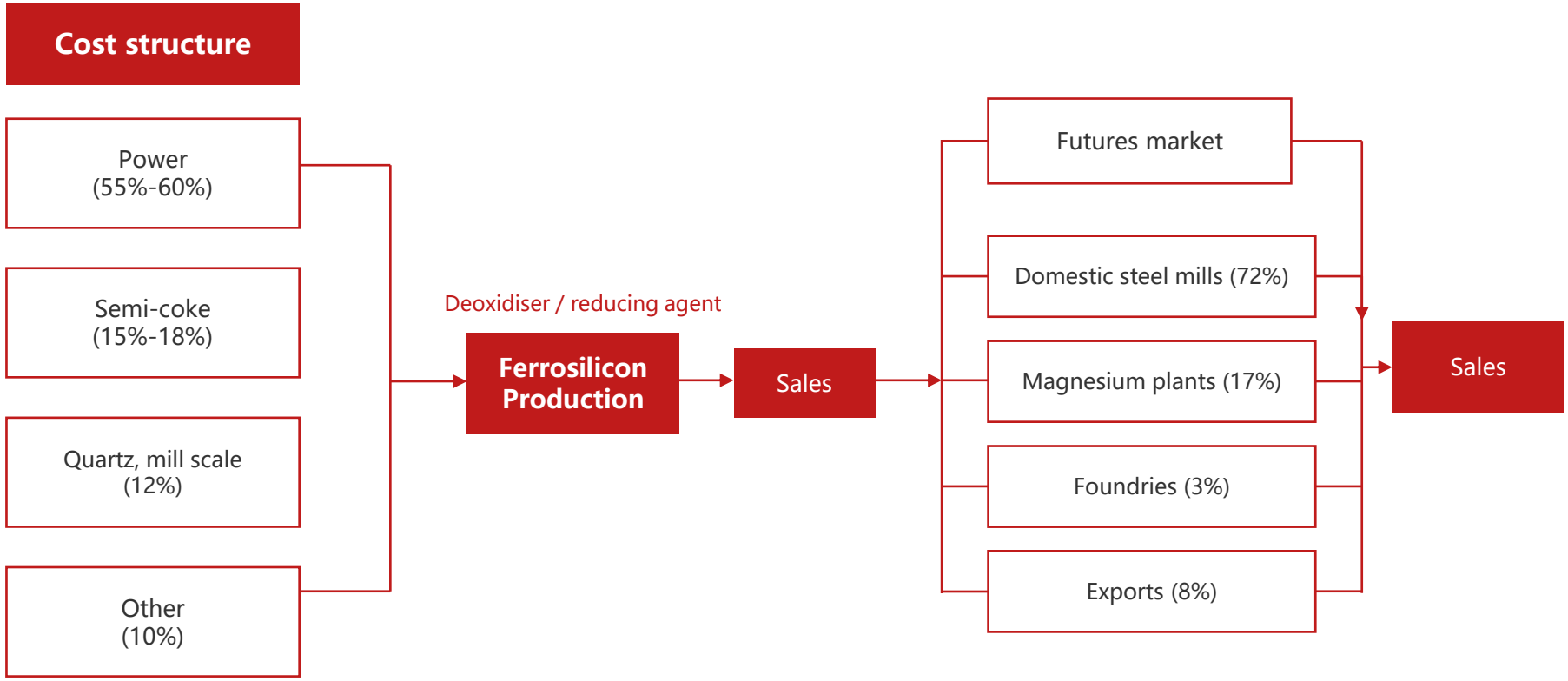
Scale, energy, raw materials, talent and financial tools together build China's systemic ferroalloy competitiveness

Global Ferrosilicon Production in 2025 (Capacity and Output)



- China is the world's largest ferrosilicon producer, accounting for more than 60% of global output

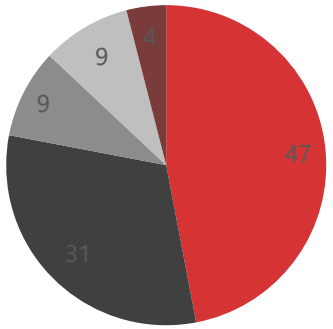
China's Ferrosilicon Value Chain



Electricity accounts for approximately 55–60% of ferrosilicon production costs.

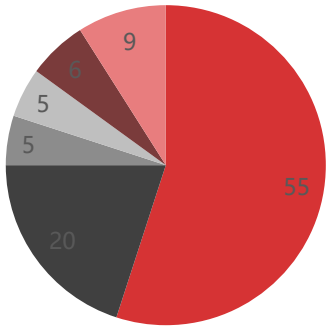
Cost Structure of the Three Bulk Ferroalloys

SiMn cost structure, %



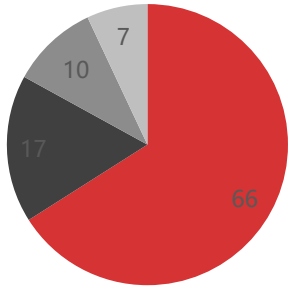
Mn ore 47 · Power 31 · Auxiliaries 9 · Other 9 · Labour 4

FeSi cost structure, %



Power 55 · Semi-coke 20 · Quartz 5 · Iron oxide 5 · Labour 6 · Other 9

HC FeCr cost structure, %



Chrome ore 66 · Power 17 · Auxiliaries 10 · Other 7

Power is both a core cost and the main source of product carbon emissions

Green barriers affect ferroalloy export competitiveness

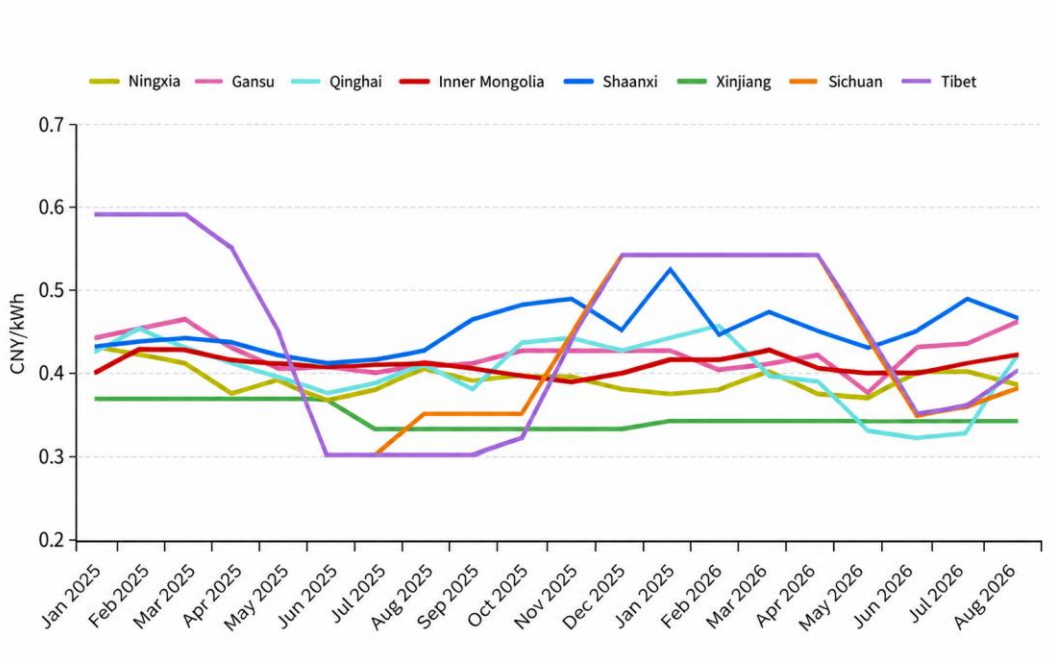


Carbon-related costs are becoming an increasingly important factor in international trade, particularly as carbon regulations evolve.

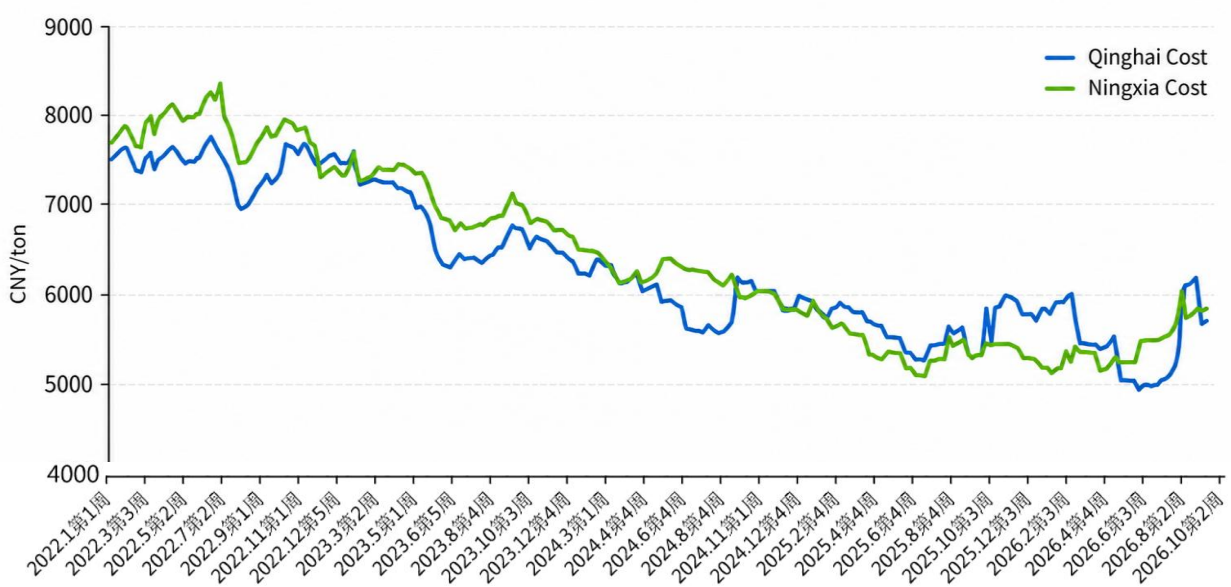
- By end-2025, global cumulative PV capacity had reached 2,378 GW, of which China accounted for 1,200 GW, or 50.5%.
- By end-2025, global cumulative wind capacity had reached 1,299 GW, of which China accounted for 640 GW, or 49.3%.

The high share of green energy, led by green power, has fundamentally changed the energy mix of the alloy industry
Greater energy efficiency and lower-carbon production will be essential to long-term competitiveness

FeSi Main Producing Regions: Power Price Trend, 2025–Aug 2026



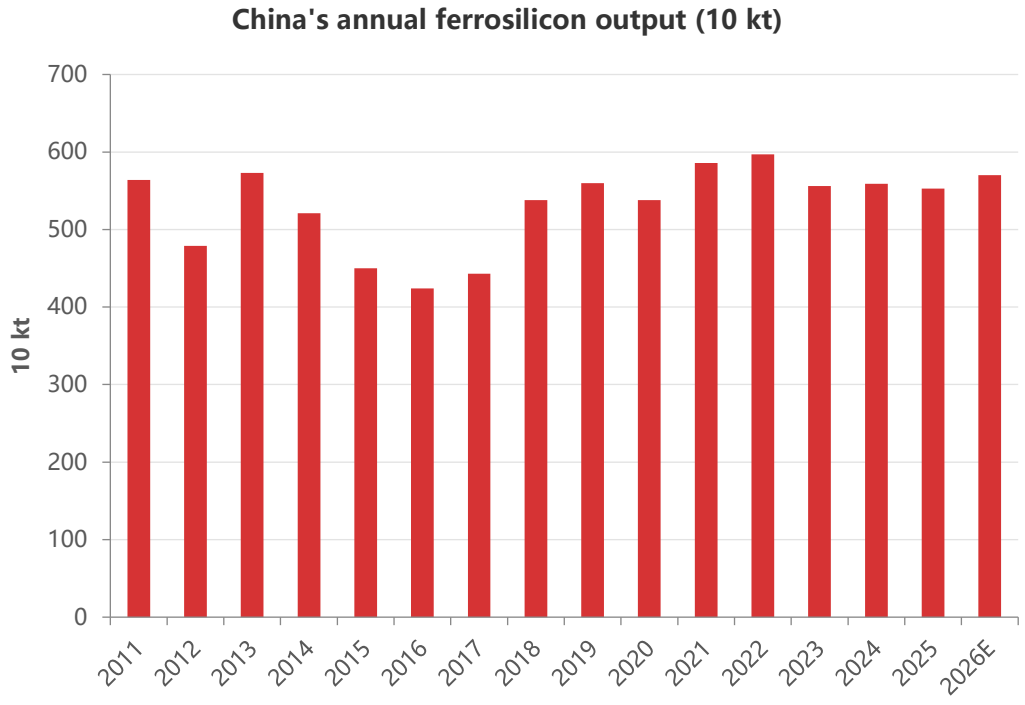
FeSi Production Cost Trend, 2022–2026



• Power prices show clear regional divergence and staged volatility. Xinjiang, Ningxia and other regions have long held a low 0.33–0.40 RMB/kWh, underscoring their power-cost advantage.

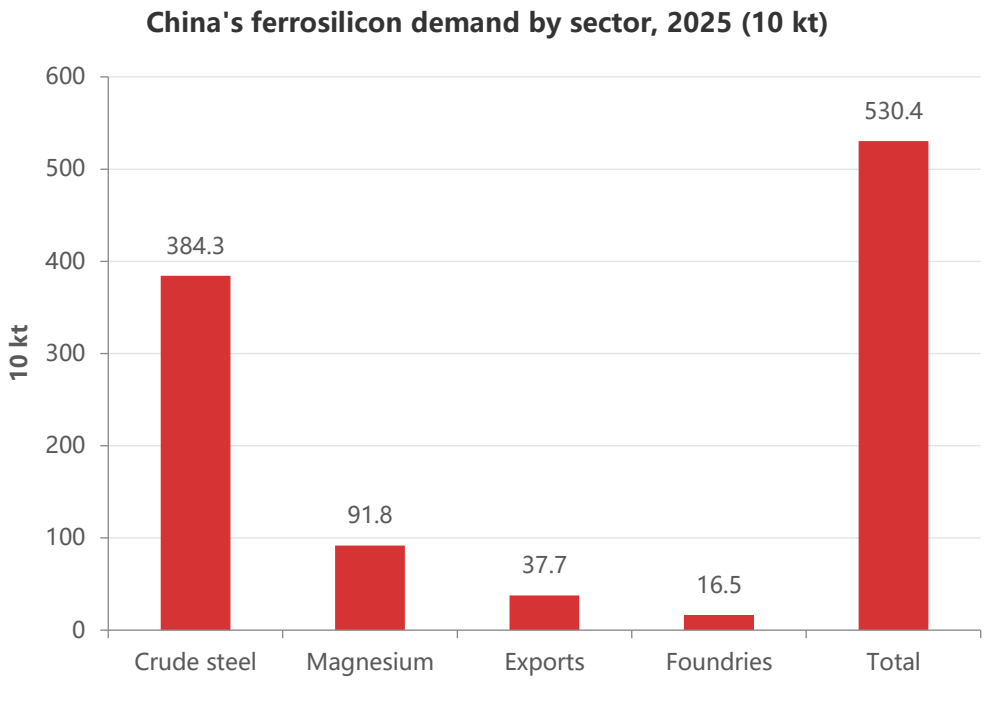
• Leveraging green power, China keeps ferrosilicon production costs low and holds a global cost advantage in ferrosilicon production

China's Annual FeSi Output, 2011–2026



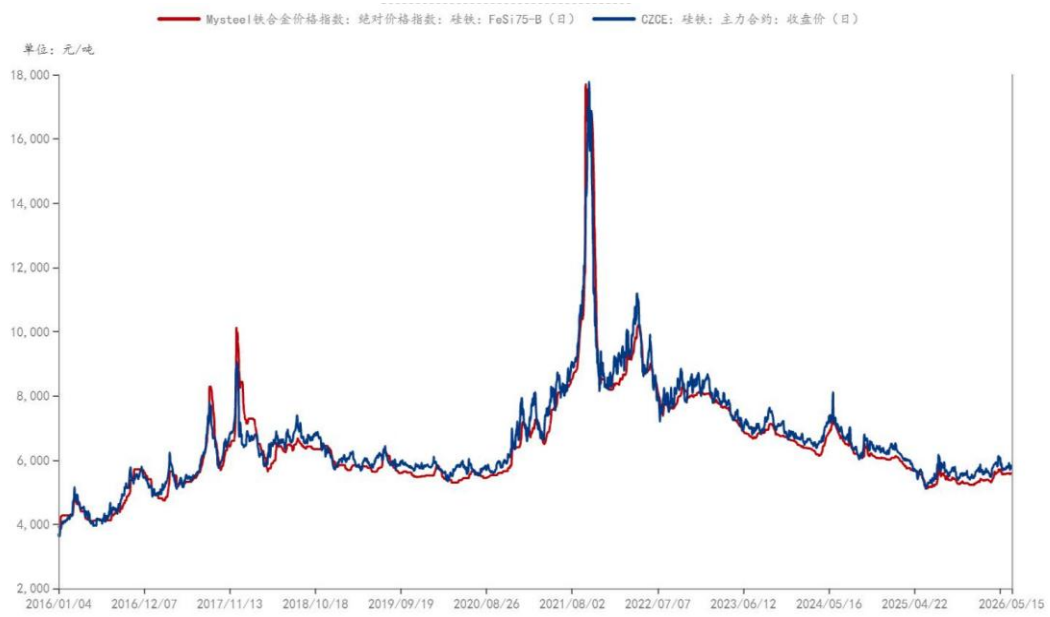
• This chart tracks China's ferrosilicon output from 2011 to the 2026 forecast; in recent years output has been broadly stable with a slight downward drift

China's Domestic FeSi Consumption in 2025 (10 kt)



• China's total ferrosilicon consumption in 2025 was 5.304 Mt. Crude steel is the largest consuming sector and magnesium metal the second; stronger overseas demand has boosted the magnesium industry and hence ferrosilicon consumption

The New Futures-Plus-Physical Model



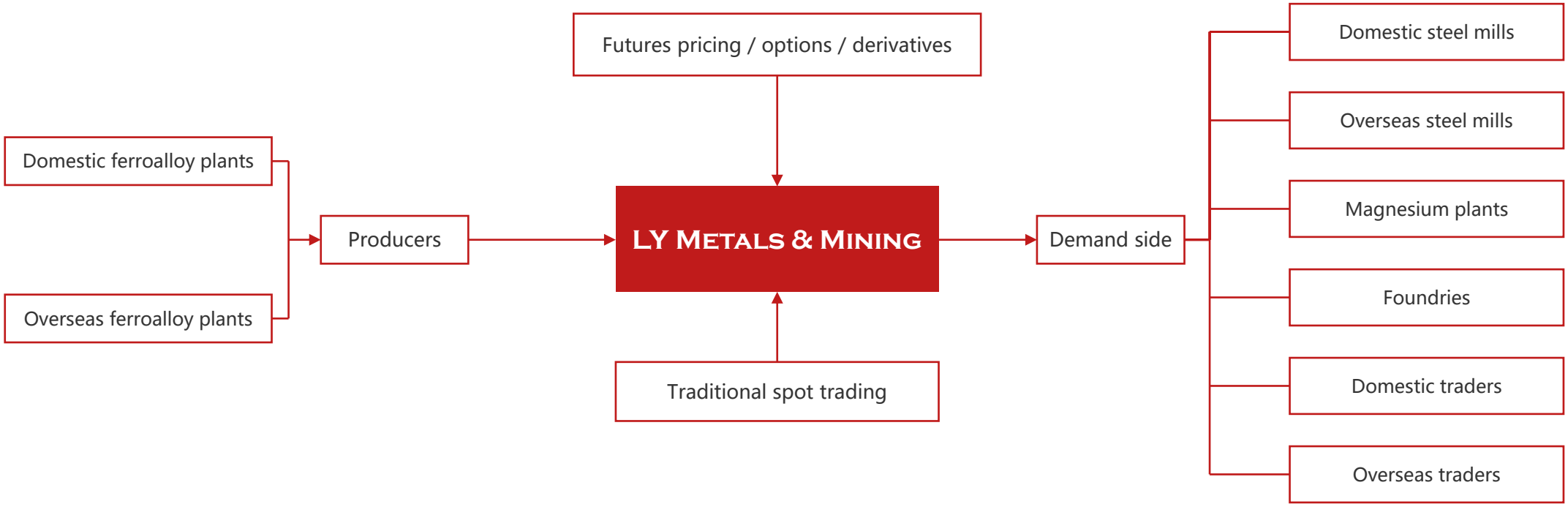
• Since ferrosilicon futures launched in 2014, a new futures-plus-physical model has emerged, with futures prices now a bellwether for spot prices

Futures as a Financial Tool to Hedge Value-Chain Risk



• Ferrosilicon prices are highly cyclical; as a financial tool, futures let the value chain hedge risk, improve operational flexibility and benefit the whole industry

Beijing LY Metals & Mining: FeSi Business Model



Core Roles of Futures in the Ferrosilicon Market:

Price Discovery | Cost Management | Risk Hedging

SUMMARY

CHINA’ S FERROALLOY INDUSTRY
MAIN COMPETITIVE ADVANTAGES

RESOURCE & COST ADVANTAGES

- Abundant Raw Materials
- Competitive Energy Costs
- Green Power Potential

INDUSTRIAL & MARKET STRENGTH

- Complete Industrial Chain
- Skilled Workforce
- Strong Domestic Demand

SUPPLY & RISK MANAGEMENT

- Reliable Supply Chains
- Stable Production Capacity
- Futures & Options Hedging

MORE THAN LOW PRICES — A STRONG, INTEGRATED, AND RESILIENT INDUSTRY

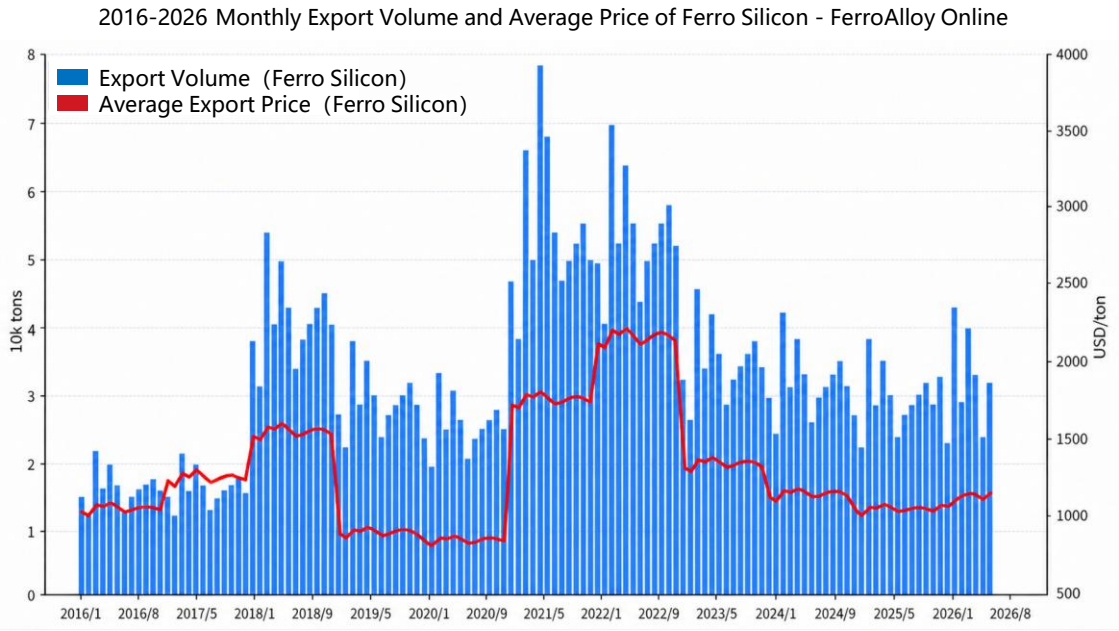
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PART.3

Export Market Trends

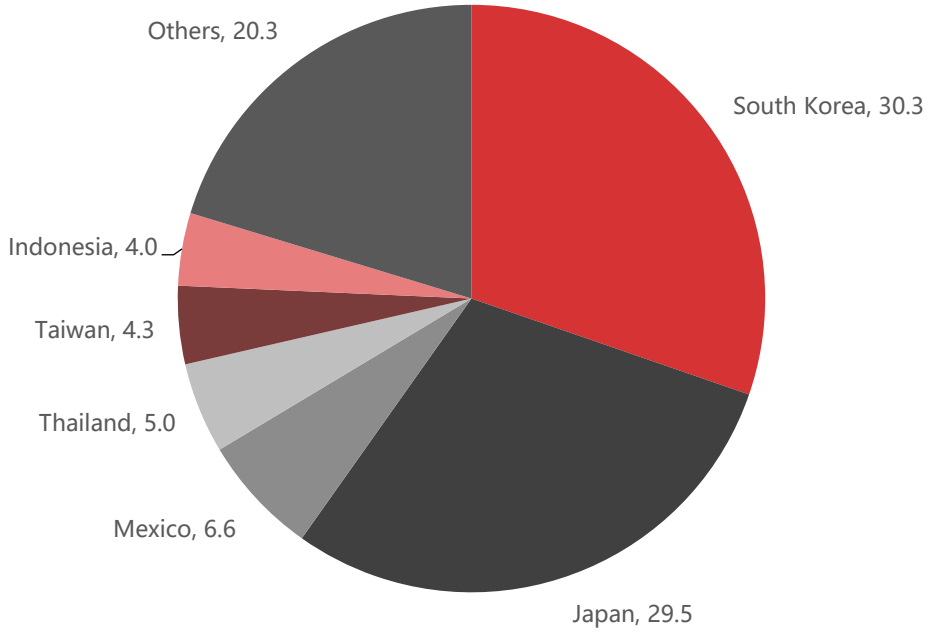
Global ferroalloy trade flows are shifting as market demand, trade policies, and supply-chain dynamics evolve.

Long-Term Trend of Ferrosilicon Export Volume and Price



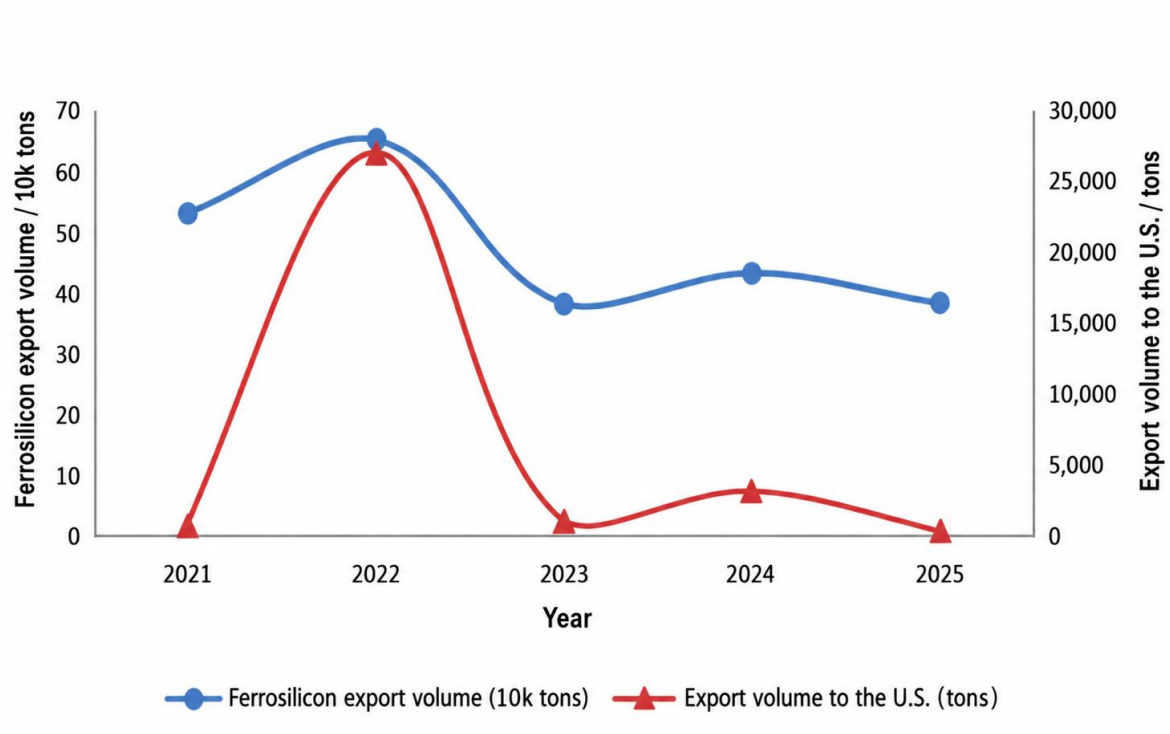
- Ferrosilicon export volumes and prices show pronounced long-term cyclical swings

Top 10 Destinations for China's Ferrosilicon Exports, Jan–Aug 2026



- East Asia (Japan and Korea) remains the main destination region for China's ferrosilicon exports
- As supply chains restructure, Mexico and other American countries have steadily increased their share of Chinese ferrosilicon imports

China's Ferrosilicon Exports and Exports to the US, 2021–2025



US Ferrosilicon Imports in H1 2026 (Total: 67,329 t)

Rank	Country / Region	Import Volume in the First Half of the Year (metric tons)
1	CA Canada	11,542.32
2	AO Angola	8,255.20
3	IS Iceland	7,706.34
4	AZ Azerbaijan	6,862.88
5	BT Bhutan	5,869.59
6	NO Norway	4,645.56
7	ES Spain	4,250.08
8	MY Malaysia	3,388.66
9	KW Kuwait	728.24
10	PL Poland	520.42
11	HK Hong Kong, China	841.68

- China's total ferrosilicon exports fluctuated cyclically over 2021–2025
- Exports to the US shrank sharply and nearly stalled in 2023–2025
- Shifting trade policy has reshaped cross-border ferrosilicon trade

China Containerized Freight Index



Red Sea diversions



- The China Containerized Freight Index (CCFI) stood at 1,922.64 in October 2026, up nearly 50% from its low for the year
- Geopolitical conflict has pushed up energy and shipping costs, and container rates have rebounded sharply
- Red Sea diversions add logistics uncertainty, alter regional competitiveness and drive the evolution of China's ferroalloy export flows

USD/CNY Exchange Rate, 2018–2026



- Exchange-rate volatility is a critical variable in ferrosilicon export costs
- The renminbi has been through several sharp appreciation and depreciation cycles, directly affecting export profitability
- Companies can hedge FX risk with multi-currency settlement, forwards and FX options; exchange-rate moves drive the evolution of the ferroalloy export market

Tariffs, anti-dumping duties and mandatory access requirements form multiple layers of trade barriers

CHINA’ S EXPORT DUTIES

25%

TRADE BARRIER

U.S. IMPORT TARIFFS

EU ANTI-DUMPING MEASURES

MARKET ACCESS REQUIREMENTS

INDIA BIS CERTIFICATION

EU REACH CERTIFICATION

Chinese ferrosilicon exports face domestic export duties, destination-country import tariffs, EU anti-dumping duties and mandatory certification in various countries — layers of trade barriers stacked together

SUMMARY

Global Ferroalloy Trade Is Changing

EXPORT MARKET TRENDS

China’ s ferrosilicon exports showed signs of recovery in H1 2026. Japan and South Korea remain key export destinations, while Mexico and other markets in the Americas are gaining importance.

TRADE REALIGNMENT

US tariffs sharply reduced China's ferrosilicon exports in 2023-2025, prompting adjustments in global supply chains.

MARKET RISKS

Freight, exchange rates, tariffs, and certification continue to reshape global trade

04

PART.4

China-U.S. Trade

Bulk Products Blocked, Opportunities Remain in Special and Supporting Metallurgical Products

China's Metallurgical Raw Material Exports by Category, Jan–Aug 2026

Product	Export Volume (t)	Top Destination	Key Characteristics
Silicon Metal	509,040	Japan	Upstream in the PV chain; largest export value
Silicon Carbide	260,555	United States	Refractories and abrasives; the US takes over 20%
Ferrosilicon	257,032	South Korea	Cost advantage; second-largest export volume
Electrolytic Manganese	196,980	South Korea	High value-added; essential for stainless steel
Magnesium Metal	173,906	Netherlands	China supplies 85%+ of global output; Europe leads demand
Silicomanganese	40,233	Indonesia	20% export duty; volumes have contracted sharply
High-Carbon Ferrochrome	53,236	Japan	40% export duty; mainly processing and re-export
Low-Carbon Ferrochrome	9,721	South Korea	High value-added; premium stainless demand in Europe

Bulk ferroalloys hit by trade barriers • Opportunities remain in special ferroalloys and supporting metallurgical products

Note: Silicon carbide is not an iron alloy

Top 10 Destinations for Silicon Metal Exports (Jan–Aug cumulative)

Rank	Country/Region	Volume (tons)	Value (USD 10k)
1	Japan	95,050	14,060
2	India	87,745	11,193
3	South Korea	54,825	7,241
4	Netherlands	48,215	6,186
5	Thailand	37,389	5,458
6	UAE	30,998	4,199
7	Malaysia	25,299	3,414
8	Russia	19,749	2,721
9	Mexico	17,462	2,197
-	Total	509,040	68,613

Destinations for Silicon Carbide Exports (Jan–Aug cumulative)

Key Export Indicators

260,600 metric tons
Total exports in January–August 2026

USD 224 million
Export value (approximately USD 224 million)

22.8%
Share of total ferroalloy exports (first in China)

China's ferroalloy exports account for over 30% of the global market, making it the world's largest exporter.

Ranking	Country / Region	Share	Key Segments
1	United States	22.8%	Ferrochromium, silicomanganese, amorphous strip
2	Japan	12.5%	High-end specialty alloys
3	South Korea	9.8%	Ferrochromium, manganese
4	Netherlands	7.2%	European industrial distribution hub
5	India	6.5%	Ferroalloy raw materials and growing demand
6	Other countries	41.2%	Global distribution

The silicon metal market is diversified, giving it greater resilience to single-country trade risk; silicon carbide benefits from the PV and silicones industries, holds up well in the US market and is a new growth area in China–US trade

Top 10 Destinations for Electrolytic Manganese Exports (Jan–Aug cumulative)

Rank	Country/Region	Volume (tons)	Value (USD 10k)
1	South Korea	51,056	11,367
2	Netherlands	43,395	10,144
3	Japan	25,636	6,604
4	Russia	17,495	4,172
5	India	13,970	3,394
6	United States	10,670	2,468
7	Mexico	8,922	2,165
8	Taiwan, China	5,399	1,353
9	Brazil	4,914	1,115
-	**Total**	**196,980**	**46,715**

Top 10 Destinations for Magnesium Metal Exports (Jan–Aug cumulative)

Rank	Country/Region	Volume (tons)	Value (USD 10k)
1	Netherlands	39,951	8,641
2	India	19,400	4,155
3	Japan	18,180	4,610
4	South Korea	14,680	3,087
5	Canada	10,148	2,342
6	Turkey	7,746	1,400
7	United Arab Emirates	7,193	1,505
8	Germany	6,028	1,236
9	Greece	4,523	925
-	**Total**	**173,906**	**37,875**

Electrolytic manganese and magnesium are high-value-added special metallurgical materials with lower trade barriers than bulk ferrosilicon.
Electrolytic manganese targets high-end stainless steel in Europe and the US; magnesium draws on China's global supply advantage and has stable overseas market space.

Chinese products imported by the US

Rank	Product
1	Other alloys
2	Ferrosilicon
3	Ferrochrome (C4 low)
4	Ferrosilicon (55 low grade)
5	Ferrochrome (C4 high)
6	Ferrovanadium
7	Ferrotungsten
8	Rare earths
9	Ferrotitanium
10	Permanent magnet sheet
11	Other ferrotitanium
12	NdFeB magnet powder
13	Ferronickel
14	Silicochrome

- The US is diversifying its supply sources, yet special Chinese alloys still find market access

SUMMARY

Bulk ferroalloys restricted; high-value metallurgical products dominate China-US trade

- TARIFF BARRIERS CURB DIRECT US IMPORTS OF BULK FERROALLOYS FROM CHINA.

- HIGH-VALUE SPECIALTY METALLURGICAL PRODUCTS FACE FEWER LIMITS AND FORM THE CORE OF BILATERAL TRADE.

05

PART.5

Future Outlook

Green Transition, High-End Manufacturing and Supply-Chain Resilience as the Key Forces Shaping the Global Industry

China's Ferroalloys: Core of Global Supply and Strategic Strength

A global leader in green production, sustainability, advanced manufacturing, and supply chain resilience

Key Strengths

- Green & Sustainable
- Carbon Advantage
- Advanced Manufacturing
- Supply Chain Capability
- Differentiated Products (High-grade ferromanganese ALO.01)
- Long-term Contracts
- Futures Tools
- Output accounts for more than half of global production

Strategic Importance



- Green Transition
- Supply Chain Resilience

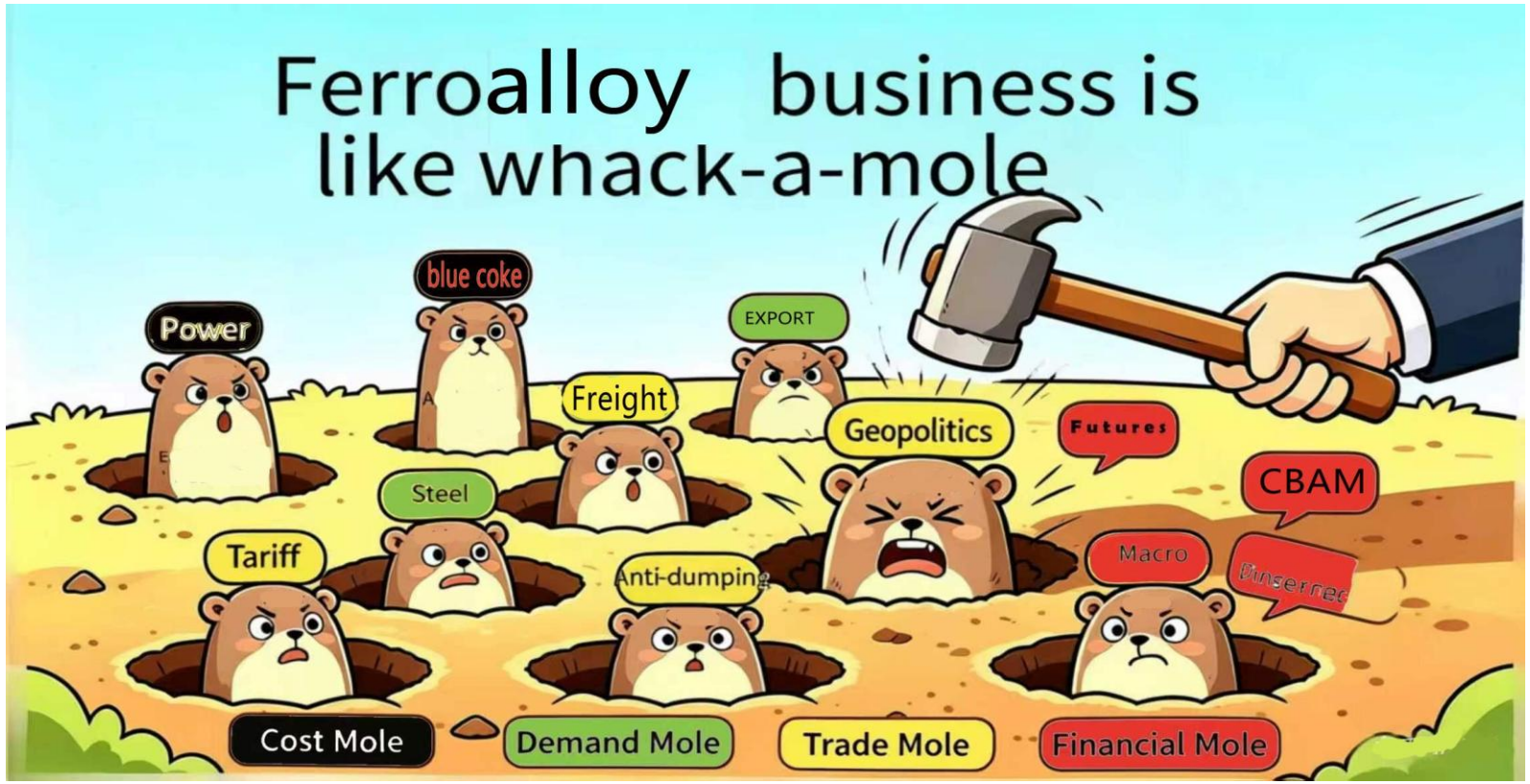
Key Message

Regardless of global market volatility, China remains a stable and reliable supply base for the global ferroalloy industry.

Core Conclusion

China's ferroalloy industry holds an irreplaceable core position in the global value chain.
Combining scale, cost, technology, and sustainability advantages, it serves as a critical link connecting global industries.

Navigating Uncertainty in the Global Ferroalloy Market



The global ferroalloy industry faces increasing uncertainty from cost volatility, trade barriers and evolving carbon regulations.

However, China’ s integrated industrial ecosystem, manufacturing capabilities and supply-chain resilience provide a strong foundation for long-term competitiveness.

SUMMARY

COMPETITIVENESS

- Integrated manufacturing ecosystem
- Cost-efficient production
- Supply reliability

INDUSTRY TRANSFORMATION

- Lower-carbon production
- Higher-value-added products
- Quality and regulatory compliance

GLOBAL TRADE STRATEGY

- Market diversification
- Strategic partnerships
- Supply-chain resilience

Find certainty in uncertainty.
Through Innovation,
Collaboration,
and Sustainable Growth.

Data Sources

Worldsteel, Ferroalloy Online(CNFEOL.COM), MySteel, BTD China, China Ferroalloy Network, Metallurgical News, China Customs, National Bureau of Statistics of China, China Zheshang Bank, China Ferroalloys Industry Association（CFIA）

COMPANY PROFILE

Professionalism | Globalization | Win-win | Sustainability

Beijing LY Metals and Mining Co., Ltd. was founded in 2008, specializing in the supply of metallurgical raw materials. The company operates through a diversified business model that integrates supply chain management, domestic and international trade, and investments in finance and mining. Currently, it maintains long-term and stable partnerships with over 60 steel mills in China and more than 30 steel mills overseas. Beijing LY Metals and Mining exports Chinese metallurgical products to over 40 countries and regions while also importing various mineral resources essential to China from around the world. Through its extensive international network and commitment to quality, Beijing LY Metals and Mining has established itself as a trusted partner in the global metallurgical raw materials supply chain.

FERRO ALLOYS

Ferro Silicon
Ferro Chrome
Silicon Manganese
Ferro Manganese
Ferro Titanium
Ferro Molybdenum
Ferro Sulphur
Ferro Vanadium
Ferro Boron
Silicon Chrome
Silicon Zirconium

MINERALS / ORES

Chromite Ore
Manganese Ore
Lithium Ore
Copper Ore
Iron Ore
Coal
Bauxite
Ilmenite
Rutile
Quartz

CARBON

Graphite Electrode
Carbon Brick
Carbon Anode Block

OTHERS

Silicon Carbide
Recarburizer
Cored Wire
Sponge Titanium
HBI
Calcium Silicon Alloy

NON-FERROUS

Silicon Metal
Chrome Metal
Magnesium Metal
Manganese Metal
Zinc
Copper
Aluminium

OUR MAJOR PRODUCTS

Ferro Silicon



Graphite Electrode



Ferro Chrome



Chromite Ore



Ferro Manganese



Manganese Ore



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BEIJING LY METALS AND MINING CO LTD

Building a More Competitive, Sustainable and Resilient Ferroalloy Industry

THANKS

CRU Ferroalloys Summit Miami

Lucy Wang

October 2026

PROFESSIONALISM GLOBALIZATION WIN-WIN SUSTAINABILITY