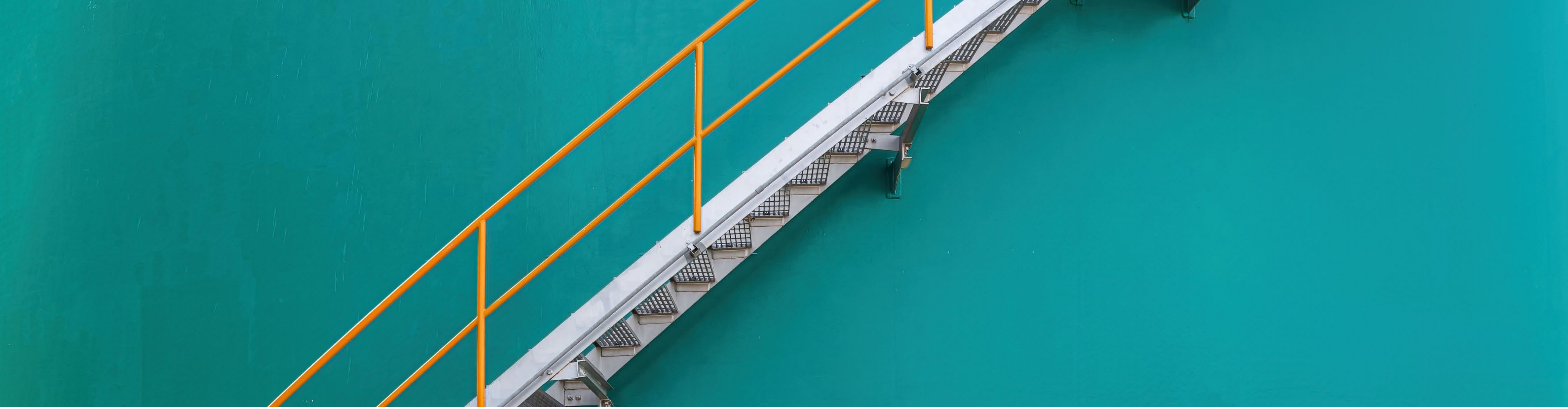


Where Are China's Overinvestment Risks?

What investment, utilization, and leverage data show

Charles Chang
Greater China Country Lead, Corporates

Chang Li
China Country Specialist, Corporates

Christopher Lee
Chief Analytical Officer, APAC

Aug. 7, 2024

S&P Global Ratings

This report does not constitute a rating action

Industrial Overinvestment Risk Now A Global Issue, But Where Does It Show?

- Industrial investment has mainly gone to manufacturing and power and utilities in recent years. This is in line with policy initiatives to encourage green transition and industrial upgrading.
- However, overinvestment risk is showing in some sectors, such as auto, raw chemicals and electrical equipment, flagged by sliding utilization rates or contracting profit margins.
- This is not the first time China's industrial sectors have confronted overinvestment risk. For example, in 2015, the Chinese authorities launched a policy to reduce capacity in the metals and mining sector. Since then, fixed asset investment for coal mining has contracted for two years, and both utilization and profit margin have risen.
- We expect capex and M&A to moderate for most Chinese firms in the next few years. However, global ambitions remain strong for some large corporates in industries facing overinvestment risks. They continue to show appetite for overseas investments despite ongoing trade tensions.
- Leverage is set to fall for Chinese firms, but may stay higher than before the pandemic, indicating balance sheet repair may take years.

Uneven Industrial FAI Growth: Modest Overall, Strong In Specific Sectors

High FAI growth in power and utilities and manufacturing since 2022

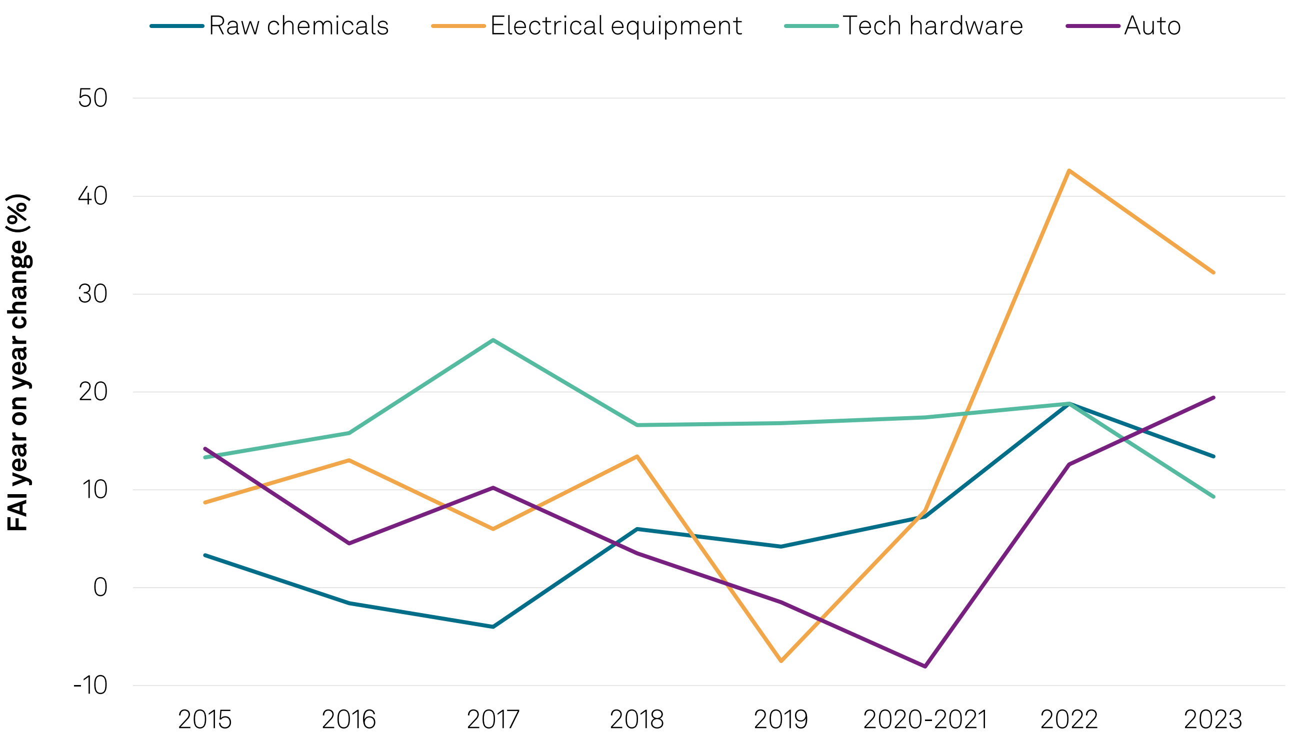
	FAI year on year change (%)							
	2015	2016	2017	2018	2019	2020-2021	2022	2023
Metals and mining	(8.8)	(20.4)	(10.0)	4.1	24.1	(1.6)	4.5	2.1
Oil and gas	(5.7)	(31.9)	13.9	(0.7)	25.7	(12.7)	15.5	15.2
Coal mining	(14.4)	(24.2)	(12.3)	5.9	29.6	5.2	24.4	12.1
Power and utilities	16.6	11.3	0.8	(6.7)	4.5	9.4	19.3	23.0
Manufacturing	8.1	4.2	4.8	9.5	3.1	5.7	9.1	6.5
Ferrous metals downstream	(11.0)	(2.2)	(7.1)	13.8	26.0	20.6	(0.1)	0.2
Non-ferrous metals downstream	(4.0)	(5.8)	(3.0)	3.2	1.2	2.1	15.7	12.5
Building materials	6.1	0.7	1.6	19.7	6.8	5.6	6.7	0.6
Raw chemicals	3.3	(1.6)	(4.0)	6.0	4.2	7.3	18.8	13.4
Chemical fibres	1.2	0.3	20.0	29.0	(14.1)	6.2	21.4	(9.8)
Capital goods	9.3	(2.5)	4.3	12.0	6.0	6.3	13.5	7.6
Electrical equipment	8.7	13.0	6.0	13.4	(7.5)	7.9	42.6	32.2
Tech hardware	13.3	15.8	25.3	16.6	16.8	17.4	18.8	9.3
Auto	14.2	4.5	10.2	3.5	(1.5)	(8.1)	12.6	19.4
Textile	12.8	10.7	5.9	5.1	(8.9)	2.5	4.7	(0.4)
Food	14.4	14.5	1.7	3.8	(3.7)	4.3	13.7	12.5
Medical	11.9	8.4	(3.0)	4.0	8.4	19.5	5.9	1.8

- Power and utilities fixed asset investment (FAI) has accelerated to 20% growth a year, propelled by investment in renewable capacity under the government's energy transition drive.
- FAI growth in manufacturing has been strong in recent years, especially in raw chemicals, electrical equipment (including batteries and solar panels), tech hardware (including integrated circuit and semiconductors) and auto.
- By contrast, FAI in metals and mining contracted between 2015 and 2017, and growth has been tepid in the past four years.

Note: Building materials refers to non-metallic mineral products. Raw chemicals refers to chemical feedstock and chemical manufacturing, including inorganic acids, fertilizers, and synthetic materials. Electrical equipment includes batteries and solar panels. Tech hardware refers to computers, communication devices and other electronics, including integrated circuits and semiconductors. We take average for 2020 and 2021 to mitigate the impact of the pandemic. FAI--Fixed assets investment.
Sources: Wind. S&P Global Ratings.

A Closer Look Into Investment In Manufacturing

Investment surged in auto, raw chemicals, electrical equipment; remains high in tech hardware



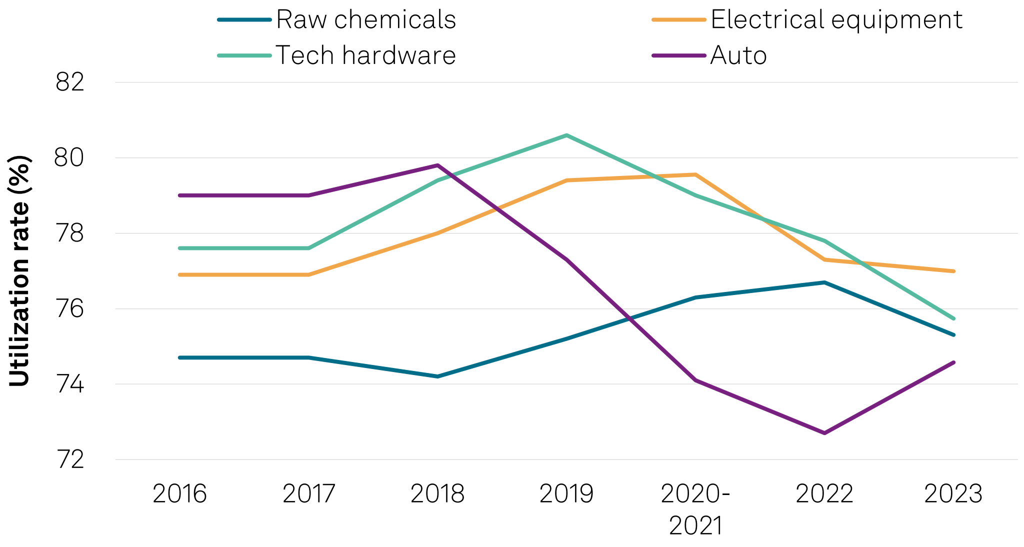
- FAI growth in raw chemicals has turned positive and has continued rising since 2018, in line with industry upgrading policies and initiatives to boost self-sufficiency in new materials.
- FAI growth in auto and electrical equipment (including batteries and solar equipment) has soared as China has promoted vehicle electrification and renewable power generation.
- FAI growth in tech hardware (including integrated circuit and semiconductors) has remained high at about 15% since 2015, highlighting China's drive to enhance technology development and self-sufficiency.

Note: Raw chemicals refers to chemical feedstock and chemical manufacturing, including inorganic acids, fertilizers, and synthetic materials. Electrical equipment includes batteries and solar panels. Tech hardware refers to computers, communication devices and other electronics, including integrated circuits and semiconductors. We take average for 2020 and 2021 to mitigate the impact of the pandemic. FAI--Fixed assets investment. Sources: Wind. S&P Global Ratings.

Overinvestment Risks Lie In Auto, Raw Chemicals, And Electrical Equipment

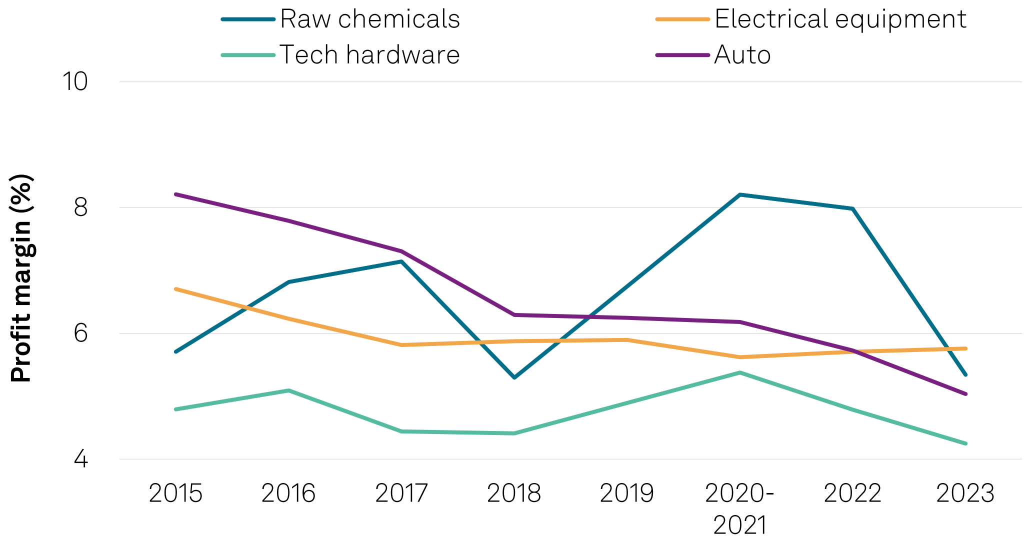
- Supply gluts, high costs, and a shaky demand recovery have squeezed raw chemical profit margin, which has reverted to 2018 level.
- Utilization of electrical equipment has shrunk since the pandemic, and its profit margin was low compared to pre-pandemic levels.
- The utilization rate in auto fell by 7 percentage points in 2018-2022, while profit margins continued to decline.

Auto led the utilization rate downturn



Note: We take average for 2020 and 2021 to mitigate the impact of the pandemic. Sources: Wind. S&P Global Ratings.

Profit margin contracted to lower end



Note: Profit margin refers to profit before tax margin. We take average for 2020 and 2021 to mitigate the impact of the pandemic. Sources: Wind. S&P Global Ratings.

Investment Appetite: Modest For Most

Industries facing overinvestment risks are showing divergent capex appetite

	Capital expenditure change (% range)			
	2023	2024	2025	2026
Oil and gas integrated, exploration and production	0-5	0-5	0-5	0-5
Oil and gas, equipment and services	0-5	0-5	0-5	(5)-0
Oil and gas refining and marketing	0-5	0-5	(5)-0	(5)-0
Chemicals	5-10	0-5	(5)-0	(15)-(10)
Metals and mining upstream	5-10	0-5	0-5	0-5
Metals and mining downstream	0-5	(5)-0	(5)-0	(5)-0
Building materials	0-5	(5)-0	(5)-0	(5)-0
Capital goods	0-5	0-5	0-5	0-5
Auto original equipment manufacturer	10-15	5-10	5-10	0-5
Auto suppliers	0-5	0-5	0-5	0-5
Engineering and construction	0-5	(5)-0	(5)-0	(5)-0
Power and utilities	20-25	10-20	0-5	(10)-0
Infrastructure	5-10	5-10	3-8	3-8
Homebuilders and developers	(15)-(10)	(20)-(15)	(5)-0	0-5
Technology hardware and semiconductors	5-10	5-10	0-5	5-10
Agriculture and commodity foods	5-10	0-5	0-5	0-5
Consumer products	0-5	0-5	0-5	0-5
Business and consumer services	0-5	0-5	0-5	0-5
Media & entertainment*	(5)-0	0-5	0-5	0-5
Retail restaurant and e-commerce	5-10	5-10	0-5	0-5

*Includes advertising, such as online marketing. Source: S&P Global Ratings.

- We surveyed our analytical teams on expected capex growth to 2026. The median capex spending range across the 20 sectors covered by the survey is 0%-5% growth in 2024-2026.
- Auto OEM sector still shows above-average capex appetite, driven by electrification and ADAS (advanced driving assistance system) related investment.
- Tech hardware sector will continue to invest, consistent with the policy goal of more self-sufficiency in hi-tech, in the wake of developed market restrictions on the sale of advanced chips and chip-making equipment to China.
- Power and utilities investment will peak in 2024, boosted by investment to meet renewable capacity targets, and will decelerate after 2024.
- Chemicals will also see lower investment after 2024, since most new project construction will be completed in 2024-2025.

M&A Appetite: Low For Most, High For None

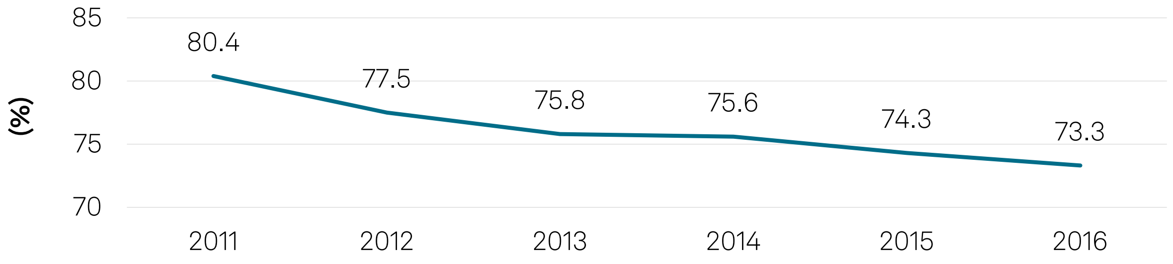
	M&A appetite		
	Low	Medium	High
Oil and gas integrated, exploration and production	■		
Oil and gas, equip and services	■		
Oil and gas refining and marketing	■		
Chemicals	■		
Metals and mining upstream		■	
Metals and mining downstream		■	
Building materials	■		
Capital goods	■		
Auto original equipment manufacturer		■	
Auto suppliers	■		
Engineering and construction	■		
Power and utilities	■		
Infrastructure	■		
Homebuilders and developers	■		
Technology hardware and semiconductors		■	
Agriculture and commodity foods	■		
Consumer products		■	
Business and consumer services		■	
Media and entertainment*		■	
Retail restaurant and e-commerce		■	

*Includes advertising, such as online marketing. Source: S&P Global Ratings.

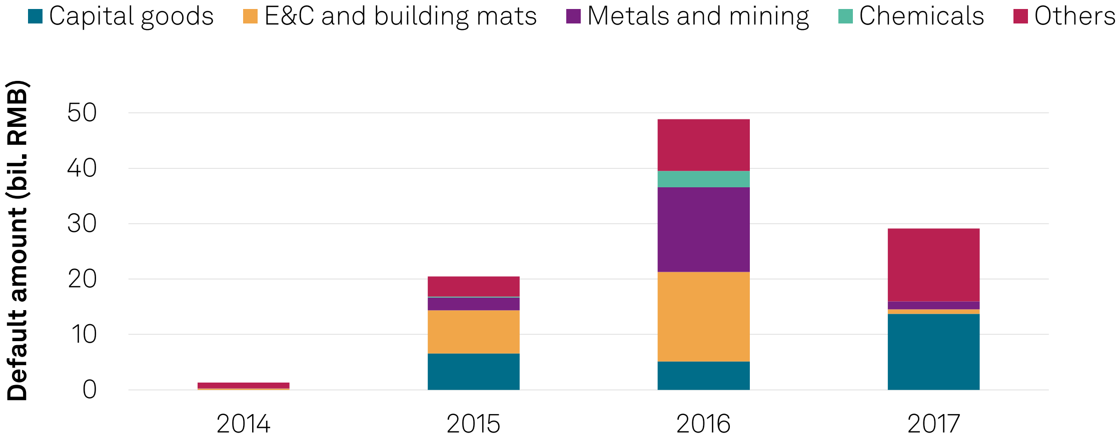
- Surveys of our analytical teams reveal that across 20 sectors, M&A appetite is low for 12, medium for eight, with no sector expected to show high M&A appetite over the next few years.
- This is due to a combination of China's slowing growth, a more protective investment climate in developed countries for Chinese M&A and the resulting preference for organic growth.
- Industry consolidation and vertical integration could be driving factors for M&A in some sectors, such as auto OEM, metals and mining.
- Global ambitions remain strong for some large corporates despite ongoing trade tensions. Firms in auto, retail, media and entertainment, consumer products, and tech hardware are seeking opportunistic acquisitions targets outside of China for business growth and geographical expansion.

Policy Could Lead Investment In Certain Sectors To Contract, Evidenced By Supply-Side Reform In 2015

Declining industrial utilization rate in mid 2010s



Default risks rose significantly in 2015-2016



- **Background:**
  - Overinvestment in the heavy industries, including metals and mining, capital goods, building materials, and chemicals resulted in a deterioration of supply-demand dynamics and large losses.
  - Default risks in heavy industries jumped in 2015-2016.

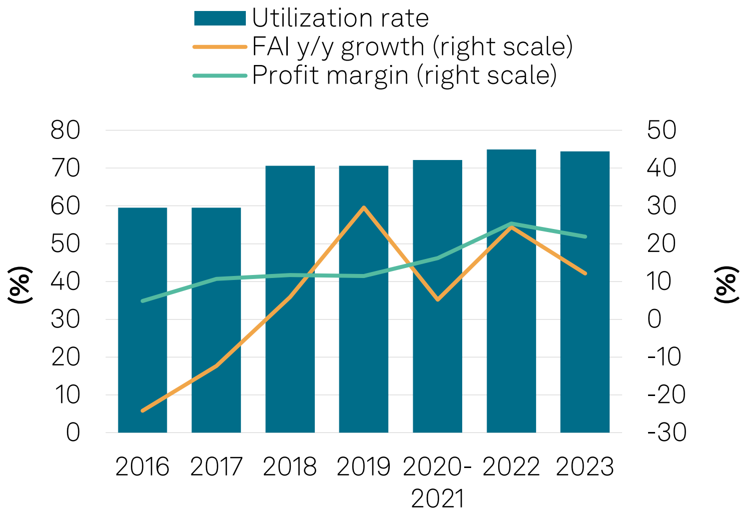
- **Policy measures:**
  - De-capacity: cut inefficient high-pollution excess capacity, particularly in coal mining, steel and cement.
  - Deleveraging: manage debt growth by controlling spending.
  - Improve resource allocation: encourage integration and industry consolidation.

Note: Default data includes all non-financial corporates in China's domestic bond market. Defaults are failures to pay interest or principal in full and on time, including maturity extension and other distressed restructurings. Default amount is defaulters' bonds outstanding on the date of first default. E&C and building mats--Engineering and construction and building materials. RMB--Chinese renminbi. Sources: Wind. S&P Global Ratings.

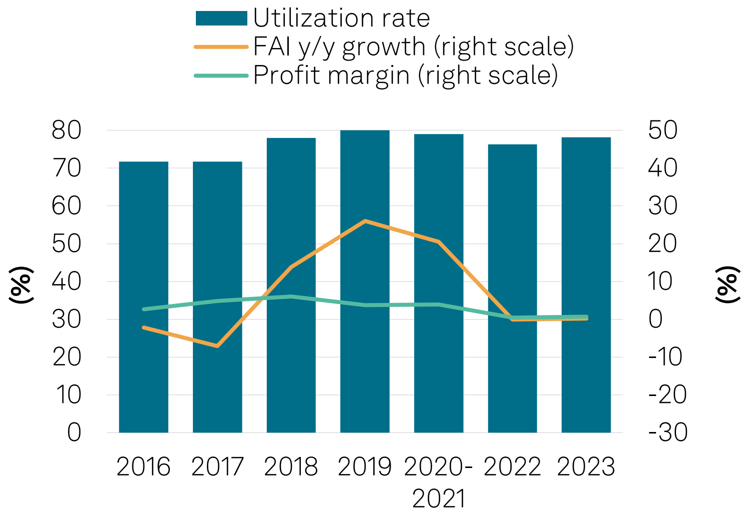
Supply-Side Reform Effective, Despite Ongoing Demand-Side Risk

- Since the supply-side reform in 2015, the coal mining sector's utilization rate and profit margins have risen.
- Utilization rate for ferrous metal downstream improved but profit margins fell, mainly due to sluggish demand (e.g. property).
- Non-ferrous metal downstream maintained high utilization of about 80% since 2019 under stable profit margins.

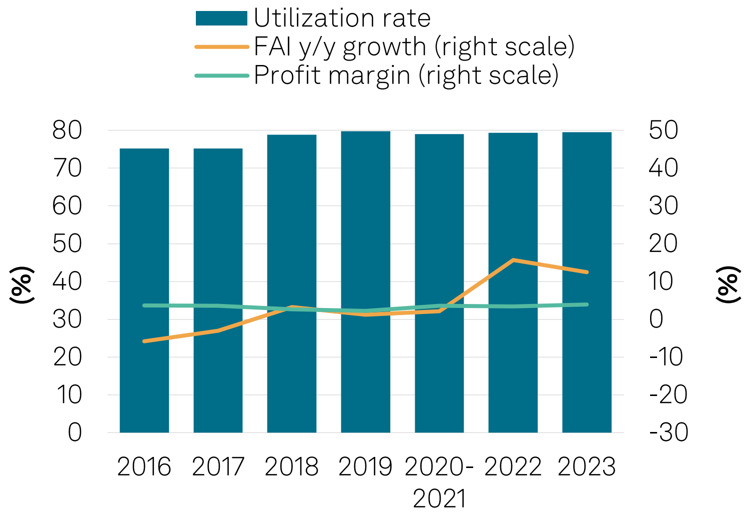
Coal mining profit margin increased as utilization improved



Ferrous metals downstream utilization grew, but profit margins remain pressured



Non-ferrous metal downstream FAI rebounded with high utilization

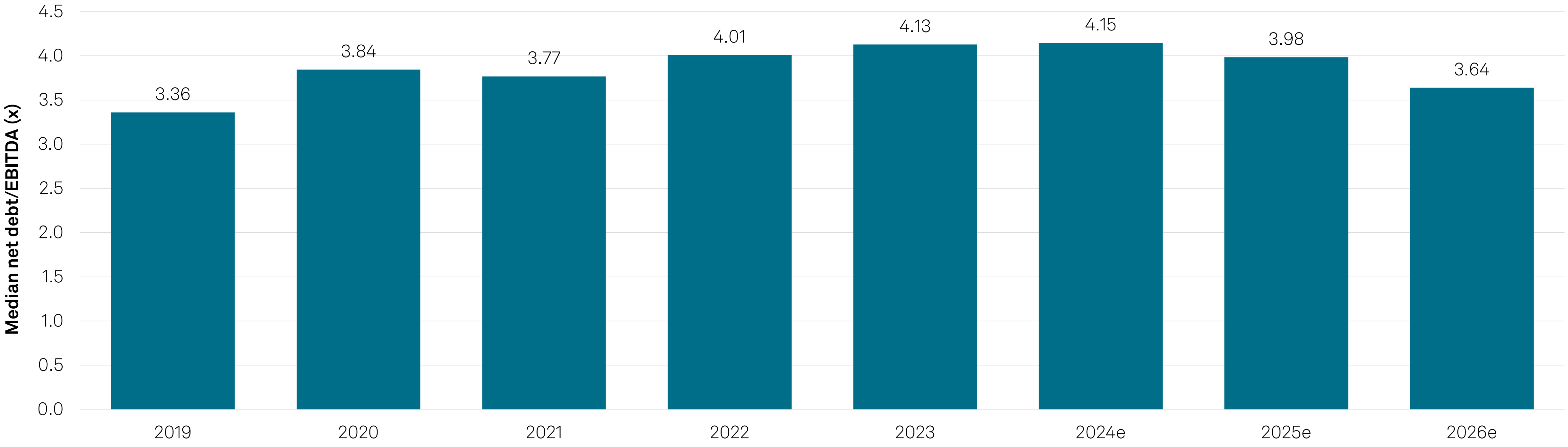


Note: Profit margin refers to profit before tax margin. We take average for 2020 and 2021 to mitigate the impact of the pandemic. FAI--Fixed assets investment. y/y --Year-on-year. Sources: Wind. S&P Global Ratings.

Corporate Leverage Is Declining After Rising For Many Years

- Overinvestment risks and spending appetite are affecting a few rather than most sectors.
- More disciplined financial management will help most Chinese corporates deleverage. However, debt leverage will take years to return to pre-pandemic levels, as a slowing economy will limit profit growth.

Leverage set to fall, but may stay higher than pre-pandemic



Data as of July 3, 2024. Note: Median net debt/EBITDA for all rated Chinese corporates, including Hong Kong listed Chinese companies. e--Estimate. Source: S&P Global Ratings.

To Spend Or Not To Spend? The Views Across Sectors

Oil and gas integrated, exploration and production

- Ongoing capex to be incurred mainly for upstream exploration and production development. Firms may pursue M&A opportunistically for upstream assets or downstream support.

Oil and gas, equipment and services

- Relatively high and stable oil prices to support capex. M&A to be limited due to a more conservative approach after the experience of the previous downcycle.

Oil and gas refining and marketing

- Capex, mainly for refining or petrochemical assets, will peak in 2024/2025. M&A to be limited as firms tend to prefer organic growth.

Chemicals

- Less capex needs are on the horizon due to industry overinvestment issues and as most new projects will be completed and come online in 2024/2025. Firms may pursue M&A for growth, often as joint-ventures with foreign partners.

Metals and mining upstream

- Capex growth to be stable and in line with output needs. Some firms with higher annual output targets may consider M&A.

Metals and mining downstream

- Limited capex growth--mostly for maintenance and small upgrades and environment-related needs. M&A may be driven by industry consolidation, some of which may be government-led.

To Spend Or Not To Spend? The Views Across Sectors

Building materials

- Limited capex mostly for maintenance, small upgrades and environment-related needs. M&A may be driven by industry consolidation.

Capital goods

- As capex tends to stay in line with GDP growth, firms will remain cautious in expanding production capacity as the economy slows. M&A appetite to be low as many subsectors face uncertain demand.

Auto original equipment manufacturers

- Investments related to electrification and ADAS (advanced driver-assistance systems) will continue to grow but at a slower pace. Investments related to internal combustion engines will decline.
- M&A could be driven by automakers going upstream for vertical integration. Traditional automakers that lag in EVs may acquire emerging EV brands.

Auto suppliers

- Capex growth will stay largely stable as a percentage of revenues. Firms will invest more in ADAS and smart cabinets, and less in batteries and ICE (internal combustion engines) vehicles.
- Firms will have less appetite to acquire upstream raw materials given declining prices; bolt-on acquisitions tend to be small.

Engineering and construction

- Investments in public-private partnership projects will slow under tighter government control. M&A appetite to remain low given high levels of debt. Some large players could make small vertical acquisitions, such as research institutions, to enhance competitiveness.

To Spend Or Not To Spend? The Views Across Sectors

Power and utilities

- Independent power producers are the key capex drivers for the sector, with investments peaking in 2024, driven by the rush to develop and meet renewable capacity targets.
- City gas distributors are the opposite: capex has fallen since 2023 due to lower connections under the ongoing real estate crisis. This may continue if the property market continues to contract.

Infrastructure

- Low growth in road and public infrastructure works in 2024 is weighing on capex. However, this is partly offset by a short-term investment boost in other categories such as railway and water conservation.
- Capex growth in 2025-2026 will fall due to more controls on debt and profitability across projects and localities in highly indebted areas. M&A appetite to be limited, as local government financing vehicles tend to invest organically in areas designated by their owners.

Agriculture and commodity foods

- Agriculture firms are slowing the pace of investments after two to three years of capacity expansion. This will likely remain the case over the next few years, particularly under weaker demand conditions.

To Spend Or Not To Spend? The Views Across Sectors

Tech hardware and semiconductors

- Heavy investment and capacity expansion are resuming this year under government promotion but will slow next year as potential overinvestment sets in.
- For semiconductors, geopolitics reduces the likelihood of major M&A, but the appetite remains. For solar, the sector is organically consolidating.

Consumer products

- Most firms remain cautious about expanding capacity amid lukewarm demand and slowing growth. Given this, most will consider M&A only on an opportunistic basis.

Business and consumer services

- For consumer services firms, capex will likely stay in line with GDP growth. For business service firms, capex needs tend to be limited. Most firms tend to grow organically but may consider M&A on an opportunistic basis.

Media & entertainment

- Firms could incrementally invest in AI despite the weak economic backdrop. This includes advertising firms and online marketers. Large media firms with global ambitions are likely to seek acquisition targets outside China. No apparent targets under consideration for now.

Retail, restaurants, and e-commerce

- Large chain restaurants may increase capex for network expansion to penetrate lower-tier cities. Retailers are likely to keep capex growth flat or stable. Firms tend to grow organically but may consider M&A on an opportunistic basis.

Appendix

Related Research

- Economic Outlook Asia-Pacific Q3 2024: Exporters And EMs Are Outperforming, June 23, 2024
- Credit FAQ: Why China Is At The Center Of Global Auto Conversations, June 11, 2024
- China Commodities Watch: Trade Tensions Add To The Pain, June 3, 2024
- Overcapacity In China Creates A Headwind For Global Chemical Producers, May 7, 2024
- China Auto: Margin Pressure Heightens, April 29, 2024
- China Food And Beverage: A Soft Economy Can't Derail The Sector's Solid Growth, April 15, 2024
- China's Energy Transition Will Be Powered By Debt, April 14, 2024
- China Industrials Are Making Do With Less, Feb. 1, 2024

Contributors

Charles Chang
Managing Director
Greater China Country Lead
Hong Kong
charles.chang@spglobal.com

Chang Li
Director
China Country Specialist
Beijing
chang.li@spglobal.com

Christopher Lee
Managing Director
Chief Analytical Officer, APAC
Hong Kong
christopher.k.lee@spglobal.com

Annie Ao
Director
Lead Analyst, Metals and Mining
Hong Kong
annie.ao@spglobal.com

Claire Yuan
Director
Lead Analyst, Auto
Hong Kong
claire.yuan@spglobal.com

Edward Chan
Director
Lead Analyst, Real Estate
Hong Kong
edward.chan@spglobal.com

Yuehao Wu
Director
Lead Analyst, Infrastructure
Hong Kong
yuehao.wu@spglobal.com

Apple Li
Director
Lead Analyst, Power
Hong Kong
apple.li@spglobal.com

Clifford Waits Kurz
Director
Lead Analyst, Technology
Hong Kong
clifford.kurz@spglobal.com

Sandy Lim
Director
Lead Analyst, Consumers
Hong Kong
sandy.lim@spglobal.com

Claire Sun
Research Assistant
Hong Kong
claire.sun@spglobal.com

Melody Peng
Research Assistant
Hong Kong
melody.peng@spglobal.com

spglobal.com/ratings

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