Where is Corporate Finance Headed?

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Introduction

I will consider three areas that I think will be important in the next few years mostly focused on innovation:

1. Equity vs. Debt

2. Valuation

3. Innovation Ecosystems

Equity vs. Debt

- Capital structure is still not well understood (see e.g., Brealey, Myers, Allen, and Edmans (2025) Ch 17)
- Equity markets appear crucial for innovation, but this is also not fully understood (see, e.g. Allen and Gale (1999) for an example of a different approach based on diversity of opinion)
- Is the US model of venture capital the best way of financing innovation?
- What role should Initial Coin Offerings (ICOs) play?

Typical Sequence of Events with ICOs

- ICOs are done in a number of ways but a typical sequence of events is the following
- The promoters making the ICO issue a “White Paper” – these take many different forms but usually describe the nature of the technology being funded and the uses the technology can be put to
- Possible investors then have the opportunity to ask the promoters questions about the technology and the business that is being founded
- An initial sale of coins is made, and the promoters use the funds to finish implementing the project
- Coins can be used on the platform and bought and sold for conventional currencies on cryptocurrency exchanges

Example of an ICO: Streamr

- The ICO raised 30 million CHF
- There are a fixed number of DATAcoins
- They are not mined but can be earned by selling data
- More information can be accessed at

https://token.streamr.com/

https://coinmarketcap.com/currencies/streamr-datacoin/

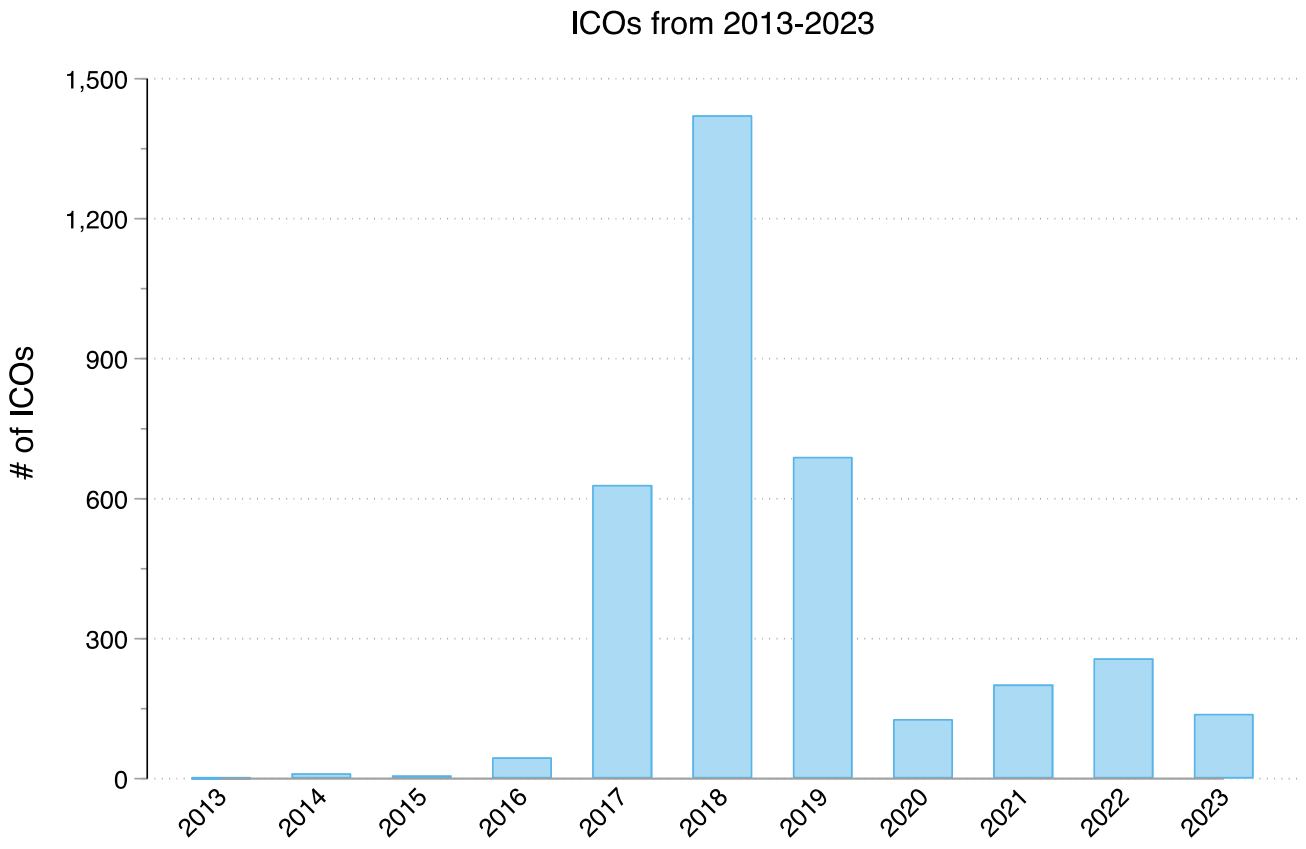
Advantages and Disadvantages of ICOs

- Kaal (2018) points to several advantages of ICOs compared to conventional ways of raising capital
  - ICOs enable borderless online sales with very few costs by enabling promoters to bypass the usual legal and jurisdictional hurdles by directly selling to a worldwide pool of investors
  - They provide excellent liquidity because global cryptocurrency exchanges provide continuous access to trading ICO tokens from the early stages of the business
  - ICOs provide liquidity to investors faster than other forms of capital formation – for example, venture capital funds can capitalize on existing profits early while avoiding long and complex processes leading up to an IPO or sale
- The main disadvantage (?) of ICOs is the lack of regulatory oversight and legal recourse to the promoters

Initial Coin Offerings, Financial Innovation, and Financial Regulation (joint with J. Kim and T. Yu)

- Regulators have failed to kill the ICO market, despite a sharp decline in the number of ICOs after 2018 (see Figure 1).
- Small countries (e.g., Estonia, Singapore, and Switzerland) play a significant role in the ICO market, likely due to their crypto-friendly policies (see Figure 2).
- Table 2 shows that the average initial return from ICOs between 2013 and 2023 from issue to listing is almost 80%. The mean post-ICO long-term return (five years after the first listing day) is 25%.
- Table 3 shows that the post-ICO long-term survival rate (five years after the first listing day) is 57%.

Figure 1. Annual number of ICOs from 2013 to 2023



This figure excludes incomplete ICOs that were withdrawn before offering tokens to investors. The data is based on hand-collected ICO information from multiple sources, including Foundico.com, ICO marks.io, ICOrating.com, ICODrops.com, and ICObench.com. Additionally, it is further complemented by the hand-collected ICO data for the years 2013-2019 from Lyandres, Palazzo, and Rabetti (2022).

Figure 2. Number of ICOs in the Top Six Countries

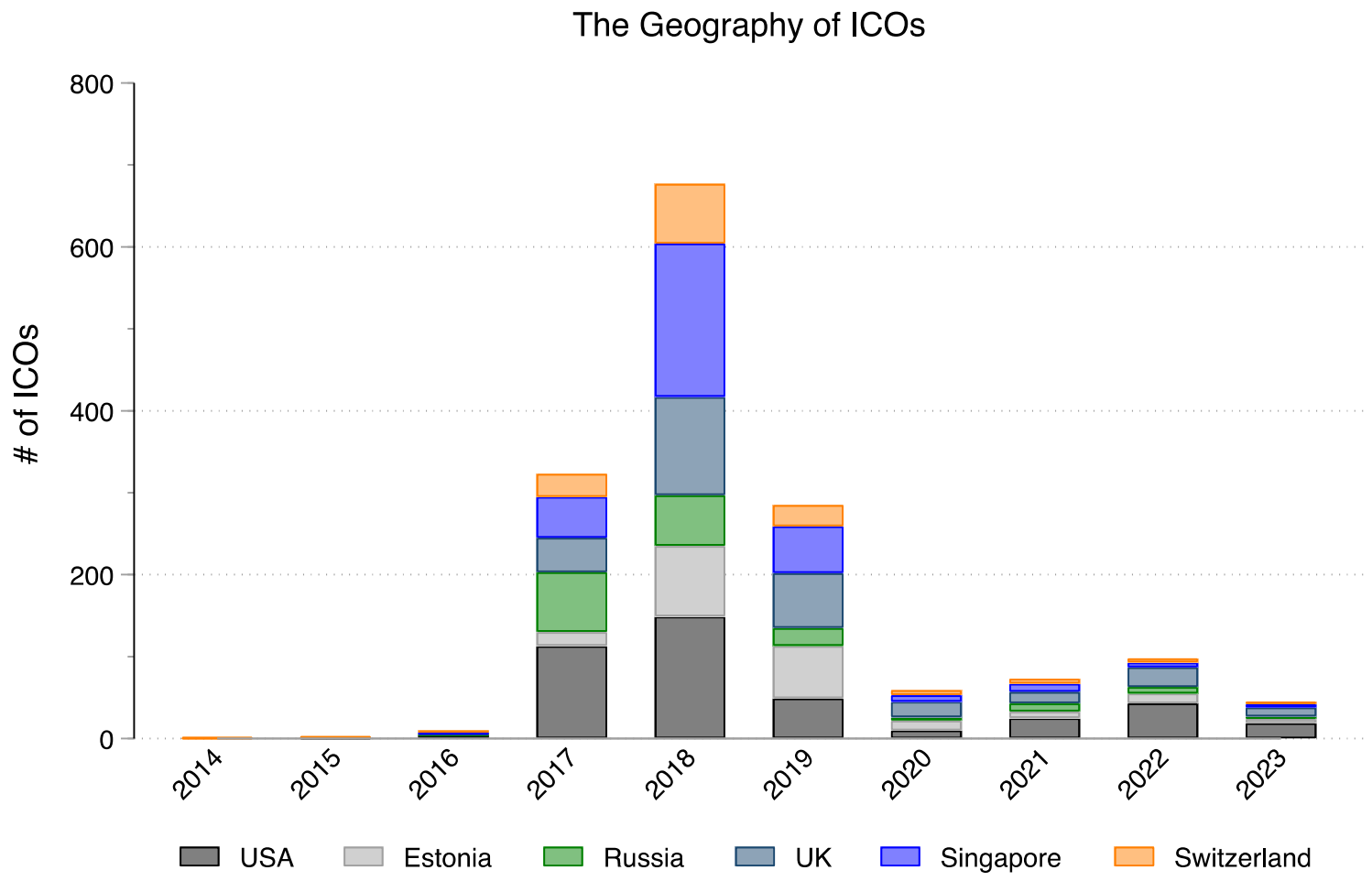


Table 2. ICO Returns 2013-2023

	Mean	Std. Dev.	Obs.
ICO return (%)	79.82	786.88	3704
First day return (%)	7.12	22.26	2264
30-day return (%)	-0.32	83.33	2248
90-day return (%)	-1.20	121.67	2206
180-day return (%)	-6.01	147.33	2084
1-year return (%)	-17.73	149.04	1811
2-year return (%)	-17.70	167.48	1227
3-year return (%)	40.02	315.26	933
4-year return (%)	11.97	259.87	752
5-year return (%)	25.44	351.06	507

"ICO return" is the percentage change from a token's ICO price to its opening price on its first day of listing on an exchange. This measure accounts for ICOs that never get listed on an exchange, which are assumed to have a return of -100%. "First day return" is the percentage change from a token's opening price to its closing price on the first day of listing on an exchange. "30-day return" is the cumulative percentage return over first 30 days following a token's initial exchange listing.

Table 3. Failure %

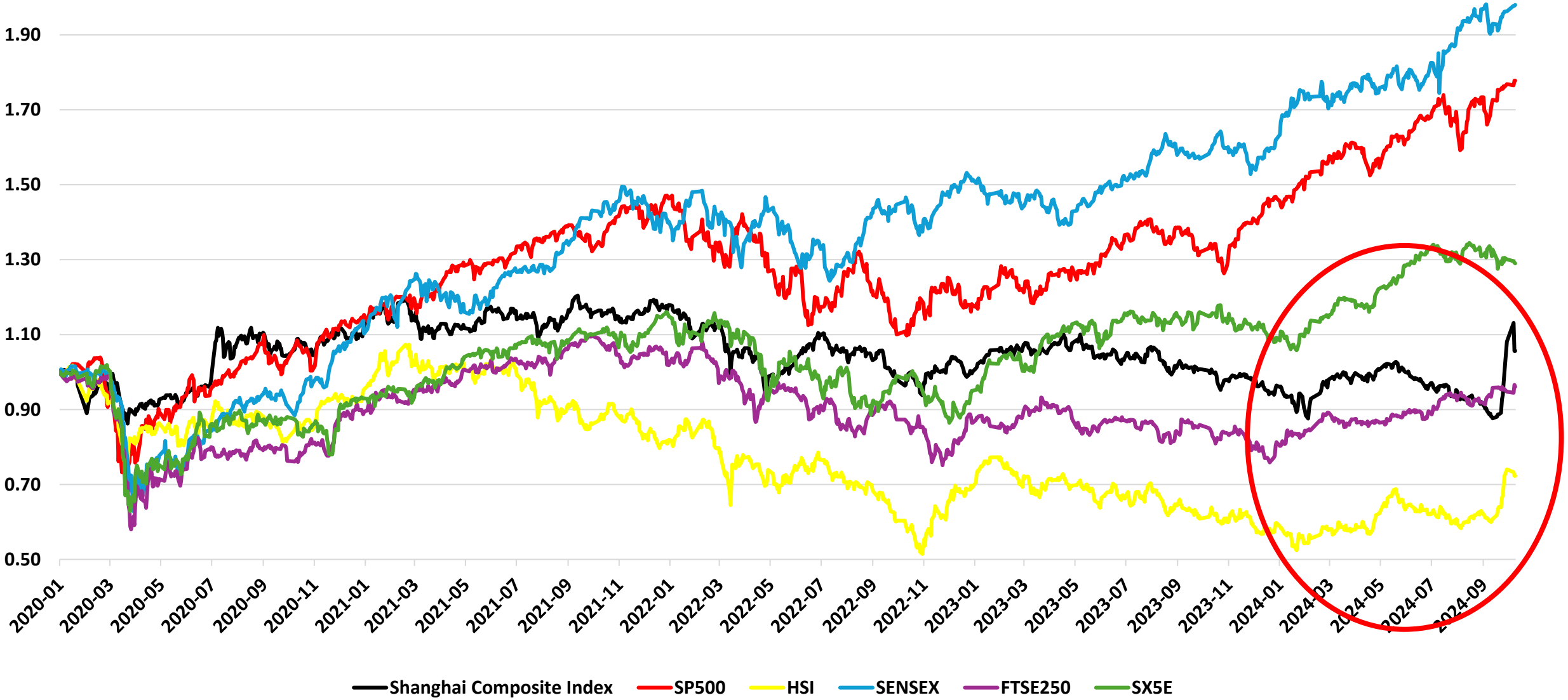
	30 days	90 days	180 days	1 year	2 years	3 years	4 years	5 years
Failure %	0.40	1.04	2.02	7.84	16.38	18.01	30.19	43.00

"Failure %" represents the percentage of ICOs that either reached a -100% return or were delisted within a given period after listing on an exchange. For example, 43% of ICOs (or 43% of 507 ICOs) failed to survive for five years following their listing.

2. Valuation

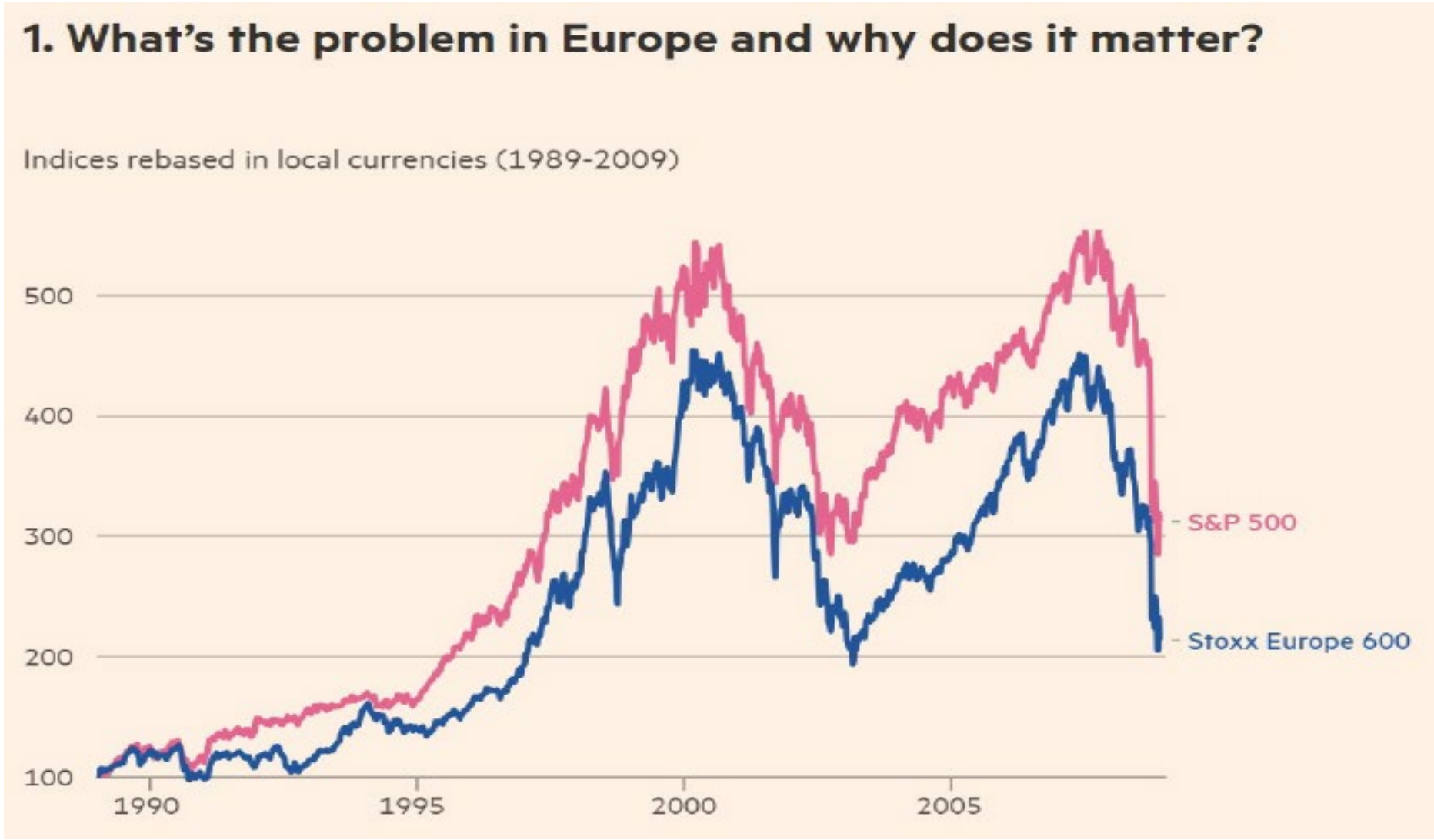
- Traditional methods of valuation:
  - DCF
  - Comparables
  - Real options valuation
- Recent examples suggest other methods may be needed
- Why are US tech stocks and particularly the Magnificent 7 so valuable (based on joint work with J. Qian)?

Returns on Stock Indexes: China A Share, HK, India, Europe, UK, and the US Markets (2020.01.01-2024.10.10)



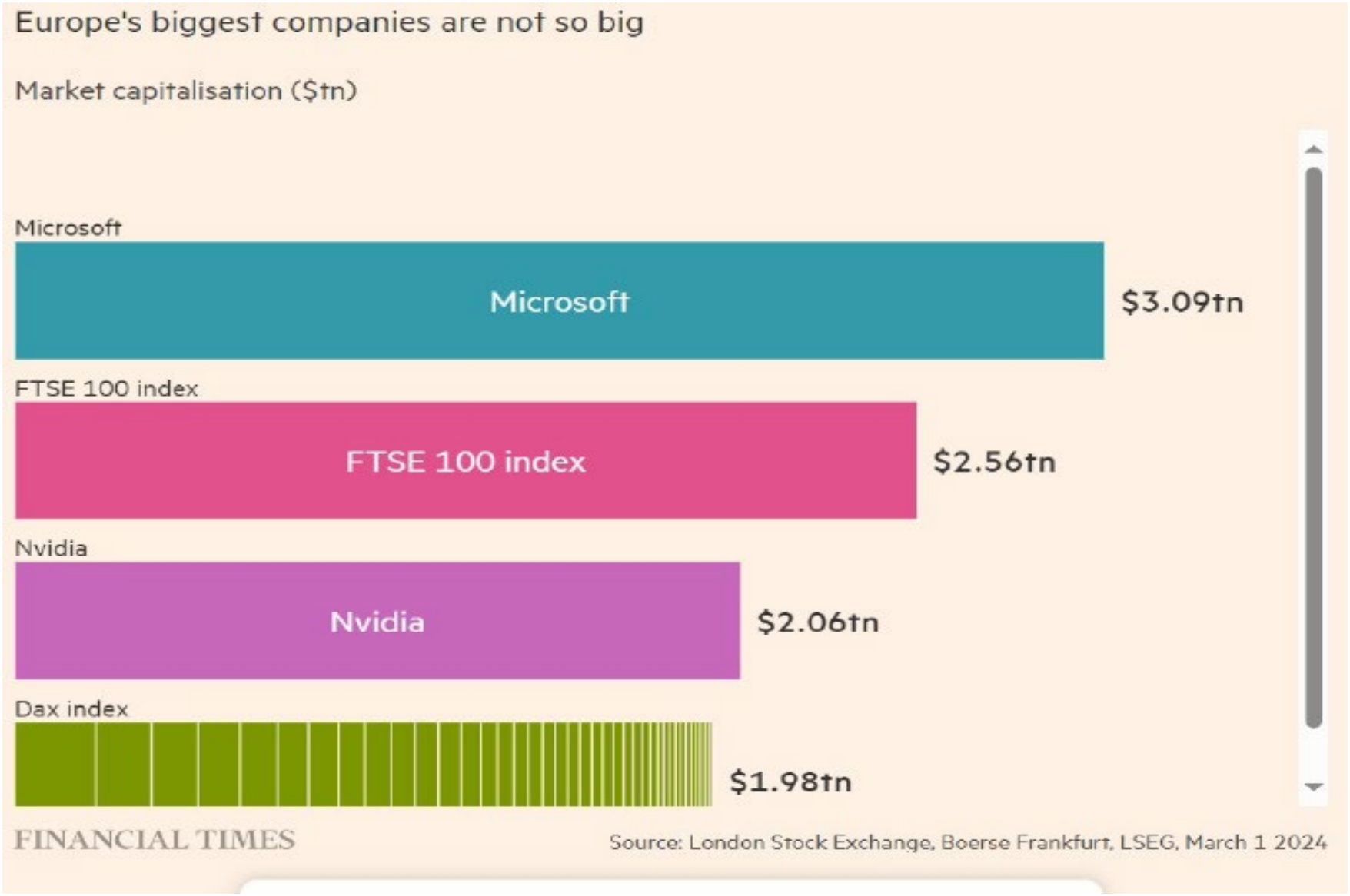
Source: WIND

What has Happened to European and U.S. Stock Returns?



The Disconnect between European and U.S. Stocks

Europe Doesn’t have Tech Stocks

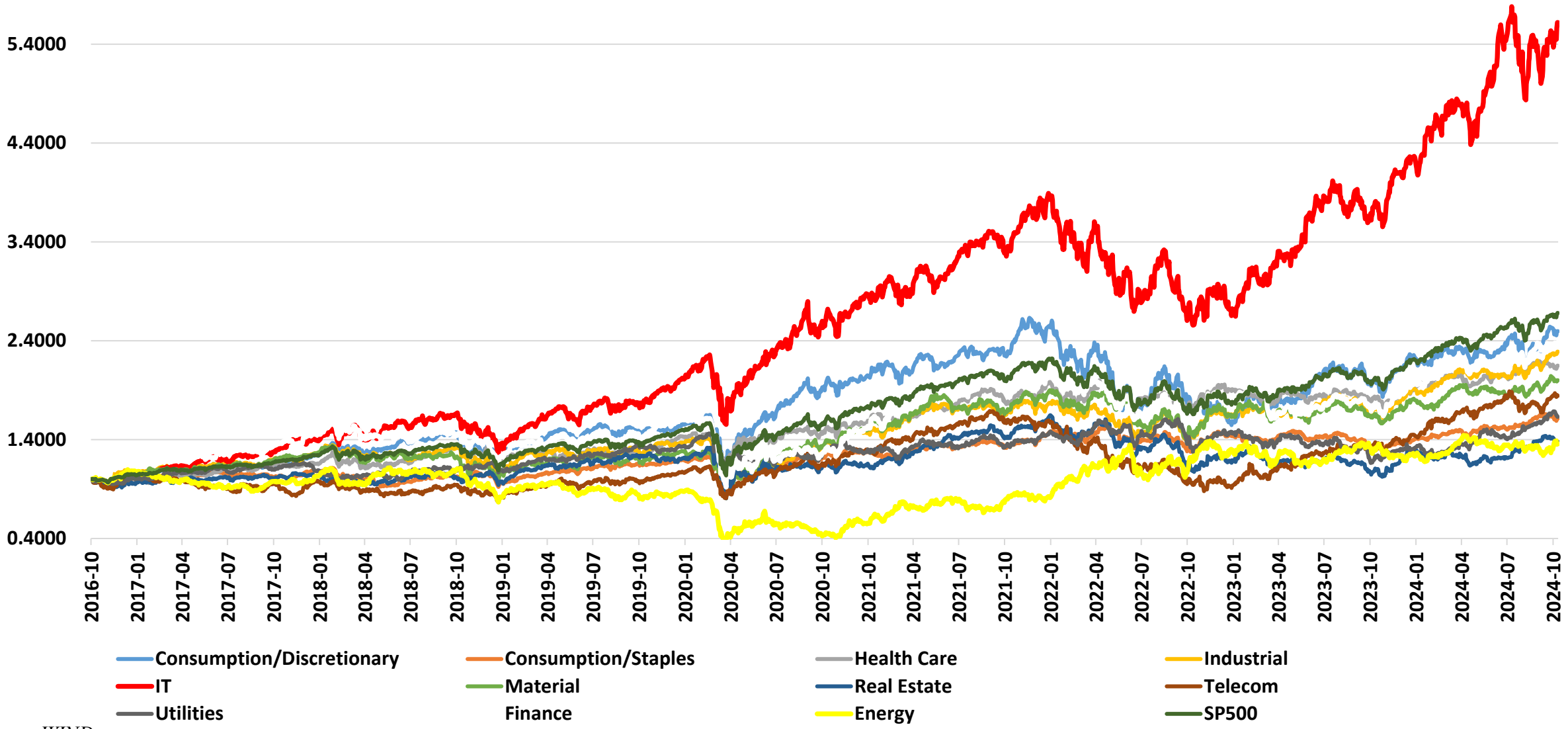


Europe doesn’t have Equivalents to the Magnificent 7

The Magnificent 7 stocks have driven much of the S&P 500 returns in 2023 and 2024. They accounted for approximately 77% of the S&P 500's total return for 2023:

Year	Nvidia %	Meta %	Tesla %	Amazon %	Alphabet %	Microsoft %	Apple %
2023	239	194	102	81	58	57	48
2024 Jan-Jun	132	35	-29	17	24	10	1

US Market: Tech Sector Leading the Way (2016.10.03-2024.10.10)



Source: WIND

What about Other Markets?

China and India have Tech Companies

How do they Compare?

Top Tech Firms in US, China, and India

Country	Company	Stock Exchange
US	Apple	Nasdaq
	Microsoft	Nasdaq
	Google - Alphabet	Nasdaq
	Amazon	Nasdaq
	Meta	Nasdaq
	NVIDIA	Nasdaq
	Tesla	Nasdaq
China	Tencent 腾讯	HKEX
	Alibaba 阿里巴巴*	NYSE, HKEX
	JD 京东*	Nasdaq, HKEX
	Baidu 百度*	Nasdaq, HKEX
	Meituan Dianping 美团	HKEX
	Xiaomi 小米	HKEX
	BYD 比亚迪*	SZSE, HKEX
	CATL 宁德时代	SZSE

Source：WIND

** Companies listed on two exchanges*

The missing Chinese firm: Huawei

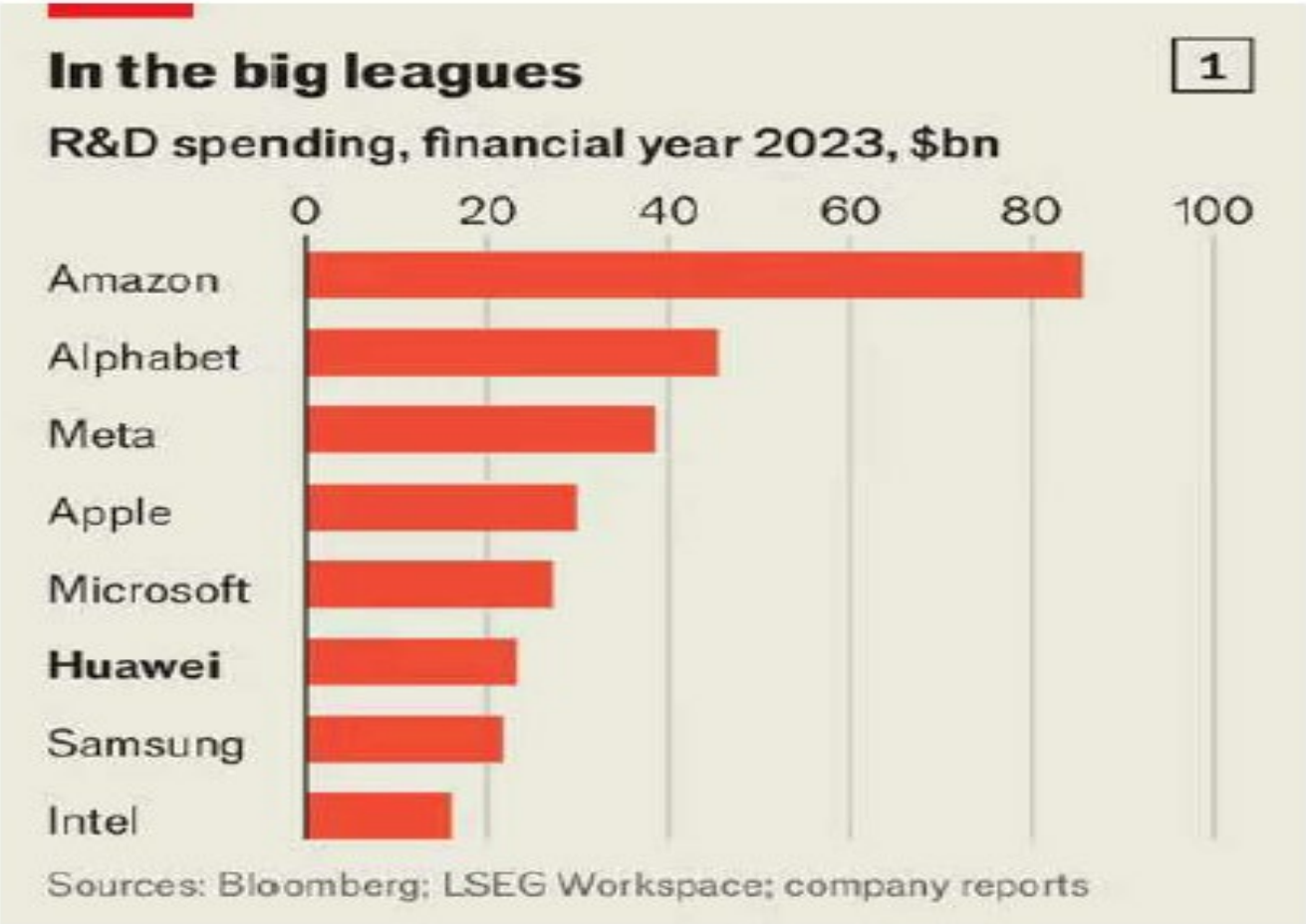


CHART: THE ECONOMIST

Huawei (cont.)

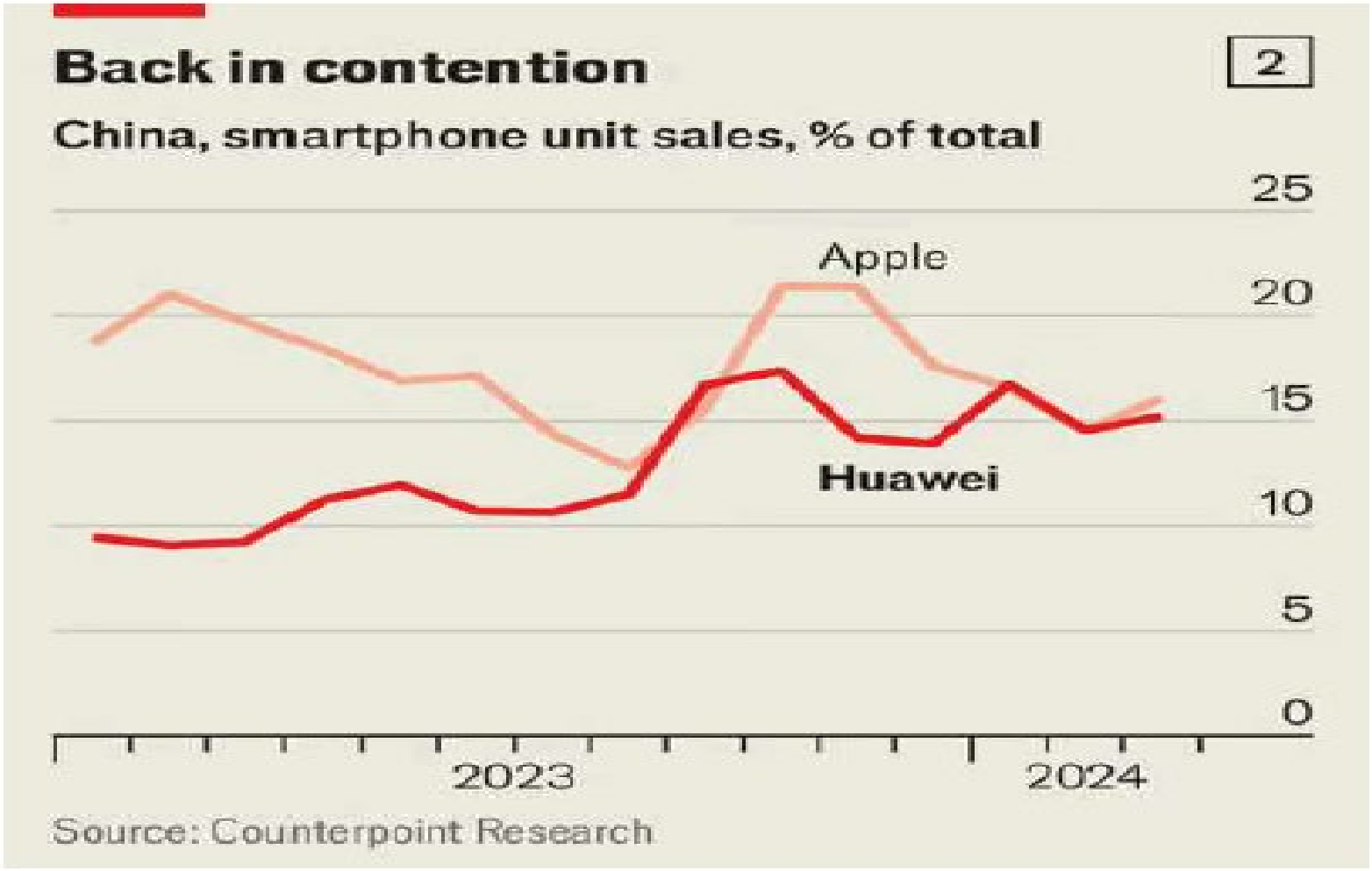


CHART: THE ECONOMIST

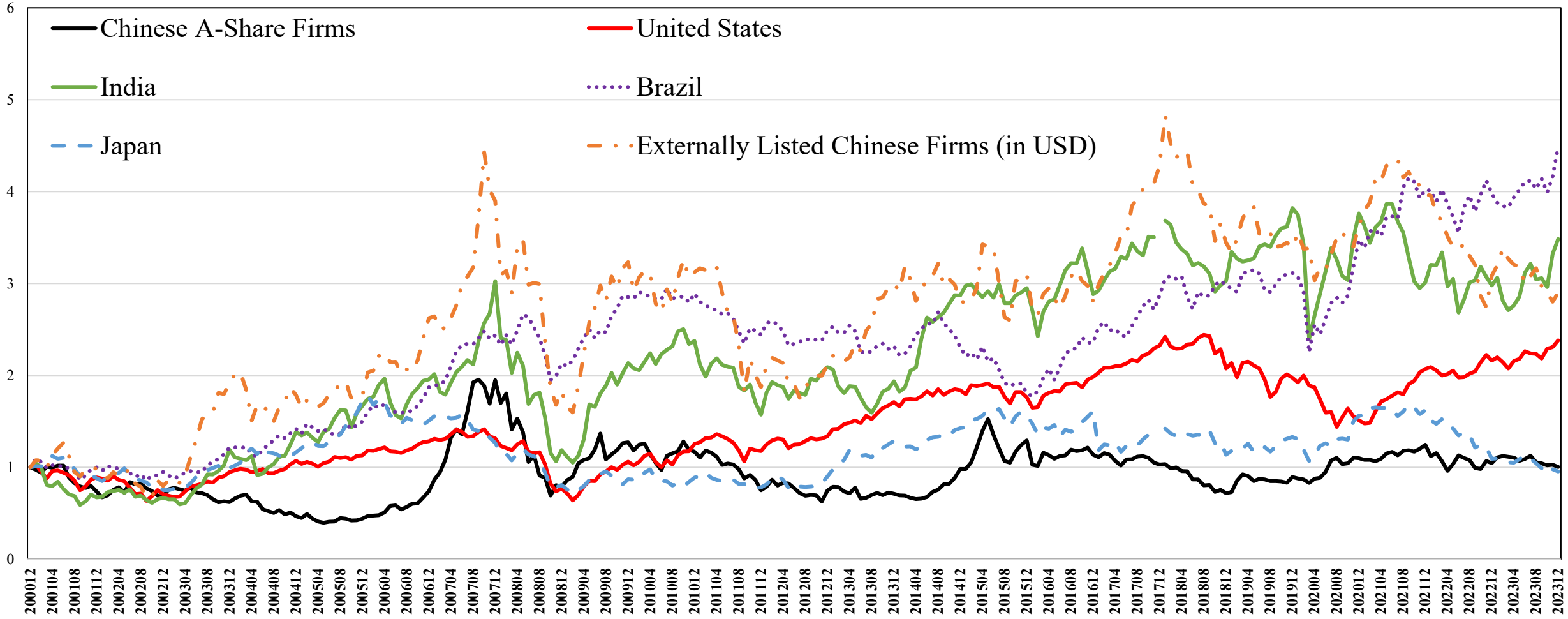
Top Tech Firms in China, US, and India

Country	Company	Exchanges	Business
India	TCS 塔塔咨询	BSE, NSE (孟买证券交易所，印度国家证券交易所)	Most of leading tech firms in India tend to be B2B since they are providing software services and comprehensive solutions to enterprises across various industries globally. Their services typically include: IT Consulting, Application Development and Management, Infrastructure Management and so on.
	Infosys 印孚瑟斯	BSE, NSE	
	Wipro 威普罗	BSE, NSE	
	HCL Tech HCL科技	BSE, NSE	
	LTIMindtree	BSE, NSE	
	Tech Mahindra 马衡达	BSE, NSE	
	Bharti Airtel 巴帝电信	BSE, NSE	B2C telecoms also has created significant value for companies like Reliance and Bharti Airtel. Among them, through its subsidiary Jio Platforms, Reliance launched 4G services in India in 2016 and subsequently rolled out 5G services, rapidly becoming one of the market leaders.
	Reliance 信实工业	BSE, NSE	

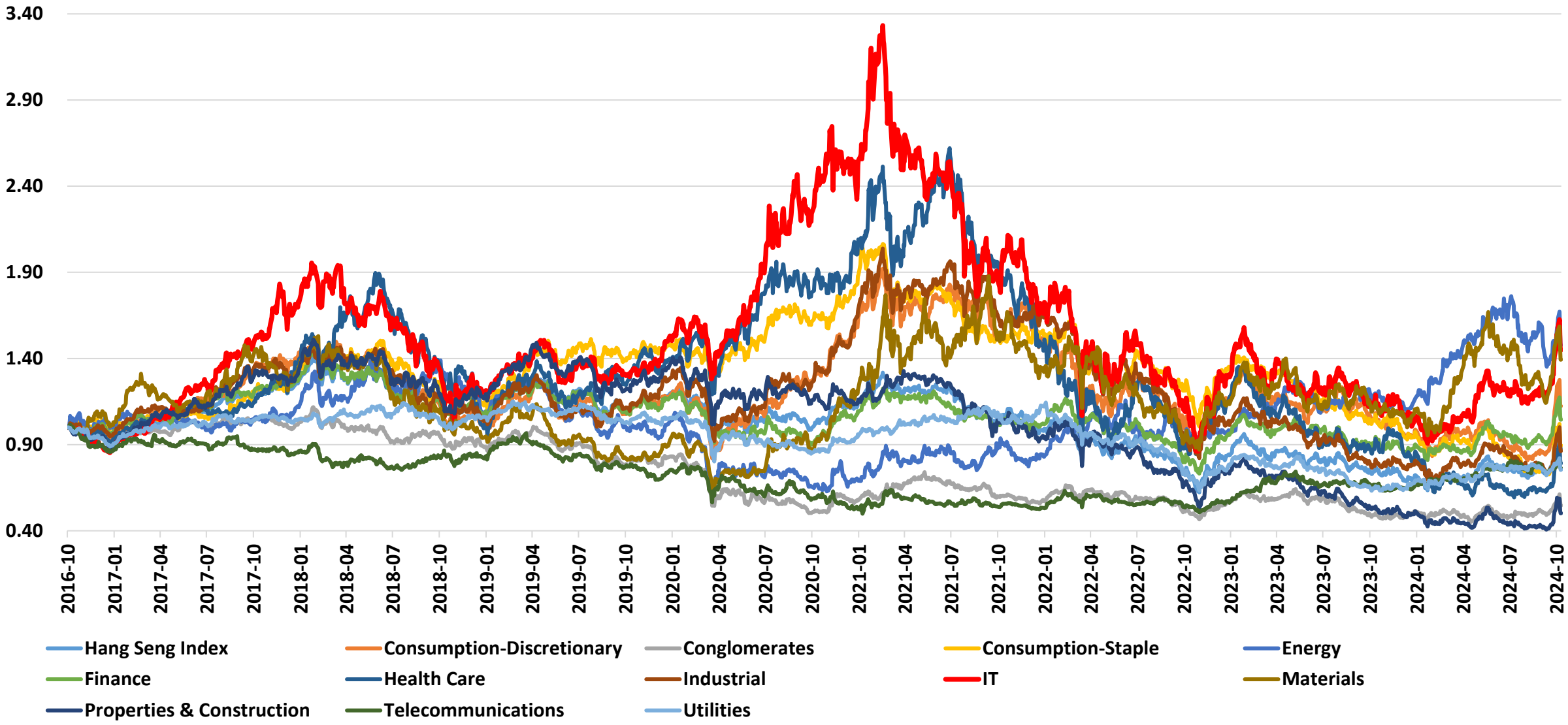
Source：WIND

** Companies listed on two exchanges*

“Buy-and-hold Returns” of Major Markets
(2000-2018; CPI adjusted, including dividends; AQSZ JF 2024)

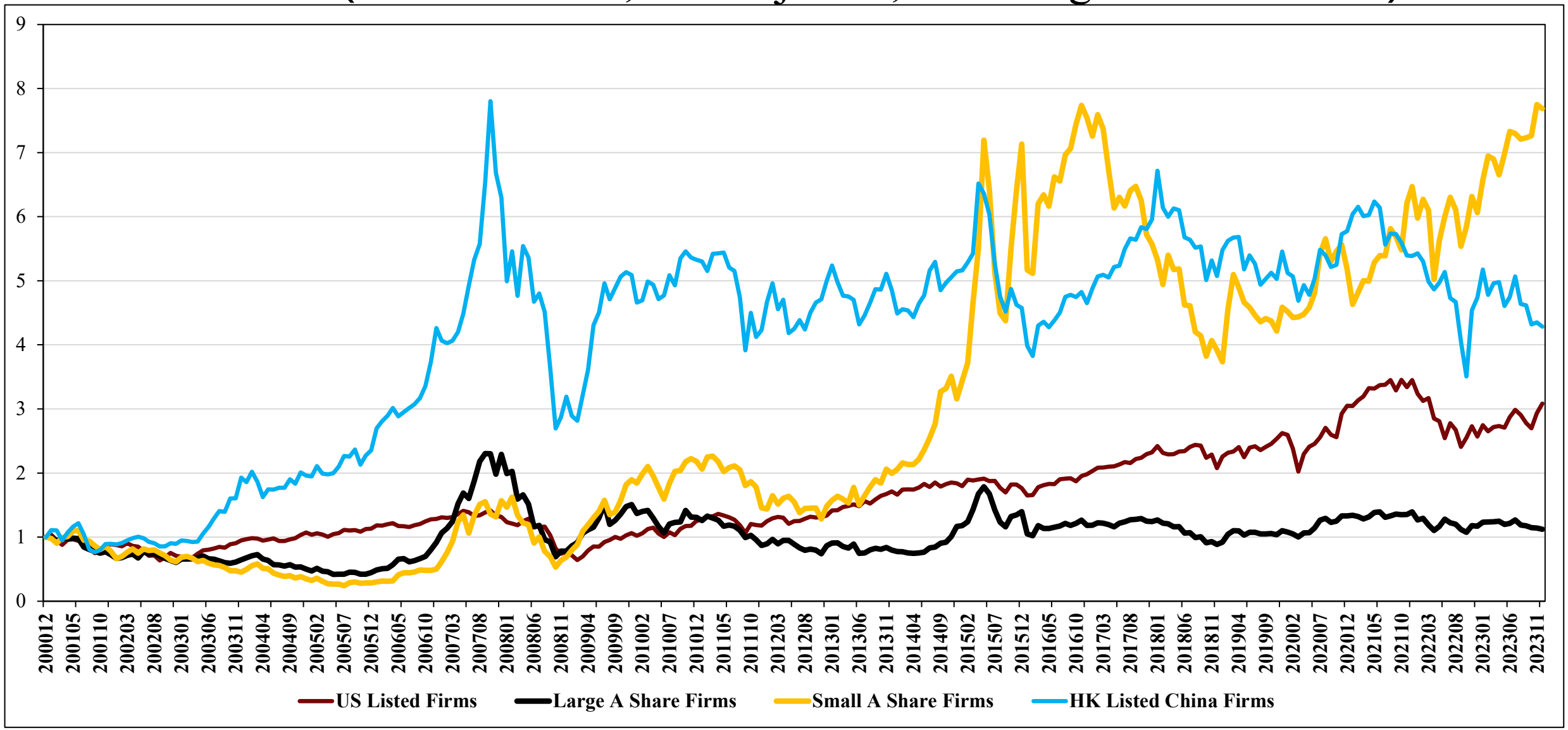


HK Market: Rise & Fall of the Info Tech Sector (2016.10.03-2024.10.10)



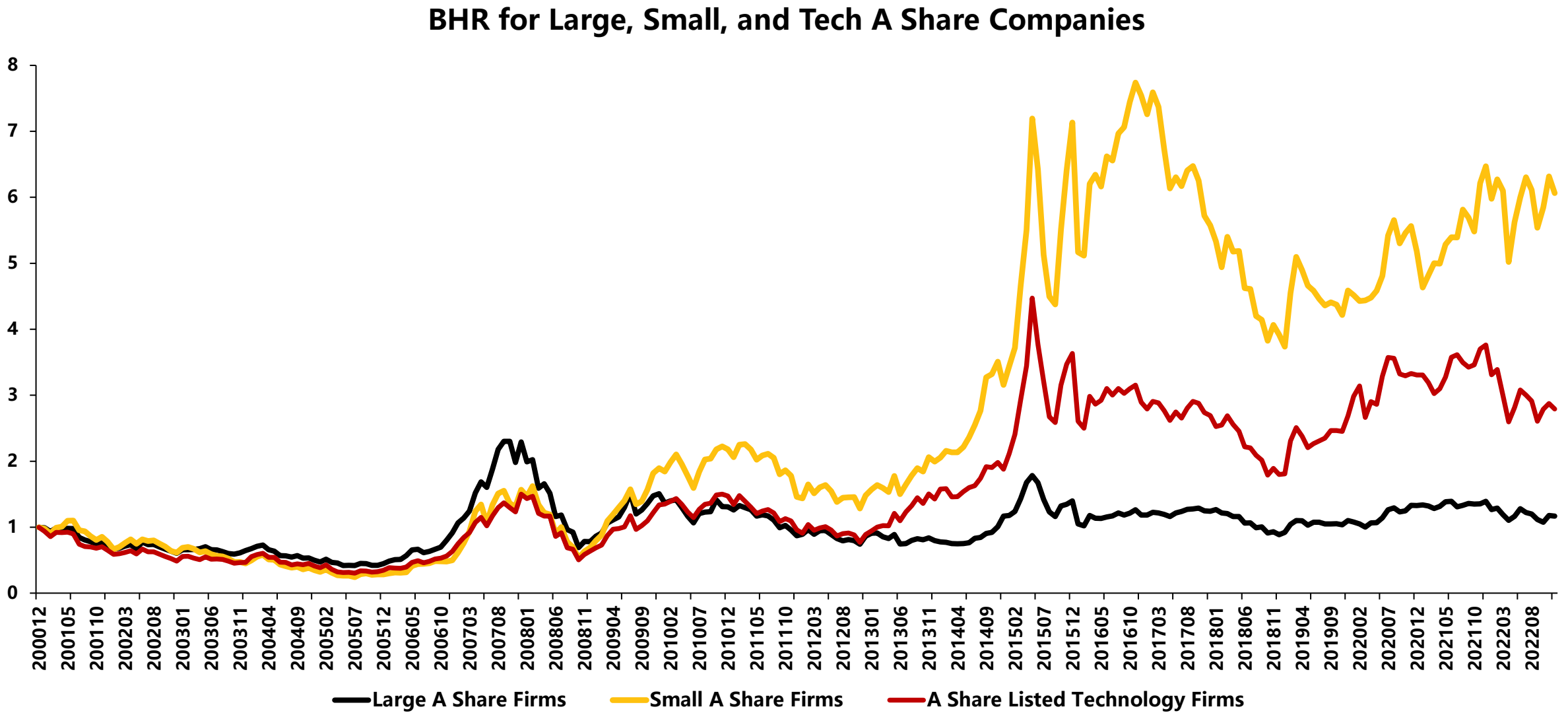
Source: WIND

BHRs： A Share Large and SMALL cap Stocks， HK-listed and US- listed Chinese Firms （2000-2023.12; CPI adjusted, including cash dividends）



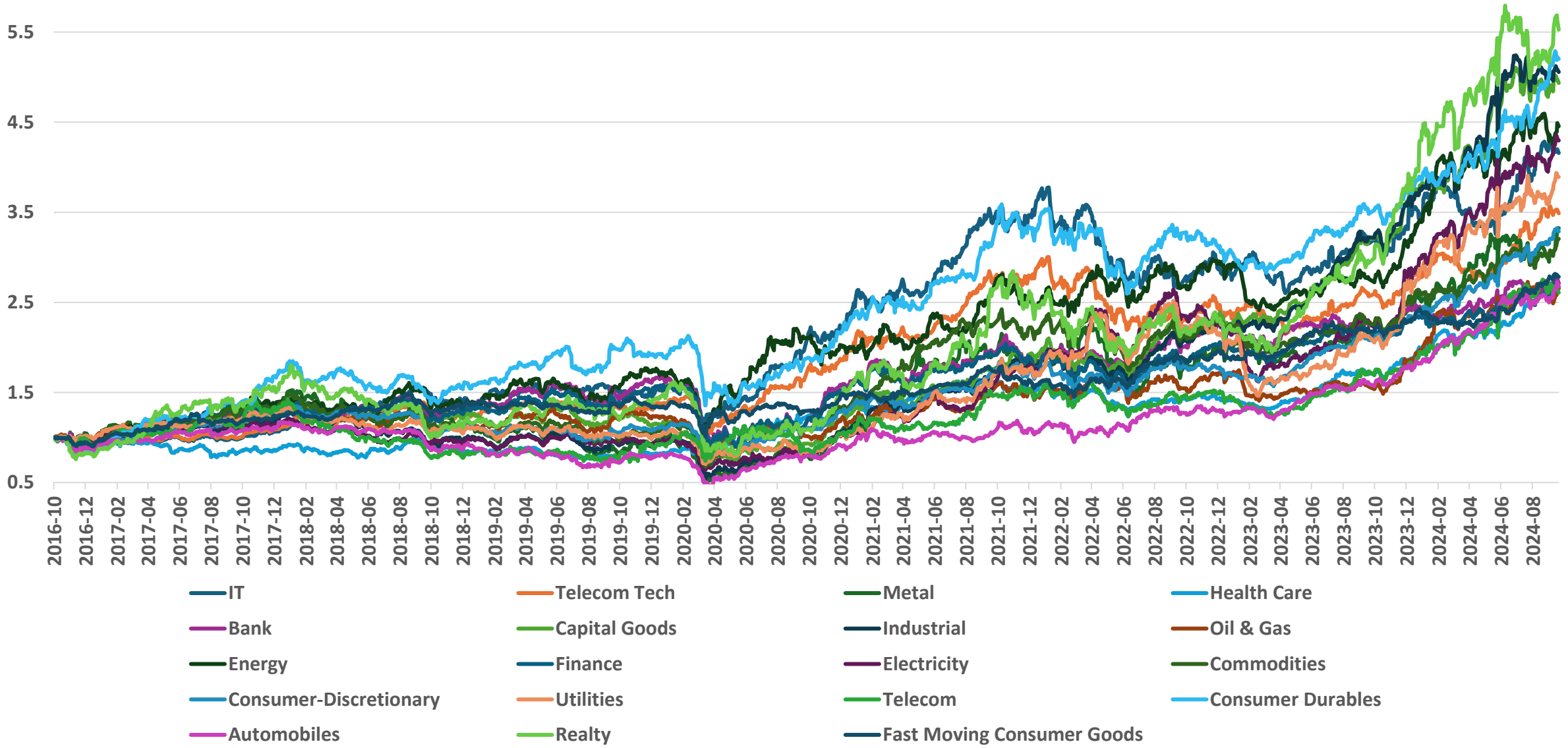
Source: AQSZ (2024), Wind, WRDS

A Share Market: BHR of Firms from Tech Sectors, 2000-2022



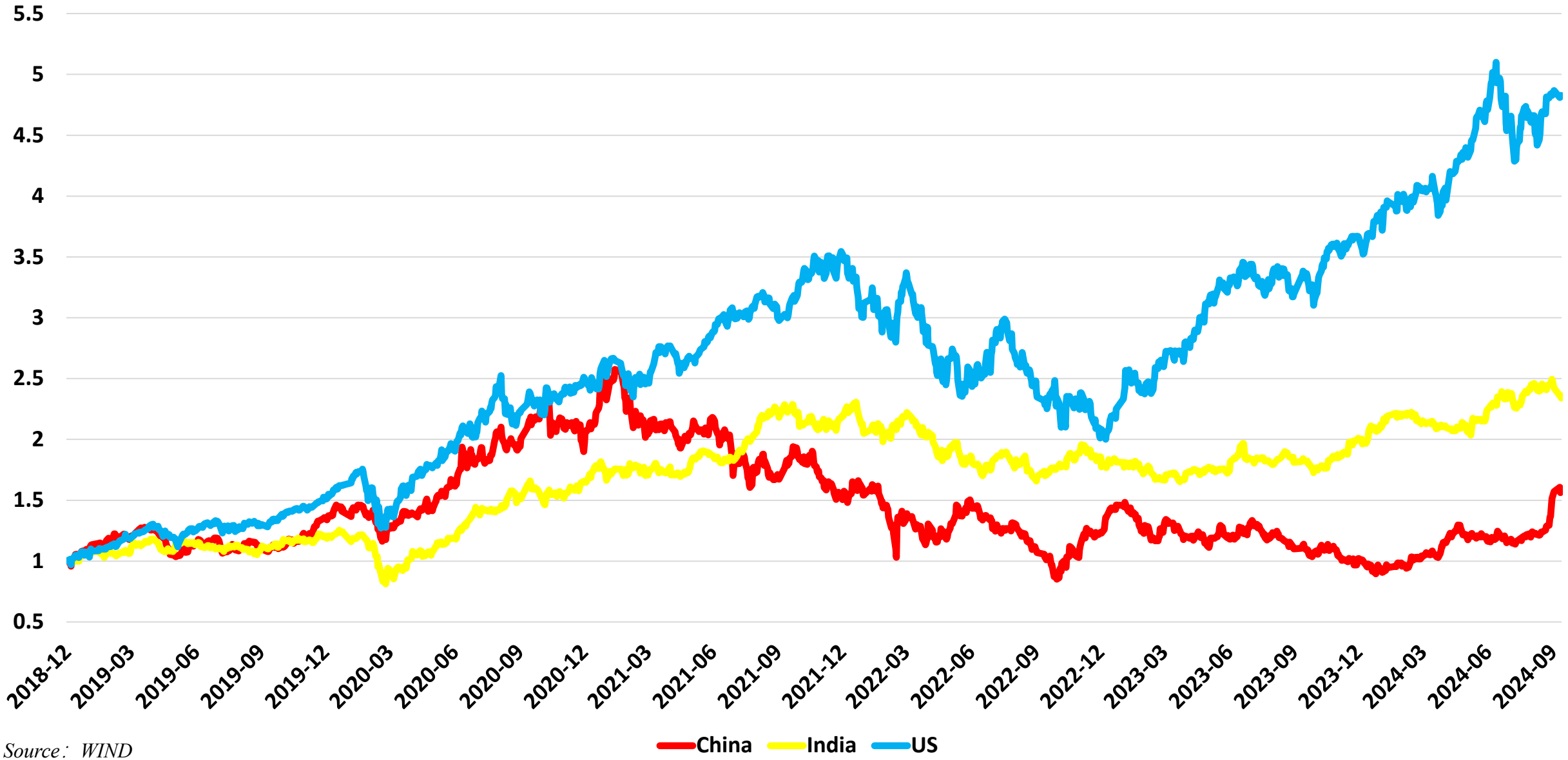
Source: AQSZ (2024), WIND

India's Market, Top 3 Sectors: Real Estate, Consumer Durables, and Industrials (2016.10.10-2024.10.10)



Source: AQSZ (2024), WIND

BHRs: Top Tech Firms in China, US and India (2018.12-2024.10.10)

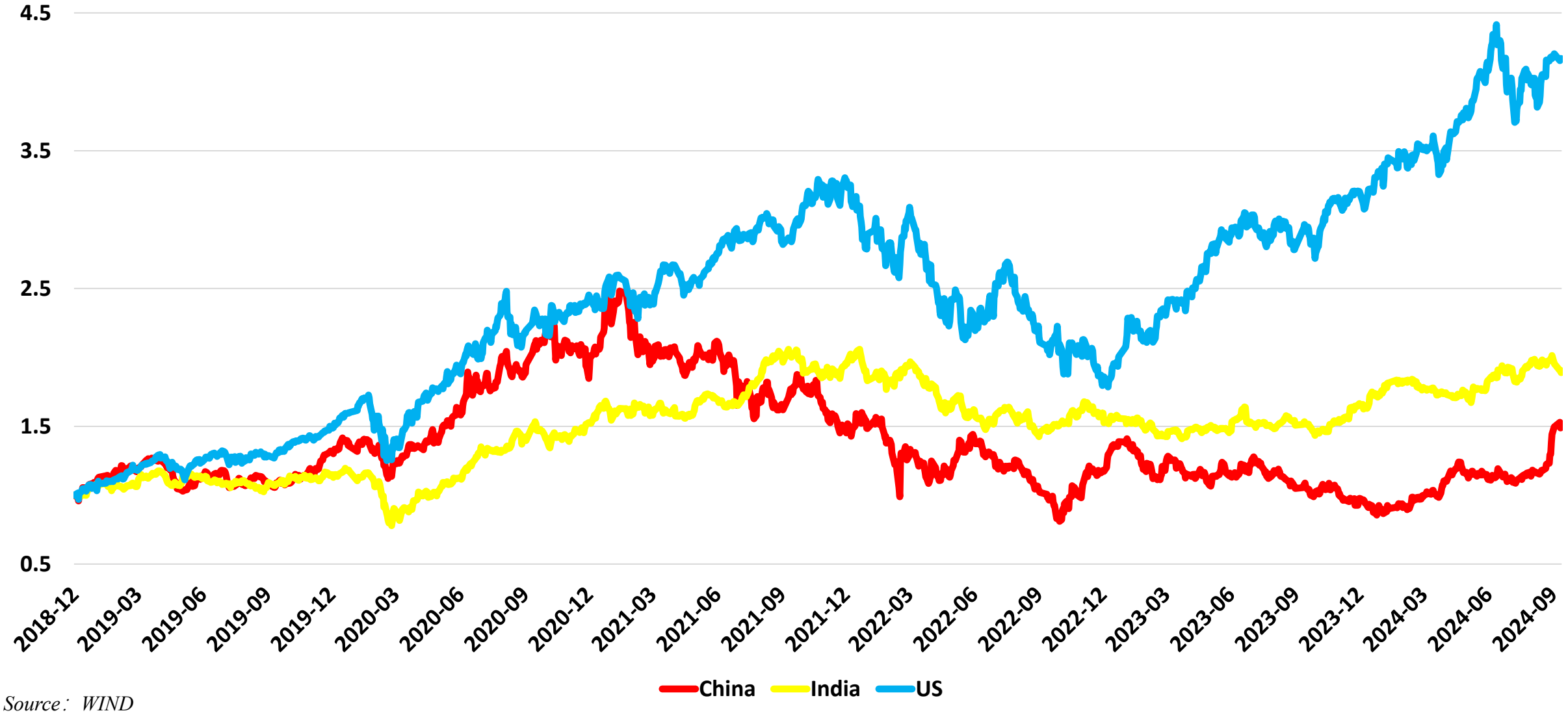


Source：WIND

** Dividend included, CPI unadjusted*

BHRs: Top Tech Firms in China, US and India

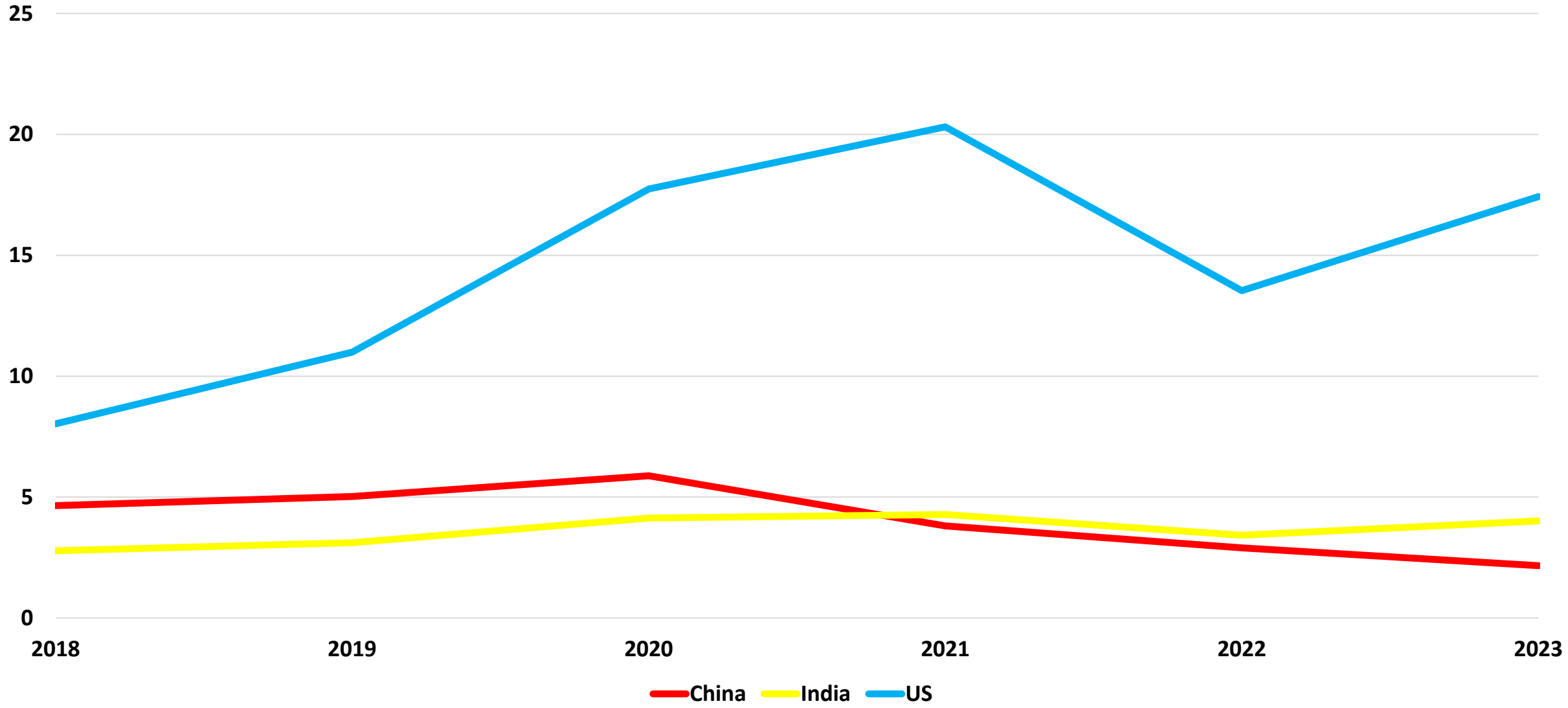
(2018.12-2024.10.10; CPI adjusted)



Source：WIND

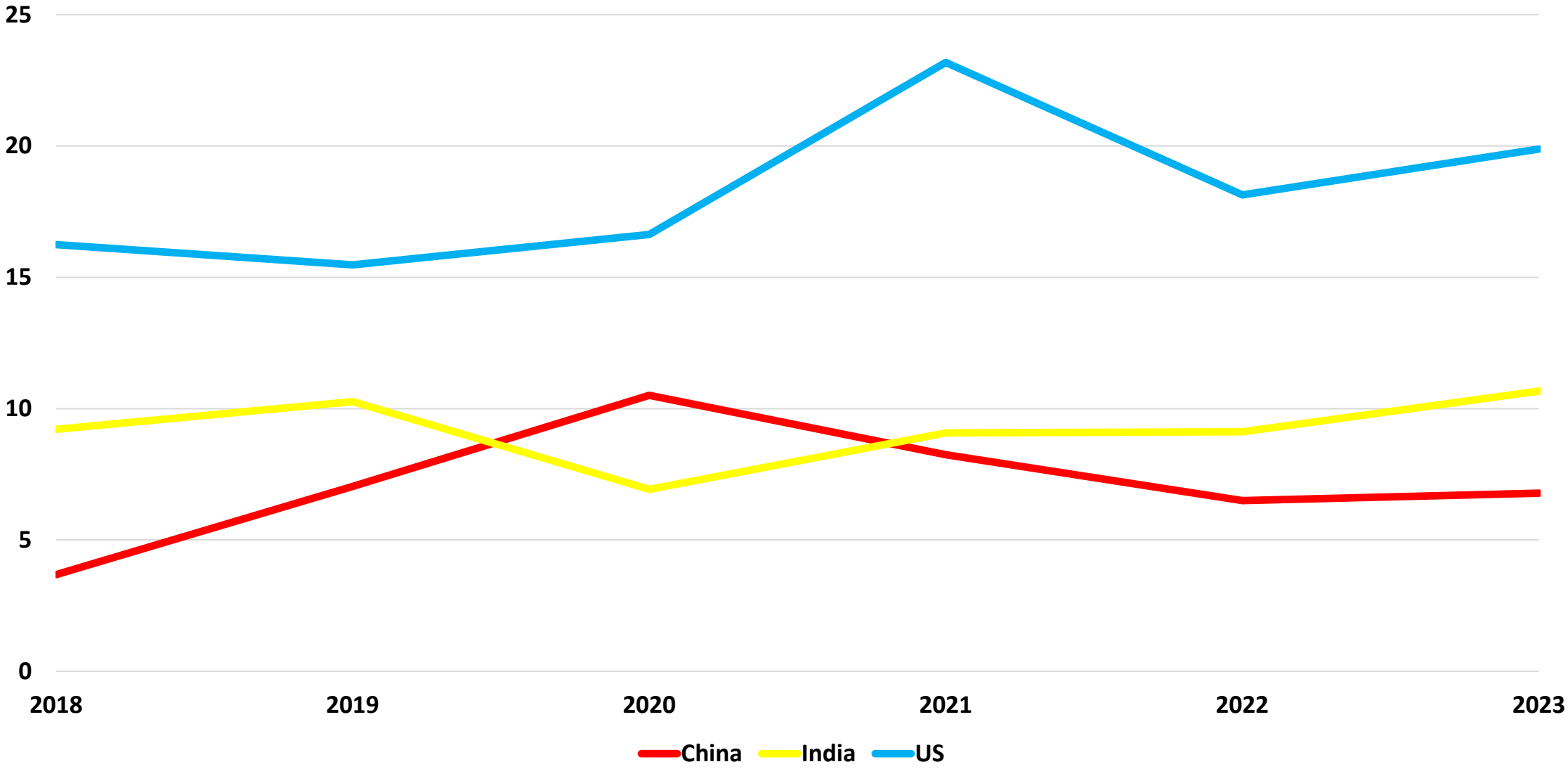
** Dividend included, CPI unadjusted*

M/B Ratio: Top Tech Firms in China, US, and India (2018-2023)



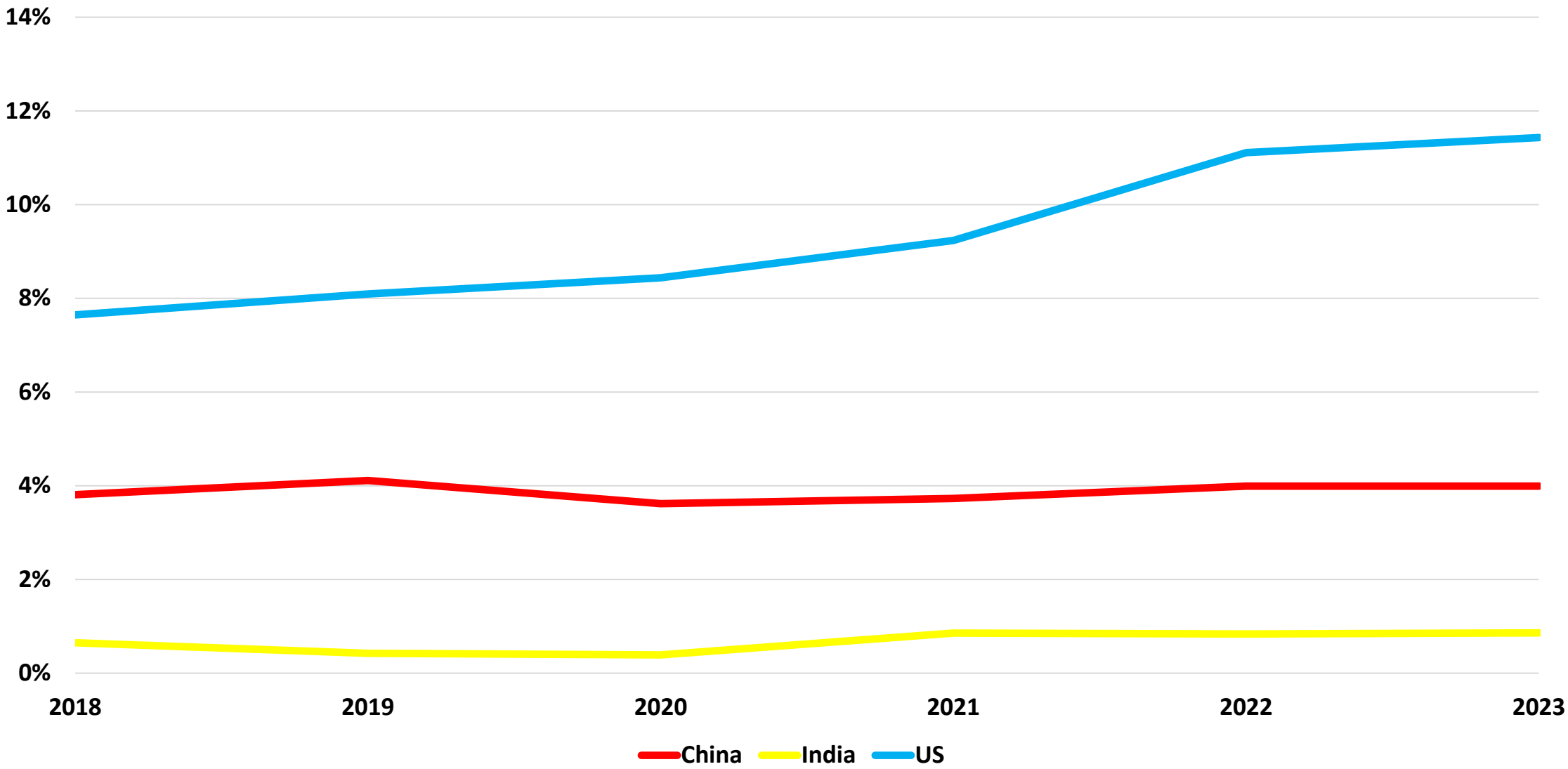
Source: WIND

ROA (%): Top Tech Firms in China, US, and India (2018-2023)



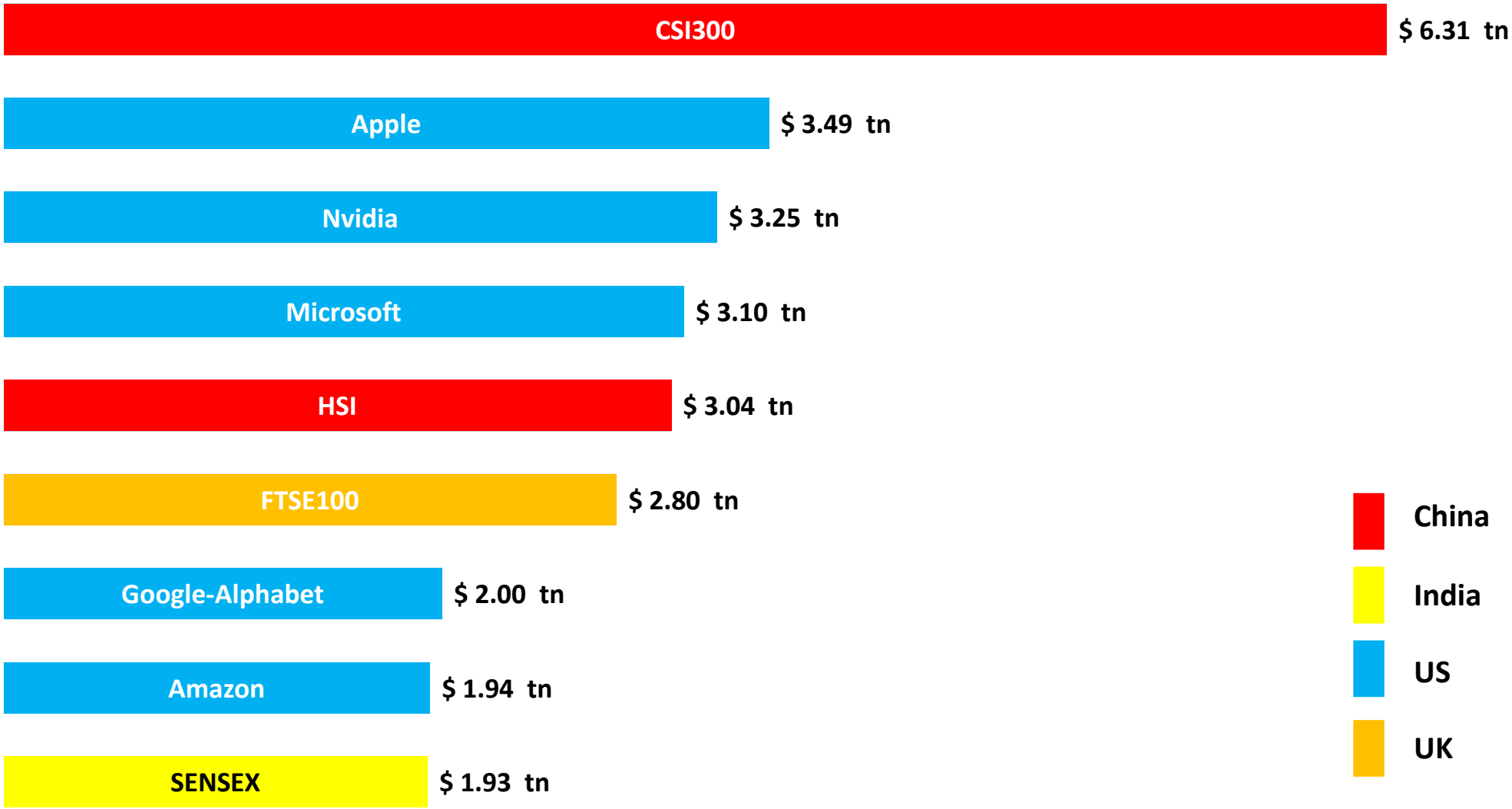
Source: WIND

R&D/Assets: Top Tech Firms in China, US, and India (2018-2023)



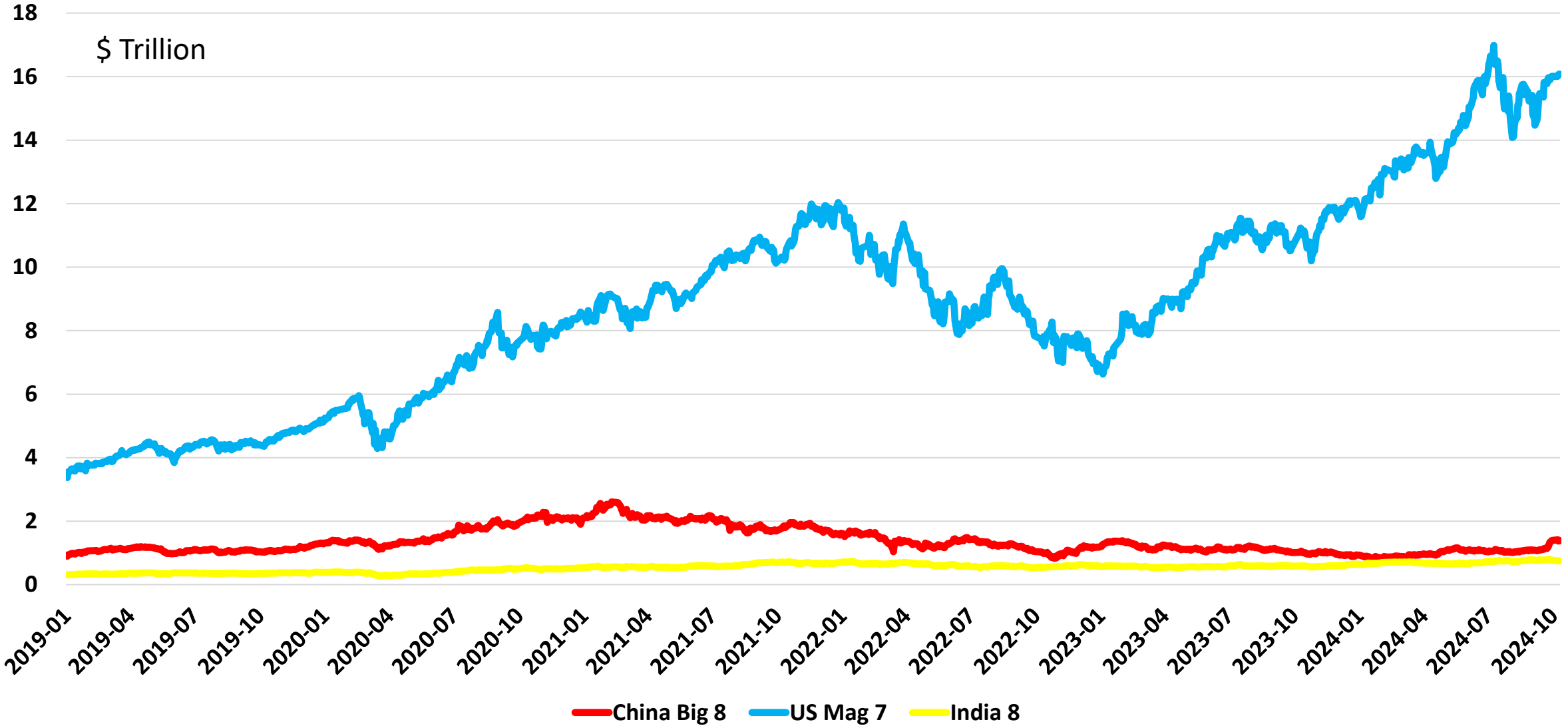
Source: WIND

Market Cap of Top 5 Companies & Major Index in China, UK and India (as of 2024.10.10)



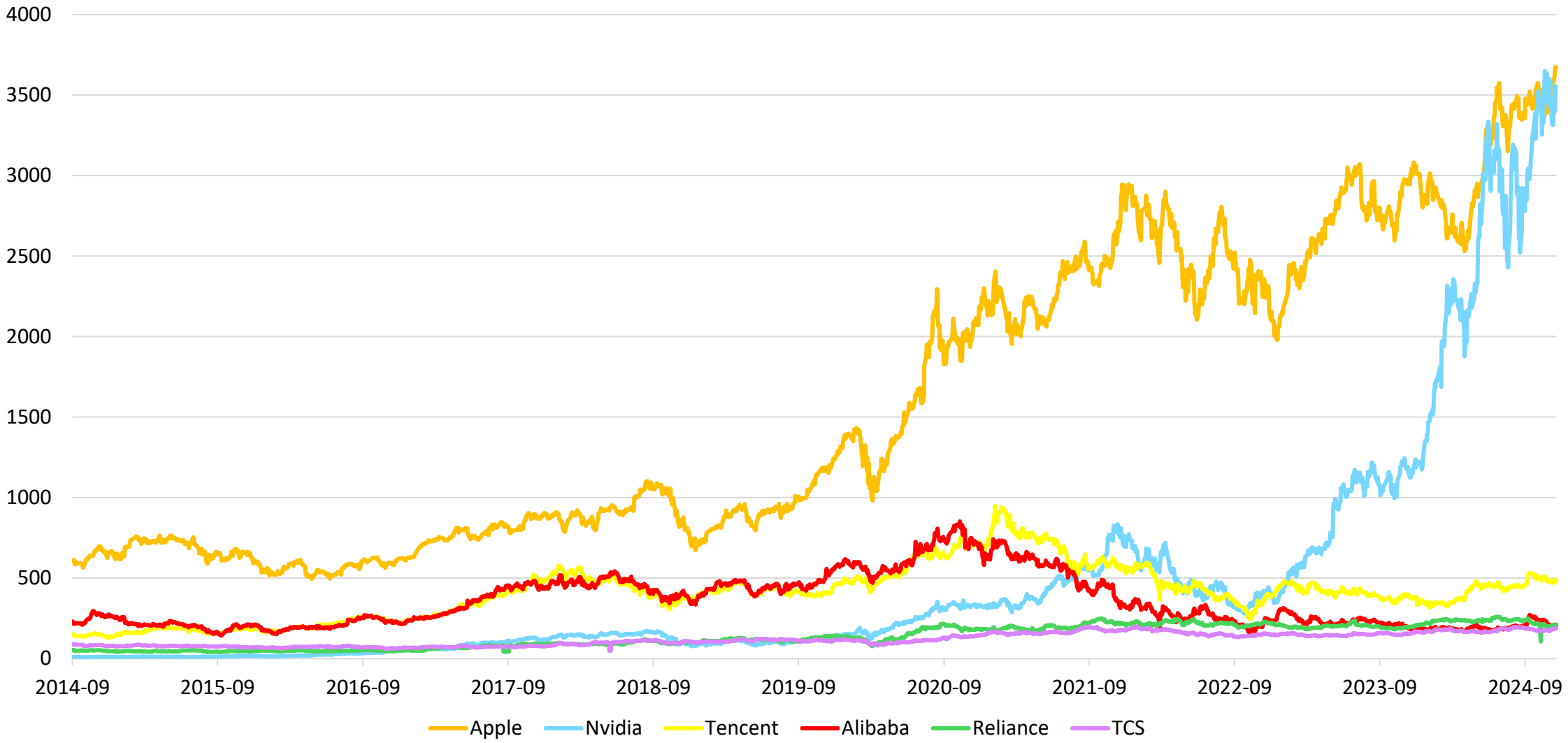
Source: Bloomberg

Total Market Cap of Top Tech Firms in China, US, and India (2018.12-2024.10.10)

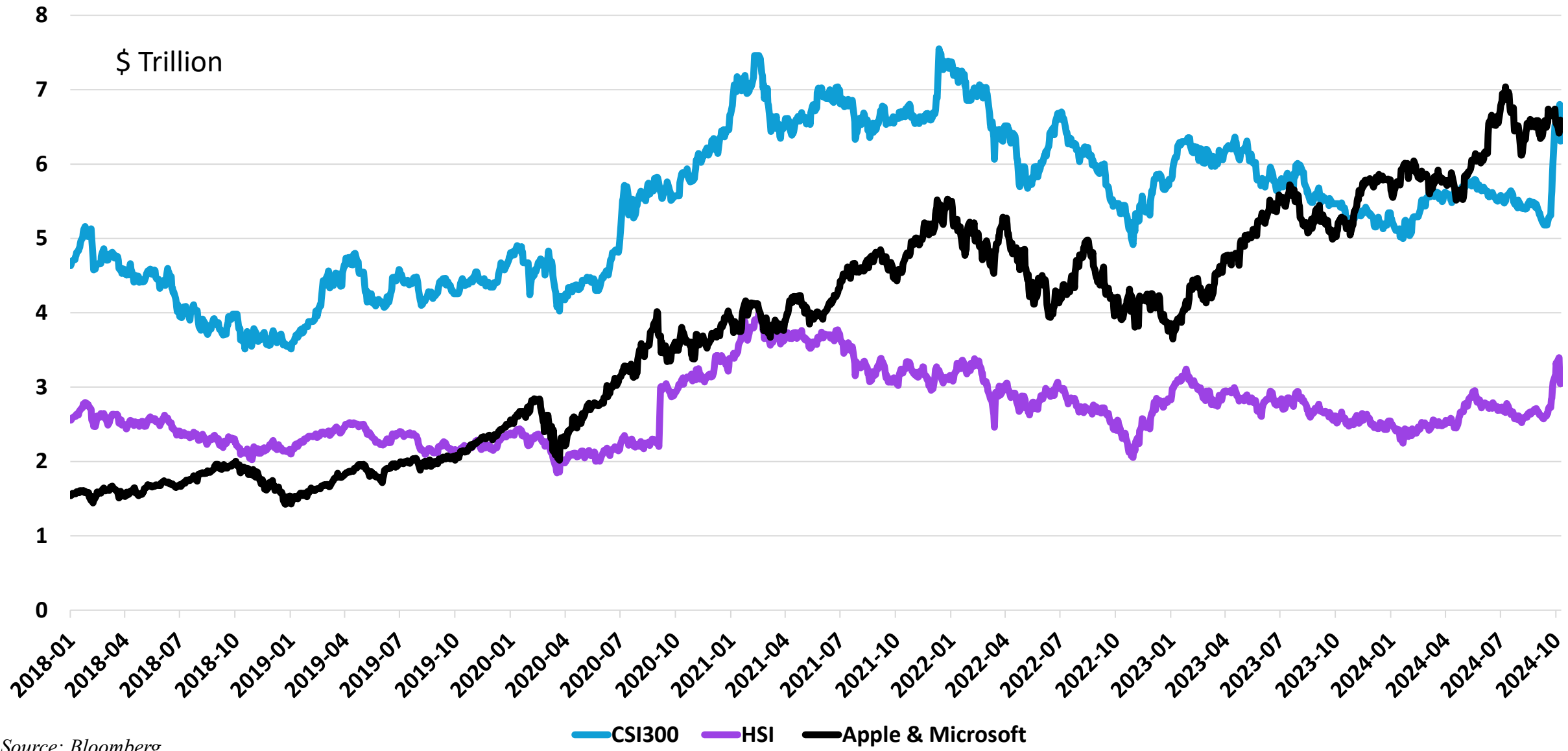


Source: Bloomberg

Market cap. in $’s using market exchange rates



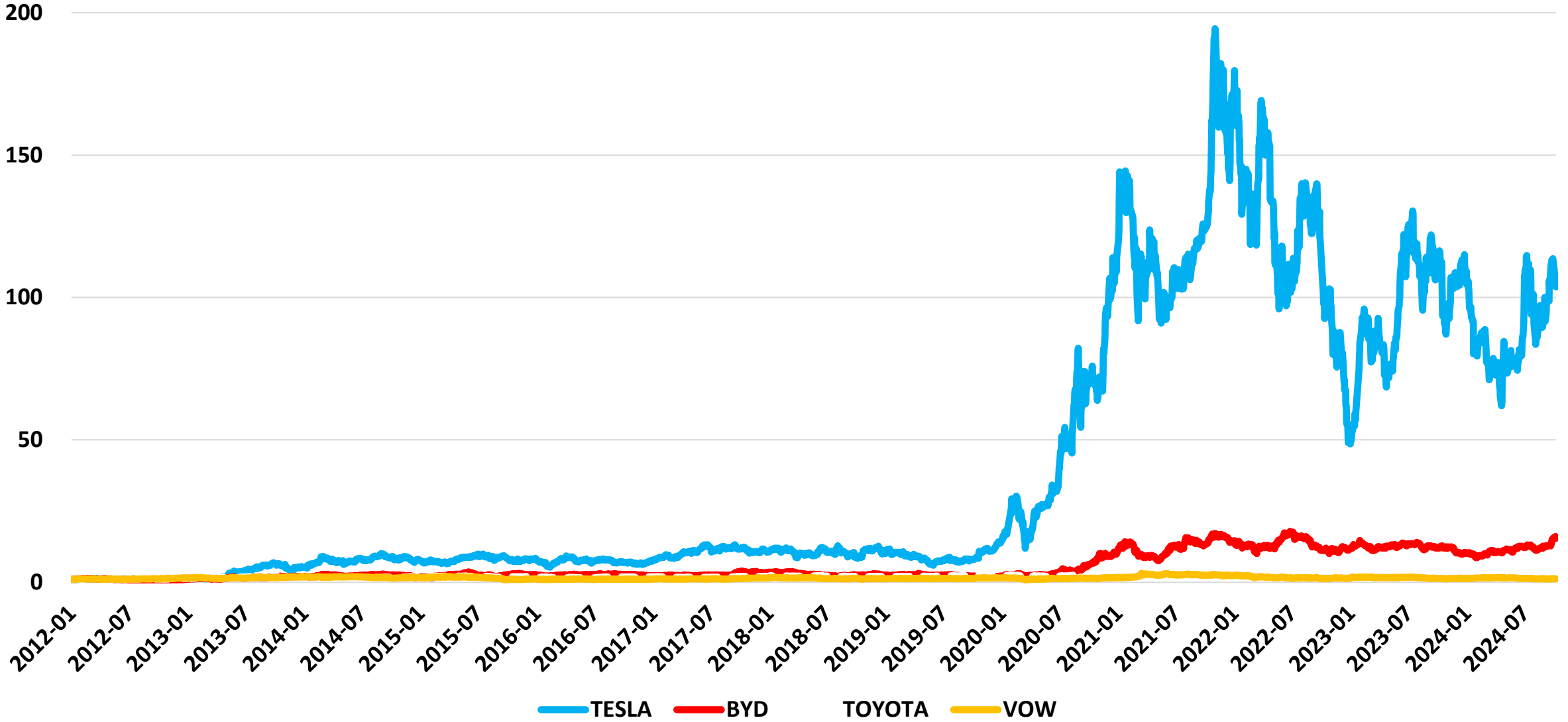
Market Cap of US Top 2 & Major Index in China (2018.1-2024.10.10)



Source: Bloomberg

BHRs: Automobile Companies in North America, Asia & EU

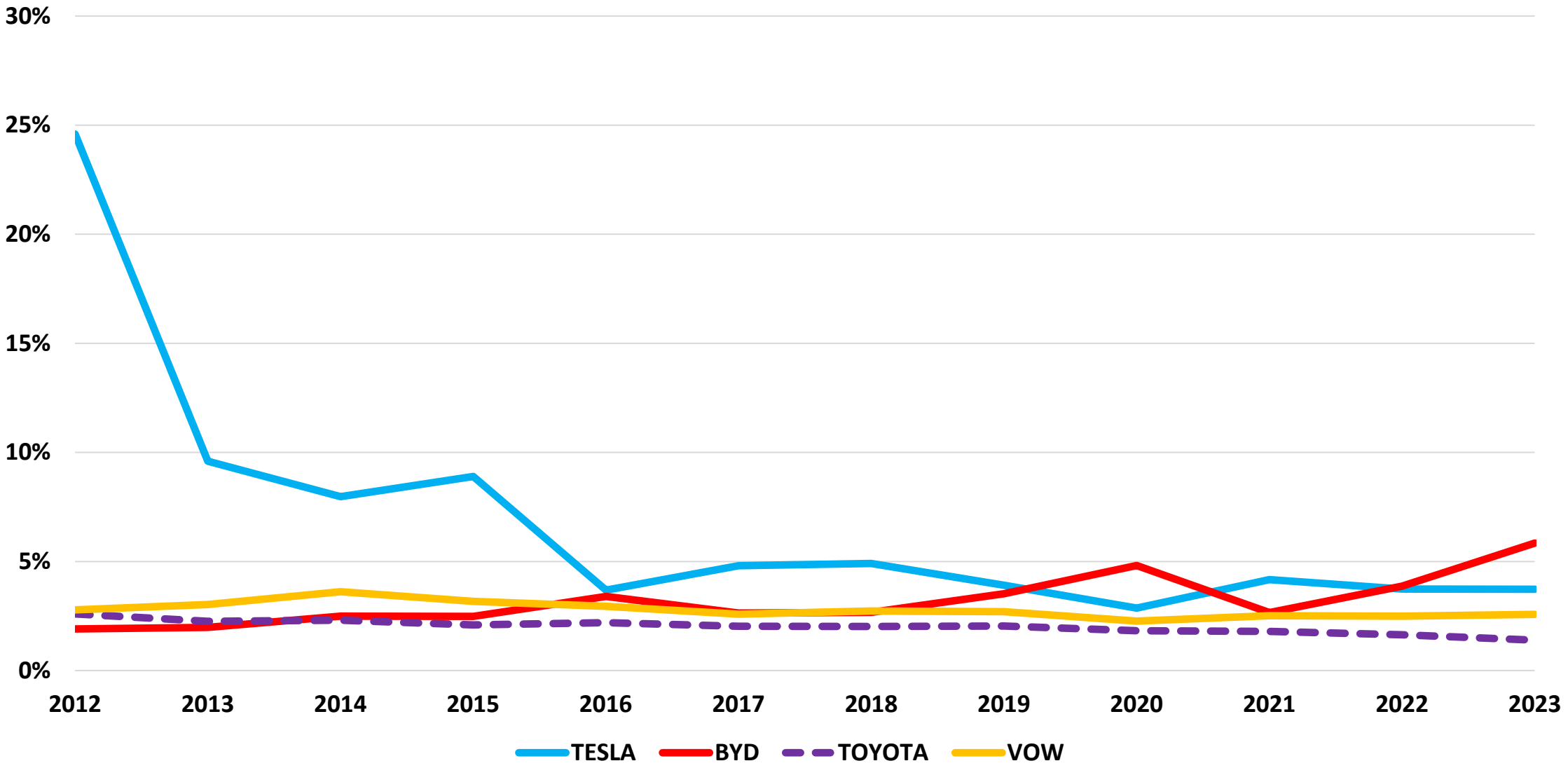
(2012.1-2024.10.10; CPI adjusted)



Source：WIND

** Dividends included, CPI adjusted*

R&D/Assets: Automobile Companies in North America, Asia & EU (2012-2023)



Source: WIND

BYD versus Tesla

Why the disconnect?

Should you short Tesla and go long in BYD?

BYD has larger Global Market Share than Tesla

	Electric vehicle industry		
Rank	Name	Market share	Country
1	BYD	21.1 %	China
2	Tesla	16.0 %	USA
3	Volkswagen	6.9 %	Germ.
4	GEELY	5.9 %	China
5	GM	4.7 %	USA
6	Mercedes-Benz	4.3 %	Germ.
7	BMW	4.2 %	Germ.
8	Stellantis	4.0 %	France

So, what's going on?

AI and Machine Learning?

US Tech Companies are Wonderful Monopolists?

Different Business Strategies?

Tina?

It's a Bubble?

Understanding this from a corporate finance perspective is crucial

3. Innovation Ecosystems

Why Doesn’t Europe have a Tech Industry?

Climate Finance

Chinese model of industry development: subsidies and increasing returns to scale

Electric vehicles, Photovoltaic Cells, Wind turbines

(Based on Allen, Barbalau, Chavez, and Zeni JIBS (forthcoming))

Table 2: Government Support for China's EV Sector (USD, billions)

Type of Support	2009-2017	2018	2019	2020	2021	2022	2023	Total
Rebate	37.8	4.3	3.3	3.5	7.4	9.2	0	65.7
Sales Tax Exemption	10.8	7.7	6.4	6.6	16.4	30.3	39.6	117.7
Infrastructure Subsidies	2.3	0.2	0.2	0.3	0.3	0.6	0.6	4.5
Research & Development	2	3.6	3.4	3.5	4.3	3.9	4.3	25
Government Procurement	7.8	1.6	1.4	2.9	1.7	1.8	0.8	18
Total	60.7	17.4	14.8	16.8	30.1	45.8	45.3	230.9
Spending as % of Total Sales	0.424	0.227	0.233	0.254	0.183	0.151	0.114	0.188
Subsidy per Vehicle (USD)	-	13860	12311	12294	8538	6656	4764	-

Source: CSIS Trustee Chair in Chinese Business and Economics (Kennedy, 2024)

Solar PV Industry – Technology is changing more rapidly than expectations

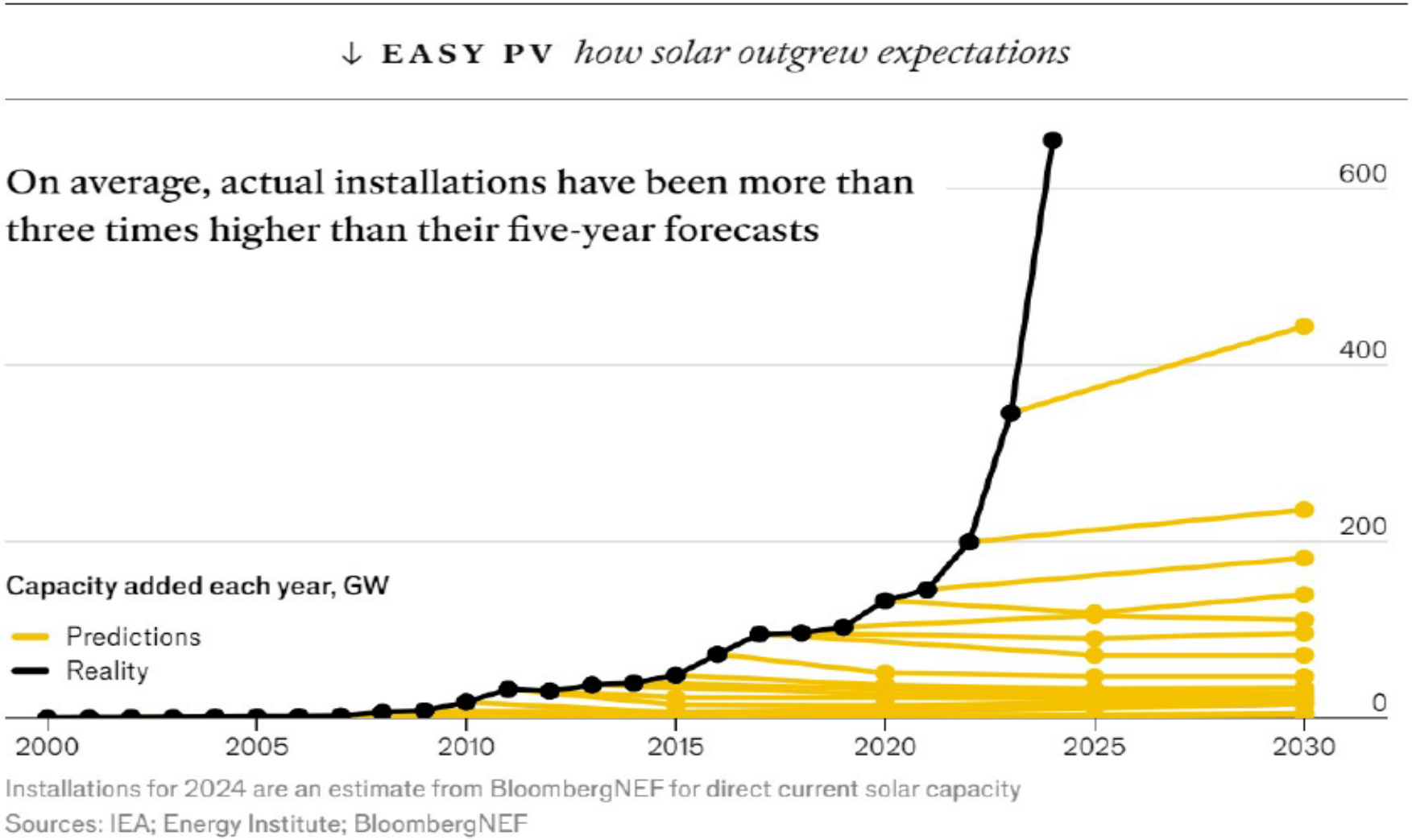


Table 4: Market share of top 8 MNEs

	Electric Vehicle industry			Solar PV industry			Wind Turbine industry		
Rank	Name	Market share	Country	Name	Market share	Country	Name	Market share	Country
1	BYD	21.1 %	China	Longju Solar	22.1 %	China	Goldwind	20.8 %	China
2	Tesla	16.0 %	USA	JA Solar	15.3 %	China	Envision	17.5 %	China
3	Volks.	6.9 %	Germ.	Canad. Solar	14.9 %	Canada	Mingyang	17.0 %	China
4	GEELY	5.9 %	China	GCL Solar	14.5 %	China	Windey	12.3 %	China
5	GM	4.7 %	USA	Trina Solar	9.4 %	China	Vestas	11.2 %	Denm.
6	Mer.-Benz	4.3 %	Germ.	Jinko Solar	4.5 %	China	Sany	9.2 %	China
7	BMW	4.2 %	Germ.	Risen	3.4 %	China	GE	7.8 %	USA
8	Stellantis	4.0 %	France	Shunfeng	2.3 %	China	Siemens	7.7 %	Germ.

Source: The data was extracted from, Swallow (2023) (EV), Statista (2022) (PV), and Enerdata (2024) (wind).

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Thank you!

Any Questions or Comments?