

Fifth Edition

## A shares in anatomy 'A' primer for global investors

### Why China A shares have become more investable for global investors

At a time when some investors are questioning the investability of Chinese assets due to significant regulation and growth concerns, we believe China A shares, a US\$14tn asset class, have become more investable given the ongoing liberalization and reform measures in the Chinese capital markets. This reinforces our strategic view that China equity is an asset class that is too big, too growthy, and too vibrant to ignore, and will bring profound allocation benefits, thematic appeal, and alpha opportunities to global equity investors. In this 5th edition of our China A primer, we collate +200 most-frequently-asked-for charts to refresh our investment case for A shares, and help investors better navigate and engage in this sizable, under-owned, and to some, underappreciated, market.

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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to [www.gs.com/research/hedge.html](http://www.gs.com/research/hedge.html).

## Table of Contents

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Executive summary: Why China A has become more “investable” for global investors	4
1. The investment case for A shares for global investors: Why do you need to own A shares?	6
2. Market structure: The uniqueness of A shares	10
3. Accessibility: Many channels to get exposed	15
4. Market regulations: Many changes have been made, and more to come	19
5. Index inclusion: A long-term demand tailwind for A shares	28
6. The Chinese Nasdaqs: STAR, ChiNext, and BJSE	35
7. Fundamentals: A growthy market	40
8. Valuations: Inexpensive vs history, local asset classes, and global equity peers	44
9. Flows/positioning: Structural trends in motion	49
10. ESG: Opportunities, risks, and facts	54
11. GS tools: Your China macro and markets toolkit	61
Disclosure Appendix	74

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# The investment case for A shares for global investors



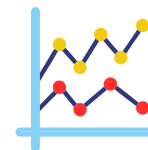
## SIZE

The 2nd largest and most actively traded market (**US\$14tn**, ~**US\$200bn ADT**) globally



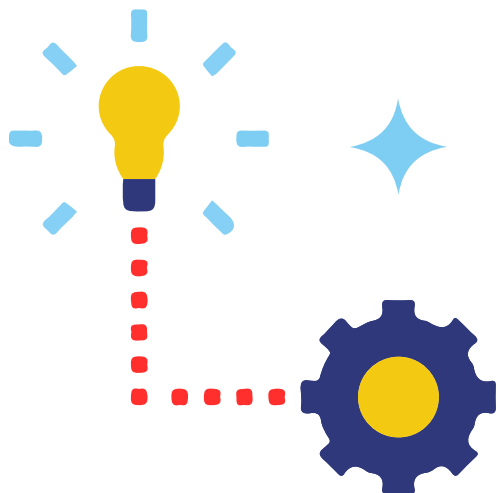
## GROWTH

**8%** past-10Y EPS CAGR; **40%** of Growth opportunities globally reside in China



## VIBRANCY

**+4000** listed companies (100% growth vs 10 years ago); **15%** of global IPO deals



## REFORMS

Accessibility, microstructure, disclosures, IPO (regime and venue), investor protection

## THEMATIC EXPOSURES

68% of market cap is positively linked to "Common Prosperity"; **US\$16tn** of Green Capex by 2060; 81% of CSI300 companies have ESG disclosures

## DIVERSIFICATION BENEFITS

**43%** return correlation with the US, **67%** with EM; Divergent policy trends between the US and China



## ALPHA OPPORTUNITIES

**50%** of companies have no sell-side coverage; retail investors represent 70% of ADT



## STRUCTURAL FLOWS

Foreign ownership at **4.5%**; Chinese household equity allocation at 11% (vs. 62% in property); Domestic mutual fund AUM at US\$6tn (3X since 2018)



## INCLUSION

China A is **4.9%/0.6%** of EM/ACWI, US\$284/104bn of allocation buying when fully included

## Executive summary: Why China A has become more “investable” for global investors

2021 was a challenging year for Chinese equities, with regulatory shifts, economic stresses, continued geopolitical tensions and uncertainty around the pandemic inflicting a 33% peak-to-trough correction on MSCI China over the past 12 months, the largest drawdown since 2015. They have also prompted widespread investor questions about the **investability of Chinese assets**, the first time this concern has come to the forefront since July 2015 when more than 1400 A shares (31% of market cap then) were suspended at one point amid a leverage-unwind selloff.

While we recognize the difficult investment landscape for Chinese stocks last year, notably for China ADRs, where forced de-listing remains an ongoing concern, we'd be hard pressed to label China as “uninvestable”. On the contrary, we believe **Chinese A shares have become more investable** for international investors considering the ongoing capital market opening up/reform momentum (QFII reform), accessibility enhancements (expansion of the Connect scheme) and product proliferation (e.g. MSCI China A50 Connect futures), and market structure evolution that we feature extensively in this primer.

These developments add to the **strategic investment case for China A** that is, at a higher level, predicated on its significant size and liquidity (the 2nd largest and most actively-traded equity market globally, at US\$14tn and US\$188bn ADT), promising growth and business potential for investors, and other appeals from both alpha-generation (under-researched, under-owned, inefficiency arbitrage) and asset allocation (rising benchmark weights, positive portfolio effect) perspectives.

**“Regulation”** currently carries a negative connotation in an equity market context (i.e. after the shocks in 2021). But for A shares, many regulatory changes concerning the capital markets have been made in recent years, aiming to improve market efficiency (e.g. short selling, registration-based IPOs), governance frameworks, information asymmetry, investor protection, and to better align with international norms.

In previous editions of this primer, **index inclusion** was a key justification for global investors to incorporate A shares in their portfolio. Its progress has stalled since Nov 2019 but could regain momentum this year or next as more inclusion conditions are met, warranting renewed attention from investors on index-oriented implications and strategies. Indeed, the market spotlight over the past 2 years has shifted from inclusion to “creation”, with the STAR Board and the **Beijing Stock Exchange** making their debut in the span of the past 2.5 years, embodying the overarching macro policy bias of supporting SMEs and direct financing, reducing leverage, fostering innovation, and promoting fairer competition, especially in the “New China” cohorts.

The new listing regimes/venues onshore should allow growthy companies easier access to the capital market, further boosting the fundamental profile of China A which remains a fertile ground for investors to look for **structural/organic**

**growth opportunities**, with around 40% of them globally residing in China per our classification. Importantly, Chinese growth looks inexpensively priced in the equity universe, at least compared to its own history, competing asset classes locally, and other equity alternatives globally across absolute and implied valuation metrics.

The compelling growth vs. valuation trade-off has manifested itself in realized portfolio flows, with **Northbound net buying reaching a record-high of US\$67bn in 2021** and global mutual fund mandates staying overweight A shares, in stark contrast to HK and ADRs where investor underweights remain pronounced. Domestically, the long-discussed (and awaited) **trend of asset institutionalization** appears in motion, as evidenced by the 3-fold surge in equity AUM held by domestic institutional investors since 2018, perhaps helped by the huge (US\$60tn) but struggling property market which still accounts for 62% of household allocation and could drive trillions of dollars of asset reallocation flows to equities over time.

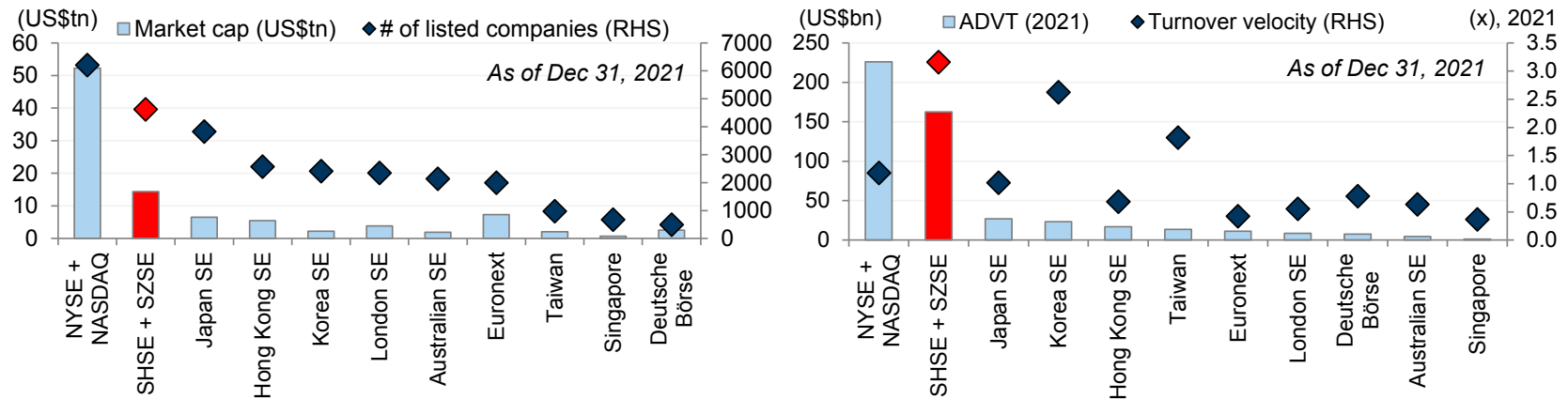
There is no shortage of investment themes in a deep market like A shares. ESG is one of the most consequential initiatives and investment stories globally, and China has a significant role to play as a policy enforcer, standard setter, financier, investor, and **a marketplace of ESG investment opportunities**, particularly given China's commitment to achieving carbon neutrality by 2060 which may entail US\$16tn of Green capex in the next 40 years on our global Sustain team's estimate. Partly related to the "S" in ESG, we believe **Common Prosperity** will be a guiding principle for China as it strives to become the largest economy in the world by the end of this decade, and 68% of the A-share market cap is favorably linked to this comprehensive development concept per our sector-mapping analysis.

To present a balanced view, we highlight a number of **commonly-cited risks/investor concerns** of investing in A shares, such as corporate governance and accounting irregularities, and present factual evidence on how these issues (and the regulatory oversight of them) have evolved over time. In a similar vein, the Goldman Sachs Macro Research Team has created **a wide spectrum of proprietary tools** spanning macro growth and industry measures, US-China Relations Barometer (GSSRUSCN), Equity Risk Barometers (GSSRCERA/H), Retail Sentiment Indicator (GSSRARTL), sector allocation framework, to Regulation Proxy and Regulation Barometer (GSSRCNRG) to better quantify and manage risks and identify opportunities in the stock market from a top-down perspective. Most of these tools are updated in our China Weekly Kickstart for investors who wish to track them on a regular and timely basis.

In sum, while we stay constructive on A shares (Overweight in AeJ), we acknowledge that the market is still at a nascent stage of its development (32 years of history) and that China A is a high-risk, high-reward market (if defined by returns volatility and dispersion). Precisely for this reason, China A hosts many specific opportunities that offer **compelling risk/reward** via a micro lens as well as various thematic and style-based dimensions, including "New Northbound Favorites" and "Common Prosperity portfolio." We hope this refreshed primer that contains 245 exhibits organized in 12 sections will help investors generate alpha in this exciting market, and better embrace the structural shifts that will likely reshape the global equity investable universe in the years to come.

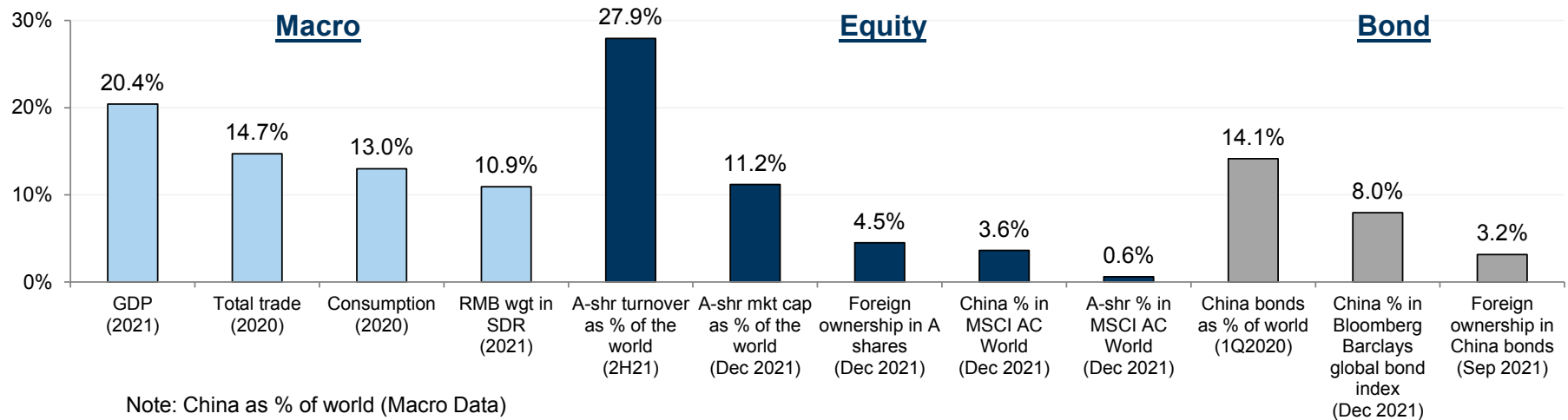
# 1. The investment case for A shares for global investors: Why do you need to own A shares?

**Exhibit 1: Size matters: China A is the 2nd largest equity market globally by market cap and cash turnover**



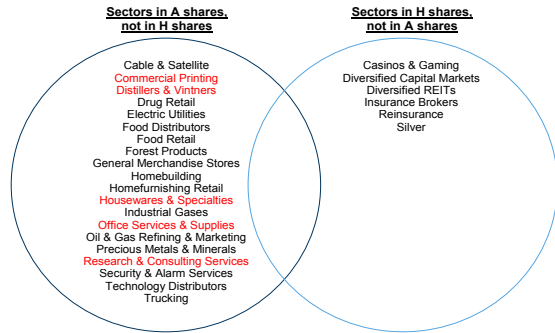
Source: WFE, data compiled by Goldman Sachs Global Investment Research

**Exhibit 2: Chinese assets (equities and bonds) look underrepresented in global indexes relative to China's economic influences**



Source: World Bank, United Nations, WFE, PBoC, MSCI, FactSet, Wind, Bloomberg, Goldman Sachs Global Investment Research

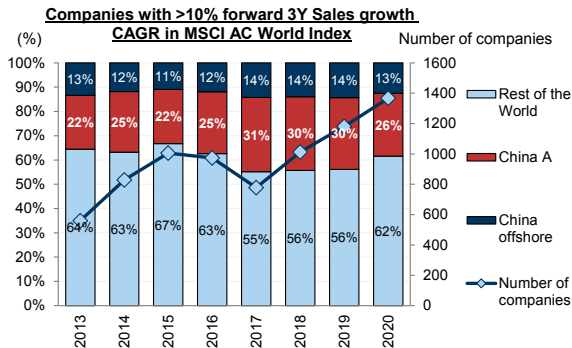
**Exhibit 3: Some unique sectors in A shares which offer investor exposures to “New China” and “Digital Economy”**



Note: Red color indicates New China sub-industries.

Source: Wind, FactSet, Goldman Sachs Global Investment Research

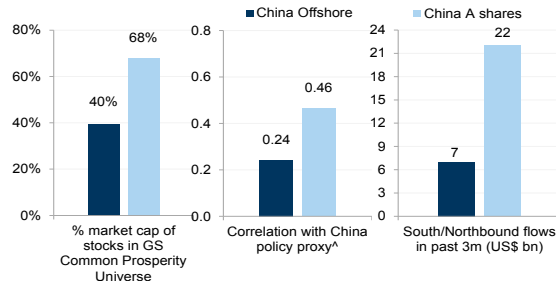
**Exhibit 6: About 40% of growthy companies which are expected by FactSet consensus to generate more than 10% top-line CAGRs over the next 3 years in MSCI AC World reside in China**



Note: 2020 denotes 2021-2023 Sales growth CAGR

Source: MSCI, FactSet, Goldman Sachs Global Investment Research

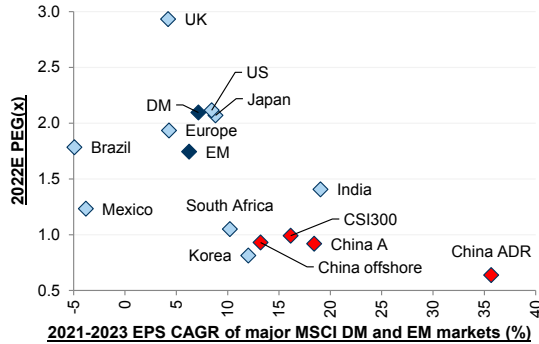
**Exhibit 4: China A appears well positioned for long-term themes and cyclical policy easing**



\* Based on monthly data since 2012. Offshore China proxied by MXCN while China A shares proxied by CSI300 index. Higher correlation indicates performance more sensitive to policy stimulus. Connect flows as of Dec 31, 2021.

Source: Bloomberg, Wind, FactSet, Goldman Sachs Global Investment Research

**Exhibit 7: Chinese stocks will likely deliver high earnings growth and look attractively valued relative to other key markets globally in terms of PEG**



Note: As of Feb 2022; Local currency applies to country names and USD applies to region names. in USD; Country and region names refer to MSCI index.

Source: FactSet, MSCI, IBES, Goldman Sachs Global Investment Research

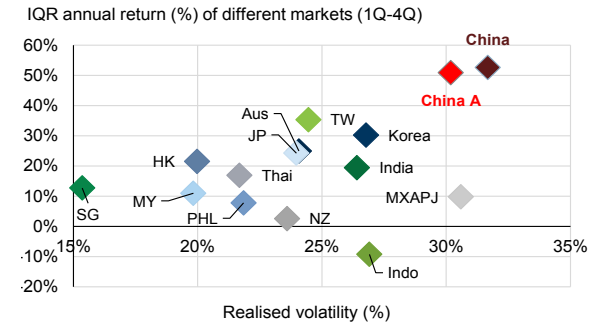
**Exhibit 5: China A has shown low return correlations with global equity markets, potentially offering positive portfolio benefits**

Weekly MSCI market return (USD) correlation, past 5 years

	CN-A	CN-H	APJ	JP	US	EU	EM	WD	Avg
CN-A									
CN-H	75%								55%
APJ	69%	89%							69%
AeJ	69%	89%							80%
JP	71%	92%	99%						81%
US	36%	53%	68%						63%
EU	36%	53%	68%	65%					63%
EM	43%	56%	74%	65%					69%
WD	43%	55%	77%	75%	78%				71%
EM	67%	88%	98%	68%	72%	78%			79%
WD	50%	65%	84%	76%	97%	90%	83%		78%

Source: FactSet, MSCI, Goldman Sachs Global Investment Research

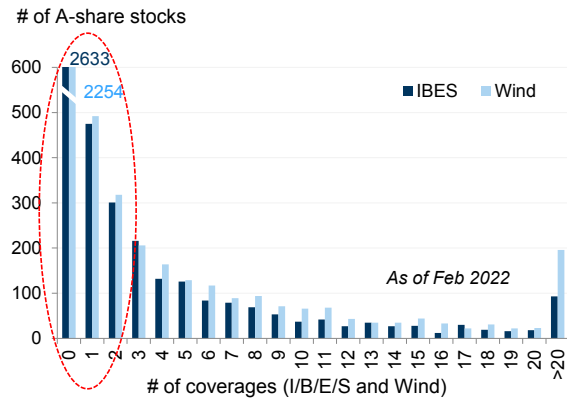
**Exhibit 8: Chinese equities tend to be more volatile, but can also be more “rewarding”**



Note: Calculation based on past 3Y data. CSI300 is used for China A while MSCI indices are used for other EM markets. Realised vol is calculated as: stdev. of 3m rolling return\*sqrt(4). 1Q is stocks with highest 25% annual return while 4Q is stocks with lowest 25% annual return

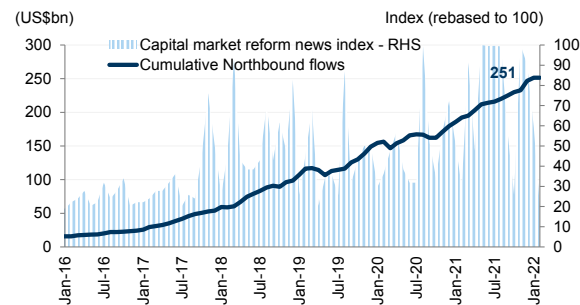
Source: MSCI, CSI300, FactSet, Goldman Sachs Global Investment Research

**Exhibit 9: Alpha opportunities could be plentiful in A shares as a long tail of stocks is not well covered by onshore and offshore sell-side analysts...**



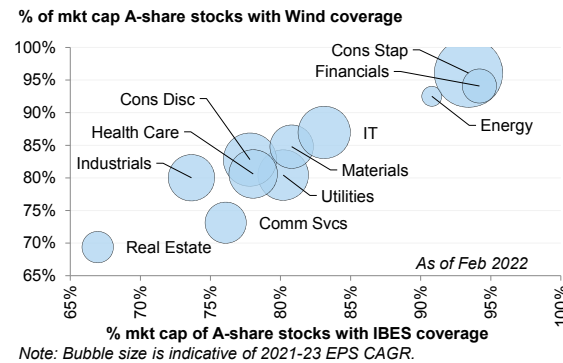
Source: Wind, IBES, Goldman Sachs Global Investment Research

**Exhibit 12: Capital markets reform momentum has appeared strong, supporting portfolio inflows to A shares**



Source: Factiva, Wind, Goldman Sachs Global Investment Research

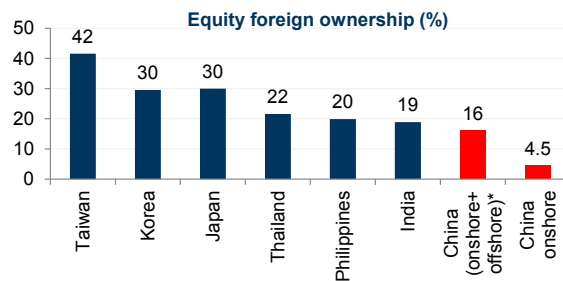
**Exhibit 10: ...notably in some growth sectors**



Note: Bubble size is indicative of 2021-23 EPS CAGR.

Source: Wind, IBES, Factset, Goldman Sachs Global Investment Research

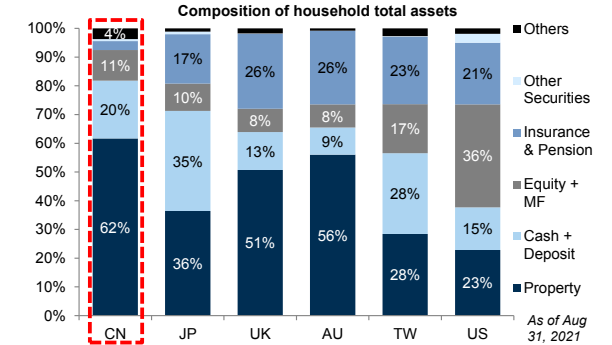
**Exhibit 13: FINI ownership is low in A shares compared with other Asian EMs**



\*calculated as sum of onshore foreign ownership and offshore free-float cap, divided by sum of onshore and offshore market cap. As of Dec 31, 2021

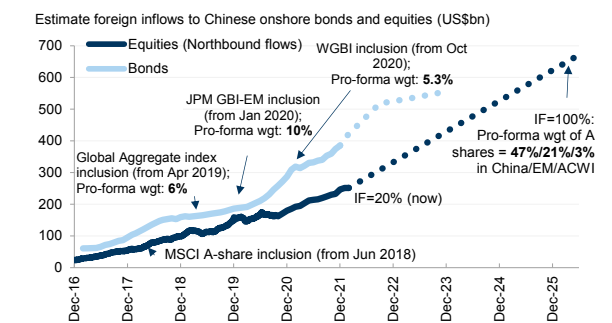
Source: Wind, FactSet, Stock Exchanges, Goldman Sachs Global Investment Research

**Exhibit 11: Equities appear under-owned by Chinese households vs. developed economies, suggesting significant potential for asset reallocation flows to equities in the long run**



Source: NFID, CEIC, Wind, Goldman Sachs Global Investment Research

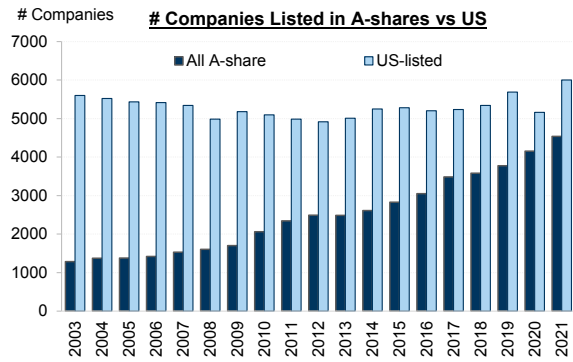
**Exhibit 14: China A shares and onshore government bonds have been included in major global benchmark indexes, potentially driving US\$430bn and US\$250bn inflows to the respective markets in the medium term**



Source: China Central Depository and Clearing, Bloomberg, Thomson Reuters, MSCI, Goldman Sachs Global Investment Research

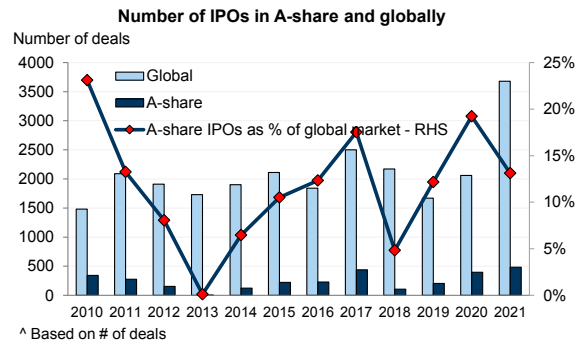


**Exhibit 15: Number of listed companies has doubled since 2010 in China A, while that for the US has only grown 22%**



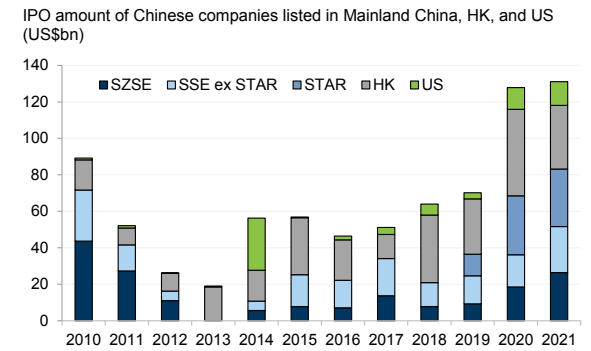
Source: FactSet, Wind, Goldman Sachs Global Investment Research

**Exhibit 16: China A represented about 15% of IPO transactions globally in the past 2 years**



Source: Bloomberg, Wind, Goldman Sachs Global Investment Research

**Exhibit 17: Capital raising activities for Chinese companies remained robust in A shares, while those in HK and the US slowed in 2021**

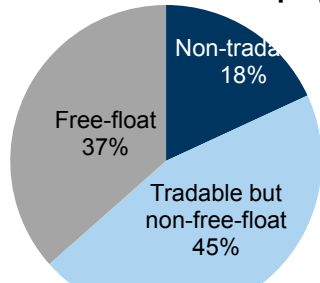


Source: Bloomberg, Wind, Goldman Sachs Global Investment Research

## 2. Market structure: The uniqueness of A shares

**Exhibit 18: Free-float market cap accounts for about 37% of the total cap in A shares**

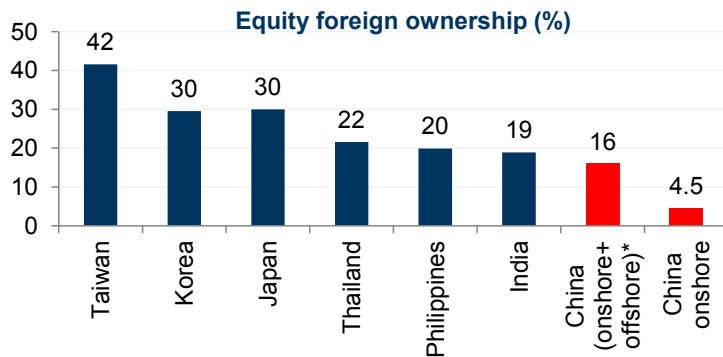
**China A-share total market cap by share type**



Note: (1) Non-tradable shares are shares that can't be traded on public exchanges which are mostly held by the State; (2) Tradable but non-free-float shares can be traded but have restrictions. This includes shares held by company management, strategic shareholders, some state shares and other major shareholders; (3) Free float shares are shares that can be freely traded on stock exchanges. As of Dec 31, 2021.

Source: Wind

**Exhibit 20: FINI ownership is low in A shares compared with other Asian EMs**

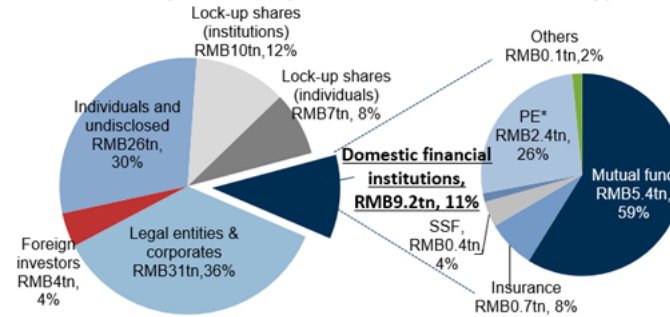


\*calculated as sum of onshore foreign ownership and offshore free-float cap, divided by sum of onshore and offshore market cap. As of Dec 31, 2021

Source: Wind, FactSet, Stock Exchanges, Goldman Sachs Global Investment Research

**Exhibit 19: China A remains a retail-driven market, with a low FINI ownership ratio**

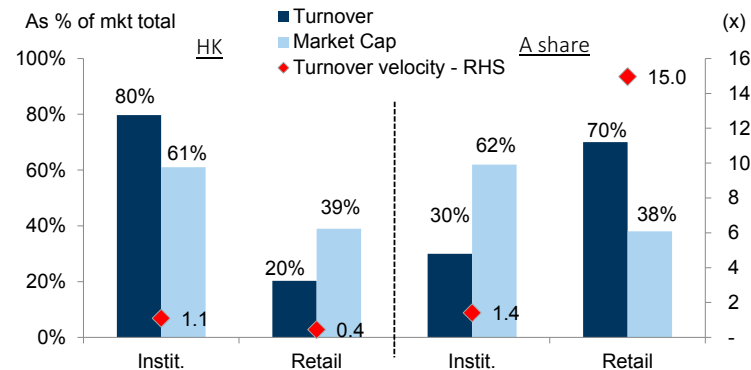
**Ownership of A share (as % of A-share listed market cap)**



Note: Holdings of legal entities, corporates and financial institutions are based on information disclosed by listed companies and funds. As of Jun 30, 2021. \* Assume PE investment in securities is 50% in stocks and 50% in bonds.

Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

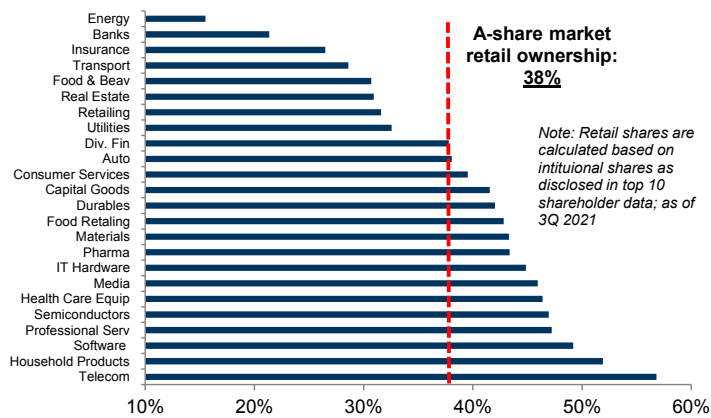
**Exhibit 21: Retail investors represent 70% of cash turnover in A shares, vs. 20% in the HK market**



Note: (1) Turnover data is as of 2019 for HKEx and 2020 for A shares. Market cap data is as of Jun 30, 2021. (2) HK institutional turnover includes both institutional investor and principal trading conducted by brokers.

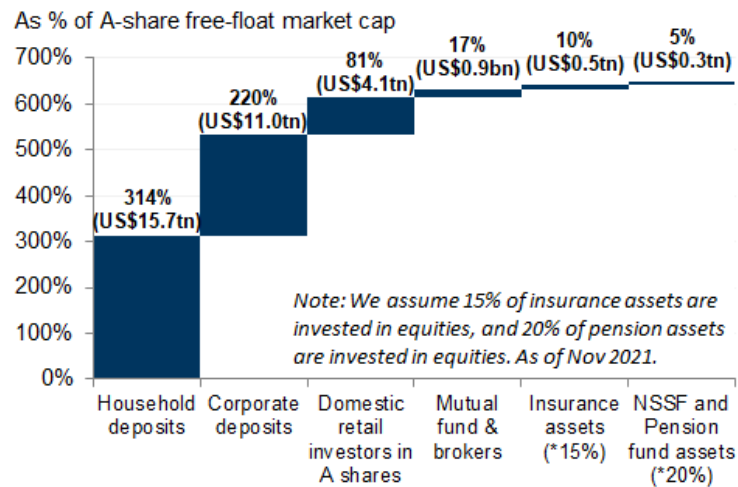
Source: HKEx, SSE, Wind, Bloomberg, compiled by Goldman Sachs Global Investment Research

**Exhibit 22: Retail investors have a strong bias towards Tech and Consumer stocks in A shares**



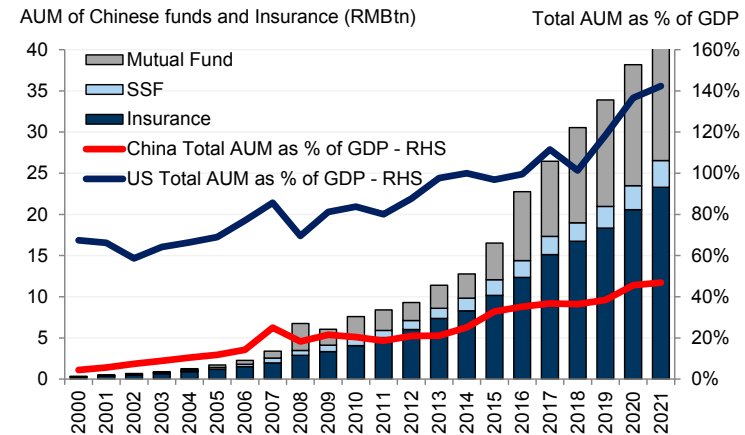
Source: Wind

**Exhibit 24: Capital that could be deployed in the China equity market appears significant**



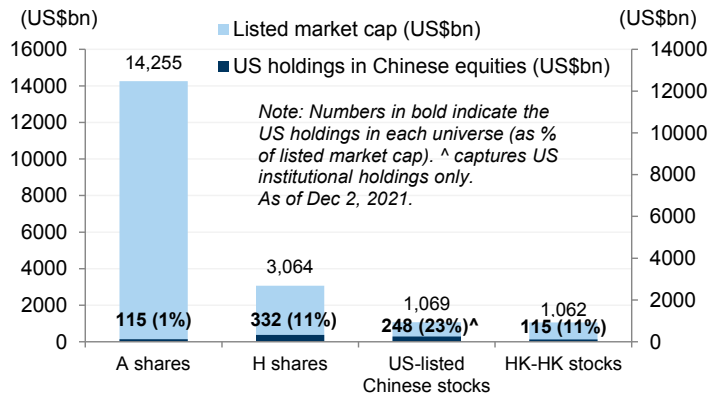
Source: PBOC, Wind, CBIRC, SSF, Goldman Sachs Global Investment Research

**Exhibit 23: Asset institutionalization in China has significant room to develop, in our view**



Source: CBIRC, CEIC, Wind, Haver Analytics, Goldman Sachs Global Investment Research

**Exhibit 25: We estimate that US investors currently hold around US\$1tn of Chinese equities currently**



Note: The US holdings of HK-listed stocks are estimated based data disclosed by the US Treasury, and the US ownership of China A-share and US-listed Chinese stocks is calculated as the total US holdings divided by the total listed market based on stock-level data from Bloomberg.

Source: US Department of the Treasury, Wind, Bloomberg, Goldman Sachs Global Investment Research

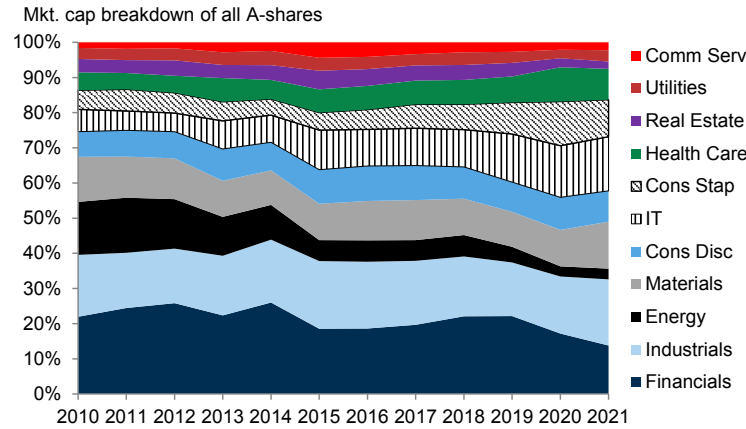
## Exhibit 26: Chinese “Alphabet Soup”: Many share classes to navigate

Index	Share Class	Definition	Stock Exchange [Currency]	Total listed market cap of share class (US\$bn)	MSCI Index market cap (US\$bn)^
MSCI China A/ MSCI China	A-Shares	China securities incorporated in Mainland China, listed on the Shanghai or Shenzhen Stock Exchange and traded in Renminbi (RMB)	Shanghai [RMB] Shenzhen[RMB]	14255	389
MSCI China	B-Shares	China securities incorporated in Mainland China, listed on the Shanghai Stock Exchange (USD) and Shenzhen Stock Exchange (HKD)	Shanghai [USD] Shenzhen [HKD]	21	4
	H-Shares	China securities incorporated in Mainland China, listed on the Hong Kong Stock Exchange (HKD)	Hong Kong [HKD]	816	520
	Red-Chips	China securities of state-owned companies incorporated outside Mainland China, listed on the Hong Kong Stock Exchange (HKD)	Hong Kong [HKD]	610	134
	P-Chips	China securities of non-government owned companies incorporated outside Mainland China, listed on the Hong Kong Stock Exchange (HKD)	Hong Kong [HKD]	1593	831
	N-Shares^^	China securities (ADRs) incorporated outside Greater China (mainland China, Hong Kong, Macao and Taiwan), listed on the NYSE Euronext–New York, NASDAQ, NYSE AMEX traded on USD	New York [USD]	998	543

As of Jan 2022. ^ Index cap calculated based on Foreign Inclusion Factor (FIF). For A-shares, further applied for the Inclusion Factor of 20%. ^^ADRs with secondary / dual primary listings in HK (including Alibaba) are counted as N-shares.

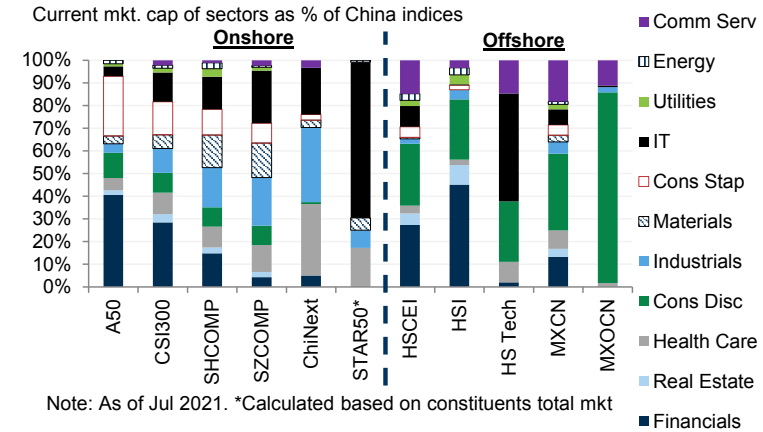
Source: MSCI, FactSet, data compiled by Goldman Sachs Global Investment Research

**Exhibit 27: Financials and Industrials remain the largest sectors in China A, although the significance of Consumer and Tech is rising**



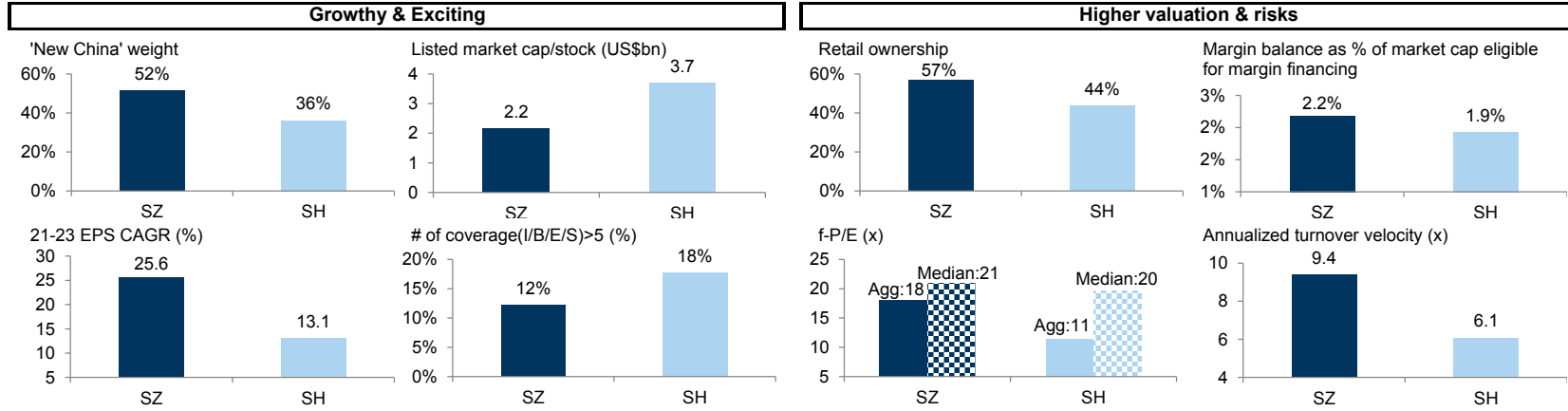
Source: FactSet, Wind

**Exhibit 28: Different Chinese equity indexes offer very different sector exposures to investors**



Source: FactSet, Wind

**Exhibit 29: Shenzhen is growthy and more exciting thematically, but Shanghai trades at lower valuation and is arguably less speculative**



As of Feb 2022; retail shares are calculated based on institutional ownership disclosed in top 10 shareholder data; annualized turnover velocity=1M avg. turnover/1M avg. free float exchange cap.\*252

Source: Wind, IBES, Goldman Sachs Global Investment Research

Exhibit 30: A detailed breakdown of the Chinese equity universe by share class

	# of active cos	US\$ bn					Annualized Velocity--float (%)	% of 2020 GDP		
		Share class market cap	Freefloat market cap	6-month ADVT	Avg share class cap	Avg freefloat cap		Share class mkt cap	Free float mkt cap	
Domestic listed	4,579	14,275	4,938	187.8	3.1	1.1	959	96.9%	33.5%	
A shares	4,489	14,255	4,920	187.8	3.2	1.1	962	96.8%	33.4%	
	Shanghai	1,948	8,017	2,436	81.6	4.1	1.3	844	54.4%	16.5%
	Shenzhen	2,541	6,238	2,484	106.2	2.5	1.0	1,077	42.4%	16.9%
B shares	90	21	18	0.05	0.2	0.2	65	0.1%	0.1%	
	Shanghai	47	12	11	0.03	0.3	0.2	74	0.1%	0.1%
	Shenzhen	43	8	7	0.01	0.2	0.2	52	0.1%	0.0%
Offshore listed	1,379	4,040	2,269	24.8	2.9	1.6	275	27.4%	15.4%	
H shares	283	816	548	3.6	2.9	1.9	168	5.5%	3.7%	
Red chips	166	610	234	1.4	3.7	1.4	148	4.1%	1.6%	
H shares + red chips	449	1,425	782	5.0	3.2	1.7	162	9.7%	5.3%	
P chips	668	1,593	842	6.1	2.4	1.3	181	10.8%	5.7%	
HK-listed China offshore	1,117	3,018	1,623	11.1	2.7	1.5	172	20.5%	11.0%	
US-listed China offshore	216	998	633	13.7	4.6	2.9	544	6.8%	4.3%	
Singapore-listed China offshore	46	24	13	0.05	0.5	0.3	98	0.2%	0.1%	
All China	5,958	18,316	7,207	212.6	3.1	1.2	743	124.4%	48.9%	
SOEs (A shares)	1,230	6,036	1,842	60.9	4.9	1.5	833	41.0%	12.5%	
SOEs (HK-listed China Offshore)	251	1,078	581	3.3	4.3	2.3	143	7.3%	3.9%	
POEs (A shares)	3,323	8,378	3,116	129.0	2.5	0.9	1,043	56.9%	21.2%	
POEs (HK-listed China Offshore)	866	1,940	1,042	7.8	2.2	1.2	188	13.2%	7.1%	
MSCI China index	742	11,590	5,668	92.6	15.6	7.6	412	78.7%	38.5%	
MSCI China A index	705	9,171	3,180	91.3	13.0	4.5	723	62.3%	21.6%	
CSI 300 index	300	6,871	2,235	54.8	22.9	7.5	618	46.7%	15.2%	

Note: As of Dec 2021; (1) The total market cap of ADRs with secondary listing in HK (including shares traded in US and HK) are counted under the US-listed China offshore. (2) Free float market cap is estimated as total share class market cap times estimated free float ratio. (3) All China offshore China stocks are listed on the Hong Kong, US and Singapore exchanges only. (4) HK-HK stocks refer to stocks with the market in Hong Kong and listed on the Hong Kong exchange.

Source: Wind, FactSet, Bloomberg, Goldman Sachs Global Investment Research

### 3. Accessibility: Many channels to get exposed

Exhibit 31: The HK and mainland China capital markets are connected via many cross-broder trading schemes

	QFII/RQFII vs. QDII	Stock Connect	Mutual Recognition of Funds (MRF)	Bond Connect	ETF Cross-listing	Wealth Management Connect
Market access <sup>^</sup>	↕	↕	↕	↕	↕	↕
Launch date	QFII: Dec 2002 QDII: Nov 2006	SH-HK: Nov 2014 SZ-HK: Dec 2016	Dec 2015	Northbound: Jul 2017 Southbound: Sep 2021	SZ-HK: Oct 2020 SH-HK: Jun 2021	Sep 2021
Mechanism	Enable selected foreign/domestic institutional investors to invest in China onshore/international capital markets.	Cross-border investment channel that connects stock exchange of SH/SZ and HK allowing investors to trade the other market using local brokers and clearing houses.	Bilateral regulatory scheme that allows mutual funds registered in China onshore and Hong Kong markets to be distributed in each other's market.	Mutual market access mechanism between Mainland China and Hong Kong's credit market.	Cross-border passive investment channel allowing investors to access the ETFs listed in the other market.	Cross-border investment schemes for GBA residents to purchase wealth management products offered by banks in the other market.
Regulatory approval	CSRC, PBOC, SAFE	-	CSRC, SFC	PBOC, HKMA	CSRC, SFC	CBIRC, CSRC, SFC, HKMA
Quota	No quota limit for QFII/RQFII; Quota granted by SAFE for QDII on a case-by-case basis	No aggregate quota; subject to a daily quota of <b>RMB52/42bn</b> for Northbound / Southbound for SH/SZ each	<b>RMB300bn</b> for aggregate fund flows each way	<b>No quota</b> for Northbound; Daily quota of <b>RMB20bn</b> and annual quota of <b>RMB500bn</b> for Southbound	No quota for Hong Kong "feeder" ETF (granted RQFII status); Subject to QDII quota for Mainland China "feeder" ETF (granted QDII status)	<b>RMB150bn</b> each way in aggregate; <b>RMB1mn</b> for individual investors
Scope of investments	<b>Primary:</b> IPOs, bonds, follow-on offerings, rights, allotments <b>Secondary:</b> Exchange-listed shares, CDRs, ABS, warrants, margin trading <b>Others:</b> equity index futures, financial futures, commodity futures, securities investment funds, interbank bonds, PE funds, others approved by CSRC <b>FICC:</b> Interbank-traded cash bonds, exchange-traded bonds, bonds repo, mutual funds, bond lending, bond forward, IRS, onshore treasury bond futures, FRA and FX derivatives	<b>527</b> SEHK-listed stocks ( <b>US\$6.3tn</b> mkt cap, <b>\$14bn</b> ADVT) <b>591</b> SSE-listed stocks ( <b>US\$6.8tn</b> mkt cap, <b>\$52bn</b> ADVT) <b>852</b> SZSE-listed stocks ( <b>US\$4.8tn</b> mkt cap, <b>\$67bn</b> ADVT) <sup>^^</sup>	<b>33</b> Hong Kong funds with total AUM of ~USD27bn; <b>43</b> Mainland China funds with total AUM of ~USD25bn <sup>^^^</sup>	All Interbank-traded cash bonds	<b>2</b> SZ ETFs via HK feeder funds <b>1</b> SH ETF via HK feeder funds <b>3</b> HK ETFs via SH/SZ feeder funds	<b>Southbound: investment products</b> offered by and ranked as "low" risk to "medium" risk and "non-complex" by Hong Kong banks, RMB/HKD/FX deposits <b>Northbound:</b> eligible wealth management products distributed by mainland China banks that are of "low" risk to "medium" risk and <b>relatively simple</b>

Note: <sup>^</sup> Up/down arrows denote northbound/southbound access. Dashed arrows pending future developments. <sup>^^</sup> As of Nov 2021. <sup>^^^</sup> Based on aggregation of latest fund size disclosed by eligible funds. Different share class of same funds are combined.

Source: HKEX, PBOC, SAFE, CSRC, compiled by Goldman Sachs Global Investment Research

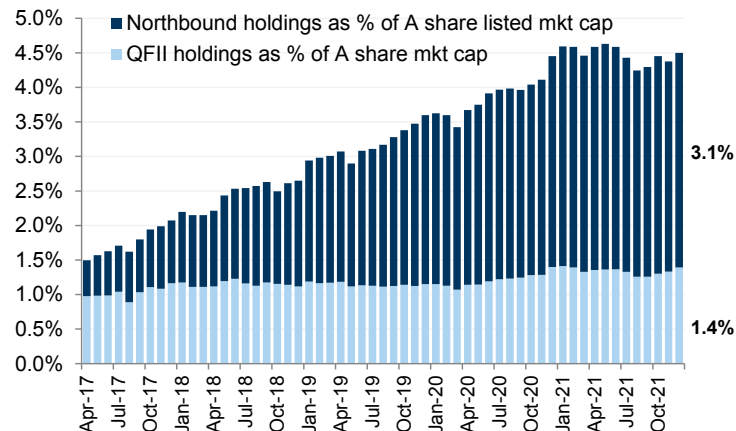
## Exhibit 32: The updated QFII scheme has significantly improved international investors' accessibility to the Chinese capital markets

	Current Measures (Nov 2021)
QFII qualification requirement	<p><b>2 schemes regulating QFII and RQFII have been combined</b></p> <p><b>Expanded client type &amp; scope of investment strategies:</b> Increased the type of organizations who can apply and removed the provision stipulating "long-term" institutional investors: Institutional investors include asset management companies, commercial banks, insurance companies, securities companies, futures companies, trusts, governmental investment entities, sovereign wealth funds, pension funds, philanthropy funds, endowment funds and international organizations, etc.</p> <p><b>Major requirements:</b></p> <ul style="list-style-type: none"> <li>- Good financial/credit profile. Experience in securities investment.</li> <li>- Onshore entity manager has relevant certification from offshore jurisdiction or registration.</li> <li>- Sound corporate governance, compliance, internal control and meets onshore regulation.</li> <li>- No major regulatory punishment in past 3 years.</li> <li>- No activities that have major impact to onshore capital market.</li> </ul> <p><b>Removed years of operations or minimum AUM requirements</b> to align the entry criteria with other cross-border channels (Stock Connect, Bond Connect or CIBM, etc.).</p>
Relax approval requirements	<p><b>Application documents:</b> Application reports, investment proposal, and more (<b>5 documents</b> total)</p> <p><b>Approval Time:</b> CSRC shall examine documents and come back with decision <b>within 10 business days</b>; process with SAFE is significantly simplified with quota removal</p>
Investment Scope	<p><b>Current investments that are allowed include:</b></p> <ul style="list-style-type: none"> <li>- Stocks, depository receipts, bonds, <b>bond repurchases*</b>, and asset-backed securities traded or transferred on stock exchanges;</li> <li>- Shares and other types of securities transferred on the National Equities Exchange and Quotations (<b>NEEQ, or the New Third Board</b>) market;</li> <li>- <b>Derivatives on bonds, interest rates and foreign exchange</b> (subject to confirmation by PBOC) <b>traded on the domestic inter-bank bond market</b> which are deemed by the People's Bank of China (PBC) as eligible for qualified foreign investors</li> <li>- Publicly offered securities investment funds;</li> <li>- <b>Private investment funds</b> (with eligible underlying);</li> <li>- <b>Bond futures contracts*</b>;</li> <li>- <b>Equity index futures and options contracts</b> (for both hedging and non-hedging* purposes);</li> <li>- <b>Commodity futures and options contracts</b>;</li> <li>- <b>Options listed and traded on exchanges*</b> (with approval of the State Council or the CSRC);</li> <li>- Foreign exchange derivatives traded for hedging purposes which are deemed by the State Administration of Foreign Exchange (SAFE) as eligible for qualified foreign investors;</li> <li>- Participate in the subscription for new share issuance, bond issuance, asset-backed securities issuance, follow-on share offerings, and rights issue on stock exchanges and the <b>NEEQ</b></li> <li>- Engage in <b>margin trading and securities financing</b> on stock exchanges, and <b>securities lending</b> to securities finance company</li> <li>- Other financial instruments as approved by the CSRC</li> </ul> <p>*Detailed scope and relevant rule are still subject to final announcement by respective trading venue.</p> <p><b>No monthly repatriation limit and lock-up period restrictions</b></p> <p><b>No quota restrictions</b></p>
Trustee management	<p><b>Process of becoming custodian:</b></p> <p>A custodian who provides asset custodian service for a qualified foreign investor for the first time shall, within 5 business days of signing a custodian agreement, file with the CSRC for record.</p> <p><b>Limitation on number of custodians:</b> None</p> <p><b>Major custodian:</b> A qualified foreign investor that has more than 2 custodians shall designate one of them as the principal reporter;</p> <ul style="list-style-type: none"> <li>-Responsible for <b>QFII and RQFII application, quota application, report on major issues</b> and more</li> <li>-<b>safekeeping the entire assets entrusted by qualified foreign investors</b></li> <li>-Inform CSRC for <b>recordation of other custodians</b></li> </ul>
Enhanced supervision	<p>In any of the 9 circumstances, the CSRC, the PBC, and the SAFE can take regulatory measures on a qualified foreign investor, such as order for rectification, regulatory talks, and issuing warning letters; and can take regulatory measures on the person directly in charge and others directly responsible, such as regulatory talks, issuing warning letters, and order for periodic reporting.</p> <p>If the qualified foreign investor violates Securities Law of the People's Republic of China, Regulation on the Administration of Futures Trading, Regulations on Foreign Exchange Administration of the People's Republic of China, and other laws and administrative regulations, it will be subject to administrative punishments in accordance with applicable rules.</p> <p>Where a violation is suspected of constituting a criminal offense, the case will be transferred to judicial authorities for prosecution of criminal liability in accordance with law.</p>

Source: CSRC, Compiled by Goldman Sachs Global Investment Research

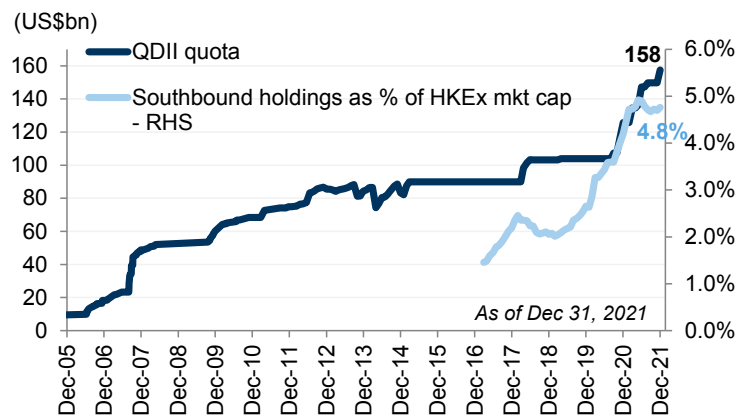


**Exhibit 33: Foreign investors hold 4.5% of A-share total market cap through QFII and Stock Connect**



Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 34: Mainland investors have been raising allocation to HK and other offshore markets through QDII and Southbound Connect**



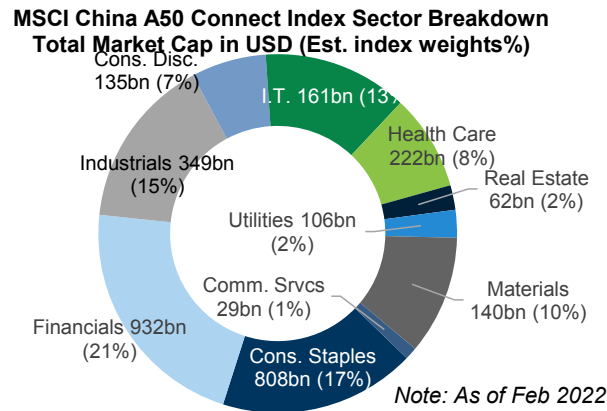
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 35: A summary of key execution/trading features of Stock Connect**

	Northbound (to SSE and SZSE)	Southbound (to HKEx)
<b>Eligible Investors</b>	SSE/SZSE members, institutional and investors and individual investors qualified	Institutional investors (no restrictions on account balance); Retail investors with account balance > RMB 500,000
<b>Investible World</b>	591 Names in Shanghai (US\$6.8tn mkt cap, US\$52bn ADT) <sup>a</sup> <ul style="list-style-type: none"> <li>SSE 180/380 index</li> <li>Dual-listed A &amp; H shares in Shanghai (except not in RMB and under risk alert)</li> </ul> 852 Names in Shenzhen (US\$4.8tn mkt cap, US\$67bn ADT) <sup>a</sup> Constituents of indexes below with RMB6bn or above*: <ul style="list-style-type: none"> <li>SZSE Component Index</li> <li>SZSE Small / Mid Innovation Index</li> <li>Dual-listed A &amp; H shares in Shenzhen (except not in RMB and under risk alert)</li> </ul> *ChiNext stocks are only available to institutional professional investors under HK related regulations until further notice *STAR Board stocks are eligible for Northbound Connect	527 Names in Hong Kong (US\$6.3tn mkt cap, US\$14bn ADT) <sup>a</sup> <ul style="list-style-type: none"> <li>Hang Seng Composite Large/MidCap Indices</li> <li>Hang Seng Composite SmallCap Index (market cap larger or equals to HK\$5m)</li> <li>Dual-listed names in SSE/SZSE (A-share) and HKEx (H-share)</li> <li>Companies with weighted voting rights (WVR) need to have at least 6-month + 20 trading days listing history to be eligible</li> <li>Biotech companies listed under Chapter 18A are eligible for Southbound Connect</li> </ul>
<b>Market Hours</b>	<ul style="list-style-type: none"> <li>Opening Call Auction (09:15 – 09:25)</li> <li>Morning Continuous Auction (09:30 – 11:30)</li> <li>Afternoon Continuous Auction (13:00 – 14:57)</li> <li>Closing Call Auction (14:57 – 15:00)</li> </ul>	<ul style="list-style-type: none"> <li>Pre-opening Session (09:00 – 09:30)</li> <li>Morning Session (09:30 – 12:00)</li> <li>Afternoon Session (13:00 – 16:00)</li> <li>Closing Auction Session (16:00 – 16:10)</li> </ul>
<b>Order Types</b>	Limit only (no amends, must cancel & re-enter)	<ul style="list-style-type: none"> <li>At Auction (Pre-opening)</li> <li>Enhanced Limit (Continuous Trading)</li> <li>No amends, must cancel &amp; re-enter</li> </ul>
<b>Trading Currency</b>	RMB for trading & settlement	HKD to trade, RMB to settle
<b>Intra-day Trading</b>	X	✓
<b>Block / Manual Trades</b>	X (block not allowed / manual not supported)	X (block not supported / manual not allowed)
<b>Settlement Cycle</b>	T-day (stock), T+1 (money)	T+2 (DVP)

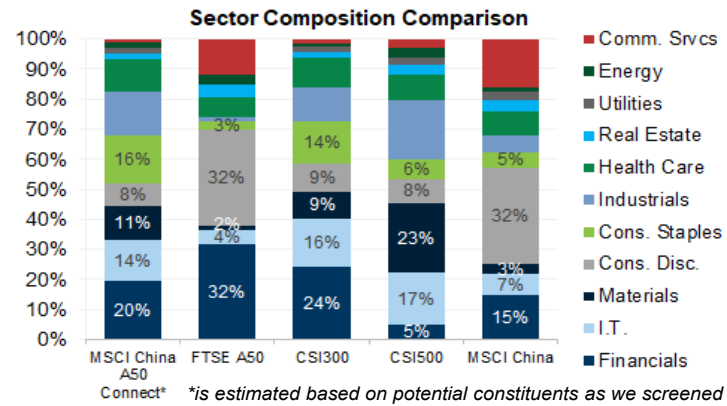
Source: HKEX, compiled by Goldman Sachs Global Investment Research

**Exhibit 36: Financials and Consumer are the two largest sectors in the MSCI China A50 Connect Index**



Source: MSCI, FactSet, Goldman Sachs Global Investment Research

**Exhibit 37: The sector composition of MSCI China A50 Connect Index is fairly comparable to that of CSI300**



Source: MSCI, FactSet, Goldman Sachs Global Investment Research

**Exhibit 38: MSCI China A50 Connect has exhibited high return correlations with key onshore equity benchmarks, notably CSI300**

	MSCI A50 Connect	FTSE A50	CSI300	CSI500	MXCN	HSI	HSCEI	Avg
MSCI A50 Connect		95%	95%	70%	76%	66%	69%	78%
FTSE A50	95%		95%	64%	77%	70%	74%	79%
CSI300	95%	95%		83%	76%	68%	70%	81%
CSI500	70%	64%	83%		57%	50%	50%	62%
MXCN	76%	77%	76%	57%		91%	90%	78%
HSI	66%	70%	68%	50%	91%		95%	73%
HSCEI	69%	74%	70%	50%	90%	95%		75%

Source: Wind, Bloomberg, FactSet, Goldman Sachs Global Investment Research

**Exhibit 39: Participation of index futures remain subdued for A shares comparing with US and HK**


Index	Exchange	6m ADTV # of contract, k	Open interest (6m avg, k)	Contract value (USD) <sup>a</sup>	Underlying Index		Future as of % underlying index					
					Index	Index cap (US\$m)	6m ADTV (US\$m)	Open Interest (US\$m)	A5 % of index cap	6m ADTV (US\$m)	A5 % of index ADTV	
US	E-mini S&P 500*	CME	1105	2525	232738	SPX index	38.9	71.7	587744	1.5%	257179	359%
	E-mini Nasdaq 100*	CME	398	234	311915	NDX index	18.4	39.6	73066	0.4%	124188	313%
HK	HSI	HKEx	94	111	158474	HSI index	1.7	7.8	17402	1.0%	14751	188%
	HSCEI	HKEx	95	353	54861	HSCEI index	1.0	7.5	19344	1.9%	5196	69%
A shares	MSCI China A50	HKEx	10	28	65250	MXCNA60C Index	1.2	18.9	1809	0.1%	640	3%
	FTSE China A50	SGX	283	732	15081	XINBI index	1.2	18.7	11034	0.9%	4265	23%
	CSI300	CFFEx	74	195	222783	SHSZ300 index	3.3	54.3	43426	1.3%	16460	30%
	CSI500	CFFEx	63	273	222878	SH000905 index	1.1	33.7	60753	5.7%	13970	41%

Note: Pricing as of Jan 14 unless otherwise stated. <sup>a</sup> based on pricing of Generic 1st contract. <sup>aa</sup> # of contracts times the pricing of Generic 1st contract. \*Generic 1st only.

Source: CME, HKEx, SGX, CFFEX, Goldman Sachs Global Investment Research

## 4. Market regulations: Many changes have been made, and more to come

### Exhibit 40: Capital/financial markets liberalization has been an ongoing theme in China



Dec-2002	CSRC first launched <b>QFII</b> to provide foreign institutional investors with the right to trade on stock exchanges in Shanghai and Shenzhen.
Dec-2011	CSRC started <b>RQFII</b> with initial quota at RMB 20bn, which allows (initially only 21 HK-based) participants to invest in China with RMB offshore.
Dec-2012	<b>RQFII</b> quota rose from RMB 50bn to RMB 270bn by year end.
2013	SAFE clarified that a <b>QFII</b> can remit principal & profits up to 20% of the total onshore assets.
Jul-2013	<b>RQFII</b> allowed for inclusion of firms based in Singapore and London.
Jul-2014	<b>RQFII</b> was expanded to South Korea and Germany with RMB 80bn quota.
Nov-2014	<b>SH-HK Stock Connect</b> launched, allowing investors in each market to trade shares on the other market using their local brokers and clearing houses.
Apr-2015	<b>RQFII</b> was expanded to Luxembourg.
Feb-2016	QFII quota ceiling was lifted for single institution and lock-up period was cut from 1 year to 3 months.
May-2016	CSRC addressed concerns by <b>QFII/RQFII</b> by clarifying beneficial ownership rules. Exchanges loosened pre-approval requirements that can restrict the creation of index-linked vehicles.
Oct-2016	Foreign asset managers were allowed to set up WOFE funds and engage in private fund management RMB included in SDR.
Dec-2016	<b>SZ-HK Stock Connect</b> launched, broadening the range of A-shares international investors can trade.
Jul-2017	Bond Connect launched, with Northbound trading link initially and Southbound trading link to be added later.
Apr-2018	Daily southbound and northbound quotas quadrupled for <b>SH-HK and SZ-HK Stock Connects</b> to RMB 42bn and RMB 52bn, respectively.
Jun-2018	SSE introduced more order types, such as Market on Close (MOC) to encourage broker participation in Closing Auction Session (CAS). Foreign ownership cap of Chinese JV brokers and mutual funds were lifted from 49% to 51%. <b>QFII</b> allowed repatriation by foreign investors on daily basis, no longer being capped at 20% of its total domestic assets at last year's end.
Aug-2018	PBoC allowed more foreign institutional investors to invest in inter-bank bond market (not necessarily a QFII or RQFII).
Dec-2018	SSE and SZSE further tightened suspension rules to curtail abuse of the practice.
Jan-2019	<b>QFII</b> quota was doubled from USD 150bn to 300bn while the <b>RQFII</b> quota was set at RMB1,940 bn.
	CSRC launched consultation to harmonize and further relax <b>QFII/RQFII</b> schemes. Shanghai stock exchange established the <b>STAR Board</b> and piloted the registration-based IPO system
Jun-2019	Shanghai-London Stock Connect launched.
Oct-2019	<b>NEEQ reform</b> promoted qualified innovative firms to issue stocks to more qualified investors, set up the "select tier" and transfer mechanism to the main board.
May-2020	PBoC and SAFE released new regulations to standardize the administrative requirements on inward remittances and significantly simplify outward repatriation of investment income. <b>QFII/RQFII</b> quota were removed.
Jun-2020	Wealth Management Program was announced.
Jul-2020	Master SPSA (MSPSA) has been officially launched to facilitate the trading efficiency of <b>Stock Connect</b> as an omnibus function.
Aug-2020	<b>ChiNext board reformed</b> and piloted registration-based IPO system in Shenzhen stock exchange
Sep-2020	CSRC, PBoC and SAFE jointly enhanced current QFII/RQFII regime, including unifying QFII/RQFII rules, expanding permissible investment scope, as well as streamlining the application and review procedures, overall offering a more convenient process for <b>QFII/RQFII</b> .
Aug-2021	HKEx announced that its first A-share derivatives product based on the MSCI China A 50 Connect Index will be launched on October 18. The new contract of which will provide international investors with effective risk management tools.
Sep-2021	President Xi announced plans to launch the new Beijing Stock Exchange to serve innovative SMEs; it will initially be formed by a subset (the Select Layer) of National Equity Exchange and Wealth Management Connect was officially launched, offering more investment options for individual investors in Guangdong–Hong Kong–Macau Greater Bay Area.
	PBOC and HKMA jointly announced the launch of Southbound Bond Connect.
Oct-2021	CSRC announced to allow QFII to trade commodity futures and options, stock index options from Nov 1st. <b>Beijing Stock Exchange was established.</b> 81 companies debuted trading of which 71 were transferred from the "select tier" of the NEEQ.

Source: MSCI, HKEx, PBoC, CSRC, SAFE, Xinhua, Caixin, Data compiled by Goldman Sachs Global Investment Research

**Exhibit 41: Notable differences between China A, HK and US in areas such as capital raising, trading, shareholders selling, and financial accounting/reporting framework**

Key Differences	Mainland China				HK	US	
	Main Board / SME Board	ChiNext	STAR board	Beijing Stock Exchange (BSE)	HKEX Mainboard	United States (Nasdaq Select market)	
IPO system	Approval based	Registration based	Registration based	Registration based	Registration based	Registration based	
Targeted companies	Large mature companies	Growing innovative companies	Growing sci-tech innovation companies	Small and mid-size innovative companies	Large mature companies	Large cap	
Main Business integrity	In the last 3 years, no major adverse changes in main business and management	In the last 2 years, no major adverse changes in the main business and directors, senior managers and core technical personnel		With at least 1 year history on NEEQ Innovative Layer	A track record of >=3 financial years; ownership continuity and control for at least 1 year	With at least 3 years operating history	
IPO Requirements	Profit	Aggr 3y net profit >= rmb300mn; each year's profit >= 0; Or the accumulated total operating revenue >= rmb300mn	Satisfy at least 1 of the following requirements: 1) Aggr 2y profits>rmb50mn, each year's profit>0; 2) MC>rmb1bn, 1y profit>0, 1y revenue>rmb100mn; 3) MC>rmb5bn, 1y revenue>rmb300mn	Have a post-offering total capital stock >= rmb300mn; Companies that conform to the orientation of STAR Market, are not yet profitable or have accumulated deficits are allowed to be listed; 5 set of differentiated listing standards: Satisfy at least 1 of the following requirements: 1) MC>rmb1bn, aggr 2y profits>rmb50mn, each year's profit>0 OR MC>rmb1bn, 1yr profit>0, 1y revenue>rmb100mn; 2) MC>rmb1.5bn, 1y revenue>rmb200mn, 3y R&D intensity>15%; 3) MC>rmb2bn, 1y revenue>rmb300mn, aggr 3y OCF>rmb100mn; 4) MC>rmb3bn, 1y revenue>rmb300mn; 5) MC>rmb4bn for selected companies	Satisfy at least 1 of the following requirements: 1) MC>rmb200mn, 2y profits ea.>rmb15mn, ROE>8% OR 1y profits>rmb25mn, ROE>8%; 2) MC>rmb400mn, 2y avg revenue>rmb100mn with>30% growth, 1y OCF>0; 3) MC>rmb800mn, 1y revenue>rmb200mn, aggr 2y R&D intensity>8%; 4) MC>rmb1500mn, aggr 2y R&D>rmb50mn	<b>The profit test*:</b> Most recent year profit attributable to shareholders >= hkd35mn; in 2 preceding financial years, in aggregate >= hkd45mn. <b>Market cap/revenue/cash flow test:</b> Market cap >= hkd2bn at the time of listing; revenue >= hkd500mn for the most recent audited financial year; cash flow >= hkd100mn in aggregate for the 3 preceding financial years. <b>Market cap/revenue test:</b> Market cap >= hkd4bn at the time of listing; revenue >= hkd500mn for the most recent audited financial year; <b>Exception:</b> Biotech Chapter, VWR Chapter	<b>Earnings standard:</b> Aggr 3y earnings >= usd11mn; each year>= \$0 and each of the two most recent fiscal years >= usd2.2mn <b>Cash Flow standard:</b> Aggr 3y earnings >= usd27.5 million; each year >= \$0; 1y Avg mkt cap >= usd550mn; 1y revenue >= usd110mn <b>Capitalization with Revenue standard:</b> Avg 1y mkt cap >= usd850mn; 1y Revenue >= usd90mn <b>Assets with Equity standard:</b> Mkt cap >= usd160; Total assets >= usd80mn; Stockholders' Equity >= usd55mn
	Finance and accounting	Cash flow	Cumulative 3y net operating cash flow >= rmb50mn	No requirements			
		Net asset	Intangible assets account for no more than 20% of net assets at the end of the latest period	Net assets no less than rmb20mn at the end of the latest period		Net assets>rmb50mn	
			There is no undistributed deficit at the end of the latest period	There is no undistributed deficit			
Disclosure rules	Risk Factors	More focused on the disclosure structure, but may have less in-depth analysis on the specific risk factors	Issuers should disclose any major risk factors they may face clearly	Issuers should disclose any major risk factors they may face clearly	Issuers should disclose any risk factors they may face clearly	The discussion should be specific and tailored to the risks that the issuer may face	
	Forward-looking Statement		Allowed to disclose forward-looking statement			Forward-looking statements not permitted unless the company is under PSLRA safe harbor rules	
	Inconsistency with former accounting results		Not required to disclose			Required to disclose	
	Use of Proceeds	Have a separate chapter for future plans and use of proceeds	Need to disclose the detailed investing plan of proceeds, and lock-up period	Need to disclose the use of proceeds	Have a separate chapter for future plans and use of proceeds	Not required to disclose	
Regulation on major shareholders	Disclosure & Restriction	Reach 5% of a listed company's total issued shares by trading on the exchanges; Report and publish holding reduction plans 15 trading days in advance, and report to the stock exchange within 2 trading days after finish / the end of period if they cannot finish; <b>Eligible VC</b> as a firm major shareholder enjoys less restrictive policy in shares selling Stocks transferred through <b>block trading should not surpass 2%</b> of a company's total shares in 90 days; buyers are not permitted to sell again within 6 months; Sales of trading-restricted shares should not exceed 50% of their total holdings in a 12-month period after unlocking			When a substantial shareholder first becomes interested in <b>5% or more/ drop below 5%</b> of the shares of a listed corporation; When there is an increase or decrease in the <b>percentage level</b> of its holding that results in <b>above 5%</b> (e.g. its interest increases from 6.8% to 7.1% - crossing over 7%) <b>All director and chief executives trading</b>	The disclosure thresholds are triggered when a person acquires beneficial ownership of <b>more than 5% of any class of voting equity securities</b> . Subsequent disclosures required each time there is a <b>material change</b> in the facts that have been disclosed. An <b>acquisition or disposal of 1% or more of the class of securities is deemed material</b> .	

Note: \*modified and effective from Jan 1, 2022

Source: CSRC, SSE, SZSE, BSE, HKEX, Compiled by Goldman Sachs Global Investment Research

**Exhibit 42: ChiNext and STAR have more flexible listing options and lower thresholds on listing requirements than competing listing boards, domestically and abroad**
**Listing eligibility for companies with features below**

	HK		Mainland				US	
	Main Board	GEM	Main Board	SME	ChiNext	STAR Board	BSE	Main Board
<b>Pre-revenue</b>	√			X		√ (with requirements on expected market value)	√ (with requirements on expected market value and R&D)	√
<b>Pre-earnings</b>	√		X (positive earnings for past three quarters)		√ (with requirements on market value and revenue)	√ (with requirements on expected market value)	√ (with requirements on expected market value and revenue)	√
<b>Non-Mainland incorporated</b>	√	√	X			√	X	√
<b>VIE</b>	√	√	X			√	X	√
<b>WVR</b>	√	√	X			√	√	√
<b>Listing mechanism</b>	Registration		Approval		Registration			Registration
<b>Pros</b>	• More internationally exposed	• More internationally exposed	• Direct access to Mainland investors		• Advantages of the Main Board		• Policy support	• More exposure to international funding sources
	• Potential access to Mainland investors via Stock Connect	• Potential access to Mainland investors via Stock Connect	• Possibly higher brand recognition/value		• Lower financial requirements for listing			• Applicable to companies registered outside of Mainland, with VIE structure or WVR
	• Potentially less policy intervention	• Potentially less policy intervention	• High liquidity and valuation		• No IPO queuing			• Lower financial requirements for listing
			• "Unicorn" company may enjoy express approval		• Applicable to companies registered outside of Mainland, with VIE structure or WVR		• Better access for small/mid-size companies	
<b>Cons</b>	• Liquidity and valuation tend to be lower than in A shares	• Liquidity and valuation tend to be lower than in A shares	• Strict requirements on company structure and financials		• Lack of established rules and regulations			• Strict regulations, with the "class action" feature
	• Brand equity/recognition could be lower than A-share listing	• Brand equity/recognition could be lower than A-share listing	• Limited access to foreign investors		• Implementation challenges on financial capital movements		• Not yet accessible through Stock Connect	• Brand/equity recognition could be lower for Chinese companies, valuation tend to be lower than in A shares
			• Potentially prolonged process					• Potential de-listing risks if companies have limited disclosure to PCAOB

Source: HKEx, CSRC, compiled by Goldman Sachs Global Investment Research

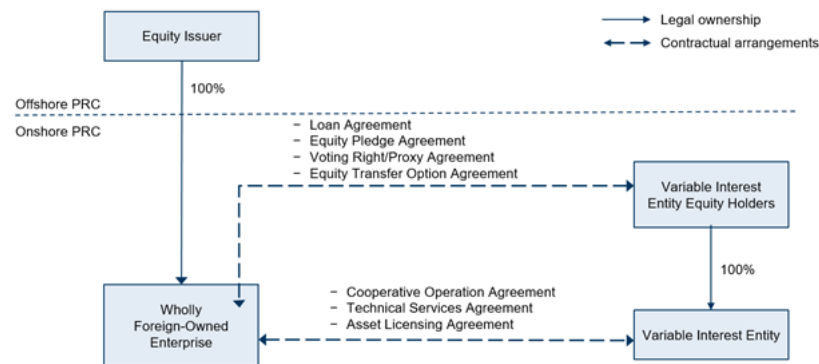
Exhibit 43: HKEx recently further relaxed secondary listing rules in support of home-coming ADRs

	HK Secondary/Dual-primary Listing Rules (Chapter 19C)^	
	With WVR structure	Without WVR structure
Stock Exchange of Primary Listing	Qualifying Exchanges (NYSE, NASDAQ & LSE's Main Market)	
Recognised Stock Exchanges	Recognised Stock Exchanges	
"Innovative Company" Requirement	Required	<b><u>Not required^^</u></b>
Qualifications	<ul style="list-style-type: none"> <li>- Listing history on a Qualifying Exchange^ &gt;=2 years; Market cap&gt;=hkd 40bn;</li> </ul> OR <ul style="list-style-type: none"> <li>- Listing history on a Qualifying Exchange^ &gt;=2 years; Market cap&gt;=hkd 10bn; Revenue &gt;=hkd 1bn</li> </ul>	<ul style="list-style-type: none"> <li>- Listing history on a Qualifying Exchange &gt;=5 years; Market cap&gt;=hkd 3bn</li> </ul> OR <ul style="list-style-type: none"> <li>- Listing history on a Qualifying Exchange &gt;=2 years; Market cap&gt;=hkd 10bn</li> </ul>
Restrictions on Secondary/Dual-primary Listings	<ul style="list-style-type: none"> <li>- For Grandfathered (listed on or before Dec 15 2017) Greater China Issuers or Non-Greater China Issuers: can secondary list <b><u>and dual-primary list with their existing WVR structures and VIE structures intact;</u></b></li> <li>- For non-grandfathered (listed on a Qualifying Exchange after Dec 15 2017) Greater China companies: WVR structures and VIE structures (if they have them) must conform to all primary Listing Rules;</li> <li>- <b><u>A secondary listed issuer will be regarded as a primary listed issuer in the event of Overseas De-listing, and a dual primary listed issuer in the event of Migration or Primary Conversion;</u></b></li> <li>- WVR structure is allowed, but need to satisfy additional requirements such as maximum votes per share, corporate WVR requirements and requirements on WVR beneficiaries.</li> </ul>	

Note: Key amendments published in Consultation Conclusions Listing Regime for Overseas Issuers (marked in red) are effective since Jan 2022; ^ The previous Joint Policy Statement (JPS) has been either codified into the Listing Rules or consolidated into a new guidance letter for Overseas Issuers; ^^ apply to issuers with centre of gravity in Greater China

Source: HKEx

Exhibit 44: A conceptual diagram of how a VIE structure works



Source: Goldman Sachs Global Investment Research

Exhibit 45: Listed VIE structures are concentrated in offshore Media/Entertainment and Online Retailing (e-Commerce)

	# of constituents with VIE	Total Mkt Cap of companies w/ VIE in MXCN (USD bn)	VIE as index weight% of MXCN
Media & Entertainment	15	763	18%
Diversified Financials	2	4	0%
Capital Goods	0	0	0%
Retailing	7	666	18%
Real Estate	1	18	0%
Banks	0	0	0%
Pharmaceuticals Biotech	3	17	0%
Materials	0	0	0%
Technology Hardware	1	49	1%
Health Care Equipment	1	4	0%
Consumer Durables	0	0	0%
Semiconductors	1	3	0%
Insurance	0	0	0%
Food Beverage & Tobacco	1	4	0%
Consumer Services	6	57	2%
Energy	0	0	0%
Commercial & Prof. Services	1	3	0%
Automobiles	3	96	3%
Transportation	2	40	1%
Telecommunication	0	0	0%
Utilities	0	0	0%
Household & Personal Products	0	0	0%
Software & Services	8	32	1%
Food & Staples Retailing	0	0	0%
<b>Total</b>	<b>52</b>	<b>1,755</b>	<b>44%</b>

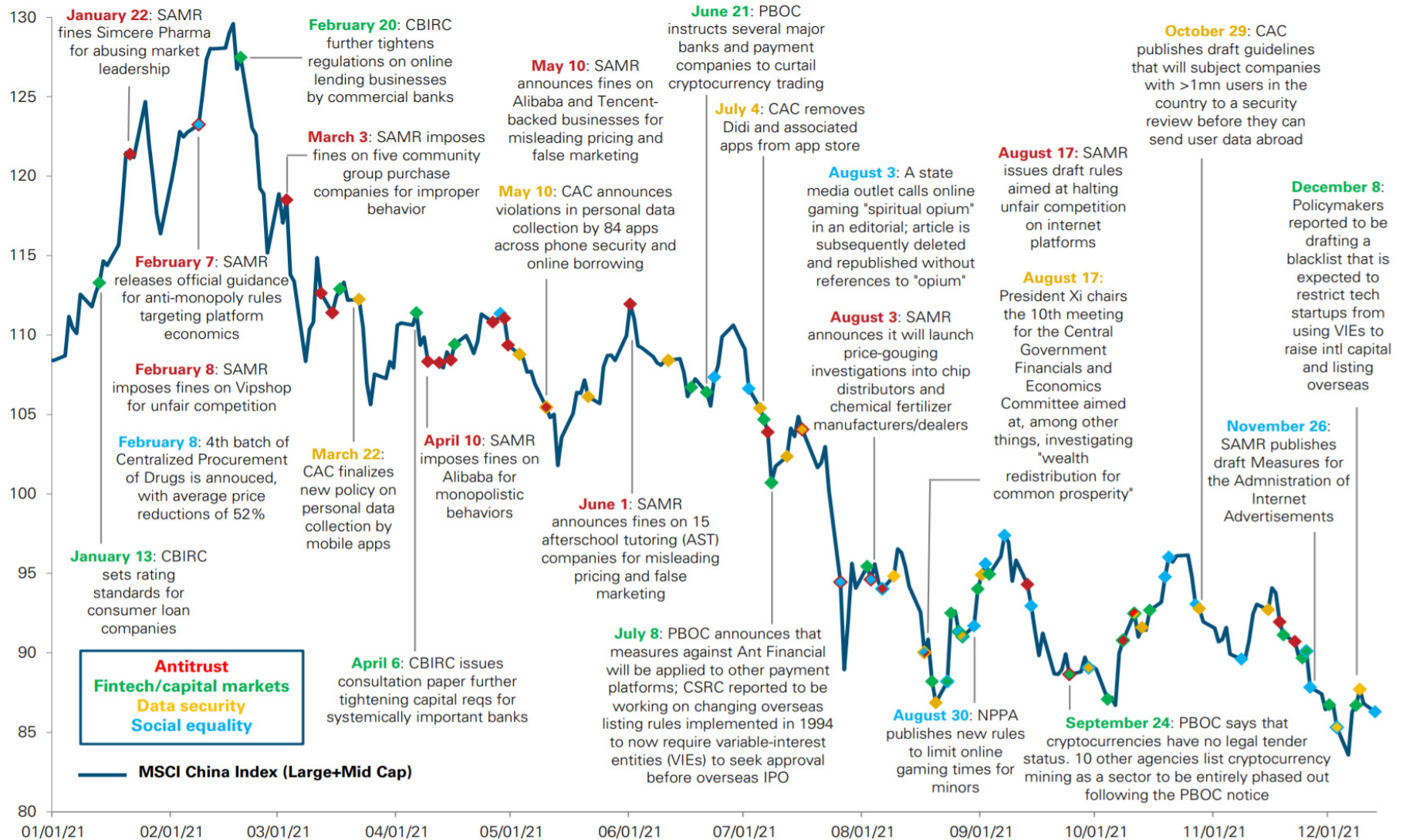
Source: MSCI, FactSet, Data compiled by Goldman Sachs Global Investment Research

Exhibit 46: A list of industries that are subject to foreign ownership restrictions in China (v. 2021)

Industries with Foreign investment limit	
No foreign investment	Foreign shareholding <= 50%
Seed industry and fisheries	Publication printing
Exploration and mining	Telecom
Chinese medicines	Nuclear power plant
Tobacco	Network facilities
Mailing	Airport
Communication services	Airlines
Law service	Water transportation
Biotechnology	Market consultation
Compulsory Education /Religious Education	Preschool/High school/Tertiary Education
Geographic investigation	
Wildlife protection	
Media & Publishing	
Broadcasting	
Performing art groups	

Source: NDRC, Data compiled by Goldman Sachs Global Investment Research

Exhibit 47: The announced regulations so far in this cycle can be broadly grouped under four main categories, in our view



Source: State Council, CPMCC, NDRC, SAMR, CAC, PBoC, CBIRC, Goldman Sachs Global Investment Research



## Exhibit 48: Minor discrepancies exist between Chinese accounting standards and that of global as ASBEs gradually converge with IFRS

	Mainland China	Hong Kong
<b>Accounting Standards</b>	The Accounting Standards for Business Enterprises ( <b>ASBEs</b> )	Hong Kong Financial Reporting Standards ( <b>HKFRSs</b> , virtually identical to <b>IFRSs</b> )
<b>General:</b> Frequency of report	<b>Required: Annual, half-yearly, and quarterly</b>	<b>Required: Annual, half-yearly</b> (Mainboard and GEM issuers), and <b>quarterly</b> (only for GEM issuers)
<b>General:</b> Deadline of reporting	Annual: not later than <b>4 months after year end</b> Half-yearly: not later than <b>2 months after half yr</b> Quarterly: not later than <b>1 month after 1Q/3Q</b>	<u>Main Board</u> Annual: not later than <b>4 months</b> Half-yearly and quarterly: not later than <b>3 months</b> <u>GEM</u> Annual: not later than <b>3 months</b> Half-yearly and quarterly: not later than <b>45 days</b>
<b>General:</b> Departure from accounting standards (on a requirement)	<b>Not allowed.</b>	<b>Allowed.</b> Extremely rare circumstances: - Management concludes compliance will be <b>misleading and would conflict with objectives of financial statements set out.</b>
<b>Fixed Assets (PPE and intangible assets):</b> Valuation method	Only <b>cost model</b> is allowed. <u>Cost model</u> <i>Carried at: initial cost - accumulated depreciation/amortization</i>	Both <b>Cost model and revaluation model</b> are allowed <u>Revaluation model</u> <i>Carried at revalued amount: Fair value at date of revaluation - subsequent accumulated depreciation/amortization- subsequent impairment loss</i>
<b>Assets (Investment Property):</b> Transition from fair value to cost model	Transition is <b>prohibited</b> for investment property using fair value model	<b>Allowed.</b> <u>Situation:</u> Entity determines that <b>fair value</b> of investment property is not <b>reliably determinable on a continuing basis</b>
<b>Assets:</b> Reversing an impairment loss	<b>Not allowed.</b>	<b>Allowed</b> (other than good will) . <u>Situation:</u> Change in the estimates used to determine the asset's recoverable amount since last impairment loss was recognized.
<b>Cash Flow Statement:</b> Direct and Indirect methods	Only <b>direct method</b> is allowed. <i>Requires presenting supplementary information notes using indirect method</i>	Either <b>direct or indirect method</b> is allowed
<b>Cash Flow Statement:</b> Classification of cash flows arising from securities	<u>Trading securities, available for sale financial assets, and held-to-maturity investments:</u> Cash flows arising from the purchase and sale of such securities are classified as <b>investing activities.</b>	<u>Trading securities</u> Cash flows arising from the purchase and sale of such securities are classified as <b>operating activities.</b> <u>Other investment assets</u> Cash flows arising from the purchase and sale of such securities are classified as <b>investing activities.</b>
<b>Others (Employee Benefits):</b> Discount rate used	Discount Rate: Market yields on <b>central government bonds or high-quality corporate bonds</b> of consistent term	Discount rate: Market yields at end of reporting period on <b>high-quality corporate bonds/ market yield of government bonds</b> (if that of corporate is not available) of consistent term and currencies
<b>Others:</b> Related party disclosures	Enterprises under control of state: <b>Not regarded as affiliated parties</b>	Enterprises under control of state*: <b>Regarded as affiliated parties</b> <i>*Entities must disclose the name of its parent and ultimate controlling party</i>

Source: MOF, IFRS, Goldman Sachs Global Investment Research

## Exhibit 49: Many new regulations focusing on the capital markets have been made in recent years

Corporate Governance		Market Reforms		Investor protection	
Dividends	Equity Incentive	Securities Lending and Borrowing	Private Placement	Repurchase	Other Protections
<b>"Revision of Corporate Governance Code" [2018]</b>	<b>"Revision of Measures for Equity Incentives of Listed Companies" [2018]</b>	<b>"Rules for the Implementation of Margin Trading" [2019]</b>	<b>"Revision of Measures for the Issuance of Securities by Listed Companies" [2020]</b>	<b>"Opinions on Listed Companies repurchase" [2018]</b>	<b>"Guidance on Listed Stocks Suspension and Resumption Mechanism" [2018]</b>
- Listed companies should actively repay shareholders. <b>Dividend policy should be specified</b> in the company's articles of association - Listed companies should promptly disclose their cash dividend policy and implementation status	- Article 8 & 45: <b>Foreign employees</b> can also be included and be allowed to apply for security accounts - Article 13: The validity period of the equity incentive plan shall <b>not exceed 10 years</b> - Article 14: Total number of shares involved shall not exceed 10% of the total share capital, and each shareholder's position shall not exceed 1% - Article 23: <b>Restricted stock price</b> should <b>not be less than 50% of the average price</b> - Article 28: <b>Exercise price of stock options</b> should <b>not be lower than the average price</b>	- The restriction that the <b>minimum maintenance guarantee ratio</b> must not be lower than 130% has <b>been removed</b> - The <b>number of target stocks</b> for margin financing and securities lending has been expanded from 950 to <b>1,600</b>	- Private placement can be issued to <b>no more than 35 people</b> - Issue price shall <b>not be lower than 80%</b> of the company's average stock price in the previous 20 trading days - <b>Lock-up period</b> varies from 6 months to 18 months	CSRC advocate listed companies to buy back shares	- Guarantee trading opportunities of <b>suspending shares</b> - Compress stock trading suspension period - Strengthen <b>information disclosure</b>
<b>"Listed Company Supervision Guidelines No. 3" [2022]</b>		<b>"Notice on Insurance Funds Participating in Securities Lending Business" [2021]</b>	<b>"Guide for listed firms' financing activities" [2020]</b>	<b>"Listed Company Supervision Guidelines No. 3" [2022]</b>	<b>"Reform of Overseas Listing System" [2019]</b>
- Article 4: <b>Cash dividends</b> should be given priority - Article 5: Specify the <b>minimum cash dividend ratio</b> under different circumstances - Pay special attention to those firms with little or without cash dividends		- Require the <b>solvency ratio of insurance company</b> should <b>not be lower than 120%</b> and rating higher than <b>Class B</b> - Net asset threshold for <b>domestic borrowers</b> varies from 6 to 10 billion CHY - Implement strict regulations for <b>overseas borrowers</b> : 1. More than 8-year experience; 2. No less than ¥30 billion cash or cash equivalent; 3. Grade A by rating agencies	Number of issuances shall <b>not exceed 30%</b> of the total share capital	Article 11: Advocate listed companies to repurchase shares <b>when their stock price is lower than net assets per share</b> (except for loss-making companies)	<b>Overseas listed companies</b> are required to uniformly apply the <Company Law of the People's Republic of China> instead of the special provisions companies

Source: CSRC, SSE, State Council

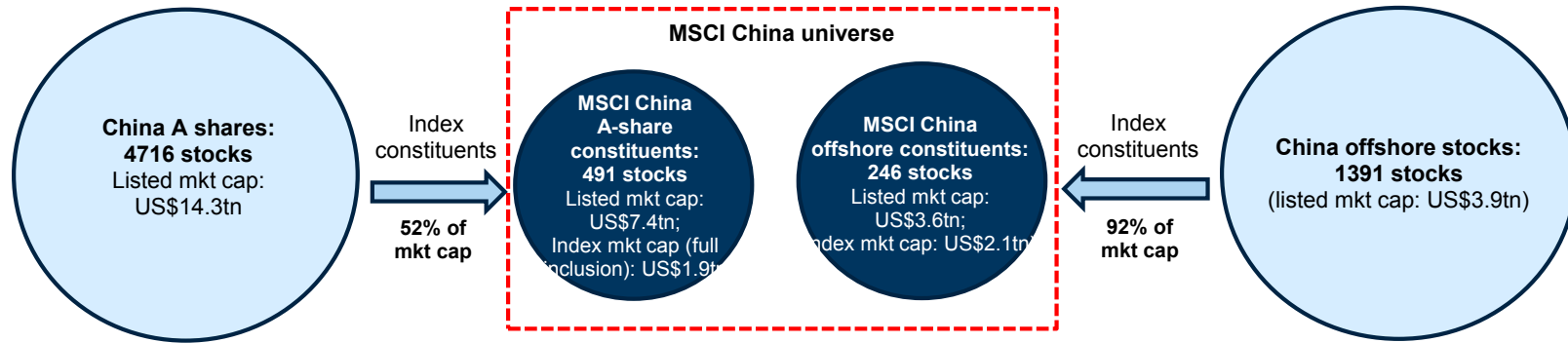
## Exhibit 50: HK has recently embraced the concept of SPAC financing, although it has not yet been made available in China A

	Hong Kong (HKEX)	Singapore (SGX)	U.S. (NYSE)	U.S. (NGM)	U.S. (NGM)	
SPAC structure	<b>Investor Base</b>	Professional investor only	All investors (including retail investors)			
	<b>Minimum Size</b>	Raise at least HK\$1bn / ~US\$130mn from IPO	Minimum market capitalization of SG\$150mn / ~US\$110mn	Minimum market capitalization of US\$100mn	Minimum market capitalization of US\$75mn	Minimum market capitalization of US\$50mn
	<b>Minimum Issue Price</b>	HKD 10	SGD 5	USD 4		
	<b>Open Market Requirements</b>	- ≥75 professional investors of which at least 20 must be institutional professional investors holding ≥75% shares to be listed - ≥25% of the SPAC's total number of issued shares held by the public - ≤ 50% held by top 3 shareholders of SPAC	At least 25% of issued shares to be held by at least 300 public shareholders	At least 1.1 million shares held by at least 300 public shareholders	At least 1.1 million publicly held shares and at least 400 round lot holders	At least 1 million publicly held shares and at least 300 round lot holders
	<b>Dual class structure</b>	Promoter shares as a separate (unlisted) class in addition to the ordinary listed shares	Not allowed	SPACs commonly adopt 2 classes of shares, with the common shares being sold to public and "Class B" or "Class F" shares representing sponsor ownership		
	<b>Minimum percentage of IPO proceeds held in trust</b>	100%	90%	90%		
de-SPAC	<b>SPAC Promoters/Directors</b>	- At least one SPAC Promoter must be licensed for Type 6 and/or Type 9 regulated activities; and hold ≥10% of the promoter shares - SPAC board must include at least two Type 6 or Type 9 SFC-Licensed individuals	Appropriate experience and track record but no specific licensing requirements	No specific licensing requirements		
	<b>Shareholders' vote on de-SPAC</b>	Requires approval by majority of shareholders at a general meeting, excluding promoter and other shareholders with material interest. Subject to other specific articles	Mandatory if the de-SPAC transaction involves share issuances or if the SPAC is directly merging with the target. SPAC promoters are generally allowed to vote			
	<b>Time limit for de-SPAC</b>	24 months for announcement and 36 months for de-SPAC, subject to extension of up to 6 months	2 years from IPO, subject to extension of up to 12 months to be approved by the SGX and 75% shareholders' vote	2 years from IPO, subject to extension of up to 12 months to be approved by public shareholders		
	<b>Dilution cap</b>	Warrant cap: 50% Promoter cap: 20%	Warrant cap: 50% Promoter cap: 20%	Not specified		
	<b>Independent PIPE investment</b>	- Staggered thresholds for minimum PIPE size are applied to cater to different De-SPAC values (from <2bn to >10bn) - At least 50% of the independent PIPE investment must be contributed by at least three institutional investors with ≥8bn AUM	Not specified			
	<b>Share redemption option</b>	SPAC shareholders can redeem shares they hold prior to: - a de-SPAC transaction - a material change in promoter - any extension on the time limit for announcing or completing a de-SPAC transaction	Shareholders can redeem their shares and receive a pro rata share of the amount at the time of the de-SPAC transaction	Shareholders can redeem their shares and receive a pro rata share of the amount held in trust account		
	<b>Lock-up period</b>	Promoters: 12 months from the de-SPAC transaction date Controlling shareholders of a Successor Company: 6+6 months as standard HK IPOs	- No disposal by founding shareholders from SPAC IPO to the de-SPAC transaction, and 6 months after the de-SPAC transaction - A further 6-month moratorium on 50% of shareholding of the controlling shareholders and other specified persons	Not specified. In practice, a lock-up period of 6-12 months or longer upon the completion of the de-SPAC transaction, subject to certain early release mechanisms		

Source: HKEx, SGX, NYSE, Nasdaq, Goldman Sachs Global Investment Research

## 5. Index inclusion: A long-term demand tailwind for A shares

Exhibit 51: 491 out of the +4,700 A-share companies are included in the MSCI benchmark indexes



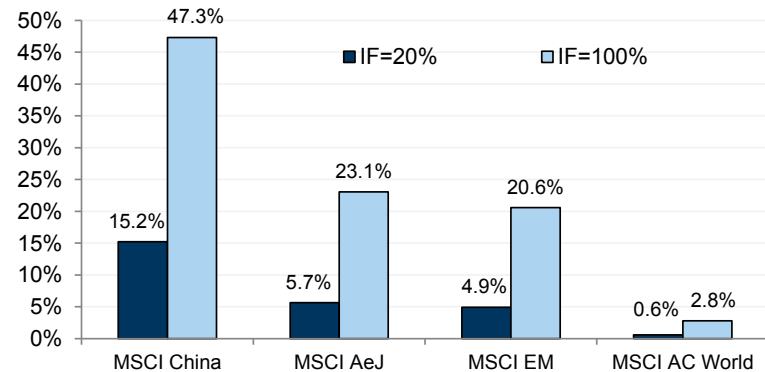
Source: MSCI, FactSet, Goldman Sachs Global Investment Research

Exhibit 52: The index/liquidity implications of index inclusion down the road could be significant

491 China A shares, with IF = 20%

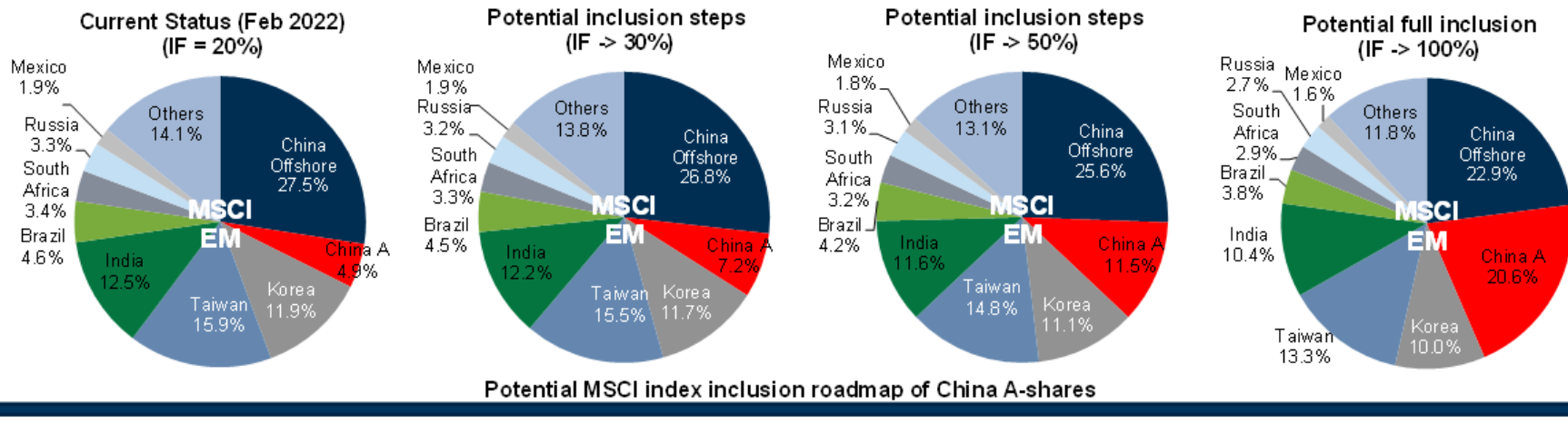
		MSCI China	MSCI AeJ	MSCI EM	MSCI AC World
Current index cap (US\$bn)	- China A	384	384	384	384
	- Current const.	2522	6785	7787	66904
Current weight of China A (491 stocks)		15.2%	5.7%	4.9%	0.6%
Pro-forma index cap of China A (IF=100%)		1,920	1,920	1,920	1,920
Pro-forma weight of China A (IF=100%)		47.3%	23.1%	20.6%	2.8%
Increased weight of China A		32.1%	17.4%	15.7%	2.2%
Weight of China (A + Offshore)		100%	49%	44%	6%
AUM tracking the index (US\$bn)		28	902	1,813	4,663
Est. flows to A shares (US\$bn)		9.0	110.5	283.9	104.0

China A weight as % of MSCI indexes



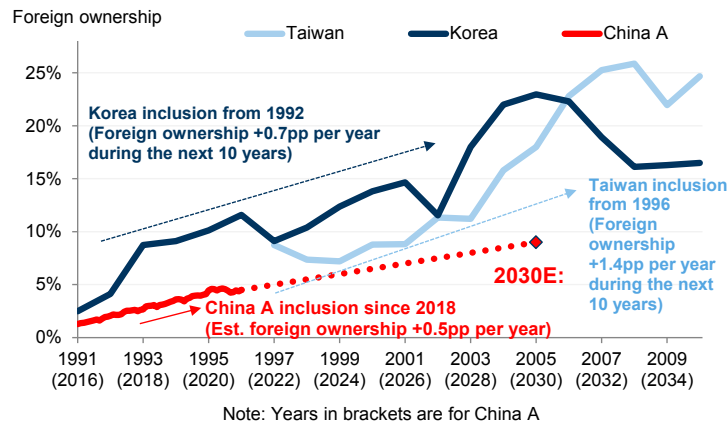
Source: FactSet, MSCI, Goldman Sachs Global Investment Research

Exhibit 53: China A/All China could represent 21%/44% of EM when A-share inclusion factor reaches 100%



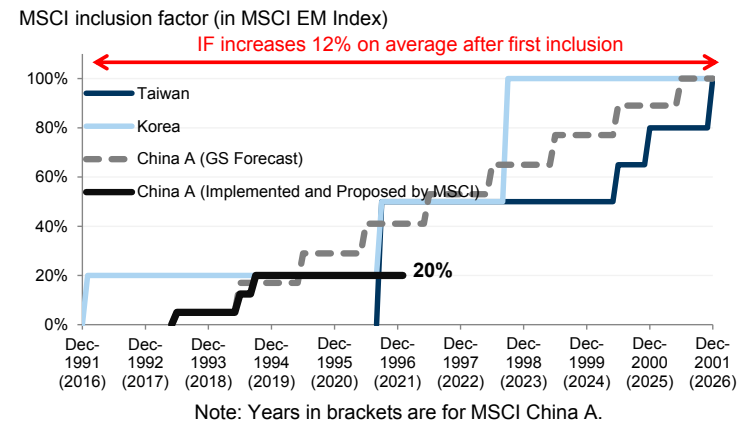
Source: FactSet, MSCI, Goldman Sachs Global Investment Research

Exhibit 54: FINI ownership rose 1.1% per year on average for Korea and Taiwan during their respective inclusion cycle



Source: CEIC, Wind, Goldman Sachs Global Investment Research

Exhibit 55: Korea and Taiwan's experience suggests that the increase in IF could be a gradual process



Source: MSCI, Goldman Sachs Global Investment Research

**Exhibit 56: The key conditions for further IF increases have not been met by the Chinese regulators**

	<b>Concerns ahead of further inclusion of China A into MSCI</b>	<b>Current Status</b>	<b>Potential resolutions</b>
<b>Access to hedging and derivatives instruments</b>	International institutional investors require liquid on and offshore index futures and options contracts in order to expand their allocation to China and manage their increased exposure	Selected onshore index futures and options have become available <sup>^</sup> . Futures on the new <b>MSCI China A50 Connect Index</b> were launched on October 18 by HKEx. This could provide international investors with an effective risk management tool for their A-share equity exposure.	
<b>Short settlement cycle</b>	International institutional investors have highlighted that they continue to face significant operational challenges and risks in dealing with the short settlement cycle of China A shares	China currently operates on a T+0/T+1 non-Delivery versus Payment (non-DVP) settlement cycle. Most markets in the MSCI ACWI operate currently on a T+2/T+3 DVP settlement cycle	Revamp the settlement infrastructure in A-share
<b>Trading holidays of Stock Connect</b>	International institutional investors are concerned with the misalignment between onshore China and Stock Connect holidays	The current trading holiday arrangement is yet to be reviewed to minimize unnecessary investment frictions	Open the day before any actual holiday in either market as trading day
<b>Availability of Omnibus trading mechanism in Stock Connect</b>	The ability to place a single order on behalf of multiple client accounts is critical to facilitate best execution and lower operational risk to international institutional investors	Master SPSA (MSPSA) officially launched in July 2020 to facilitate the trading efficiency of Stock Connect	

<sup>^</sup>Derivatives instruments for onshore indices include: CSI300 futures, SSE50 options, SSE50 futures, CSI500 futures, CSI300 options

Source: MSCI, HKEx, Goldman Sachs Global Investment Research

## Exhibit 57: These key Chinese equity benchmarks carry very different flavour in terms of coverage and index weighting and inclusion methodology

Index	Exchange	A	CDR	H	Red Chips	P Chips	B	HK	ADR	Total market cap (US\$tn)	Index market cap (US\$tn)	Number of constituents	6m ADT (US\$bn)	Inclusion methodology	Weighting methodology	Rebalancing frequency	AUM tracking the index (US\$bn)	
<b>Offshore</b>																		
MSCI China	-	√		√	√	√	√		√	11.2	2.6	714	78.0	All listed equity securities, including REITs; Market cap/ free-float market cap/liquidity requirement; FIF >=0.15; trading period > 3m. Large IPOs and large primary / secondary offerings are not subject to trading period requirement; proportion of shares still available to foreign investors relative to the maximum allowed >15%	Weighted with FIF: free float-adjustment factor applicable to foreign investors	Quarterly	~300 (inc. allocation from MSCI EM/Asia/AC WI funds)	
HSI	HKEx			√	√	√		√		3.0	1.6	50	6.6	HKEX Mainboard-listed stocks (Greater China), including REITs, WVR and secondary listing; Securities constitute the cumulative MV coverage of top 90%; at least 8 points under turnover requirement; listing history >3m~24m according to MV rank.	Freefloat-adjusted market cap weighted with a 8% cap	Quarterly	20	
HSCEI	HKEx			√	√	√				2.5	1.0	50	6.3	Mainland securities listed on the Main Board of the HKEX, including REITs, WVR and secondary listing; listing history >1m; velocity > 0.1%.		Quarterly	5	
HSTECH	HKEx			√	√	√		√		1.4	0.2 <sup>A</sup>	30	4.0	HKEX Mainboard-listed Companies (Greater China); Sector: IT/ Consumer Discretionary/ Industrials/Financials/ Healthcare; Theme: Cloud/ Digital/ E-Commerce/ FinTech/ Internet; Innovation: Tech-enabled business/ R&D investment/ Revenue growth.		Quarterly	28	
<b>Onshore</b>																		
CSI 300	SSE, SZSE	√								7.0	3.3	300	47.1	All the A shares excluding *ST and ST stocks; listing history >3m, or >3y for ChiNext; delete the bottom ranked 50% stocks in ADT; largest 300 stocks in terms of total market cap are selected.	Free float market cap weighted; grant a certain Inclusion Factor according to stock's free float factor	Semi-annually	~30	
SHCOMP	SSE	√	√				√			7.8	2.3	1775	71.1	All stocks and CDRs issued by red chip enterprise listed on SSE; *ST and ST stocks are removed; listing history: >1y, or >3m if market cap at top 10.	Total market cap weighted	Semi-annually	-	
STAR50	STAR Board	√	√							0.4	-	50	2.5	Stocks or CDRs on STAR board; Listing history >6m, or >12m when the number of stocks reaches 100, >3m, if market value ranked at top 5; excl bottom 10% securities by ADVT; select top 50 largest stocks in terms of total market cap.	Free float market cap weighted; each constituent <= 10% and the total weight of top 5 <= 40%.	Quarterly	9	
ChiNext	ChiNext	√								1.0	-	100	11.0	All A shares listed on ChiNext board; listing history >6m.	Total market cap weighted	Quarterly	6	

Note: ST and \*ST are for "Special Treatment", indicating the company is under risk alert. <sup>A</sup>Estimated based on freefloat market cap and a 8% weighting cap on single stock. For secondary-listed stocks, only the Hong Kong-registered portion is counted.

Source: Wind, FactSet, MSCI, HSI, IBES, Goldman Sachs Global Investment Research, CSI

**Exhibit 58: Eligibility for fast track inclusion to various Chinese equity indexes**

	# constituents (current)	Eligible for fast track inclusion	Potential timing for fast track inclusion
MSCI China	736	Mkt cap > 18x cutoff level; and Freefloat market cap > 1.8x 1/2 of cutoff level	After the 10th trading day
HSI	60	Top 5: 3-month listing history; Rank 6-15: 6-month listing history; Rank 16-20: 12-month listing history; Rank 21-25: 18-month listing history;	Next quarterly rebalancing after listing for 3-6 months
HSCI	500	Top 10% of the existing HSCI constituents	After the 10th trading day
HSCEI	50	No fast track rule	Next quarterly rebalancing after listing for 1 month
HSTECH	30	Top 10	After the 10th trading day
CSI300	300	Top 10	After the 10th trading day
STAR50	50	Top 3: 1-month listing history; Top 5: 3-month listing history	Next quarterly rebalancing day

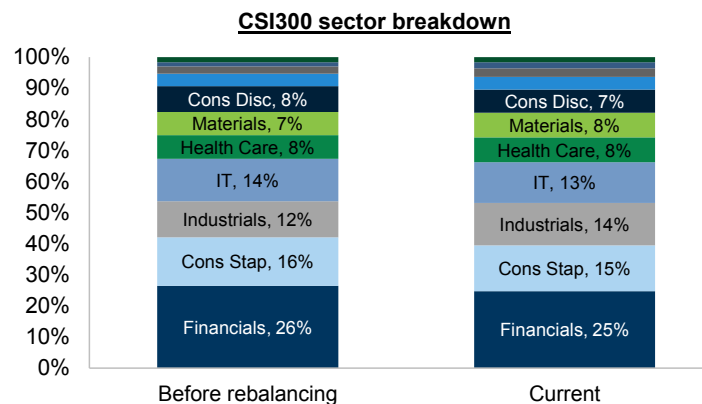
Source: MSCI, HSI, CSI

**Exhibit 59: CSI300 had the most significant index revamp in Dec 2021, and the current CSI300 index covers 51% of the total market cap and 30% of the turnover of all A shares**

	Before CSI300 rebalancing (Dec 10, 2021)	Current (Jan 11, 2022)
<b>Listed market cap (RMBtn)</b>		
CSI300	43.9	45.8
All A shares	92.2	89.3
<b>CSI300 as % of all A shares</b>	<b>48%</b>	<b>51%</b>
<b>6m ADVT (RMBbn)</b>		
CSI300	354	375
All A shares	1,238	1,253
<b>CSI300 as % of all A shares</b>	<b>29%</b>	<b>30%</b>

Source: Wind, Goldman Sachs Global Investment Research

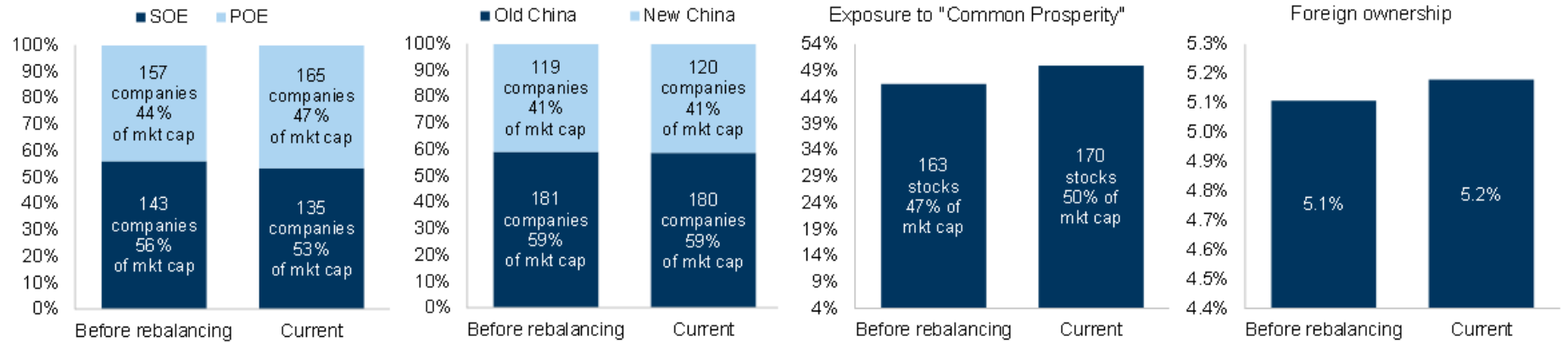
**Exhibit 60: Industrials and Materials are the sectors gained most index weights from the CSI rebalancing**



Source: Wind, Goldman Sachs Global Investment Research



Exhibit 61: The current CSI300 universe has higher exposures to sectors that may benefit from the "Common Prosperity" theme



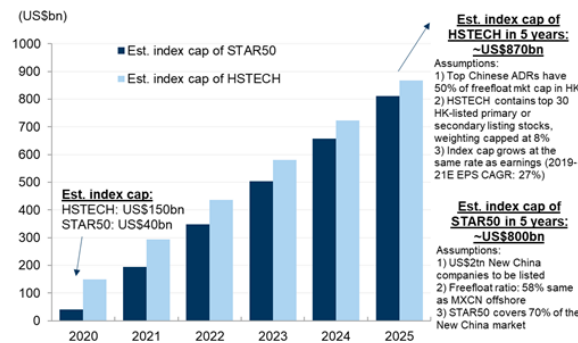
Source: Wind, Goldman Sachs Global Investment Research

Exhibit 62: The growth profile remains attractive for CSI300

		Before rebalancing	Current
Sales growth	2021E	14.0	16.1
	2022E	11.5	12.5
	2023E	10.6	10.3
EPS growth	2021E	19.4	19.8
	2022E	16.4	18.6
	2023E	14.2	13.7
ROE	2022E	14.3	14.6
	2023E	14.7	15.0
PEG	2022E	1.0	1.0

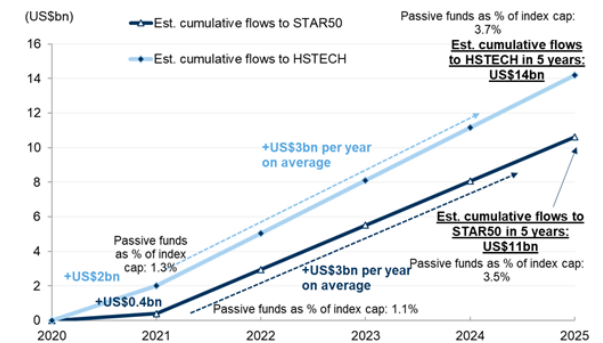
Source: Wind, FactSet, Goldman Sachs Global Investment Research

Exhibit 63: We expect the index cap of STAR50 and HSTECH will increase dramatically in the next 5 years as the universe expands and the market cap grows



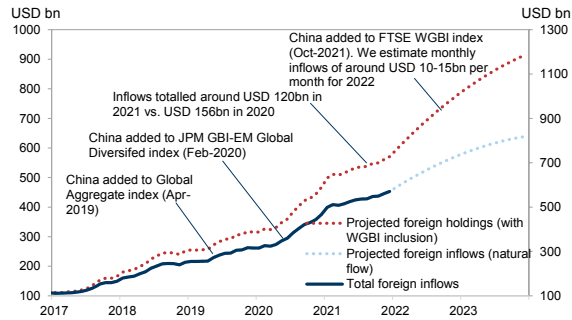
Source: HSI, SSE, Wind, FactSet, Goldman Sachs Global Investment Research

Exhibit 64: We estimate STAR50 and HSTECH could obtain US\$11bn and US\$14bn passive inflows in the next 5 years



Source: HSI, SSE, FactSet, EPFR, Goldman Sachs Global Investment Research

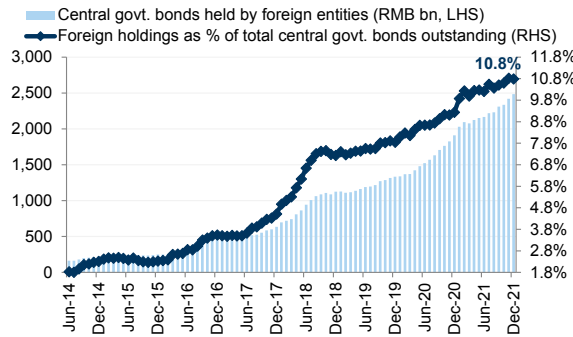
**Exhibit 65: As China has been included in WGBI, we estimate that it will add US\$10-15bn of passive inflows monthly**



\* We estimate natural foreign inflows to China based on the assumptions that: 1) Outstanding CGBs will grow in line with as a percentage of Chinese GDP; 2) foreign holdings as of outstanding total bonds remains unchanged.

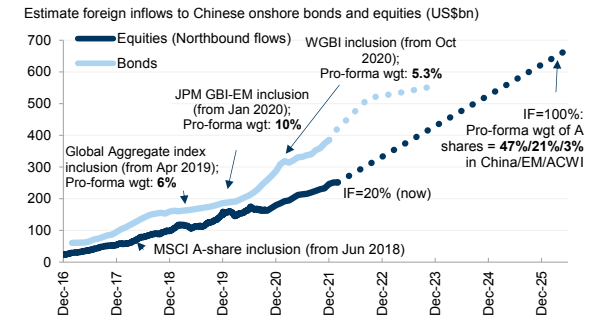
Source: China Central Depository and Clearing, Goldman Sachs Global Investment Research

**Exhibit 66: Foreign bond holdings in Chinese government bonds reached 11% by the end of 2021**



Source: PBOC, Wind

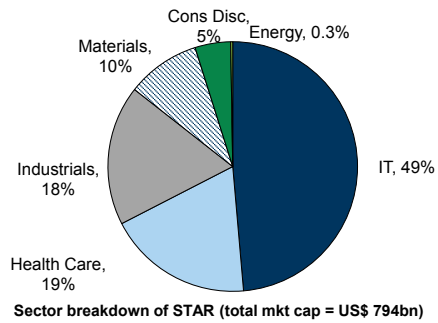
**Exhibit 67: China A shares and onshore government bonds will gain a greater presence in major global indices**



Source: China Central Depository and Clearing, Bloomberg, Thomson Reuters, MSCI, Goldman Sachs Global Investment Research

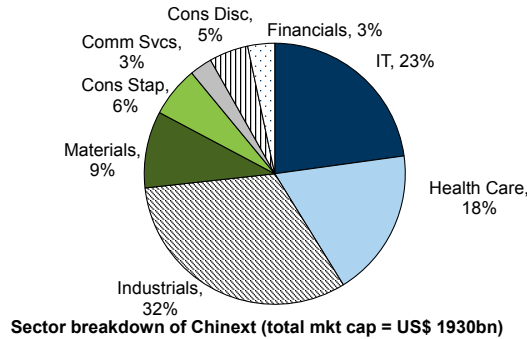
## 6. The Chinese Nasdaqs: STAR, ChiNext, and BJSE

**Exhibit 68: STAR listed companies concentrated in IT and Healthcare**



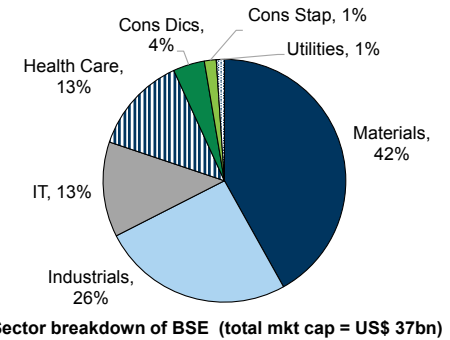
Source: Wind, SSE, Goldman Sachs Global Investment Research

**Exhibit 69: Chinext companies are concentrated in IT, Healthcare and Industrials**



Source: Wind, SZSE, Goldman Sachs Global Investment Research

**Exhibit 70: Older Economy stocks dominate the BJSE**



Source: Wind, BJEx, Goldman Sachs Global Investment Research

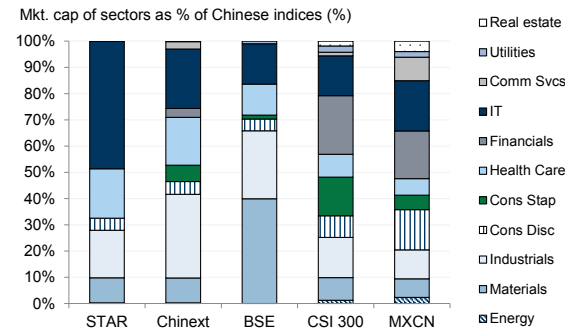
**Exhibit 71: Market cap and ADT for key A-share exchanges/listing boards**

	No. of companies	Total mkt cap (US\$bn)	Freefloat mkt cap (US\$bn)	6M ADT (US\$bn)	Turnover velocity <sup>^</sup>
SSE	1949	7336	2227	78.9	8.9
of which STAR	387	794	119	8.1	17.2
SZSE	2534	5527	2194	104.4	12.0
of which ChiNext	1104	1930	787	36.8	11.8
BSE	84	37	13	0.3	5.1

Note: <sup>^</sup>Turnover velocity = 6M ADT \* 252 / freefloat market cap.

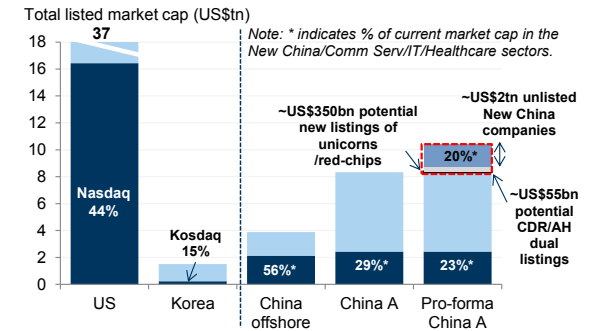
Source: Bloomberg, Wind

**Exhibit 72: STAR may offer investors significantly higher exposure to Tech and Healthcare while ChiNext contains more industrial (tech) companies relative to other A-share benchmark**



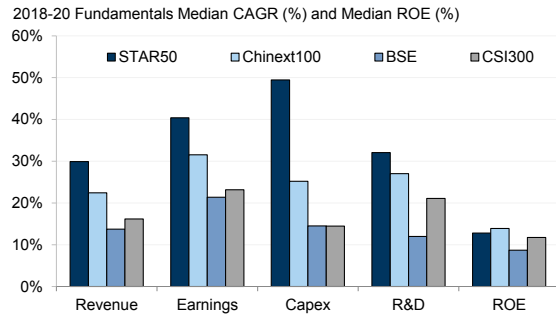
Source: Wind, SSE, SHSE, BSE, CSI, MSCI, Goldman Sachs Global Investment Research

**Exhibit 73: The aggregate market cap for STAR could reach US\$2tn in its mature stage on our projection**



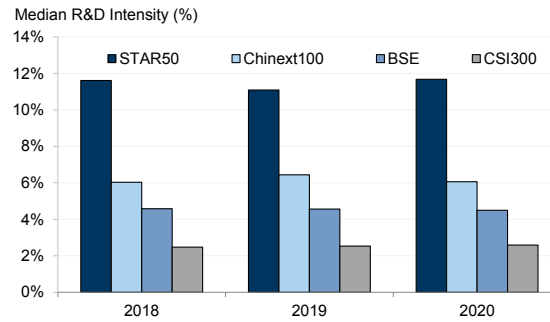
Source: WFE, Korea Exchange, Wind, FactSet, Goldman Sachs Global Investment Research

**Exhibit 74: STAR companies are “growthy” and “profitable”**



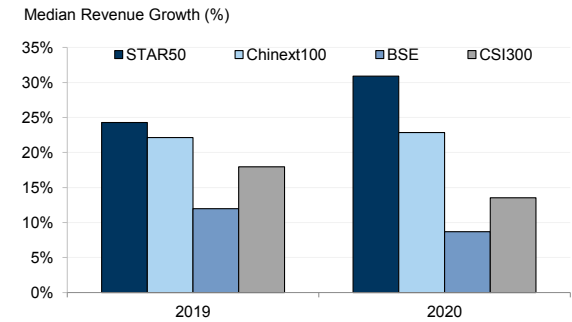
Source: Wind

**Exhibit 75: STAR companies boast high R&D expenditure-to-revenue ratios (R&D intensity) vs other Chinese equities**



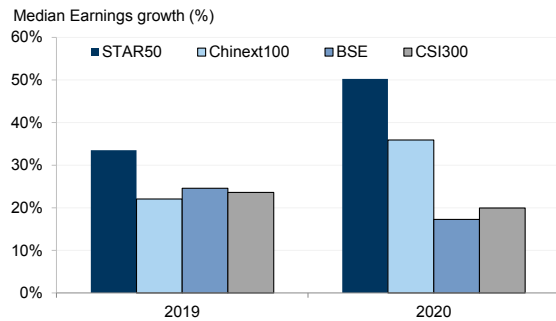
Source: Wind, FactSet

**Exhibit 76: Strong top-line...**



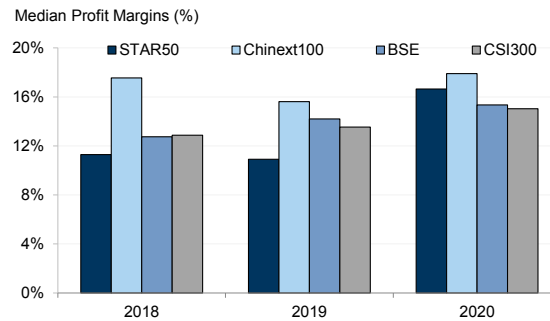
Source: Wind

**Exhibit 77: ...and earnings growth for STAR companies relative to other listed Chinese equities**



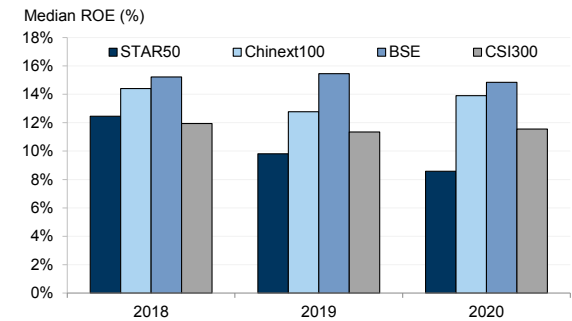
Source: Wind

**Exhibit 78: Strong profit margins...**



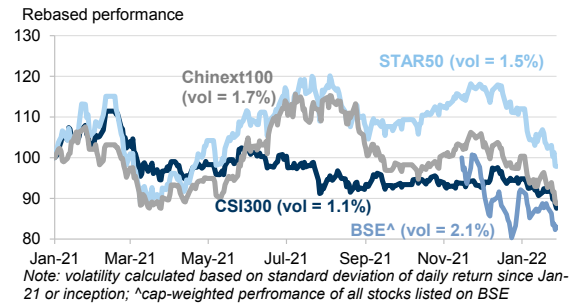
Source: Wind

**Exhibit 79: ...and ROEs for STAR companies**



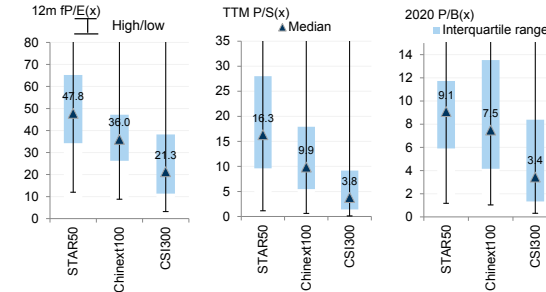
Source: Wind

**Exhibit 80: STAR and ChiNext are more volatile than CSI300**



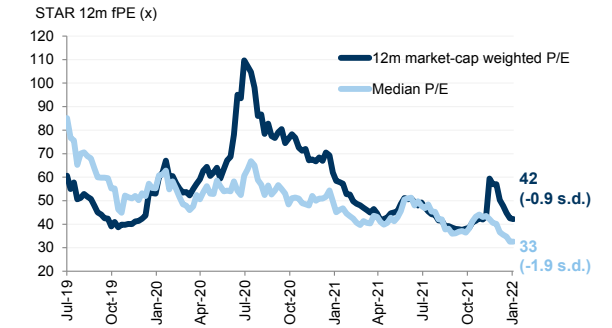
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 81: Absolute valuations for STAR look high relative to existing A shares but would look less expensive if their high historical growth rates are taken into consideration, in our view**



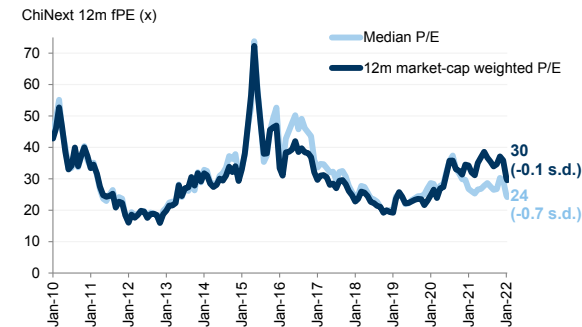
Source: Wind

**Exhibit 82: Valuations for STAR are below historical averages**



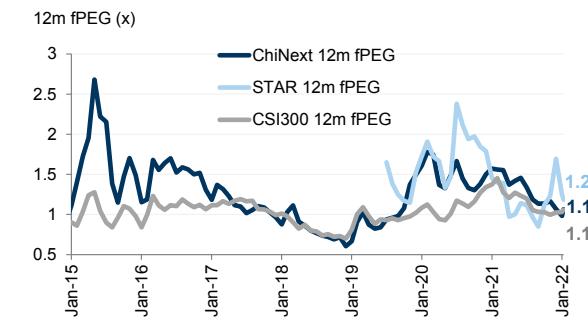
Source: Wind, Factset

**Exhibit 83: ChiNext stocks are trading close to mid-cycle valuations**



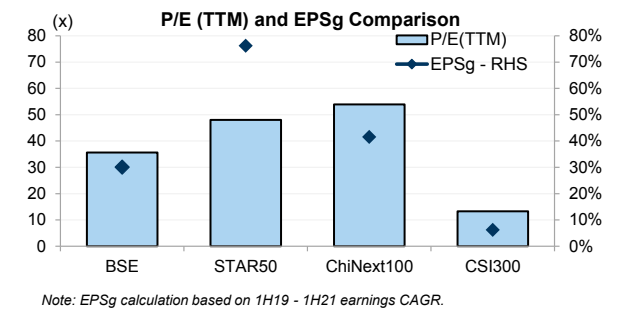
Source: FactSet

**Exhibit 84: STAR are trading at higher fPEG level vs ChiNext and CSI300**



Source: Factset

**Exhibit 85: BSE trades on lower valuations than STAR and ChiNext but with better growth than CSI300**



Source: Wind, Goldman Sachs Global Investment Research

## Exhibit 86: STAR board supports capital market reform and offers a number of innovative features vis-a-vis existing A shares listing, pricing (IPO), and trading mechanism

	Mainboard/SME	Chinext	STAR	Beijing Stock Exchange (BSE)
<b>Comparison among onshore exchanges</b>				
<b>Target Universe</b>	Large-to-medium-sized companies	High-growth and innovative small-to-medium-sized companies	High-growth companies in innovative industries with core technology	Small and medium-sized enterprises in innovative industries
<b>Application Procedures</b>	System: <b>Approval System</b>	System: <b>Registration System</b>	System: <b>Registration System</b>	System: <b>Registration System</b>
	Registration approval process: <b>3-9 months</b>	Registration approval process: Within <b>3 months</b>	Registration approval process: Within <b>20 days</b>	Registration approval process: <b>2 months (BSE) + 20 working days (CSRC)</b>
	Estimated overall time (from registration to issuance): <b>1 year</b>	-	Estimated overall time (from registration to issuance): <b>5 months</b>	Estimated overall time (from registration to issuance): <b>6-8 months</b>
<b>Listing Requirements</b>	Structural requirements: Allow <b>qualified mainland companies with no WVR and VIR structure</b> to be listed	Structural requirements: Allow <b>qualified mainland companies</b> , companies with <b>WVR structure</b> , and <b>red-chips (VIR structure)</b>		Structural requirements: Allow <b>qualified mainland companies with WVR structure</b> to be listed
	Financial requirements: <b>Do not allow pre-revenue and pre-profit companies</b> to be listed	Financial requirements: Allow <b>pre-revenue and pre-profit companies</b> (subject to other requirements) to be listed		
	Business requirements and prioritization: <b>No specified industry requirements and prioritization</b>	Traditional industries such as agriculture, mining, food and beverage, textiles, metals, electricity, gas, construction, transportation, postal, finance, etc., are not recommended to be listed on Chinext	Business requirements: In line with <b>national needs, possesses leading-edge technology</b> , and is <b>economically important</b>	Business prioritization: Focuses on <b>real economy</b> , and supports <b>leading manufacturing and modern services industries</b>
<b>IPO subscription eligibility</b>	Eligible Investors: <b>Online investors, offline investors, and strategic investors</b> (placement)			
	Eligibility of Strategic pre-IPO placement: Allowed for <b>share issuance ≥ 0.4bn shares</b>	Eligibility of Strategic pre-IPO placement: <b>Allowed</b> but subject to restrictions		
	Eligible strategic investors for pre-IPO placement: Investors that <b>meet issuer's requirements</b>	Eligible strategic investors for pre-IPO placement: <b>Sponsors (required), senior executives, core technicians, and other investors*</b> that meet issuer's requirements *Only allowed for companies with ≥ 80mn issued shares and estimated IPO deal size of ≥RMB1.5bn during the initial period after board launch (suggestion*)		Eligible strategic investors for pre-IPO placement: Investors that <b>meet issuer's requirements</b>
	Eligible offline investors: <b>Institutional and individual investors</b> qualifying requirements set by issuer	Eligible offline investors: <b>Institutional investors</b> such as securities companies, asset management companies, QFII, and more		Eligible offline investors: <b>Institutional and individual investors</b> qualifying requirements set by regulator
	Financial requirements for offline subscription: Minimum daily holdings: <b>MV of RMB10mn</b>		Financial requirements for offline subscription: <b>1. Minimum holdings: MV of RMB60mn (suggestion)*</b> <b>For PE fund house only:</b> <b>1. Minimum AUM of RMB1bn for the last 2Q respectively</b> as reported to Asset Management Association of China <b>2. Minimum AUM of PE fund that subscribes to STAR shares: MV of RMB60mn</b>	Financial requirements for offline subscription: (for both institutional and individual investors) Minimum holdings: <b>MV of RMB10mn</b>
	Online subscription requirement: Minimum holding of securities: <b>MV of RMB 10000</b>	Online subscription requirements: <b>1. Meet Chinext participation requirement of ≥ RMB 0.1 mn in securities and cash accounts and ≥ 24 months trading experience</b> <b>2. Minimum holding of securities: MV of RMB10000</b>	Online subscription requirements: <b>1. Meet STAR participation requirement of ≥ RMB 0.5 mn in securities and cash accounts and ≥ 24 months trading experience</b> <b>2. Minimum holding of securities: MV of RMB10000</b>	Online subscription requirements: <b>1. Meet BSE participation requirement of ≥ RMB 0.5 mn in securities and cash accounts and ≥ 24 months trading experience</b>

Source: CSRC, SSE, BSE, Goldman Sachs Global Investment Research

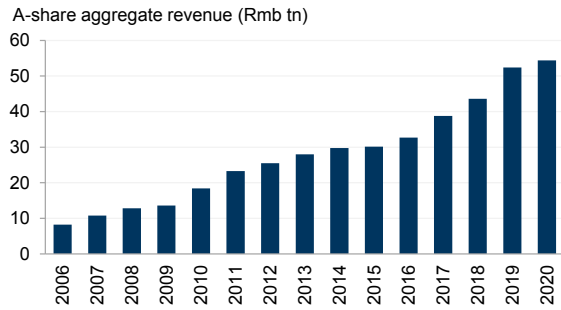
## Exhibit 87: STAR board supports capital market reform and offers a number of innovative features vis-a-vis existing A shares listing, pricing (IPO), and trading mechanism (cont'd)

	Mainboard/SME	Chinext	STAR	Beijing Stock Exchange (BSE)
<b>Comparison among onshore exchanges</b>				
<b>IPO pricing method</b>	Pricing methods: 1. <b>Direct pricing</b> 2. <b>Preliminary pricing inquiry</b> 3. <b>Bookbuilding</b> through bids submitted by offline investors after price range is decided through preliminary pricing inquiry		Pricing methods (market-based): 1. <b>Preliminary pricing inquiry</b> 2. <b>Bookbuilding</b> through bids submitted by offline investors after price range is decided through preliminary pricing inquiry	Pricing methods: 1. <b>Direct pricing</b> 2. <b>Preliminary pricing inquiry</b> 3. <b>Bookbuilding</b> through bids submitted by offline investors after price range is decided through preliminary pricing inquiry
<b>Other IPO subscription info</b>	Strategic placements for sponsors: <b>Not required</b>	Strategic placements for sponsors: <b>Required</b> to take part in under certain circumstances strategic placement of <b>2-5% share issuance</b>	Strategic placements for sponsors: <b>Required</b> to take part in strategic placement of <b>2-5% share issuance</b>	Strategic placements for sponsors: <b>Not required</b>
	Online subscription amount (max at around 100mn shares): <b>One subscription unit (1000 shares) per RMB 10000 MV (for SSE)</b>	Online subscription amount (max at around 100mn shares): <b>One subscription unit (500 shares) per RMB 5000 MV</b>		
	Green shoe option: Allowed for <b>≥400 mn issued shares</b>	Green shoe option: <b>Allowed</b> Suggestion*: Allowed only for companies with <b>≥80mn issued shares</b> and estimated IPO deal size of <b>≥RMB1.5bn</b> during initial period after board launch		
	Lock-up period for strategic placement: <b>Minimum of one year</b>	Lock-up period for strategic placement: <b>Minimum of one year</b> For sponsors: <b>Minimum of 2 years</b>		Lock-up period for strategic placement: <b>Minimum of one year</b> for senior management and core employees; <b>6 months</b> for others
<b>Trading Rules</b>	Accessibility: 1. <b>Domestic Retail Investors</b> (no specific financial requirements) 2. <b>Domestic Institutional Investors</b> 3. <b>Foreign Investors via QFII, RQFII and Northbound</b>	Accessibility: 1. <b>Domestic Retail investors with:</b> - Asset in securities and cash accounts <b>≥ RMB0.1mn;</b> - <b>≥ 24 months</b> securities trading experience 2. <b>Domestic Institutional Investors</b> 3. <b>Foreign Investors via QFII and RQFII and Northbound</b>	Accessibility: 1. <b>Domestic Retail investors with:</b> - Asset in securities and cash accounts <b>≥ RMB0.5mn;</b> - <b>≥ 24 months</b> securities trading experience 2. <b>Domestic Institutional Investors</b> 3. <b>Foreign Investors via QFII and RQFII and Northbound</b>	Accessibility: 1. <b>Domestic Retail investors with:</b> - Asset in securities and cash accounts <b>≥ RMB0.5mn;</b> - <b>≥ 24 months</b> securities trading experience 2. <b>Domestic Institutional Investors</b> 3. <b>Foreign Investors via QFII and RQFII</b>
	Trading methods: <b>Auction trading</b> and <b>block trading</b>	Trading methods: <b>Auction trading, block trading, and after-hours trading</b> (using closing price)		
	Daily Price Limit: 1. General: <b>± 10%</b> 2. IPO shares: <b>≤44% and ≥-36%</b> for day of issuance Margin trading: <b>≥ 3 months</b> trading on exchange	Daily Price Limit: 1. General: <b>± 20%</b> 2. IPO shares: <b>No price limit for first 5 days</b> Margin trading: Allowed on <b>first day of issuance</b>		Daily Price Limit: 1. General: <b>± 30%</b> 2. IPO shares: <b>No price limit for the first day</b>
	Minimum trading quantity: <b>100 shares (units)</b>	-	Minimum trading quantity: <b>200 shares (units)</b>	Minimum trading quantity: <b>100 shares (units)</b>
	Maximum trading quantity (1 order): <b>1 mn shares (units)</b>	Maximum trading quantity (limit order): <b>300k shares (units)</b> Maximum trading quantity (1 order): <b>150k shares (units)</b>	Maximum trading quantity (limit order): <b>100k shares (units)</b> Maximum trading quantity (1 order): <b>50k shares (units)</b>	Maximum trading quantity (1 order): <b>1 mn shares (units)</b>
	Settlement date: <b>T+1</b>			
<b>Disclosure requirements</b>	Importance of disclosure: <b>Less emphasized</b>	Importance of disclosure: <b>Comprehensive information disclosure</b> is regarded as <b>center</b> to the exchange system		
	Detailed specific disclosure requirements: <b>No detailed specific disclosure requirements</b> for different stakeholders Delayed disclosure: Delayed disclosure is allowed for a <b>maximum of two months</b> subject to conditions	Detailed specific disclosure requirements: Sponsors, directors, senior executives, actual controller, controlling shareholder, etc. have <b>detailed specific disclosure requirements</b> Delayed disclosure: Delayed disclosure is allowed subject to conditions. Disclosure has to be made <b>after final decision is made</b>		Delayed disclosure: Delayed disclosure is allowed subject to conditions.
<b>Delisting rules</b>	Categorization: Delisting violations are <b>not categorized</b>	Categorization: Include <b>4 types of major violations</b> that will result in forced delisting: <b>major legal violations, transaction issues, financial issues, and regulatory issues</b>		
	Nature of delisting rules: <b>Less stringent</b> and more <b>general</b> forced delisting rules	Nature of delisting rules: <b>Strict delisting, detailed and thorough</b> situations where forced delisting will be enforced		
	Direct enforcement of delisting rules: Delisting <b>might not be directly enforced</b> . Suspension and suspension release <b>might occur</b>	Direct enforcement of delisting rules: Delisting <b>will be enforced upon violation</b> of regulations as specified		
	Relisting: Delisted companies (due to violations) <b>can relist</b>	Relisting: Delisted companies (due to violations) <b>cannot relist</b>		Relisting: Delisted companies (due to violations) <b>can relist</b>

Source: CSRC, SSE, BSE, Goldman Sachs Global Investment Research

# 7. Fundamentals: A growthy market

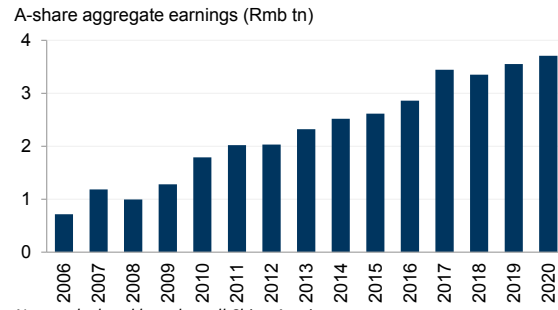
**Exhibit 88: China A has shown solid revenue growth since 2006**



Note: calculated based on all China A universe

Source: Factset, Goldman Sachs Global Investment Research

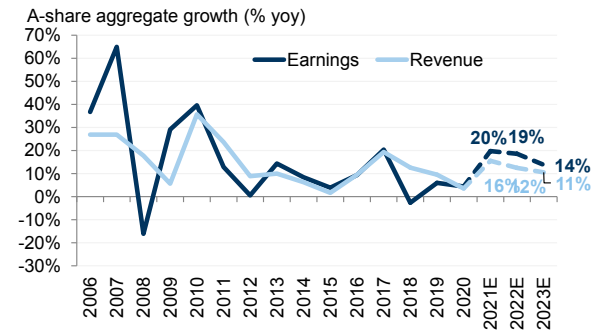
**Exhibit 89: Earnings growth has nevertheless slowed**



Note: calculated based on all China A universe

Source: FactSet, Goldman Sachs Global Investment Research

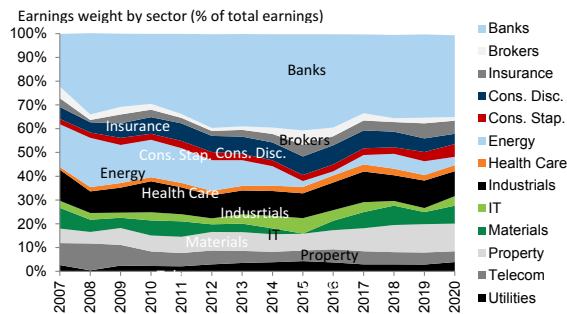
**Exhibit 90: Fundamental growth in the listed universe remains at high absolute levels**



Note: 2021-23E growth estimates are based on CSI300 from IBES.

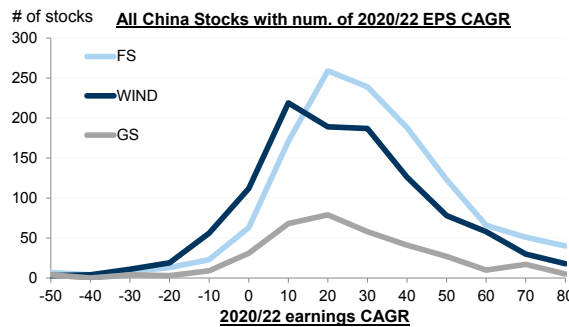
Source: Wind, IBES, Goldman Sachs Global Investment Research

**Exhibit 91: Financials account for less than 40% of China's aggregate earnings**



Source: Wind, Goldman Sachs Global Investment Research

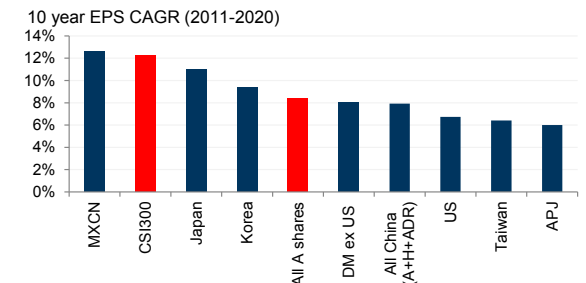
**Exhibit 92: 'Consensus' points to around 20% median EPS growth for the majority of the All-China universe**



Note: only the largest 3000 stocks are considered

Source: FactSet, Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 93: A shares have delivered solid EPS growth over the past decade in a global context**



Note: Country EPS in local currency and region EPS in USD; Country and region names refer to MSCI index.

Source: FactSet, Goldman Sachs Global Investment Research

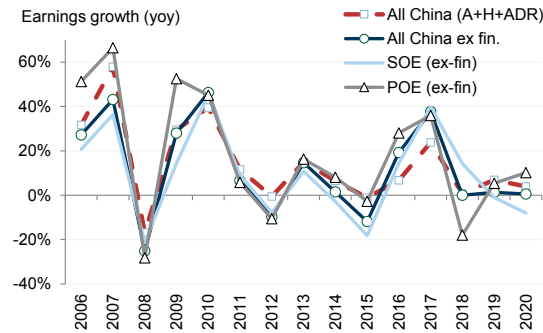


**Exhibit 94: Meaningful earnings growth divergence at the sector level**

IBES consensus earnings forecast by sector (%)			
CSI300 sectors	2021E	2022E	2023E
Communication services	13	21	16
Consumer discretionary	22	24	17
Consumer staples	-29	52	38
Energy	78	-3	-1
Financials	12	13	13
Health care	25	11	20
Industrials	53	28	3
Information technology	53	22	22
Materials	78	21	12
Real Estate	-4	8	9
Utilities	-6	21	7
<b>CSI300 aggregate</b>	<b>20</b>	<b>18</b>	<b>14</b>

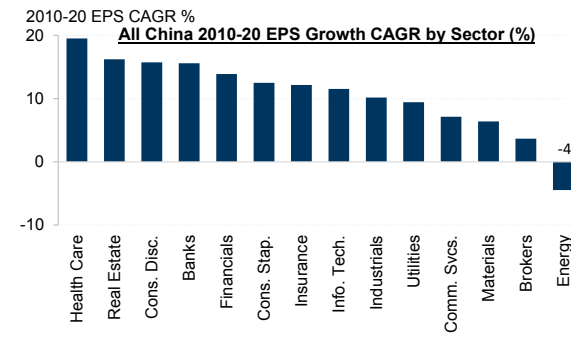
Source: FactSet, IBES, Goldman Sachs Global Investment Research

**Exhibit 97: Earnings growth diverged between POEs and SOEs in 2020**



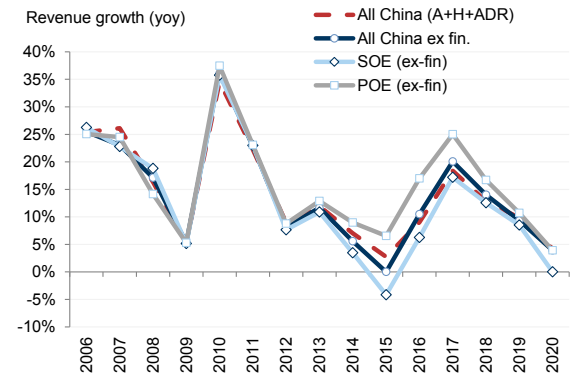
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 95: There is a strong variance in realized earnings growth across sectors**



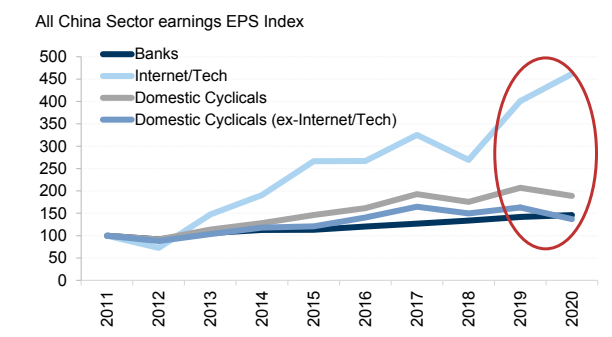
Source: Wind, FactSet, Goldman Sachs Global Investment Research

**Exhibit 98: Top-line growth to low-single-levels in 2020 as the pandemic slowed economic activities**



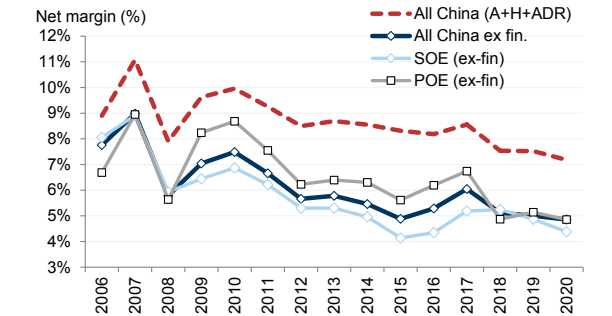
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 96: Profit divergence among sectors has been substantial**



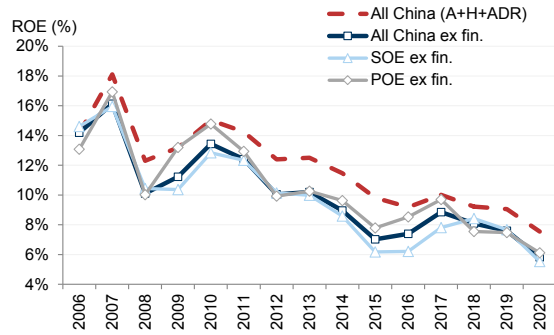
Source: FactSet, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 99: Profitability was under pressure in 2020**



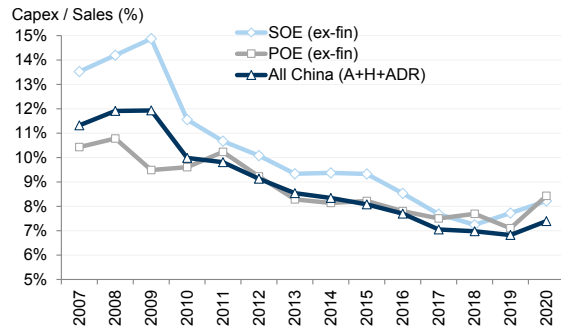
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 100: ROE has been trending down since mid-2000s**



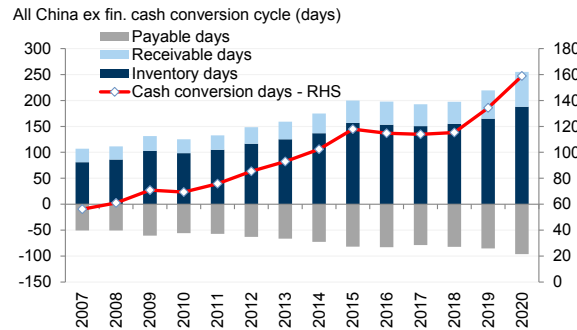
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 103: Capex intensity for SOEs has been falling over the past decade**



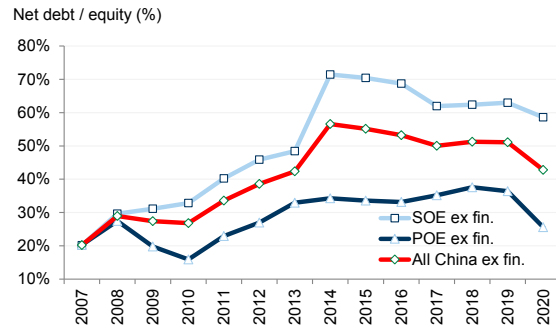
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 101: The cash conversion cycle has been on a rising trend over the past decade**



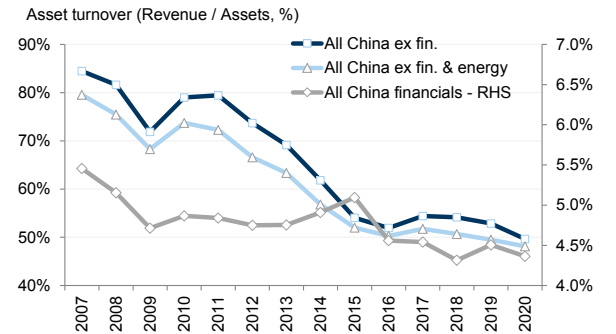
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 104: Leverage appears a bigger risk for SOEs than POEs**



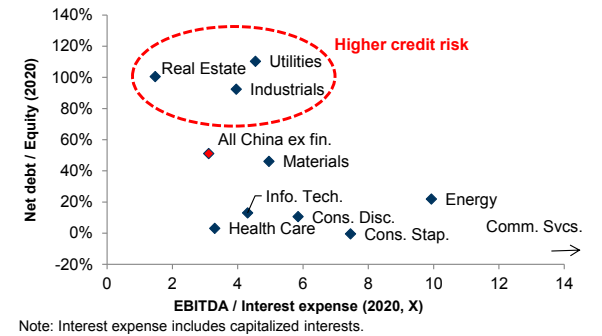
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 102: Asset turnover has stabilized in recent years**



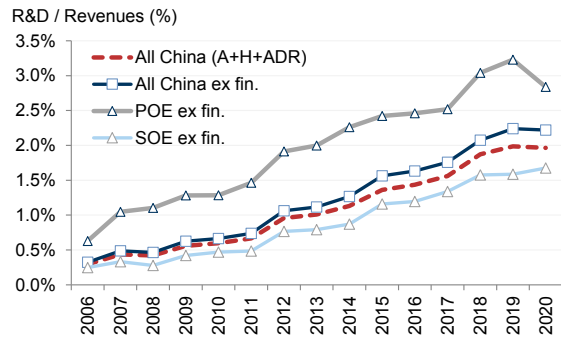
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 105: Utilities, Real Estate and Industrials have high leverage and low interest coverage ratio**



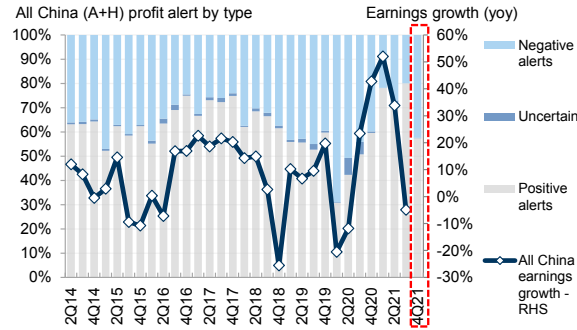
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 106: R&D intensity for POEs fell in 2020 likely due to Covid-related disruptions**



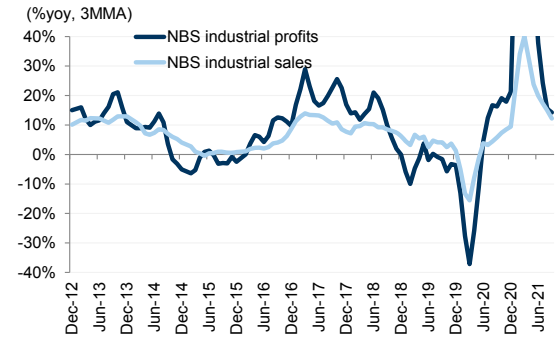
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 107: Profit alerts imply softer earnings growth momentum for last quarter**



Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 108: Normalizing top- and bottom-line growth post the Covid outbreak in 2020**



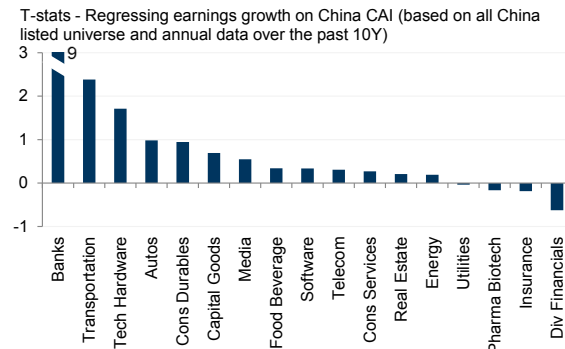
Source: NBS

**Exhibit 109: NBS industrial profits have shown fairly high correlations with listed companies' earnings in certain sectors**

GICS industry (listed)	NBS industry	Earnings correlation
<b>Relevant industry pairs with earnings correlation &gt;45%</b>		
Auto Components	M anu: Automobile	73%
Chemicals	M anu: Chemical Fiber	69%
Automobiles	M anu: Automobile	67%
Chemicals	M anu: Chemical Material & P dt	58%
Metals & Mining	M ining: Coal	52%
Auto Components	M anu: Non Ferrous Metal	49%
Pharmaceuticals	M anu: Pharmaceutical	49%
Airlines	M anu: Instrument & Meter	47%
Leisure Products	M anu: Rubber & Plastic Product	45%
Oil Gas & Consumable Fuels	M ining: Petroleum & Natural Gas	45%
<b>Relevant industry pairs with earnings correlation &lt;45%</b>		
Oil Gas & Consumable Fuels	M anu: Automobile	-46%
Oil Gas & Consumable Fuels	M anu: Rail, Ship & Aircraft Eq	-48%
Automobiles	M ining: Ferrous Metal	-49%
Health Care Equipment & Supplies	M anu: Rubber & Plastic Product	-55%
Auto Components	M ining: Ferrous Metal	-56%
All China listcos (ex-financials)	Industrial profits	76%

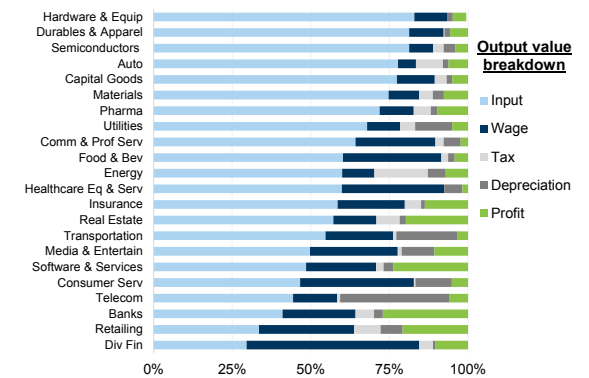
Source: FactSet, NBS, Goldman Sachs Global Investment Research

**Exhibit 110: Banks, Transportation, and Tech Hardware tend to have high earnings sensitivity to economic growth**



Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 111: Tech Hardware, Durables, Semi, and Autos are relatively more reliant on inputs to generate outputs**

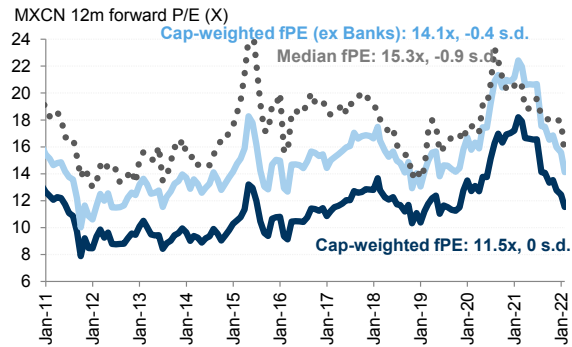


Note: Data as of 2017.

Source: NBS, Goldman Sachs Global Investment Research

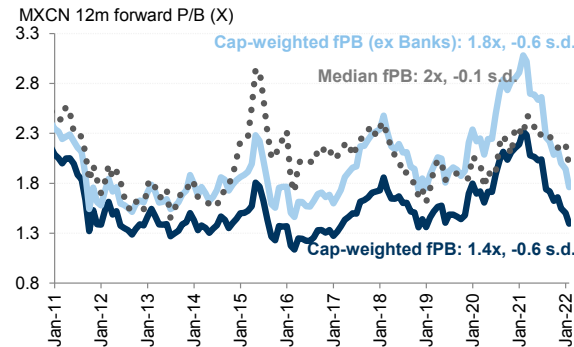
## 8. Valuations: Inexpensive vs history, local asset classes, and global equity peers

**Exhibit 112: The offshore market valuation has de-rated substantially in the past year in PE terms**



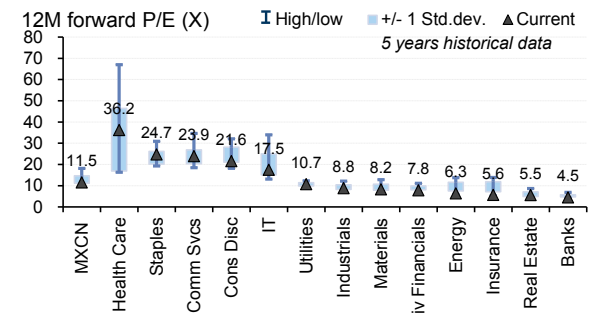
Source: FactSet, IBES, MSCI, Goldman Sachs Global Investment Research

**Exhibit 113: ...as well as on P/B terms**



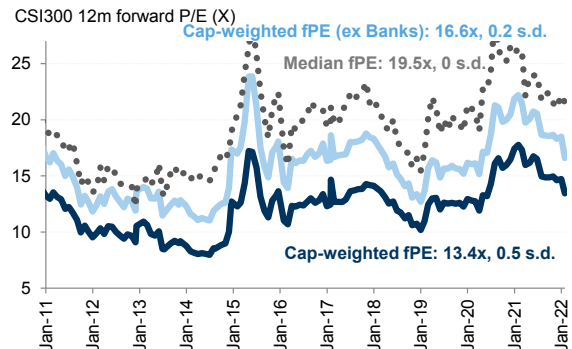
Source: FactSet, IBES, CSI, Goldman Sachs Global Investment Research

**Exhibit 114: In the offshore market, most sectors are trading at the low-end of their respective valuation ranges**



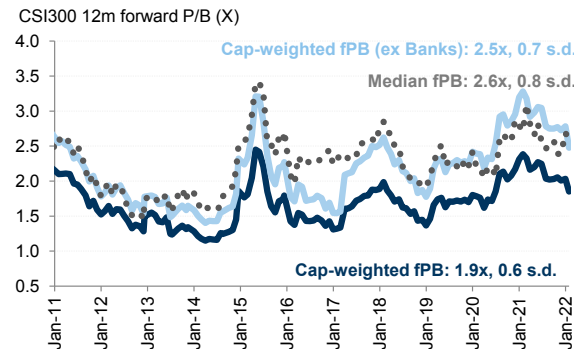
Source: FactSet, IBES, MSCI, Goldman Sachs Global Investment Research

**Exhibit 115: A-share valuations are at midrange in P/E terms...**



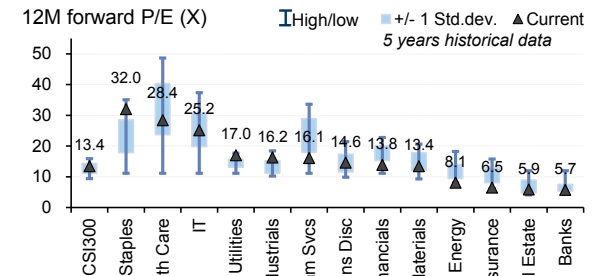
Source: FactSet, IBES, CSI, Goldman Sachs Global Investment Research

**Exhibit 116: ...but slightly higher on a P/B basis**



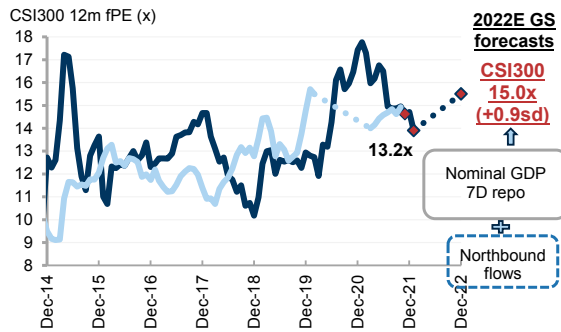
Source: FactSet, IBES, MSCI, Wind, Goldman Sachs Global Investment Research

**Exhibit 117: Except for Healthcare, Utilities, and Industrials, most sectors trade within their respective historical valuation ranges in the onshore market**



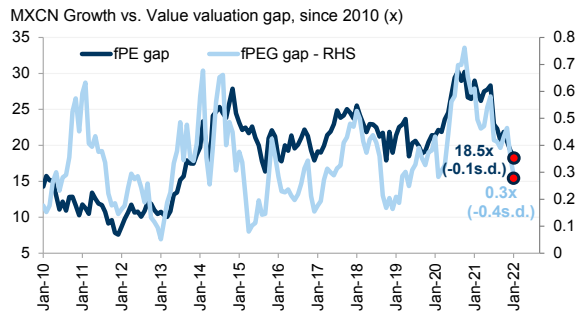
Source: FactSet, IBES, CSI, Wind, Goldman Sachs Global Investment Research

**Exhibit 118: Our top-down model points to 15x 2022E PE for CSI300**



Source: Wind, Goldman Sachs Global Investment Research

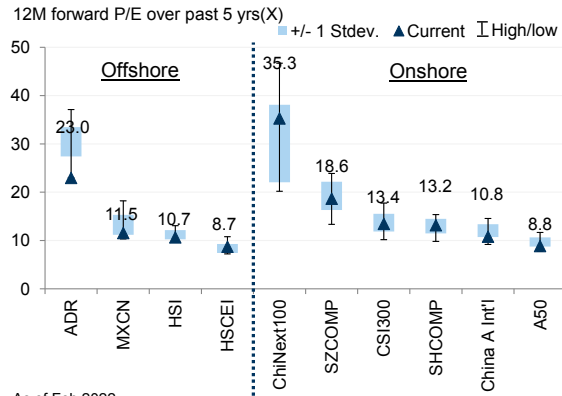
**Exhibit 121: Valuation gaps between Growth and Value have reduced**



Note: As of Jan 2022. Gap is calculated as Growth less Value. Pre-earnings companies are excluded based on available 2021E median consensus estimates.

Source: Factset, Goldman Sachs Global Investment Research

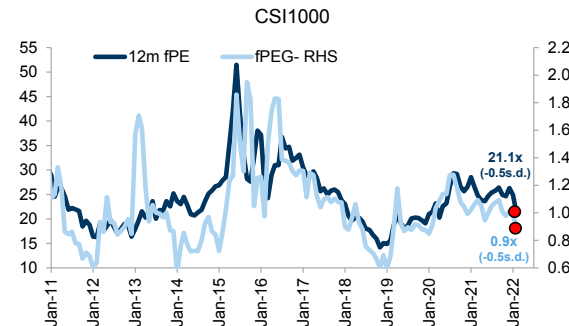
**Exhibit 119: Valuation disparity is significant across markets and indexes**



As of Feb 2022

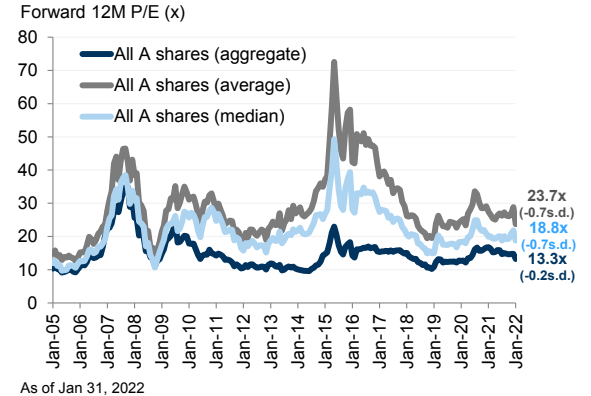
Source: FactSet, IBES, Goldman Sachs Global Investment Research

**Exhibit 122: Small caps look attractively priced in PE and PEG terms**



Source: Wind, FactSet, Goldman Sachs Global Investment Research

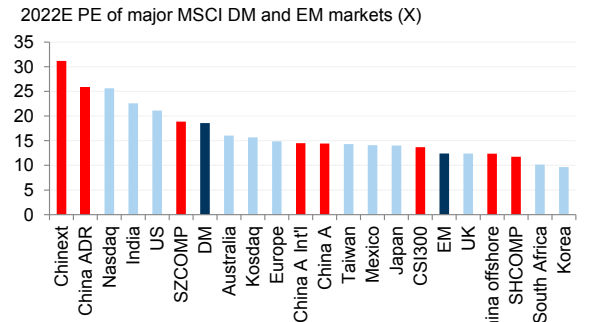
**Exhibit 120: The gaps between aggregate and average/median stock valuations remain quite wide in A shares**



As of Jan 31, 2022

Source: FactSet, IBES, Goldman Sachs Global Investment Research

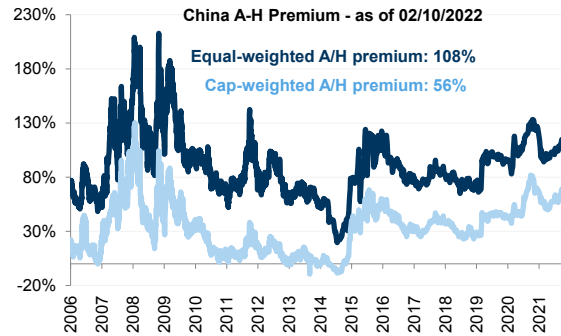
**Exhibit 123: Headline index P/E looks high for Shenzhen listed A shares and ADRs, reflecting their growth potential and thematic exposures**



Note: As of Feb 2022: Local currency applies to country names and USD applies to region names. in USD; Country and region names refer to MSCI index.

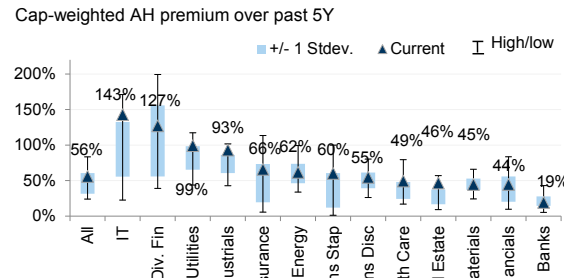
Source: FactSet, IBES, MSCI, Goldman Sachs Global Investment Research

**Exhibit 124: AH valuation gaps remain significant**



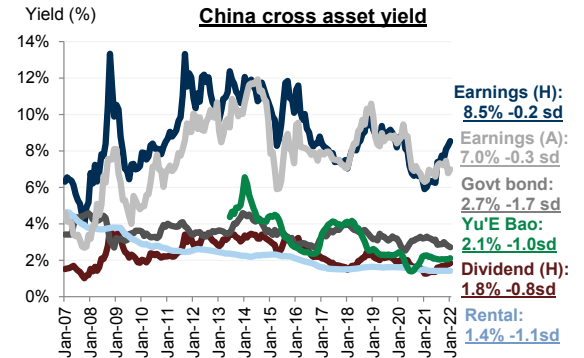
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 125: Div. Fin. and IT have the highest AH premiums among other sectors**



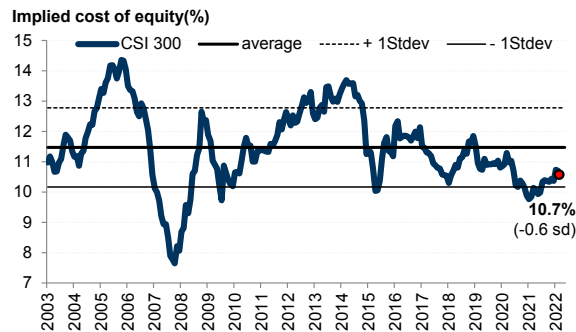
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 126: Earnings yields have risen for equities, looking relatively attractive vis-a-vis other competing asset classes**



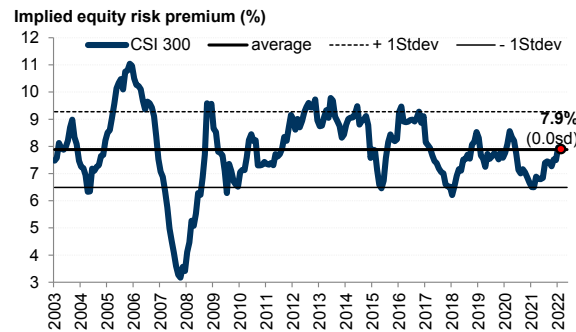
Source: FactSet, Wind, Goldman Sachs Global Investment Research

**Exhibit 127: While PE has re-rated substantially, onshore implied cost of equity has moved in a narrow range in the past few years**



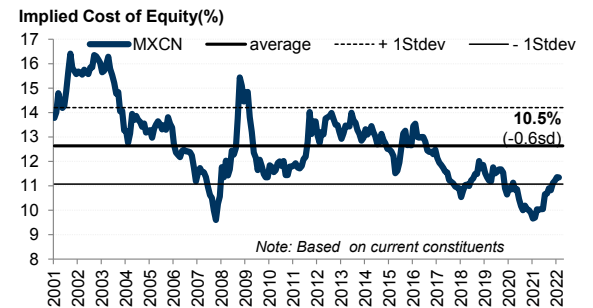
Source: CSI, FactSet

**Exhibit 128: A-share ERP is close to long-term averages**



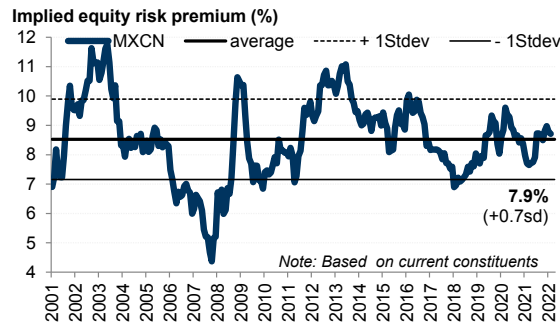
Source: CSI, FactSet

**Exhibit 129: Offshore implied cost of equity has risen meaningfully in the past year, driving equity valuations lower...**



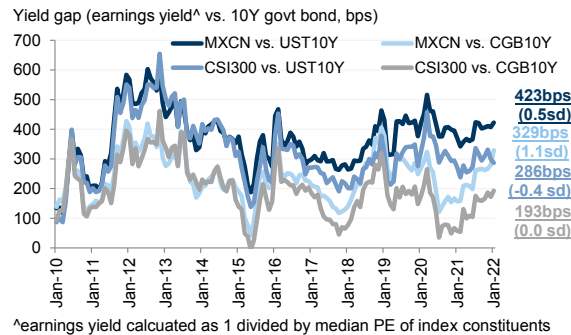
Source: MSCI, FactSet

Exhibit 130: ...with ERP now staying above midcycle



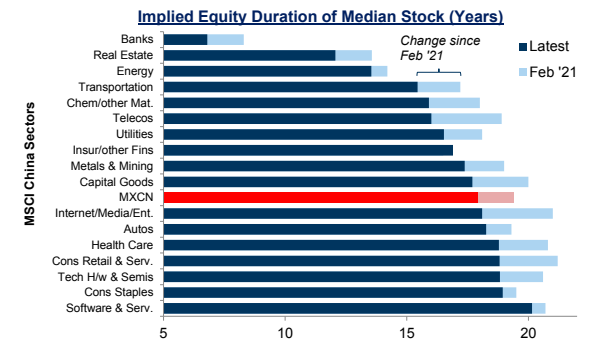
Source: MSCI, FactSet

Exhibit 131: Equity-bond yield gaps suggest Offshore equities are inexpensively priced vis-a-vis government bonds



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 132: Equity duration years have significantly shortened in China over the past year



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 133: Chinese equities are positively correlated with US long-end rates (and steepening yield curve), but negatively vs. Chinese short-end rates

		T-stat of single linear regression (WoW changes)									
		US rates					China rates				
		Regression period	UST 1M	UST 3M	UST 2Y	UST 10Y	UST 10Y-3M	DR007	SHIBOR 3M	CGB 2YR	CGB 10YR
MXCN	1Y	-1.1	0.2	1.7	2.4	2.4	-2.0	-1.1	-0.3	1.4	1.8
	3Y	1.6	1.4	3.3	3.5	2.4	-1.3	-1.2	1.4	3.3	1.0
	5Y	1.6	1.1	4.4	3.4	2.4	-1.2	0.3	1.8	3.7	1.1
	10Y	1.0	0.6	4.9	4.2	3.9	-2.1	-1.4	1.0	3.2	1.7
	15Y	5.4	5.3	4.9	5.8	1.4	-1.5	-1.4	1.0	4.4	3.1
	Average	1.7	1.7	3.9	3.9	2.5	-1.6	-1.0	1.0	3.2	1.7
CSI300	1Y	-0.8	0.4	1.3	1.7	1.6	-1.9	-1.7	-1.1	0.8	2.3
	3Y	1.0	0.3	2.4	2.0	1.7	-1.8	-1.4	1.2	3.9	1.7
	5Y	0.3	-0.2	3.0	2.4	2.5	-1.3	0.2	1.5	4.1	1.8
	10Y	0.2	-0.6	4.1	2.7	3.0	-2.1	-1.2	0.7	2.9	1.7
	15Y	2.2	1.7	2.4	2.2	0.7	-2.2	-0.7	1.3	4.8	3.2
	Average	0.6	0.3	2.6	2.2	1.9	-1.9	-0.9	0.7	3.3	2.1

Note: single linear regression t-stat of WoW index returns on WoW interest rate changes

Source: Federal Reserve, PBoC, Wind, FactSet, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 134: Chinese equity index valuations and fundamentals at a glance (based on bottom-up consensus median estimates)

	Local currency	Bloomberg ticker	Consensus estimates								
			P/E (X)		EPS growth (%)		P/B (X)	D/Y (%)	ROE (%)	EBIT Margin (%)	
			2021E	2022E	2021E	2022E	2021E	2021E	2021E	2021E	2021E
<b>China Onshore</b>											
CSI300	CNY	SHSZ300	16.1	13.8	19.9	17.1	2.1	2.0	13.6	10.2	12.4
CSI300 ex banks	CNY		20.4	17.0	22.2	19.7	2.8	1.7	14.7	10.2	13.4
CSI500	CNY	SH000905	18.4	15.1	49.2	22.0	2.3	1.6	11.7	8.7	-
Shanghai Composite	CNY	SHCOMP	13.2	11.6	29.2	14.0	1.5	2.6	12.1	8.8	9.1
Shenzhen Composite	CNY	SZCOMP	23.9	18.6	29.9	28.6	3.2	1.3	13.9	10.8	17.1
SME Composite	CNY	SZSMEC	26.5	19.8	24.8	34.0	3.3	1.1	13.3	10.2	21.0
ChiNext Composite	CNY	SZ399102	44.6	31.0	31.7	43.9	5.9	0.5	14.2	12.3	38.9
<b>China Offshore</b>											
MSCI China	HKD	MXCN	13.3	11.8	20.5	13.0	1.5	2.1	12.1	11.0	9.6
MSCI China	CNY		13.1	11.6	12.3	12.6	1.5	2.1	12.1	11.0	9.5
MXCN ex banks	HKD		16.6	14.4	21.4	14.9	1.9	1.6	12.5	11.0	11.2
MXCN ex oils	HKD		12.8	11.2	21.0	14.4	1.5	2.2	12.0	9.8	9.5
MXCN ex oils, telcos	HKD		12.8	11.2	21.0	14.4	1.5	2.2	12.0	9.8	9.7
China H shares	HKD	HSCEI	9.8	8.8	19.4	11.1	1.1	3.3	12.0	11.8	7.1
<b>Asia</b>											
Hong Kong	HKD	MXHK	18.1	13.8	16.9	12.7	1.2	3.0	6.9	20.0	14.2
Hang Seng	HKD	HSI	11.9	10.9	24.7	9.9	1.2	3.0	10.2	13.9	8.5
Australia	AUD	MXAU	16.5	15.8	28.9	4.2	2.1	4.4	13.4	21.4	9.3
India	INR	MXIN	26.8	22.0	27.6	22.0	3.7	1.2	14.4	13.1	16.5
Indonesia	IDR	MXID	18.4	15.6	32.0	18.0	2.5	2.6	14.2	18.6	9.7
Japan	JPY	MXJP	14.8	13.3	37.0	11.1	1.3	2.3	9.4	-	9.4
Korea	KRW	MXKR	10.1	9.2	100.5	10.3	1.1	2.2	11.0	11.6	5.3
Malaysia	MYR	MXMY	14.9	15.2	56.5	(1.9)	1.5	4.2	10.3	17.6	8.3
Philippines	PHP	MXPH	23.4	18.2	43.1	28.7	1.9	1.5	8.5	17.0	11.5
Singapore Free	SGD	SGY	17.1	15.3	55.1	12.1	1.4	3.4	8.4	9.0	13.2
Taiwan	TWD	MXTW	14.7	14.1	63.8	3.9	2.7	3.5	19.4	10.9	10.9
Thailand	THB	MXTH	21.3	18.3	57.4	16.0	2.1	2.6	10.3	9.2	10.7
AC Asia Pacific	USD	MXAP	14.8	13.4	36.1	10.5	1.6	2.6	11.1	-	9.2
AC Asia Pacific ex Japan	USD	MXAPJ	14.8	13.5	35.6	10.2	1.8	2.7	12.2	12.4	9.4
AC Asia ex Japan	USD	MXASJ	14.6	13.1	36.1	11.5	1.8	2.4	12.1	11.6	9.5
AC Far East ex Japan	USD	MXFEJ	13.6	12.3	36.9	10.6	1.6	2.6	11.9	11.5	8.9
<b>Global</b>											
USA	USD	MXUS	21.5	19.9	49.5	7.7	4.5	1.4	21.9	16.2	16.5
Europe	USD	MSDUE15	14.6	14.7	70.6	(0.2)	2.0	3.1	13.9	14.5	9.4
EAFE	USD	MXEA	14.7	14.4	55.8	1.9	1.8	3.0	12.2	-	9.4
World (developed mkt.)	USD	MXWO	18.7	17.7	52.8	5.5	3.0	1.9	16.6	-	13.5
Emerging Markets	USD	MXEF	12.7	12.1	60.9	4.9	1.7	3.0	14.1	13.2	8.3
AC World	USD	MXWD	17.7	16.8	54.1	5.4	2.8	2.0	16.2	-	12.6

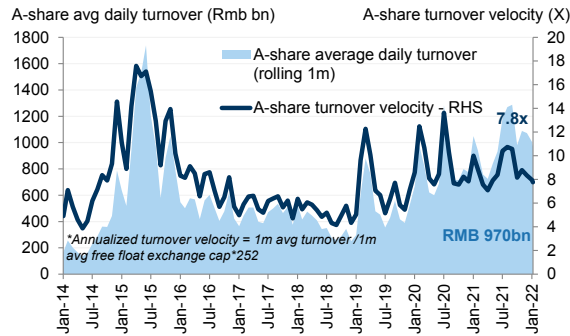
Note: As of Jan 27, 2022

Source: Bloomberg, FactSet, MSCI, Worldscope



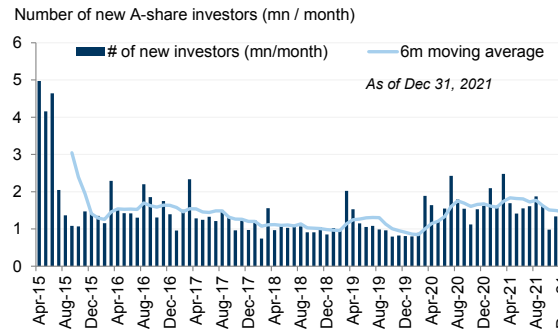
# 9. Flows/positioning: Structural trends in motion

**Exhibit 135: Notional turnover and turnover velocity have moderated recently**



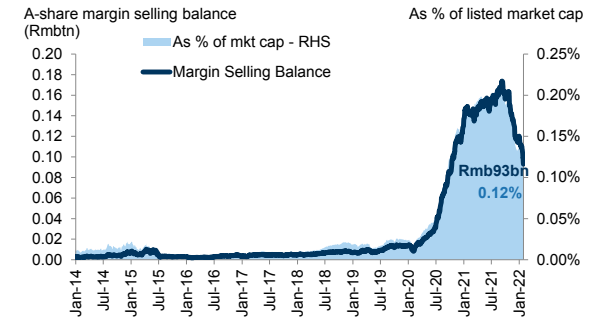
Source: Bloomberg, Wind

**Exhibit 136: New investors trend has remained stable**



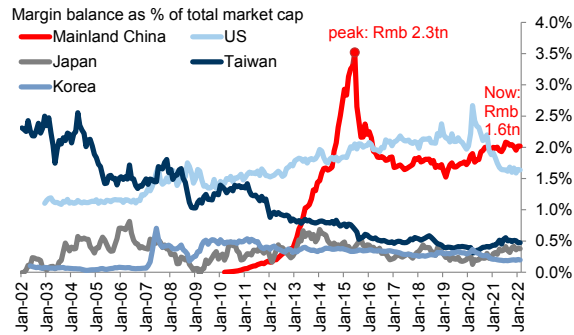
Source: Wind

**Exhibit 137: Margin selling balance has fallen**



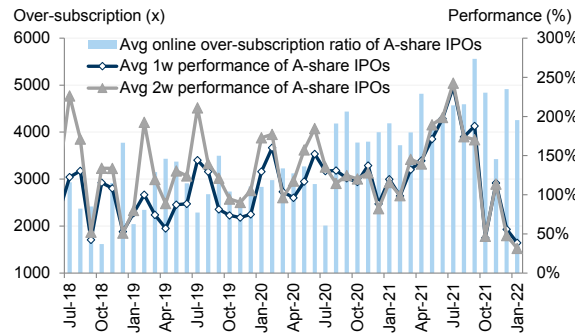
Source: Wind, Bloomberg

**Exhibit 138: Margin balance as % of market cap has almost halved from the peak in 2015**



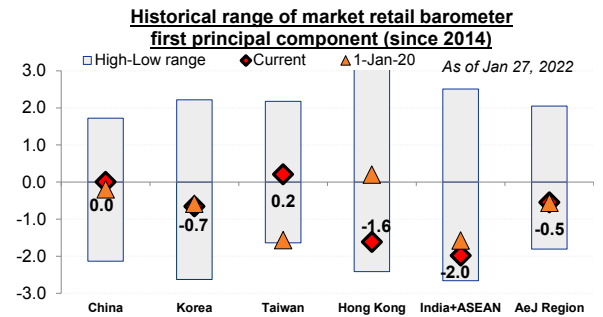
Source: Wind, Bloomberg

**Exhibit 139: The over-subscription ratio remains high for A-share IPOs, although post-IPO performance has dropped dramatically post the IPO reform**



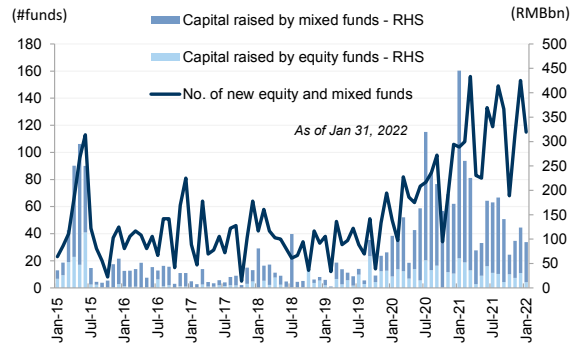
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 140: Retail sentiment is at below average levels in most Asian markets**



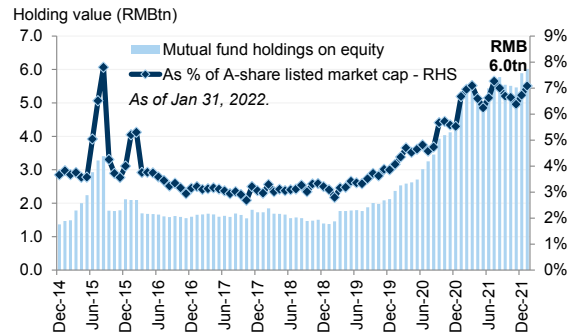
Source: Goldman Sachs Global Investment Research

**Exhibit 141: 37 equity-focused funds and 86 mixed funds have been set up domestically ytd, raising close to Rmb100bn**



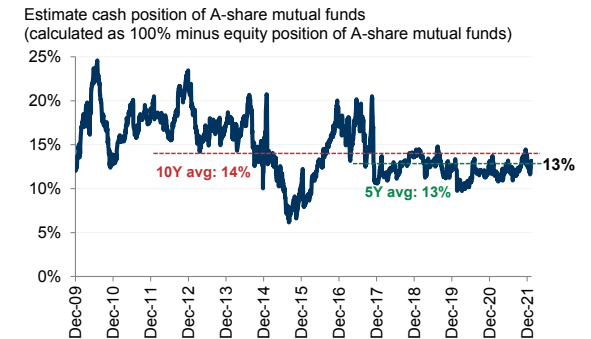
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 142: Equity AUM held by domestic mutual funds has a 3-fold surge since 2018**



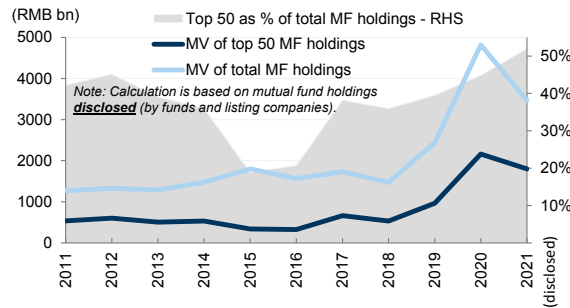
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 143: The cash ratio of domestic equity funds is around 5-year average, implying a neutral allocation by local investors**



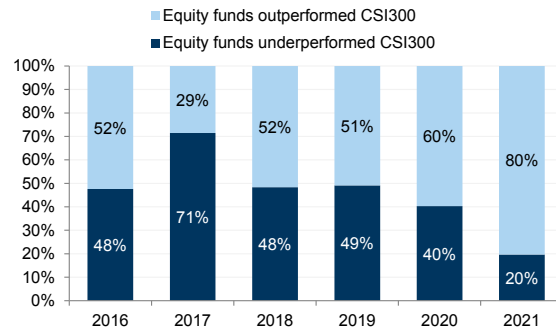
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 144: Positioning concentration in A shares has reached the highest levels in the past decade**



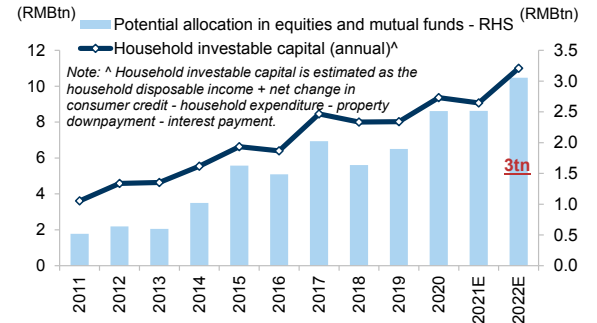
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 145: 80% of A-share equity funds outperformed CSI300 in 2021**



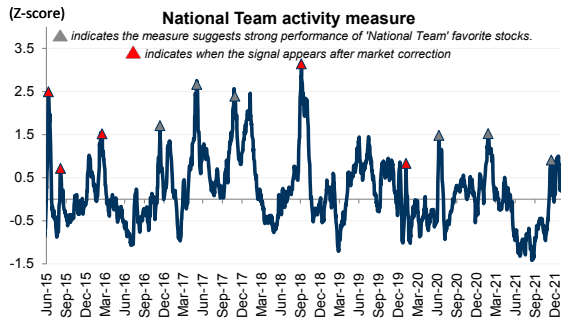
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 146: Asset reallocation flows from property to equities could be more visible in 2022 as the property market slows**



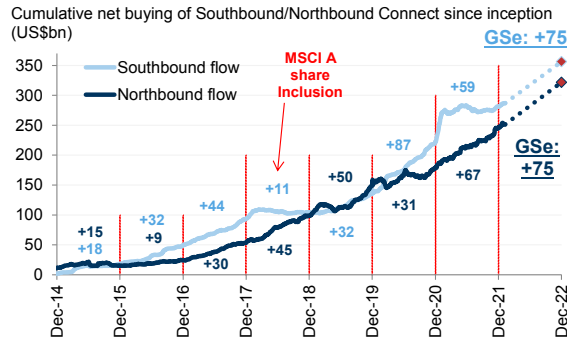
Source: CEIC, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 147: Our real-time proxy suggests that the “National Team” has not been active in recent months**



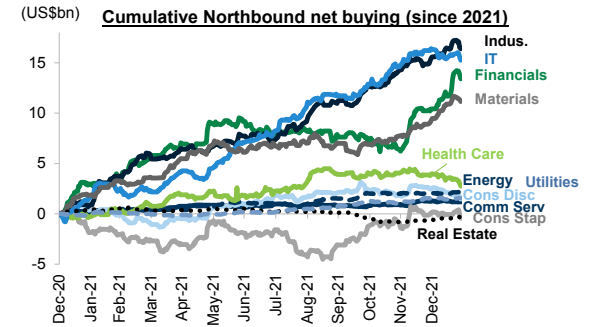
Source: FactSet, Bloomberg, Wind, Goldman Sachs Global Investment Research

**Exhibit 148: Northbound and Southbound inflows reached US\$67bn and US\$59bn in 2021 and we forecast net buying to further increase in 2022**



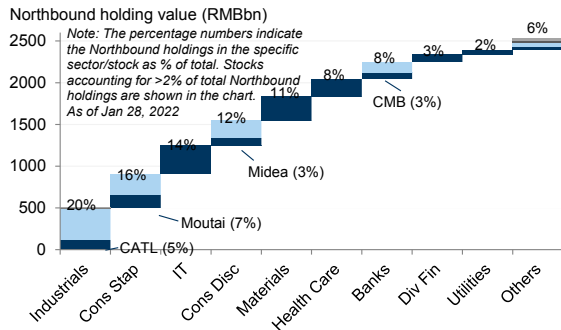
Source: Wind, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 149: Industrials and IT sectors attracted most of the Northbound net buying over the past year**



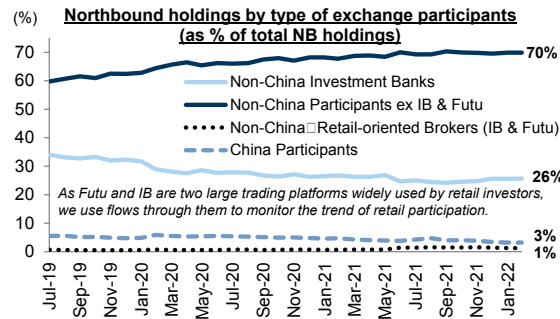
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 150: Northbound investors have increased their single-stock diversification and have raised exposures in Cyclical and Tech**



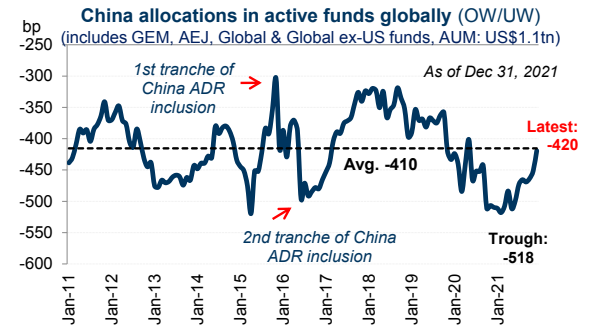
Source: Wind, FactSet, HKEX, compiled by Goldman Sachs Global Investment Research

**Exhibit 151: The breakdown data of Northbound holdings suggests that the recent Northbound flows could be mainly from international funds**



Source: HKEX, Goldman Sachs Global Investment Research

**Exhibit 152: Active global mutual fund mandates remain underweight Chinese equities by 420bp, although the allocations have improved from decade-lows**



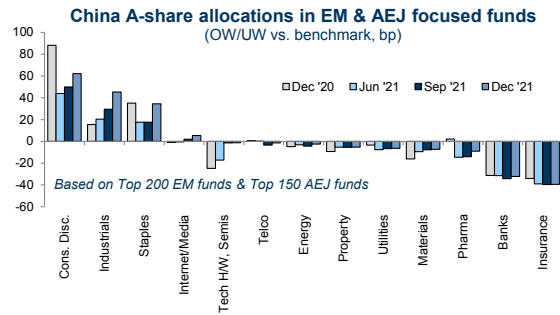
Source: EPFR, MSCI, Goldman Sachs Global Investment Research

**Exhibit 153: The reduction in underweight has primarily been driven by China's reduced index weights in the benchmarks, as opposed to fresh capital inflows**

China allocations in active funds globally <i>(includes GEM, AEJ, Global &amp; Global ex-US funds, AUM: US\$1.1tn)</i>			
Date	Fund holdings	Benchmark weight	Positioning in Chinese equities (OW/UW vs MSCI Benchmark, bps)
	Allocations in Chinese equities as % of total fund AUM	Fund AUM weighted benchmark weight of China	
Feb-21	14.4%	19.6%	-518bp
Dec-21	10.3%	14.5%	-420bp
<b>Change</b>	<b>-410bp</b>	<b>-510bp</b>	<b>+100bp</b>

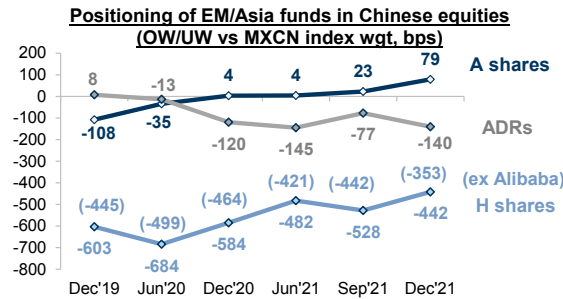
Source: EPFR, MSCI, Goldman Sachs Global Investment Research

**Exhibit 156: Within A-shares, funds remain most overweight in consumer and industrials sectors**



Source: FactSet, MSCI, Goldman Sachs Global Investment Research

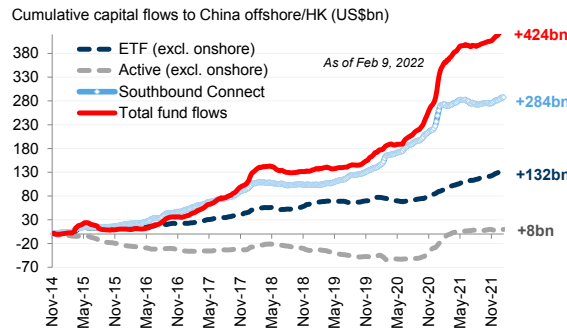
**Exhibit 154: EM/Asia mutual fund allocations are particularly light in the Hong Kong market (H-shares)**



Note: Alibaba is counted under H shares (9988.HK) while other secondary-listing names are under ADRs.

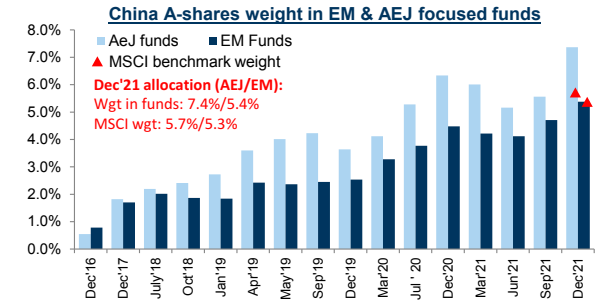
Source: FactSet, MSCI, Goldman Sachs Global Investment Research

**Exhibit 157: More than half of the cumulative inflows to HK since 2015 have been driven by Southbound investors**



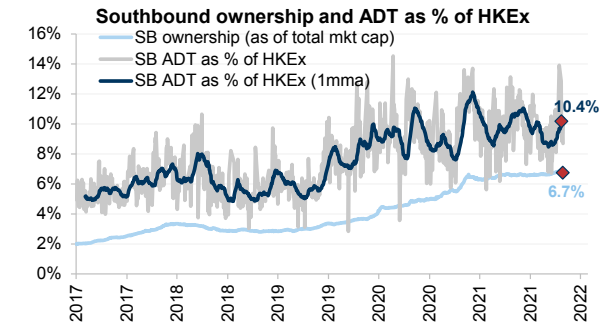
Source: EPFR, Bloomberg, Wind, Goldman Sachs Global Investment Research

**Exhibit 155: Asian and EM mutual funds have continued to raise their allocations to onshore China equities and currently hold about 5-7% of their portfolios in A-shares**



Source: FactSet, MSCI, Goldman Sachs Global Investment Research

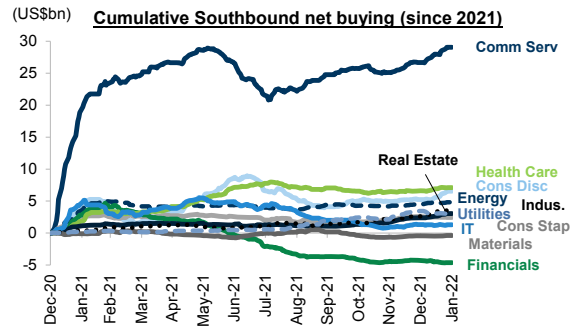
**Exhibit 158: Representation of Southbound investors in the HK market has been steadily rising**



daily data for both SB ownership and ADT

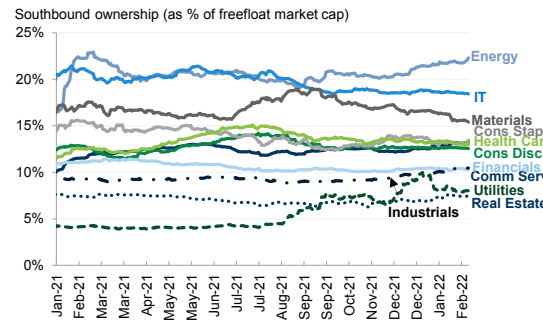
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 159: Comm. Serv. have regained Southbound inflows in the past months**



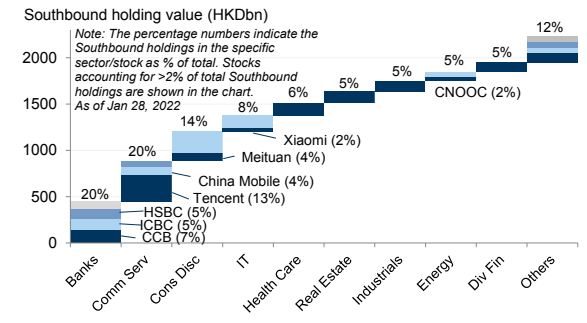
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 160: 22% of Energy's freefloat market cap is now owned by Southbound investors**



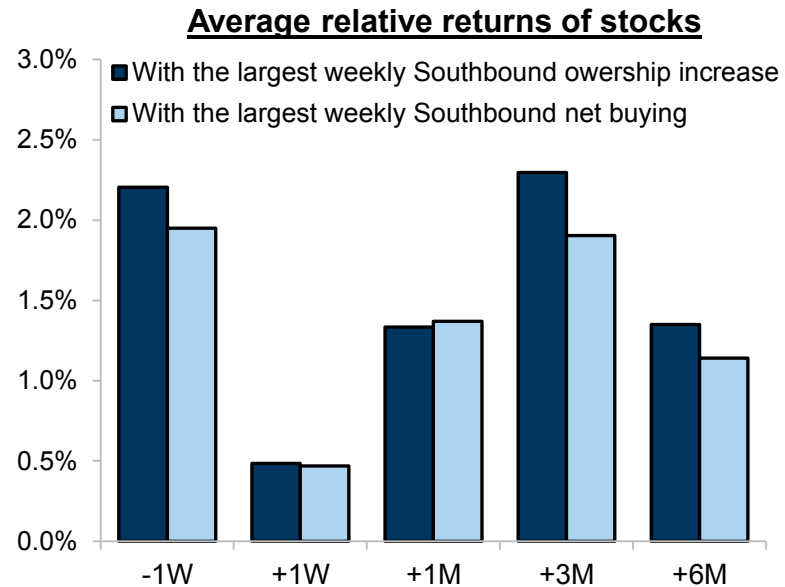
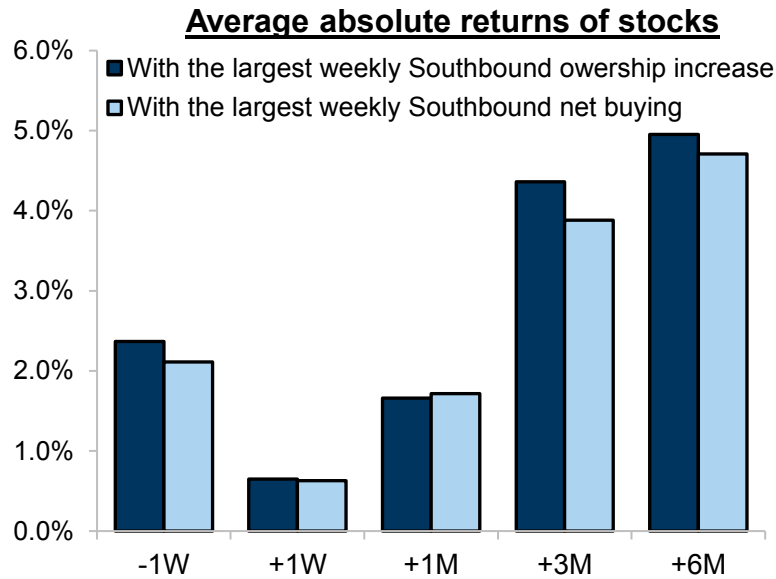
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 161: Southbound ownership is largely concentrated in Financials and Tech/Internet**



Source: Wind, FactSet, HKEX, compiled by Goldman Sachs Global Investment Research

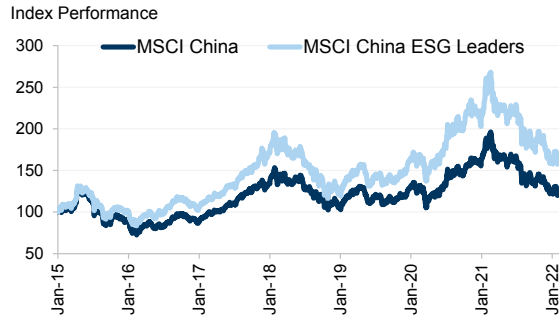
**Exhibit 162: Southbound activities are well linked with stocks' subsequent returns**



Source: Wind, FactSet, Goldman Sachs Global Investment Research

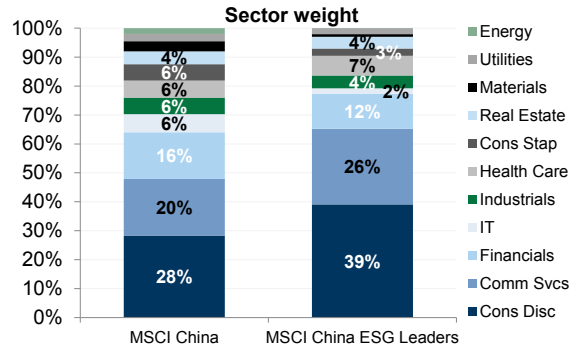
# 10. ESG: Opportunities, risks, and facts

**Exhibit 163: Chinese companies with high ESG scores have moderately outperformed the benchmark per MSCI's definition**



Source: MSCI

**Exhibit 164: The MSCI ESG leaders are concentrated in the New Economy sectors**



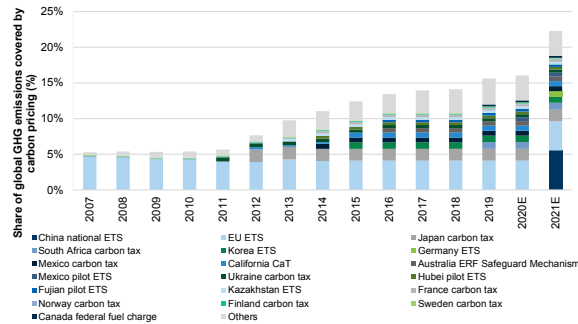
Source: MSCI

**Exhibit 165: Companies with relatively high ESG scores by Chindices methodology have performed better over the past 5 years**

Chindices ESG ranking	Number of companies	Median returns		
		1Y	3Y	5Y
AAA	181	12%	-2%	41%
AA	700	13%	2%	71%
A	1132	16%	15%	53%
BBB	1777	23%	12%	65%
BB	438	24%	-10%	41%
B	194	29%	23%	13%
CCC	87	24%	-4%	-2%
CC	16	36%	-57%	-1%
C	2	13%	-67%	-41%

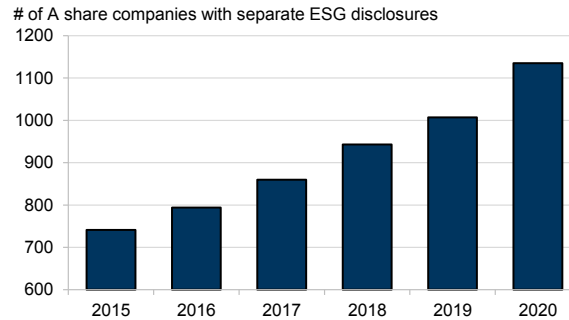
Source: Wind, Chindices, Goldman Sachs Global Investment Research

**Exhibit 166: China's ETS will cover 5% of global GHG emissions in its initial phase, making it the world's largest carbon market**



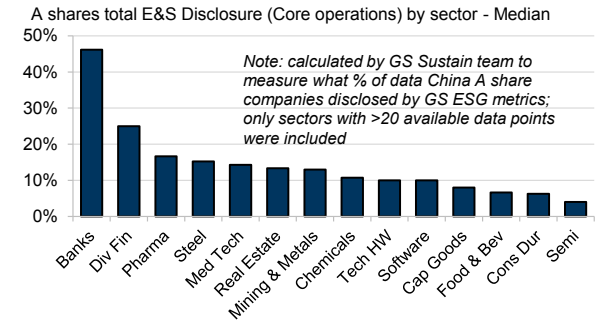
Source: World Bank Group, Goldman Sachs Global Investment Research

**Exhibit 167: More A-share companies are embracing ESG, at least in their disclosures**



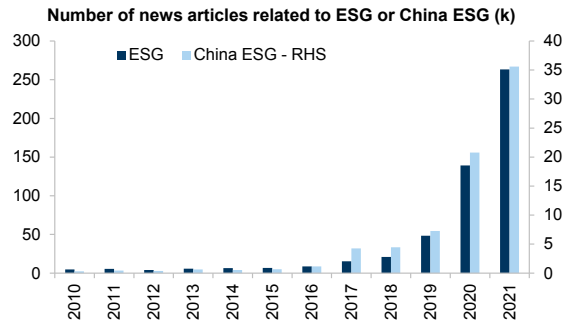
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 168: Financials tend to have better ESG disclosure among all sectors**



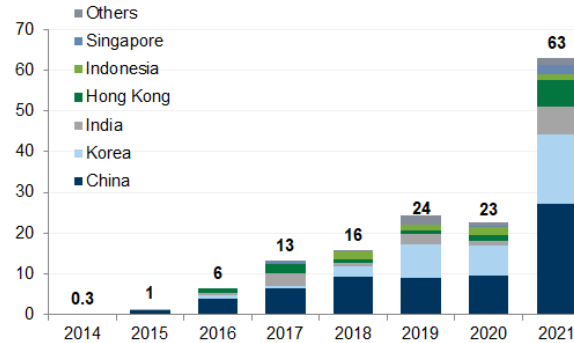
Source: Company reports, Goldman Sachs Global Investment Research

**Exhibit 169: ESG is gaining traction globally, and also in China**



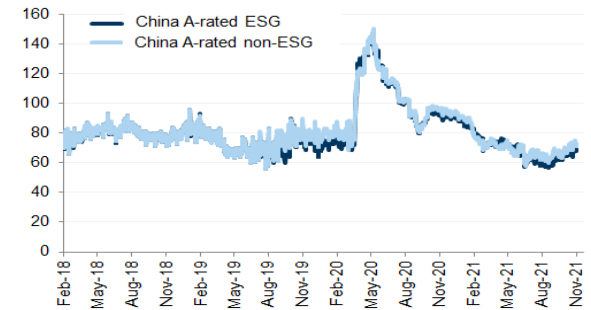
Source: Factiva, Goldman Sachs Global Investment Research

**Exhibit 170: China has seen strong increases in Green bond issuance**



Source: Bloomberg, Goldman Sachs Global Investment Research

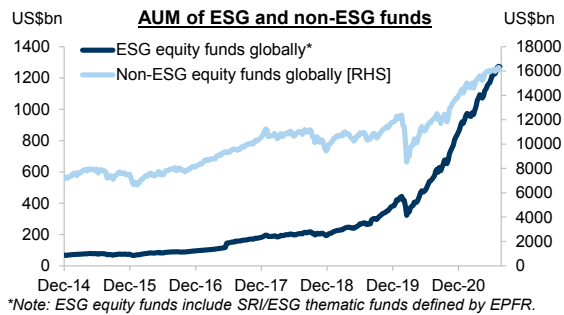
**Exhibit 171: Investors are able to increase ESG exposure without sacrificing returns or risks in the credit market**



ESG and non-ESG bonds are matched on an issuer level with same bond rating, seniority and similar maturity (less than one-year difference).

Source: ICE-BAML, Goldman Sachs Global Investment Research

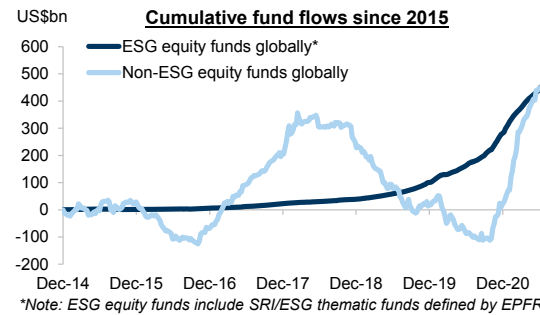
**Exhibit 172: AUM of ESG funds has risen rapidly in the past few years...**



\*Note: ESG equity funds include SRI/ESG thematic funds defined by EPFR.

Source: EPFR, Goldman Sachs Global Investment Research

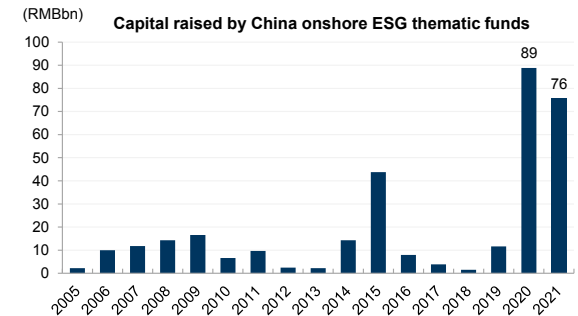
**Exhibit 173: ...driven by strong fund inflows**



\*Note: ESG equity funds include SRI/ESG thematic funds defined by EPFR.

Source: EPFR, Goldman Sachs Global Investment Research

**Exhibit 174: Onshore investor interest in ESG themes remains strong**



Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 175: China has recently made significant regulatory changes to improve transparency and governance of A-shares**

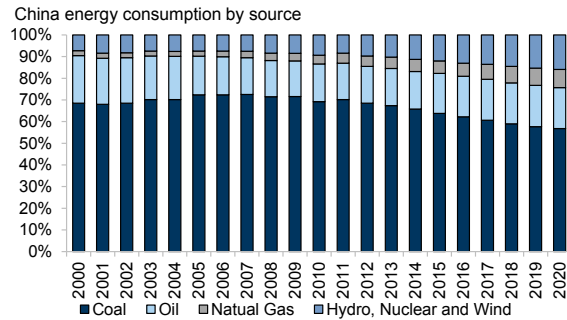
Recent regulations to improve governance and quality of disclosures for Chinese listed companies

Regulation / Policy	Issuer	Year	Note
Revision of Securities Law	China Securities Regulatory Commission (CSRC)	Mar-20	<ul style="list-style-type: none"> <li>- <b>Transition to a market oriented registration-based IPO system</b>, which replaces the existing approval-based regulatory framework in order to liberalize capital markets</li> <li>- <b>Enhanced disclosure standards</b>, requiring information disclosed overseas to also be disclosed domestically</li> <li>- <b>Stronger shareholder protection</b> by allowing investor protection agencies to raise legal cases on behalf of shareholders, and by stipulating different protection measures for institutional and retail investors</li> </ul>
Follow up on State Council's Circular	China Securities Regulatory Commission (CSRC)	Nov-20	<ul style="list-style-type: none"> <li>- <b>CSRC has announced a campaign to enhance governance</b> of listed companies in China, which will include a three-year action plan on SOE reforms</li> <li>- <b>CSRC will strengthen supervision</b> over the exit mechanism of listed companies, fine-tune delisting criteria and streamline existing procedures</li> <li>- <b>CSRC will reduce risks</b> associated with stock pledges and reaffirmed zero tolerance over illegal activities in the capital market</li> <li>- <b>CSRC is encouraging</b> listed companies to submit self-assessment surveys to CSRC portal by April 30th, 2021</li> </ul>
Circular on improving quality of listed companies	State Council	Oct-20	<ul style="list-style-type: none"> <li>- <b>State Council recommends improvements on</b> standardizing management systems, and clarifying duties/legal responsibilities of controlling shareholders (including UBOs) and management</li> <li>- <b>Encourages timely disclosure</b> of material information</li> <li>- <b>Recommends simplification of delisting procedures</b>, intensifying supervision from regulators</li> </ul>
Revision of Corporate Governance Code	China Securities Regulatory Commission (CSRC)	Sep-18	<ul style="list-style-type: none"> <li>- <b>Stronger shareholder protection measures</b>, which include minority shareholders rights, clarification of dividend policies, more stringent restrictions on related party transactions</li> <li>- <b>Mandates an audit committee</b>, which is to be led by accounting professionals or independent directors</li> <li>- <b>Encourages ESG initiatives</b>, especially on environmental protection and poverty alleviation</li> <li>- <b>Encourages shareholder engagement</b> on corporate governance</li> <li>- <b>Encourages board diversity</b></li> <li>- <b>Prohibits unfair or inconsistent voluntary disclosures</b> that leads to market manipulation</li> </ul>

Source: CSRC, Data compiled by Goldman Sachs Global Investment Research

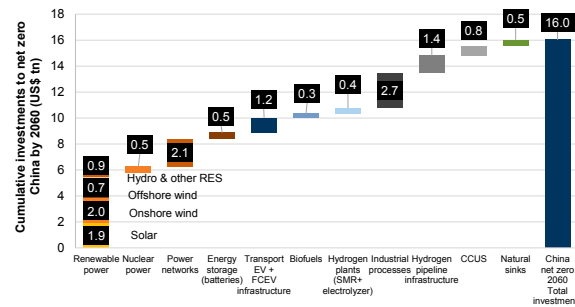


**Exhibit 176: Share of clean/renewable energy in total energy consumption has been growing over the past decade**



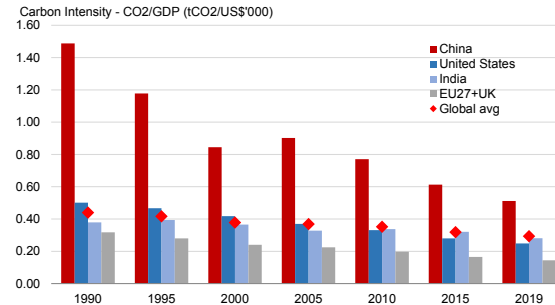
Source: NBS

**Exhibit 179: China's net zero path implies a US\$16 tn clean tech infrastructure investment opportunity by 2060...**



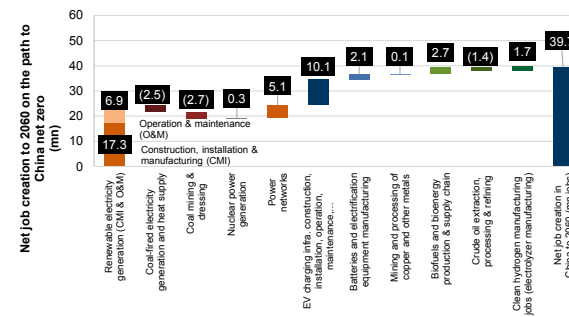
Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 177: GDP carbon intensity has fallen over the 3 past decades, but still comparatively high on a global basis**



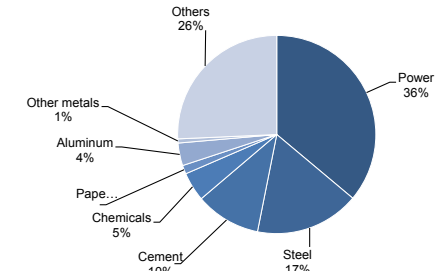
Source: European Commission Joint Research Centre (JRC), Emission Database for Global Atmospheric Research (EDGAR) release version 5.0, Goldman Sachs Global Investment Research

**Exhibit 180: ...creating c.40 mn net new jobs.**



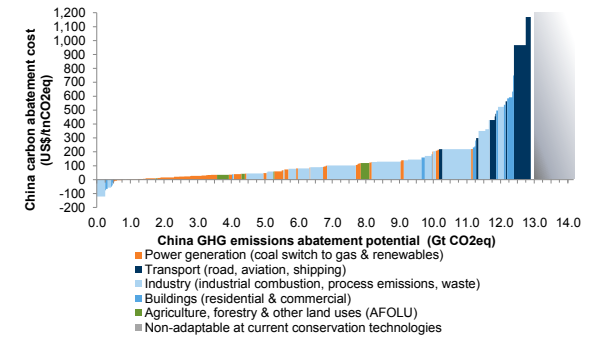
Source: UNEP - ILO - IOE - ITUC, EuropeOn, IRENA, NBSC, Goldman Sachs Global Investment Research

**Exhibit 178: CO2 emission is mainly driven by power usage**



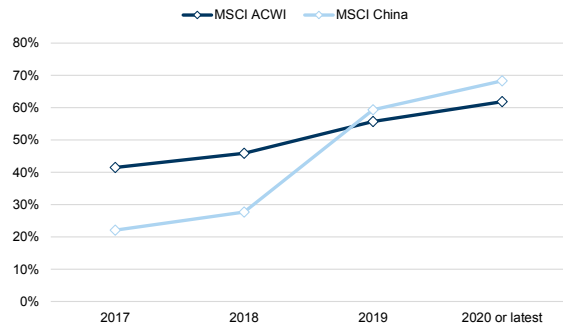
Source: GEIDCO, Goldman Sachs Global Investment Research

**Exhibit 181: China's de-carbonization cost curve shows that most of the low cost spectrum is dominated by renewable power generation**



Source: Goldman Sachs Global Investment Research

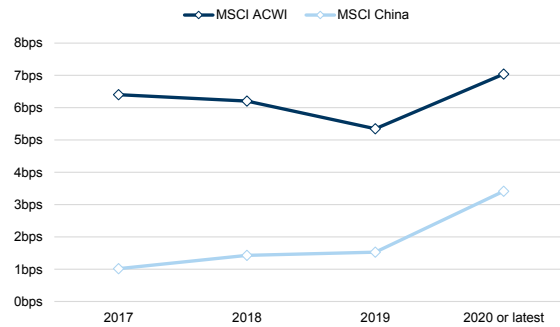
**Exhibit 182: Corporate donation disclosures have significantly increased for Chinese companies in the past few years**



Excludes Financials

Source: Refinitiv Eikon, Goldman Sachs Global Investment Research

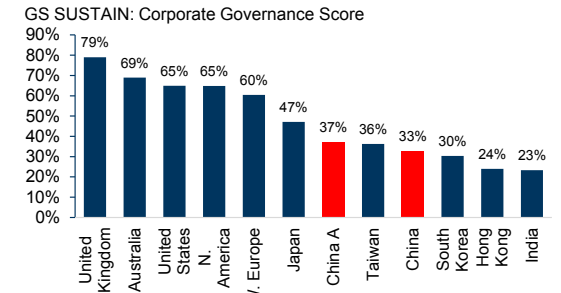
**Exhibit 183: Corporate donations per revenue have increased in 2020, although donations are still lower among Chinese companies compared to global peers**



Excludes Financials

Source: Refinitiv Eikon, Goldman Sachs Global Investment Research

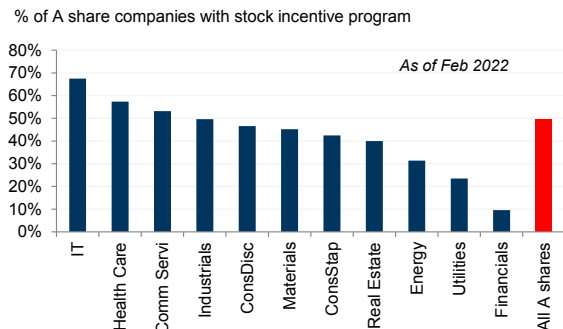
**Exhibit 184: China does not rank high on Corporate Governance compared to major markets globally**



Note: Corporate Governance Score is based on ESG framework by GS SUSTAIN. Ranked base on Independence & Accountability and Board Composition. Data as of 8/17/2020

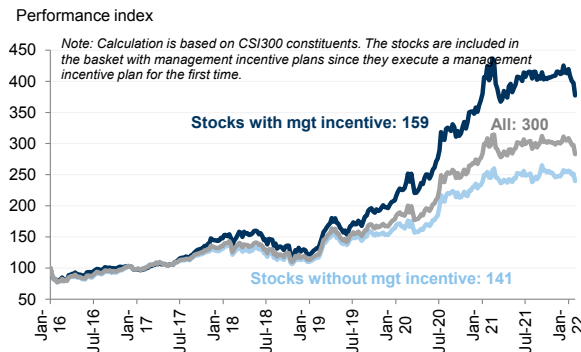
Source: Company Data, Goldman Sachs Global Investment Research, Bloomberg, Thomson Reuters

**Exhibit 185: Quantifying governance: a) More than 1/3 of listed A shares have engaged in stock incentive program, concentrating in Tech and Healthcare**



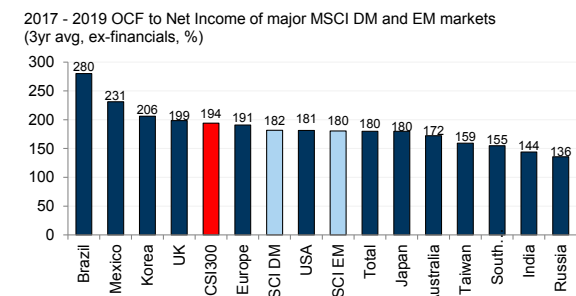
Source: Wind

**Exhibit 186: Stocks with management incentive plan have outperformed**



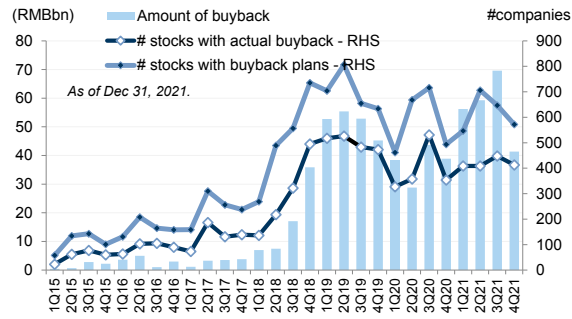
Source: Wind, FactSet, Goldman Sachs Global Investment Research

**Exhibit 187: Quantifying governance: b) A-share operating cash flow seems strong in a global context**



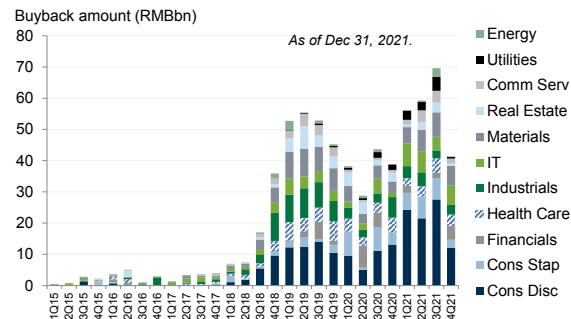
Source: FactSet, IBES, Goldman Sachs Global Investment Research

**Exhibit 188: Quantifying governance: c) A-share buybacks were relatively active in 2021...**



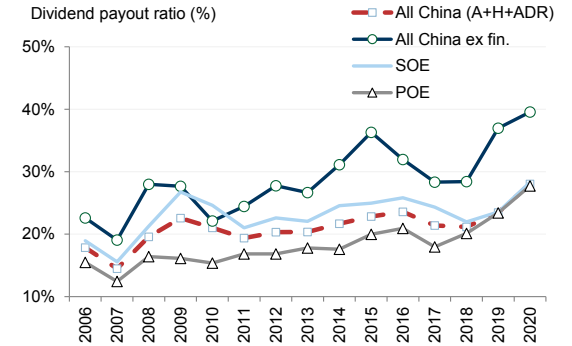
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 189: ...mainly concentrated in the Consumer sectors**



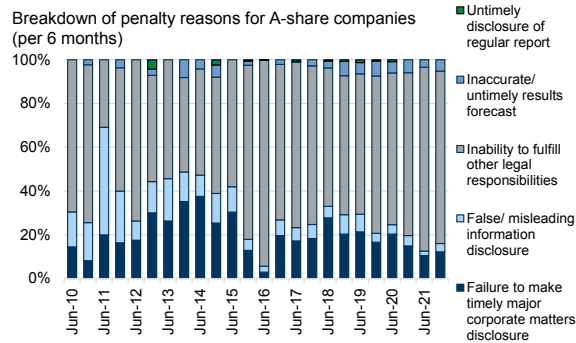
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 190: Quantifying governance: d) Dividend payout ratios have rebounded in recent years**



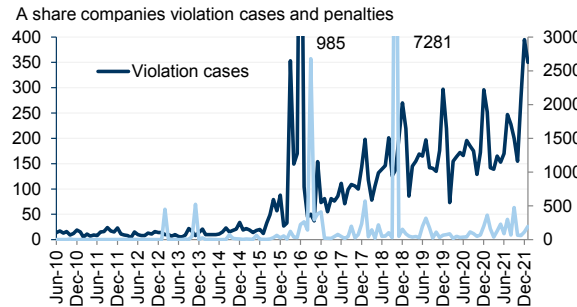
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 191: Common penalty reasons for A share companies include inability to fulfill other legal responsibilities and failure to make timely disclosures of major corporate matters**



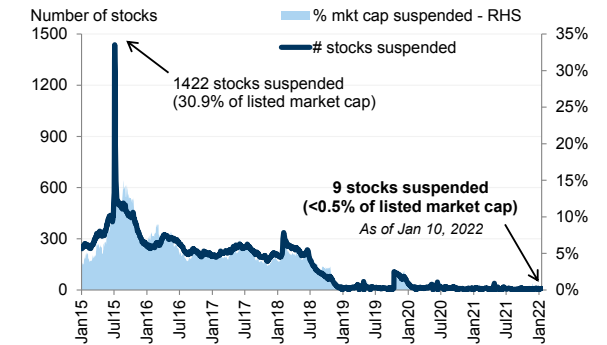
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 192: Security violation cases and the resulting penalties are rising in China A, likely reflecting more stringent supervision and penalty enforcement by regulators**



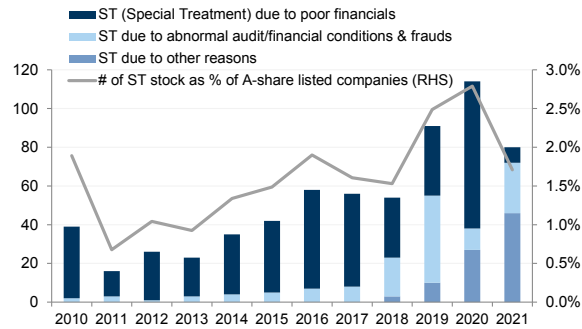
Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 193: The number of suspended stocks has fallen substantially from the peak**



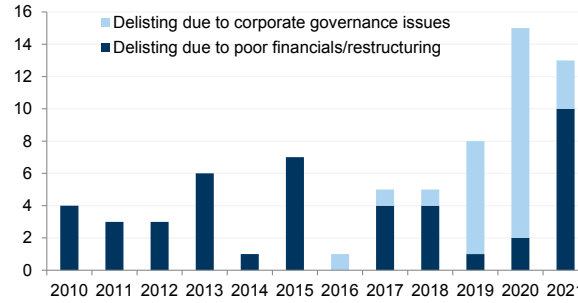
Source: Wind, FactSet

**Exhibit 194: The number of ST companies in the A-share market has been rising until 2021**



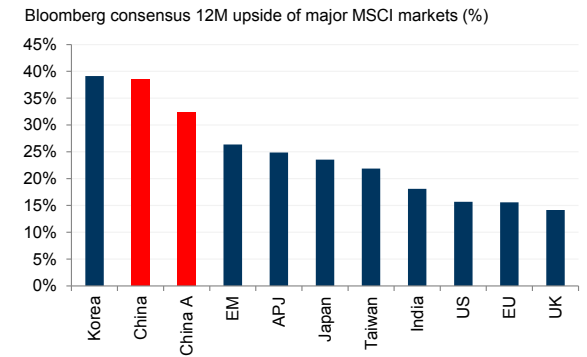
Source: Wind

**Exhibit 195: More delistings due to corporate governance issues**



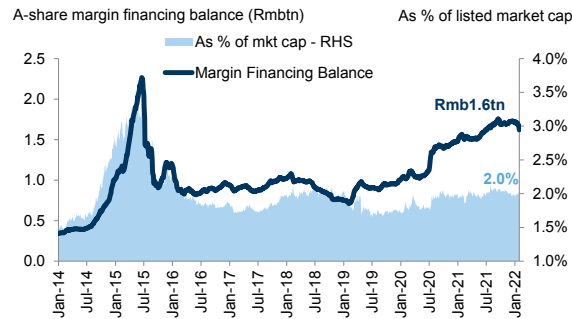
Source: Wind

**Exhibit 196: Consensus (Bloomberg) target-price implied upside for China is high compared with other major markets**



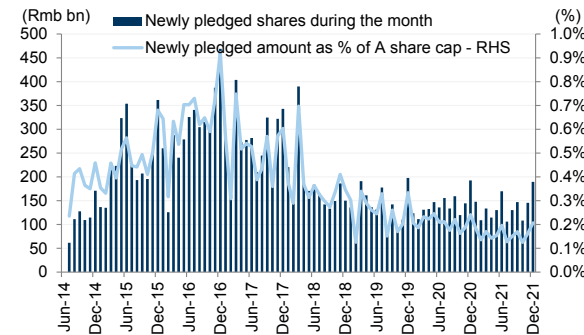
Source: MSCI, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 197: Margin financing (long) balance remains stable, at Rmb1.6tn**



Source: Wind, Bloomberg

**Exhibit 198: New borrowing through Share Pledged Loans (SPL) remained at a subdued level over the past few years**



Source: Wind

**Exhibit 199: We estimate about Rmb800bn of SPL face margin call risks at current price levels**

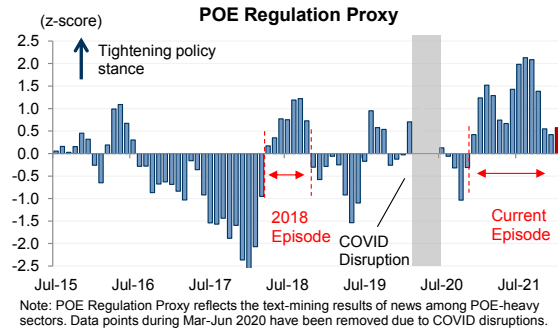
**Amount of stock pledged loans with margin call risks @150%**

If the market falls further from the current level	Value of pledged shares at inception (Rmb bn)	Estimated amount of loans (Rmb bn)			
		LTV ratio = 50%	LTV ratio = 45%	LTV ratio = 40%	LTV ratio = 35%
All SPL	6096	3048	2743	2438	2133
0%	1941	971	873	776	679
5%	2010	1005	905	804	704
10%	2110	1055	949	844	738
15%	2289	1144	1030	916	801
20%	2462	1231	1108	985	862
25%	2651	1326	1193	1061	928
30%	2899	1449	1304	1159	1015
35%	3279	1640	1476	1312	1148
40%	3932	1966	1770	1573	1376

Source: Wind, Goldman Sachs Global Investment Research

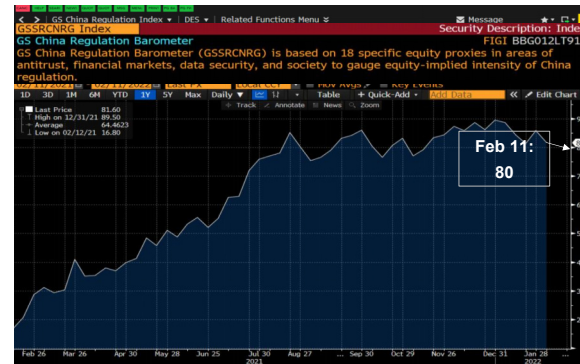
# 11. GS tools: Your China macro and markets toolkit

**Exhibit 200: The regulation tightening cycle is showing early signs of moderation per our POE Regulation Proxy**



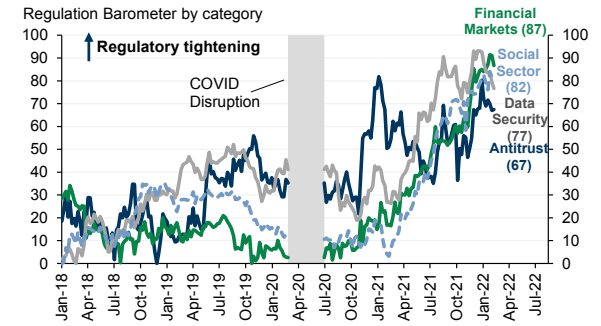
Source: Goldman Sachs Global Investment Research

**Exhibit 201: Regulation Barometer (GSSRCNRG) remains elevated at 80**



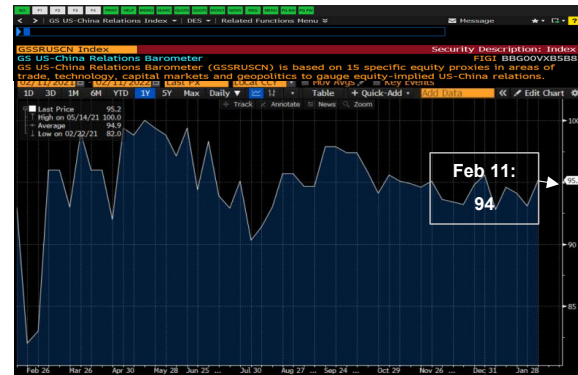
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 202: The regulation concerns over Financial Markets and Data Security remain elevated**



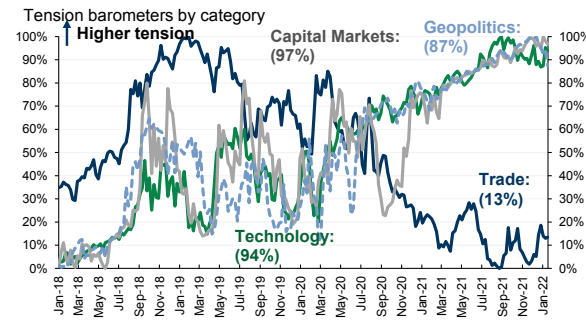
Source: MSCI, FactSet, Wind, Goldman Sachs Global Investment Research

**Exhibit 203: US-China Relations Barometer (GSSRUSCN) stays high at 94**



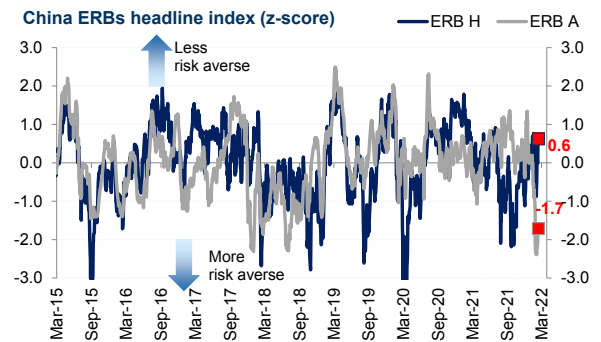
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 204: Except for the Trade barometer, other sub-indices remain elevated**



Source: Wind, FactSet, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 205: GSSRCERA is at -1.7 on Feb 10, suggesting subdued risk appetite onshore**

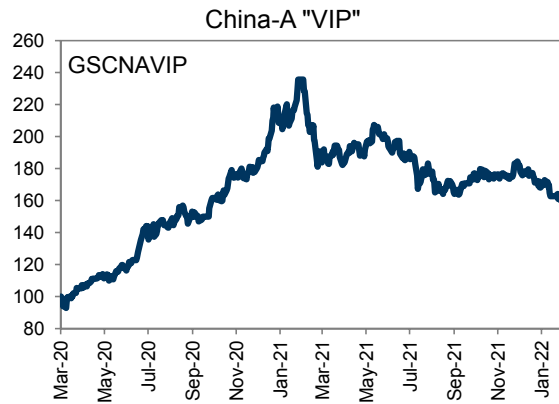


Source: FactSet, MSCI, Bloomberg, Goldman Sachs Global Investment Research

For details of CERH, please refer to [China: Portfolio Strategy Research: Introducing GS China Equity Risk Barometer](#)

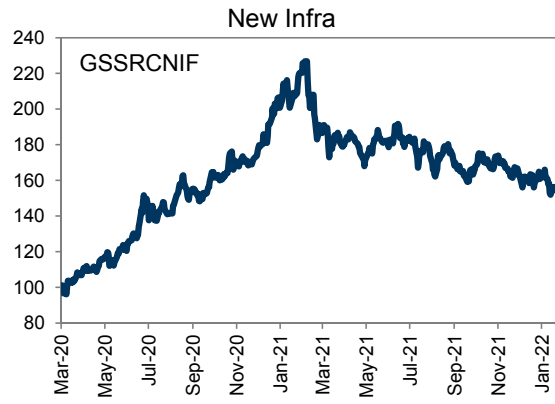
For details of CERA, please refer to [China Strategy: Introducing GS Equity Risk Barometer for A shares](#)

**Exhibit 206: Our China-A VIP basket (GSCNAVIP) consists of 30 'most popular' A-share stocks based on most OW positions, high Northbound ownership and top 'consensus Buy' ratings**



Source: FactSet, MSCI, Goldman Sachs Global Investment Research

**Exhibit 207: Our 'New Infra' basket (GSSRCNIF) consists of 28 stocks across 14 sub-industries, capturing linkages from both supply (investment) side and demand/product offering/application perspective**



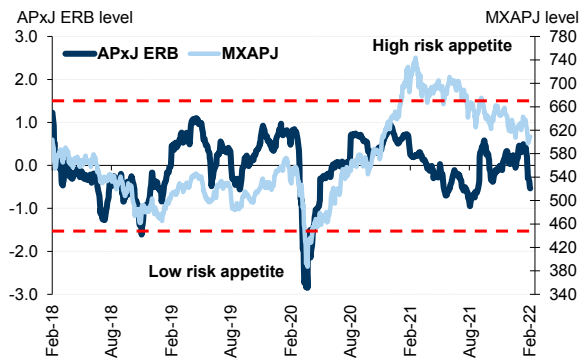
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 208: Our A-shares retail sentiment is around the mid-level of the range**



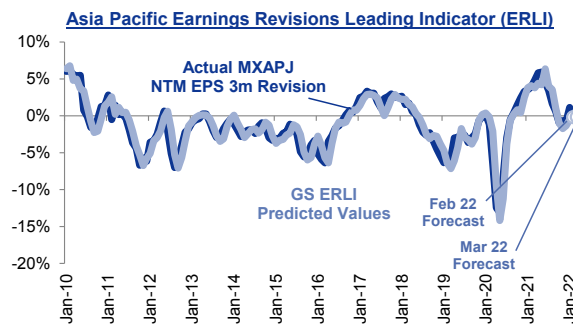
Source: Goldman Sachs Global Investment Research

**Exhibit 209: Risk appetite declined across the Asia Pacific ex-Japan region**



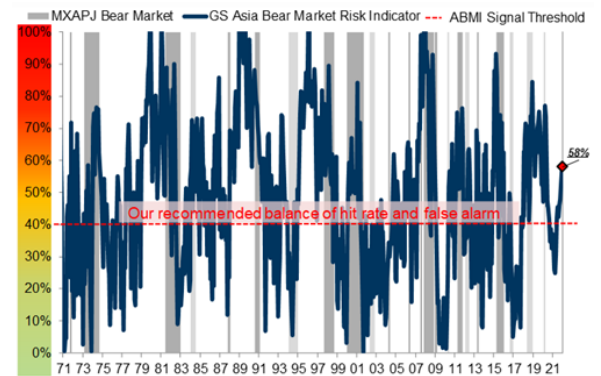
Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 210: Our ERLI forecasts further near-term negative earnings revisions**



Source: MSCI, FactSet, Goldman Sachs Global Investment Research

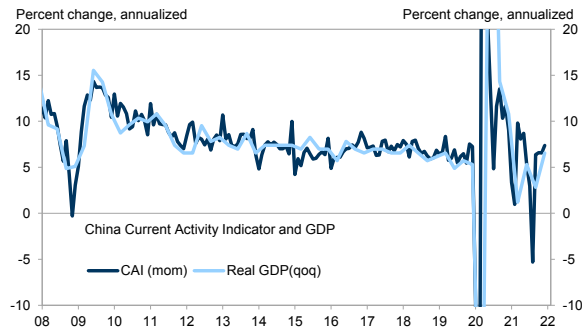
**Exhibit 211: Our Asia Bear Market Indicator has risen further to 58% , suggesting moderate chance for an equity bear market for the APxJ region**



For details of ABMI, please see Global Strategy Paper: The bear facts: Constructing an Asia bear market risk indicator

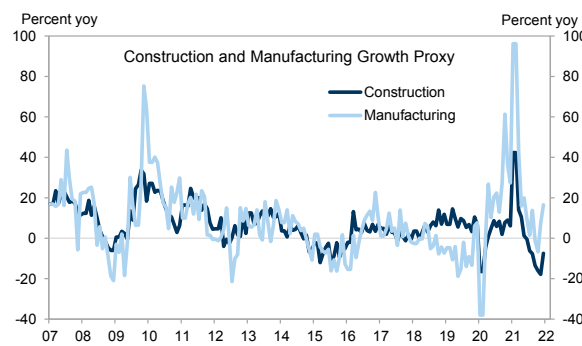
Source: Goldman Sachs Global Investment Research

**Exhibit 212: Our China Current Activity Indicator (CAI) edged up to 7.4% mom annualized sa in December**



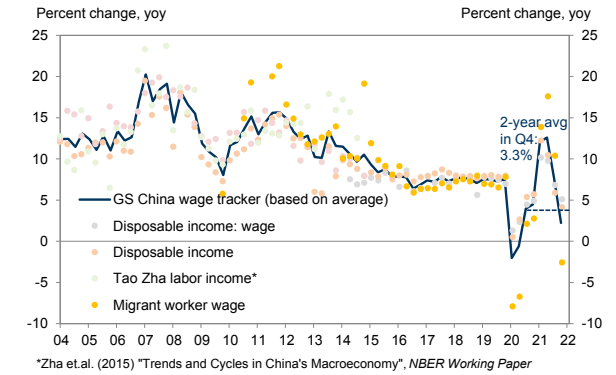
Source: Goldman Sachs Global Investment Research, NBS, CEIC

**Exhibit 213: Construction activities continued to underperform manufacturing activities in December**



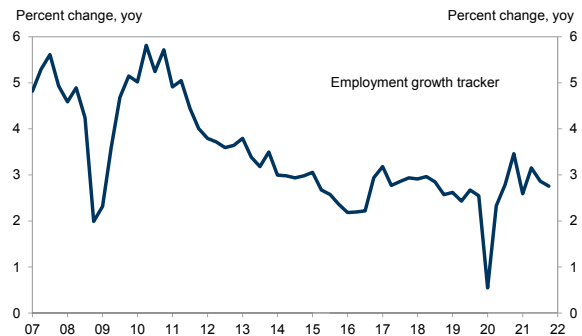
Source: Haver Analytics, Goldman Sachs Global Investment Research

**Exhibit 214: Our wage growth tracker shows wage growth slowed meaningfully in Q4, and the 2-year average growth remains below pre-outbreak levels**



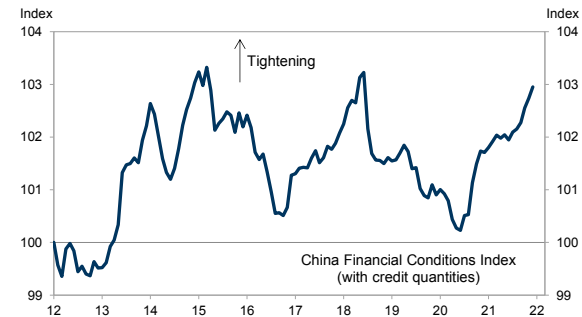
Source: CEIC, Goldman Sachs Global Investment Research, NBS, Federal Reserve Bank of Atlanta center for quantitative economic research

**Exhibit 215: Employment growth slowed further in Q4 based on our employment tracker**



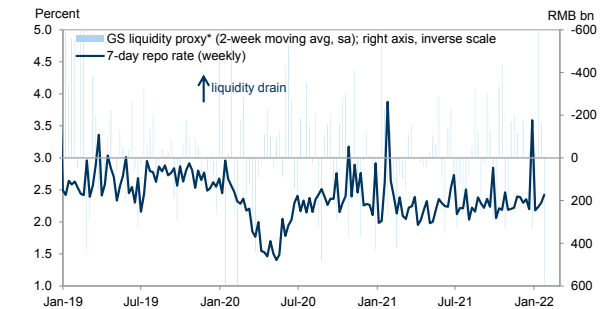
Source: Goldman Sachs Global Investment Research, Caixin, NBS, Manpower

**Exhibit 216: China Financial Conditions Index (including credit quantities) tightened further in December on stronger CNY**



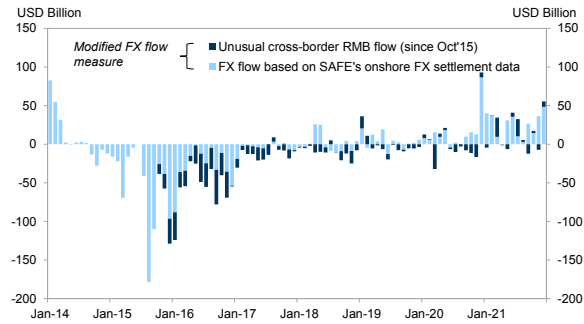
Source: Goldman Sachs Global Investment Research, CEIC, Bloomberg

**Exhibit 217: Our interbank liquidity proxy shows liquidity injection this week but repo rates for all financial institutions remained above 2.0%**



Source: PBOC, Wind, Goldman Sachs Global Investment Research

**Exhibit 218: Our preferred gauge of FX flows shows an increase in net inflows in December**



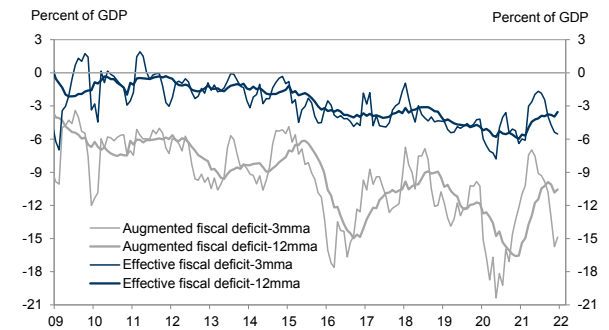
Source: Goldman Sachs Global Investment Research, SAFE

**Exhibit 219: China domestic macro policy proxy eased slightly in December, mainly driven by easier credit and monetary stance**



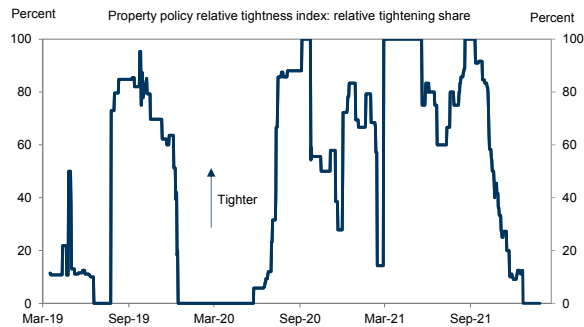
Source: Goldman Sachs Global Investment Research, Wind, Haver Analytics, CEIC

**Exhibit 220: Our measure of augmented fiscal deficit and on-budget deficit narrowed slightly on a 3-month basis in December**



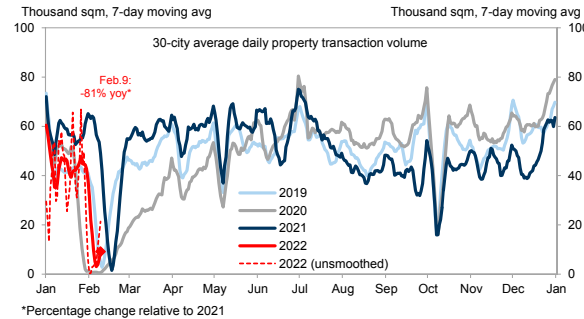
Source: Goldman Sachs Global Investment Research, CEIC, WIND

**Exhibit 221: City-level property relative tightness index suggests there have been no new local tightening policies over the past two months**



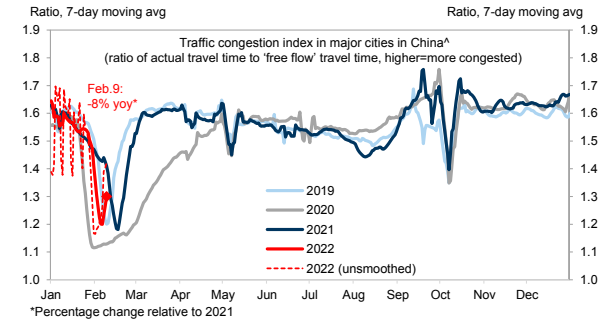
Source: Goldman Sachs Global Investment Research, Sofang.com

**Exhibit 222: 30-city daily property transaction volume recovered marginally slower than the past few years after the Chinese New Year holiday**



Source: Wind, Goldman Sachs Global Investment Research

**Exhibit 223: Traffic congestion conditions around Chinese New Year have been close to the levels in 2019**

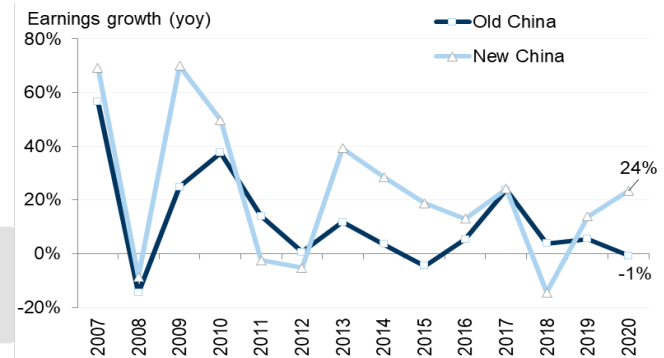
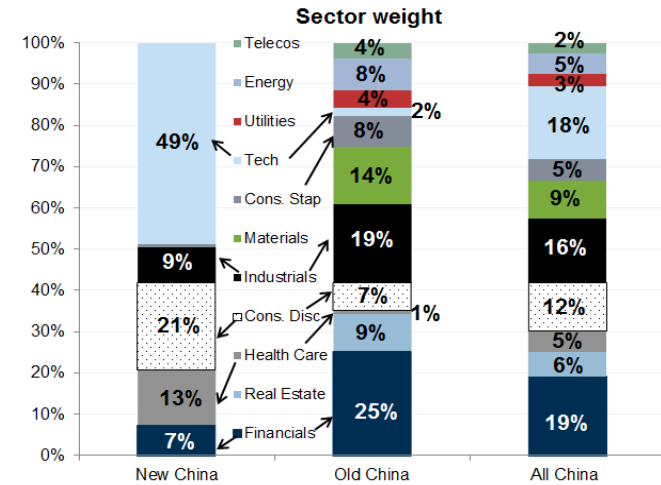
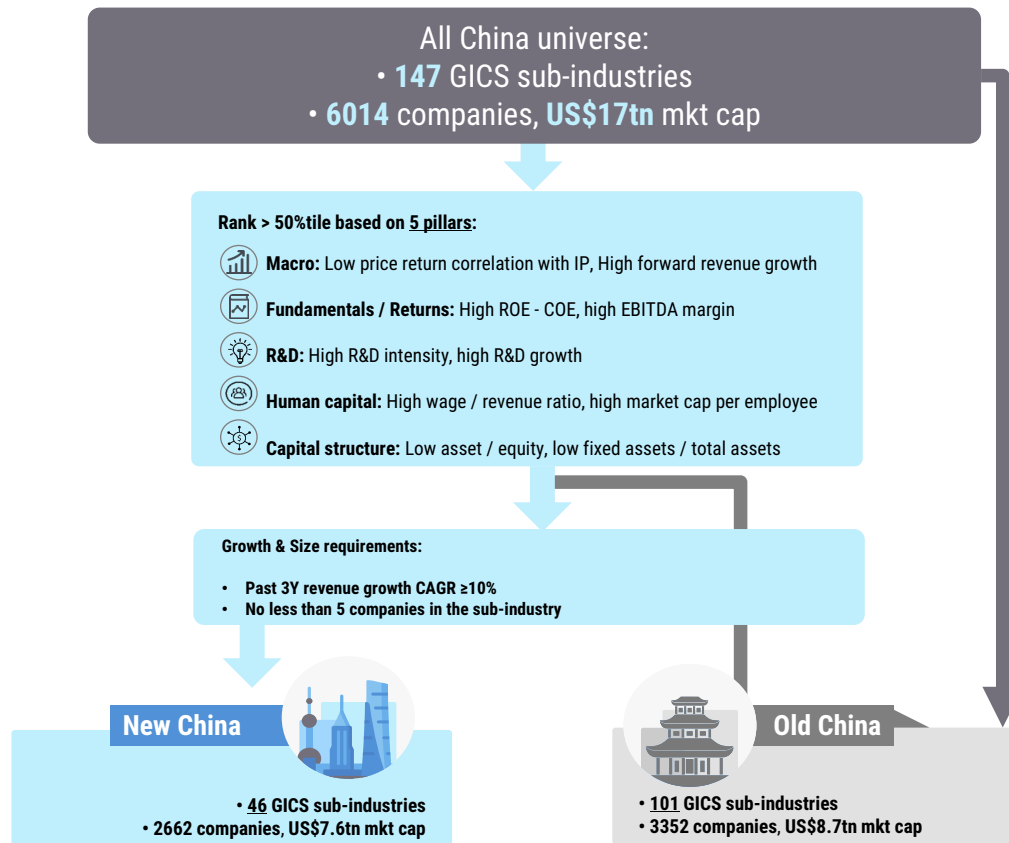


<sup>^</sup>Population weighted average of 100 cities

Source: Wind, Goldman Sachs Global Investment Research

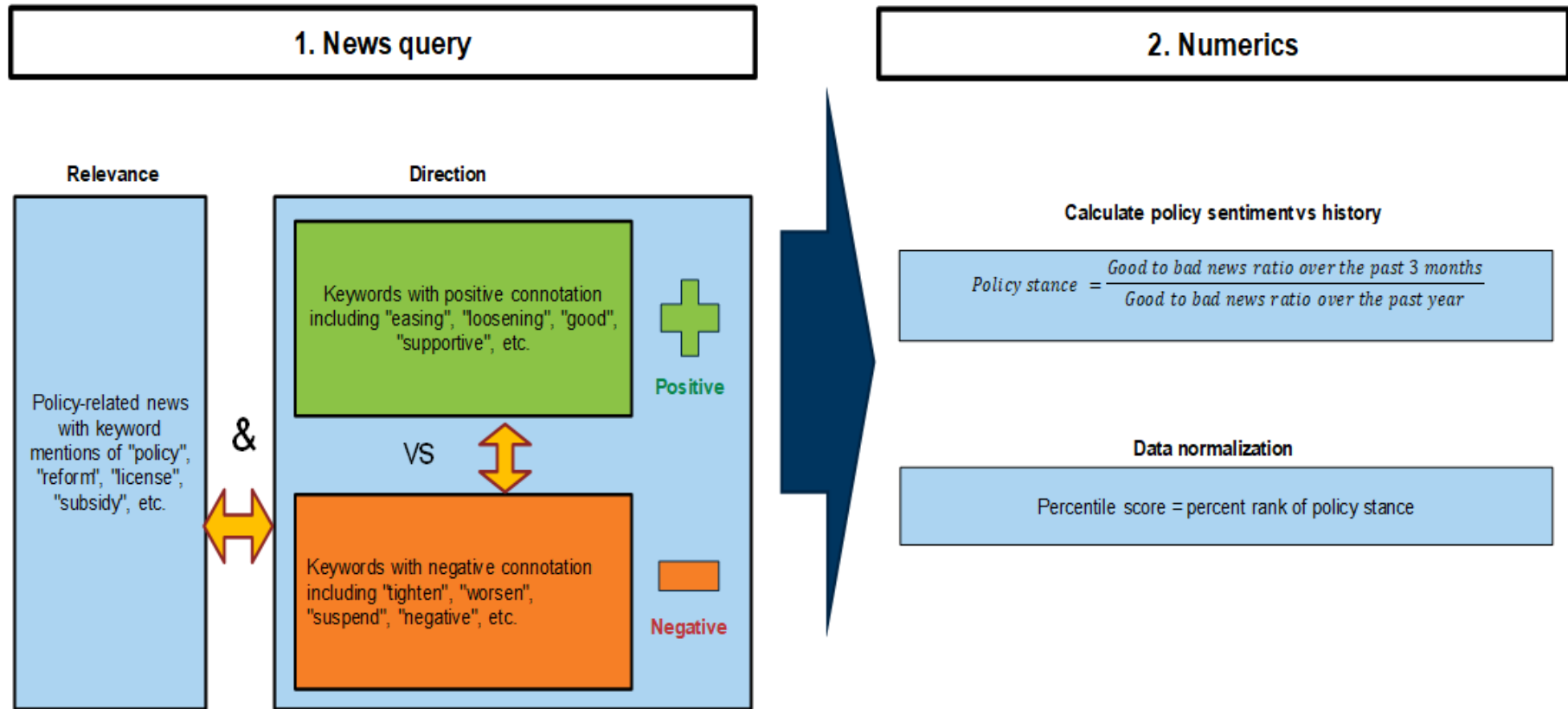


Exhibit 224: Our top-down methodology to identify 'New China' sub-industries in the listed equity universe



Source: Goldman Sachs Global Investment Research

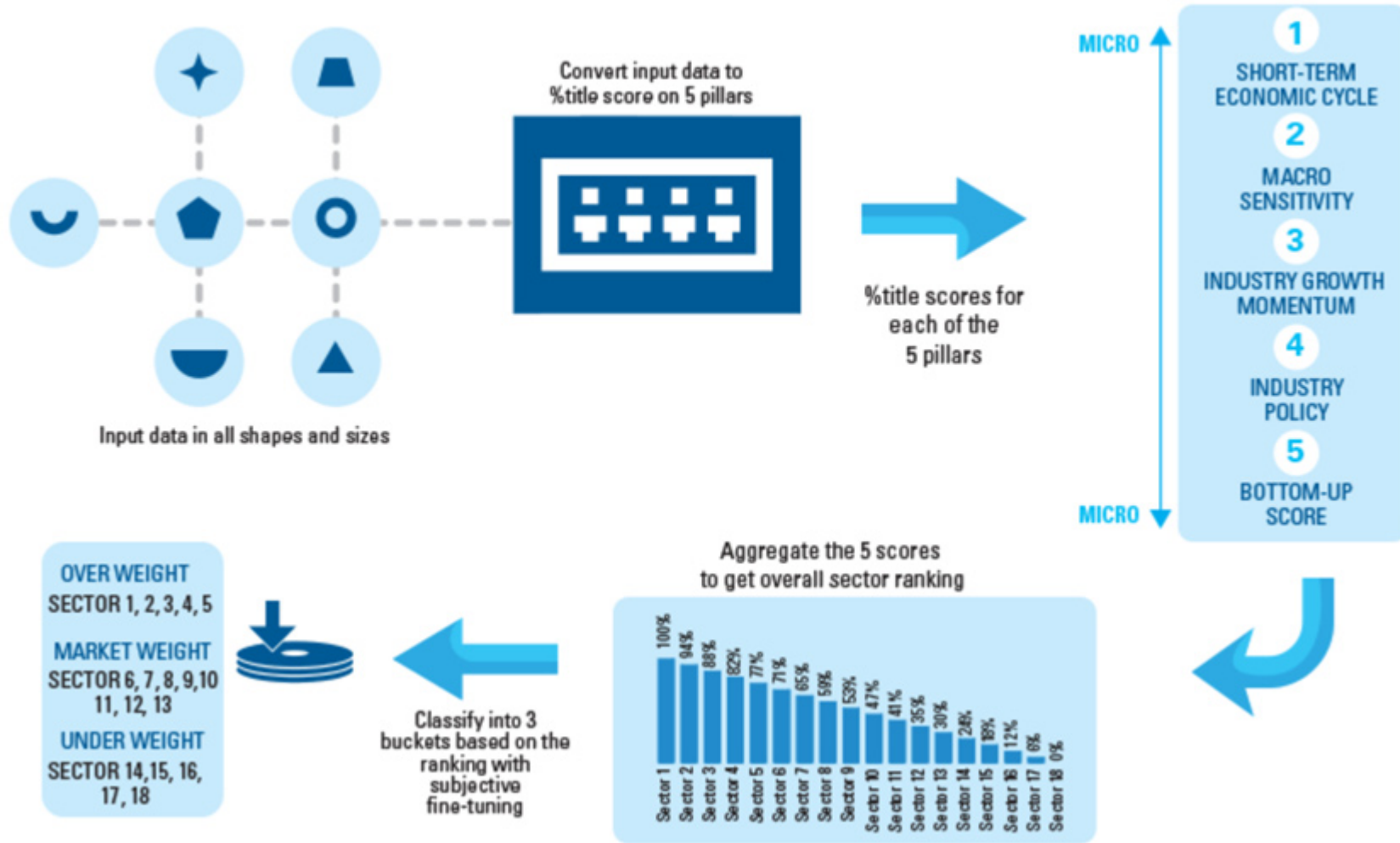
Exhibit 225: Methodology diagram of our policy score calculation



Source: Goldman Sachs Global Investment Research


Exhibit 226: Our sector allocation framework is built upon considerations which cut across the cycle, macro, industry, micro, and policy dimensions

# China sector allocation framework



Source: Goldman Sachs Global Investment Research

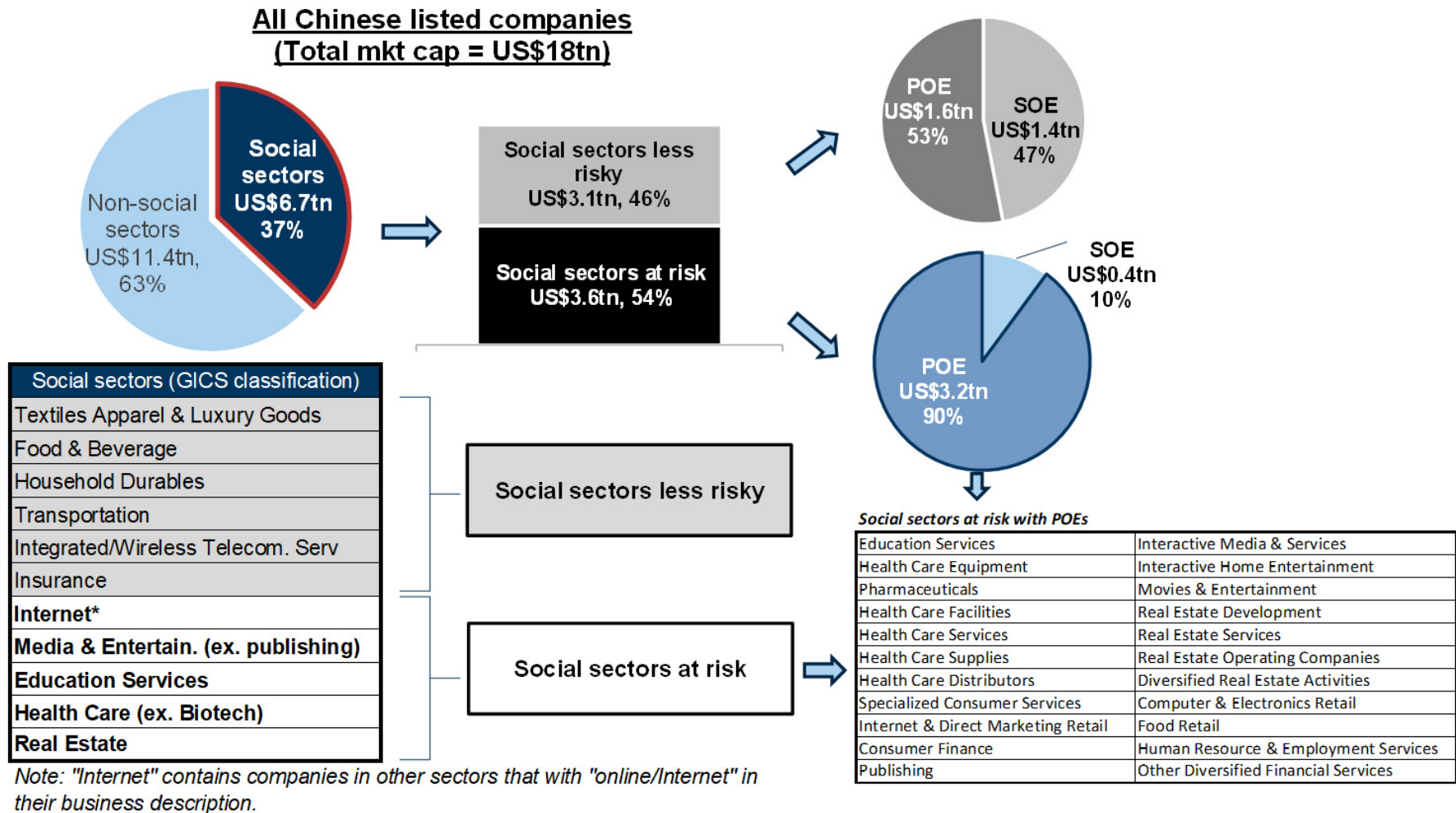
Exhibit 227: The 7 'New Infra' areas per the government's definition

	TRANSPORT	Consensus 19-21E EPS CAGR	GS 2020E CAPEX (RMB bn)	19-21 CAPEX CAGR	GICS INDUSTRY GROUPS
 <p><b>New Infrastructure</b></p> <p>14% 19-21E EPS CAGR</p> <p>2.4tn RMB CAPEX 2020E</p>	Intercity Rail & Urban transit	7%	889	14%	<ul style="list-style-type: none"> <li>Machinery</li> <li>Electrical Equipment</li> </ul>
	<b>IT</b>				
	5G base stations & networks	21%	105	84%	<ul style="list-style-type: none"> <li>Capital Goods</li> <li>Technology Hardware &amp; Equipment</li> <li>Semiconductors &amp; Equipment</li> <li>Software &amp; Services</li> <li>Telecommunication Services</li> <li>Media &amp; Entertainment</li> <li>Retailing</li> <li>Consumer Durables &amp; Apparel</li> </ul>
	Artificial Intelligence	8%	497	19%	
	Data center	15%	65	21%	
	Industrial IoT	25%	284	17%	
	<b>NEW ENERGY</b>				
Ultra-high voltage (UHV)	13%	150	48%	<ul style="list-style-type: none"> <li>Capital Goods</li> <li>Technology Hardware &amp; Equipment</li> </ul>	
EV charging piles	15%	7	78%		

Source: IBES, Goldman Sachs Global Investment Research



Exhibit 229: Our framework suggests US\$3.2tn of market cap could be more exposed to regulation uncertainty



Source: FactSet, Wind, Bloomberg, Goldman Sachs Global Investment Research

## Exhibit 230: The announced regulations so far in this cycle can be broadly grouped under four main categories, in our view

	Anti-trust	Financial Markets	Data Security	Social Sector
Dec-21	China policymakers would <b>"strengthen anti-monopoly and be against unfair competition"</b> in 2022, according to the statement issued after the annual <b>Central Economic Work Conference</b>	According to Reuters (Dec 17), citing unidentified persons, Chinese regulators are planning to ban online brokers such as <b>Futu and UP Fintech</b> from offering offshore trading services to mainland clients. The potential ban is driven by concerns over <b>data security and capital outflow</b> , as Reuters reported	<b>MIIT</b> (Dec 9) ordered <b>106 apps</b> to be removed from app stores following the campaign launched on Nov 3 targeting data violations such as unnecessary collection of <b>users' personal information</b>	<b>The State Tobacco Monopoly Administration</b> (Dec 2) issued draft rules governing <b>e-cigarettes</b>
	<b>SAMR</b> announced <b>13</b> past merger & acquisition deals failed to report market concentration risks, and imposed a fine of <b>RMB500k</b> for each deal	China's e-commerce livestreaming KOL Viya was fined <b>RMB 1.34bn</b> for <b>tax evasion</b> , according to an announcement published by <b>State Taxation Administration</b> on its website on Dec 20	Reuters reported (Dec 15), citing people with knowledge of the matter, the Chinese government has been expanding the practice of taking minority stakes in private companies - known as <b>"golden share"</b> arrangements. According to Reuters, golden shares have been taken in <b>Truck Alliance</b>	<b>CAC</b> said on Dec 2 that it had summoned and fined social media company <b>Douban RMB1.5mn</b> over <b>"unlawful release of information"</b> . According to CAC, Douban has been punished 20 times since Jan
		<b>Local taxation bureau</b> in Beijing, Shanghai, Zhejiang, Jiangsu and Guangdong separately issued announcements (Dec 22), asking celebrities and online streamers to <b>"self-check" tax declarations and report business irregularity</b> to local authorities by end of 2021, otherwise they will face more severe actions from the authorities	According to <b>Southern Finance</b> (Dec 22), a state-backed media, <b>MIIT</b> suspended a cooperative partnership with <b>Alibaba Cloud</b> for <b>6mo</b> on alleged cybersecurity threats. MIIT earlier said that Alibaba Cloud failed to immediately report a <b>security loophole</b> related to Apache Log4j2, a Java-based tool widely used in enterprise systems	<b>Ministry of Education</b> said on Dec 13 that it was suspending new filing of <b>online tutoring apps</b> and withdrawing existing authorisations, including for apps that encourage <b>bad learning habits</b> by simply providing answers to exercises
		<b>CSRC</b> (Dec 24) put forward updates on rules regarding <b>overseas listings</b> , requiring companies to <b>register with CSRC before overseas offerings</b> . CSRC clarified that companies with <b>VIE structures</b> are eligible for overseas listing if they meet compliance requirements, but didn't provide further details	4 ministries including <b>CAC, MIIT, MPS and SAMR</b> jointly issued regulations targeting the use of <b>algorithm recommendation technology</b> , which will take effect on Mar 1, 2022. The finalized rules were approved by CAC in Nov 2021 after the public consultation ended in Sept 2021	<b>CAC (Dec 14)</b> imposed <b>RMB3mn</b> fine on <b>Weibo</b> for repeatedly <b>publishing illegal information</b> , which was said to have violated cybersecurity law and minor-protection law. CAC said its Beijing bureau had imposed <b>44 penalties</b> on Weibo <b>totalling 14.3mn yuan</b> for the year to Nov
		<b>NDRC and the Ministry of Commerce</b> (Dec 27) published the 2021 <b>"Negative List"</b> for foreign investments that will take effect on Jan 1, 2022. The updated list was shortened to <b>31</b> items compared with <b>33</b> items in 2020. Companies that operate in <b>industries where foreign investment is prohibited</b> would need to <b>apply for regulatory approval before overseas listings</b> . Similar to domestic listing companies, <b>foreign ownership</b> in these companies is capped at 30% in aggregate and 10% for a single investor	<b>CAC and 12 other ministries</b> published rules on <b>cybersecurity review</b> which will become effective on Feb 15, 2022. Platform companies with data on <b>more than 1mn users</b> are required to go through a cybersecurity review before they can list abroad. The finalized rules were approved by CAC in Nov 2021	<b>CAC's Beijing bureau</b> said on Dec 20 that CAC had summoned Zhihu for <b>"unlawful release of information"</b> and demanded <b>"immediate rectification"</b> from the company. Some functions would be suspended during the rectification period, as Zhihu announced
				<b>CAC</b> announced a <b>2-month campaign</b> on Dec 23 targeting <b>deceptive behaviors</b> on online platforms, such as faking fans and reviews, boosting engagement statistics, etc.

Source: SAMR, CBIRC, CSRC, MoC, MoE, State Council, CPMCC, NDRC, MIIT, CAC, Goldman Sachs Global Investment Research

Exhibit 231: The MIIT has highlighted 3 lists of "Little Giants" for preferential policy treatment

Criteria	
<b>Basic Criteria</b>	➤ SMEs registered in China for more than 3 years
	➤ Recognized by government as " <b>specialized, high-tech and new-style</b> "
	➤ Providing key components or supporting products for large enterprises and projects
	➤ Having ability to make R&D investment and innovate continuously
	➤ Implementing <b>long-term development</b> strategies, with solid <b>corporate governance</b> and strong sense of <b>social responsibility</b> .
<b>Specialized Criteria</b>	➤ Average growth rate of major business revenue or net profit in the past two years $\geq 5\%$ ; asset-liability ratio $\leq 70\%$
	➤ Engaged in specific market segments $\geq 3$ years leading products occupying the top 3 market share within the province
	➤ Possessing valid patents or software copyrights
	➤ Owing brand or obtaining relevant management system certification



**3 Rounds**  
**4762 "Little Giants"**

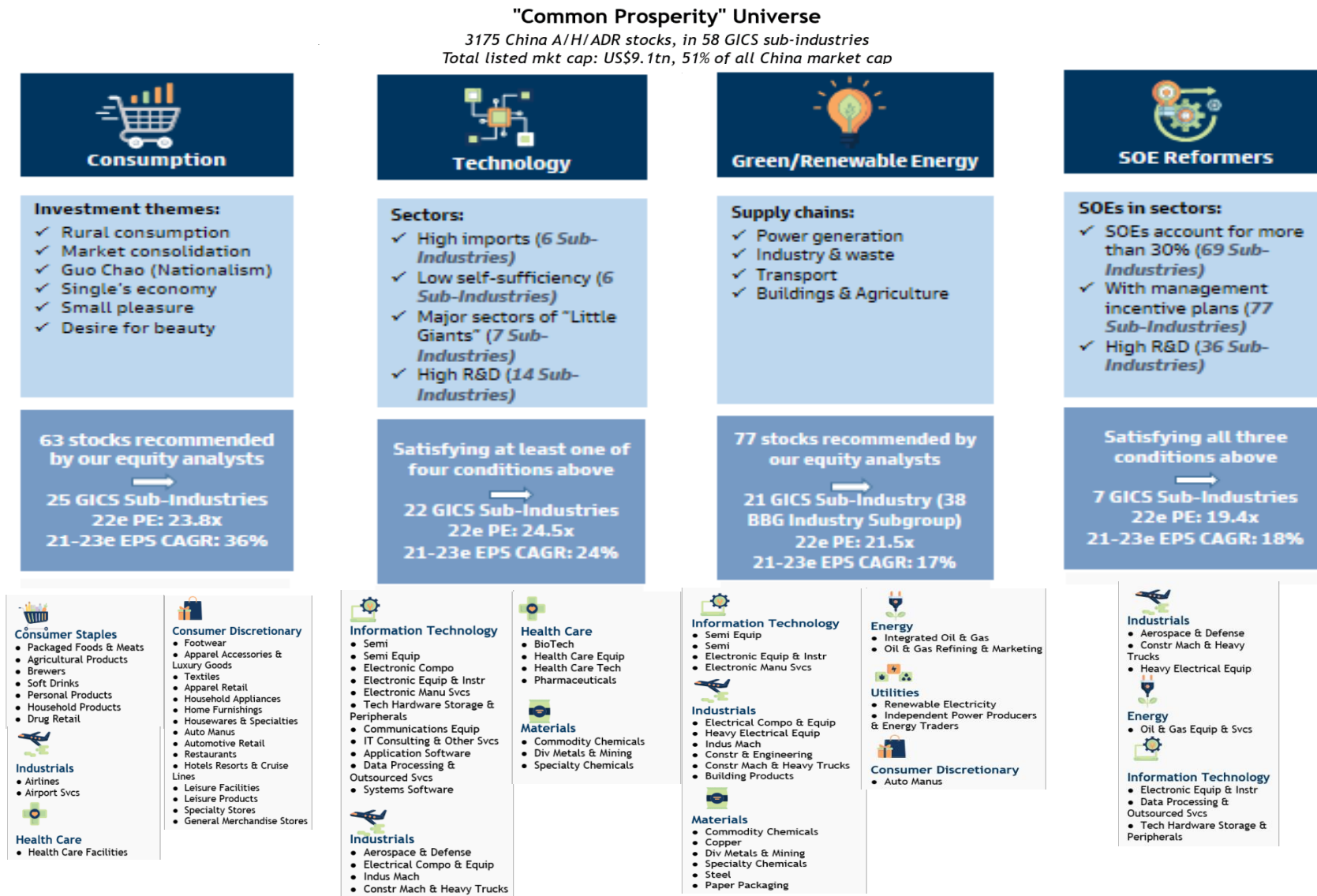
Announced by	Area	Policy Support	Period
<b>MoF</b>	Fiscal	➤ Subsidize >1000 "Little Giants" with <b>RMB 10bn</b> in total	2021-2025
<b>MIIT</b>	Financing	➤ <b>Broaden financing channels</b> for SMEs, and prepare high-quality ones for <b>IPOs</b>	Valid for 3 years <sup>^</sup>
	Resource Allocation	➤ Leverage market mechanism to <b>allocate technology, human capital and data</b> to these "Little Giants"	
	Regulation	➤ <b>Lower barriers to entry</b> by streamlining administrative and regulatory power	
	Digitalization	➤ Implement special action plans to enhance SMEs' ability to use <b>digital and design</b> resources	
	Public Service	➤ Support service agencies to develop service projects for innovative "Little Giant" enterprises, and conduct extensive management consulting and talent training	

*Note: Extension requires applications and review*

Source: MIIT, MoF, Data compiled by Goldman Sachs Global Investment Research



Exhibit 232: We form a "Common Prosperity" equity universe by mapping the four key thematic trends onto specific equity sectors



Source: FactSet, Wind, Goldman Sachs Global Investment Research

# Disclosure Appendix

## Reg AC

We, Kinger Lau, CFA, Timothy Moe, CFA, Si Fu, Ph.D. and Kevin Wang, CFA, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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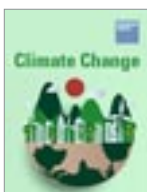
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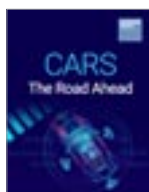
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Music in the Air



...and more

