



China A-Share Opportunity

Shanghai Mingshi Investment Management

September 2021



Asset Management

Compliance

Artificial intelligence



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MINGSHI INTRODUCTION



MINGSHI INTRODUCTION

Mingshi is a quantitative investment manager dedicated to the China A-share market.

Overview	History	Investment Style	Investment Products
<ul style="list-style-type: none">• USD3bio AUM• 125 full-time staff, 60 dedicated to the strategy department• Headquartered in Shanghai with offices in Beijing, Hong Kong, New York and Sydney• Mingshi's mission is to be the most trusted investment manager in China	<ul style="list-style-type: none">• 2010: Mingshi was founded in December 2010 by Professor Yu Yuan and Professor Robert Stambaugh.• 2013: Mingshi launched its first onshore China fund using its 20-day market neutral signal.• 2018: Mingshi launched its new generation of high-turnover signals, 3-5 day and intra-day.• 2019: Mingshi launched its first offshore market-neutral product via SMA.• 2020: Mingshi launched its first offshore commingled market neutral and long-only funds.	<ul style="list-style-type: none">• Mingshi represents the best combination of academic excellence and modern computer science.• Mingshi generates medium-frequency trading signals focused on the China-A share market (e.g. intraday, 3-5 day and 10 day holding periods).• Mingshi combines deep on the ground research experience with global best-in-class risk management and compliance.	<ul style="list-style-type: none">• Market Neutral• Long Only• CTA• Capital Markets

FOUNDERS



Professor Yu Yuan

Founder, CEO and Head of Strategy

- Ph.D. Finance, The Wharton School of the University of Pennsylvania (2008)
- Previously research associate at Reserve Bank of Dallas, visiting professor at Wharton, and Associate Professor at the Shanghai Advanced Institute of Finance
- Nine published works in top 3 financial journals: “Size and Value in China” which was published in the Journal of Financial Economics (October 2019)
- Prof. Yuan is responsible for managing the firm’s research teams and is chair of the Investment Committee



Professor Robert Stambaugh

Co-Founder, Chief Advisor

- Ph.D. Finance & Econometrics, University of Chicago (1981) under Professor Eugene Fama
- Currently the Miller Anderson & Sherrerd Professor of Finance at Wharton
- Previously Professor of Finance at University of Chicago, President of American Finance Association (2013), and Editor of Journal of Finance (2003-2006)
- As Chief Advisor to Mingshi, Prof. Stambaugh advises on the firm’s research and is integral to the overall strategic direction of the firm



CHINA A-SHARE MARKET PERFORMANCE

CHINA A-SHARE MARKET PERFORMANCE

China's equity markets have undergone major changes in the last decade



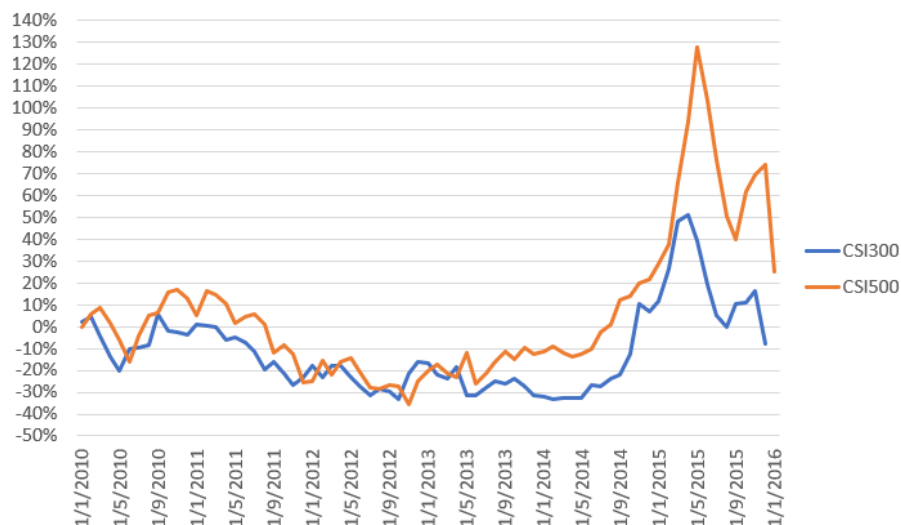
- The last decade in China's equity market can be viewed as two generations 1) 2010-2016 and 2) 2016-today

Year	Key Milestones
2010	<ul style="list-style-type: none"> Pilot margin trading introduced¹
2011	<ul style="list-style-type: none"> RQFII launches (original QFII was launched in 2002)
2014	<ul style="list-style-type: none"> Shanghai stock-connect launches (Nov) Connect single-stock shorting now available (Nov)
2015	<ul style="list-style-type: none"> SSE revises stock-suspension rules (Nov)
2016	<ul style="list-style-type: none"> Shenzhen stock connect launches (Dec)¹
2018	<ul style="list-style-type: none"> MSCI includes A-shares in its indices (May) SSE vision and action plan for green finance was issued (Dec)
2019	<ul style="list-style-type: none"> First batch of 25 companies listed on SSE Star Board (Jul) Russell includes A-shares in its indices (Jun)
2020	<ul style="list-style-type: none"> ChiNext listing reform, first group of 18 listings (Aug) QFII / RFII quotes removed (Jun) QFII single-stock shorting available (Nov)

CHINA A-SHARE MARKET PERFORMANCE

China's equity markets are entering a new generation of opportunity for international investors

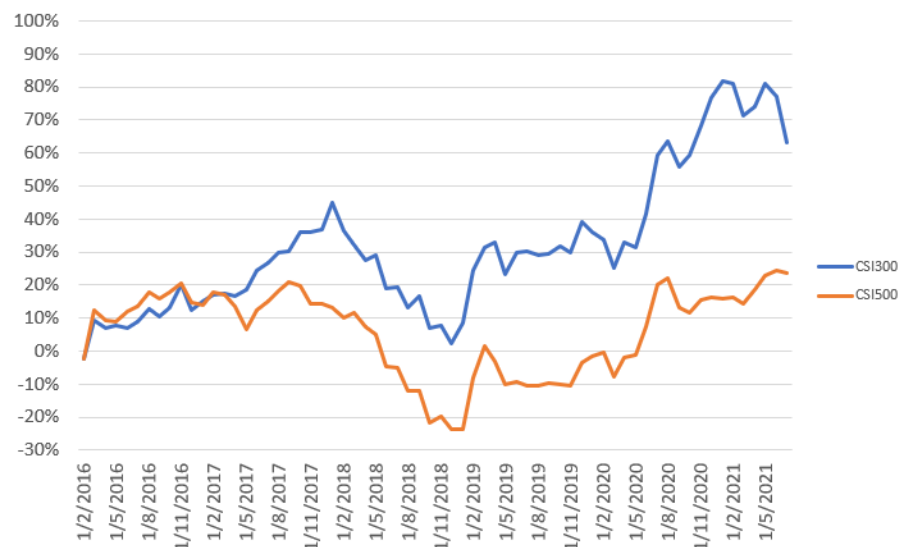
China Indices (Jan10-Jan16)



Highlights:

- Offshore investors limited by QFII restrictions
- No global index recognition
- Highly levered retail participants
- Retail participation approximately 90%¹²
- Reversal market led by mid-caps

China Indices (Feb16-Aug21)



Highlights:

- CSRC engages more with international investors
- Shanghai and Shenzhen stock connect growth
- MSCI, FTSE and Russell index inclusion
- Retail participation approximately 79%¹³
- Large-cap growth with mixed factor attribution
- High quality onshore managers begin moving offshore



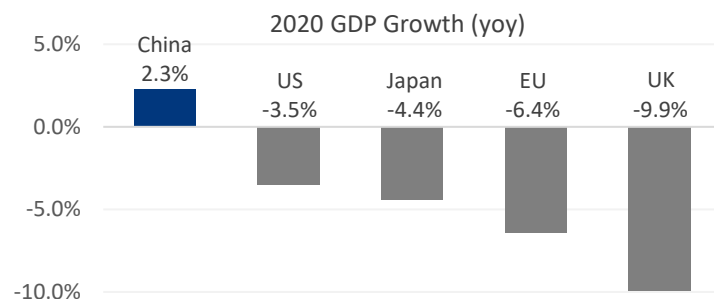
OPPORTUNITIES IN CHINA A-SHARES

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China represents high liquidity and uncorrelated sources of return

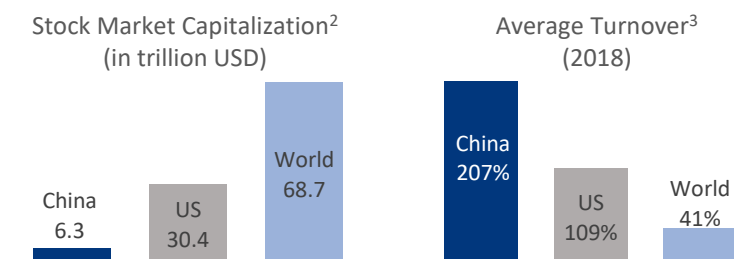
1. GDP growth

- China was the only major economy to register positive GDP growth in 2020



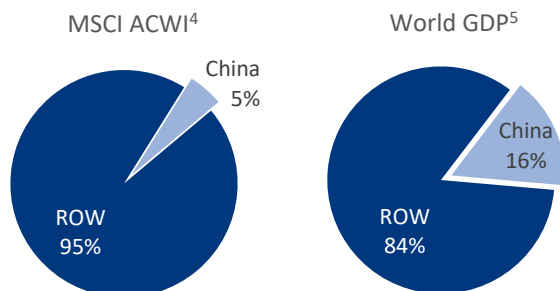
2. Size and liquidity

- China is the second largest market in the world by turnover



3. Under-allocation

- China is underrepresented in global indices compared to its share of the world's GDP



4. Diversification

- The China-A market has low correlation with other global equity markets

Global Equity Markets Correlation⁶

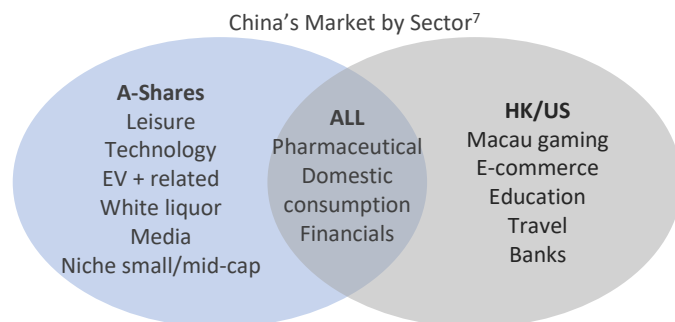
	China A	Global	Global EM	US	Europe
China A	1	0.21	0.45	0.15	0.20
Global	0.21	1	0.66	0.94	0.79
Global EM	0.45	0.66	1	0.49	0.64
US	0.15	0.94	0.49	1	0.64
Europe	0.20	0.79	0.64	0.64	1

OPPORTUNITIES IN CHINA A-SHARES

The China A-share market offers China exposure not available on international exchanges

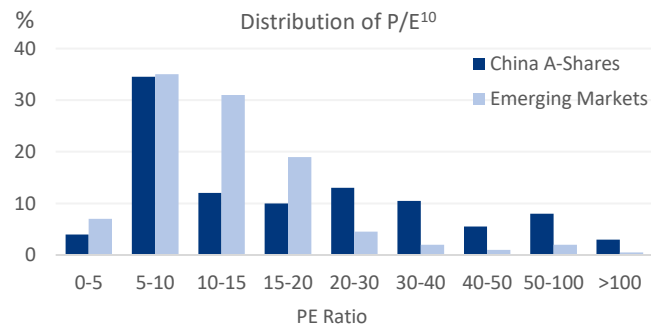
5. Market breadth

- A large number of sectors are only available in the onshore A-share market



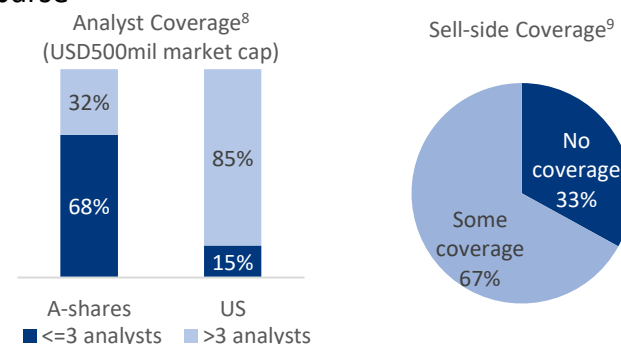
7. Valuation inefficiency

- China-A's retail investor base drive higher valuations versus regional peers



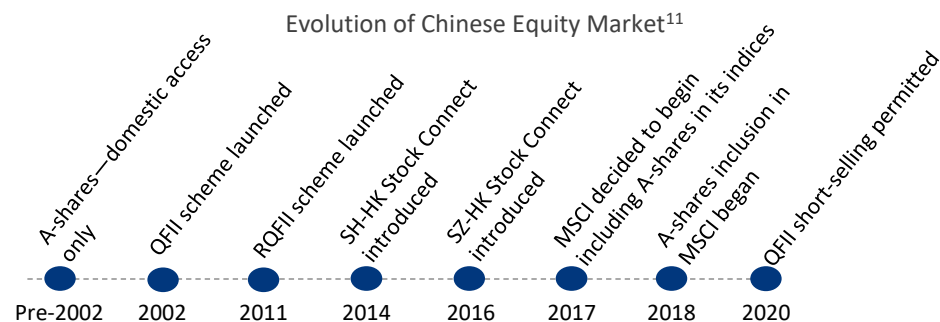
6. Informational inefficiency

- Sell-side coverage on China-A companies tends to be sparse



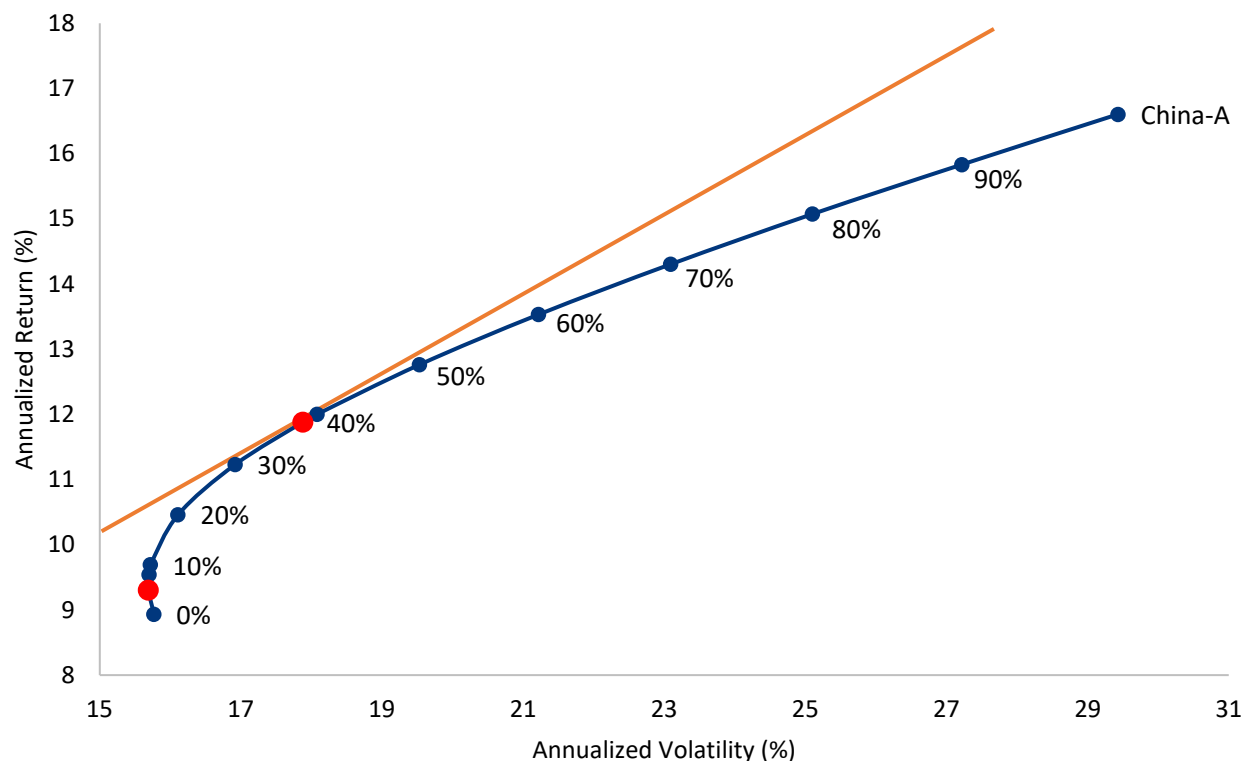
8. Increased access

- The China-A market continues to open up to foreign investors



OPPORTUNITIES IN CHINA A-SHARES

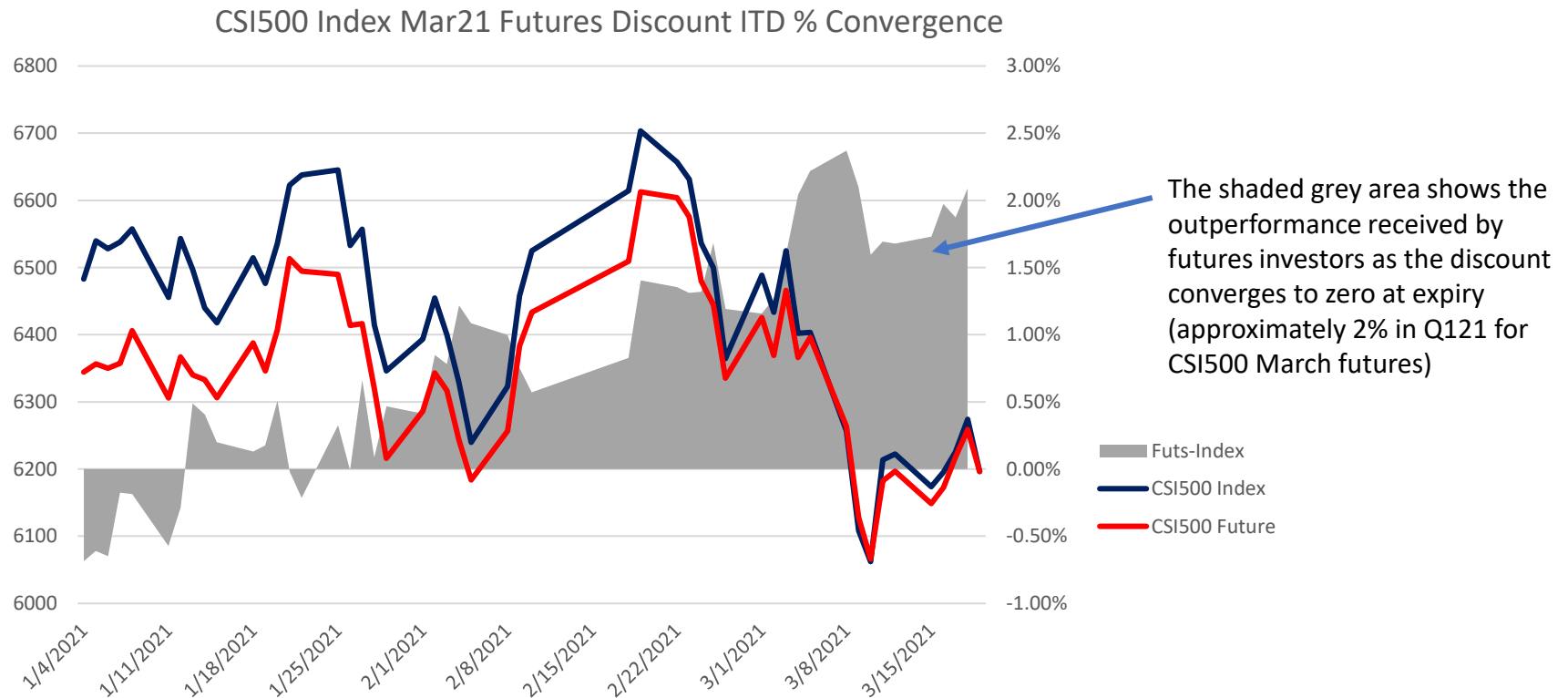
Inclusion of China-A in a global portfolio improves returns and Sharpe



- Current MSCI All China World Index (ACWI) allocation to China is sub-optimal, at **4.93%**⁴
- The optimal allocation to China-A in a global portfolio is **38.48%**
- Increasing China-A allocation to this level can improve annualized return by **2.58%** and Sharpe by **0.08**

CHINA'S INEFFICIENT FUTURES MARKET

Long China Beta investors can receive 'market risk-free' outperformance on their long index positions



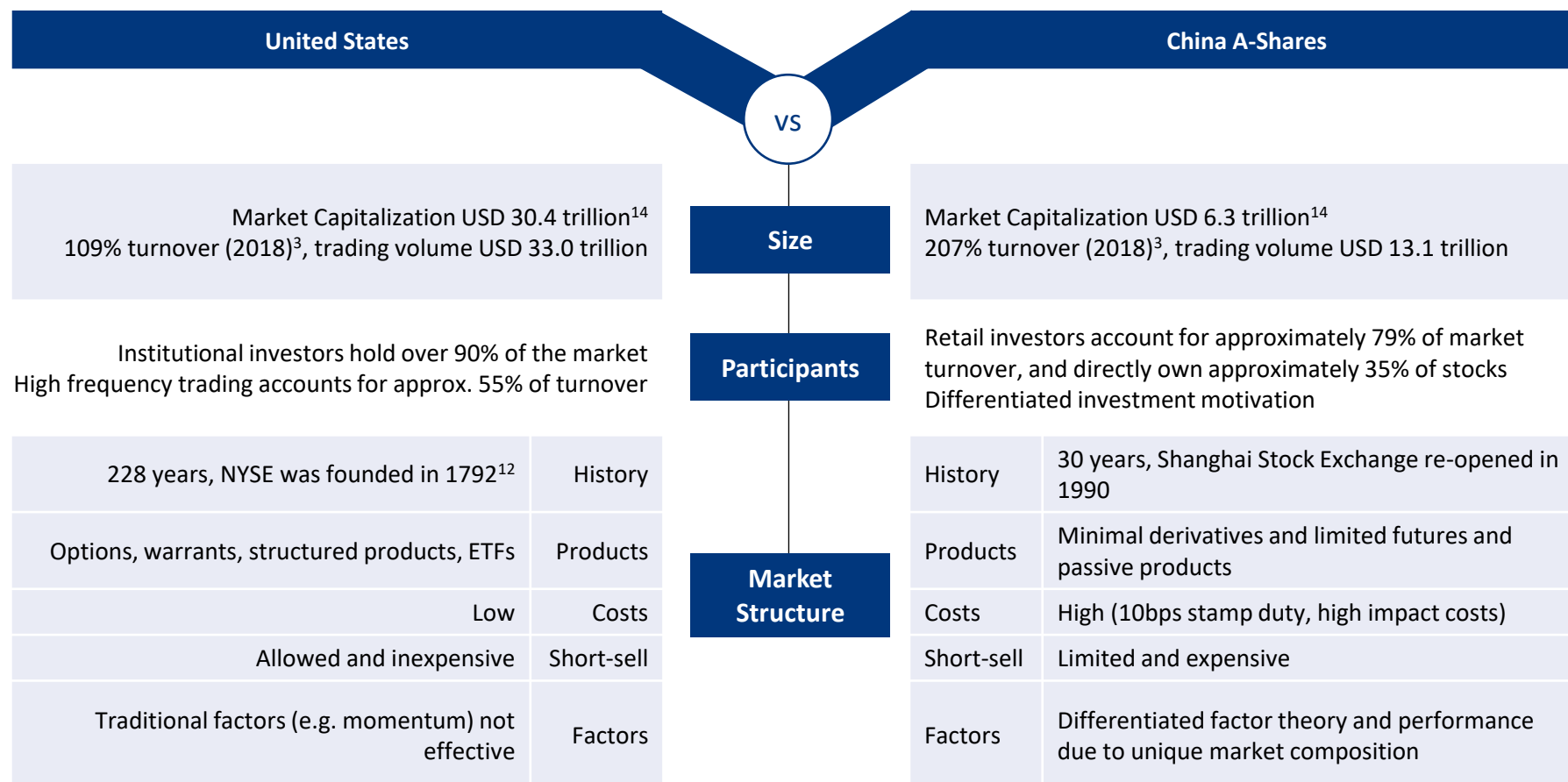
- China's equity index futures are structurally mispriced due to the restrictions on single-stock shorting
- When the futures spot price is below the fair value forward price of the index it is known as 'Backwardation'
- This futures discounts represents the implied value of inventory in the market
- **Global prime brokers (and Mingshi) will pay long-investors index-outperformance for the limited long inventory**



QUANTITATIVE ADVANTAGE IN CHINA A-SHARES



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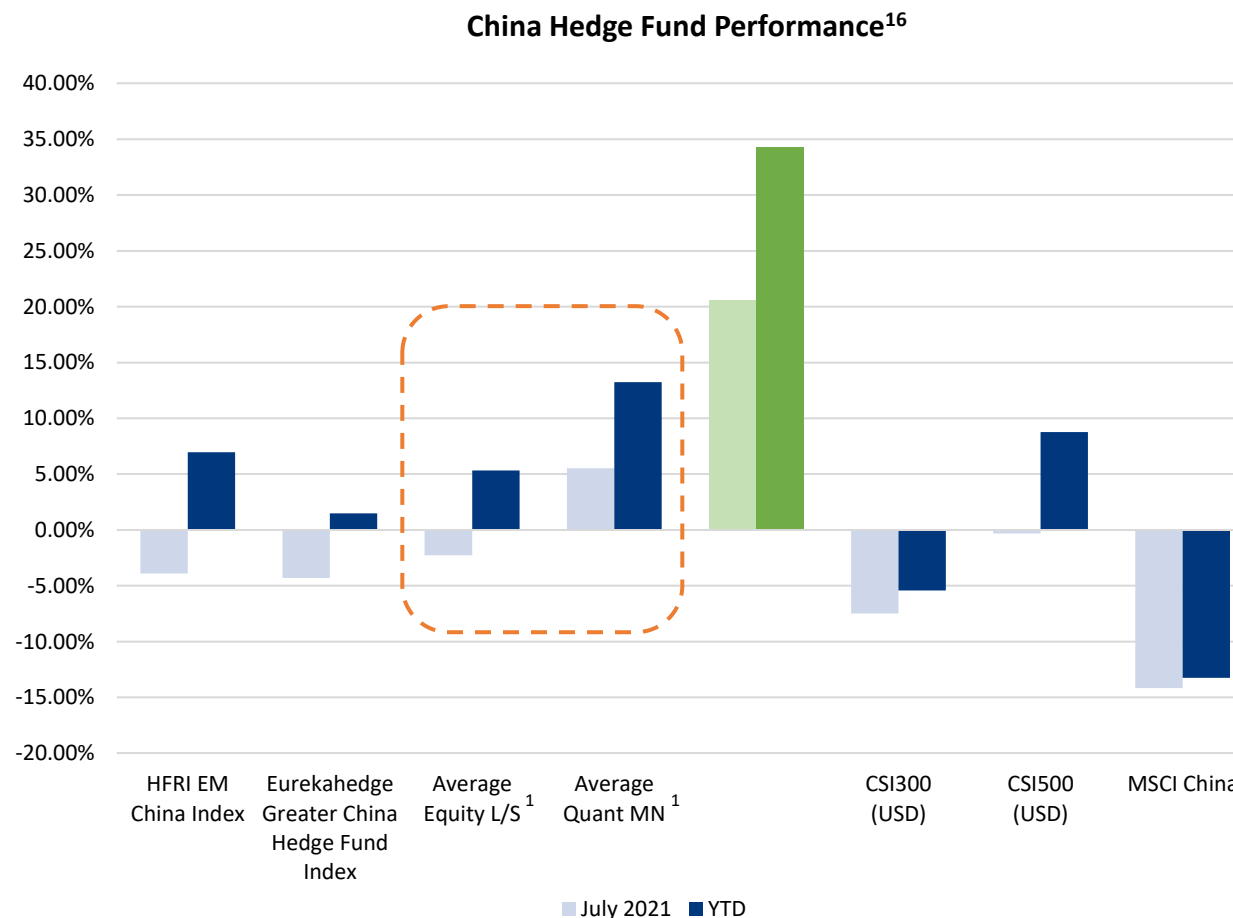




CHINA A HEDGE FUND PERFORMANCE 2021

CHINA A HEDGE FUND PERFORMANCE 2021

- July 2021 was a challenging month for fundamental China hedge fund strategies, erasing much of the gains YTD
- The average quant market neutral strategy returned >5%; July was a significant contributor to YTD gains
- Mingshi OPTIMA saw outsized gains: July's performance was +20.57%, bringing YTD to +34.27% (gross)





FEATURES OF QUANT 2021 OUTPERFORMANCE

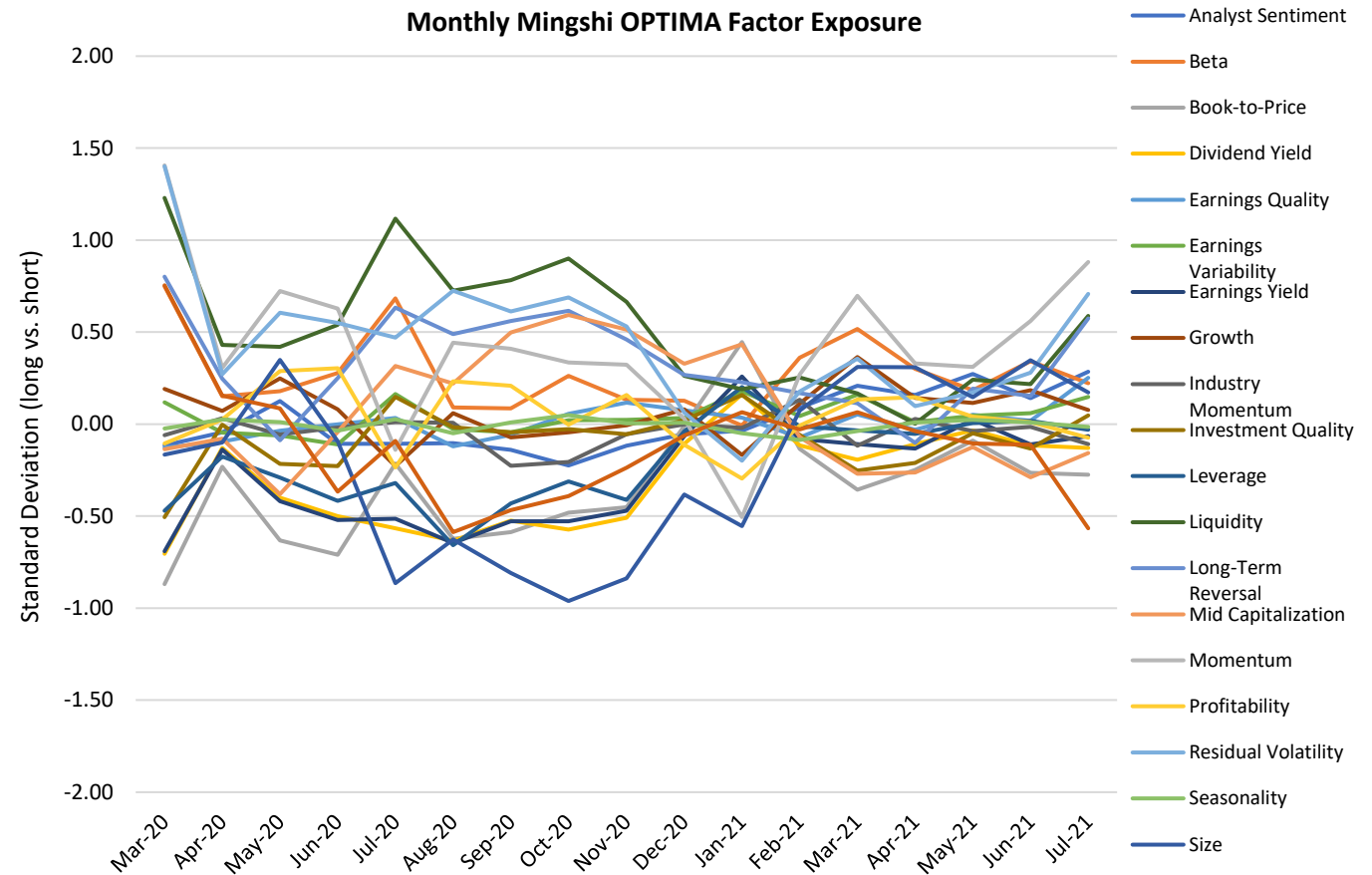
1. Diversification
2. Concentration
3. Portfolio Speed
4. Single Stock Shorting



PORTFOLIO DIVERSIFICATION—FACTOR

Quant models offer diversification in both factor and sector exposure.

- The MSCI BARRA China Trading (CNTR) model breaks down the portfolio into 33 sectors and 20 factors
- The diversified portfolio allows the fund to weather drawdowns in specific sectors/factors

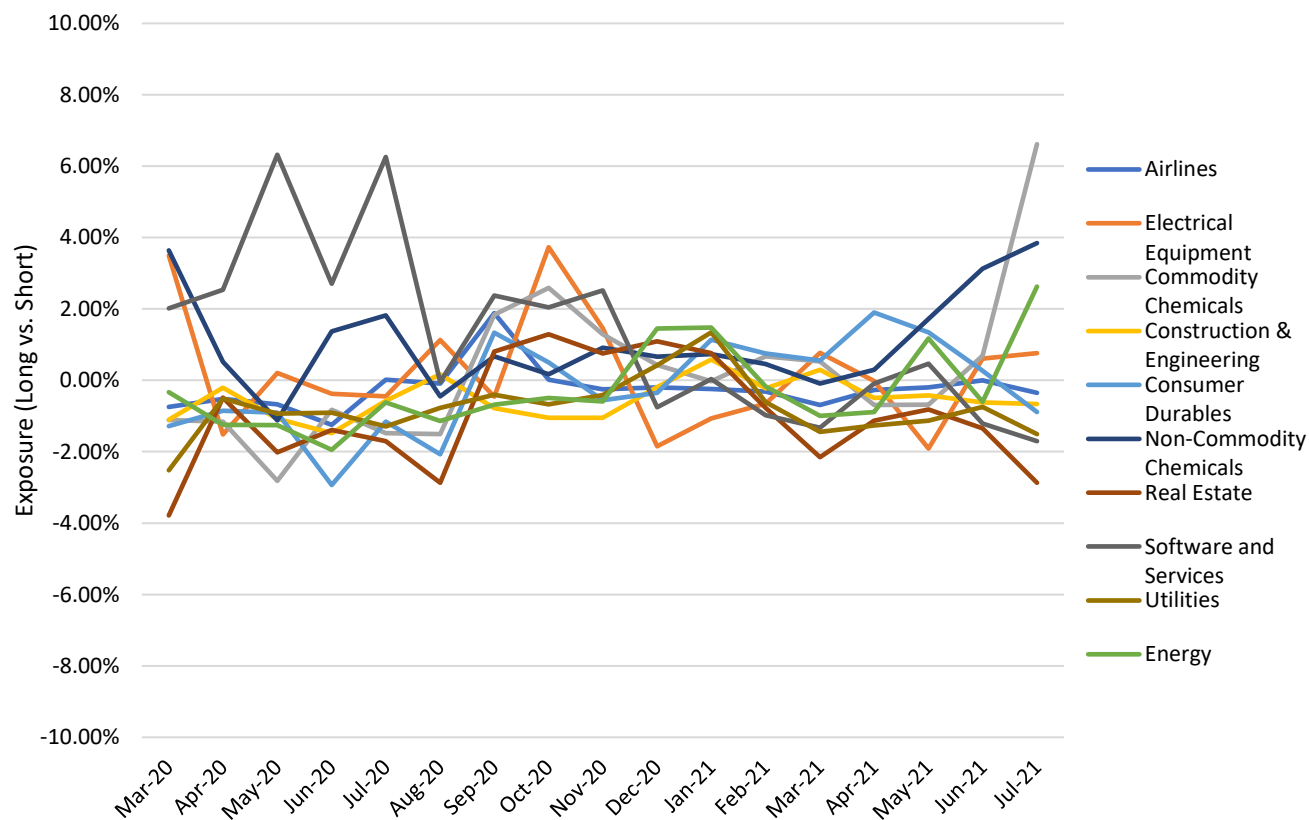


PORTFOLIO DIVERSIFICATION—SECTOR

Quant models offer diversification in both sector and factor exposure.

- The MSCI BARRA China Trading (CNTR) model breaks down the portfolio into 33 sectors and 20 factors
- Quant portfolios typically have little sector concentration
- The diversified portfolio allows the fund to weather drawdowns in specific sectors/factors

Monthly OPTIMA Sector Exposure (selected)

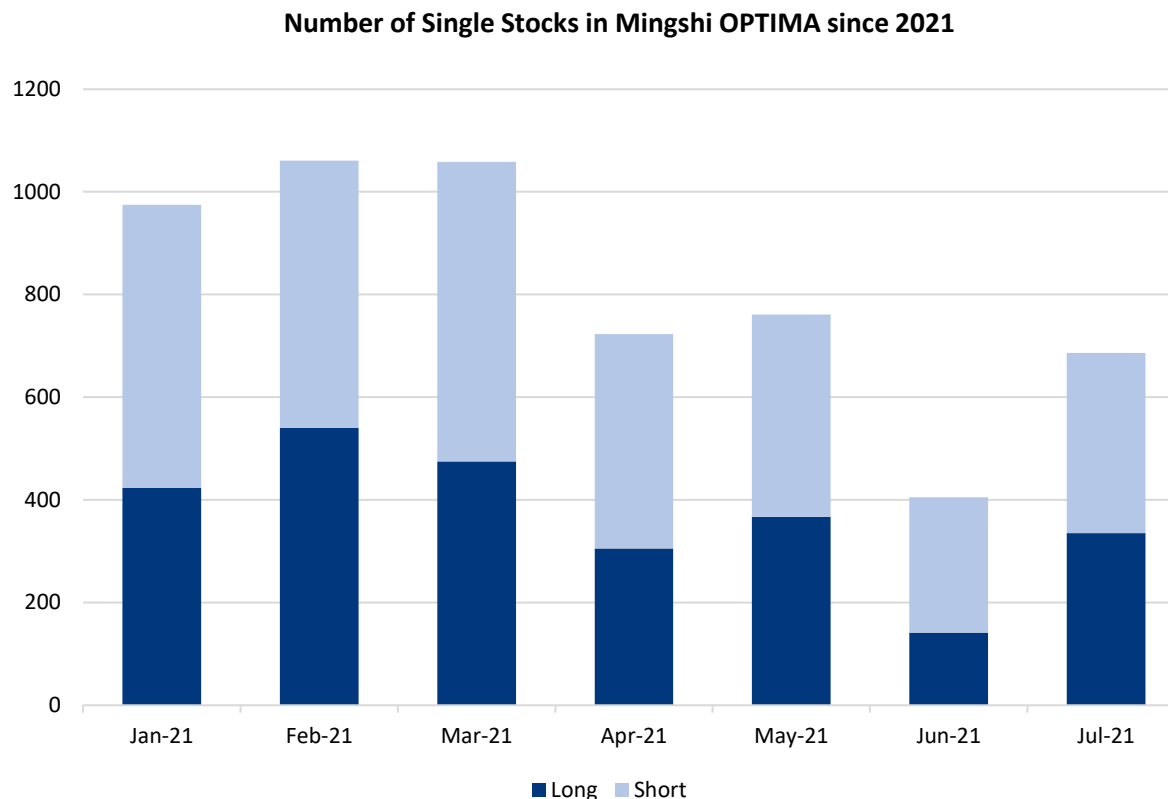




SINGLE NAME CONCENTRATION RISK

Single name exposure limits also ensure a well-diversified portfolio.

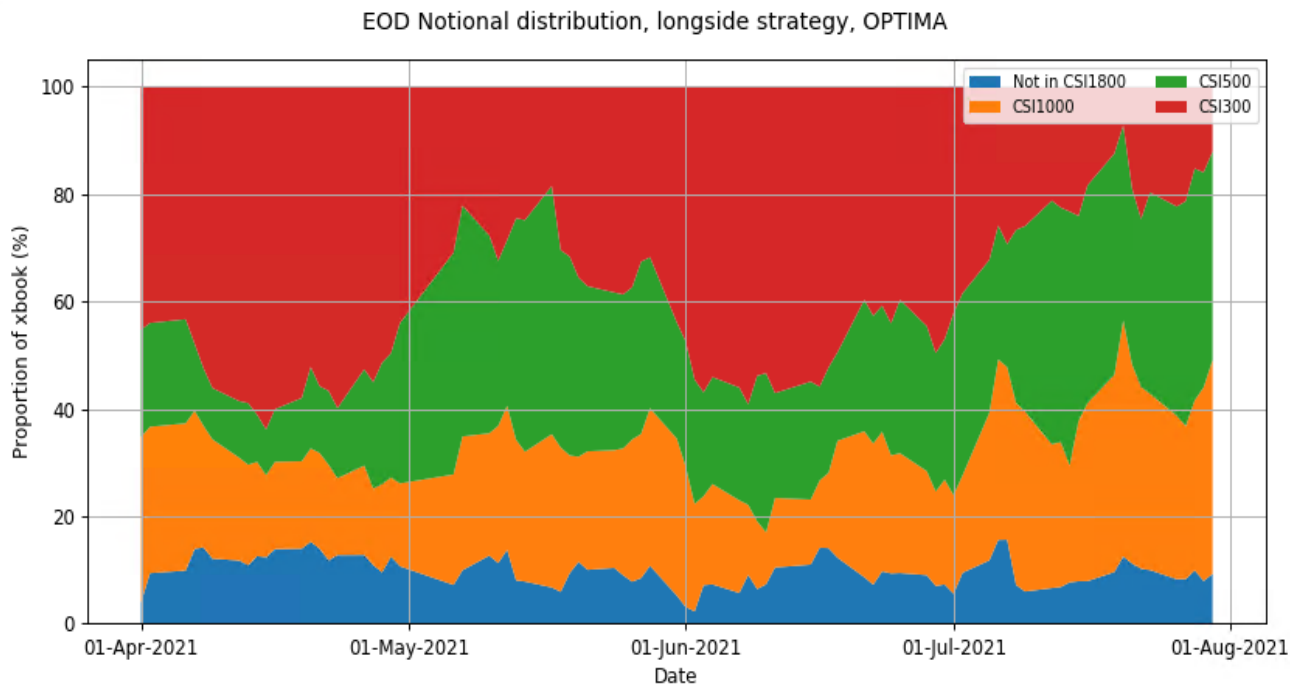
- Quant models typically implement single-stock concentration limits to maintain portfolio diversification
- In 2021, Mingshi's portfolio has averaged 369 longs and 440 shorts



PORTFOLIO SPEED

Quant portfolios are highly liquid and can react quickly to changes in the market.

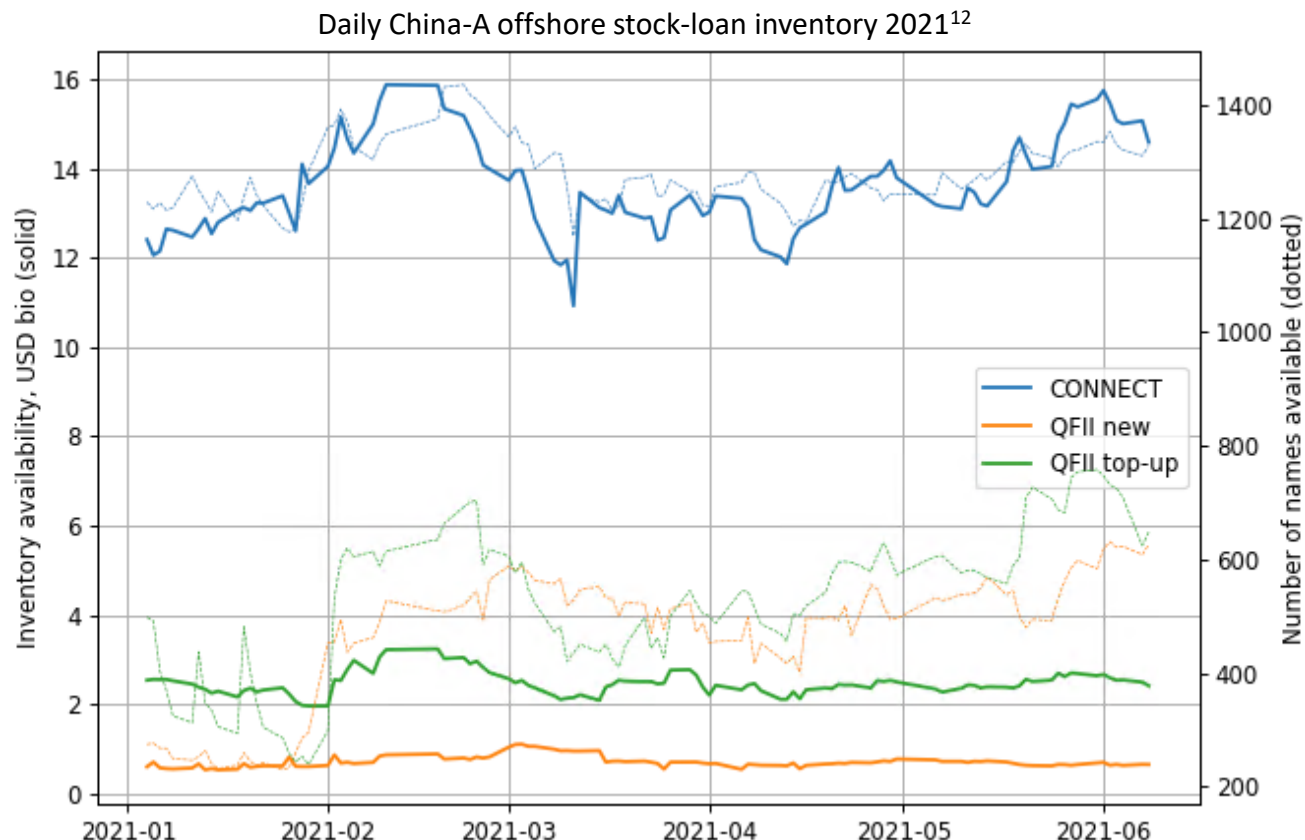
- China's regulatory environment can be fast moving and the resultant market reaction could be considerable
- Quant models can react to market changes quickly and move away from underperforming names



SINGLE STOCK SHORTING – INVENTORY

Offshore synthetic inventory is limited to the long positions held by prime brokers on swap

- This data represents the daily availability files shown to Mingshi from our 6 offshore prime brokers combined
- **Approximately USD13-15bio of stock-connect inventory available in 2021 to Mingshi**
- Total stock-connect holdings (swap and physical) is \$400bio⁴, of that approximately USD25bio⁵ is available for synthetic borrow
- Approximately USD3bio of QFII inventory available
- Allocation ratios on Mingshi's borrow requests range from 10-80% depending on the broker

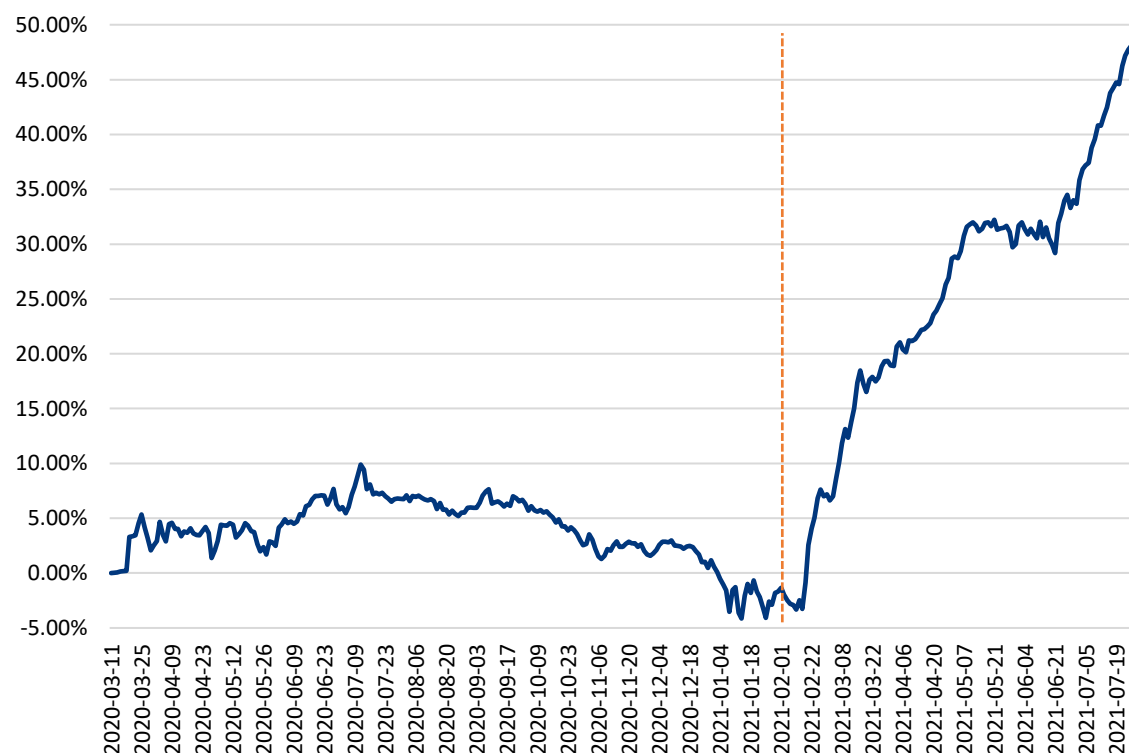


SINGLE STOCK SHORTING - PERFORMANCE

Single-stock shorting is a significant alpha generator for those who can navigate the market's structural challenges.

- China's A-share single-stock short inventory is very unstable, which is detrimental to fundamental strategies that require a stable, long-term supply of shorts
- Quant strategies are more nimble and are less subject to recall risk
- Real trading experience is most important in successfully managing a single-stock short portfolio in China A-shares

OPTIMA Single-Stock Short versus CSI500



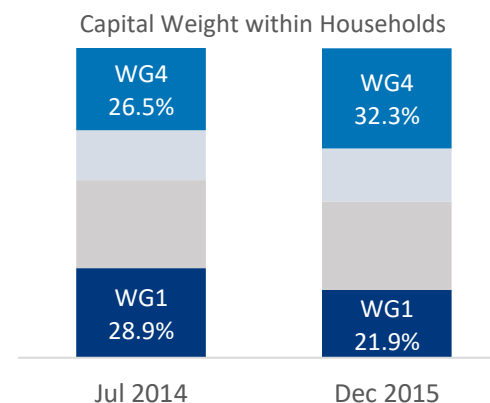
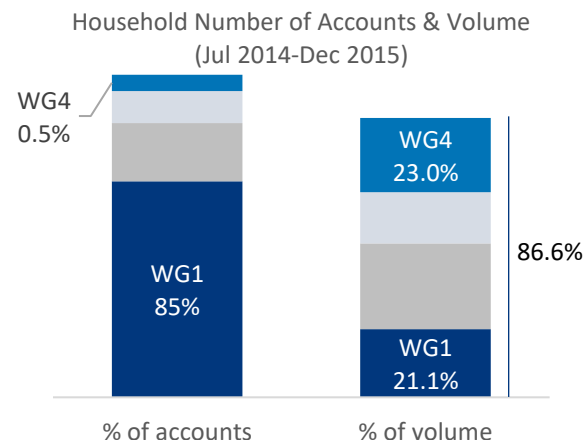


UNDERSTANDING CHINA'S UNIQUE A-SHARE MARKET

WEALTH REDISTRIBUTION IN CHINA'S STOCK MARKET

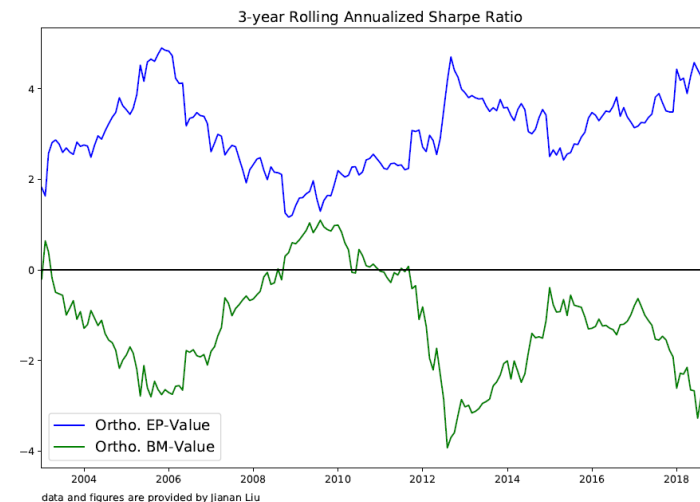
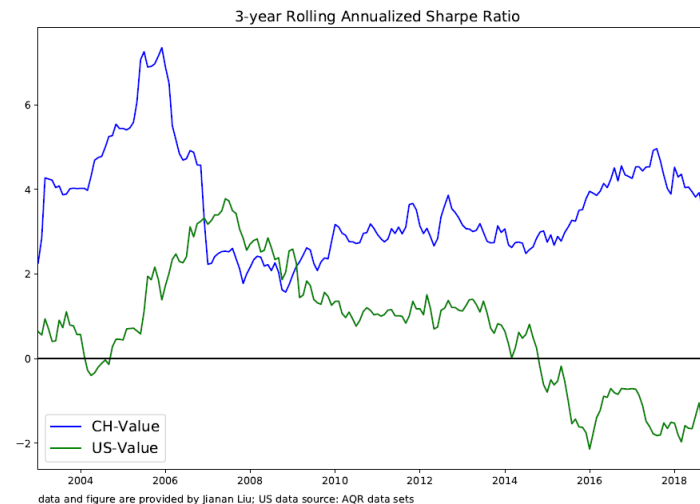
- **RMB 250 billion (USD 37 billion) wealth transfer** occurred during July 2014 to December 2015.
- Households account for 86.6% of trading volume in China.
- The bottom 85% of households (WG1) lost 28% of their wealth while the top 0.5% households (WG4) gained 31%.

- *From Wealth Redistribution in Bubbles and Crashes by Prof. Dong Lou (Mingshi's senior research director)*



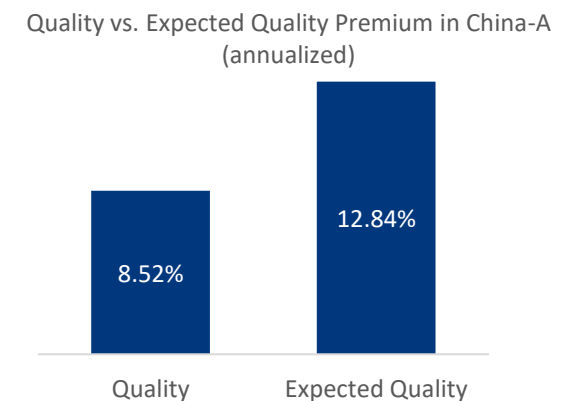
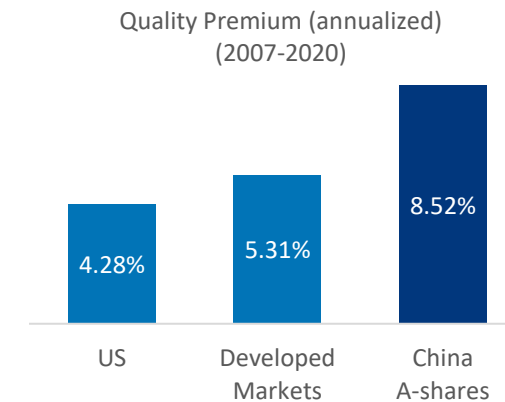
TRADITIONAL FACTORS DO NOT WORK IN CHINA

- **Size and value are the most important factors in China**, each bringing average premium of >12%
- The traditional Fama-French model does not work as-is and requires modification:
 1. The smallest 30% of stocks need to be eliminated from the universe.
 2. Value is better explained by earnings-price ratio (EP), rather than book-to-market (BM).
- An additional turnover factor is also needed to explain the variation of returns.
- *From Size and Value in China by Prof. Jianan Liu, Prof. Yu Yuan and Prof. Robert Stambaugh, published in Journal of Financial Economics in October 2019*



QUALITY'S SUPERIOR RETURNS IN CHINA-A

- **The Quality premium in China is twice as large as in the US**, using traditional, global metrics
- To properly capture China's Quality premium, an Expected Quality measure is required
- Valuation ratios are strong predictors of expected quality in China; value stocks have higher expected quality than growth stocks
- *From Quality's Superior Returns in China A-Shares by Prof. Jianan Liu and Prof. Robert Stambaugh*





THE FUTURE OF CHINA A-SHARES



THE FUTURE OF CHINA EQUITIES

The China A-share market is entering a new generation of opportunity for investors

Development	Comments
New Sources of Alpha	<ul style="list-style-type: none">• Improvements in market data dissemination will give rise to new price-volume features• Alternative data will become increasingly important to alpha discovery
Increasing international inflows	<ul style="list-style-type: none">• Expansion of stock connect and QFII programs• Increased passive flows and weights in global indices
Single-Stock Shorting	<ul style="list-style-type: none">• In the next 3-5 years, we expect a significant increase in A-share single-stock shorting supply leading to further diversification and stability of inventory• Single-stock short trading experience will be invaluable in staying at the forefront in the market's development
Offshore Futures Access	<ul style="list-style-type: none">• QFII regulatory relaxation has allowed participation in commodity futures traded on exchanges in Shanghai, Dalian, and Zhengzhou• Mingshi expects to launch an offshore CTA strategy this year
Capital Markets Access	<ul style="list-style-type: none">• International investors will soon have easier access to onshore IPOs
China's ESG super-cycle	<ul style="list-style-type: none">• <i>"China - The Next Frontier for Environmental and Social Investing"</i> Lou, Yuan, Stambaugh Prescott (July 2021)• http://en.mingshiim.com/en/research
Market Institutionalization	<ul style="list-style-type: none">• Current retail participation in China A-shares is approximately 79%• The pace of structural change is debatable. Managers need to be ahead of all developments• As an example, Blackrock's onshore China unit just raised USD1bio for its onshore mutual fund



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