Casting a wide quantitative net to access alpha in China

The vast size and changing dynamics of China's A-share market offer a relatively untapped yet increasingly appealing opportunity for quantitative investing.

It is an approach that is well-suited to the world's second largest equity universe, given its breadth, depth and liquidity.

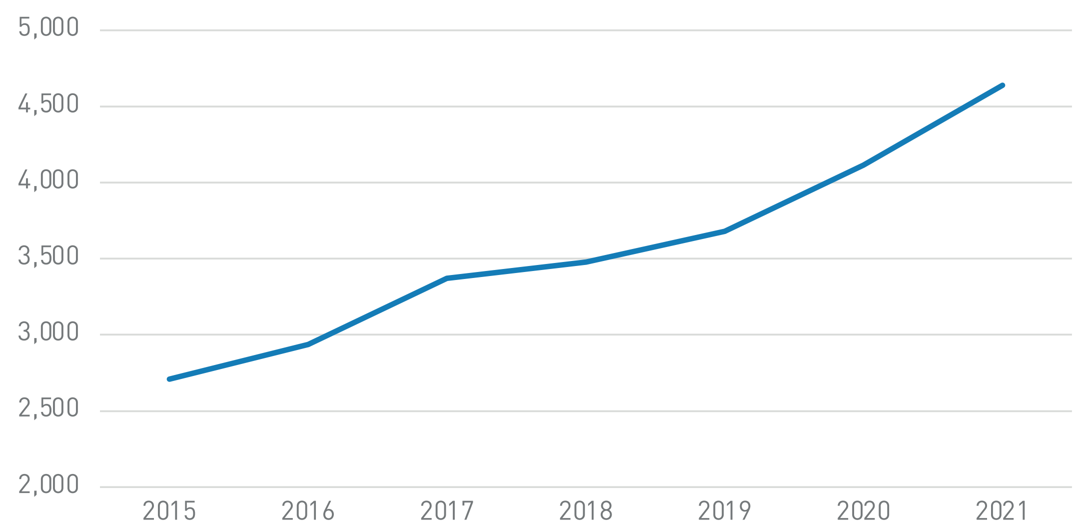
For example, the A-share landscape represents over 4,600 listed stocks with a total market capitalisation of around Rmb92.35 trillion (US$12.6 trillion) as at the end of 2021. In addition, more than half of this market cap and 80% of total trading volume are held by retail investors, creating a major potential alpha source. Further, the abundant market liquidity supports large-scale investment needs.

In short, the evolving nature of the A-share landscape lends itself to an investment approach that can adapt and be flexible.

"Investors can look to access the A-share market with a range of quant strategies, from a more passive style to active management," said Zefan Guan, Senior Quantitative Investments Portfolio Manager at E Fund Management (E Fund), China's largest fund manager.

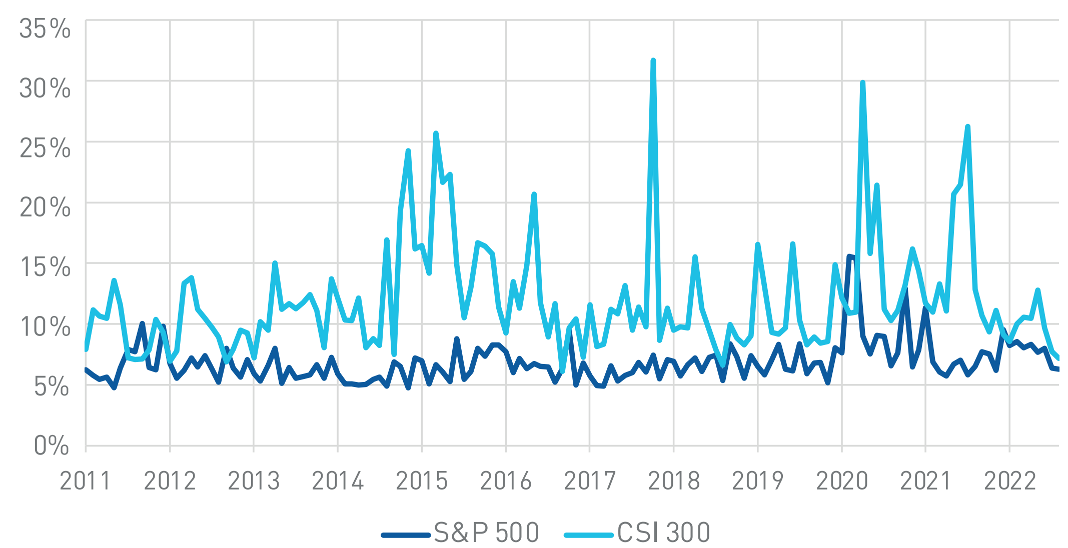
A quant-based framework is particularly relevant for institutional investors, which typically hold a fairly small percentage of the overall China A share market value compared with their exposure to developed market equities.

China: over 4,600 listed stocks



Source: Wind, as of December 31, 2021.

Divergence of monthly returns among constituents



Source: FactSet, Wind and CICC

Focusing on key factors in China

However, while asset owners might look to generate alpha from China in various ways over the longer term, the unique characteristics of the A-share market demand a specific quantitative framework.

For instance, adopting a systematic macro strategy, which aims to achieve absolute returns by using various financial instruments in the global markets, doesn't work as well in China due to the relatively limited range of investment vehicles.

Instead, China-focused investors should look to a multi-factor model – a mature quantitative investment framework for asset pricing, supported by a long history of academic and industrial research.

"This is suitable for large-scale asset management and is the main methodology we adopt," said Zefan, in explaining E Fund's quant investment mindset. "We were one of the first asset managers in China to apply quantitative strategies to the China A market, starting in 2009. We now cover the entire A-share market, applying more than 600 factors organised into five styles: value, growth, quality, sentiment and technical analysis."

Seeking smart strategies

In today's China A-share market, the multi-factor model has spurred a variety of investment strategies. These include:

- Index enhanced – based on an over 10-year investment track-record, this type of strategy provides decent and stable alpha at a relatively low cost.
- Alternative beta – being specially designed to suit the characteristics of the China A-share market, these strategies provide a better risk-return profile than market beta products.
- Active / discretionary – these strategies seek higher returns with more tolerance for higher risk and potential drawdowns compared with traditional fundamental discretionary strategies.
- Market neutral – these aim to achieve a pure alpha return by hedging with index futures to reduce exposure to market beta.

Successfully applying these strategies relies on a blend of fundamental equity research and fintech support from artificial intelligence (AI) and big data. This information then contributes to alpha via forecasts on different factors – ranging from revenue to macro dynamics to industry trends, and more.

With index-enhancement, for example, excess returns are generated on top of the benchmark index in line with in-depth research into five distinctive styles that have low levels of correlation.

"The weighted combination of the multi-factor model can outperform the single factor model result, in a stable and sustainable manner," added Zefan.

Meanwhile, among many alternative betas, the beta of mutual fund holdings is one of the most distinctive and better for long-term performance. It takes three steps to construct one:

- Consolidate the holding data of all active equity mutual funds listed in China and categorise it by portfolio manager, forming a China onshore active equity fund manager database.
- Select active equity fund managers who have demonstrated consistently outstanding forward-looking stock picking capability; combine their holdings to form a Smart Beta portfolio.
- In addition, leverage a short- to mid-term multi-factor model to capture arbitrage opportunities, which would enhance returns.

The key is to leverage quantitative analysis tools to evaluate and select portfolio managers with a forward-looking capability. This means the earnings performance of their top holdings exceed market expectations and that the performance drives the stock price movement in a later period.

In addition to assessing portfolio managers, the frequency of rotations among the various industries in the China A-share market creates another potential source of alpha for quant-based investing. "There are severe fluctuations of industry indexes, leading to a large divergence in portfolio performance," said Zefan.

For example, investors can benefit from approaches that estimate the changing trends in industry fundamentals through quant models and accumulated industry-level data, including earnings momentum, profit forecasts and institutional opinions.

Machine learning is another way to derive alpha from China's A-share market – where listed companies are more volatile and deviate further from market consensus than, for example, stocks in the S&P 500. In turn, this is more likely to result in over/under-expected events.

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Zefan Guan, Senior Quantitative Investments Portfolio Manager at E Fund Management

Adapting in fast-moving markets

Ultimately, having a variety of quant techniques and strategies is essential in China, where the structure, size and composition of the A-share market continue to evolve and mature.

It is important to be able to support the continuous improvement of the multi-factor approach with the required in-depth research based on deep market insights and experience.

"A combination of many external and internal sources of information are needed to provide the foundation of our research and quantitative investment framework," added Zefan. "And as allocations to China A-shares grow in the portfolios of global institutions, opportunities for new quant strategies will also increase."

Find out more at
www.efunds.com.cn/en

E Fund

Established in 2001, E Fund Management Co., Ltd. ("E Fund") is a leading comprehensive fund manager in China with over RMB 2.7 trillion (USD 386 billion) under management.* It offers investment solutions to onshore and offshore clients, helping clients achieve long-term sustainable investment performances. E Fund's clients include both individuals and institutions, ranging from central banks, sovereign wealth funds, social security funds, pension funds, insurance and reinsurance companies, to corporates and banks. Long-term oriented, it has been focusing on the investment management business since inception and believes in the power of in-depth research and time in investing. It is a pioneer and leading practitioner in responsible investments in China and is widely recognized as one of the most trusted and outstanding Chinese asset managers.

Source: E Fund. AuM includes subsidiaries. Data as of 30 September, 2022. FX rate is sourced from PBoC as of 30 September, 2022.