Smart Beta Strategy Based on Dynamic Risk Appetite

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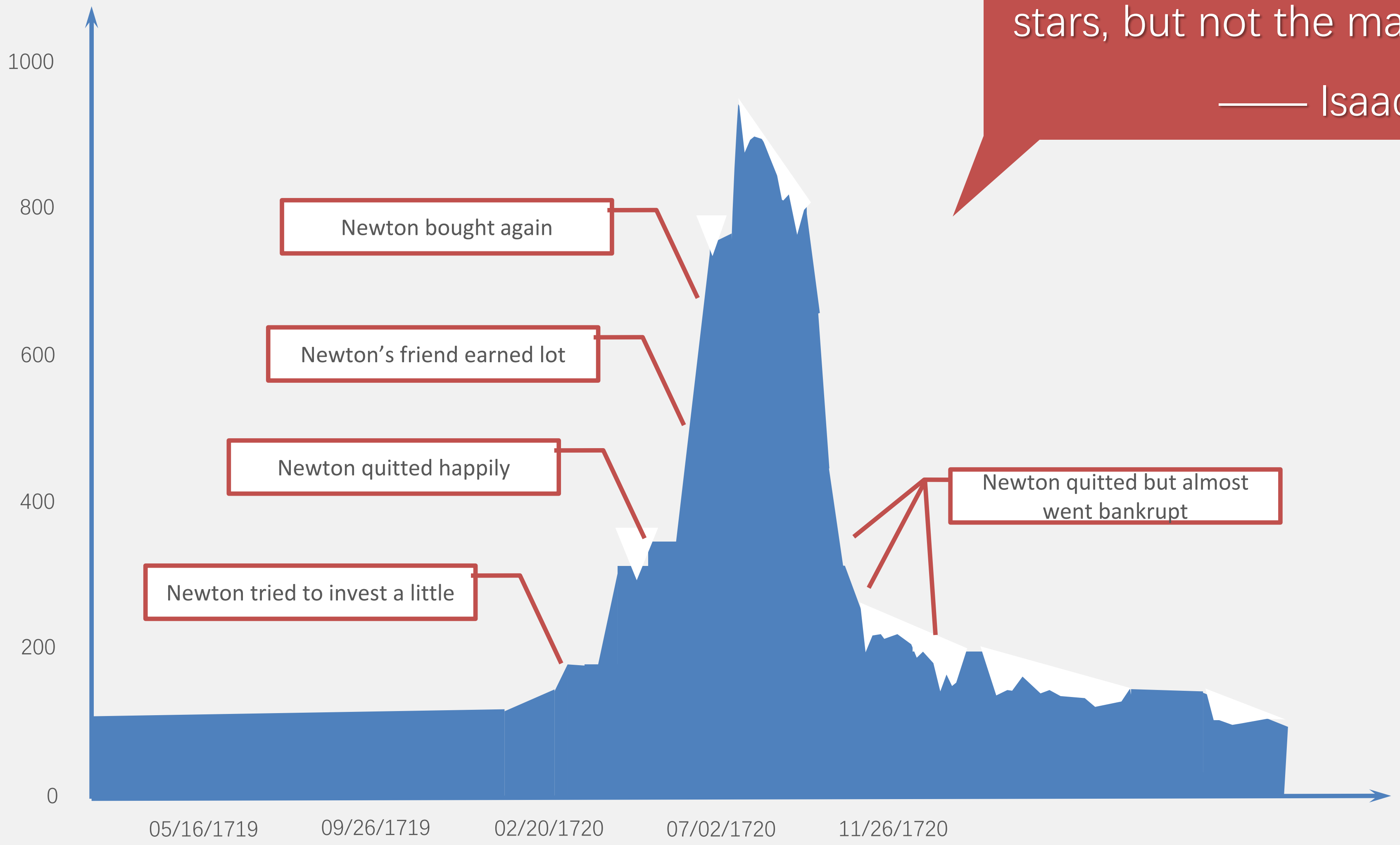
01 Background

South Sea Bubble

> I can calculate the movement of the stars, but not the madness of men.
>
> —— Isaac Newton



In the long run:
Changes in the **intrinsic value** of stocks are the most important factor in determining investment income

In then short run:

- Intrinsic value changes little
- Feedback loop
- Market risk appetite matters

02 Risk Appetite Index Construction

Risk Appetite Index Construction

Risk Appetite Factor (effect stock price potentially)

A-shares Turnover Rate

Moving Average

…

Economically

Statistically

Six Significant Factors

The # of Stock Price Limit

ARMS

Security Margin Growth Rate

Futures Index Premium Rate

A-shares Turnover Rate

DDE Active turnover

…

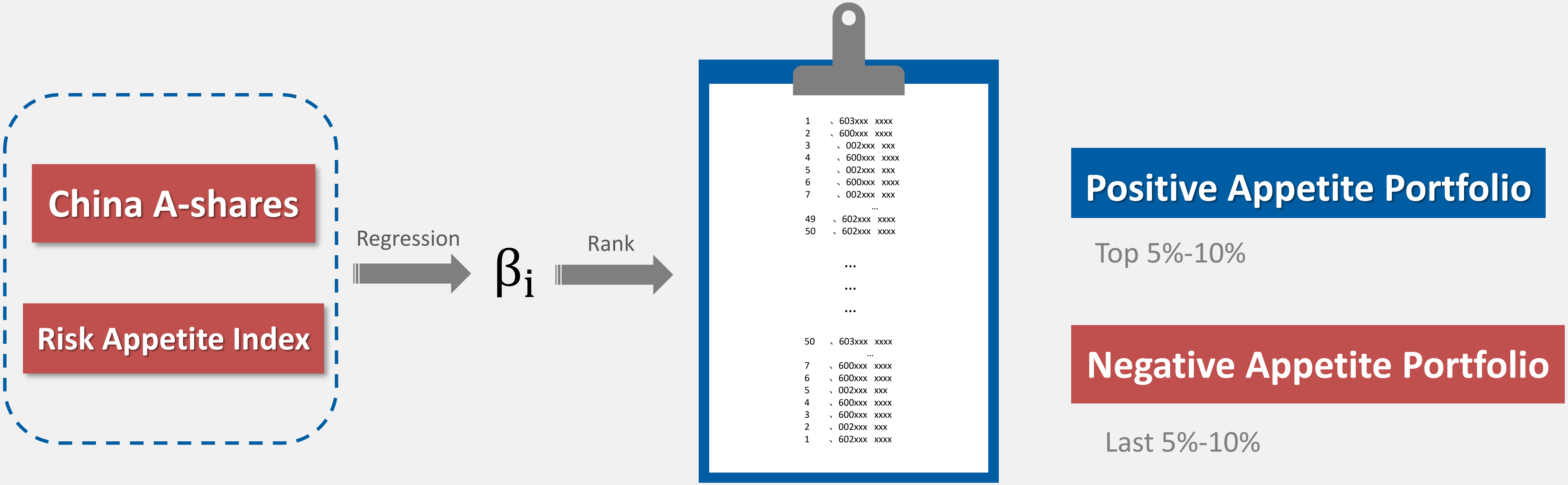
Equally Weighted

Risk Appetite Index

Risk Appetite Factor

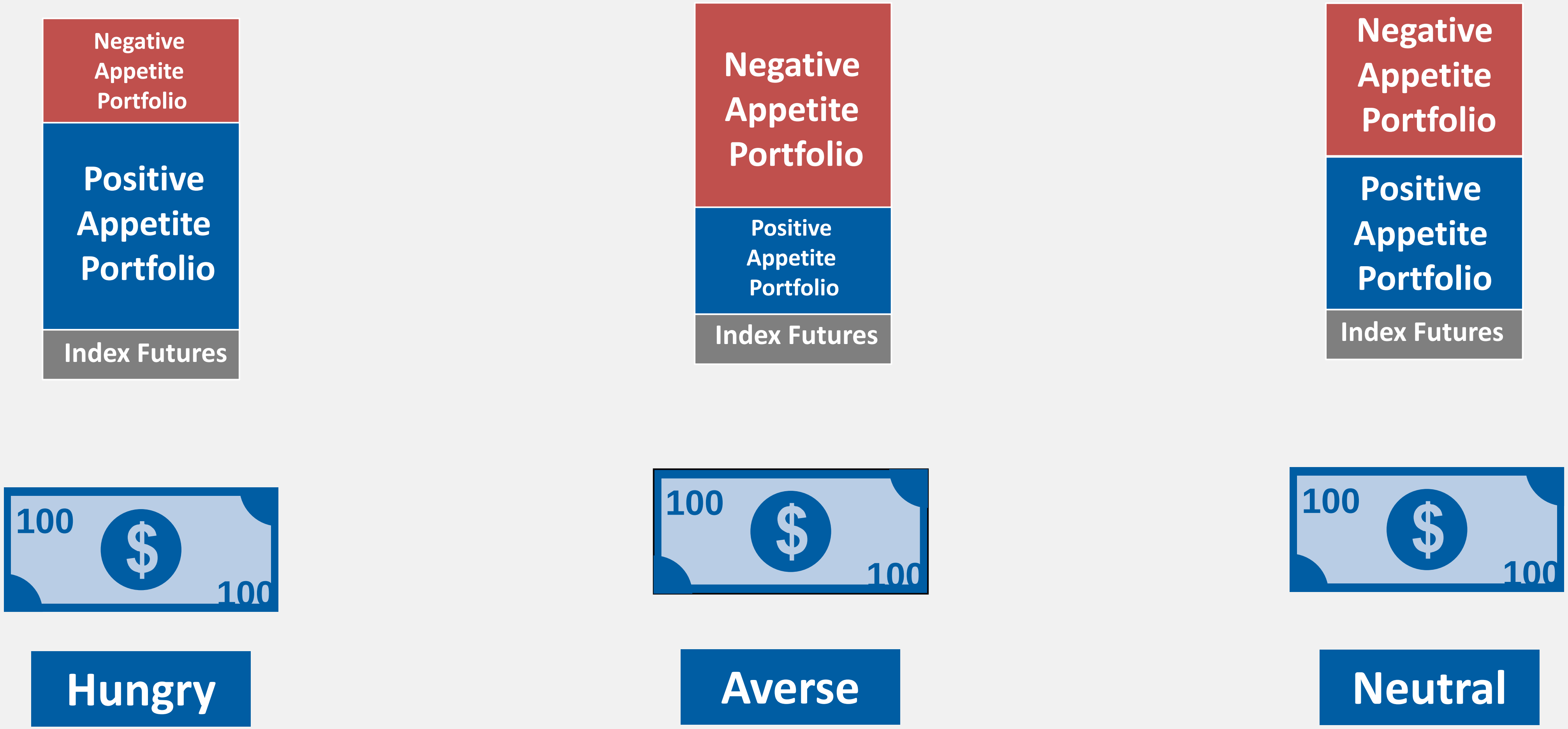
03 Timing Strategy

Dynamic Capital Position Allocation



Sort the stocks based on β and divide all stocks in the stock pool into about 50 groups (excluding abnormal stocks such as ST)

Dynamic Capital Position Allocation



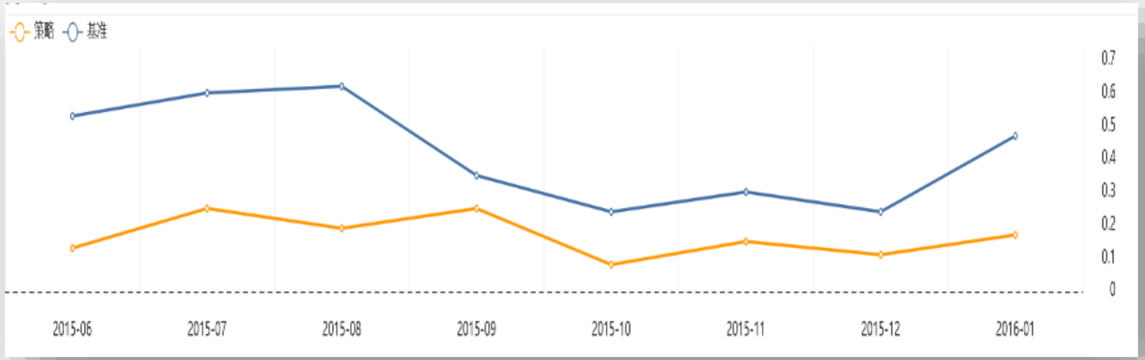
04 Back-Test and Conclusion

Back-test Result

Bull Market

Bear Market

Stock Pool: CSI 300
Benchmark: CSI 300



The Volatility in Bear Market

Conclusion

- When the market rises sharply, this strategy better captures the high returns of the market
- When the market fell sharply, the loss of this strategy was significantly lower than the market.
- This strategy better protects investor profits, and it is effective for the China stock market

05 Risk Analysis and Hedging Strategy

Risk Analysis and Hedging Strategy

Risk Analysis: Based on the back-testing result, the main risk of this strategy is when the stock prices decrease, there is downside risk in this strategy (even if this loss will be far less than the benchmark). When the price goes up sharply, the return of the strategy is close to the benchmark, which means we need to optimize the weights between the two portfolios to capture higher return.

Risk Hedging: In the current strategy, we control the risk from two aspects. First, the advantage of this strategy -- replicate the short selling (which is limited in China stock market) selling using the method of investing more in negative appetite portfolio. Second, reserve a certain proportion of cash to invest in risk-free assets with high liquidity, and be ready to use stock index at any time to hedge the risk. The reserved cash limit is maintained at about 10% of the total market value of the asset portfolio, and the amount varies with the market value of the stock.

Thanks !

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