



SNSI Factor and Factor Analysis

General

Basic Style Factors

Size, Growth, Value, Activity, Volatility and Momentum

Innovative Factor Mining

following a standardized process to dynamically mine innovative factors

Factor Tracking

Monthly tracking of the risk, crowding and performance of various style factors

Diversified Factor Indices

A complete series of single-factor, multi-factor and dynamic factor allocation indices

Sino-Securities Index Information

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Overview

In addition to the market and industry, the factor is an important dimension to measure the performance of stock prices, and it is also an important basis for constructing and analyzing investment portfolios and managing portfolio risks. We are committed to tracking and researching the style factors suitable for the A-share market, and providing relevant data services, analysis services and factor indices.

The SNSI factor system includes two types of factors. The first type of factors are the basic standardization factors, including size, activity, volatility, value, growth, momentum and quality. These factors are mainly used for market analysis, indices, factor crowding model, etc. The second type of factors are innovative factors, which are mainly derived from the conclusions obtained from economic theory or statistical empirical evidence. These factors are still expanding and are mainly used for indices, such as price factors, skewness factors, business risk factors, etc.

SNSI Basic Factors

Style Factor	Definition	Indicator	Style Factor	Definition	Indicator
Size	Market capitalization of the listed companies	Total market capitalization	Volatility	The degree of volatility of stock prices	1 month Volatility
		Free float market capitalization			3 month Volatility
Growth	The growth of the company	ROE_TTM			Momentum
		YoY growth rate of net profit TTM	1 month Price Return		
		YoY growth rate of revenue TTM	3 month Price Return		
		QoQ growth rate of net profit TTM	6 month Price Return		
		QoQ growth rate of sales	Alpha Momentum		
Value	Whether the stock price is cheap or expensive	E/P_TTM	Quality	The financial quality of the company	Residual Momentum
		B/P_MRQ			Leverage
Activity	The activity of the stock trading	1 month Turnover rate			Solvency
		3 month Turnover rate			ROA
		6 month Turnover rate			Stability of ROE
Dividend	Reflect the company's dividends payout	1Y Dividend Yield			3Y Net Profit Growth rate
		Payout Ratio			Earnings Quality

Example: $E/P_TTM = EPS_TTM / Price$

Volatility = $std(r_t, r_{t-1}, r_{t-2}, \dots, r_{t-k})$, where r_{t-i} is daily return /trading days prior to day t , t is the date of factor calculation

Earnings Quality = Net Cash Flow from Operating Activities TTM / Net Income Attributed to Shareholders TTM

Step1

Calculate the raw value of the indicator for the constituent factor

Step2

Standardize raw values of indicators. Standardization Methods: The indicators are sorted from largest to smallest and then mapped to the normal distribution by the inverse cumulative distribution function of the normal distribution

Step3

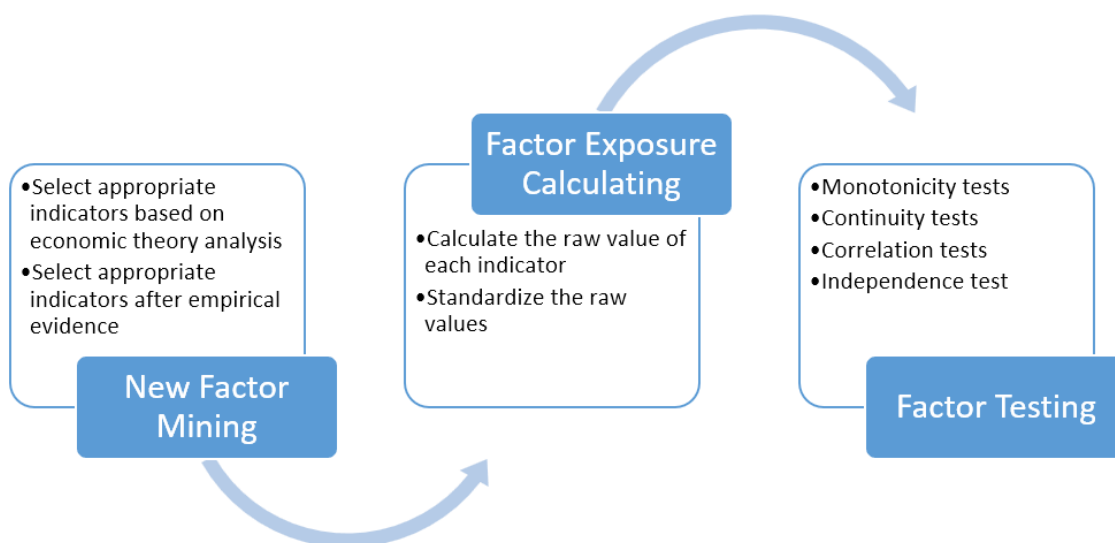
The factor values are calculated by summing the standard values of the indicators by equal weights

Step4

Standardize the factor values in the same way

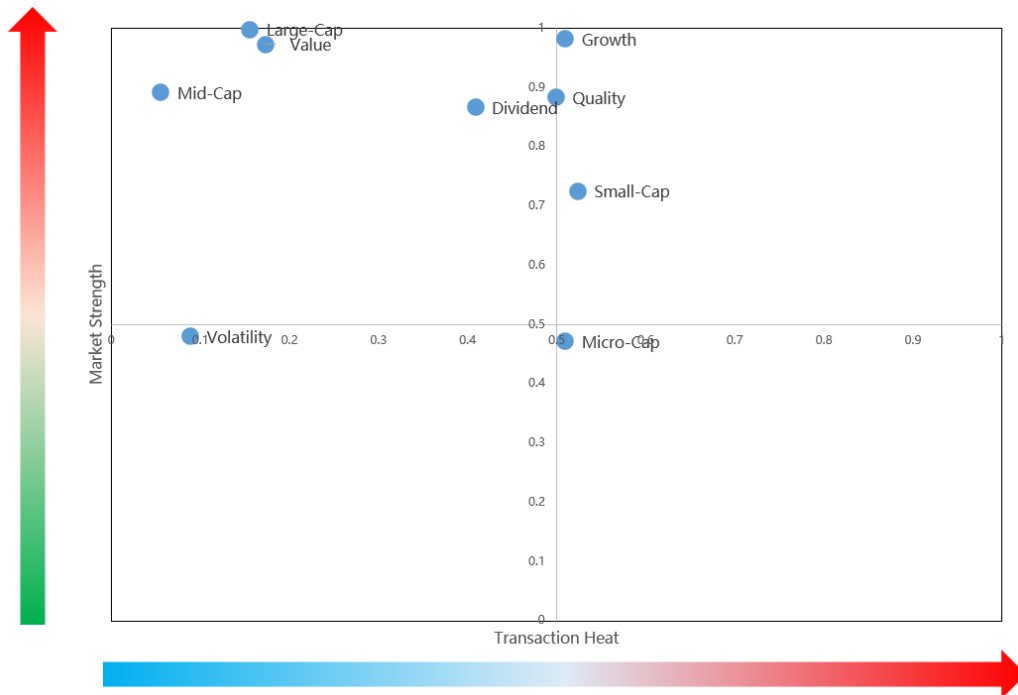
Innovative Factor Mining Steps

Following the standardized process of theoretical analysis, factor calculation, validity testing, performance disassembly, and factor tracking continuity to mine innovative factors.



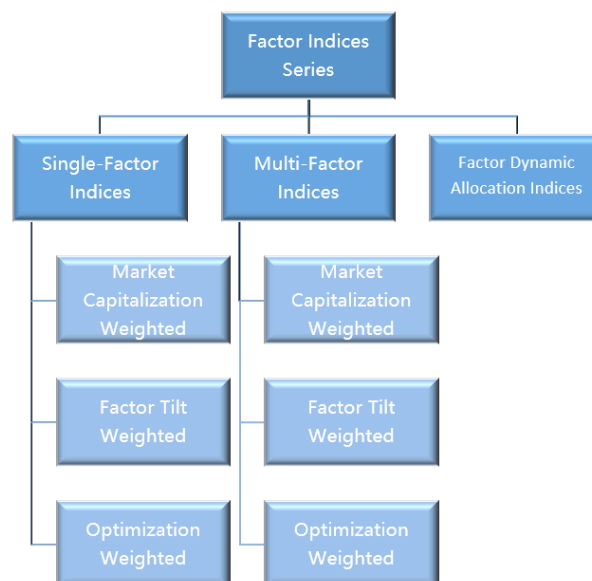
Factor Crowding

Based on the results of domestic studies and the actual situation of the domestic market, we chose the following two dimensions or three indicators to measure the Factor Crowding: Transaction Heat (factor portfolio volatility, factor portfolio correlation) and Market Strength (average momentum of the factor portfolio).



Factor Indices System

The factor indices system involves three major series, which are single-factor indices, multi-factor indices and factor dynamic allocation indices, among which, the factor dynamic allocation indices shall be constructed on the basis of single-factor indices and multi-factor indices.



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