**Construct Sentiment Index in A-share Markets**

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**Purpose:**

A-share markets in China consist of individual investors, who behave irrationally that would influence market fluctuations. This method uses four typical preceding indicators: the number of IPO companies in both Shanghai and Shenzhen Exchanges per month, margin trading and short selling (融资融券) per day (then sum them as a monthly indicator), number of new investors that open accounts in Shanghai and Shenzhen Exchanges per week (then sum them as a monthly indicator) and residential house sales per month.

**Assumption:**

1. Every time the exchanges stop IPO process, composite index like CSI300 (000300) would rise up significantly. So we view IPO as a negative indicator to predict index trend.
2. Margin trading and short selling as well as number of new investors can show willingness of investors to invest in the market. So we view these two indicators as positive.
3. Residential house sales in China can show if investors would prefer to put money in real estate than in stock markets. So it is a negative indicator.

**Pre-work:**

* Wind Terminal available.
* Excel add-in “RealStats.xla” (it’s for principle component analysis calculation in excel file)

**Data:**

* We use WIND terminal to retrieve these four indicators from 2015-09-01 till now.
* In excel file, spreadsheet “Wind data” is used to retrieve data from Wind terminal automatically.
* Spreadsheet “IPO”, “Margin”, “Investor” & “House” is used to process raw data separately and format it to its corresponding month.
* Spreadsheet “PCA Analysis” is a statistical method to construct a linear relationship among these four indicators and come up with a sentiment index.

**Result:**

* The result is highlighted as grey cells, which can be compared to composite index trend in A-share markets.
* Since the data number is only approximately 20 from 2015-09 till now, so principle component analysis does not have strong meaning statistically. But this project is sustainable, and the excel spreadsheet can update automatically along with new data coming up. So sentiment index would be more accurate when predicting A-share market short-term trend.

**Contact:**

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