

Are the Analysts of China having Persistent Stock Selection Ability?

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Abstract

Following the analysts is the main way of the investors' investment activities. The investors always follow the analysts who performed well in the past. It is a key thing that whether the analysts who performed well in the past can also perform well in the future. We find that different analysts express different selection ability and the analysts who performed well in the past also perform well in the future, who performed worse in the past also perform worse in the future. The market can't distinguish the difference of the analysts, so the investors can follow the analysts who performed well in the past to have a higher revenue.

Keywords: the selection ability; the difference of the analysts; the persistence of the analysts

1. Introduction

Stock investment is an important way for investors to invest, but there are lots of stocks, it is difficult for investors to select the profitable stock. So many investors choose to follow the analyst recommendation report to build a portfolio hoping to get a higher return. But there are many analysts issue recommendation report in securities market, and different analysts in the business experience, research ability, etc. are very different. So it is a key issue for investor to choose which analysts to follow. In general, investors tend to follow the analysts who performed well in the past, they believe that good analysts in the past will do well in the future. In other words, investors believe that the analyst's stock picking ability is sustainable. But whether the analyst's stock picking ability is continuity also need to conduct a systematic test before the conclusion can be drawn. At present, there are no scholars in China to study the sustainability of analysts' stock picking ability. Most of the foreign research on analysts' perspectives is about buyer analysts, few scholars had studied the performance of the seller's analyst. While the buyer's analyst and the seller's analyst have a big difference: buyer analysts serve clients and fund holders and seller analysts provide investment advice and analysis reports for individual and institutional investors. There are also some differences in the regulatory aspects between the buyer's analyst and the seller's analyst. So the buyer's analyst's conclusions cannot be applied to the seller's analyst, it is necessary to test whether the seller's stock picking ability is also sustainable. This article is in this context to study the Chinese seller's stock picking ability is sustainable to provide valuable information for investors' investment activities and reduce the blind investment of investors.

We calculate accumulated excess returns from the stock selected by the analyst to represent the analyst's stock picking ability. The higher the excess returns earned by the analyst, the higher the stock picking ability of the analyst. Follow Mikhail et al.(2004), we divide all the analysts into five groups according to the performance of the analysts. If analysts who have performed well in the past is also perform well now, poorly performing analysts in the past is also perform poor now, indicating that analysts' stock picking capacity is sustainable. Our results show that the analysts who have performed well in the past are equally good in the future, proving that the analyst's stock picking ability is indeed sustainable.

We also on tested whether the market can identify the difference of the analyst's stock picking ability. The result show that the market can't identify the analyst's differences, so if the investor can select a good analyst in the past and follow his(or her) recommendation report to construct the portfolio can get a higher return on investment.

2. Literature Review and Hypotheses

Stickel (1992) divided the analysts into two categories: star analyst and general analyst. We find that the star analysts perform well that general analysts: more accuracy more reports published more frequently. At the same time they find that the upgrade reports released by the star analysts had a more pronounced impact on the market price of the stock and while the downgrade reports released by star analysts and general analysts had no significant impact on the market. Desai et al.(2000) found that the top five analysts did get higher excess returns than other analysts,; the stocks that recommended by more analysts perform well that other stocks; the analysts who only focus on an industry perform better than the analyst who pay attention to more industries. the top three analysts' recommendation performed no significant difference. Mikhail (2003) believe that as analysts' experience grows, the analyst's accuracy increases. They argue that experience is an important criterion for classifying analysts. The more experienced analysts can take full advantage of the stock's past information, to avoid the lack of response to past information.

There is no relevant research about the sustainability of analysts' stock picking ability. Many foreign scholars have studied the performance of mutual funds and pension fund buyer analysts, but there is no uniform conclusion. Lakonishok et al.(1992) found that pension fund analysts have continuity. They believe that investors can use the analyst's past performance as a guide to build portfolio. But they found that after deducting the transaction costs investors cannot get positive returns. Hendricks et al. (1993) found that mutual funds those who performed well or poor were persistent in the short term. Brown et al.(1995)use a larger mutual fund database and control living bias, they found that only those poorly performed funds are persistent. Carhart (1997)found that the sustainability of several factors of stock returns and the rate of mutual fund costs almost account for most of the continuing benefits of mutual fund returns. In summary, the research about analysts persistence is on the performance of the buyer's analysts, and most of the research on the performance of the seller's analysts focused on the revision of the proposed stock. While the buyer's analyst and the seller's analyst have a big difference. So the buyer's analyst's conclusions cannot be applied to the seller's analyst. It is necessary to test whether the seller's stock picking ability is also sustainable.

Gleason et al.(2003) find that the analyst's report with new information content is not different from the market response of analysts who do not contain new information content, so the market cannot fully distinguish between the above two reports. The author divides the analyst into two categories: reputable analysts and general analysts. They found that the market responded more strongly to the reports of reputable analysts. When controlling other factors, those who have a lot of analysts followed market response faster than other companies, more fully. Mikhail et al.(2004) first verify the analyst's stock picking ability is indeed different and this difference is persistent. Then tested whether the market can identify that the analysts stock picking ability differences after controlling the size of the company, the size of the securities company, analysts' accuracy and other factors.

Based on previous studies, we propose the hypothesis of this article:

H1:Analysts' stock picking capacity is sustainable.

3. Empirical Study Design

3.1 Data sources and sample selection

This paper selects samples and corresponding financial data from CSMAR database and RESSET database. Considering the data of Chinese analysts were very few before 2001, so the sample annual range selected in this paper is 2001-2010.In the part of robustness, we test whether the "New Fortune" best analysts' stock picking ability be continuity. Because the selection of the best analysts of the "New Fortune" began in 2003,so the "New Fortune" best analysts data range is 2003-2010.As the "new wealth" in 2003 began the selection of the best analysts, so "New Fortune" the best analyst data from the beginning of 2003.According to statistics, the number of the analysts who published reports is 5956,and the number of the analysts who selected by the "New Fortune" from 2003 to 2010 is 483.

Table1 Descriptive Statistical

Variables	All Analysts		The "New Fortune"
	Mean	Median	Mean Median
Net Assets	1023966575	668386933	960791531 636082704
Sales Revenue	1444502640	638407632	1139292484 453492926
Followed Companies	16	5	67 52

The unit of "net assets" and "sales revenue" in the table is RMB.

Table 1 statistics of the companies that the analysts followed the level of net sales and the sales of the average level of income. We believe that the company's net assets and sales income to a certain extent, reflects the size of the company. Table 1 shows that the level of the assets, sales revenue of the companies which all analysts followed are greater than the value of the assets, sales revenue and median of the company which followed by the "New Fortune" best analysts. Table 1 shows that the average numbers of companies followed by the analysts is 16, and the average numbers of companies followed by the "New Fortune" best analysts is 67. This indicates that the number of companies that New Fortune Best analysts followed is far greater than the number of companies that all analysts followed. This result is the same as that of Stickel (1992). The Stickel (1992) study found that compared to other analysts, the best analysts had more companies to follow each year, reporting more frequently.

3.1 Research design

The main purpose of this paper is to test whether the analyst's stock picking ability is sustainable. For investors, the key to judging the performance of an analyst is to follow the announcement of its published report can bring higher investment income, So we use the profitability of the recommendation to measure the performance of the analysts. The higher the profitability of the report, the better the analyst's performance. The profitability of the reported shares is expressed as the accumulated excess returns. Cumulative excess returns are calculated using the event study method. Firstly calculate the excess returns, Company *i*'s excess returns = The yield of the company *i* at *t* day - the rate of market.

In order to test whether the analysts who performed well in the past will perform well in the future, we divided all of the analysts into five groups based on the performance over the past one year or over the past three years, Group 1 perform worst, Group 5 perform best. If analysts' stock picking capacity is sustainable, analysts who have performed well in the past will perform well in the future, and analysts who have poor performance in the past are equally poor in the future. Our test results show that over the past year, analysts who have performed well over the past one year or three years still receive higher cumulative excess returns in the year they released the report. So the analyst's stock picking ability is indeed sustainable.

4. Empirical Analysis

4.1 Whether the analysts' stock picking ability are different

Table 2 shows, The cumulative excess returns of Group 1 and Group 2 were poor, the remaining three groups are positive. The difference between the worse-performed group1 and the best-performed group5 is 0.2979. the median difference was 0.2422, indicating that different analysts have significant differences in stock picking ability.

Table2 Analysts' Cumulative Excess Returns

Group	过去一年的表现	
	Mean	Median
1	-0.1155***	-0.0944***
2	-0.0240***	-0.0233***
3	0.0188***	0.0183***
4	0.0646***	0.0635***
5	0.1824***	0.1478***
Difference (Group1 and Group5)	0.2979*** (54.72)	0.2422*** (38.91)

***, ** and * represent 1%, 5% and 10% significance levels (two-tailed), respectively.

4.2 Whether the analyst's stock picking ability is sustainable

Table3 tested the persistence of the analysts, respectively calculate the mean and median of the cumulative excess returns of the analyst in the three window periods (-2,2) (-220) (-260).

The empirical results of our study show that there is a significant difference in the stock picking ability of different analysts. In this section we will examine whether this difference is consistent. Whether the analysts who performed well in the past were doing well in the future, and whether the poor performance of the past in the future performance of the same poor. The specific method of inspection is based on analysts over the past year based on analysts over past three years respectively, and rank the analysts into five groups by their performance. If the analysts who perform well over the past year or over the past three years perform well now, we believe that the analyst's stock picking ability is sustainable.

Table 3 show that, the performance of the analysts performed differently. For example, in(-2,2) window periods, the cumulative excess returns of the group which performed best is 0.0093,and the cumulative excess returns of the group which performed worst is 0.0080,and the differences between the two groups of analysts were significant. In the (-2,20) and (-2,60) window periods, the differences between the best performing group and the worst performing group was still significant. We rank the analysts into five groups based on the performance over the past three years, the results show that the best performing group in the past three years has been significantly different from the worst performing group in the past. The results of Table 3 show that good analysts in the past have performed well in the future, and analysts who had poor performance in the past were equally poor in the future. This proves that the analyst's stock picking ability is indeed persistent, so the empirical results support the hypothesis.

Table3 Analysts' Continuity Test

Group	Based on Past 1 Year Performance		Based on Past 3 Year	
	Mean	Median	Mean	Median
	(-2,2)			
1	0.0093***	0.0044***	0.0094***	0.0041***
2	0.0104***	0.0046***	0.0104***	0.0055***
3	0.0111***	0.0043***	0.0104***	0.0039***
4	0.0131***	0.0064***	0.0121***	0.0073***
5	0.0151***	0.0080***	0.0137***	0.0080***
Difference	0.0058	0.0036	0.0043	0.0039
Differences Test	4.17 (<0.001)	3.81 (<0.001)	2.29 (<0.05)	2.46 (<0.05)
	(-2,20)			
1	0.0083***	-0.0004***	0.0070***	-0.0030***
2	0.0101***	0.0015***	0.0093***	-0.0003***
3	0.0133***	0.0025***	0.0113***	0.0025***
4	0.0175***	0.0084***	0.0150***	0.0067***
5	0.0206***	0.0091***	0.0174***	0.0052***
Difference	0.0123	0.0095	0.0104	0.0082
差异检验	5.43 (<0.001)	5.47 (<0.001)	3.36 (<0.001)	3.45 (<0.001)
	(-2,60)			
1	0.0107***	-0.0029***	0.0073***	-0.0058***
2	0.0140***	0.0016***	0.0125***	-0.0033***
3	0.0190***	0.0040***	0.0164***	0.0031***
4	0.0255***	0.0089***	0.0233***	0.0089***
5	0.0308***	0.0153***	0.0248***	0.0091***
差异	0.0201	0.0182	0.0175	0.0149
差异检验	6.33 (<0.001)	6.39 (<0.001)	4.01 (<0.001)	3.72 (<0.001)

***, ** and * represent 1%, 5% and 10% significance levels (two-tailed), respectively.

4.3 Whether the Market Can Identify the Analyst's Differences

The empirical results show that the analyst's stock picking ability is different, And this difference is persistent. Analysts who performed well in the past also performed well in the future. In this section, we examine whether the market identify this difference of analyst's stock picking capabilities. Test whether the short-term market response of the analyst's published reports is linked to the analyst's past performance. The model we used is:

$$\begin{aligned}
 BHR_{j,t-2,t+2} = & \theta_0 + \theta_1 firm_size_{j,t-1} + \theta_3 prior_perf_{i,t-1} + \theta_4 upgrade_{i,j,t} \\
 & + \theta_5 upgrade_{i,j,t} * prior_perf_{i,t-1} + \theta_6 upgrade_{i,j,t} * firm_size_{j,t-1} \\
 & \theta_7 upgrade_{i,j,t} * brok_size_{i,t-1} + \varphi_{j,t}
 \end{aligned}$$

BHR_{j,t-2,t+2} : 5 days buy and hold returns of company j;

$firm_size_{j,t-1}$: the size of company j, the logarithm of the market value of the stock market at the end of the previous year;

$brok_size_{i,t-1}$: the number of analysts employed at the end of the previous year ;

$prior_perf_{i,t-1}$: based on the analyst's performance over the past year, the analyst divided into five levels, the worst performing group is assigned a value of 1, as the performance of the analyst increased, the number of groups increased in turn, the best performing group is assigned a value of 5;

$upgrade_{i,j,t}$: If the analyst issues an upgrade report to 1, otherwise 0.

According to Stickel (1995), the expected value of the coefficient of firm size is positive, Because the larger the company, the less the impact on the analyst's downgrade report; The expected value of the coefficient of $brok_size$ is negative, because Big securities companies released the company's downgrade report will have a greater impact on the market; The expected value of the coefficient of $prior_perf$ is negative, if the market can identify the analyst's difference, the better performers in the past, the greater the impact of the downgrade report on the company.

Table4 Market Reaction Test

Variables	Expected symbol	
$firm_size$	+	-0.0003 (-0.64)
$brok_size$	-	-0.00002 (-0.5)
$prior_perf$	-	0.0016 ^{***} (2.77)
$upgrade$	+	0.029 (0.8)
$upgrade*prior_perf$	+	0.0007 (0.39)
$upgrade*firm_size$	-	-0.0017 (-1.1)
$upgrade*brok_size$	+	-0.00002 (-0.19)
R²		0.0014 ^{***} (4.49)

***, ** and * represent 1%, 5% and 10% significance levels (two-tailed), respectively.

5. Robustness Test

The robustness test will test whether the best analysts selected by the "New Fortune" from 2003 to 2010 is also sustainable. The "New Fortune" selected 483 best analysts from 2003 to 2010. Among the 483 best analysts, there are 304 analysts on the list of the number of one time, 88 analysts on the list of the number of 2 times, and 49 analysts on the list of three times, 26 analysts on the list of four times, and 16 of the list of the number of not less than 5 times.

Table 5 "New Fortune" Best Analysts 'Performance Over the Past Year

Group	Mean	Median
1	-0.1010 ^{***}	-0.0792 ^{***}
2	-0.0232 ^{***}	-0.0230 ^{***}
3	0.0184 ^{***}	0.0191 ^{***}
4	0.0650 ^{***}	0.0636 ^{***}
5	0.1752 ^{***}	0.1489 ^{***}
Differences	32.97 (<0.001)	15.67 (<0.001)

***, ** and * represent 1%, 5% and 10% significance levels (two-tailed), respectively.

Table 5 tested the performance of the "New Fortune" best analysts over the past year, the method is the same as above, in accordance with the cumulative excess return of the "New Fortune" best analysts. Sort all "New Fortune" best analysts, and divided into five groups, calculate the cumulative excess returns of each group and the median, group 1 performed the worst, group 5 performed best. Table 5 shows that the best performers and the worst performers have significant differences. This shows that the "New Fortune" best analysts also have significant differences in performance. The main reason is that there are significant differences in the industry, practitioners and other factors.

Table 6 "New Fortune" Best Analyst Continuity Test

Group	Based on Past 1 Year Performance		Based on Past 3 Years	
	Mean	Median	Mean	Median
(-2,2)				
1	0.0109***	0.0067***	0.0122***	0.0045***
2	0.0139***	0.0068***	0.0115***	0.0085***
3	0.0121***	0.0066***	0.0115***	0.0048***
4	0.0135***	0.0065***	0.0161***	0.0114***
5	0.0220***	0.0088***	0.0115***	0.0080***
Difference	0.0111	0.0021	-0.0007	0.0035
Differences Test	1.17	0.69	0.14	0.012
组数 (-2,20)				
1	0.0067***	0.0056***	0.0159***	0.0049***
2	0.0211***	0.0167***	0.0126***	0.0082***
3	0.0186***	0.0100***	0.0206***	0.0121***
4	0.0201***	0.0095***	0.0211***	0.0143***
5	0.0298***	0.0104***	0.0175***	0.0024***
Difference	0.0231	0.0048	0.0104	0.0082
Differences Test	1.94 (0.1)	1.49	0.17	0.61
Group (-2,60)				
1	0.0122***	-0.0052***	0.0224***	0.0119***
2	0.0285***	0.0107***	0.0068***	-0.0033***
3	0.0280***	0.0079***	0.0297***	0.0110***
4	0.0294***	0.0100***	0.0358***	0.0136***
5	0.0378***	0.0167***	0.0375***	0.0329***
Difference	0.0256	0.0219	0.0151	0.0210
Differences Test	1.73 (<0.1)	1.35	1.12	0.94

***, ** and * represent 1%, 5% and 10% significance levels (two-tailed), respectively.

Table 6 tested the persistence of the "New Fortune" best analysts. As the same as the previous method of continuous testing, We calculated the "New Fortune" best analysts based on the past one year, the past three years and divided all the "New Fortune" best analysts into five groups, calculate the cumulative excess returns in the three window period (-2,2)、(-2,20)、(-2,60) .

Table 6 shows that, The best performers in the past year and the worst performers have significant differences in the (-2,20) (-260) window period. For example, in the(-2,60) window, over the past year, the best-performing Group 5 analysts had a cumulative excess return (median) of 0.0378 (0.0167),and the cumulative excess returns (median) of the worst-performing Group 1 analysts over the past year were 0.0122 (-0.0052).The difference between the two groups was significant: T = 1.73, p <0.1 (two-tailed).In addition, Table 6 shows that the difference between the best performers of the "New Fortune" and the worst performers in the past three years is not significant.

For example, in the (-2,60) window period, the best analysts over the past three years and the worst analysts have a cumulative excess return (median) of 0.0151 (0.0210), the difference between the two groups is not significant, $T = 1.12$, $Z = 0.94$.

The results of Table 6 show that the five groups of "New Fortune" best analysts based on performance over the past year are still persistent in the (-2,20) (-260) window period, but the five groups of "New Fortune" analysts based on performance over the three years did not show continuity in the (-2,2) (-220) (-260) window period. This shows that the best performers of the "New Fortune" in the past three years have reduced the advantage of the year when the report was released. Investors can follow the previous year's good performance of the "New Fortune" best analysts released the recommendation report, in the (-2,20) and (-2,60) window period can still get a higher investment income.

6. Conclusions

Stock investment is an important way for investors to invest in activities. It is difficult for investors to choose high-profit stocks. While the stock market has a large number of analysts issued recommendation report, compared to the investors who do not have professional investment technology, analysts have better professional skills, and can grasp the direction of the stock market, so choose to follow the analyst's report has become a large number of investors' investment strategy. But which analyst should be followed? Generally speaking, investors tend to follow those who have performed well in the past. Whether the analysts who performed better in the past will perform well in the future? This article uses Mikhail (2004)' methods to test whether Chinese securities analyst has continuity.

The empirical results show that, the analyst's profitability is significantly different, and analysts who performed best in the year before the report is published will perform well in the year the report is published. And the market can not identify the analyst's difference. The results of the robustness test show that the "New Fortune" best analysts' picking ability is consistency. The results of our test show that investors can follow the report of the best-performing analysts in the past to construct the portfolio because the market does not identify the differences of the analyst's stock picking ability, if investors can choose those who have the best performance in the past and follow them to construct portfolio, then you will get higher return than the market .

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