Behavioral finance in herd behavior essay sample

There are various types of irrational behaviors of investors, among which we are highly interested in why people tend to follow what others do rather than believe in his or her own judgment. The phenomenon is called herd behavior. Some investors claim, " We know there is herd mentality, so we need to be in the group."

HYPOTHESIS : HERD BEHAVIOR1

Observing from the following examples , a tendency was unveiled that people would imitate the actions of a large group. It is sometimes a rather convenient way to deal with problems when faced with unimportant choices or when our brains are simply too lazy to activate System 2; however, in the following cases, people irrationally invested their hope and money, which obviously need to be dealt with rationality, into the markets they knew little about. We want to discuss about this irrational part of Herd Behavior. Below are three main reasons as hypothesis we think responsible for the irrationality: 1. The pressure of self-questioning. Human beings are social by nature and often make a choice in consideration of the acceptance of a group. If their analysis for markets is different from the public opinion , people would be confused and anxious. 2. The common rationale that the majority or the professional is unlikely to be wrong. Even if people are convinced that a particular analysis or action is incorrect or even irrational, they might still follow the herd and believe that the majority has some information that they don't. 3. People think they possess some private information not public shared. Nevertheless, they are still mimicking a little group's opinion without analysis from themselves. 1

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EXAMPLE 1: The International Bubble/Dot-Com Bubble

< Onset of Dot-com Boom > 2 Began from 1993, the World Wide Web's commercial value was discovered by more and more people. Tons of money from venture capitalists and private investors flowed into internet-based stocks and other relative markets. The group of new internetbased companies was called the dot-coms. 3 Although some of the dot-coms didn't have a sound financial structure or business model, the deluge of blind money from worldwide speculators never stopped in the late 1990s. < What was the market thinking? > 1. During the booming, companies could foresee their stock price skyrocketing by simply adding an " e-" at the beginning of their name or ". com" to the end. 2. In the year 1999, there were 457 IPOs, most of which were internet and technology related. 117 of them doubled in price on the first trading day. Compared with 2001, there were only 76 IPOs, and none of them doubled on the first day of trading. 3. The technology-heavy NASDAQ Composite index peaked at 5, 048 in March 2000, reflecting the high point of the dot-com bubble.

< Burst of Bubble > The bubble burst during 2000-2001. The NASDAQ fell from the peak of 5, 048 to the half, 2, 524, in just few months in 2000 and kept dropping. Some profitable and well-performing companies lost large portion of its capital. For example, Cisco, whose stock declined by 86%.; however, most of the dot-coms were bad-managed and failed completely. Take the Pets. com for example : ● Pets. com (1998-2000) (a) Spent multimillion dollars for advertisement. Consequently, they didn't work. (b) Undercharged the shipping costs to attract customers . As a result, it lost

money on most of the items it sold. However, people still invested it for $82. 5 million in an initial public offering . 2

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< Hypothesis Behind the Blind Money > The reasons for the internet bubble4 were widely discussed. Some people thought it was a case of too much too fast. Companies didn't know how to deal with millions of invested dollars and the expectation of becoming the next Microsoft in the short time. However, we think that " herd behavior" accounted for the irrationality, at least for a large part. Here are some evidence of the herd behavior : First, the dot-coms was a brand-new field. Few people was familiar with it but almost everybody put giant expectation on it. As a result, anxiety emerges if one does not join others in the wave of investing the dot-coms. Second, people didn't care about the companies' operation status before they invested in them. For example , Long term unprofitable OTCBB traded company founded in 1988 previously named Norris Communications. It changed its name to e. Digital in January 1999 when stock was at $0. 06 level. The stock rose rapidly in 1999 and approached $2. 91 on December 31. The stock even got on the peak of $24. 50 on January 24, 2000.

EXAMPLE 2: Uranium Bubble in 20075
The uranium price hit spot prices around $110/1b in 1970s, 8 but dropped down to under $20/1b in the middle of 1980s and didn't go back above $20/1b until 2005. It started in 2005 that the demand of future nuclear energy from longer life expectancy and rising new economies like China and India. With the low inventory of uranium, the price of uranium and stocks of

related companies began to soar. Especially when Cameco, 7 the mining company, announced that the mining schedule in Cigar Lake6, the largest undeveloped uranium deposit, would mine not a single pound in at least 5 years. People that time were so worried and bid up the uranium price like crazy. During 2005 to 2007 the price of Uranium soared more than 6 times.

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The news about the concern of lack of uranium supply was widely broadcasted. After some people accessed the news they consider mining and exploration companies good targets to invest. Despite analysts' statement that uranium price is hard to predict since a lot of transections aren't accessible to the public. Being influenced by the crowd, people put their money into uranium related stock, causing a spike in the stock price. We consider that herd behavior played a substantial role in the cause of the spike happened then. For example the stock price of the miner, Camero, is $15. 95 on January 3rd, 2005, then soared to its peak at $55. 6 on Jan 11, 2007. Its price collasped with the collasped of uranium price. The price now is about $19.

EXAMPLE 3: Herd Behavior in China Stock Market

Evidence of herd behavior was observed in both Shanghai and Shenzhen A-share market according to Empirical Analysis9 of Chinese Stock Market Behavior: Evidence from Dynamic Correlations, Herding Behavior, and Speed of Adjustment. However, the author states that no herd behavior was found in B-share market. The main reason could be that the constitution of A-share market is dominated by domestic individual investors while the B-share

market is dominated by foreign institute investors. In another study: Herding behavior in Chinese stock markets: An examination of A and B shares, the result further concluded that herd behavior is more obvious over daily data than over weekly data, which shows that herd behavior tends to happen in a short-term investment. The phenomenon may stem from their long lasting slogan" Wade across the stream by feeling the way." Investor put their money into the stock market before the market reaches its maturity. Herd behavior is still a huge problem in Shanghai and Shenzhen stock market. More and more researchers are devoting to dig into this phenomenon.

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DESIGNING THE SURVEY

After studying the examples, we designed a survey with 2 main parts : First part: (A) After reading a piece of news with limited information , the respondents should choose a most probable predictions from the choices.

(B) We showed fake statistics of the same question to the respondents to observe if they will change their mind.

Second part: (C) After reading two different stock charts, the respondents should choose a most probable predictions from the choices.

(D) Again, We showed fake statistics related to the above question to the respondents to see if they will change their mind.

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We are interested in the following questions :

1. Which gender is more likely to follow the herd ? 2. Are people with financial or economic background less likely to be affected by others? 3. In the part (B), we intentionally made choice (d) the most selected option in former tests. However, choice (d) is in reality the least possible scenario according to the article and common sense. Will people change their answer to (d) or other choices ? 4. In the part (C), we give the respondents two complex stock charts. Are people more prone to following the herd when not given enough information for judgement?

COLLECTING DATA

Firstly, we answer our first question by examining the relationship between gender and major. We want to know whether the results are relevant to the respondents' gender, and whether those who are familiar with financial market are less likely to be affected by herds(the fake statistics). Comparing the major and finance background, we can see from Chart 1 that there is no consistency between the behaviors of both group. However, digging deeper into the problem, we found something that might explains this. In the first part of the experiment, we gave relevant information that would lead people to the decision opposite to what the fake statistics would do. It turned out that the amount of people who are not familiar with financial market accounts for a larger portion of the total amount of people who made changes.

And in the second part of the experiment, we gave only two candlesticks charts, from which, we believe, few people can derive a conclusion of future trend. In consequence, the amount of people who are familiar with financial

market accounts for a larger portion of the total amount of people who made changes. The results are opposite. We explain it from the view that with relevant information, people who are better equipped with financial knowledge believe in themselves instead of following the herd, and vice versa. However, it is a pity that since there is no obvious difference between the two group's decisions, we could not conclude that people who have financial background or studied finance related course truly have more faith in their own judgement than others do so that they would be less likely to follow the herd. Chart 1

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Now we compare the gender, we can see from Chart 2 that in both parts of the survey, male respondents are more likely to be affected by the given statistics, they account for almost 2/3 of the changes in both part, twice as much as female respondents. This is a surprising result that we have not yet came up with any explanation. Chart 2

At the first part of the survey, we found that among the 121 respondents, 15 people have changed their answer. 8 people change their answer to (d)□□□□ □□□□□ □□□, which is the most selected option in the given fake statistics ; 6 of them change to (b)□□□□□□□□□□□□, which is the second most selected. We can see that option(d) changes from 13% to 21%. To sum up, 12. 4% of respondents change their answer, and among these changes, 53. 3% change to option(d), 40% change to option(b). From the two pie charts below, we can see the obvious gain of the purple piece, which means that people do follow the herd even if the option is in reality most unlikely to happen. This

mean irrationality of herd behavior does exist, and exists under the scenario we have designed.

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At the second part of the survey, we found that among 121 respondents, 24 people have changed. 17 of them change their answer to(a)□□□□□, which is the most popular option in the given fake statistics ; 4 of them change to (d) □□□□□□, which is the second highest option in the given statistics. We can find a huge change in option(a), 40% compared to 26%, a 14% increase after giving them the fake statistics. To sum up the results, 20% of the respondents change their answer, 71% of them change to option(a), 17 of them change to option(d). Now the two pie charts show an even clearer case of herd behavior. It is obvious that the blue portion of the pie became bigger after people have seen the fake statistics we made up. It is possible that people are more prone to change and follow the herd when not given enough information.

To prove that the amount of information given affects herd behavior, we compare the two parts of the survey. Seeing from the two pie charts below, it appears that more respondents change their answer in the second condition(in which less information is disclosed.) While in both cases our fake statistics affects people's decisions, it is when less information is given herd behavior is more obvious.

In conclusion, herd behavior can be seen in the course of investment and in real markets. As for to what degree the herd behavior affects investors' final decisions, the disclosure of information plays an important role. The more

information disclosed, the less likely the original view would change.

Characteristics of people such as gender and having financial knowledge or

not act as factors that also influence the extent of herding. 8

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