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MEASURING EXPECTATIONS AND CONFIDENCE OF CHILEAN INVESTORS

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ABSTRACT

This paper intends to establish the importance of expectations and confidence of Chilean investors on the financial market in Chile. Previous research of investors in other countries has shown that both of these attitudes manifest clear tendencies to change through time and strongly influence the behavior of the pragmatic markets. The field of behavioral finance -an emerging field in financial analysis that takes explicit account of psychological factors- is the driving force of this research.

This research is based on information obtained through a survey process in Chile. The questions start with an investor profile, following with questions that help to determine if Chilean investors have a high confidence level. Additional questions allow us to ascertain whether investors feel that they can make money in the stock market, and also to learn about investing culture and risk aversion.

The results reveal that almost 80% of investors agreed at least somewhat that the stock market is the best investment for long-term holders. Also, responses demonstrated that investors feel that they can make money in the stock market. These findings, along with others, suggest characteristics of confidence that the stock market is not overvalued and that it does not present high prices.

The stock market condition in late 2001 helps to demonstrate the level of confidence that investors have in stock investments. After the terrorist attack to the US, the IPSA (Chilean Stock Index) dropped until October 8, 2001 closing at 93.5 points or -16.33% lower than the 10th of September. Unbelievably, the Index climbed 20.97% over the next 46 days, closing at 113.11 points on November 23, 2001. This closing price is higher than the September 10 closing and represents 1.22% increment with respect to that date.

INTRODUCTION

This research explores some of the issues in financial markets that are addressed by “behavioral finance,” an emerging field that takes explicit account of psychological factors that are normally excluded from conventional financial analysis [3]. Two important attitudes displayed by investors are examined in this paper: (1) “expectations” that investors have about the future performance of the stock market in Chile; and (2) “confidence” or the degree of tranquility that investors have regarding their investments. Previous research of investors in other countries has shown that both attitudes manifest clear tendencies to change through time and strongly influence the behavior of pragmatic financial markets. Via a survey we intend to estimate the importance that both elements have on the financial market in Chile, and whether professional investment managers, stock market analysts and/or academics should consider monitoring them.

Many recent economic, political, terrorist, financial/accounting, and social factors have caused stock markets around the world to be an unstable and volatile place for investors. For example, companies decreasing margins-profits and laying-off employees, terrorist attacks producing skepticism and uncertainties, and/or questionable accounting practices that undermine the foundations of valuation techniques. As a result of these activities consumer confidence indexes in several countries are at their worse levels in years. With these type of events occurring almost daily, it is easy to observe how stock markets of developed countries such as the USA, the United

Kingdom or Japan, or economic communities as the EU or Asia have become unstable places for investments.

Apparently, in some ways all these factors affect the expectation level and degree of confidence of investors. However, some questions arise: Do they really affect investors in the long term? Do they make investors run away from stock markets? Even more in depth, does the degree of risk aversion for investors change because of these events? Moreover, we need to recognize the difference between what it is said and believed, versus what investors think or pursue when they make investment decisions. Furthermore, recent events and the stock market's behavior have persuaded individual investors, policy makers and professional investment managers to augment their knowledge of financial markets. Therefore, in addition to the more conventional models of financial analysis, the field of behavioral finance attempts to help with complementary answers to the complex nature of pragmatic financial markets.

Through this current research it is possible to analyze the degree of confidence that Chilean investors have when investing in stocks, and to ascertain whether they feel that can make money in the stock market. In addition, the research permits us to learn about the investing culture in Chile and the risk aversion that Chilean investors manifest.

BACKGROUND AND LITERATURE REVIEW

The field of behavioral finance attempts to answer how individual and collective behaviors influence market prices. A basic belief is that people in general, and individual investors in particular, are not completely rational in their decisions. This situation creates market inefficiencies in the shape of mispricing in the stock market. The inefficiencies bring deviations between the current stock prices and the intrinsic values calculated with traditional mathematical models based on financial/economic theories. Greenfinch [2] indicates that through behavioral analysis it is possible to learn about the mispricings and their causes. A helpful strategy to examine these questions is to use tools like surveys or questionnaires for obtaining information, analyzing the results and comparing them against the stock market performance.

Behavioral finance can be considered a helpful supplement to classical financial theory, which currently dominates financial analysis and academic research. This field considers psychological factors as an important input to financial analysis and decisions, and is gaining increasing momentum in academic research and practical applications in both the USA and Europe [1].

Behavioral finance can help to explain many reactions in financial markets that appear to be contrary to conventional theory. It can also make important contributions to help avoid serious mistakes, and it can help in the development of investment strategies. Authors such as Schiller, Weber, Shefrin and Ware, among many, have added to behavioral finance research.

Robert Shiller [5] challenges financial thinkers to improve their theories by testing them against the impressive evidence that suggests that the price level is more than merely the sum of available economic information. Shiller lists twelve precipitating factors that have contributed to the extremely high level of the US stock market in the late 1990's. In addition, Shiller mentions a set of amplification mechanisms, essentially positive feedback loops, which cause markets to continue to rise. He analyzes the structural, cultural and psychological factors behind these levels of growth. Shiller establishes the existence of a broad historical phenomenon, which is known as "large speculative bubble," that helps one to explain and understand recent financial market behavior.

Martin Weber [7], one of the leading European behavioral economists, also provides useful insights. Weber has found evidence that stocks with high price increases in the past five years often tend to become under-performers in the following five years. He has also confirmed by tests that investors have large psychological problems with selling stocks when they are in a loss position. Weber also conducted research on rapidly rising stock prices and irrational market exaggerations. Other practical applications that have been tested by Weber include the finding that stocks that have had an upward revision for earnings outperform other stocks in the following six months.

RESEARCH METHODOLOGY

This research is based on information obtained in November through of a survey process in Chile. The questionnaire used in this research was based on works by Shiller, Shefrin, Ware and others. The questionnaire about investor attitudes was created and distributed to a random sample of individual investors in Chile. These individual investors are clients of Banedwards Corredores de Bolsa, a prestigious brokerage firm in Chile, which is under the umbrella of Banco Edwards, a Holding Bank Institution.¹

The basic battery of questions start with investor profile inquiries: age, income level, personal wealth, and investment allocation. Following these are questions that help to determine if Chilean investors have a high confidence level, to ascertain whether investors feel that they can make money in the stock market, and to learn about the investing culture and risk aversion in Chile. The questionnaire was designed to be self validating in that questions were interlocking and addressed the same topic from different perspectives. If responses are consistent across the questions, say regarding investor confidence, we can be relatively confident of the findings.

¹ The authors are gratefull for their help and cooperation.

The survey was designed in such a way that the time to complete it should be approximately three minutes. Moreover, due to the fact that the primary language in Chile is Spanish, surveys in both English and Spanish were delivered to the brokerage firm. To implement the process, the brokers distributed the survey to their client-investors during the regular trading interaction. Obviously the accuracy and objectivity of this process was extremely important for obtaining unbiased responses. Therefore, brokers were advised to (1) not recommend answers to investors, (2) not clarify or explain any questions, and (3) definitely not influence in any way the responses from the investors.

The number of client-investors that physically go to the brokerage office is estimated at about 200 people per week. The number of useful responses obtained in a week was 36, which represents a response rate of 18%. Failure to respond may reflect many things, for example, inadequate broker explanation about the purpose of the survey (academic study), or the short period of time for finishing the survey process in Chile. Furthermore, according to the brokers who distributed the survey, perhaps the respondents' lack of time to complete the questionnaire, or a feeling of lack of appropriate knowledge or interest contributed to the response rate. Also, the manner in which the survey process was conducted - it was controlled by a third party in Chile - likely reduced the dedication to have more responses completed.

The Results

Through the results obtained from the surveys it is possible to examine evidence about investor confidence and expectations in Chile. The first step is to examine the profile of the Chilean investors that took the survey. Of the total respondents, 44% of the investors are younger than 31 years old, another 44% are between 31 and 45 years old, and 12% are over 46 years old. Looking at annual income 44% of the investors earn US\$50,000 or less per year. Of these investors 75% of them are 30 years old or younger, and 25% are between 31 and 45 years old. Investors with an annual income between US\$50,000 and US\$100,000 account for 22% of the total respondents. Approximately 27% of these investors are 30 years old or younger, and about 73% are between 31 and 45 years old. Investors with an annual income between US\$100,000 and US\$160,000 accounted for 33% of the total and are distributed as follows: 15% are 30 years old or younger, 52% are between 31 and 45 years old, and 33% are 46 years old or older. As expected, there is an increasing relationship between age and income.

The average investment allocation for all the respondents is 12% Chilean stocks, 11% foreign stocks, 18% Certificate of Deposits, 33% real estate and 26% other investments. This investment profile makes it evident that Chilean investors readily invest in stocks (23% between Chilean and foreign stocks) but it does not present levels of concentration like the USA where allocation in

stocks is higher. Also, as one would expect, investors with higher annual income demonstrate a higher preference for stocks.

Examining investors with an annual income between US\$50,000 and US\$100,000, the investment profile reveals 31% in Chilean and foreign stocks. These same investors signaled real estate as their main allocation with 39%. Another group of high-income investors (between US\$100,000 and US\$160,000) also presented a high share in stocks with 32% and their main investment allocation is in real estate with 35%. Investors with lower annual income allocate their investments more in Certificate of Deposits (16%) and real estate (30%) than in stocks (12%). Likely, the main reason why high-income investors concentrate more of their investments in stocks is due to their higher saving capacity and ability to assume higher risk levels. Moreover, in Chile there may be an inclination to “bet” in the stock market as wealth increases. Similar to Shiller’s findings in the USA markets, our findings of actual investment behavior demonstrate a high level of investor confidence in the Chilean stock market.

After the profile questions, the first question on the survey addressed confidence, and is as follows:

Do you agree with the following statement? “The stock market is the best investment for long-term holders, who can just buy and hold through the ups and downs of the market.”

- | | |
|-------------------|-----|
| 1. Strongly Agree | 22% |
| 2. Agree somewhat | 56% |
| 3. Neutral | 6% |

- | | |
|----------------------|-----|
| 4. Disagree somewhat | 17% |
| 5. Strongly disagree | 0% |

Agreement with this question is obviously strong, fully 78% of the respondents answered agreed somewhat or higher. As Shiller noted a very high level of agreement on any survey question is remarkable, and is all the more so on a question about something as personal as investment strategy [5]. Looking into the annual income groupings the highest annual income investors indicated “strongly agree” 67% of the time, and just 33% with “agree somewhat”. As shown previously, these investors are also the main group that invests in stocks. For them the stock market is definitely the best place for long-term investments and they feel very confident about the future performance of it.

In Chile, given the financial and political climate, during the 1970s and 1980s many people believed that real estate or saving accounts were the best investments. In today’s times, with greater stability and a more developed financial market, many investors agree on the stock market being the best strategy instead of investing in gold or other commodities, or investing in antiques or art, or, perhaps, even in education. Associated with this view is a feeling that the stock market is a very safe place.

The next question addresses expectations and to some degree confidence:

How much do you agree with this statement? “If there is another drop in the market like September 17, 2001, the opening day after terrorist attack, the market will surely be back up to its former levels in a couple years or so.”

- | | |
|----------------------|-----|
| 1. Strongly Agree | 17% |
| 2. Agree somewhat | 33% |
| 3. Neutral | 39% |
| 4. Disagree somewhat | 0% |
| 5. Strongly disagree | 11% |

This question demonstrates the impact of the terrorist attacks, and the word “terrorist,” on the psychology of the market place. While the previous question showed a strong preference for the stock market the responses to this question show a definite shift to a more dubious view of the market place with 39% neutral and 12% strongly disagree. However, before making any further statements it is worthwhile to explore the actual performance of the Chilean market after the attack. Starting the day before the terrorist attack the stock market index IPSA closed at 111.75 points, the closing price on September 11, 2001 was 108.62, or only 2.8% down. For 27 days, or until October 8, 2001, the IPSA went constantly down and reached a closing price of 93.50, or -16.33% for the period. However, from October 8, 2001 until November 23, 2001 (46 straight-days) the Index recovered and closed at 113.11 points, or 20.97% up. The closing price of 113.11 points represents a positive increment of 1.22% with respect to September 10, 2001.

Therefore, after 73 days, the Chilean stock market recovered its level and seemed ready to continue growing [8].

The surveys were completed during this up period. Thus, it is indeed curious that in light of actual performance the respondents did not believe that “the market will surely go back in a couple of years.” However, this is perhaps a tell tale sign of the “terrorists” word on the investor responding “emotionally” to a survey, while the actual investment behavior in the overall market shows quite a different response.

The next question on the survey presents a certain degree of peculiarity due to investors’ responses:

If the Chilean stock index (IPSA) dropped 3% tomorrow, I would guess the day after tomorrow the IPSA would:

- | | |
|------------------|-----|
| 1. Increase | 22% |
| 2. Decrease | 0% |
| 3. Stay the same | 28% |
| 4. No opinion | 50% |

The results show a 50-50 split among the respondents. The fact that 50% of investors have no opinion about what would happen the day after a “large” drop could be due to certain degree of doubt after the terrorist attacks. Furthermore, the percentage of investors that thought the IPSA

would increase is 22% while no one thought that it would decrease, and 28% thought that the Index would, at least, stay the same. The most optimistic group is the investors between 31 and 45 years old (44% of total investors): 25% believe the IPSA would increase, 39% believe it would stay the same, and 36% have no opinion. Overall, it is clear that confidence exists among investors that any one-day drop would not be followed by another decrease.

The next two questions focus on what investors believe in reference to efficiency of the Chilean stock market and the results are pretty interesting.

Trying to time the stock market, to get out before it goes down and get in before it goes up, is:

1. A smart thing to try to do; I can reasonably expect to be a success at it.
2. Not a smart thing to try to do; I cannot reasonably expect to be successful at it.
3. No Opinion.

Trying to pick up individual stocks, trying to predict, for example, if and when ENDESA stock will go up or CTC stock will go up, is:

1. A smart thing to try to do; I can reasonably expect to be a success at it.
2. Not a smart thing to try to do; I cannot reasonably expect to be a success at it.
3. No Opinion.

When consulted about trying to time the stock market, getting out before it goes down and getting in before it goes up, 56% thought that it is a smart thing to try to do. Plus, no one thought it was a not smart thing to do, and 44% of investors had no opinion. Also, when investors were consulted

about picking individual stocks and trying to predict when it will go up, 61% thought that it was something smart to do and only 33% that thought it was not reasonable. Both results demonstrate that investors do not believe in the efficiency of the stock market and they often think that can still pick an individual stock and make money. If one truly believed in efficient markets they would respond “not a smart thing to try to do.” If the stock prices are a random walk, then one cannot pick times to enter or exit the market, and one cannot consistently pick individual stocks. Likely an extra questions about what investors believe relative to the importance of the portfolio diversification would have improved the study and allowed a more in deep analysis.

The next question on the survey helps clarify why Chilean investors believe the stock market is a good long term investment:

“Over the past 15 years, stock have earned much higher returns than saving accounts and CDs hence anyone with a time horizon of 15 years should be investing primarily in stocks.”

- | | |
|-----------------------------------|-----|
| 1. I agree with this statement | 78% |
| 2. I disagree with this statement | 22% |

Clearly a statement like this demonstrates that investing was part of the Chilean culture and can confirm earlier findings about the stock market being the best place for long-term investments.

Investors are aware of, and have knowledge of the historical performance of stocks and the other

common investment instruments. Investors of all ages and income levels manifest similar percentages of agreement or disagreement. Therefore, we may conclude they have a similar perception on the performance of stocks and saving accounts.

In order to determine the perception that investors have with respect to stock prices as compared to their fundamental value the following question was asked:

“Stock prices in Chile, when compared with measures of true fundamental value, are”:

- | | |
|----------------|-----|
| 1. Too Low | 11% |
| 2. Too High | 0% |
| 3. About Right | 50% |
| 4. Do not know | 39% |

Fully 50% of the investors believe that prices are about right, and no one thinks they are too high.

Investors who think prices are too low accounted for 11% of the responses and 39% did not know. In the group formed by the youngest investors the perception about correct pricing is stronger: 63% of them (or 28% of total investors) believe that prices are about right and 0% think that prices are too high. Therefore, with 0% of investors believing prices are not high it is clear that they believe prices could increase in the future or at least not decline. However, it should be noted, corrections could occur because prices are “about right “compared to their intrinsic value. This denotes characteristics of confidence among investors that the stock market is not overvalued nor does it present high prices.

In order to estimate the optimism of Chilean investors the following question was asked:

“How much of a change in percentage terms do you expect in the following (use a “+” or “-“ before you number depending if is a up or down change):

In 3 month In 6 months In 1 year In 3 years In 10 years

IPSA

The response to this question allows us to presume a certain degree of confidence because investors see only increases in the value of the Chilean stock market. On average they believe that in a period of 3 months the IPSA would increase 4%, increase 7% in 1-year, 20% in 3-years, and 25% in 10-years. Despite recent negative factors such as terrorist attacks, wars and recessions, investors continue believing that the stock market will follow just one direction “up.”

Additional evidence with regard to Chilean attitudes toward investing in stocks was solicited with the following question:

“Although I expect a substantial drop in stock prices in Chile ultimately, I advise being relatively heavily invested in stocks for the time being because I think that prices are likely to rise for a while”

1. True
2. False
3. No opinion

Investors would advise others to be relatively heavily invested in stocks because they thought that prices would likely rise: 56% answered “yes” that they advised to be invested in stocks, only 11% responded “no” and a 33% expressed no opinion. Investors in the range between 31 and 45 years old were the one who suggested most strongly to stay invested in stocks. This group represents 44% of the total investors and 88% (or 39% of total investors) of them recommended to be, relatively, heavily invested in stocks because they feel confident that prices will increase.

Following the stock market confidence analysis, the next statement was consulted:

“Many people are showing a great deal of pessimism about the prospects for the stock market in Chile, and I must be careful not to be influenced by them.”

1. True
2. False
3. No opinion

An analysis of the responses show 67% of investors responded true, while only 11% responded false and 22% had no opinion. Again, clearly, investors present confidence about the stock market performance and also indicate that they will not listen to pessimist influences.

The evidence examined so far shows that when expectation levels are evaluated, Chilean investors present a positive bias toward the stock market. Chilean investors also believe in their

abilities to time the market, and select securities. The following three questions explore these concepts in greater detail:

Your investment loses 15% of its value in a market correction a month after you buy it.

Assuming that none of the fundamentals have changed, do you:

1. Sit tight and wait for it to journey back up.
2. Sell it and rid yourself of further sleepless nights if it continues to decline.
3. Buy more - if looked good at the original price, it looks even better now.

A month after you purchase it, the value of your investment suddenly skyrockets by 40%.

Assuming you can't find any further information, what do you do?

1. Sell it.
2. Hold it on the expectation of further gain.
3. Buy more – it will probably go higher

Would you feel better if:

1. You double your money in an equity investment.
2. Your money market fund investment saved you from losing a half your money in a market slide.

When investors were consulted about what they would do if their investment lost 15% of its value a month after they bought it - assuming that none of the fundamentals had changed - 89% responded that they would sit and wait for it to travel back up. Moreover, no one said that they would sell it before it continues decreasing, and 11% would even buy more. On the other hand, when consulted about what they would do if a month after they purchase it, the investment value

suddenly skyrocketed by 40%, all of them, 100%, responded that they would sell it. The response to these two questions demonstrates that Chilean investors may have a tendency to sell early winners to make the profit, but they keep losers waiting for their recovery. This is in agreement with Shefrin's research where he identified the disposition to sell winners too early and ride losers too long [4].

The last question examines the tendency that investors have for investing in the stock market. Despite the fact it is a riskier place, 72% of investors prefer to double their money in an equity investment while only 28% prefer to invest in a money market fund and save half of their investment in the event of a market slide. All investors up to 45 years old (88% of total investors) indicated they would prefer to double their money in an equity investment. The older group of investors (12% of the total) would prefer to invest in money market fund. This is consistent with risk aversion among older investors who are nearer to retirement and do not want to bet with the money for their future when faced with the choice of high return or lower risk. Investors in the thirties or forties are willing to take more risk because retirement is seen as something far away in the future. In light of the survey responses, investors maintain their confidence level on beating the stock market, and their expectations about performance is high. Again, this clearly indicates the expectation of that the stock market goes in just direction "up".

CONCLUSIONS

The field of behavioral finance attempts to help with complementary answers to the complex nature of pragmatic markets. The analysis presented in this research reveals clearly that Chilean investors have not been completely rational in their investment decisions. The recent factors of violence and recession would seem to suggest that the stock market would be the last place where investors would invest their money. But the reality is different, and the stock market's level shows another picture.

Through this research it has been possible to analyze the degree of confidence that Chilean investors have when investing in the stock market. Almost 80% of the surveyed investors agreed at least somewhat that the stock market is the best investment for long-term holders. Also, the survey's responses demonstrate that investors feel that they can make money in the stock market and indicate that they feel confident that the stock market is not overvalued and does not present high prices.

Moreover, the paper reveals that Chilean investors do not believe in the stock market's "efficiency." Two-thirds of investors indicated that it was smart to pick individual stocks and to try to predict when they would rise. Additionally, they often think that they can pick individual stocks and make money. If one truly believed in efficient markets then one would only respond

“not a smart thing to try to do.” If the stock prices are a random walk, then one cannot pick times to enter or exit the market, and one cannot consistently pick successful individual stocks.

In addition, the research permits us to learn about the investing culture in Chile. The responses show that investors have knowledge with respect to the historical performance of stocks over the other common investing instruments. Other findings suggest a public confidence in the Chilean stock market that underlies market valuations. The question here is what has changed in the market conditions that has implied an improvement such as that presented. We believe the results of this research indicate that investors’ expectations and confidence in the stock markets have been two important factors that have contributed to the increase in prices in the later part of 2001.

The list of practical conclusions from the behavioral finance of Chilean investors can be extended substantially. However, the objective of this paper is to emphasize that expectation and confidence levels presented by Chilean investors are becoming real factors when the performance of the stock market is analyzed.

The stock market condition at the end of 2001 helps to demonstrate the level of confidence that Chilean investors have in stock investments. The IPSA had a closing price of 111.75 points on

September 10, 2001; from that time until October 8, 2001 the Index went in one direction: down.

It closed at 93.5 points or -16.33% with respect to September 10. Unbelievably, the Index climbed 20.97%, after another 46 days, closing at 113.11 points on November 23, 2001. This closing price is higher than the September 10 closing and represents a 1.22% increase with respect to that date.

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