

# QUARTERLY LETTER

4Q2015

Investment funds are not guaranteed by the administrator, the portfolio manager, any insurance mechanism or even the credit guarantee fund – FGC. Past performance is no guarantee of future performance. Investors are advised to carefully read the prospectus and regulations of investment funds when investing their resources. The information contained in this material is for informational purposes only.



#### EQUITY STRATEGY

In the 4<sup>th</sup> quarter of 2015, **Alaska Black FIC FIA - BDR Nível I** returned -5.74%, compared to +2.9% of IPCA+6% (*benchmark*), +3.43% of CDI and -3.79% of the Bovespa Index.

	4Q15 (%)	Since Inception (%)
Alaska Black	-5.74	-14.73
Ibovespa	-3.79	-23.62
IPCA+6% a.a.	+4.23	+66.45
CDI	+3.31	+46.96

The performance attribution for the quarter, by sector, is shown below:

Asset	Perf. Attribution 4Q15 (%)		
Arbitrage	+0.91		
Consumer Goods	-0.12		
Cost	-0.16		
Real Estate	-1.18		
Industrial	-1.33		
Cash	+0.31		
Steel	-1.43		
Logistics	-0.50		
Shopping Centers	+1.27		
Hedge	-3.51		
Total	-5.74		

The fund ended the 4<sup>th</sup> quarter of 2015 with the following characteristics:

1. <u>Investments and Divestments:</u> In the fourth quarter, we divested from three companies focused on the consumer sector. We concentrated the portfolio more on assets that depreciated more in relation to the rest of the portfolio, as we do not see deterioration of fundamentals in the long term. Today, we have nine companies in the portfolio.



- 2. <u>IRR</u>: The expected internal rate of return on the portfolio of rose from 27.33% in the 3<sup>rd</sup> quarter of 2015 to 26.37% per year in the 4<sup>th</sup> quarter. The increase is due to the concentration of the portfolio in assets that had a strong devaluation in the period.
- 3. <u>Dividends</u>: In the 4<sup>th</sup> quarter of this year, the fund received approximately R\$ 1.59 thousand in earnings from companies (dividends and interest on equity). Year to date we received R\$ 726 thousand in earnings.
- 4. <u>Other Revenue</u>: In the 4th quarter of 2015, the fund had a negative result of aproximately R\$930 thousand in other income/expenses such as share rent, Arbitration/Hedge operations and cash compensation. Year to date, these revenues generated an accumulated amount of BRL 1.43 million.

The table below shows how much the net income and revenues of the companies we invest in represent from the fund's equity. As we see the fund as a holding company, we see today's portfolio versus the portfolio we had a year ago.

Accounts	3Q14	3Q15	Variation (%)
Net Revenue	6.37%	54.94%	762.50%
Net Profit	1.11%	0.62%	-43.80%



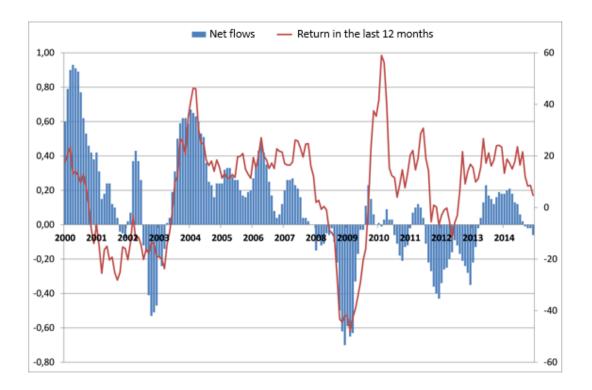
# Cycles

In past letters we have already defined the cyclical behavior of the market, arising from moments of economic expansion and contraction, optimism and pessimism. We also illustrate the main difference between asset value and price and why short-term price drops are actually opportunities (after all, for the same value we prefer to pay the cheapest possible). In this letter we will focus on the causes that lead investors to provoke the market distortions and anomalies that we have previously pointed out.

A key assumption for many economic and financial theories is to assume the rationality of market participants, and this is somewhat problematic. An agent is considered rational if it analyzes all possibilities within its information spectrum, measures which is the best decision and makes it 100% of the time. We see in the real world that market behavior is far from this premise. The average investor acts emotionally, guided by optimism and pessimism, and convinces himself that he is making the best and most logical decision.

The Investment Company Institute counts the inflows and outflows of capital from investment funds, and from it we draw a clear conclusion: the investor buys at highs and sells at lows. The chart below shows us that large capital inflows coincide with market highs and large outflows occur at lows. This includes the net flow in equity funds and the 12-month percentage return from the MSCI All Country World Daily Total Return Index.





Source: Investment Company Institute e Morgan Stanley Capital International

Another research firm, DALBAR, shows us the cost of this type of behavior to the average investor. In an analysis of the fund industry between the years 1995 and 2014, the average investor earned half the average annual return of the S&P 500 index. S&P 500 and 162% for the average).

Investor self-destructive behavior is the main obstacle to obtaining the high returns that the stock market offers.

# **Psychology and Biology**

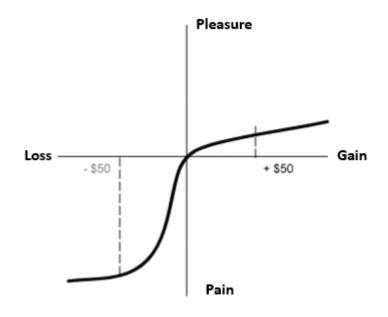
Daniel Kahneman and Amos Tversky developed prospect theory in 1979, an important milestone for the field of behavioral finance. It was created as a counterpoint to the theory of expected utility, by stating that people, when faced with certain "lottery" problems



(which involve scenarios and probabilities of occurrence), make decisions based on the gains and losses of each alternative, and not on their expected outcome.

For us, the main conclusion of the Amos and Kahneman studies is that people value gains and losses differently, a topic that until now had not been directly addressed by any other theory. Through a series of studies, the two psychologists found that people feel more pain from losses than they feel pleasure from gains. For example, a +10% and -5% streak tends to be less enjoyable than a +2% and +2% streak, although the former option results in a greater gain.

In a graph, we represent the emotional intensity of gains and losses:



Another conclusion we draw from this is that, when faced with risks or uncertainties, people focus their efforts on avoiding losses and not on seeking favorable opportunities. In the market, risk aversion leads to a series of suboptimal behaviors. Performance and



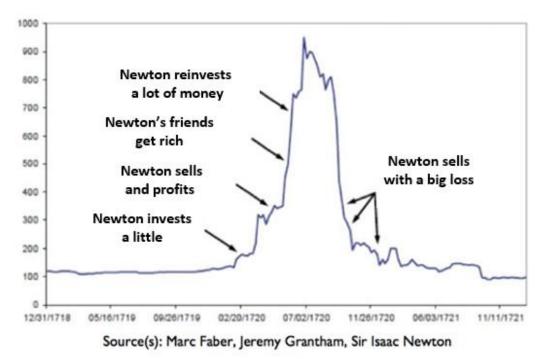
profitability are evaluated in a relative way, that is, there is no point in making money if everyone earns more than you. The consequence of this is to have a group of people who are concerned with avoiding being worse than average, at the expense of never being better.

When everyone has this focus, agglomerations of investors appear seeking safety in each other's opinions. Some researchers have already modeled on the formation of such groups, using the logic of information cascades, presented in Bikhchandani et al. (1992) and Welch (1992). In these models, even a very well-informed investor can be persuaded to abandon his correct information in order to follow the actions of the majority. There is no shortage of examples of such events in history. The first documented bubble took place in 1637, in the Dutch Tulip Market.

Sometimes the irrationality is such that it even convinces great geniuses like Isaac Newton to invest with the group, as was the case with the "South Sea Company" that we can see in the chart below:



#### South Sea Company's Share December 1718 – December 1721



Examples are not only found in stock bubbles. Other researchers have documented empirical evidence of the irrationality of groups in several situations:

• Banks usually recognize losses from certain types of assets together (Rajan, 1994);

• There is market influence on decisions to pay dividends or raise debt;

- IPO waves in certain markets;
- Consensus on action recommendations;
- Occurrences of certain types of transactions between companies (mergers, market acquisitions, share issues);



• Bank runs are driven by a fear cascade in which participants are more likely to withdraw their funds if they see others doing the same (Corb, 1993);

• Orson Wells managed to cause widespread panic in the population through his broadcast of "War of the Worlds" on the radio. Nobody bothered to check the veracity of the facts, only to pass on the panic.

The origins of these behaviors have been extensively studied by some psychologists over the past century. Most of them sought to prove the power of influence of the group in the opinion of individuals. One of the classic experiments on the subject was carried out in 1935 by Muzafer Sharif. In it, he showed that group consensus affects the way individuals make decisions on their own. Later, Solomon Asch also documented the influence that groups have on individual decision making, through a well-known experiment. Asch did an experiment in which volunteers were asked to judge the correct length of a line by comparing it to three sampling lines. The experiment was set up so that there was a clearly correct answer. But Asch had assembled a group with a majority of actors, who deliberately chose the wrong answer. Majority pressure influenced the volunteers. He found that 74% agreed with the wrong answer at least once and 32% did so all the time.

The empirical events cited above, and the research done by psychologists, show us that people seek the "wisdom" of the group for decision-making, or simply decide to get rid of the discomfort of differing from the majority. Robert Cialdini called "social proof" the search for confirmation that people look for in groups. It works as a shortcut programmed into our brain, which instead of trying to find the solution for each step of the problem alone, seeks an optimal solution in most. When we are not confident in our judgment, we tend to place too much value on collective knowledge. And often



this collective is not reacting to any superior source of information, but themselves to the principles of social proof. Charles Mackay, a poet, journalist, and composer from the United Kingdom (Perth, Scotland, 1814 – 1889), writer of the book "Extraordinary Popular Delusions and the Madness of Crowds" once said: "Men think in groups, go crazy in groups and they only slowly regain their senses, one by one."

Group thinking is not necessarily bad. For most of its existence, humanity has been preoccupied with surviving, hunting, fighting, fleeing, and eating, not stock market returns, interest rates, or retirement. In this evolving environment, our brains have adapted to a reality of risks and losses that are very different from what we deal with on a day-to-day basis in the financial market.

Aware that we can be in "fear mode", of primitive instinct, and not with rational and logical mechanisms in action, we come to understand why we make wrong decisions in moments of extreme pessimism or optimism. By considering our psychological tendencies, our evolutionary biology, our brain chemistry, individuals' rejection of loss, people's tendency to follow the masses, and the cyclicality of markets, we can devise some simple strategies for taking advantage of these market characteristics, and at the same time protecting ourselves from "ourselves".

Our job as professional investors is to follow the rational long-term strategy we have established for the fund without deviation. This usually means enduring the discomforts that this strategy can bring, since, as we have seen, we can be victims of our own psychology when it comes to the long term. So that psychological factors do not affect our daily lives, we have a well-defined disciplined routine of processes that help us.



One of the main sources of doubt for an investor arises when the market is moving in a way contrary to his convictions. The fear of being wrong alone brings up primitive fears, and several doubts like "the market knows something I don't" or "everyone is winning but me". A well-structured investment process addresses all possible sources of an investor's insecurities, starting with understanding the market.

# What is the market:

To avoid this kind of thinking, it is first necessary to define what the market is; the conclusion of why to enjoy his imperfections instead of serving him, is a consequence. What we know as a market is actually a set of people carrying out operations to buy and sell publicly traded assets. The price that we see daily is nothing more than the sum of the opinions of each individual in the market, without distinction of what is right or wrong, a simple balance of supply and demand. Because of this, its daily variations work a lot as a thermometer of optimism and pessimism. In an excellent analogy, Benjamin Graham says that we should see the market as a business partner with a very bipolar mood, who every day offers to buy our stake at a certain price or sell his own. The main idea is that we are not obliged to buy or sell at any time, and we can wait until the market presents us with an attractive price, both selling and buying.

Bill Miller, former chairman and chief investment officer of Legg Mason Capital Management, was named SmartMoney's 30 Most Influential People in Investments, voted by Money magazine as "The Best Manager of the 1990s", in addition to Barron's having named him as a member of the investment team of the century. Bill Miller said, in a nutshell, the same as Benjamin: "I often remind our analysts that 100% of the information you have about a company represents the past, and 100% of the real value of a company



depends on its future." Or again: "What we do is try to take advantage of mistakes that others make, usually because they are too short-term oriented, or because they react to dramatic events, or because they overestimate the impact of events."

Benjamin Graham, when asked if Wall Street professionals are better than others at forecasting, he said, "Well, we've been chasing this question for a generation or more. And I must honestly say that our studies indicate that between flipping a coin and following the consensus opinion of market experts, the results are pretty much the same. Your question as to why they can't be trusted is a very good and interesting one, and my explanation is this: everyone on Wall Street is so smart that their brilliance cancels out. And everything they know is already reflected in the stock price and consequently what happens in the future represents what they don't know."

From an information point of view, it is difficult to imagine that the market is better informed than the average of its participants. From this definition, we come to the next important point:

#### **Study your investments:**

In an environment contaminated by emotional reactions, facts and information are an investor's safe haven. Insecurity is the result of the lack of information and depth of analysis. Someone who has deeply analyzed his investments knows how to defend them as well as criticize them.

When analyzing an asset, we must take an impartial stance to avoid bias. We often look for information that confirms our previous beliefs, a clear example of "confirmation bias". In other situations, we give excessive weight to more recent or more present information in the media, due to "availability bias".



#### Quantify the fair value of your assets:

Every well-informed analysis should culminate in a metric that quantifies the value of a given asset. A good metric is one that can be applied to as many assets as possible without losing significance. Present value of future cash flow, or asset replacement value, or even how much a strategic investor (in the same field of activity) would be willing to pay for the business, are examples of simple methods that provide the investor with useful tools to discover or calculate the fair value of an asset.

### Have discipline:

Buying an asset, for a long-term investor, should be a disciplined process. If the information is well documented, for access at any time, as well as the reasons for the purchase and its price, the investor will be less dependent on his emotional state, before making a decision.

Making the buying and selling process rational through metrics is important to prevent bias from contaminating it. Investors often find it difficult to sell winning positions, even with prices at levels incompatible with their value. Others make the mistake of holding onto an asset even after its fundamentals have deteriorated. Information documented at the time of the initial investment will remind the investor of the original reasons for the purchase, and at what price level it would not be more interesting to have the asset.

#### Ask yourself:

Why are you on the right side when buying or selling stocks? Why is the other side wrong?



Buying cheap works. Studies that contradict market efficiency show that cheap portfolios, with low P/B ("price to book", or price divided by book value), perform better than the market average in all periods, whatever the parents. There are statistical and historical reasons to believe that buying cheap is a way of being on the right side. The first studies were carried out in the 1930s and have continued to be a topic until today.

A study by Roger Ibbotson, professor at the Yale School of Management and president of Ibbotson Associates, entitled Decile Portfolios of the New York Stock Exchange, 1967–1984" showed the relationship between annual returns on stocks versus their discounts or premiums to book value. The study considered 18 years between 1966 and 1984, with the following results:

	Decile	Return p.a.
Cheapest	1	14.36%
	2	14.40%
	3	14.39%
	4	12.43%
	5	8.82%
	6	8.36%
	7	7.69%
	8	5.63%
	9	5.26%
Expensive	10	6.06%

During the above period, the average market return was 8.6% per annum.

Another study by Werner F.M. DeBondt (University of Wisconsin) and Richard H. Thaler (University of Cornell) approached the same relationship of market value to book value. Six portfolios were formed, with samples between 1,015 and 1,339 shares, divided into five quintiles, according to their prices in relation to book value, one for each year: December 31, 1969, 1971, 1973, 1975, 1977 and 1979.



The return on investment in each portfolio was measured over the next 4 years. Results are as follows:

	Quintile	Total return above or below the market in the 4 years following the inception of the portfolio	Total return above or below the market in the 4 years prior to the inception of the portfolio	P/B on the portfolio inception date
Cheapest	1	40.70%	-25.80%	0.36
	2	22.60%	-3.00%	0.76
	3	9.50%	16.30%	1.02
	4	5.00%	37.60%	1.43
Expensive	5	-1.30%	76.20%	3.42

The study's undervalued assets were likely the targets of negative news and exacerbated market pessimism. Many participants could not imagine a change in the status quo and so the shares remained at these prices.

#### Be aware:

There's no way to always be right in the stock market, and so far no great investor has succeeded without making iconic mistakes. Of all the mistakes we can make, some are more avoidable than others. Errors of a psychological nature are among those that can (and should) be avoided at all costs. A good investor does not need to know the direction of all economic indicators in the market, but he must recognize his anxieties, fears, and the mistakes that can be made because of them, and especially how to avoid them. He must know how to identify irrationality not only in himself, but in the market, and have the coldness to take advantage of the distortions caused by it.



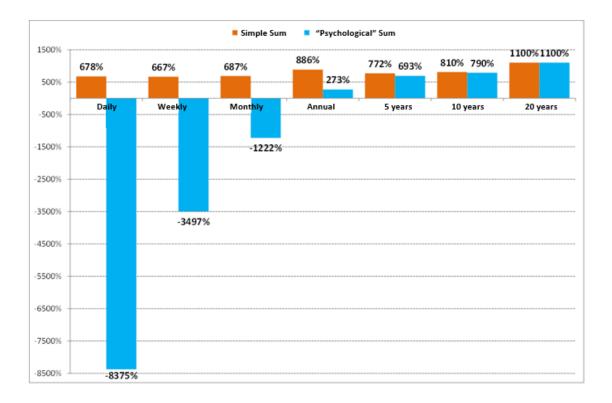
### Be patient:

"Investing should be more like watching paint dry or watching grass grow. If you want excitement, take \$800 and go to Las Vegas." – Paul Samuelson

Measuring the success of your investment frequently is stressful and misguided. What you see when looking at price in the short term is actually the mood of the market, and not the value of the asset.

Stress comes from the greater weight we give to losses compared to gains. Below we have made an illustrative demonstration, considering that we feel the losses twice as much as we value the gains. In the chart, we divide the last 100 years of the Dow Jones index (representative of the US stock market) into daily, weekly, monthly, annual, and 5, 10 and 20-year periods, to represent the frequency that each investor observes their investments. The orange column represents the simple sum of returns in the given periods. In the blue column, the calculation is simple: if there was an appreciation from one period to another, we add the value of the appreciation; if there was a devaluation, we subtract this value multiplied by the factor 2 that we attribute to losses.

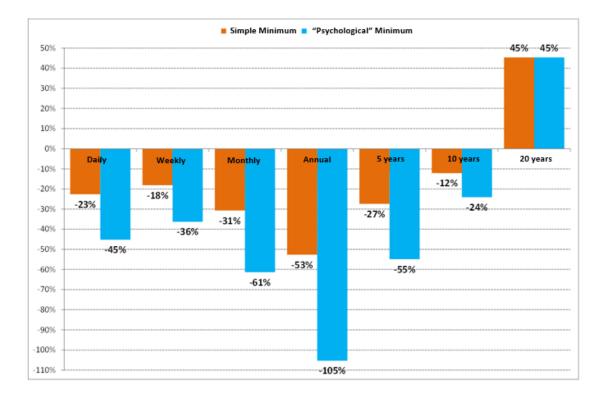




We see that in the daily, weekly and monthly periods, negative returns weigh much more, simply because we see them more often. The investor who revisits prices annually is much less likely to see a negative return, so the blue column is positive. In the 20-year period, the accounts are the same, as there is no 20-year period with a negative return in the history of the Dow Jones. We can minimize the pain if we avoid measuring our investments by short-term prices.

In another chart, we separate the worst variation ever seen within each of the defined periods, using the same logic.





Two periods stand out: The first concerns the worst daily variation, of -23%, in the event called "Black Monday" on October 19, 1987. The second relevant period is the 20-year period, in which even the worst profitability was a positive variation of 45%. From these facts we can draw two conclusions: (i) if we look at investment prices with an annual frequency, we are more likely to see a positive return; (ii) for an individual to never suffer from seeing loss for loss, a period of 20 years is recommended.

As Sir John Templeton said, "The time when an asset is trading at its best buying price is when most people are trying to sell. There is no other reason for the price of an asset to fall to such low levels. If you wait to get out of the tunnel into sunlight to buy, you will pay more for it. If you even wait to see the light at the end of the tunnel to buy, you've already had the best shopping days."