

# How We Make Investment Decisions

It is natural to assume that other people make investment decisions more or less like I do, even if most of us think we are different in terms of investment smarts or luck. However, I'm finding that different people have incredibly different ways of making investment decisions. Looking at these dramatic differences is an important first step in becoming aware of how one makes investment decisions, and discovering whether alternative approaches to making investment decisions might produce better results.

Some people rely primarily upon a trusted individual professional. Some trust financial institutions and financial service organizations. Some make investment decisions based upon a rationale or story, such as the economic implications of changing demographics and perhaps boomers' increasing need for retirement services, retirement housing and healthcare. Some make decisions based upon rules, such as "Dad always said to never sell AT&T," or a belief that one should pay off the mortgage and be debt-free. Some people make investment decisions based upon performance – too often based upon recent performance.

And finally, people make investment decisions based upon a methodology or systematic process for selection and selling. They may do both the design and implementation themselves, or purchase the design and implementation through services and products. Of the three primary methodologies, one approach is to rely on fundamentals in picking the right company or in picking the screen criteria for selecting several companies. The analysis of fundamentals includes factors such as management talent, earnings, debt, sales and many ratios indicating financial health of the company. A second methodology is to rely on technical analysis, usually of charts, that reveal the balance of supply and demand for the stock. Note that this is not about the company, but about the market for the stock. A third methodology is to rely on quantitative factors that statistically predict specific kinds of performance and volatility. Even throwing darts would fall in this statistical approach.

Although rarely done, there is nothing to say that one cannot and should not combine these three methodologies, or in some ways all of these alternatives.

These different ways of making investment decisions are summarized in Table 1.

Table 1.

Basis for Decision		Analytical	Emotional
Trust			
Individual	1		
Institution	2		
Rationale or Story	3		
Rules	4		
Performance	5		
Methodology or Process			
Fundamentals	6		
Technical	7		
Quantitative	8		

Before elaborating on each of these ways for making investment decisions, you might wonder about the analytical and emotional columns.

## Emotions and Analysis

Investments are not emotional. Only people (and animals) are emotional. Emotion is the energy we bring to the investment decision. Some people bring too much emotion or energy to the decision-making, such as traders for whom jumping in and out is a way to keep the adrenalin running. They anxiously fret and stew at every market turn, burning a lot of energy only to do nothing, or worse yet, get out at precisely the wrong time. Other people don't bring enough emotion or energy to investment decision-making. They procrastinate in attending to their investments and are not able to mobilize enough emotion to move them into motion. Many people exhibit a casual neglect for getting around to making major investment decisions, often resulting thousands of dollars missed. Meanwhile diligent attention is given to daily expenditures such as the price of gasoline, maybe making a difference of less than a hundred dollars for the same time period.

So the emotions help us to make a decision, or may prevent us from making a decision. The analysis helps us to make the right decision. We need a balance of both emotional energy and thinking analysis in order to succeed.

## Fitting Investments To Our Own Situation

Every stock that I in my wisdom decide to buy, somebody else in their wisdom is deciding to sell. Sometimes one of us is smarter about the future of a stock. However we can both be right or both be wrong. The buyer and seller may have different time frames. The buyer may be looking for a stock that will be up appreciably in three years, while the seller sees a decline for the next month and wants out. The buyer may think a ten percent annual gain would be great, while the seller is looking for higher returns.

The point is that our emotions react to our own situation as well as to the investment which exists out there. And the thinking analysis needs to be directed towards creating and maintaining an overall strategy of allocation for how various investments will balance each other and fit together. A good investment for you may not be a good investment for me, given what is needed to balance my total investment picture. Every investment decision requires an appraisal of the investment that is out there relative to ones own situation and goals.

The investment process should begin with a clear understanding of what kind of investments are needed to balance my total allocation. From there we go to what is currently held and what is still needed.

Many investors are investors by default. Their employer may provide an incentive to invest in a 401(k) plan and they rather quickly pick an allocation of funds. That becomes their investment plan for years to come. Many people's casual attitude enables the financial services industry to make more off their money than they do, even without being sold an annuity. For a recent three year time period, 60% of mutual funds did not beat the S&P 500 index. (Journal of Indexes, September/October 2005, p 60.)

## The Ways We Make Decisions

### Trust an Individual

"My wife and I got a financial advisor in a rather unusual way. I called up a financial services firm and told the woman who answered the phone, 'My wife and I are into the outdoors, hiking, volunteering in our church, that kind of thing. If you have an advisor who's into that kind of stuff, we'd be happy to talk to him. If not, fine.

The woman said, "We have just the person who is a broker here. He's an outdoors nut and probably shares some of your values."

We made an appointment and came to see him a few days later. Did we ever hit it off! What most impressed us about him was that after about an hour of him inquiring into our lives and background, I finally had to say, 'Aren't you going to ask us about our finances?'

We ended up having a really good relationship with him and trust him with our money and the future our money will buy." (Mitch Anthony, The New Retirementality, Dearborn Trade Publishing. 2001. p 121-2.)

What does the emotional connection and trust have to do with selecting a competent investor? Most people are sucked into this unawares; these people went looking for it!

It is often said that most investments are sold more than bought, meaning that the critical factors of the selection process are driven more by the seller than the buyer. Financial advisors pose as representatives of the consumer or investor, but if you read the 10K and business filings of the advisory firm, even the "independent" financial advisors are referred to as their sales force. The fee-based advisor, in contrast to the fee-only advisor, presents

the fee as indication of working for the consumer, even if much of the advisors' revenues come from the funds they sell.

How do financial service institutions succeed in being so profitable at the clients' expense? For most investors looking at their financial future, there seems to be a primordial anxiety related to being so vulnerable to a complex and unpredictable world. In the face of this, someone who listens with empathy and apparent confidence in a very personal relationship easily captures our trust and faith. The financial planning process provides the context for this relationship to develop. Most financial advisors know a lot more about expenditure planning and working through the tax and estate planning legalities than they know about investing. When it comes to investing they prefer to charge a one percent wrap fee — not to take responsibility for investing the money — but merely to pick money managers (private accounts, mutual funds, and annuities) who will in turn invest the money. When a particular manager or fund doesn't adequately perform, (remember that most do not match the market benchmark), then the money manager can be fired and the advisor survives to pick another fund or private money manager. Most of the money management fees are not visible to the client. Nowhere in the client's statement does it specify where the money comes from to pay the average money manager \$450,000 a year to manage a mutual fund, or to pay the transaction costs that the fund pays to the broker.

Still, it is nice to have someone who knows me, knows my situation, goals and family, and whom I trust to take care of me in the face of an uncertain future. Trust may be based on performance or a detailed examination of the methods used, but is more often based on the dynamics of an emotional relationship that makes someone comfortable in trusting the person.

### **Trust an Institution**

Trust is often placed in a financial advisor or professional who represents a larger and sometimes very large firm. It may be hard to separate trusting an individual from trusting a firm, and may not become an issue until the professional leaves the firm and the client has to decide to go with the professional or stay with the firm. There is a personality difference between people who primarily trust individuals and those who trust institutions.

When it comes to making money, whether through ones job or through investing, most people are either domestic animals or wild animals. The domestic animals are usually employed or retired from being employed. They like to have three squares a day and a life that is structured. Wild animals would rather live outside the fence than inside the fence. They are more often entrepreneurial and always trying to find or create the next best thing. Domestic animals can make in it the wild if they have to, and wild animals can live in the zoo. Most people instinctively know whether they are a wild or domestic animal. Domestic animals are more likely to trust financial institutions and products such as mutual funds. Wild animals are more likely to trust an individual and more likely to do their own investment work using the marvelous access to information, data and data processing now available through places such as [www.AAII.com](http://www.AAII.com). Wild animals have never had so many resources to aid in investing.

In view of the mutual fund scandals, costs and poor performance, it is hard to understand why so many people are so complacent about the institutions they trust with their financial future. The communications revolution introduced by Guttenberg's moveable type undermined the hegemony of the Church's monopoly on selling penances. The communications revolution introduced by the Internet has the potential to radically undermine the hegemony of parasitic financial institutions with their hidden layers of overhead costs. Critics such as Jerry Wade at [www.fundpolice.com](http://www.fundpolice.com) may become the new reformation leaders.

A common error is to put too much stock in corporations one knows well, such as where one has had a career or where friends and relatives may work. This is an emotional connection. It is easy and convenient to trust the investment companies and options made available as part of employer benefits. The benefits administrator selecting such plans may know less about investing than you do, and may be operating under incentives other than those that benefit you. Too often a mutual fund gets listed as an option in an employer's 401(k) in return for the mutual fund buying the company's stock. Since one often doesn't have a lot of choice but to buy from the alternatives and mutual funds offered as part of the retirement benefit, usually the best option to pick low-expense index funds or Exchange Traded Funds, and do the active management outside of the employer's constraints.

## **An Engaging Story or Rationale**

Promotional materials for financial newsletters are filled with engaging stories and rationales. Are coal company stocks the place to be in the face of a looming energy crisis as utility company customers face increased prices in their contract renewals? Should you buy Caterpillar because they are positioned for building expressways in China? Even when the rationale is right, the timing is difficult and there are many disruptive variables between promise and success. Does the current price already over-reflect or under-reflect the potential? Tip stocks have not done very well for me. A potential stock should not be of interest unless it belongs in a particular strategy within one's allocation.

It is incredible how seductive an explanation can be. In presenting different strategies to clients, those that make sense are readily accepted, even with very little data to support them. On the other hand, it is hard to accept a strategy with strong statistical support but no logical reason why a particular combination of variables produces such high returns.

## **Rules**

We inherit many rules about money, some consciously but most unconsciously. Some of these are constructive and some are destructive. Some encourage taking risks to make money and some instill fear.

When I was twelve I spent the summer doing farm work with my grandfather. I recall him telling me about buying two quarters of land in 1932 along with a Case tractor and four-bottom plow. In two years he had it paid for. He owned the neighborhood threshing machine. He bought a Belgian stud and hoped it didn't die on the ship. Such stories leave an impression and are part of my investing attitudes today.

For better or worse, most of the time we live unawares within the rule of our rules. People usually discover contrasting rules when they get married, and need to do some negotiating of their rules. A dramatic change in financial circumstances will often precipitate an examination of one's assumptions about how one should invest and make financial decisions.

In addition to the rules we inherit, we develop rules in response to investment decisions that either worked for us or didn't work for us. One group participant said he always sold stocks when the company was in the news, whether the news was good or bad. Such rules may work or not work, work sixty percent of the time, or work for a time and then discontinue working. The danger is that we make conclusions from one event and then inappropriately carry rules forward into other situations.

## **Performance**

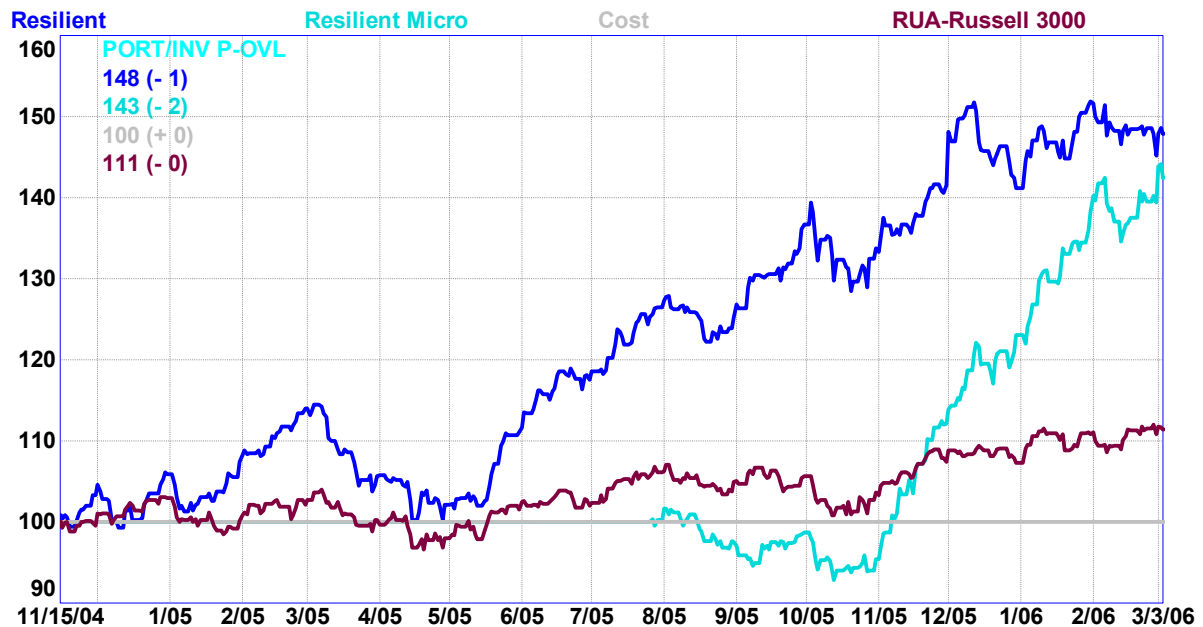
So investors buy based on trust in an individual or in institutions, and often buy based on a convincing rationale for why an investment will do well. And we all act on assumptions and attitudes that form the rules for our decisions. Sometimes investors like to see the performance history of a particular stock, mutual fund or money manager.

Since the market as a whole explains 85% of a given stock's price variation, it is very important to only make performance comparisons against a market benchmark for the same period of time. Any performance numbers are very dependent upon the specific starting and ending dates. If a stock or strategy outperformed the market during an up market, is there also a history that it outperforms during a down market?

There are lots of ways to present performance data. Charts are faster for getting the general picture than a table of numbers. Charts should have the same lines whether the chart is for a stock, a grouping of stocks with a common strategy, an account, all of one's stocks, or one's entire net worth. It is important to see the cost basis of what money is invested, the valuation including the history of closed positions, and what a benchmark performance such as the Russell 3000 would be if the same money had been invested in the benchmark at each point.

I use an inexpensive portfolio management software called Fund Manager available as shareware from [www.beiley.com](http://www.beiley.com). It provides a variety of charts. The one below shows the degree of price change (return). There are also charts to show annual rates of return, and charts to show the comparison between current value and the benchmark in dollars instead of a percent change.

## Two Strategies Compared to a Benchmark



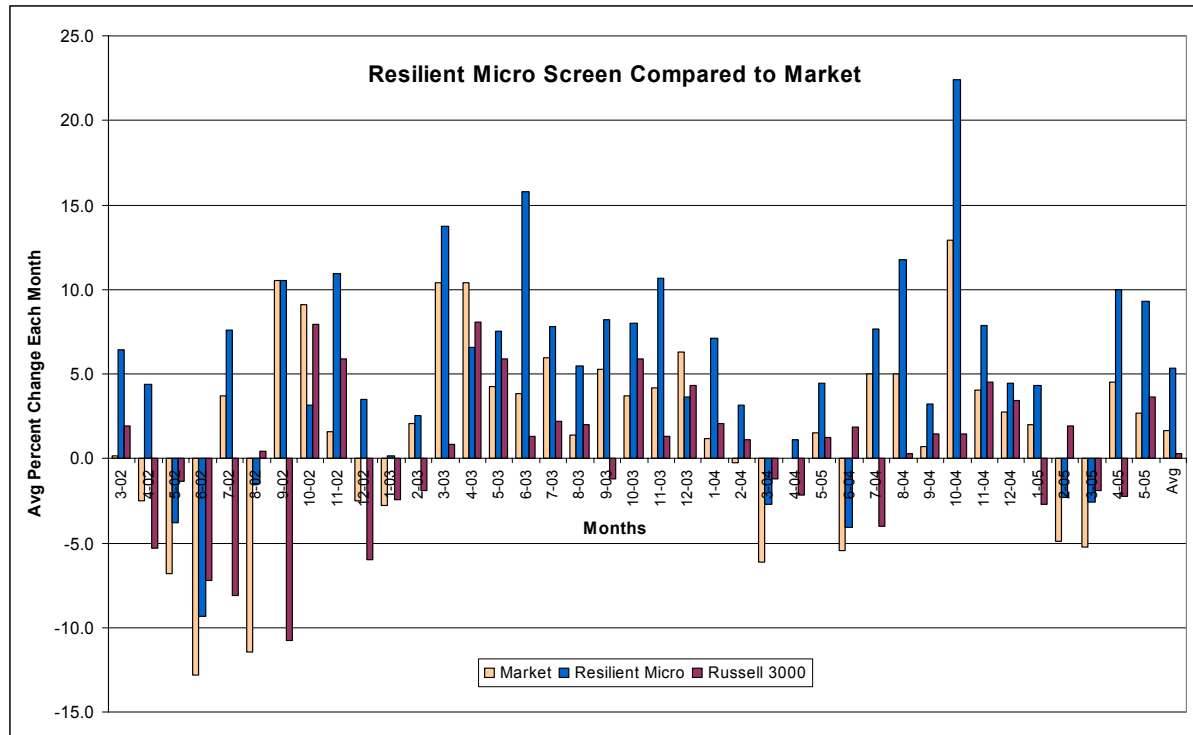
A strategy I call the Resilient Strategy is shown by the navy blue line. It was begun 11/15/04 and on 3/3/06 was up 48%. As positions are bought and sold the amount invested at different times will vary, but is not shown in the price change calculations. The maroon line shows what comparable results would be if the same amounts were invested in the Russell 3000 index. The Resilient Micro strategy was begun at the end of July in 2005, shown by the teal line. In a shorter time frame, it is up 43%.

The teal line was negative for a period of time, and the blue line would be negative if we began the chart in March of 2005. Would you rather have an investment that tracked the maroon line, or one of the other strategies? Would you choose a strategy with low volatility and lower returns, or a strategy with a high probability of high returns but more volatility along the way? It is easier to see volatility on a chart, while statistical probabilities are more complex. Personally, I'm more concerned about the reliability of a minimum valuation at a given point in the future, than I am about how much up and down occurred along the way.

To evaluate a financial services firm, one would want to see such charts for the entire book of business since the firm's inception. To evaluate an advisor, one would want to see such charts for the advisor's entire book of business. Since financial institutions are notorious for not tracking the data from discontinued mutual funds or discontinued operations, one would want to make sure such discontinued funds or operations are included. One of the principal detriments to an advisor's performance is when a client gets scared as the market goes down and withdraws money or closes an account at the wrong time. Such events should be reflected in the charts. If an investor is being presented a recommended allocation with five categories, one would want to see historical performance for each of those categories, perhaps on the same chart. One would want to see long-term charts and charts of recent history. Of course, all of this only applies if performance matters.

Any cumulative chart, such as that described and shown above, can be very deceptive because it is so dependent upon starting dates and what happened on the beginning part of the chart. It helps to have logarithmic charts. Bar charts that show a percent change for each period make comparisons easier across time periods. An example chart is shown below, showing research of a screen compared to the Russell 3000 and compared to an average from about 5,000 stocks comprising the market. (Stock Investor Pro stocks priced above \$1 with a 10-day average volume greater than 5,000.)

## Periodic Percent Change (Instead of Cumulative Chart)



Next one would want to look at volatility measures. What percent of months (or years) were below the market, and what percent showed a loss compared to the percent of months (or years) the market showed a loss? What is the standard deviation divided by the average return (variation coefficient)? Sometimes the numerator and denominator are reversed with the average return being divided by the standard deviation giving a unit of risk. It doesn't matter. What is important is to not look only at standard deviation, because even a stock going up at 2% every single month is going to show a high standard deviation. Standard deviation by itself does not distinguish between going up and going down, or going up smoothly and bouncing around on the way up or down.

Mark Hulbert of Hulbert's Financial Digest suggests a requirement of at least five years and preferably ten years of performance history before making a judgment. A big part of the reason that individual investment results are only about a fourth that of the stock market as a whole is because people buy based upon recent performance, and since investments often oscillate up and down, they end up buying at the high before a downturn.

The biggest surprise about performance is how little it seems to count in people making investment decisions. Financial firms in their advisor recruiting are explicit in saying that they do not sell based upon performance, but rather based upon personal relationships. Consequently it is indeed difficult to find meaningful performance data in their promotional materials.

## Methodology or Process

### Fundamentals

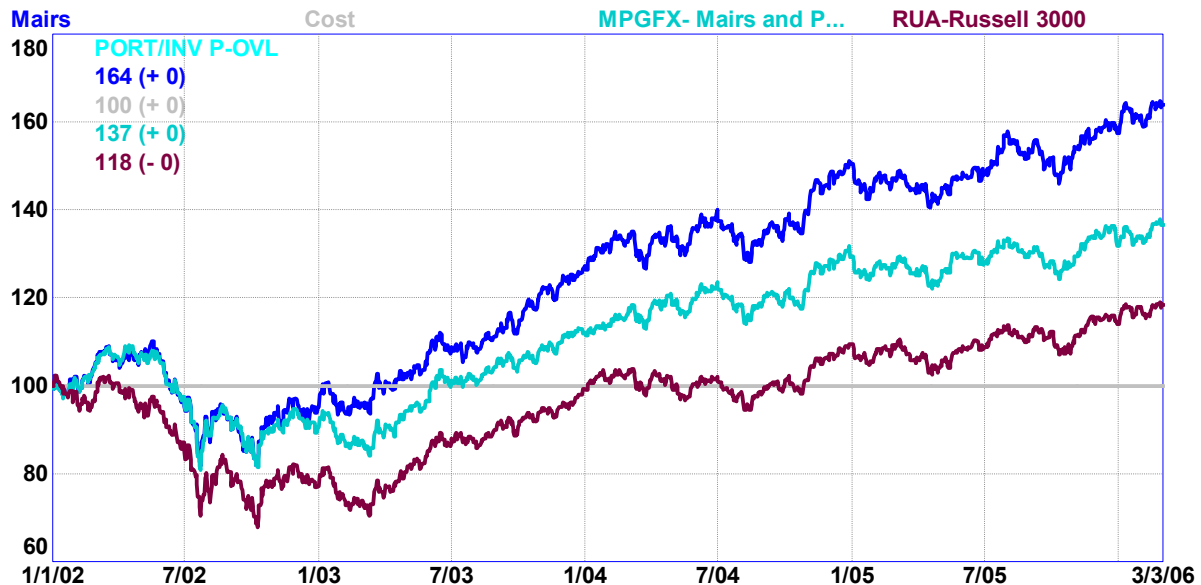
Relying on a methodology or process to produce consistent results is more comprehensive than a story or rationale. One methodology is to rely on fundamentals in picking the right company or selecting a screen of criteria for selecting companies. Analyzing company fundamentals is the livelihood for financial analysts and the primary focus of investment clubs.

Using data mining and statistical tools, one will find that the logical indicators for a good stock or value are rarely statistically predictive of higher returns a year later. Many articles articulate how to use fundamentals in picking stocks, often with a few examples of success, but rarely with any statistical measures of consistent results.

There are a few stock pickers who use fundamentals to consistently beat the market. The Mairs and Power Growth Fund is one example. John Buckingham of the Prudent Speculator newsletter is another. Rather than do the fundamental analysis, it is easier to start with their work and see if one can improve upon it using technical analysis and/or statistical analysis. James O'Shaughnessy in Invest Like the Best gave ideas on how to reverse engineer a mutual fund.

For the strategy shown in the chart below, I looked at the positions held by an excellent fund that does thorough fundamental research and has had consistently strong returns. The fund has about 30 stocks, and I usually hold about half of them, making my selections to buy and sell using technical analysis.

### Reverse Engineering MPGFX. (Annual Return Rate: 12.7%)



In general, fundamental analysis works best over a several-year time period.

### Technical Analysis

A second methodology is to rely on technical analysis of charts that reveal the balance of supply and demand for the stock. Note that this is not about the company, but rather about the stock, and is more about the market for the stock than the company itself. Personally I wouldn't buy a stock without looking at the chart pattern, although I believe the eye can see patterns where none exist. The books and authorities on technical analysis describe the indicators and predictive patterns with considerable confidence, but rarely with any statistical measure of certainty.

The test of one's skills in technical analysis is to pick 50 or 100 stocks from an historical period, and without knowing what happened after the period being studied, rate them as to which one would buy. Then compare the actual returns for those ruled a buy to the group as a whole. Different markets will yield different success ratios. An AAI small group did this exercise monthly for a couple years and did not find a clear advantage over random selection. The predictability is better for the next bar (hour, day, week, month) than it is for a set time period into the future. Yet, many traders and technical analysts have demonstrated very profitable skills using technical analysis.

A variation of technical analysis is to drop the charts and do a statistical analysis of stock data. In general, data describing the stock are more predictive of future price changes than are data about the company. Examples of stock data are price, 52-week low, 52-week high, percent owned by institutions, number of institutions owning the stock, rank of institutions owning stock, trading volume averages, market capitalization, float, beta, and relative strength for different time periods. Some ratios combine technical and fundamental data, such as price to book value or price to sales.

### **Quantitative Analysis**

This leads us to the third methodology which is to rely on quantitative factors that statistically predict specific kinds of performance and volatility. The framework of the quantitative analyst is that what appears to be even more unpredictable than random distributions does indeed lend itself to finding statistical patterns. (The market is more volatile than a random distribution.) In this view, managing an investment portfolio is to rely on the laws of large numbers in a way similar to running an insurance company or a casino. It is important to be like the people running the casino rather than the people going to the casino.

Statistics is a broad field and offers a wide variety of ways to search for patterns. The key is to find patterns that are predictable and would not happen by chance.

If an investor comes across five cases in a row where there is a relationship between returns and one or more variables, that is not a large enough number from which to draw statistical conclusions. A lot of articles and books recommend picking stocks using specific fundamental criteria or chart patterns and then give a few illustrations, as if that proves something. The statistician wants to see conclusive patterns within a large amount of data.

Quantitative analysis can be done deductively or inductively. Working deductively, one may hypothesize that a certain combination of variables and specific ranges on each variable will produce exceptional returns, and then proceed to test or backtest the hypothesis.

Working inductively, the data can be imported into data mining software, and the computer searches through thousands of combinations to find what has predictive value. The software finds not only what variables combine to produce outstanding results, but what the best ranges are on each variable. Sometimes there are linear relationships, meaning that as the value of X goes up, the returns go up or down. Often only the middle range of X is predictive, or the best results are at both the low end and the high end but not in the middle. Of course, it is frequently the case that a high value of variable X may contribute to high returns when combined with variable Y, but contribute to low returns when combined with variable Z. So every conclusion is valid only for a specific combination of variables.

Using data from Stock Investor Pro, the stock screens of famous investors available at AAII can be tested and refined to good advantage using this methodology.

Working inductively with say 200,000 price quotes or rows of data (say 5,000 stocks for 40 months), one may find a pattern that uniformly produces high returns that would happen by chance less often than once in a million cases. (The software has a Bonferroni adjustment to compensate for the fact that repeated testing will find rare patterns that will not repeat.) We can speculate why the particular combination of variables produces high returns, but we can't be certain why it works. All we know is that it consistently works. To put ones money on the line in such a situation is unnerving for the person who likes to have a good logical reason for things. Is it more important that it work or to know why it works?

The feeling is like an experience of standing on a high diving board and falling backwards, keeping perfectly stiff with arms up and toes on the board as long as possible. Given the height of the board, one will enter the water perpendicular every time. There is no skill involved. I watched it happen many times before doing it, and never got to the place where it could be done without anxiety.

### **Finding a Niche**

The use of sophisticated tools brings us back to the question of why we think we can make money buying or selling this stock when someone on the other side of every transaction believes exactly the opposite. If a large New York brokerage house spends \$500 million dollars a year on research, and makes three fourths of their profit from doing their own in-house trading rather than from client services, what makes anyone think they can profitably compete against that?

One strategy is to go where the large institutions can't play rather than to think that one has special information or insight that they do not have. A fund or money manager who has to invest millions of dollars cannot economically buy stocks with low liquidity. There are a lot of stocks that can absorb a buy or sell order for \$3,000 or \$5,000 that are inaccessible to the large institution or mutual fund. If they tried to buy the stock, their large order would drive up the price, and once they owned it, they would have trouble finding enough buyers to sell their large position. Discount brokerages have enabled the smaller account to economically buy smaller lots.



## Conclusion

How do you make investment decisions? To what degree do you make your decisions based on the different alternatives described? How do you combine your emotional energy and analytical skills?

What would better results look like for you? Different people look for very different results. Some are looking for high returns, some are looking for moderate but very consistent returns, and others are looking for an emotional feeling of comfort and security in a relationship with a trusted advisor or institution. Not only do we look for different results, but we have different ways of making decisions. Hopefully, this review helped you become more aware of how you select and deselect investments, and opened new alternatives.

## Questions for Action or Group Discussion

1. Having now thought about different ways that people make investment decisions, you can go back to the table reprinted below. In the first column distribute ten points to weight how much you rely on each way of making investment decisions. In the second column rate (maybe a rating of 1, 2, or 3) for how much emotion plays a part in your decision-making.

Basis for Decision		Analytical	Emotional
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Quantitative	8		

2. If you delegate investment decisions such as to other family members, a broker, a financial planner, a financial institution, a mutual fund manager or another money manager, what criterion or combination of criteria do you use for selecting your agent(s)?
3. How do your emotions help or hinder your investing behaviors?
4. How do you justify the way you make investment decisions?
5. Will there be a change in how you make investment decisions based on any critical thinking you might have done in response to this framework?