About Stock Markets Predictability

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ABSTRACT

I provide a fresh and potentially controversial perspective. I argue that stock markets have a certain outcome but an unpredictable pattern. Collective awareness determines what the future performance of a security or market will be but the circumstances leading to this outcome are untraceable as there are infinite possibilities. Previous research is unanimous in believing that stock prices in efficient markets hover around their fundamental value which is represented but the present value of all future cash flows. I argue instead that stock prices are simply a reflection of previous thoughts. These thoughts come from the certain investors who mentally guide the market. In other words stock prices have nothing to do with the future but are completely related to the past. I also argue that most stocks are perfectly correlated to each other and that it is possible to obtain high gains consistently. Finally I argue that by simply redefining risk the market may not be as risky as it appears sometimes.

JEL code: G10
1. INTRODUCTION

The academic field of financial economics is generally unable to predict securities behavior. The attempts are countless but with limited success. The cross sectional, times series, and event studies about the predictability of stocks’ returns and market efficiency often use sophisticated econometrics but are unable to provide clear generalizations. The literature is very rich with examples of such attempts. This paper will not survey the literature as it is massive and widely available to researchers. It seeks rather to present a new perspective.

The basic contention of this new theory is that markets are driven by a small number of certain (confident) investors. The number of such investors fluctuates depending on the overall confidence level of the society at large about the financial markets. In good times the number of confident investors increases driving the market up and leading to the creation of new investments opportunities to accommodate the ever increasing number of incoming confident investors. In bad times the market finds itself with a decreasing number of confident investors and a large number of irrelevant securities.

This paper is organized as follows. First I present the model. Second I discuss the implications of this new perspective. Third I compare this new approach to the currently applied valuation process. Fourth I link this model to market movements. Fifth, I discuss the implications of this model to how stocks correlate. Sixth, I discuss whether it is possible to consistently beat the market. Seventh, I redefine risk. Finally I conclude.
2. THE MODEL

In this section I assume a one period model and call a Certain Investor (CI) a person who is confident about the outcome of a portfolio of stocks.

Let us assume for example that a market contains one CI. That investor is certain about the outcome of his investment. As such if the market contains one single security the outcome of this security will be known, unique and equal to the investors desired certain outcome. If the market contains two securities there will be an infinite number of combinations leading to the certain outcome and the outcome of each stock will not be known in advance. If a second CI enters the market the outcome of both securities will be known in advance. When a third certain investor enters the market a situation will arise where a third security must be created. The process can go on like this and the number of CIs will keep pushing up the number of securities. However there cannot be more CIs than securities at any point of time.

Let us assume that at some point of time there are $S$ securities in the market and $N$ CIs. Each CI will invest in a portfolio containing various securities and will be certain about the outcome of the portfolio but not the outcome of each security. The returns of the $N$ portfolios are as follows:
\[
\begin{align*}
R_1 &= \sum_{s=1}^{S} X_{1s}r_s \\
R_2 &= \sum_{s=1}^{S} X_{2s}r_s \\
&\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\qua...
to the market a new security will have to be created to accommodate all CIs. When \( S=N \) the market is usually well behaved and highly predictable.

If \( S>N \) then the number of securities exceeds the number of CIs and the system of equations will have an infinite number of solutions. In such a case the market accommodates comfortably all CIs and can welcome \( S-N \) new ones and still satisfy their desires.

3. IMPLICATIONS

When the number of securities is the same or slightly higher than the number of CIs (\( S\geq N \)) the stock market is unpredictable but not unreliable because most stocks are guided through collective awareness. In that case we can say that the market is guided. When the number of stocks is much larger than the number of CIs (\( S>>N \)) plenty of stocks may be unguided by collective awareness and thus start behaving like a missile that lost its trajectory.

The following script highlights a potential market behavior. Let us imagine that a market starts with five securities. In such a case the market can accommodate up to five CIs. As soon as the number of CIs approaches five there will be a pressure to create new securities. The creation of new securities will bring in more confidence and therefore more CIs. As the number of CIs increases and approaches the new number of securities there will be pressure again to create additional securities. This is how a market expands.

At some point when the number of securities becomes large and a drop in confidence kicks in, some CIs leave the market or loose their certainty. In such a case \( N \)
becomes smaller and $S$ remains unchanged. This could destabilize the market because it leads in part to a selling wave. This selling further decreases confidence and new CIs might leave the market or become less certain. Collective awareness start shifting from positive to negative and the market becomes unguided ($S>N$). If confidence is not restored the market will suffer further.

During periods of lack of confidence, the number of CIs can decrease leaving the market without guidance and therefore unable to function properly. This lack of mental guidance leads to a financial crisis. The crisis is usually misunderstood as it is often blamed on such things as excess risky borrowing, lack or excess of regulation, too much speculation or other explanations. But all these explanations are superficial and they only serve to nurture discussions, newspaper articles, and TV programs.

A crisis is always a result of lack of certainty. The source of uncertainty can be difficult to trace, indoctrination however plays a major role. If the media around the world, for example, start using the word recession over and over in good economic times, sooner or later we creatures of habits become unknowingly certain that recession is already here and therefore become consuming and behaving as if recession is already here. As a result real recession shows up. Similarly if TV stations around the world start using optimistic slogans in bad economic times, sooner or later the situation will reverse. Monetary policy or fiscal policies are tools to take the economy in a desired direction. But they only work if they shift awareness.
4. HOW ABOUT FUNDAMENTALS?

Current theory argues that the value of a security in efficient markets reflects its fundamentals. That is a security is worth the present value of its future cash flows discounted at the appropriate discount rate. I argue instead that the value of a stock today is a reflection of previous awareness. For example if the overall perception is that the market will just keep going up over the next few months or years, that’s exactly what will happen.

The value of each stock cannot be predicted because there is an infinite number of ways to satisfy all certain investors. But the overall direction of the market can be sensed in advance if one were to identify some certain investors and truck their investments. The market goes where collective awareness goes, in other words the market moves in such a way that all beliefs are met, the bearish ones and bullish ones.

Strong thoughts create the outcome and the events are shaped to satisfy the confident investors.

5. MARKET MOVEMENTS

Certain investors are not necessarily bullish. Certainty comes from good and bad emotions. If one were to be very afraid that his or her portfolio might collapse, it will at some point of time. Certain investors include the bullish who is forcing positive outcomes through unbounded optimism and the bearish who is forcing negative outcomes through emotions of intense fear.
What creates positive and negatives thoughts is an issue that has been a topic of intense discussion between psychologists, philosophers and mystics throughout recorded history. This paper doesn’t get into this debate but it goes inline with the conjunction that the external world is a mirror reflection of the internal world. In other words strong beliefs materialize sooner or later. The literature about quantum physics and consciousness provides some evidence of that.

One single person forges its way in life through his or her thoughts either consciously or by default. Society at large progresses through collective awareness (consciously or unconsciously). For example an economy cannot be in recession unless the event is preceded by the belief that a recession is coming. Similarly an economy cannot be booming unless the prevalent thought before the good economic times were positive and optimistic. That is why the only way to move out of a recession is to elevate human awareness and the only way to get into a recession is to lower it.

Who then gets to decide where the market goes next? That is the million dollar question.

6. ABOUT CORRELATIONS

Let us assume a simple case where four stocks are available and two certain investors. Let us also assume that the first investor uses three stocks and the second investor invests only in two. In such a case we get the following system of equations:
As mentioned earlier the unknowns are $r_1, r_2$, and $r_3$. $r_3$ can be written as a function of $r_1$ and $r_2$ as follows:

$$r_3 = \left[ \frac{R_1 - R_2}{X_3} \right] - \left[ \frac{X_{11} - X_{21}}{X_3} \right] r_1 - \left[ \frac{X_{12} - X_{22}}{X_3} \right] r_2,$$

$$r_3 = \left[ \frac{R_1}{X_{11}} - \frac{R_2}{X_{21}} \right] - \left[ \frac{X_{12}}{X_{11}} - \frac{X_{22}}{X_{11}} \right] r_2,$$

$$r_3 = \left[ \frac{R_1}{X_{12}} - \frac{R_2}{X_{22}} \right] - \left[ \frac{X_{13}}{X_{12}} - \frac{X_{23}}{X_{12}} \right] r_1.$$  

The above equations show clearly that all stocks are perfectly correlated to each other. They are completely interdependent. The argument could be extended recursively to more stocks and more certain investors. This of course completely negates conventional wisdom.

So why is it that the traditional way of measuring correlation does not capture that?

Let’s take the example of the equation that relates $r_3$ to $r_i$. It clearly shows that there is a perfect linear relationship and therefore the correlation should be 1 or -1. However the model here uses a single period. Once investors move to a new period, perceptions and expectations can change. Consequently the weights and desired portfolio
returns can change. In such a case the stocks remain perfectly correlated but the nature of their interdependence changes.

To sum up, all investments that get the attention of the certain investors are perfectly correlated at any point of time but the nature of their interdependence changes constantly. The stock market works like one entity (or a symphony), investments are stitched together and the stitching factor is collective awareness.

The fourth stock does not appear in the above equations as it doesn’t appeal to the certain investors and therefore it is out of the loop. In such a case the fourth stock is completely unrelated to the three others and therefore is doomed to failure.

7. BEATING THE MARKET

Overall the academic field of finance rejects the idea that somebody can consistently beat the market. Many strategies and trading rules have been examined and the outcome is usually the same: no one can beat the market consistently. Same traders however swear that they can. Where is the truth?

Practitioners are on the field, they are the ones making the money. It is therefore more logical to trust them. Academicians on the other hand do not trade but rather use theories and statistical methods that are often debatable to reject the claim that traders can beat the market consistently.

Traders with consistent profits are usually focused on a trading plan that they use with an uncompromising rigor. This relentless focus becomes a certainty after a while. As
a result they become certain investors and their desired outcome materializes sooner or later. They reach their desired outcome because of their awareness not their strategy.

Academicians cannot capture this effect. No ex post strategy can work consistently because it lacks the certainty factor. So no theory or statistical method can do the job, simply because focus and awareness cannot be used ex post. They can only be used ex ante.

Only ex ante strategies where the event is yet to happen can produce consistent gains if and only if the feeling of confidence remains there.

8. RISK REDEFINED

A common sense definition of risk is the likelihood of unfavorable outcome. As such the certain investors are not facing any risk because the outcome of their investment is a sure thing. I call them the risk-free investors. The other investors (they constitute the majority) have different degrees of certainty. These investors are not particularly focused on a specific outcome and therefore do not influence very much the overall workings of the market.

I define risk in terms of investors not investment as it is routinely done in the financial economics literature. A risky investor is an investor who’s hesitant, wishful, or careless about the outcome of his investment. There are of course various degrees of hesitancy, wistfulness, and carelessness. Therefore there are various levels of risks. A
certain investor is a risk free investor because he/she obtains the desired outcome by the power of focus.

The higher the number of certain investors, the higher the level of confidence and the less risky the market is. This goes against conventional wisdom. What matters in this theory is the outcome of an investment not its behavior. As discussed previously there are infinite ways to satisfy the certain investors. It may seem that a stock is plunging here and another one is sky rocketing there but at the end their combinations will yield the desired and predetermined outcomes. A stock may fluctuate widely and therefore may appear to be risky but all it does is adjust to the various investments desires of the certain investors.

8. CONCLUSION

In this paper I present a new theory. In it I argue that financial markets are guided through awareness. What I call the certain investors are a group of people or institutions that are confident about the outcome of their investments. It is them who maneuver the market and all outcomes result from their choices and level of confidence.

This theory has many implications. First, current prices are reflection of previous thoughts not current fundamentals. That is, the past and only the past explains what is happening now. Second, a financial crisis is a result of luck of certainty. Third, any two stocks are either perfectly correlated or totally unrelated. Finally, given the current research method it is impossible to test scientifically whether a trader can generate high profits consistently.
The capital asset pricing model is a theory that fascinated academicians for quite a long time. It has one similarity to the theory presented in this paper: it postulates that one factor and one factor only can explain everything. That factor was called the market portfolio. But the concept of market portfolio was vague and unapproachable.

I also defend the idea that one factor guides the market; this factor is collective consciousness (unlike collective unconsciousness formulated by the psychologist Carl Jung). It is not some sort of a portfolio but rather a set of powerful thoughts and beliefs. It guides the market deterministically in a seemingly random pattern.