My Investment Strategy

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Abstract

Assuming active management can produce superior investment returns (i.e. assuming absence of strong-form EM), the two most critical components of successful active investing are: (a) the investment strategy (broadly encompassing the investment philosophy, strategy and process), and; (b) the skill of the portfolio manager. In this paper I present the basics of my value investing strategy, which can in short be described as: (1) identifying high-quality companies that can be purchased at a significant discount from my best estimate of underlying (intrinsic or fundamental) value; (2) assembling a concentrated portfolio (8 – 12 stocks) of such investments, and; (3) holding them until: (a) the intrinsic value of the security is fully reflected in its market value; (b) the conditions regarding the security change so as to make the original investment thesis obsolete; (c) a markedly superior investment opportunity appears; or; (d) it becomes apparent that the original investment thesis was faulty. Other important features of the strategy are a focus on a disciplined process (as opposed to a focus on outcomes) and an avoidance of market-timing.
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Hypotheses

Assuming that the Efficient Market Hypotheses (EMH) does not hold (at least not in its strong form), the most critical two components of successful active investing are: (a) the investment strategy (broadly encompassing the investment philosophy, strategy and process), and; (b) the skill of the portfolio manager. (For a more detailed discussion on manager skill, see my paper ”Choosing Money Managers”)

Furthermore, fund underperformance can, at least in part, be explained by: (a) over-diversification, and (b) over-trading (i.e. a sub-optimally short investment horizon and, as a result, a sub-optimally short holding periods) – i.e. sub-optimal strategies. In the above case, the main sources of inefficiency resulting from over-diversification are: (i) dilution of portfolio holdings, and; (ii) dilution of manager resources. The main sources of inefficiency resulting from sub-optimally short holding periods are: (i) lack of unfolding time for investment ideas, and; (ii) sub-optimal (excessive) risk-aversion stemming from myopia (short-sightedness). (For a more detailed discussion on the problems with over-diversification and excessively short holding periods, see my paper ”The Case for Focus Investing”)

A strategy that exploits and arbitrages the above inefficiencies (as opposed to succumbs to them, as most funds currently do) should have a higher probability of producing superior long-term returns. In this paper I will present my investment strategy.

Philosophical foundations

Market basics

I view the market as a discounting mechanism. People buy and sell based on their expectations about the future. The key question in markets is always what is discounted. Investors earn excess returns when expectations are different from what occurs, driven by heterogeneous time horizons, cognitive biases or errors on a massive scale, or diversity breakdowns. The market generates prices every day, some of which present opportunities. Value investors recognize that markets are merely large auctions, with merchandise priced daily by the interactions of buyers and sellers. The best values in the market are represented by companies that trade at a discount relative to their underlying business value due to incorrect expectations.

Market efficiency

The question of market efficiency is perhaps the most fundamental and important question of investing. It’s a question that well deserves the epithet “philosophical”, and it is also very much an unresolved question. In finance, the efficient-market hypothesis (EMH) asserts that financial markets are "informationally efficient", or that prices on traded assets, e.g., stocks, bonds, or property, already reflect all known information. The efficient-market hypothesis states that it is impossible to consistently outperform the market by using any information that the market already knows, except through luck. Information or news in the EMH is defined as anything that may affect prices that is unknowable in the present and thus appears randomly in the future. The question of market efficiency is one of the most important (if not the most important!) question any investor (both professional and non-professional) must address before deciding upon his or her investment philosophy and strategy. If the market is, as many respected academics claim, perfectly efficient, then the conclusion is crystal-clear; all active investment management is a futile exercise - a foolish and tragic waste of time and money. All apparent outperformance, both long term and short, are results, not of hard work or superior talent, but luck, randomness and the law of large numbers. If
the EMH holds, the rational investor should invest only in passive index funds. But here we are
struck by an exquisite paradox: in order for the market to be efficient in the first place, it must of
course be populated by a large number of hard-working, smart and profit seeking (active) investors
who, per definition, do not believe that the markets are efficient! If we all suddenly "converted" to
EMH, sacked our active managers, and parked all of our assets in index funds, the efficiency of the
market would suddenly vanish! “The dog is chasing its own tail!” (This curious phenomena is
sometimes called the "Grossman and Stiglitz paradox", after the two economists who first made the
observation) (Before we continue it should perhaps be noted that the debate is not altogether black-
and-white; even academic finance distinguishes between degrees of market efficiency. However,
this paper is too limited a forum to dig very deep into the subtleties of the matter, and nevertheless
the fundamental questions remain unchanged.)

As an active manager, I obviously do not believe that markets are efficient, at least not perfectly
efficient – after all, if I did, I wouldn’t be writing this paper! (Please note, however, that I certainly
do believe that markets are for the most part efficient; i.e. most securities are correctly priced most
of the time – to claim anything else would be simultaneously both monumentally arrogant and
naive.) I base my conviction on two arguments, one theoretical and one empirical:

- Most forms of EMH are based on the assumption of investor rationality – i.e. they assume
  that all investors are perfectly rational calculating machines that purely objectively weigh
  all available data when making decisions. With all due respect to the often brilliant
  academic minds behind the theory, I find the idea of perfectly rational investors breath-
  takingly naive. Any normally intelligent person with the most basic insight in human
  psychology (not to mention any first-hand experience of how business decisions are made
  in the real world!) takes it as self-evident that we humans are very emotional and often
  irrational beings indeed; prone to panics and manias (that translate into bubbles and
  crashes), herd-behavior, and a long list of other errors of thinking sometimes referred to as
cognitive biases. This more nuanced view of human economic decision making is supported
by the relatively new branch of academic finance called behavioral finance.

- There exists a small, but nevertheless meaningful sub-set of investors that have consistently
delivered market-beating returns over long periods of time, and their number and the
duration of their outperformance cannot satisfactory be explained by the law of large
numbers alone.

If I believe that markets are not perfectly efficient, I consequently also believe that they can be
beaten. If we agree on the assumption that the markets can be beaten, the next question that arises is
naturally how to beat them.

Most classics of strategy – e.g. Sun Tzu’s “The Art of War” and Clausewitz’s “On War” – stress
the importance of focusing one’s attacks on the enemy’s weak-spots. We can see investing as a
form of war, where the enemy is the market, and the goal is to beat the market (i.e. produce returns
in excess of the market). We maximize our probability of success by focusing our effort where the
enemy is weakest, i.e. where the market is least efficient. We just concluded that markets are for the
most part efficient. Where, if anywhere, are the weak spots?
"Slow Travelling Ideas"

After having spent considerable time and effort on pondering the question, I have come to the conclusion that one of the strategies offering the best probabilities of long-term (emphasis added) outperformance is a strategy based on the systematic attempt to identify and exploit what Jack Treynor, investor and one of the fathers of modern finance, calls "Slow Travelling Ideas". In an insightful but surprisingly little known paper¹ Treynor distinguishes between two basic kinds of investment information or ideas:

(a) those “whose implications are obvious”, i.e. ideas that are straightforward, take relatively little special expertise to evaluate, and consequently travel quickly (e.g., ‘hot stocks’), and;

(b) those “that require reflection, judgment, and special expertise for their evaluation” and which consequently "travel slowly." The latter ideas, he argued, are “the only meaningful basis for long-term investing.”

In Treynors’ own words:

“I see nothing in the arguments of Professor Eugene Fama or the other efficient market advocates to suggest that large groups of investors may not make the same error in appraising the kind of abstract ideas that take special expertise to understand and evaluate, and that consequently travel relatively slowly.”

Assuming that we can accept his argument, Treynor concludes that;

"As the key to the averaging process underlying an accurate consensus is the assumption of independence, if all—or even a substantial fraction—of these investors make the same error, the independence assumption is violated and the consensus can diverge significantly from true value. The market then ceases to be efficient in the sense of pricing available information correctly.”

To explain how such diversity breakdowns are possible, Treynor then turns to Keynes, who famously stated² that;

"It might have been supposed that competition between expert professionals, possessing judgment and knowledge beyond that of the average private investor, would correct the vagaries of the ignorant individual left to himself. It happens, however, that the energies and skill of the professional investor and speculator are mainly occupied otherwise. For most of these persons are, in fact, largely concerned, not with making superior long-term forecasts of the probable yield of an investment over its whole life, but with foreseeing changes in the conventional basis of valuation a short time ahead of the general public. They are concerned, not with what an investment is really worth to a man who buys it for "keeps", but with what the market will value it at, under the influence of mass psychology, three months or a year hence.”

In plain English, what Keynes is stating is simply that whereas rational investors should focus their efforts on estimating the proper intrinsic (i.e. "underlying" or "fundamental") value of the asset under consideration, in reality the large majority of investors are more concerned with the price they might get when (sooner rather than later, i.e. months rather than years) they pass on the asset to
somebody else (The majority of people buying and selling securities are in other words, and to use the distinction defined by Williams, 3 speculators - as opposed to investors). Before we continue, we should address a few questions:

- First: Keynes made his observation in the 30’s; does it still hold today?
- Second: provided the observation is true, is it possible to explain why it’s true?
- Third: even if the observation was true, does it matter?

In my opinion, the answer to the first question is definitely affirmative; if anything, the investment horizon of the average investor has become even shorter since Keynes’ days. 4, 5

To answer the second question (“why is long-term investing so hard?”), Treynor again turned to Keynes, according to whom:

"It is the long term investor who will in practice come in for the most criticism. For it is the essence of his behaviour that he should be eccentric, unconventional and rash in the eyes of the average opinion. If he is successful, that will only confirm the general belief in his rashness; and if in the short run he is unsuccessful, which is very likely, he will not receive much mercy. Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally."

According to Keynes, true long-term investing is hard because it faces tremendous resistance both internally (psychological factors, e.g. the built-in human aversion against ”going against the crowd”, a necessary prerequisite for successful investing) and externally (cultural and organizational bias and resistance from employers, peers and clients who want results fast, lose their nerve on dips and the occasional but inevitable setbacks, and feel suspicious of ”eccentric contrarians” who, ironically, are the best suited to make good long-term investment decisions).

If we accept Keynes analysis the next question is ”So what?” Why should it matter if most investors have short investment horizons and base their decisions on shallow analysis? The answer is that if the hypothesis is true, it indicates the presence of a market inefficiency that can be used to one’s advantage. The fewer investors who operate in a given ”space”, the less ”crowded” it is, and the higher the probability of mispricing to be identified and exploited. Assuming the hypothesis holds, the implications are clear; investors who have a long investment horizon and who base their decisions on thorough fundamental analysis and valuation have a higher probability of producing good returns simply because competition in this particular space is somewhat less intense.

**Competition**

Above I made the (rather bold) claim that one of the reasons that investing that is: (i) long-term, and; (ii) based on deep research should improve one’s probability of good returns is simply because the competition in that particular ”space” is less intense. Let’s examine these claims in a systematic way. I will start by making another bold claim: the object of a purchase is effected by the knowledge and intent of the purchaser! Let’s illustrate this claim with a short hypothetical allegory about two men, A and B, shopping for furniture in a flea-market. A is a Joe Sixpack who has recently rented an apartment, and he really doesn’t like shopping for furniture. He knows that he probably won’t stay too long in the apartment, and he really doesn’t like shopping for furniture, so he wants his...
shopping fast and cheap. B, on the other hand, is a connoisseur of antique furniture. He has come to the flea-market in search of hidden treasures; valuable antiques that for one reason or another have ended up on the flea-market, offered for sale at bargain-basement prices. Suddenly they see a dining-room table that they like. They’re both looking at the same table, but where A sees an old but otherwise OK table that needs a minor paint-job, B sees a fine specimen of the art of one of the most respected craftsmen of his time that some poor sucker has found while clearing his attic and is now offering for sale for a pittance! The object of observation is objectively speaking the same, but as a result of the differences in knowledge and intent of the potential purchasers they are subjectively seeing very different things! (The subjective view in this case being more complete, and thus more ”real”) It goes without saying that the table is more valuable to B, simply because he knows more about it and looks for other qualities in it. It can also be argued that had B for some reason stayed home that afternoon and had the table ended up with A, the value of the table would not have had a chance to become ”realized”. A third takeaway is that since true connoisseurs constitute, almost per definition, a small minority, a substantial part of similar transactions most probably take place between Joe Sixpacks, and consequently many valuable antiques are sold at prices far below their ”true” value.

The reader may by now ask: ”Fine, but what does all this have to do with investing?” My answer is that the same phenomena is probably present in the stock-market. The same stock can mean very different things to different investors, depending on knowledge and intent. Let’s illustrate the claim with an example involving two hypothetical investors, A and B. Investor A is a day-trader who usually sells his stocks within days, or at most weeks, of purchase. His main purchase/sell criteria are daily news and technical analysis, i.e. ”noise” and ”gut feeling”. Since he intends to hold his investments for such a short time he recons there’s no need for any deeper analysis – and considering the number of positions in his portfolio (over 100) and the portfolio turnover (several thousand per cent per annum) there wouldn’t be any time left for proper research anyhow; he probably couldn’t tell you the name of most of the stocks in his portfolio, not to mention the names of their CEOs! Investor B, on the other hand, is an old-school value investor. He buys stocks only in companies that he knows deeply and thus trusts. Since such companies are rare, his portfolio consists of no more than approximately 10 holdings. He buys with the intent of keeping the stock for a long time (indeinitely, actually), and some of his holdings have been in the portfolio for more than 10 years. It goes without saying that when investor A and investor B are looking at the same stock, they are actually seeing very different things. It is furthermore very likely that they put different value on the same stock. And, assuming that the flea-market allegory holds, the odds are in favor of investor B making the occasional bargain - at the expense of A and his brethren. Since the ground-breaking research of Benartzi and Thaler, we now know that risk is not fixed; it actually depends on one’s time-horizon!

A short investment horizon reduces the investors ability to assume risk in a way that may compromise returns. An investor with a very short investment horizon may decide to forgo an investment that promises good returns in the long-run because there is a high probability that the same investment will decline in the short-run. This phenomena is sometimes called Myopic (short-sighted) Loss Aversion. In practice this means that the same asset (e.g. a stock) is (both subjectively and objectively) more valuable to the long-term investor than to the short-term investor!

Now we have concluded that since they occupy a space where the competition is less intense, long-term fundamental investors should enjoy favorable odds, provided they are a minority!
The next question is naturally: "Are long-term fundamental investors actually in minority?" (Or is the criticism of short investment horizons and shallow analyses just a cliché? If they are, we’d better find out now, before we restage the charge of the Light Brigade!) The question of how large a percentage of investors can be considered "long-term fundamental value"—investors naturally also depends on how we define long-term fundamental value—investing. Due to these and other factors, it’s no wonder that I failed to find accurate statistics. However, here’s what I did find:

- McKinsey estimates that ”Intrinsic Investors” (defined as long-term, research heavy investors) hold approximately 20% of the US stock-market, and they represent approximately 10% of trading volume.  

- Indiana University researchers Bhattacharya and Galpin estimate that stock-picking (i.e. fundamental research based investing, as opposed to e.g. indexing) has declined from approximately 60% of the volume in the 1960s to approximately 24% in the early 2000s.  

- University of Pennsylvania Wharton School of Business researcher Brian Bushee claims in an article that "Dedicated Institutions" (defined as investors who take large stakes and keep them for a long time) amount to 8% of investing institutions.  

- In a provocative paper, Lowenstein quotes legendary value investor Bill Ruane of Sequoia Fund, who guessed that value investing (i.e. long-term, fundamental research driven) accounted for no more than 5% of all professionally managed money (in the US).  

- MIT Sloan School of Management researchers Asquith, Mikhail and Au report that only 12.8% of security analyst reports use some form of DCF—analysis when computing price targets (99.1% of analysts base their valuations primarily on some earnings multiple, leading to valuations that are at best inaccurate, at worst to grossly misleading).  

If these sources are even approximately right, we might safely conclude that yes, true long-term value investors are indeed a (relatively small) minority, and (almost as important) they account for an even smaller share of trading volumes (as a result of their typically long holding periods). These findings have far-reaching implications; as Lowenstein convincingly argues, value investors are too small a group to have a meaningful impact on stock prices; even less so considering their modest trading volumes. All prices are set at the margin, and stock prices are to an overwhelming degree set by "investors" (speculators?) who: (i) do not base their decisions on fundamental analysis, and; (ii) who do not intend to hold the stock for the long-run. Without questioning the basic assumption of for the most part efficient markets, it could almost be argued that just as risk depends on one’s time-horizon, so does the relative degree of market efficiency depend on one’s approach (knowledge and intent) to investing; true long-term value investors seem to face a somewhat less efficient market, with opportunities for bargains, if not plentiful, at least occasionally available.

The decision-tree chart below is an abbreviated example of how I build an investment thesis (eBay) based on logical deduction and built to a large degree upon "Slow Travelling Ideas".
**Investor competitive advantage**

As we concluded above, one doesn’t have to believe that the markets are *perfectly* efficient in order to admit that they most probably are *very* efficient; consequently, beating the market is *very* hard. The philosophical foundation of all active strategies is the assumption of *edge*; one takes a position if (and only if!) one has a good reason to believe that one has an edge – that one knows or understands something about the asset that "the market" (i.e. the aggregate of all other active investors) does not know or understand. The concept of “edge” in investing is more or less synonymous with the concept of competitive advantage in corporate strategy; something a firm can do that rivals cannot match. Consequently, for (active) investors “edge” translates into something that the investor can do better than that “the market” (i.e. the aggregate of all rival active investors).

What are the sources of investing edge? According to investment thinker and author John Train, all active strategies are based on one of three main philosophies (or a blend of these):

1. *Futurology*; i.e. the ability to predict the future (of, e.g. companies, industries, markets, etc.) a little bit more accurately than “the market”;

2. "Lab Analysis"; i.e. the ability to look a little more diligently and probe a little deeper than others at whatever is under the magnifying glass; and

3. “Pioneering”; i.e. the opening up of completely new investment categories in hitherto overlooked areas.

According to legendary value investor Bill Miller, investing edge can be based on one of three foundations (or a blend of these):

(a) *Informational advantage*, i.e. privileged access to more and / or better information. However, the usefulness of this source of advantage may in practice be limited as a result of insider legislation; since the use of insider information is illegal in most advanced jurisdictions, all investors have to do with an *identical set* of data;
(b) **Analytical advantage;** i.e. the ability to look at the same information that one’s competitors look at, but utilizing (analyze, organize, weigh, interpret etc.) it in a different, creative (i.e. original and possibly more useful) way; and

(c) **Psychological advantage;** i.e. the ability to exploit the psychological weaknesses of the market (e.g. panic, euphoria, cognitive biases) of others, while not succumbing to them oneself.

In Miller’s opinion, psychological advantages are probably the most useful, but they are also the most difficult to obtain. As an example of a practical application of a psychological advantage Miller gives what he calls “Time arbitrage”. Time arbitrage means exploiting the fact that most investors tend to have very short investment horizons (e.g. the average US mutual fund has an annual turnover of 110 %, indicating an average holding period of approximately 11 months). This means that the attention of most investors is focused on trying to exploit short-term mis-pricings in the market, with the result that this particular “space” of the market is more crowded and thus more efficient. Correspondingly, the long-term investing space is less crowded, with better chances of finding more (and bigger) bargains.

**Why equity?**

One of the most important questions facing every investor is which asset class to invest in? My primary interest is common stock in high-quality listed companies. Why? The reasons are many-fold, ranging from purely rational to matters of personal taste. Let’s start with the fact-based and rational. Both economic theory and empirical research have unquestionably showed that of all major asset classes, stocks provide the best long-term returns. Why is this so? In different eras of human history, new wealth has come from different sources. In pre-industrial times, agriculture was the main source of wealth and agricultural land was the main wealth creating asset. We currently live in the era of industrial production that began in Britain some two hundred years ago with the industrial revolution, in which the bulk of all new wealth creation takes place as a result of innovation and entrepreneurship, and in which capital (physical, intellectual and financial) is the main wealth creating asset. The most direct way to participate in this process (and to enjoy the spoils) is through equity capital.

**My basic world-view**

Another aspect of the process of choosing managers that has received surprisingly little attention is the basic world-view of the manager. Let me explain: one of the most fundamental aspects that underlie and effect every investment decision is what could be described as the basic world-view of the manager; his take of reality, how the world "works" and where it’s heading. (To give a simple example; people can roughly be divided into optimists and pessimists – optimists focus on opportunities and expect things to improve, at least over time, whereas pessimists focus on risks and expect things to decline. Neither group can be said to possess the "correct" view; to a large degree it depends on what one chooses to look at and how one chooses to interpret it. Any judgment is in other words highly subjective.)

Very few portfolio managers explicitly communicate their world-view, perhaps because very few investors (clients) ask their managers to do it. However, this might lead to at least two types of problems, especially if the basic world-views diverge markedly. The first and most obvious type of
problem arises if the world-view of the manager is (at least as judged by the client) plainly wrong. To give a highly exaggerated example; let’s say we have a portfolio manager who strongly believes in astrology, to the point that most his investment decisions are made through consulting astrologists and astrological charts. Knowing the basic world-view of the manager, a prospective client (with a more traditionally rational world-view) might not want to invest with the said manager (irrespective of his perhaps impressive track-record) because their world-views differ to an irreconcilable degree. No matter the investment returns, the client simply could not feel comfortable with the decision making philosophy and process with which the returns were achieved.

The second type of problem arises when the world-views differ in a more subjective and nuanced way, but nevertheless enough to cause friction. A good example would be a manager and a client who differ too much on the above mentioned optimism-pessimism –axis. Let’s illustrate this with another highly stylized example. Let’s imagine two hypothetical portfolio managers, A and B.

A is an ”eternal pessimist” who is certain that the ”end is near”, and whose world-view is colored by his constant anticipation of the materialization of a myriad of risks, ranging from epidemics and wars to frauds and financial meltdowns. Contrast this with manager B, who is an ”incurable optimist” who’s convinced that all aspects of human life (including the economy) is posed to improve, and that we will continue to achieve ever greater levels of social, scientific and economic prosperity, and that this development will naturally lead to ever higher levels of wealth and capital accumulation. It goes without saying that the portfolios of the two managers will differ, reflecting their different take on ”reality”. The optimist B will probably be more inclined to invest in companies and industries the future success of which are built on and require continuing positive development (e.g. high-tech), whereas the pessimist A will probably invest more conservatively and defensively (e.g. fixed income). Which one of the two managers is ”correct”? Since we don’t possess a crystal-ball (or at least I don’t!), the question is impossible to answer a priori, before the fact – only time can tell. Either one can turn out to be correct, leaving the other chap to look like a fool.

However, for a prospective client it might be a good idea to invest at least the bulk of his or her investable capital with a manager who shares his or her basic world-view. Let’s build on the previous example with the pessimistic manager A and optimistic manager B. If a pessimistic client invests with the optimistic manager B, he or she will suffer chronic anxiety due to the (in his or her subjective view) excessively risky portfolio, topped by occasional pangs of regret when things eventually do go wrong (which they always do, sooner or later). Vice versa, if an optimistic client invests with the pessimistic manager A, he or she will most of the time be frustrated with the modest returns that is the inevitable outcome of a conservative and risk-averse investment strategy.

So how would I describe my basic world-view? I think I could describe myself as conservatively optimistic. Without downplaying the potential threats posed by terrorism, epidemics and economic crises, I still don’t believe any one of the currently known threats has the capacity to permanently stop economic growth and progress. In spite of many serious and tragic setbacks, humanity has by and large enjoyed continuous scientific, cultural and economic progress, which has also been reflected in an almost uninterrupted growth of income and the capital base. In my opinion, humanity faces only two really serious threats to its long-time prosperity; one of which is sudden and dramatic and one of which is gradual and insidious, but both of which are self-inflicted. The sudden threat is serious military conflict on a global scale involving nuclear weapons, which is the
only currently known threat (besides a massive meteorite strike, the probability of which is miniscule) that could in theory wipe out humanity or at least modern civilization. The second, gradual threat is if we (i.e. humanity) manage to destroy the environment on which our existence depends; i.e. through massive and irreversible ecological destruction. The probability of the first threat (nuclear holocaust) was reduced, massively and almost overnight, by the end of the cold war some twenty years ago. The disappearance of the ideological foundations of the cold war also radically reduced the risk of other serious military conflict around the world. (for a more detailed discussion on the reduced risk of military conflict and its economic implications, see my paper “Secular Trends”) The risk of ecological holocaust is still very much with us, and although the globally rising living standards increase the risk there are also counter-balancing forces in the form of a rising ecological awareness.

If we look at the pace of capital accumulation since recorded history, the pace has accelerated, especially since the industrial revolution. My personal view is that the pace will continue to accelerate, i.e. that we will continue to become more prosperous at an even faster rate than previously. I base my conviction on the below arguments (many of which are overlapping and/or inter-related):

- The end of the half-century long ideological struggle between adherents of planned economy and unplanned (i.e. “market”) economy, respectively, culminating in the fall of the Berlin wall and the collapse of the Soviet Union. This revolutionary shift had many far-reaching consequences, including: (i) reduced levels of risk of serious military conflict (see second point below); (ii) the freeing up of capital that otherwise would have been earmarked to military spending for more productive use; (iii) the enlarging of global markets and paving the way for globalization (see point three below), and; (iv) the ideological shift on a global basis to political systems based on market economy (and thus ones encouraging entrepreneurship, the main engine of capital formation);

- The above discussed dramatic decrease of the probability of nuclear holocaust and other serious military conflict reduces the risk of massive capital destruction through war;

- The continuing process of globalization that will enable increasing exploitation of comparative advantages, lead to massive efficiencies of scale and enable optimal resource allocation, benefitting all participants through increases in productivity and maximizing total theoretical output;

- The gradual rise of an increasing number of people out of extreme poverty and into the quickly growing global middle class, which will: (i) dramatically expand global markets (since people who live from hand to mouth do not, per definition, have discretionary income, and thus cannot constitute consumers; the basic prerequisite for the formation of markets), and; (ii) dramatically accelerate global capital formation (since people who live from hand to mouth cannot, per definition, be savers; i.e. accumulators of capital), which in turn will; (iii) dramatically increase productivity (since capital, e.g. machinery, can now to an increasing degree be deployed in the production process), and; (iv) further reinforce and accelerate the process of capital formation (since capital per definition is an asset that has the potential to create more wealth, i.e. capital creates more capital); and

- The continuing acceleration of the rate of innovation resulting from the increase in the number of conceptual and intellectual “building blocks” (i.e. previous innovations, e.g. scientific concepts, technological inventions, business models) which in turn will lead to an accelerating rate of wealth creation. This trend is further reinforced by the spread of
information technology (especially the Internet) that for the first time in human history has made virtually all the accumulated knowledge (building blocks) of humanity available real-time to anyone with an Internet-connection.

Consequently, and well aware of the risk of being labelled Pollyannaish, I do not hesitate to declare that I firmly believe that, absent the actualization of some currently unknown risk, humanity will continue to enjoy economic progress and capital accumulation at an accelerated pace. This is naturally a source of optimism for equity investors. (Two important caveats: (1) I’m talking about a benign long-term trend (Please note: “long term” being measured, not in quarters or even years, but decades or generations); of course there will be surprises, and most surprises tend to be on the downside (“no news is good news!”), and; (2) It is possible, nay, probable, that the bulk of this future capital formation will take place in countries that we now call emerging markets). However, I’m convinced that the long-term trend will continue to be upward sloping, like it has been for the past 10,000 or so years.

The charts to the right illustrate my point. The first one depicts the development of global GDP per person since the year 1000 AD. Please note the dramatic acceleration of growth that took off around the beginning of the 19th century, with the advent of the industrial revolution. The second chart depicts the growth of US GDP per person during the last two centuries (from 1800 to 2000). The trend is clear, and since the single biggest threat to the trend (nuclear Armageddon) has been all but removed, I see no reason why the trend would not continue and even gather momentum. To all sceptics and pessimists accusing me of naivety, I dare you to present me your statistics!

Focus investing
Assuming the above observations hold, what should one do? One solution has been suggested by the respected investment writer and fund-manager Robert Hagstrom. Hagstrom, who is a well known expert on the investing style of Warren Buffett, has coined the term "Focus Investing" to describe the investment style applied by Buffett, Munger and their ilk from the Graham&Dodd family of investors.

So what is Focus Investing? Actually it’s nothing new; on the contrary, it could be described as "back-to-basics" investing. In a nutshell, Focus Investing is a long-term, valuation based investment philosophy and strategy where one attempts to produce good investment returns by:

1. identifying high-quality companies that can be purchased at a significant discount (Graham’s “Margin of Safety”) from one’s personal, on a very thorough fundamental analysis based best estimate of underlying (intrinsic) value;

2. assembling a concentrated portfolio (8 – 12 stocks) of such investments, and;
Ignoring swings in the general market, stay put until: (a) the intrinsic value of the security is fully reflected in its market value; (b) the conditions regarding the security change so as to make the original investment thesis obsolete; (c) a markedly superior investment opportunity appears; or; (d) it becomes apparent that the original investment thesis was faulty.

The concept is neatly summarized in a quote by the great master Buffett himself:

"Choose a few stocks that are likely to produce above average returns over the long haul, concentrate the bulk of your investments in those stocks, and have the fortitude to hold steady during any short-term market gyrations."

To anyone remotely familiar with the truly great names in investing (Buffett, Munger, Fisher, Wanger, Miller etc.) it is self-evident that most of them followed an investment strategy that fits the above description.

Investment discipline
At its core, the strategy is straightforward and rests mainly on two basic functions: (1) identifying companies that qualify as potential holdings, and (2) estimating their intrinsic value (i.e. underlying long-term business value) to see if the company is trading at a market value that gives a significant discount ("Margin of Safety") from the intrinsic value. In practice, this is of course easier said than done.

Qualifying companies
I evaluate prospective investments according to a list of criteria that, in my minds, describe superior Businesses with favorable long-term prospects. These can be roughly grouped into three categories: (1) financial strength; (2) sustainable competitive advantages, and; (3) quality of management.

Financial strength
Financial strength – beginning with the balance sheet – is very important to the long-term survival and earnings power of a business. Since I invest with the intention to hold investments for a long period of time, I must feel confident that the companies I buy can withstand possible future industry and/or economic downturns. A strong balance sheet allows some companies to survive and even thrive in conditions that cripple or kill weaker competitors.

The second critical piece of financial data is the return on invested capital (ROIC). Compared to the more commonly used accounting-based financial and valuation metrics (e.g. P/E, EPS etc.), ROIC is a superior (albeit more laborious to calculate) metric, since it: (a) reflects value creation more accurately; (b) distinguishes between operating and financing decisions; (c) takes into account risk, capital requirements and the time value of money, and; (d) is less easily manipulated.

ROIC measures the amount of cash generated by each dollar of capital invested in a company’s operations. Alternatively stated, ROIC measures how effectively a company has deployed the capital invested in its business in generating cash flow. A company whose ROIC exceeds its cost of capital generates positive net cash flow, thereby creating value; a company whose ROIC is less than its cost of capital generates negative net cash flow from an economic perspective, thereby destroying value; and a company whose ROIC equals its cost of capital neither creates nor destroys
value. A company can create value by any one of the following four means: (1) reallocating or otherwise improving the use of its existing capital to increase the spread between its ROIC and its cost of capital; (2) deploying more invested capital in its current business, provided the returns generated by such capital exceed its cost; (3) investing additional capital in new projects (lying outside of the traditional scope of its business) yielding a marginal ROIC in excess of the cost of such additional capital, or; (4) lowering its cost of capital.

Competitive advantage

The next category of business characteristics that I study closely is competitive advantages, or what Buffett has referred to as the “moats” around a business. In order for a company to enjoy good profitability (as indicated by earning – for an extended or indefinite period of time – returns on capital above the cost of capital) it must possess one or more competitive advantage.

A competitive advantage is something a firm can do that rivals cannot match. It either generates higher demand or leads to lower costs. Competitive advantages can thus be divided into two main groups; “Demand” and “Cost”-advantages.

“Cost” advantages enable the company to produce its products or services at a cost that is lower than those of its competitors. Cost advantages almost always come down to a superior technology, process or a culture of frugality that competitors cannot duplicate – because it is protected by a patent, for example – or a much larger scale of operation, accompanied by declining marginal costs, that competitors cannot match. Commodities markets are generally perfectly or almost perfectly competitive. Consequently, commodity producers are “price takers”. i.e. individual firms have little or no influence over market price, and have thus to accept the market price as given. Therefore, all or most competitive advantages in commodity markets tend to be cost advantages.

“Demand” advantages give firms privileged access to customers. Also known as customer captivity, this type of advantage generally arises from customers’ habits, searching costs, switching costs or a strong brand. Demand advantages make it possible to sell more of the product and / or sell the product at a higher price than would be possible without the advantage. The textbook example of a demand advantage is Coke. Coca-Cola Co. can sell its famous soft drink at a much higher price that can rival generic cola drink manufacturers because the brand (with its psychological impact) makes customers willing to pay a price premium for “genuine” Coke, in spite of the fact that Coke and generic cola drinks are, for all practical purposes, indistinguishable as to manufacturing inputs, costs and, most importantly, taste.

Three factors (customer captivity, proprietary technology, and economies of scale) generate most competitive advantages. The few other sources – government support or protection, for instance, and superior access to information – tend to be limited to particular industries. Special emphasis is put on identifying and evaluating not only the current strength of any competitive advantage, but especially its sustainability over time (i.e. the Competitive Advantage Period, CAP). Please note an important semantic distinction; the competitive advantage should be identifiable – this is not the same as saying it should be easily identifiable; on the contrary, if the advantage is obvious, it’s probably already discounted in the price.

One factor that is indirectly linked with competitive advantage is size; to be an attractive investment for me a company should neither be too big nor too small. I look for companies with both high
ROIC and strong revenue growth, and both research and common sense makes it clear that the very biggest companies usually stop growing\(^9\). This makes intuitive sense. Let’s compare two retailers, Wal-Mart (US) and Stockmann (Finland). Wal-Mart is the world’s largest retailer with 2008 sales of 405 BnUS$. Stockmann had 2008 sales of 2.6 BnUS$. Consequently, measured in sales, Wal-Mart is more than 150 times bigger than Stockmann. From 2007 to 2008, Stockmann’s sales grew by 0.6 BnUS$, corresponding to a growth of 34%. In order for Wal-Mart to grow 34%, it would be required to increase sales by more than 137 BnUS$. (To put that sum in perspective, the 2008 sales of the second-largest retailer, Carrefour (France) were 136 BnUS$.) It goes without saying that increasing sales by 137 billion is a much more complex and difficult task than increasing them by 0.6 billion, notwithstanding Wal-Marts’ vast resources and operational excellence. Furthermore, after a having grown past a certain point, companies simply have exhausted potential markets to conquer. So why not invest exclusively in small companies, with all the growth potential in the world? Because compared to large companies, small companies face tremendously higher risk of sudden extinction by the unanticipated entrance of larger companies on their markets. The scenario is probably not very realistic, but should Wal-Mart (2008 net assets 65 BnUS$) for any reason want to crush Stockmann (2008 net assets 10 BnUS$), it no doubt could do so. Such dramatic events may be rare in retail, but they are commonplace in many other industries, such as high-tech; the so-called “Browser-Wars”, with Netscape (Navigator) vs. Microsoft (Internet Explorer) is just one obvious example. So what size do I consider ideal? The answer is, as usual, it depends. Not wanting to put artificial constraints on my options, all I can say is that a company should be small enough to not have exhausted its growth opportunities and large enough not to be easily crushed if a neighboring gorilla decides to enter its turf. What the qualifying range is depends on the industry and other similar factors.

Businesses are also strongly effected by secular trends, at least over the long-term. The dictionary defines “secular trend” as a “economy or market trend associated with some characteristic or phenomenon which is not cyclical or seasonal but exists over a relatively long period.” Currently unfolding major secular trends include the digital revolution, the “green revolution”, globalization, and the rise of the BRIC –countries (Brazil, Russia, India and China). Over the short to medium-terms, companies and industries can remain untouched by, and even in defiance of, secular trends. However, over the long-term, companies and industries must harness or adjust to secular trends or perish; watch e.g. the current struggle of traditional printed media (e.g. newspapers) under the onslaught of digital media (e.g. internet news sites). Short term investors need perhaps not pay much attention, but long-term investors ignore secular trends at their peril. (For a more detailed discussion on current secular trends and their effect on investment strategy, see my paper “Secular Trends”)

**Quality of management**

The longer the investor time-horizon is, the more important the ability of management to skillfully allocate capital becomes. Long-term investors depend on company’s managers to be good stewards of their capital, and either re-invest it at rates above the cost of capital, or return it to shareholders in the form of dividends and/or share repurchases. I analyze the quality of management first by applying the so-called Buffet management tenets: (1) Is management rational? (mostly reflected in capital allocation decisions); (2) Is management candid with its shareholders?, and; (3) Does management resist the “institutional imperative”? (i.e. are they capable if independent thinking and resisting fads). It is of prime importance that managers think like owners. The best, easiest and probably only way to guarantee that managers think like owners is that they are owners.
Consequently, I prefer to invest, ceteris paribus, in companies with founder-owner managers. At the very least, the CEO and/or chairman of the board should have a substantial direct share ownership (i.e. bulk of personal net worth). I also apply sophisticated psychological profiling tools (e.g. the MBTI) when analyzing managers.

**Constraints**

One of the follies of today’s financial industry is an obsession with pigeon-holing managers (watch the proliferation of “theme-funds”, e.g. technology-funds, “health-care-funds”, “emerging market – funds” etc.). The official rationale is of course specialization; by specializing in a single industry or geography the manager is said to gain an edge. However, there are some problems with this approach, one being the fact that a very important part of the decision-making (and thus responsibility) is dumped back on the client (who, assumedly, hoped for just the opposite). The other problem with pigeon-holing is that in a world with scarce opportunities, it may well produce constraints that make it difficult if not impossible to produce good long-term returns. Consequently, since truly attractive value opportunities are rare, I think that value investing should not be artificially constrained by e.g. industry or geography. The only real constraint should be one’s “circle of competence” (to paraphrase Buffett).

Of course, this does not mean that an investment strategy should be all over the place. Just as important as knowing what to do is knowing what not to do. Below I will present some situations where I do not invest:

(a) commodity type businesses (i.e. businesses without an identifiable source of competitive advantage). Such businesses and industries are usually characterized by: (i) a product or service that cannot readily be differentiated; (ii) a large and fragmented producer base; (iii) capital intensity; (vi) low barriers to entry, and; (v) intense (price) competition. More often than not, such industries suffer from chronically disappointing ROIC;

(b) “special-situations” (e.g. turnarounds, merger-arbitrage etc.). In order to play out well, such situations usually require inside information of some sort. Furthermore, such situations usually change very rapidly, requiring constant monitoring and thus diverting scarce manager resources (time and attention) that might be more productively deployed in core activities (searching for long-term ideas or monitoring existing holdings);

(c) start-up or venture-capital –type situations (i.e. early-stage businesses without a proven business model and/or cash-flow). Since the risks involved in these investments are significant they are not suitable for highly concentrated portfolios;

(d) businesses in industries that face significant headwinds from one or several secular trends. Since my strategy is expressly long-term, investing in such industries would be playing with fire. (Watch e.g. the current struggle of traditional printed media (e.g. newspapers) under the onslaught of digital media (e.g. internet news sites));
(e) businesses in industries with heavy government ownership and/or intervention. These include industries where government subsidies are a major economic factor (e.g. European agriculture), industries where state-owned companies or “national champions” are prevalent (e.g. telecoms, airlines, defence) or where the government is the major customer (e.g. defence). These industries are often managed with other than pure economical goals (e.g. national security, prestige, industrial policy etc.) in mind. The political nature of the decision-making in these industries adds an additional layer of complexity, making analysis more difficult, and thus increasing risk. Furthermore, successful analysis of businesses in such industries usually requires detailed knowledge of political processes that in practice is the reserve of insiders;

(f) “unethical” businesses, i.e. companies with products, services, processes or business-models that are obviously questionable from a moral or ethical point of view. Although such judgement always contain a high dose of subjectivity, my list includes at least products or services that have a clear and substantial addictive and/or destructive potential (e.g. tobacco, hard liquor, gambling, pornography), products the manufacturing of which require vast and unnecessary human or animal suffering (e.g. furs, products made using child-labour) and products with no other discernible purpose but killing human beings (e.g. arms). Many of the aforementioned industries are highly profitable, so my decision to abstain from investing are based on purely ethical considerations;

(g) businesses in industries that are: (i) ridden by “grey economy”; (ii) to a substantial part controlled by organized crime, or; (iii) which are widely used for money-laundering. In many Western economies such industries include construction, restaurants and night-clubs, waste-management etc. In these industries criminal or unethical business practices (corruption, fraud, extortion, tax-evasion) often are the norm, and companies preferring honest means often find it difficult or impossible to compete. (E.g. businesses that are de facto money-laundering operations are usually not managed by and within normal economic constraints (e.g. profitability) and “regular” companies often find them impossible to compete with.) Compromising one’s integrity to match the unethical practices used by competition is not just immoral but also introduces a new set of risks (e.g. criminal lawsuits, public bad-will).

Preferred opportunities
Above I presented my qualification and disqualification criteria; applying them indiscriminately, however, casts too wide a net to be of much practical use.

In order to boil down the universe of eligible companies to a manageable size, I will primarily focus on companies that meet the below three additional criteria:

(1) their business should in one way or another be based on or linked to one or more “slow travelling idea” (see section “Slow Travelling Ideas” above). In practice this means that the business and, consequently also the valuation, should not be obvious, but require (to quote Treynor) at least a certain degree of reflection, judgment, and special expertise for
their evaluation. A typical example of a slow travelling idea is network effects\(^{31}\) - network effects (also called demand-side economies of scale) are a relatively new field of microeconomics that is interesting for investors because knowledge and understanding of network effects is not yet widely disseminated (i.e. they are not obvious) and they sometimes have significant effects on corporate profitability and competitive strength (i.e. they are relevant);

(2) their business should enjoy tailwinds from one or more secular trend. As I have outlined in my paper “Secular Trends”, I believe long-term investors should focus on companies and industries that are helped by secular trends. (It might furthermore be added that many secular trends are in themselves “slow travelling ideas”), and;

(3) the businesses should be within my “circle of competence”\(^{32}\) (to paraphrase Buffett).

Below I list a few categories which in my experience fulfill the above criteria and which I have found especially bountiful sources of promising leads:

- “Platform companies”\(^{33}\), i.e. companies that function mainly as coordinators of otherwise outsourced functions (e.g. manufacturing) and “owners” of key resources or processes (e.g. brand, R&D, captive markets). The textbook example of a platform company is Nike.

- Two-Sided Markets\(^{34}\), i.e. businesses that function as intermediaries bringing together two distinct customer groups. Two-Sided markets often enjoy significant network effects and as a result increasing returns to scale. The textbook example of a two-sided market is eBay.

- Increasing return businesses\(^{35}\), i.e. businesses that, as a result of the structure of the market or the underlying economics, have a tendency to “tip”, i.e. enjoy ever increasing levels of profitability (as opposed to the assumption of diminishing returns, one of the cornerstones of classical microeconomics). The textbook example of a company that enjoys increasing returns is Microsoft (or rather, used to enjoy, before Google started its assault on Microsoft’s business model).

- Disruptive innovations,\(^{36}\) i.e. innovations that radically challenge existing companies, industries or business models. A familiar example of a disruptive innovation vs. the product it replaced (in part or in full) is digital photography vs. chemical photography.

- “Complete” or “Market Defining” products, i.e. products that, through control or ownership of a critical asset (a market, a brand, a patent) “own” a certain market, creating a de facto monopoly. A good example of a market defining product could be Tabasco that has become almost synonymous with hot pepper sauce.\(^{37}\)

**Valuation**

If and when one finds companies that qualify, the next step is to perform a valuation on the company. The purpose of the valuation is to establish the underlying business value, or what value investors refer to as “intrinsic value”; i.e. the present value of the future free cash flows of the business. If one’s best estimate of intrinsic value exceeds the market value by a sufficiently significant amount (i.e. margin of safety), the security may be considered as an investment.
I use two primary valuation methods: (1) the Enterprise Discounted Cash-Flow Model (DCF), and; (2) the Economic Profit Model. In special cases, the Adjusted Present Value Model (APV) may be used. Accounting based measures (e.g. P/E) and comparables multiples are used only to support decision-making – as tentative “sniff-tests” when initially screening potential leads, and “reality checks” and as tools for ”getting into the mind” of the market – not actual valuation.

**Portfolio construction and risk management**

After identifying compelling opportunities in individual securities using the approach outlined above, I construct and manage the portfolio so as to generate a high level of risk-adjusted returns. A successful portfolio must focus on the best investment ideas and not diversify so heavily that it fails to receive the long-term benefits of those ideas. (For a more detailed discussion on the topic of concentrated vs. highly diversified portfolios, see my paper "The Case for Focus Investing").

I assess and manage risk mainly at the company level through careful and diligent analysis, and manage risk at the portfolio level through portfolio construction, with special emphasis on maintaining sufficient industry and geographical diversification.

**Sell discipline**

While I set out with the intention of owning businesses over long horizons, it is clear that the portfolio is occasionally faced with sell decisions. On average, I turn over about 10–40% of my portfolio annually. My sell discipline centers around the same set of criteria as my buy discipline, which is to say that I evaluate businesses on the basis of their financial strength, competitive advantages and management quality, and I compare the intrinsic value of each company in my the portfolio to the current market price. I sell investments, either partially or in their entirety, if and when: (a) the intrinsic value of the security is fully reflected in its market value; (b) the conditions regarding the security change so as to make the original investment thesis obsolete; (c) a markedly superior investment opportunity appears; or; (d) it becomes apparent that the original investment thesis was faulty.

**Investment process**

*Process versus outcome.* Investing is an inherently probabilistic endeavor; in the short run, randomness accounts for most, if not all, returns. When it comes to probabilistic endeavors, in the short run it’s impossible to distinguish between skill and luck – winning the lottery does not indicate genius, and neither should a few crapshoot, “gut-feeling” stock bets that turned out to be bonanzas. Since investing is to such high degree probabilistic, no investor can honestly guarantee good outcomes - those who do are either fools or frauds. However, what can be done is to skew the probabilities (albeit so slightly) so that the odds are in one’s favor. This can be achieved mainly by following a disciplined and logically sound decision making process. Probabilistic endeavors require a focus on process because, by definition, poor decisions will periodically result in good outcomes, and good decisions will periodically lead to poor outcomes. The below two-by-two matrix illustrates the point.38
While satisfactory long-term outcomes ultimately define success in probabilistic fields, the best in their class focus on establishing a superior process with the understanding that once the process is in order, outcomes will take care of themselves. This also means that evaluating short-term outcomes in probabilistic fields is meaningless (since any result can be explained by randomness). It’s only over the long-run that randomness (i.e. good luck or bad luck) evens out, and skill shines through. This applies to investing to a high degree; short-term returns are not indicative of skill, and even good long-term results that rest on a bad process should be viewed with suspicion (since they are quite possibly a result of a long lucky-streak rather than skill).

The table on the right summarizes the number of funds outperforming the market, given different probabilities of outperformance. (Please note that this is assuming that outperformance is fully random, i.e. dictated by luck, not skill.) For example, if we assume that 40% of funds outperform each year, the number of funds that should outperform for five consecutive years purely by chance is one in 98, i.e. just over one per cent. Consequently, if we look at the track-records of one thousand funds that have been in business at least for the past five years, there will be approximately ten funds with a stellar five-year benchmark-beating streak that made the list purely by being lucky, not talented.

Investors evaluating portfolio managers with the goal of assessing probable future performance should thus concentrate on: (a) long-term returns (if available), and; (b) process (including underlying investment philosophy and strategy). In the absence of a long track-record, a sound investment process is a better indicator of good future returns than any short-term results, no matter how seemingly impressive.

However, processes are complex and even seemingly messy, whereas returns can be summed up in one neat number (e.g. 15% per annum); consequently, returns are much easier to evaluate than processes, and people tend to prefer simple criteria over complex ones - even when the simple ones lead to nonsensical decisions! Furthermore, the human brain is not hard-wired to reason in probabilistic ways, and this is one explanation to why money flows to the funds that posted good returns last year (in spite of overwhelming evidence that last years’ winners tend to be this years’ losers).

The two process flowcharts on the pages below depicts a highly stylized and simplified description of two important sub-processes of my investment process. The first one is a simplified presentation of how I perform the initial screening of leads, and the second one is a simplified presentation of how I perform more thorough analysis and valuation on leads that have passed the initial screening process.
Process flowchart: initial lead screening process
Process flowchart: in-depth analysis process
Unfortunately, the investment community currently focuses more than ever on short-term outcomes. In part, this attention to outcomes reflects a shift in emphasis between the profession and the business of investment management, a development long criticized by e.g. Ellis. While the profession emphasizes long-time horizons, contrarian strategies, and outperforming an appropriate benchmark, the business dwells on short-term horizons, selling what’s in vogue, and minimizing variation from a benchmark so as to facilitate asset raising. In short, most investment firms can’t “afford” to focus on process because they are slaves to the (short-term) outcome. Not surprisingly, the same firms post mostly disappointing returns. To sum up: in the short run, victory goes to the one with the most luck – in the long run, victory goes to the one with the best process.

One could in fact go as far as claiming that any (investment) decision that has not been made using a sound decision-making process is a failure, regardless of the outcome, since sloppy, “shooting-from-the-hip” decision-making is closer to gambling than investing. Conversely, a decision that has been made using a good decision-making process should be considered well made even when the outcome turns out to be disappointing. The former US Secretary of the Treasury Robert Rubin expressed this sentiment in his famous June 7th 2001 Harvard Commencement Day address:

“An important corollary to recognizing that decisions are about probabilities is that decisions should not be judged by outcomes but by the quality of the decision-making, though outcomes are certainly one useful input in that evaluation. Any individual decisions can be badly thought through, and yet be successful, or exceedingly well thought through, but be unsuccessful, because the recognized possibility of failure in fact occurs. But over time, more thoughtful decision-making will lead to better overall results, and more thoughtful decision-making can be encouraged by evaluating decisions on how well they were made rather than on outcome.”

Market timing
My opinion of market-timing is very simple; it doesn’t work. I base my conviction on two arguments, one theoretical and one empirical – I believe market timing doesn’t work because: (a) the stock-market as a whole is far too complex to bend to any rational, objective analysis (consequently, in spite of the sometimes impressive jargon, all market timing is pure speculation, a gamble based on “gut feeling” – not analysis based on facts and reasoning), and; (b) most market-timing strategies eventually fail, and the sample of investors who have successfully followed a market timing strategy over the long-term (over several market cycles, i.e. several decades) is too small to form a statistically valid sample; the law of large numbers is a more plausible explanation for their returns than is skill. There are three more heavy arguments against market timing: (1) since the average long-term trend of the equity market is upward sloping (due to positive long-term returns) the market timer always has the odds against him; in order to break even he must be correct in more than 50% of his bets (which, considering the inherent randomness of the bet, qualifies the strategy as a negative expected value gamble – pure madness in other words). The existence of transaction costs exacerbates the problem further; (2) market timing introduces an additional (but avoidable) element of complexity and risk to the portfolio; the risk of making the wrong market-timing bet (in addition to the existing unavoidable risks; security selection and market risk), and finally; (3) market timing exacerbates the problem of dilution of manager attention and cognitive resources since it diverts scarce manager resources (time and attention) from his core investing activities (i.e. analyzing new leads and monitoring the existing holdings) to an activity with questionable value added (trying to guess market fluctuations).
Endnotes

2 John Maynard Keynes, “The general theory of employment, interest, and money”, 1936
3 John Burr Williams (1899 - 1989), one of the first economists to view stock prices as determined by “intrinsic value”, is recognized as a founder and developer of fundamental analysis. According to Williams the difference between investing and speculation is mainly one of attitude, which is reflected both in the way of reasoning and, more often than not, the length of the holding period. Thus Williams: “Definition of an Investor. As will be shown later, the longer a buyer holds a stock or bond, the more important are the dividends or coupons while he owns it and the less important is the price when he sells it. In the extreme case where the security is held by the same family for generations, a practice by no means uncommon, the selling price in the end is a minor matter. For this reason, we shall define an investor as a buyer interested in dividends, or coupons and principal, and a speculator as a buyer interested in resale price. Thus the usual buyer is a hybrid, being partly investor and partly speculator. Clearly the pure investor must hold his security for long periods, while the purespeculator must sell promptly, if each is to get what he seeks.” John Burr Williams, "The Theory of Investment Value”, Harvard University Press, 1938
4 I base my hypotheses on the following judgments; the most important factor in the equation, human nature, has not changed in the past century. However, if anything, modern technology has made it easier for us to act on our short-term impulses, exacerbating the tendencies of markets to boom and bust. Statistics on portfolio turnover seems to support my intuitive analysis; average annual portfolio turnover has risen from roughly 20 % in the 50’s to over 100 % today. Source: Bogle Financial Markets Research Center
6 One of the most plausible hypotheses explaining the puzzle of equity-risks premiums was given in a ground-breaking paper by Benartzi and Thaler (Shlomo Benartzi (UCLA) & Richard H. Thaler, University of Chicago - Booth School of Business, ”Myopic Loss Aversion and the Equity Premium Puzzle”, National Bureau of Economic Research (NBER) May 1993) Their argument rests on two claims: (1) Asymmetric loss aversion – i.e. in plain English; the pain and regret people feel when an asset drops in value is not symmetric (as assumed in classical economic theory), but felt approximately two times as strongly as the pleasure when it increases in value by the same amount. (Please note: this flies in the face of classical economic theory, which assumes people rationally and symmetrically weigh losses and gains). Here the probability of loss or gain is important. In financial markets, the longer the holding period, the higher the probability of positive return, and; (2) Myopia – the more frequently a person evaluates his portfolio, the more likely he is to see losses (and thus suffer the loss-aversion). Inversely, the less frequently a person evaluates his portfolio, the higher the probability to see gains. The below table illustrates the concepts with numerical examples. In the example is presented a hypothetical asset class with risk-return characteristics that closely resembles the stock-market. The annual geometric mean return is 10%, with a standard deviation of 20,5% (this is nearly identical with the actual return and standard deviation of the S&P500 from 1926 to 2006). The table also assumes: (a) that stock-prices follow a random-walk pattern, and; (b) that people have a loss-aversion factor of 2 (i.e. that Utility = Probability of price increase – (2 x Probability of price decline))

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<td>20.5</td>
<td>72.6</td>
<td>0.177</td>
</tr>
<tr>
<td>10 years</td>
<td>159.4</td>
<td>64.8</td>
<td>99.9</td>
<td>0.997</td>
</tr>
<tr>
<td>100 years</td>
<td>1,377.96</td>
<td>205.0</td>
<td>100.0</td>
<td>1.000</td>
</tr>
</tbody>
</table>

We see that in the short-run, the probability of a gain or loss is close to fifty-fifty (e.g. if the evaluation period is one month, the probability that the portfolio has suffered a loss is 43.64 % (= 100 % - 56.36 %). However, because we feel the losses much more intensely (two times more intensely, on average) than we feel the gains, a person who evaluates his portfolio every month will, on average, feel more pain than pleasure! (Hence the negative utility of 0,309 for a person evaluating his portfolio once a month). We can see from the utility table that in order for the utility to be positive, the probability of a positive return must be close to 70 %, requiring, on average, an evaluation period of nearly one year. For an investor with a 10 –year horizon, the probability of positive returns (and utility) is almost 100 %. If the hypotheses holds, the implications are critical for all investors: Asset values are not “objective” in the usual sense of the word, but they depend on one’s time-horizon! A long-term investor (i.e. one who evaluates and trades his portfolio infrequently) is able to assume more risk (and thus enjoy a higher expected returns) than a short-term investor.
The other classes of investors being: (a) "Mechanical Investors" (typically index funds, quantitative funds and other who make their decisions on a purely mechanical basis), who hold approximately 35% of the US stock-market; and; (b) "Traders" (short-term investors) who also hold approximately 35% of the US stock-market. Source: Palter et al, “Communicating with the right investors”, McKinsey Quarterly, April 2008

Abstract. We do three things in this paper. We first develop a metric to measure the maximum fraction of volume explained by stock picking in a market. We then use our metric to measure stock picking around the world. We find that though there is more stock picking in emerging markets than in developed countries, it is declining everywhere. In the United States, for example, stock picking has secularly declined from a high of 60% in the 1960s to a low of 24% in the 2000s. Finally, as markets cannot be efficient if everyone believes that they are efficient and, therefore, do no stock picking — the Grossman and Stiglitz (1980) paradox — we ask what is the long-run steady state fraction of stock pickers? We develop a simple theoretical model, and calibrate this model to the United States economy to conclude that stock picking will eventually settle at 11% of trading volume in the United States. Source: Utpal Bhattacharya, Kelley School of Business, Indiana University and Neal Galpin, Kelley School of Business, Indiana University, “Is stock picking declining around the world?”, November 15, 2005

The other categories of investors being: (a) "Transient Investors" (characterized by small stakes and high portfolio turnover), who accounted for 31% of institutions, and; (b) "Quasi-Indexers" (characterized by very small stakes and long holding periods), who accounted for 61% of institutions. Source: Brian Bushue, "Identifying and Attracting the "Right” Investors: Evidence on the Behavior of Institutional Investors", Journal of Applied Corporate Finance, Fall 2004


Paul Asquith, MIT, Michael Mikhail, Arizona State University. Andrea Au, State Street Bank, "Information Content of Equity Analyst Reports", MIT Sloan Working Paper No. 4264-02

Here we are again reminded of the importance of proper semantics. Economists and finance academics, in their urge to build elegant mathematical models, usually prefer to "assume away" the messiness of reality; thus the abstraction "Homo Economicus", the perfectly rational man, who exists, alas, only on paper and in spreadsheets. One should remember the famous words of Chesterton: “The real trouble with this world of ours is not that it is an unreasonable world, nor even that it is a reasonable one. The commonest kind of trouble is that it is nearly reasonable, but not quite. Life is not an illogicality; yet it is a trap for logicians. It looks just a little more mathematical and regular than it is; its exactitude is obvious, but its inexactitude is hidden; its wildness lies in wait.” Words carry enormous power over our thinking. It is important to know what words do and do not mean. I start by an obvious example: very, very large is not equal to infinite. We can now proceed to something more relevant: very efficient is not equal to perfectly efficient (As in: "the market is very efficient" vs. "the market is perfectly efficient"). If this holds, it should also hold that: difficult is not equal to impossible. (As in: "the market is difficult to beat" vs. "the market is impossible to beat").


Asset classes can be divided into two major categories, those that yield a cash-flow and those that don’t. Examples of the former, cash-flow generating category (and their respective yields) include equity (dividends and retained earnings), debt (interest) and real-estate (rent). Examples of the latter category include (non-deposited and thus not interest generating) cash, natural resources, precious metals and collectibles. One could argue that in a strict sense, only cash-flow generating assets constitute true investment assets, since only income generating assets can have a true intrinsic value (i.e. the present value of future cash-flows). Assets that don’t generate cash-flow can actually be purchased only for two reasons; (1) to use as inputs (e.g. raw-materials in an industrial process), or; (2) in anticipation of selling them in the future for a higher price. If we follow the formal definition of investing (as opposed to speculation), all “investing” in non-cash-flow generating assets could thus be viewed as speculation.

Depending on the definition, major asset classes are: (a) cash (i.e., money market accounts); (b) debt (e.g. corporate and government bonds); (c) equity (i.e. stocks); (d) real estate; (e) foreign currencies; (f) natural resources (e.g. oil); (g) precious metals (e.g. gold); and; (h) collectibles (e.g. art).


An intelligent client would naturally diversify by investing at least a part of his or her capital with a manager with an opposing, contrarian view, as a hedge against being wrong, but that’s another discussion.

It goes without saying that if catastrophe actually strikes, the optimistic client will naturally feel relief of having had the good judgement to invest with the risk-averse manager A, who’s strategy has now been vindicated. However, it should be remembered that catastrophe (e.g. the financial crisis of 2008-2009) that we are suffering through at the...
moment of writing) are, per definition, exceptional, and thus rare. The fact nevertheless remains that under normal circumstances and more often than not, an optimistic client would feel frustrated and disappointed investing with a manager with a basic world-view that is “too” pessimistic for his or her liking.

19 According to economist Lawrence Lindsey, “There is a widely held but utterly false belief that wars are good for the economy. Taking resources that could be used to build homes, manufacture appliances, or invent and develop new technologies and using them instead to make things that get blown up is not good for an economy. It can foster inflation and erode a nation’s capital base.” Source: Fortune, “What the Iraq war will cost the U.S.”, January 11 2008

20 “I’m excited about that… I believe that the US and Europe both are coming into the most glorious period in world history. I know that’s an extreme statement. And I don’t like extreme statements. But let me explain quickly. Throughout most of my life, for 40 years, you and I and almost everybody worldwide had two enormous worries – two things that were putting a wet blanket on everything. One was the danger of nuclear war. Remember how people feared nuclear war? Now in almost three years that danger has shrunk to almost nothing. The other great worry was that the communists might accomplish what for 70 years they said they were going to do – and that is to dominate the world.” Sir John Templeton, quoted in Outstanding Investor Digest, February 1992.

21 Global Heroes - The Economist special report on entrepreneurship”, Economist March 14th 2009

22 The term “comparative advantage” is usually attributed to economist David Ricardo who explained it in his 1817 book “On the Principles of Political Economy and Taxation” in an example involving England and Portugal. In Portugal it is possible to produce both wine and cloth with less labour than it would take to produce the same quantities in England. However the relative costs of producing those two goods are different in the two countries. In England it is very hard to produce wine, and only moderately difficult to produce cloth. In Portugal both are easy to produce. Therefore while it is cheaper to produce cloth in Portugal than England, it is cheaper still for Portugal to produce excess wine, and trade that for English cloth. Conversely England benefits from this trade because its cost for producing cloth has not changed but it can now get wine at a lower price, closer to the cost of cloth. The conclusion drawn is that each country can gain by specializing in the good that it has comparative advantage in and trading that good for the other.

23 “Notions of shopkeepers – Why the new middle classes are so good for their countries’ economies” from “Burgeoning bourgeoisie - The Economist special report on the new middle classes in emerging markets” Economist February 14th 2009

24 “The concept of ‘Acceleration’ was first developed by Aftalion, a French economist at the beginning of the XXth century. Aftalion explained that most socio-economic variables are distributed according to the ‘normal’ law, the famous bell-shaped curve, affectionately also called the bowler hat. In most developed or developing nations, income is distributed according to a Gaussian pattern, a large percentage of the population having an income close to the ‘average’ income. There will be few people with a very low income and few with a very high income. At both ends of the curve (the tails), one finds a very small population in percentage. Assuming that, in a given country, the average income in 1985 was US$5,000/year. The number of people earning more than US$10,000 will be, for example, 5%. If, by 1990, this average income goes up to US$8,000 (+60%), the number of people earning more than US$10,000 will not go up by 60%, but by a much larger figure (say 180%). And this is where the acceleration comes in: when it comes to the buying of certain goods and services, the historical evidence seems to suggest the existence of ”thresholds”. For example, if the average income in a country is below US$1,000, nobody owns a television; when the income moves above US$1,000, then almost everybody buys one. For the automobile industry, the critical level seems to be US$10,000/year. For university education US$20,000... So, in the country chosen as an example, when the average income reaches $10,000, the demand for cars will literally explode way beyond the correspondent growth in income. Acceleration works in a very surprising way. Similarly, if the average income falls from US$10,000 to US$8,000, the demand for cars will not decline by 20% but will disappear! At the same time, if the price of a good falls, then the threshold level falls with it. A quick example. In 1999, there were practically no mobile phone subscribers in China. But as incomes rose and the price of phone calls fell, the market for mobile phones in China evolved from being nonexistent to becoming the world’s largest (around 300 million people have mobiles in China). As incomes rise across emerging markets, various thresholds are crossed and consumption explodes. The boom in consumption is boosted further by the fall in certain prices (electronics, automobiles, etc.).” Source: Anatole Kaletsky, Charles Gave, Louis-Vincent Gave, “Our Brave New World” 2005

25 According to management professor Andrew Hargadon, most innovations are not truly and inherently “new”; instead they could be described as novel combinations of previously existing “building blocks”, i.e. existing innovations. For example, the aeroplane can be seen as a re-combination of previously existing technological
inventions or scientific principles, namely: (1) the combustion engine; (2) the propeller, and; (3) Bernoulli’s principle. According to Hargadon, “All innovation represent some break from the past – the lightbulb replaced the gas lamp, the automobile replaced the horse and cart, the steamship replaced the sailing ship. By the same token, however, all innovations are built from pieces of the past – Edison’s system drew its organizing principles from the gas industry, the early automobiles were built by cart makers, and the first steamships added steam engines to existing sailing ships.” If we accept Hargadon’s argument, it follows that as the total number of building blocks increase as a result of the continuing scientific, technological and cultural development, so will the number of possible new combinations. Let’s illustrate the claim with a simple mathematical example. Let’s say we have four (4) building blocks with which to create potential new combinations at our disposal. The theoretical maximum number of combinations is: 4 x 3 x 2 x 1 x = 24.

If we increase the number of building blocks by two (2), (i.e. from 4 to 6, representing an increase of 50%), the new theoretical maximum number of combinations is: 6 x 5 x 4 x 3 x 2 x 1 x = 720! (representing an increase of 2,900% - that is two-thousand nine-hundred percent!) (Caveat: it goes without saying that in the real world, all theoretically possible combinations are not necessarily practicably feasible. However, the example nicely illustrates how innovation paves the way for new innovation.). We live in times of fast and accelerating scientific and technological discovery; as the number of building blocks keeps increasing, so will the number of potential new combinations (i.e. innovations). This will inevitably lead to economic growth too. Source: Andrew Hargadon, “How Breakthrough Happen”, Harvard Business Scool Press, 2003.

26 To quote Heinlein: “Don’t ever become a pessimist... a pessimist is correct oftener than an optimist, but an optimist has more fun, and neither can stop the march of events.” No news is good news, and cynics and pessimists are usually perceived as smarter than idealists and optimists; the former having almost monopolized the epithet “realist”. Notwithstanding Heinlein, however, looking back at human history over the long-term, pessimists have been proven wrong more often than not – if they hadn’t, we’d still be living in caves! (or worse; extinct!)

27 I date the start of human capital formation with the advent of the Neolithic Revolution approximately 10,000 BC, i.e. the first agricultural revolution, when human societies begun the transition from hunting and gathering communities and bands, to agriculture and permanent settlement.


30 “A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects!” (Robert Heinlein)

31 In economics, a network effect (also called network externality) is the effect that one user of a good or service has on the value of that product to other users. The classic example is the telephone. The more people own telephones, the more valuable the telephone (or actually, the network of telephones, to which one is connected) is to each user. This creates a positive externality because a user may purchase the product without intending to create value for other users, but does so in any case. Industries with strong network effects typically display two characteristics: (1) Vendor lock-in, also known as proprietary lock-in, or customer lock-in, makes a customer dependent on a vendor for products and services, unable to use another vendor without substantial switching costs. Lock-in costs which create barriers to market entry, and; (2) “Winner-Take-All” or Winner-Take-Most –markets. Highly self-explanatory, the term “winner-takes-all” -market refers to a market or industry which, due to its inherent competitive dynamics, tends to end up dominated by one single player. Microsoft is often presented as a classic example.

32 “Circle of competence” could be defined as a field of knowledge where one has, for one reason or another, some special expertise, insight or understanding. The economist Friedrich A. Hayek noted that “practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made.” The philosophical foundation of all active strategies is the assumption of edge; one takes a position if (and only if!) one has a good reason to believe that one has an edge – that one knows or understands something about the asset that “the market” (i.e. the aggregate of all other active investors) does not know or understand. Thus “edge” almost per definition requires one to stay within one’s circle of competence.

33 “Platform company” is a term coined by Charles Gave, Louis Gave, and Anatole Kaletsky of the investment advisory firm GaveKal. According to them, “The new business model is to produce nowhere, but sell everywhere. In recent years, we have witnessed the birth of a new breed of company that we shall call the ‘platform company’. Platform companies know where the clients are and what they want and where the producers are. Platform companies then simply organize the ordering by the clients and the delivery by the producers (and the placing of their logo on the
product just before delivery). Platform companies keep the high added-value parts of research, development, treasury and marketing in-house, and farm out all the rest to external producers. Typical examples include Dell, Wal-Mart, IKEA, Hennes & Mauritz, Li & Fung and many others. Indeed, an increasing number of Western companies are looking at their business models and saying: “out of the three things I do – designing, producing and selling – producing is a mug’s game. Producing ties up a lot of capital. It is often labour-intensive. It forces one to keep expensive inventories. It is highly volatile. And I do not get rewarded for it in the market place (manufacturing businesses typically trade at discounts to non-manufacturing businesses in the stock market, mostly because they are more volatile and offer lower returns on invested capital). I would be better off leaving the producing to some other mug, and focus on the non-cyclical, high value-added part of my business, namely designing and selling.’ An increasing number of companies have taken a look at their operations and have decided that the way to succeed is to operate on much leaner balance sheets. Take hotel companies as an example. Apart from Accor of France, most hotel companies around the world (Hilton, Marriott, etc.) have, or are trying, to shed assets. Instead of owning hotels, they simply manage them. In micro-economic terms, this ‘light balance sheet’ model makes plenty of sense. It allows companies to act swiftly if/when a decision has been wrong. It is like travelling with a small backpack instead of travelling with a suite of trunks. One can change itinerary rapidly and avoid losses. When executed properly, the platform company business model makes for very high, and stable, returns on invested capital. This new business model also has important economic, political, social and financial implications. But before we get to them, let us review the pillars on which the new platform company model rests; and whether these pillars are stable or not. The ‘platform company business model’ rests on four important pillars: (1) Free trade (free trade allows platform companies to produce goods wherever production is attractively priced); (2) Technological progress, especially in communications (technology allows platform companies to manage a creative process where design, production and sales are no longer centralized); (3) Recurrent overcapacity in most industries (overcapacities allow platform companies to never run out of goods to sell); and (4) Ability to move goods around without difficulty (without ships, ports, roads and airports, etc., the ability to outsource is severely constrained)” Source: Anatole Kaletsky, Charles Gave, Louis-Vincent Gave, “Our Brave New World”, Editions GaveKal, 2006

According to Eisenmann, Parker and Van Alstyne, “Products and services that bring together groups of users in two-sided networks are platforms. They provide infrastructure and rules that facilitate the two groups’ transactions and can take many guises. In some cases, platforms rely on physical products, as with consumers’ credit cards and merchants’ authorization terminals. In other cases, they are places providing services, like shopping malls or Web sites such as Monster and eBay. Two-sided networks can be found in many industries, sharing the space with traditional product and service offerings. However, two-sided networks differ from other offerings in a fundamental way. In the traditional value chain, value moves from left to right: To the left of the company is cost; to the right is revenue. In two-sided networks, cost and revenue are both to the left and the right, because the platform has a distinct group of users on each side. The platform incurs costs in serving both groups and can collect revenue from each, although one side is often subsidized, as we’ll see. The two groups are attracted to each other—a phenomenon that economists call the network effect. With two-sided network effects, the platform’s value to any given user largely depends on the number of users on the network’s other side. Value grows as the platform matches demand from both sides. For example, video game developers will create games only for platforms that have a critical mass of players, because developers need a large enough customer base to recover their upfront programming costs. In turn, players favour platforms with a greater variety of games. Because of network effects, successful platforms enjoy increasing returns to scale. Users will pay more for access to a bigger network, so margins improve as user bases grow. This sets network platforms apart from most traditional manufacturing and service businesses. In traditional businesses, growth beyond some point usually leads to diminishing returns: Acquiring new customers becomes harder as fewer people, not more, find the firm’s value proposition appealing. ” Source: Thomas Eisenmann, Geoffrey Parker, and Marshall W. Van Alstyne, “Strategies for Two-Sided Markets”, Harvard Business Review, October 2006

According to economist W. Brian Arthur, “Our understanding of how markets and businesses operate was passed down to us more than a century ago by a handful of European economists—Alfred Marshall in England and a few of his contemporaries on the continent. It is an understanding based squarely upon the assumption of diminishing returns: products or companies that get ahead in a market eventually run into limitations, so that a predictable equilibrium of prices and market shares is reached. The theory was roughly valid for the bulk-processing, smokestack economy of Marshall’s day. And it still thrives in today’s economics textbooks. But steadily and continuously in this century, Western economies have undergone a transformation from bulk-material manufacturing to design and use of technology—from processing of resources to processing of information, from application of raw energy to application of ideas. As this shift has occurred, the underlying mechanisms that determine economic behavior have shifted from ones of diminishing to ones of increasing returns. Increasing returns are the tendency for that which is ahead to get further ahead, for that which loses advantage to lose further advantage. They are mechanisms of positive feedback that operate—within markets, businesses, and industries—to reinforce that which gains success or aggravate that which
suffers loss. Increasing returns generate not equilibrium but instability: If a product or a company or a technology—
one of many competing in a market—gets ahead by chance or clever strategy, increasing returns can magnify this advantage, and the product or company or technology can go on to lock in the market. More than causing products to become standards, increasing returns cause businesses to work differently, and they stand many of our notions of how business operates on their head. Mechanisms of increasing returns exist alongside those of diminishing returns in all industries. But roughly speaking, diminishing returns hold sway in the traditional part of the economy—the processing industries. Increasing returns reign in the newer part—the knowledge-based industries.” Source: W. Brian Arthur, “Increasing Returns and the New World of Business”, Harvard Business Review, July–August 1996

A disruptive technology or disruptive innovation is an innovation that improves a product or service in ways that the market does not expect, typically by being lower priced or designed for a different set of consumers. Disruptive innovations can be broadly classified into low-end and new-market disruptive innovations. A new-market disruptive innovation is often aimed at non-consumption (i.e., consumers who would not have used the products already on the market), whereas a lower-end disruptive innovation is aimed at mainstream customers for whom price is more important than quality. Disruptive technologies are particularly threatening to the leaders of an existing market, because they are competition coming from an unexpected direction. A disruptive technology can come to dominate an existing market by either filling a role in a new market that the older technology could not fill (as cheaper, lower capacity but smaller-sized flash memory is doing for personal data storage in the 2000s) or by successively moving up-market through performance improvements until finally displacing the market incumbents (as digital photography has largely replaced film photography). Source: Wikipedia


The actual percentage of US funds that beat the S&P500 between 1991 and 2006 was 44%. Source. Lipper Analytical Services

According to Ellis, The healthy balance of two very different disciplines—profession and business—that has made investment management a good realm in which to make a livings, now appears to be getting out of balance. Business disciplines are increasingly dominant, even dominating. The author argues that this could bring increasingly unhappy consequences for clients and practitioners. Charles D. Ellis, “Will Business Success Spoil the Investment Management Profession?”, The Journal of Portfolio Management Spring 2001, Vol. 27, No. 3

“Market Timing” is the established term for all active investing strategies that attempt to profit from predicting the price movements of the market as a whole (as opposed to the price movements of individual securities).

I know that I’m sticking my neck out saying this, especially after the carnage of 2008, in an environment where there are mostly two types of investors, those who stayed invested and now regret it, and those who switched into cash and now consider themselves investing geniuses.

Without going into too much detail, my general view of all developed (i.e. broad, deep and liquid) markets is that they can best be described as Complex Adaptive Systems. One definition of a Complex Adaptive System (CAS) is given by John Henry Holland, one of the pioneers in the field, according to whom: “a Complex Adaptive System is a dynamic network of many agents (which may represent cells, species, individuals, firms, nations) acting in parallel, constantly acting and reacting to what the other agents are doing. The control of a CAS tends to be highly dispersed and decentralized. If there is to be any coherent behavior in the system, it has to arise from competition and cooperation among the agents themselves. The overall behavior of the system is the result of a huge number of decisions made every moment by many individual agents.” The classic metaphor for a CAS is a pile of sand. Anyone who as a child played at the beach remembers how a pile of sand—with sand being poured on at the top—behaves. The pile keeps gaining height, until it collapses in an avalanche, after which it starts growing again; this time from a slightly higher base level. The size of the avalanches vary; most are small, but every now and then a big one wipes out most of the gains the pile has made since the last big one. After the pile has reached a certain height (i.e. the critical level) it becomes unstable—at this stage it actually takes only one single grain of sand to catalyze the avalanche. It is possible to judge when the pile has entered into a critical state, but it is impossible to predict: (a) which grain of sand will be the one that triggers the next avalanche, and; (b) how big the avalanche will be. In the same way markets can and does become overvalued, i.e. reach a critical state. And just as with the sand pile, market crashes are usually triggered by some single event that in itself is insignificant (e.g. a disappointing statistic). If my hypotheses is correct, then there are important implications for investors, one of the most important being that (short-term) price changes in the market as a whole are indeed impossible to predict with a satisfying degree of probability. For a more detailed discussion on the topic, please see: Michael J. Mauboussin, Credit Suisse First Boston, “Revisiting Market Efficiency: The Stock Market as a Complex Adaptive System”, Journal of Applied Corporate Finance 2002

Not only is it impossible to accurately time the market, but the costs of anything but perfect market timing are severe. Being out of the market during only a few of the best days or months can ruin a portfolio’s long-term returns. For
example, consider these examples: Had you invested $1,000 in May 1970 and held for 14 years, you would have $3,000. But if you had missed the five best days, you would only have $2,000. (Source: Against the Gods: The Remarkable Story of Risk.) Since the beginning of 1989 to the end of 2008, the S&P500 has returned 8.43% — excluding the effects of dividends. An investor who invested in 01.01.1989 and stayed fully invested through thick and thin thus had an average annual return of 8.43%. Let’s see how his returns would have looked had he missed the best (highest return) trading days (days missed – average annual return): (a) 10 days – 4.88%; (b) 20 days – 2.56%; (c) 30 days – 0.59%; (d) 40 days – (1.21%); (e) 50 days – (2.84%); (f) 100 days – (9.03%). Source: Thomson InvestmentView