

THE LOSER'S GAME

Charles D. Ellis

Gifted, determined, ambitious professionals have come into investment management in such large numbers during the past 30 years that it may no longer be feasible for any of them to profit from the errors of all the others sufficiently often and by sufficient magnitude to beat the market averages.

Disagreeable data are streaming out of the computers of Becker securities and Merrill Lynch and all the other performance measurement firms. Over and over and over again, these facts and figures inform us that investment managers are failing to perform. Not only are the nation's leading portfolio managers failing to produce positive absolute rates of return (after all, it's been a long, long bear market) but they are also failing to produce positive *relative* rates of return. Contrary to their oft articulated goal of outperforming the market averages, investment managers are not beating the market: The market is beating them.

Faced with information that contradicts what they believe, human beings tend to respond in one of two ways. Some will assimilate the information, changing it – as oysters cover an obnoxious grain of silica with nacre – so they can ignore the new knowledge and hold on to their former beliefs; and others will accept the validity of the new information.

Instead of changing the meaning of the new data to fit their old concept of reality, they adjust their perception of reality to accommodate the information and then they put it to use.

Psychologists advise us that the more important the old concept of reality is to a person – the more important it is to his sense of self-esteem and sense of inner worth – the more tenaciously he will hold on to the old concept and the more insistently he will assimilate, ignore or reject new evidence that conflicts with his old and familiar concept of the world. This behaviour is particularly common among very bright people because they can so easily develop and articulate self-persuasive logic to justify the conclusions they want to keep.

For example, most institutional investment managers continue to believe, or at least say they believe, that they can and soon will again “outperform the market.” They won't and they can't. And the purpose of this article is to explain why not.

My experience with very bright and articulate investment managers is that their skills at analysis and logical extrapolation are very good, often superb, but that their brilliance in extending logical extrapolation draws their own attention far away from the sometime erroneous basic assumptions upon which their schemes are based. Major errors in reasoning and exposition are rarely found in the logical development of this analysis, but instead lie within the premise itself. This is what worried Martin Luther. It's what *The Best and the Brightest* is all about. It's what lifted LTV above \$100; why the Emperor went for days without clothes; and why comedians and science fiction writers are so careful first to establish the "premise" and then quickly divert our attention from it so they can elaborate the persuasive details of developing "logic."

The investment management business (it should be a profession but is not) is built upon a simple and basic belief: Professional money managers can beat the market. That premise appears to be false.

If the premise that it is feasible to outperform the market were accepted, deciding how to go about achieving success would be a matter of straightforward logic. First, the market can be represented, by an index, such as the S&P 500. Since this is a passive and public listing, the successful manager need only rearrange his bets differently from those of the S&P "shill." He can be an activist in either stock selection or market timing, or both. Since the manager will want his "bets" to be right most of the time, he will assemble a group of bright, well educated, highly motivated, hard working young people, and their collective purpose will be to beat the market by "betting against the house" with a "good batting average."

The belief that active managers can beat the market is based on two assumptions: (1) liquidity offered in the stock market is an advantage, and (2) institutional investing is a Winner's Game.

The unhappy thesis of this article can be briefly stated: Owing to important changes in the past ten years, these basic assumptions are no longer true. On the contrary, market liquidity is a *liability* rather than an *asset*, and institutional investors will, over the long term, *underperform* the market because money management has become a Loser's Game.

Before demonstrating with mathematical evidence why money management has become a Loser's Game, we should close off the one path of escape for those who will try to assimilate the facts. They may argue that this analysis is unfair because so much of the data on performance comes from bear market experience, giving an adverse bias to an evaluation of the long-term capabilities of managers who have portfolio beta's above 1.0. "Of course," they will concede with dripping innuendo, "these interesting analyses may have less to say about dynamic fund managers operating in a decent market." Perhaps, but can they present us with evidence to support their hopes? Can they shoulder the burden of proof? After many hours of discussion with protesting money managers all over America and in Canada and Europe, I have heard no new evidence or persuasive appeal from the hard judgment that follows the evidence presented below. In brief, the "problem" is not a cyclical aberration; it is a long-term secular trend.

Unfortunately, the relative performance of institutionally managed portfolios appears to be getting worse. Measuring returns from trough to trough in the market, the institutionally managed funds in the Becker sample are falling farther and farther behind the market as represented by the S&P 500 Average. It appears that the *costs* of active management are going up and that the *rewards* from active management are going down.

The basic characteristics of the environment within which institutional investors must operate have changed greatly in the past decade. The most significant change is that institutional investors have become and will continue to be, the dominant feature of their own environment.

For the ten years ending December 31, 1974, the funds in the Becker Securities sample had a median rate of return of 0.0 per cent. The S & P total rate of return over the same period was 1.2% per cent per annum. (Within the Becker sample, the high fund's annual rate of return was 4.5%, the first quartile fund's return was 1.1%, the median 0.0%, the third quartile -1.1% and the low fund's annual rate of return -5.6%).

	S & P 500 Average	Becker median	Institutional shortfall
Last three market cycles (30/09/1962 to 31/12/1974)	5.3%	4.1%	(0.8%)
Last two market cycles (31/12/66 to 31/12/74)	2.1%	0.4%	(1.7%)
Last single market cycle (30/09/1970 to 31/12/1974)	2.2%	(0.3%)	(2.5%)

Data: Becker Securities 1974 Institutional Funds Evaluation Service

This change has impacted greatly upon all the major features of the investment field. In particular, institutional dominance has converted market liquidity from a source of *profits* to a source of *costs*, and this is the main reason behind the transformation of money management from a Winner's Game to a Loser's Game.

Before analyzing what happened to convert institutional investing from a Winner's Game to a Loser's Game, we should explore the profound difference between these two kinds of "games". In making the conceptual distinction, I will use the writings of an eminent scientist, a distinguished historian, and a renowned educator. They are, respectively, Dr. Simon Ramo of TRW; naval historian, Admiral Samuel Elliot Morrison; and professional golf instructor, Tommy Armour.

Simon Ramo identified the crucial difference between a Winner's Game and a Loser's Game in his excellent book on playing strategy, *Extraordinary Tennis for the Ordinary Tennis Player*. Over a period of many years, he observed that tennis was not *one* game but *two*. One game of tennis is played by professionals and a very few gifted amateurs; the other is played by all the rest of us.

Although players in both games use the same equipment, dress, rules and scoring, and conform to the same etiquette and customs, the basic natures of their two games are almost entirely different. After extensive scientific and statistical analysis, Dr. Ramo summed it up this way: Professionals *win* points, amateurs *lose* points. Professional tennis players stroke the ball with strong, well aimed shots, through long and often exciting rallies, until one player is able to drive the ball just beyond the reach of his opponent. Errors are seldom made by these splendid players.

Expert tennis is what I call a Winner's Game because the ultimate outcome is determined by the actions of the *winner*. Victory is due to *winning more points than the opponent wins* – not, as we shall see in a moment, simply to getting a higher score than the opponent, but getting that higher score by *winning* points.

Amateur tennis, Ramo found, is almost entirely different. Brilliant shots, long and exciting rallies and seemingly miraculous recoveries are few and far between. On the other hand, the ball is fairly often hit into the net or out of bounds, and double faults at service are not uncommon. The amateur duffer seldom *beats* his opponent, but he beats himself all the time. The victor in this game of tennis gets a higher score than the opponent, but he gets that higher score *because his opponent is losing even more points*.

As a scientist and statistician, Dr. Ramo gathered data to test his hypothesis. And he did it in a very clever way. Instead of keeping conventional game scores – "Love," "Fifteen All," "Thirty-Fifteen," etc. – Ramo simply counted points *won* versus points *lost*. And here is what he found. In expert tennis, about 80 per cent of the points are won; in amateur tennis, about 80 per cent of the points are lost. In other words, professional tennis is a Winner's Game – the final outcome is determined by the activities of the winner – and amateur tennis is a Loser's Game – the final outcome is determined by the activities of the *loser*. The two games are, in their fundamental characteristic, not at all the same. They are opposites.

From this discovery of the two kinds of tennis, Dr. Ramo builds a complete strategy by which ordinary tennis players can win games, sets and matches again and again by following the simple stratagem of losing less, and letting the opponent defeat himself.

Dr. Ramo explains that if you choose to win at tennis – as opposed to having a good time – the strategy for winning is to avoid mistakes. The way to avoid mistakes is to be conservative and keep the ball in play, letting the other fellow have plenty of room in which to blunder his way to defeat, because he, being an amateur (and probably not having read Ramo's book) will play a losing game and not know it.

He will make errors. He will make too many errors. Once in a while he may hit a serve you cannot possibly handle, but much more frequently he will double fault. Occasionally, he may volley balls past you at the net, but more often than not they will sail far out of bounds. He will slam balls

into the net from the front court and from the back court. His game will be a routine catalogue of gaffes, goofs and grief.

He will try to beat you by winning, but he is not good enough to overcome the many inherent adversities of the game itself. The situation does not allow him to win with an activist strategy and he will instead lose. His efforts to win more points will, unfortunately for him, only increase his error rate. As Ramo instructs us in his book, the strategy for winning in a loser's game is to lose less. Avoid trying too hard. By keeping the ball in play, give the opponent as many opportunities as possible to make mistakes and blunder his, way to defeat. In brief, by losing less become the victor.

In his thoughtful treatise on military science, *Strategy and Compromise*, Admiral Morrison makes the following point: "In warfare, mistakes are inevitable. Military decisions are based on estimates of the enemy's strengths and intentions that are usually faulty, and on intelligence that is never complete and often misleading." (This sounds a great deal like the investment business.) "Other things being equal," concludes Morrison, "the side that makes the fewest strategic errors wins the war."

War, as we all know, is the ultimate Loser's Game. As General Patton said, "Let the other poor dumb bastard lose his life for his country." Golf is another Loser's Game. Tommy Armour, in his great book *How to Play Your Best Golf All the Time*, says: "The way to win is by making fewer bad shots."

Gambling in a casino where the house takes at least 20 per cent of every pot is obviously a Loser's Game. Stud poker is a Loser's Game but Night Baseball with deuces, treys and one-eyed Jacks "wild" is a Winner's Game.

Campaigning for elected office is a Loser's Game. The electorate seldom votes *for* one of the candidates but rather *against* the other candidate. Professional politicians advise their candidates: "Help the voters find a way to vote *against* the other guy, and you'll get elected."

Recent studies of professional football have found that the most effective defensive platoon members play an open, ad hoc, enterprising, risk-taking style – the proper strategy for a Winner's Game – while , the best offensive players play a careful, "by the book" style that concentrates on avoiding errors and eliminating uncertainty, which is the requisite game plan for a Loser's Game. "Keep it simple," said Vincent Lombardi.

There are many other Loser's Games. Some, like institutional investing, used to be Winner's Games in the past, but have changed with the passage of time into *Loser's Games*. For example, 50 years ago, only very brave, very athletic, very strong willed young people with good eyesight had the nerve to try flying an airplane. In those glorious days, flying was a Winner's Game. But times have changed and so has flying. If you got into a 747 today, and the pilot came aboard wearing a 50-mission hat with a long, white silk scarf around his neck, you'd get off. Those people do not belong in airplanes any longer because flying an airplane today is a Loser's Game. Today, there's only one way to fly an airplane. It's simple: Don't make any mistakes.

Prize fighting starts out as a Winner's Game and becomes a Loser's Game as the fight progresses. In the first three or four rounds, a really strong puncher tries for a knockout. Thereafter, prize fighting is a gruelling contest of endurance to see who can survive the most punishment, while the other fellow gets so worn out that he literally drops to defeat.

Expert card players know that after several rounds of play, games like Gin Rummy go through a "phase change" after which discards no longer improve the relative position of the discarding player. During this latter phase, discards tend to add more strength to the opponent's hand than they remove weakness from the hand of the discarder. This changes long hands of Gin Rummy into a Loser's Game, and the correct strategy in this latter phase of the game is to evaluate discards not in terms of how much good they will do for your hand to get rid of them, but rather how much good they may do for your opponent.

Many other examples could be given, but these will suffice to make the distinction between Winner's Games and Loser's Games, to explain why the requisite player strategy is very different for the two kinds of games, and to show that the fundamental nature of a game can change and that Winner's Games can and sometimes do become Loser's Games. And that's what has happened to the Money Game.

The Money game was a phenomenal Winner's Game in the mid-1920's when John J. Raskob, a prominent business executive, could write an article for a popular magazine with the encouraging title "Everybody Can Be Rich." The article gave a cookbook recipe that anybody could, theoretically, follow to riches beyond the dreams of avarice. The Great Crash abruptly reversed the situation, and made investing a Loser's Game for nearly two decades.

It was during these decades of the thirties and forties that preservation of capital, emphasis on the safety of bonds, and sobersided conventional wisdom came to dominance and the foundation was laid for the renaissance of the Winner's Game. The bull market of the 1950's gave dramatic and compelling evidence that the situation had changed, that big money could be made in the market. And this news attracted people who like to make big money – people who like to win.

The people who came to Wall Street in the 1960's had always been – and expected always to be – winners. They had been presidents of their high school classes, varsity team captains, and honor students. They were bright, attractive, out-going and ambitious. They were willing to work hard and take chances because our society had given them many and frequent rewards for such behavior. They had gone to Yale and the Marines and Harvard Business School. And they were quick to recognize that the big Winner's Game was being played in Wall Street.

It was a glorious, wonderful, euphoric time. It was a time when almost anybody who was smart and willing to work hard could win. And almost all of us did.

The trouble with Winner's Games is that they tend to self-destruct because they attract too much attention and too many players – all of whom want to win. (That's why gold rushes finish ugly.) But in the short run, the rushing in of more and more players seeking to win expands the apparent reward. And that's what happened in Wall Street during the 1960's. Riding the tide of a bull market, institutional investors obtained such splendid rates of return in equities that more and more money was turned over to them – particularly in mutual funds and pension funds – which fueled the continuation of their own bull market. Institutional investing was a Winner's Game and the winners knew that by playing it faster, they would increase the rate of winnings. But in the process, a basic change occurred in the investment environment; the market came to be dominated by the institutions.

In just ten years, the market activities of the investing institutions have gone from only 30 per cent of total public transactions to a whopping 70 per cent. And that has made all the difference. No longer are the "New Breed on Wall Street" in the minority; they are now the majority. The professional money manager isn't competing any longer with amateurs who are out of touch with the market; now he competes with other experts.

It's an impressive group of competitors. There are 150 major institutional investors and another 600 small and medium sized institutions operating in the market all day, every day, in the most intensely competitive way. And in the past decade, these institutions have become more active, have developed larger in-house research staffs, and have tapped into the central source of market information and fundamental research provided by institutional brokers. Ten years ago, many institutions were still far out of the mainstream of intensive management; today such institution, if any exists, would be a rare collector's item.

Competitively active institutional investing has resulted in sharply higher portfolio turnover. The typical equity portfolio turnover has gone from 10 to 30 per cent. As we've already seen, this acceleration in portfolio activity plus the growth in institutional assets and the shift of pension funds toward equities have increased the proportion of market transactions of institutions from 30 to 70 per cent which has, in turn, produced the basic "phase change" that has transformed portfolio activity

from a source of incremental profits to a major cost, and that transformation has switched institutional investing from a Winner's Game to Loser's Game.

The new "rules of the game" can be set out in a simple but distressing equation. The elements are these:

- a. Assume equities will return an average nine per cent rate return.ⁱ
- b. Assume average turnover of 30 per cent per annum.
- c. Assume average costs – dealer spreads plus commissions – on institutional transactions are three per cent of the principal value involved.ⁱⁱ
- d. Assume management and custody fees total 0.20 per cent.
- e. Assume the goal of the manager is to outperform the averages by 20 per cent.

Solve for "X": $(X \cdot 9) - (30 \cdot (3 + 3)) - (0.20) = (120 \cdot 9)$

$$X = \frac{(30 \cdot (3+3)) + (0.20) + (120 \cdot 9)}{9}$$

$$X = \frac{1.8 + 0.20 + 10.8}{9}$$

$$X = \frac{12.8}{9}$$

$$X = 142\%$$

In plain language, the manager who intends to deliver *net* returns 20 per cent better than the market must earn a gross return before fees and transactions costs (liquidity tolls) that is more than 40 per cent better than the market. If this sounds absurd, the same equation can be solved to show that the active manager must beat the market *gross* by 22 percent just to come out even with the market *net*.

In other words, for the institutional investor to perform as well as, *but no better than*, the S&P 500, he must be sufficiently astute and skillful to "outdo" the market by 22 per cent. But how can institutional investors hope to outperform the market by such a magnitude when in effect, they *are* the market today? Which managers are so well staffed and organized in their operations, or so prescient in their investment policies that they can honestly expect to beat the other professionals by so much on a sustained basis?

The disagreeable numbers from the performance measurement firms say there are *no* managers whose past performance promises that they will outperform the market in the future. Looking backward, the evidence is deeply disturbing: 85 per cent of professionally managed funds underperformed the S&P 500 during the past 10 years. And the median fund's rate of return was only 5.4 per cent – about 10 per cent *below* the S&P 500.

Most money managers have been losing the Money Game. And they know it, even if they cannot admit it publicly. Expectations and promises have come down substantially since the mid-1960's. Almost nobody still talks in terms of beating the market by 20 per cent compounded annually. And nobody listens to those who do.

In times like these, the burden of proof is on the person who says, "I am a winner. I can win the Money Game." Because only a sucker backs a "winner" in the Loser's Game, we have a right to expect him to explain exactly what he is going to do and why it is going to work so very well. This is not very often done in the investment management business.

Does the evidence necessarily lead to an entirely passive or index portfolio? No, it doesn't necessarily lead in that direction. Not quite. But the "null" hypothesis is hard to beat in a situation like this. At the risk of over-simplifying, the null hypothesis says there is nothing there if you cannot find

statistically significant evidence of its presence. This would suggest to investment managers, "Don't do anything because when you try to do something, it is on average a mistake." And if you can't beat the market, you certainly should consider joining it. An index fund is one way. The data from the performance measurement firms show that an index fund would have outperformed most money managers.

For those who are determined to try to win the Loser's Game, however, there are a few specific things they might consider.

First, be sure you are playing your own game. Know your policies very well and play according to them all the time. Admiral Morrison, citing the *Concise Oxford Dictionary*, says: "Impose upon the enemy the time and place and conditions for fighting preferred by oneself." Simon Ramo suggests: "Give the other fellow as many opportunities as possible to make mistakes, and he will do so."

Second, keep it simple. Tommy Armour, talking about golf, says "Play the shot you've got the greatest chance of playing well." Ramo says: "Every game boils down to doing the things you do best, and doing them over and over again." Armour again: "Simplicity, concentration and economy of time and effort have been the distinguishing feature of the great players' methods, while others lost their way to glory by wandering in a maze of details." Mies Van der Rohe, the architect suggests, "Less is more." Why not bring turnover down as a deliberate, conscientious practice? Make fewer and perhaps better investment decisions. Simplify the professional investment management problem. Try to do a few things unusually well.

Third, concentrate on your defences. Almost all of the information in the investment management business is oriented toward purchase decisions. The competition in making purchase decisions is too good. It's too hard to outperform the other fellow in buying. Concentrate on selling instead. In a Winner's Game, 90 per cent of all research effort should be spent on making purchase decisions; in a Loser's Game, most researchers should spend most of their time making sell decisions. Almost all of the really big trouble that you're going to experience in the next year is in your portfolio right now; if you could reduce some of those really big problems, you might come out the winner in the Loser's Game.

Fourth, don't take it personally. Most of the people in the investment business are "winners" who have won all their lives by being bright, articulate, disciplined and willing to work hard. They are so accustomed to succeeding by trying harder and are so used to believing that failure to succeed is the failure's own fault that they may take it personally when they see that the average professionally managed fund cannot keep pace with the market any more than John Henry could beat the steam drill.

There is a class of diseases which are called "iatrogenic" meaning they are doctor-caused. The Chinese finger cage and the modern straightjacket most tightly grip the person who struggles to break free. Ironically, the reason institutional investing has become the Loser's Game is that in the complex problem each manager is trying to solve, his efforts to find a solution – and the efforts of his many urgent competitors – have become the dominant variables. And their efforts to beat the market are no longer the most important part of the solution; they are the most important part of the problem.

FOOTNOTES

ⁱ Use of nine per cent is for convenience only, and is an accommodation to its conventional acceptance. If time permitted, I'd prefer to justify and then use a figure of, perhaps, 12 per cent for the next decade which would reflect the market's reflection of expected inflation.

ⁱⁱ This estimate was made by the senior trading partner of a major institutional block trading firm. Other experts indicate this estimate may be low.