## MIT Remarks

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Recent financial market events, including subprime loan losses, hedge fund and quant fund woes, and the bailout or takeover of numerous financial institutions and structured vehicles, that are suddenly strapped for cash, highlight the extreme risk taking and leverage that have lately permeated our financial system. The current distress will likely create opportunities for patient investors, but while proper investing requires a disciplined and long-term perspective, few market participants are able to ignore short-term phenomena. The daily blips of the market are, in fact, noise—noise that is very difficult for most investors to tune out.

Investors unfortunately face enormous pressure—both real pressure from their anxious clients and their consultants and imagined pressure emanating from their own adrenaline, ego and fear—to deliver strong near-term results. Even though this pressure greatly distracts investors from a long-term orientation and may, in fact, be anathema to good long-term performance, there is no easy way to reduce it. Human nature involves the extremes of investor emotion—both greed and fear—in the moment; it is hard for most people to overcome and act in opposition to their emotions. Also, most investors tend to project near-term trends—both favorable and adverse—indefinitely into the future. Ironically, it is this very short-term pressure to produce—this gun to the head of everyone—that encourages excessive risk taking which manifests itself in several ways: a fully invested posture at all times; for many, the use of significant and even extreme leverage; and a market-centric orientation that makes it difficult to stand apart from the crowd and take a long-term perspective.

Right at the core, the mainstream has it backwards. Warren Buffett often quips that the first rule of investing is to not lose money, and the second rule is to not forget the first rule. Yet few investors approach the world with such a strict standard of risk avoidance. For 25 years, my firm has strived to not lose money—successfully for 24 of those 25 years—and, by investing cautiously and not losing, ample returns have been generated. Had we strived to generate high returns, I am certain that we would have allowed excessive risk into the portfolio—and with risk comes losses. Some investors target specific returns. A pension fund, for example, might target an 8% annual gain. But if the blend of asset classes under consideration fails to offer that expected result, they can only lower the goal—which for most is a non-starter—or invest in something riskier than they would like. Pressure to keep up with a peer group renders decision—making even more difficult. Then, there is no assurance whatsoever that the incurrence of greater risk will actually result in the achievement of higher return. The best investors do not target return; they focus first on risk, and only then decide whether the projected return justifies taking each particular risk.

When the herd is single-mindedly focused on return, prices are frequently bid up and returns driven down. This is particularly so when leverage is used. Leverage does not have to be dangerous. Non-recourse debt on an asset can serve to make a large purchase more affordable. Taking out a non-recourse loan on an already owned asset can actually reduce risk, since the borrowed funds become yours, while the risk of loss is transferred to the lender. But recourse debt is something else entirely. If you purchase some investments, and then borrow with recourse debt to buy more, you are now vulnerable to mark to market losses in what you own. Depending on the precise terms of the debt, a decline in the value of your holdings could force

you either to put up more collateral—which you may not have—or to sell off some of the investments you purportedly like to meet margin calls. By borrowing, you have ceased to be the master of your own fate and allowed the lender—or actually the market—to be. How ironic to allow the market, which has dished up your current portfolio of opportunity, to dictate to you the need to sell your attractive holdings in order to survive.

The availability and use of margin or recourse debt is especially pernicious. Had you purchased an investment without leverage that declined in price, you could have used any available cash to buy more. Alternatively, you could sell another investment that did not decline or declined less to afford more of the now better bargains. This, in fact, is a healthy discipline, forcing you to choose among investments to own the ones you like best, and necessitating that you carefully decide when to hold onto cash and when to put it to work. Recourse leverage changes this equation, as you can seemingly own all the investments you want simply by borrowing to buy them. There is no healthy portfolio discipline enforced by the desire to make new purchases or the anticipation that you may want to. There is also a bit of a slippery slope in that if a little leverage is good, why isn't more leverage better? When do you stop?

One way that vast leverage has been introduced into the financial markets has been through Wall Street's securitization engine. In the late 1970's, to help financial institutions achieve diversification and - at least arguably - liquidity, Wall Street began to pool mortgages (and more recently corporate and other consumer debt) and then sliced and diced these aggregations into new tranches of debt securities that offered varying degrees of risk and return. In recent years, many of these tranches were again pooled and retranched into still more finely calibrated and opaque financial instruments. These transactions were blessed by remarkably unworried rating agencies, who granted their investment grade imprimatur to some quite dubious

underlying collateral. So long as the underlying assets performed well, these securities were well bid for in ample size, and investors were satisfied. Appetite for securitization fodder grew and grew, and loan originators were pressed to lower standards to generate product. A steadily rising housing market erased fears of credit risk, since one's credit really doesn't matter if the collateral—in this case houses—is only going up in value. There is a soothing circularity to the easy credit conditions and the steadily rising home prices that no one noticed or chose to worry about. At the extreme, loans were eagerly granted to borrowers who lied—and who were encouraged to lie—on their loan applications for no-documentation loans—also known in the trade as liar's loans. One survey showed 95% of those who applied for such loans apparently did misstate their income or net worth.

Like many Wall Street innovations, these subprime mortgage-backed securities were not created with bad times in mind. When housing prices slipped and refinancing assumptions proved faulty, the models that most traders and investors used to value and analyze these securities became less and less applicable, and market conditions became increasingly chaotic as losses mounted. Liquidity declined to almost zero, and holders had difficulty valuing what they held when the financial musical chairs came to an end. What we're seeing in the debt markets is the end result of this financial innovation gone wrong.

We live in an era of leverage not just on Wall Street but on Main Street. For two generations, credit has become much more widely available and acceptable. In our grandparent's era, there were no credit cards, home equity or subprime loans, or CDOs. People paid cash for what they purchased, and worked hard to earn that cash. The sequencing of that mattered, too: first you worked hard, then you bought what you wanted. Even the federal government was expected—except in times of war—to run a balanced budget. But during our

parents' lifetimes and our own, credit has become increasingly available and standards increasingly lax, to the point where credit cards and checks backed by credit lines arrive unrequested in the mail, where your house can be used as an ATM, where people with dismal credit histories are eagerly sought after to provide them with loans, where investors flock to buy junk bonds and shaky companies seek to issue them, and where investment funds are offered the opportunity to enhance their return through structured products, derivatives and exotic financings, all of which embed high amounts of leverage. The moral imperative of repaying the banker—your neighbor—who granted you the loan across his imposing desk has been replaced by the moral vacuum of anonymous lenders using credit scoring—who quickly resell your loan to someone you will never meet—and who are actually comfortable with the actuarially determined probability that you may default. Credit rating agencies have embraced the debt orgy with lax standards and naïve models, brewing conflicts of interest and accepting healthy fees to label toxic waste as investment grade.

A similar risk exists as a result of the burgeoning increase in capital allocated to alternative investments—venture capital, private equity and hedge funds. While return-starved endowments and pension funds have looked to alternatives to add excess return and diversification, they are hardly a panacea. Some alternative managers have historically added considerable value, while for others, the jury is out. For alternatives in their entirety, high management and performance fees truncate upside potential. Increased competition has forced many alternative managers to incur greater risk to achieve their accustomed returns; for some, this involves incurring greater credit risk, while for others, this means utilizing considerable amounts of leverage.

The pendulum may be starting to turn—as recent developments in the mortgage and hedge fund markets suggest. Because the scale of today's leverage so greatly exceeds historical levels, it seems possible that we are only in the early stages of a credit contraction. Not surprisingly, it may take time to work off the excesses. Intervention by the Federal Reserve—as we recently had—seems likely to give license to further speculation while failing to address—and perhaps exacerbating—the underlying problem of lax lending standards, poor credit quality and excessive use of leverage. Indeed, many market participants believe the solution to today's problem of overleverage and bad credit is more debt. Recently, many funds have been formed to make leveraged purchases of loans that are expected to trade in the mid to high-90s instead of par, with 5 times leverage or more bringing the yield to a 15 to 20% return. It seems unlikely that the debt crisis can be near an end when the solution offered—more debt—is in fact what caused the problem in the first place.

Many investors lack a strategy that equips them to deal with a rise in volatility and declining markets. Momentum investors become lost when the momentum wanes. Growth investors - who pay a premium for the fastest growing companies - don't know what to do when the expected growth fails to materialize. Highly leveraged investors, like some quant funds in the headlines, were recently forced to sell regardless of value when their methodology produced losses rather than gains. Counting on a government bailout for every market crisis seems a dicey proposition, especially when supposedly impossible events happen on Wall Street every few years.

By the time the market drops and bad news is on the front pages, it is usually too late for investors to react. It is crucial to have a strategy in place before problems hit, precisely because

no one can accurately predict the future direction of the stock market or economy. Value investing, the strategy of buying stocks at an appreciable discount from the value of the underlying businesses, is one strategy that provides a road map to successfully navigate not only through good times but also through turmoil. Buying at a discount creates a margin of safety for the investor—room for imprecision, error, bad luck or the vicissitudes of volatile markets and economies. Following a value approach won't be easy for everyone, especially in today's media-dominated, short-term oriented markets, in that it requires deep reservoirs of patience and discipline. Yet it is the only truly risk averse strategy in a world where nearly all of us are, or should be, risk averse.

My friend and fellow value investor, Chris Browne, President of Tweedy Browne, describes what value investors do by telling this story. He was interviewing a new trader and after the interview, walked them through the Tweedy Browne offices. At the elevator on their way out, the trader commented, "At other Wall Street firms, just by walking through the office you can tell if the market is up or down. At Tweedy Browne, you can't even tell if the market is open!" This really does highlight the difference between most of today's frenzied, decision-aminute firms and the behavior of a truly long-term oriented investor.

As value investors, our business is to buy bargains that financial market theory says do not exist. We've delivered great returns to our clients for a quarter century—a dollar invested at inception in our largest fund is now worth over 94 dollars, a 20% net compound return. We have achieved this not by incurring high risk as financial theory would suggest, but by deliberately avoiding or hedging the risks that we identified. In other words, there is a large gap between standard financial theory and real world practice. Modern financial theory tells you to calculate

the beta of a stock to determine its riskiness. In my entire professional career, now twenty-five years long, I have never calculated a beta. This theory urges you to move your portfolio of holdings closer to the efficient frontier. I have never done so, nor would I know how. I have never calculated the alpha or beta of my firm's investment performance, which is how some people would determine whether or not we have done a good job.

Some people stick to elegant theories long after it is apparent that the theories do not explain reality. The Chicago School of Economics has said the financial markets are efficient. They conveniently explain away Warren Buffett's incredible investment record as aberrational. The second richest man in the country is a value investor; he built his net worth gradually over nearly 50 years of successful investing. And his net worth continues to grow handsomely! Fifty billion dollars are a lot of aberrations! Rather than abandon their theorizing to study Buffett exhaustively to see what lessons could be learned, too many people cannot bear to re-examine their faulty theories.

It turns out that this inflexibility of thinking is nothing new. Witness the insights of a brilliant man who might well have been an exceptional value investor had he not had something more important to do one century ago. This man was Wilbur Wright, whose aeronautical accomplishments are recounted in <u>To Conquer the Air</u>, by James Tobin. Wright contrasted his and Orville's hands-on approach to learning to fly with the more cerebral of Samuel Pierpont Langley, the Secretary of the Smithsonian in that era, who was the Wright brothers' most formidable competitor in manned flight. Wright compared man's first steps toward flight with the more ordinary challenge of riding a horse. He declared,

"There are two ways of learning how to ride a fractious horse; one is to get on him and learn by actual practice how each motion and trick may be best met; the other is to sit on a fence and watch the beast a while, and then retire to the house and at leisure figure out the best way of overcoming his jumps and kicks. The latter system is the safest; but the former, on the whole, turns out the larger proportion of good riders. It is very much the same in learning to ride a flying machine; if you are looking for perfect safety, you will do well to sit on a fence and watch the birds, but if you really wish to learn, you must mount a machine and become acquainted with its tricks by actual trial."

So, too, for the stock market. It is easy to peruse stock tables from the comfort of your office or living room and declare the market efficient. Or you can invest other people's capital for a number of years and learn that it is not. What is amazing to me is that, as with the Wrights, the burden of proof somehow is made to fall on the practitioner to demonstrate that they have accomplished something that so-called experts said couldn't be done (and even then find yourself explained away as aberrational). Almost none of the burden seems to fall on the academics, who cling to their theories even in the face of strong evidence that they are wrong.

When Benjamin Graham first developed the principles of value investing in the 1920's, he could not have imagined the changes the investment world would undergo over the next eighty years: the wondrous technological advances, the vast accumulation of wealth, the institutionalization of investing, the new financial instruments. Because so much is so very

different, I'm sure he would be especially pleased to find that value investing is, in many ways, the leading investment discipline being practiced today. Yes, there are other approaches—growth, momentum, black box computer programs. But there is only one approach—one discipline—that is simple enough for anyone to follow, logical and commonsensical to anyone who pays attention, and incontrovertibly proven to work.

Value investing involves the purchases of bargains, the proverbial dollars for fifty cents.

Unlike speculators, who think of securities as pieces of paper that you trade, value investors evaluate securities as fractional ownership of, or debt claims on, real businesses. They are evaluated as one would evaluate the purchase of an interest in a business or of the entire business. Buying such bargains confers on the investor a margin of safety, room for imprecision, error, bad luck, or the vicissitudes of economic and business forces. Value investing is a long-term orientated investment approach—never to be confused with short-term speculation—that requires considered patience, discipline and rigor.

Value investing lies at the intersection of economics and psychology. Economics is important because you need to understand what assets or businesses are worth. Psychology is equally important because price is the critically important component in the investment equation that determines the amount of risk and return available from any investment. Price, of course, is determined in the financial markets, varying with the vicissitudes of supply and demand for a given security.

It is crucial for investors to understand not only what value investing is, and that it works, but why it is a successful investment philosophy. At the very core of its success is the recurrent mispricing of securities in the marketplace. Value investing is, in effect, predicated on the proposition that the efficient-market hypothesis is frequently wrong. If, on the one hand,

securities can become undervalued or overvalued, which I believe to be incontrovertibly true, value investors will thrive. If, on the other hand, all securities at some future date become fairly and efficiently priced, value investors will have nothing to do. It is important, then, to consider whether or not the financial markets are efficient.

Institutional constraints and market inefficiencies are the primary reasons that bargains develop. Investors prefer businesses and securities that are simple over those that are complex. They fancy growth. They enjoy an exciting story. They avoid situations that involve the stigma of financial distress or the taint of litigation. They hate uncertain timing. They prefer liquidity to illiquidity. They prefer the illusion of perfect information that comes with large, successful companies to the limited information from companies embroiled in scandal, fraud, unexpected losses or management turmoil. Institutional selling of a low-priced small-capitalization spinoff, for example, can cause a temporary supply-demand imbalance. If a company fails to declare an expected dividend, institutions restricted to owning dividend-paying stocks may unload shares. Bond funds allowed to own only investment-grade debt would dump their holdings of an issue immediately after it was downgraded below BBB by the rating agencies. Market inefficiencies, like tax selling and window dressing, also create mindless selling, as can the deletion of a stock from an index. These causes of mispricing are deep-rooted in human behavior and market structure, unlikely to be extinguished anytime soon.

My firm's approach is to seek situations where there is urgent, panicked or mindless selling. As Warren Buffett has said, "If you are at a poker table and can't figure out who the patsy is, it's you." In investing, we never want to be the patsy. So rather than buy from smart, informed sellers, we want to buy from urgent, distressed or emotional sellers. This concept applies to just about any asset class: debt, real estate, private equity, as well as public equities.

As the father of value investing, Benjamin Graham, advised in 1934, smart investors look to the market not as a guide for what to do but as a creator of opportunity. The excessive exuberance and panic of others generates mispricings that can be exploited by those who are able to keep their wits about them. For three quarters of a century, this advice has helped a great many value investors become very rich, not quickly, but relentlessly, in good markets and in bad.

After 25 years in business trying to do the right thing for our clients every day, after 25 years of never using leverage and sometimes holding significant cash, we still are forced to explain ourselves because what we do—which sounds so incredibly simple—is seen as so very odd. When so many other lose their heads, speculating rather than investing, riding the market's momentum regardless of valuation, embracing unconscionable amounts of leverage, betting that what hasn't happened before won't ever happen, and trusting computer models that greatly oversimplify the real world, there is constant and enormous pressure to capitulate. Clients, of course, want it both ways, too, in this what-have-you-done-for-me-lately world. They want to make lots of money when everyone else is, and to not lose money when the market goes down. Who is going to tell them that these desires are essentially in conflict, and that those who promise them the former are almost certainly not those who can deliver the latter?

The stock market is the story of cycles and of the human behavior that is responsible for overreactions in both directions. Success in the market leads to excess, as bystanders are lured in by observing their friends and neighbors becoming rich, as naysayers are trounced by zealous participants, and as the effects of leverage reinforce early successes. Then, eventually, and perhaps after more time than contrarians would like, the worm turns, the last incremental buyer gets in, the last speculative dollar is borrowed and invested, and someone decides or is forced to

sell. Things quickly work in reverse, as leveraged investors receive margin calls and panicked investors dump their holdings regardless of price. Then, the wisdom of caution is once again evident, as not losing money becomes the watchword of the day.

Investors should always keep in mind that the most important metric is not the returns achieved but the returns weighed against the risks incurred. Ultimately, nothing should be more important to investors than the ability to sleep soundly at night.