Institutional Risk-Taking: A Management Perspective

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THE CHALLENGE FOR FINANCIAL INSTITUTIONS

The financial "meltdown" of the past three years has caused many of us to take stock of our industry. There is significant discomfort with the viability of the industry's institutional structure and its associated systemic risks. While competition is keen across corporate America, "Wall Street" banks and brokerage firms throughout the U.S. and the rest of the globe have few rivals. If you have followed the speed of change in these businesses for the last four decades, the pace has only accelerated. In 1975, stock commission rates became competitively negotiated, then fell from 17.5 cents to 3 cents per share by the end of the decade. In 1981, listed stock market futures cut the cost of accessing the stock market to one-tenth of a percentage point of the trade value. These futures instruments made it possible to move in and out of the G-10 equity markets in billion dollar amounts, quickly and at low cost.

The big brokerage firms recognized that the profitability of their institutional stock brokerage business was fading. But, they also were experiencing huge increases in trading volume. To handle the volume and stay profitable, they increased their capacity to process electronically and avoided human intervention. Banks and fund managers could route huge stock trading volumes from their desktops directly to their executing broker's floor traders on the NYSE or, better yet, to their own dealing personnel at the exchanges.

In the mid 1980's, competition and innovation abroad proceeded more rapidly as the London Stock Exchange, the French CAC Quarante, the German Tech Exchange, the Tokyo Stock Exchange's third tier stocks as well as other G-10 country exchanges became totally electronic. Simply put, these exchanges accepted bids and offers on a specified amount of shares from authorized dealers operating remotely. These electronic markets provided a transparent, executable schedule of trader orders simultaneously on a computer screen at the exchange and on a trader's office desktop. The key point was not only process efficiency but also that the bid-offer spreads were no longer denominated in quarters and eighths, but in decimals. Although U.S. exchanges held out longer, they too ultimately capitulated to use decimalization under an NYSE ruling of 1998. These innovations and cost efficiencies lowered trading costs for the public, but had a very negative effect on brokerage profits. While the large brokerage firms executed transactions in equities, bonds, currencies, commodities and other traditional asset classes, these capabilities were predominately used to facilitate their more profitable investment banking activities where new corporate equity, bond, mortgage, asset backed, and municipal issues were syndicated.

Of course, the brokerage business has never been a stranger to risk. When new issues are offered, these firms typically have taken risk positions in order to facilitate their distribution. Furthermore they often hedge all or part of the risk by selling futures or options against these long positions. It should be noted that they use their own capital to take both long and short positions. It is at this point where the seeds of the dilemma have always been sewn. Not only have these firms customarily taken unhedged long or short positions, they typically borrow to leverage their risk positions. Perhaps, more importantly, these principal and proprietary account transactions are implemented with very low capital requirement. Thus, the risk assumed in these principal transactions is multiplied many times, rendering them vulnerable to significant economic shocks.

Large banks also have a difficult challenge. They must adhere to regulatory capital requirements and manage an ever-expanding set of diverse profit centers, each with its own regulatory and cultural issues. Since the large broker/dealers have all morphed into banks, banks have even taken a hyperstep beyond the industry integration after the elimination of Glass-Steagall in 1999. Their investment banking, syndication, corporate lending, small business, retail, and mortgage lending activities have expanded aggressively as they have added their proprietary, institutional, and retail brokerage trading businesses. Banks are "global financial institutions" committing capital 24 hours a day, worldwide, through physical cash equity and debt markets, derivative-structured product markets, commodity markets, and many others.

CAN PORTFOLIO RISK BE MANAGED?

Institutional investment managers are charged with managing the risk in their portfolios. Beyond estimating the volatility inherent in portfolio valuations, there is a very large unknown. It is the volatility of the economic system itself. Some call it "tail" risk. Simply put, this is an abnormally negative occurrence that is outside of what would be "normally" expected. For example, a financial institution that is highly concentrated in a particular business could be adversely affected by a resonating economic shock. Depending on the leverage intensity of that business, the "domino effect" would be instantly measured by the market, causing sentiment to change and eroding equity capital across the financial system. In most cases, portfolio managers attempt to diversify their risk by buying into different companies and products that have a variety of sources of demand. Warren Buffet invests in food, financials, rail, furniture, and insurance companies, to name a few. Basically, he is investing in the broad market economy.

Financial institutions are different. They are the lightening rod for systemic risk because they provide liquidity to the system. As market participants globally become instantly "risk averse" and force securities prices down, financial institutions, holding unhedged, financial assets, quickly feel the affects of falling prices on their earnings. To the extent that they use leverage, they must "mark to market" and increase their collateral cushion to the stated regulatory level. The "domino effect" on prices from asset sales will deepen the decline as assets are sold, and impact the value of investment portfolios everywhere! It is not possible to perfectly anticipate where or when economic shocks occur. Simulating the return effects on the portfolio from various economic shock scenarios such as the 1998 Russian bond default where the S&P 500® fell 13% in two weeks, or the "Black Monday" 1987 market crash where the S&P 500® declined 25% in two days are illustrative.

The critical step for pension, endowment, and foundation managers is to consider the funding requirements for pension payouts, university operating costs, or charitable grant commitments. It makes sense to provide liquidity for as much as a three-year decline in the portfolio value in order to avoid the significant opportunity costs associated with liquidating less liquid, long-term holdings at low valuations and high transactions costs. Beyond these planned liquidity requirements, there is the issue of potential drawdown under adverse conditions. Financial products often are highly leveraged themselves, requiring as little collateral as 1% of the notional value invested. Financial and

commodity futures, OTC swaps, and other derivative instruments present attractive opportunities for risk taking for this reason. This additional layer of financial leverage only adds to the challenge of setting an appropriate risk management strategy for the portfolio as a whole.

Liquidity requirements need to be estimated in the case where margin requirements and capital calls would lead to significant impact on portfolio capital should an unexpected negative economic shock occur. For leveraged institutional portfolios, a liquidity strategy with the capacity to meet collateral requirements in extreme scenarios should be planned for events involving three times the estimated portfolio downside volatility, in our view. Although low risk assets do not provide an optimal return on capital, they provide a clear offset to institutional exposures that are concentrated and correlated enough to cause severe liquidity shortfalls. The search for downside risk protection and asymmetric return strategies is not new. There are no surefire ways to mitigate downside risk which do not involve large return sacrifices or very expensive insurance premiums. Those that have been tried also come with associated liquidity and counterparty risks.

ASSET ALLOCATION STRATEGY: THE CRITICAL RESPONSE

Asset allocation policy gives us a reasonable indication of an investor's average risk tolerance and liquidity requirements. The normal policy mix of institutional Investor A (see *Figure 1*) is 50% equity, 40% fixed income, 10% alternatives. The low slung equity return distribution shows a 9% expected return with wide, fat tails. The fixed income return distribution shows a 4% expected return. There is a 5% risk premium of stocks over bonds. We believe the optimal mix, assuming that the investor's risk tolerance is average and his return requirement is 7% per year, would greatly favor equities over bonds at this time, as the 70% equities, 20% fixed income,10% alternatives distribution indicates:

Figure 1: Investor A

This chart is shown for illustrative purposes only; it illustrates a hypothetical investor based on broad asset classes with assumed rates of return and risk tolerances. It does not reflect actual trading and should not be relied upon as investment advice.

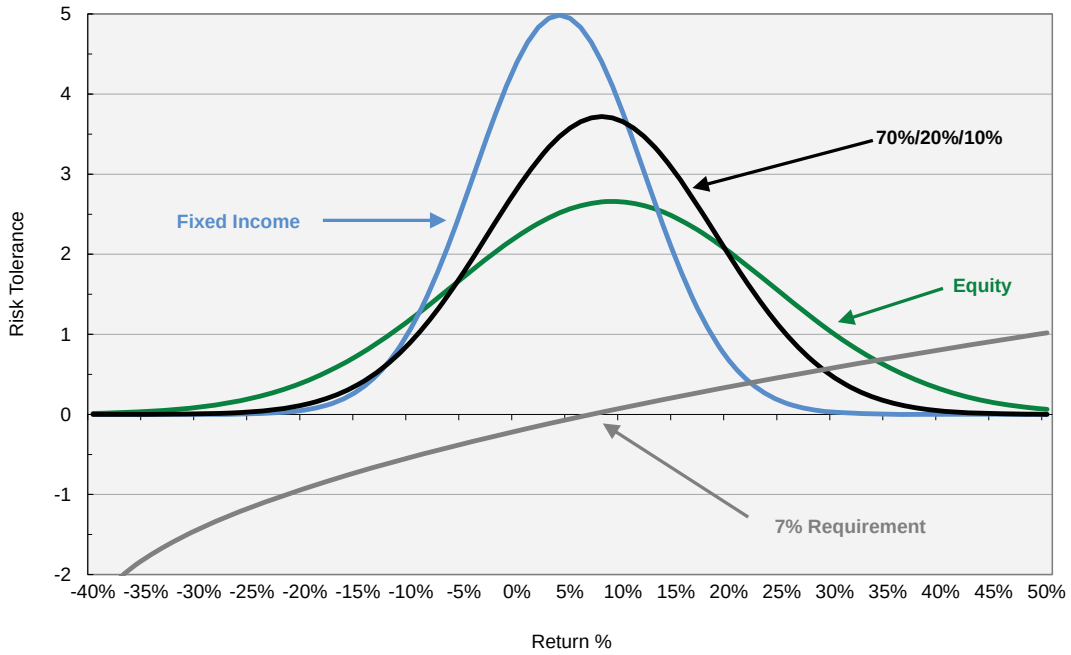
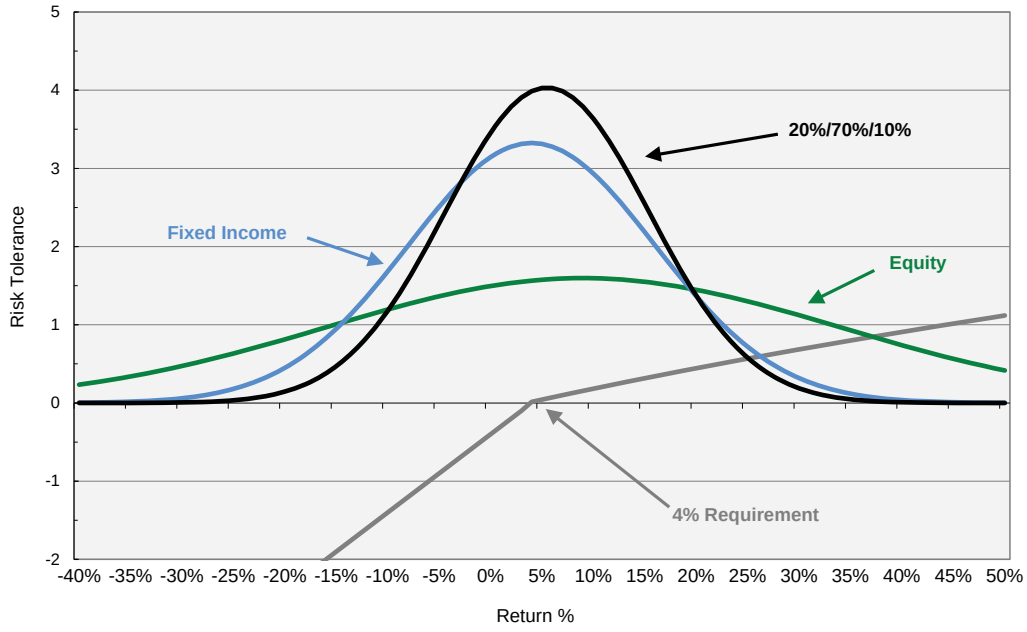


Figure 2: Investor B

This chart is shown for illustrative purposes only; it illustrates a hypothetical investor based on broad asset classes with assumed rates of return and risk tolerances. It does not reflect actual trading and should not be relied upon as investment advice.



While liquidity, regulatory, or return requirements may cause Investor B to be more conservative and allocate differently, there is also the question of how he perceives asset risk and his individual tolerance for risk. The very wide, fat-tailed equity return distribution, shown in *Figure 2*, suggests a greater potential of very negative returns. The concave, U-shaped curve, which is traditionally used to describe the risk tolerance of the risk-averse investor, may also be called into question! Investor B with a 4% return requirement might adopt a more conservative target policy mix of 20% equity, 70% fixed income, 10% alternatives, although his equity and fixed income expected returns and risk premium expectations may be about the same as the more aggressive investor A.

In addition to the increase in perceived risk indicated by the expanded width of the risky equity and fixed income return distributions, the risk-averse investor may become more risk intolerant. In *Figure 2* an expectation of a return below 4% is met with increased risk aversion at an increasing rate. This generally causes investors to avoid the risky, equity assets and to move away from their normal policy mix toward less correlated asset classes such as bonds, cash, and alternatives in order to protect themselves. Of course, these asset classes typically have a lower expected return than equities. Thus, there are associated opportunity costs for failing to meet return requirements. In fact, investors can explicitly reduce this "tail risk" and reduce their apprehension by purchasing "tail risk" insurance, effectively a 10% out of the money put option on the downside risk in their equity portfolio at a typical current cost of about seven percentage points of asset value!

This approach to risk management begs the question of whether the more defensive policy mix reflects a set of statutory risk taking objectives, cultural risk tolerance differences, or simply a transitory change in risk perception and risk taking behavior which will revert to an increasing risk taking posture in the future. The way I like to illustrate the point is through an actual experience. In late 1974, I distinctly remember standing in front of the pension committee at my then-employer, Wells Fargo Bank. Their asset allocation, with a policy mix of 60% equity/40% bonds, had fallen to 40% equity/60% bonds mostly because of the market decline. Then, I showed them the market valuation and recommended that they rebalance back to 60% stocks/40% bonds in prescribed steps. The chief financial officer turned to me and said sharply "Tom, have you ever heard of Gambler's Ruin?" I thought this must mean the folly of buying more equities when they are down with the idea that they will only go lower!

We all can put some metric on equity value. But, it should be compared to the liquid alternatives: bonds and cash. It is apparent that investors are requiring a higher risk premium for equities over bonds and cash than they did when the markets were less volatile. With the risk of equities so high, equities have not looked attractive to investors even at these low valuation levels. Add sharply attenuated risk aversion, and you have a very unappealing scenario for risky assets.

So why did I say risky assets? It doesn't matter to me if it's small stocks, private equity, real estate, or emerging market equities. When the rate at which investors discount future cash flows rises because of illiquidity or fear, risky assets fall in unison. Poorly correlated assets with lower risk offer less return but provide protection. Our job is to help our clients navigate their individual tradeoff between risk and return at any point in time.

The toughest aspect of our job is dealing with an investor's risk tolerance. As many of you know, that becomes dynamic in conditions such as these. Committees are made up of individuals, and an individual's risk aversion seems to vary with market volatility. I get very interested when there is a strong unanimity of opinion like there is today. People simply do not see the catalyst that will turn the market around. My experience through cycle after cycle is that we will only pick out a catalyst after it happens.

Risk tolerance should remain relatively constant, with the exception of a change in liquidity requirements. In other words, set your asset allocation, make carefully controlled modifications based on market expectations, and rebalance towards your target allocation with a well thought out frequency. It pays off!

If you are concerned about the tactical aspects of rebalancing your portfolio, such as determining entry points or trade size and frequency, you can simply allocate a portion of your portfolio to an asset allocation manager. Let's say for example, your target allocation is 50% stocks and 50% bonds and you want no more than 70% stocks and no less than 30% bonds. Simply allocate 20% of the assets to a tactical asset allocation fund that can move from 100% stocks to 100% bonds. Your total portfolio will remain within the 70/30 guideline.

Now that we've discussed the financial landscape and how we might manage portfolio risk, have you rebalanced your portfolio? It's that "Gambler's Ruin" thing, isn't it? Remember, the U.S. market rose 90% over the 1975-1976 period.

BIOGRAPHY

Thomas F. Loeb
Chairman Emeritus and Cofounder
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Thomas F. Loeb is Chairman Emeritus and Co-Founder of Mellon Capital. He has also served as Chairman of the Board of Directors from 2006 to 2010 and was Chief Executive Officer of the firm from its inception in 1983 through 2005.

Tom is a recognized authority on quantitative investment strategies and securities trading research. His investment management career spans four decades. Before co-founding Mellon Capital, he led Wells Fargo's pioneering efforts in index fund management, tactical asset allocation, and enhanced equity strategies between 1973 and 1983. He also introduced equity trading strategies that have been widely accepted by both the investment management and brokerage communities.

In 2008, Tom was recognized by Plan Sponsor Magazine as a "Legend in the Retirement Industry"; Tom received the prestigious Graham and Dodd Plaque for his article "Trading Cost: The Critical Link Between Investment Information and Results." His research results have been reported in William F. Sharpe's Investments textbook. Tom is a noted author of journal articles, including "Is There a Gift from Small-Stock Investing?" published in the Financial Analysts Journal.

Tom is Chairman of the Mellon Capital Risk Management Committee as well as a member of the Board of Directors, Fiduciary Committee and Senior Management Committee.

Tom received his M.B.A. in finance from the Wharton School of Business, University of Pennsylvania.

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