

EUGENE H. ROTBERG

ON RISK TAKING

Informal Remarks: Merrill Lynch Sales Conference

Alas, William Shakespeare's advice notwithstanding, Merrill Lynch services both borrowers and lenders, spenders and savers. Saddled with that responsibility, we do what we can to make ends meet, make friends and influence people. The cliche is that, like others, we are professional advisors who can be relied on to provide expertise, inspire trust and confidence and who, incidentally, sell bonds and stocks in the process while investors, understandably, seek to maximize returns and minimize risks. All True. All true. But between the buyer and seller, we no longer are merely a line of communication -- an agent. Because of the number of products, the thinness of even the deepest markets, we are, as a firm, at risk. The fact is, on a given day, we may have long positions of 30 billion in as many as 40 products whose price fluctuates based on changes in interest rates, and in some very strange ways. Much good stuff has been written about choice, managers, markets, currencies, maturity, engineering. What I would like to do here is comment on some basic -- perhaps more fundamental -- stuff which places our decision-making in some frame of reference and then by way of example, how we cope, in a financial institution, with those risks. The subject really is uncertainty and vulnerability and our capacity to understand the outside world.

Volatility

- I. What has the world's financial system experienced over the last decade or two?
- a. Volatile exchange rates. Yen 360, Yen 170, Yen 320, Yen 150.
 - b. Volatile interest rates. 7%; 15%; 7%; 10% for long-term bonds and 5% to 20% for short-term paper. A market in which the movements over one week was greater than the movement over 10 years (1955-1965).
 - c. Basic changes in world patterns and volumes of financial savings: OPEC; Japan; the Euro dollar market -- and who can move the market.
 - d. Increased government borrowings.
 - e. A great premium on liquidity -- caused in part by market volatility.
 - f. Recession; inflation.
 - g. Increased competition amongst intermediaries for funds (banks, investment banks, non-banks).
 - h. Deregulation -- across borders -- permitting investors to sell their currency and buy another, and more, move their savings to support another country's infrastructure or private sector -- a remarkable development.
 - i. An LDC debt crisis.
 - j. Increased communication links.
 - k. Very high material rewards or compensation for getting it right.

Certainly enough volatility to explain the reasons for most financial innovation and the need for risk management, and that management is the same for ourselves -- no different than for our clients. They, too, are subject to the same pressure -- the same risks.

- II. Given that environment, the code words are innovate, leverage, protection. But the human psyche, and certainly the bureaucratic setting, has not changed. There remains how we cope with financial uncertainty in a competitive world.

- a. We respond to peer pressure. Develop and then sell that magic zero coupon bond with a perpetual maturity so a borrower needs pay neither interest nor principal.
- b. Capture rewards quickly and visibly.
- c. Share blame or responsibility. We seek not to be identified as the provider of unwisdom.
- d. We do not measure opportunities lost. Only visible mistakes are punished. Investments made at 8% when yields rise to 12% are considered a mistake. Those not made at 12% when yields decline to 8% are not so considered.
- e. There remains a reliance on sympathetic accounting conventions. You need not show losses until you sell. Performance measures sometimes are designed to cover-up error.

III. This is the environment we (and you) operate in. Let me share with you, first, a view on financial management.

- a. I cannot predict with a reasonable degree of certainty either interest rates or exchange rates, one day, six months, one year or five years from now.
- b. There is just as much risk in not investing as in investing; in taking positions as in not taking them.
- c. Mistakes will always be made -- many times in executing an investment program or managing risk.
- d. External forces, outside one's control, will limit us and make returns highly unpredictable. Oil prices, recession, exchange rates, protectionism, politics, tax changes.

Under these circumstances, the takers of risk or the providers of advice are subject to a lot of stress and respond in rather predictable ways:

- 1. We look for quantitative support -- for charting, for probabilities, for quantitative analysis, to justify, on an objective basis, our views.
- 2. How much is the loss -- the dread factor. Will we or our client be wiped out if we move too soon or too much.

3. Will we be found out? Discovered. Identified as the wrongdoer -- the recommender of unwisdom.
4. Will we be hassled? By peers, superiors, the bureaucracy.
5. Have we experienced the pain; made mistakes; seen fortunes or lives damaged by unanticipated moves (10% to 16%)? Or, is it referred pain, historical, read about, did we actually experience that sinking feeling? Were you actually on the trading floor when the market moved down 30, up 20, down 50.
6. The herd instinct.
7. The availability of rewards and punishment.
8. Present pleasure -- future pain: let someone else pick up pieces.

My job as a manager of risk is to reduce or eliminate all of the above factors in developing a risk system. The bottom line is that our egos, fears of potential punishment or rewards, the extent to which conventions permit us to cover up or look better than we are, have nothing to do with interest rates, currency movements or the availability of resources.

Now some basic biases about trading -- at least as applied to trading positions:

1. All risk taking should be explicit. We must know how much we are taking -- no matter how complicated the instrument.
2. All opportunities lost should be measured. The cost of not doing business should be known.
3. The best trader is one who can earn a decent return by trading not rates, but spreads; not direction but aberrations in the curve.
4. Traders should be compensated as much for avoiding loss when others lose as for making it when the market turns in his favor.

5. A compensation system which rewards for profitability assumes that compensation -- material rewards -- correlates with being a better trader. I believe it is neutral, at best, and possibly counter-productive to predicting rates.
6. The only perfect hedge is in a Japanese garden.
7. Understanding that we are not as smart as we think we are -- despite bonuses -- is the beginning of wisdom.
8. Doubling our bets is a recipe for disaster in a trading environment.
9. A trader who earns \$50 million profit on a one billion dollar position by predicting and being right on a 5 point market movement is underperforming a trader who makes \$5 million on a \$100 million position when the market doesn't move at all.
10. The trader who avoids a loss of \$50 million and earns nothing while the rest of the market loses \$50 million -- while at the same time servicing clients -- is a gem.
11. Trading/risk taking is not and should not be a proprietary function except under highly specialized and rare occasions. It should service a sales force in response to customer demand -- and if there are losses because of involuntary risk-taking, it must be shared between sales and trading. There are too many products, too much concentrated movement in one direction, too little liquidity, to have it otherwise.
12. There should be a great premium on using analytic work -- quant work product not only for our trading desks, but for our clients and customers. They, too, need to hedge risk, guarantee a bracketed or more certain rate of return. They are as smart as we are, and are under the same pressures. Risk affects us all and in a market in which there is a lot of stress -- and it isn't a one-way street -- admitting to a little vulnerability by hedging, restructuring, insuring, guaranteeing, and using those who are familiar with the more arcane uses of futures, options, rate caps, floors, is not a sign of weakness. It is a sign that we are prepared to learn, use others -- some of whose work product we may not fully understand, even though they talk about stochastic modelling and Markowitz models -- and are more at ease with the numerate

rather than the verbal world. Their work product has been of enormous use in evaluating our own risk, on our own books, and, I believe, will not be less so for our customer base -- who, I am sure are developing their own in-house capacity in these areas. We should talk the same language as they do.

13. Many new instruments have developed because of peer pressure; peer pressure from issuers, from customers and from ourselves. A desire to "keep up." Many are poorly priced with little academic or market rationale. Most innovations have uncertain economic benefit -- they typically involve a sharing of unknown risks for unknown benefit at a price which is simply market clearing. There is a lot of the herd instinct -- by intermediaries, issuers and investors. There is competitive pressure to simply sell the latest instrument for a client or to create the next one whether or not it makes sense, simply because it is market clearing at a cost which appears low compared to some other benchmark. A quality risk taker or risk advisor doesn't sell what he or she doesn't understand.

14. Essentially, innovation reflects the ingenuity to finish the sentence, "I promise to pay you . . ." in a multiplicity of ways: e.g.:

- a. Who are you?
- b. What will you pay?
- c. Is it unknown or known, fixed or floating, or indexed?
- d. When are you paying it?
- e. To whom are you paying it?
- f. Under what circumstances will you pay?
- g. With what kind of extra rights or penalties?

Each of these variables can produce real gains, unreal gains, hide risks, avoid or measure opportunity costs. The objectives are so diverse, unfortunately, they always, one way or another, will let one argue or pretend that the decision was a wise one. Quality sales people and creators of instruments, however, will find it a challenge -- to say the least -- to

find out what is going on and whether it makes sense over the long run. For sure, if a dialogue is opened up between client and sales person, and between investment banker and issuer, "does this really make sense," the base for a better relationship will surely be better established.

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