This program will focus on examining and explaining the existence, management and performance of pools of capital. The program will initially concentrate on three institutions: pension funds, mutual funds, and hedge funds. The approach will be both normative and positive. In addition to portfolio theory, topics will include the theory for the existence of these institutions, models of how they should perform, an examination of how they have performed, and analysis of structural changes that might improve their performance. The objective of the program is to understand how well these institutions have served the needs of the investor and retirement communities and how better they can do so.

—Martin J. Gruber

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- NASDAQ Derivatives Research Project Symposium on Trading Volatility, February 24, 2006
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- Third Annual Credit Risk Conference: Recent Advances in Credit Risk Research (sponsored by Moody’s Corporation), May 16-17, 2006
- NYU Stern and the Financial Community Celebrate Ed Altman’s 65th Birthday and 40 Years at Stern, November 9, 2006
INTRODUCTION

This is the third in a series of newsletters to be issued by the Salomon Center over time. The idea of each of these newsletters is to present a topic of interest to both the academic and business communities and to highlight important research conducted at NYU as well as the academic community in general.

MATTHEW RICHARDSON

This is the second newsletter from the Asset Management Group of the Salomon Center. We intend to publish a newsletter in Asset Management approximately every two years. In each of these newsletters, we intend to feature an article written by either a well-known academic or practitioner; to profile a well-known figure in the field of Asset Management; to summarize some of the recent research being done by associates at the Salomon Center and to list all working papers in the area of Asset Management at the Salomon Center.

In this issue, we include an interesting and provocative article by one of the best-known experts on the design and governance of pension funds: John H. Biggs. In the first Newsletter, we included an interview with the founder of modern portfolio theory, Harry M. Markowitz. Who better to follow Markowitz than another Nobel Laureate, William F. Sharpe? Bill developed both the practical implementation of modern portfolio theory and derived its implications for capital market equilibrium.

We also present summaries of 13 recent papers written by associates of the Center and members of the faculty of New York University. These papers deal with interesting aspects of securities markets and financial institutions.

MARTIN J. GRUBER
FUND SELECTION IN 401(K) PLANS

More than one-third of American workers are enrolled in 401(k) plans, and more than $1 trillion are managed under these pension funds. The role of 401(k) plan administrators is thus crucial for the future wealth of America’s workforce.

In their paper, Participant Reaction and The Performance of Funds Offered by 401(k) Plans (SCAM working paper no. 05-09), Salomon Center Asset Management members Edwin Elton and Marty Gruber, with co-author Christopher Blake, examine the performance of plan administrators in selecting funds offered to plan participants for the first time. They also examine the reactions of plan participants to the decisions of administrators and the results of their choices.

The study finds that, on average, plan administrators select funds that outperform randomly selected funds of the same type when alpha is used as the performance measure in multi-index models. Since alpha, on average, is negative for mutual funds, evaluating the alpha of funds in plans would not be informative. The authors thus introduce another measure, called “differential alpha,” which is the difference between the alpha on each fund in a plan and the average alpha on a random sample of similar funds. Using equal weights on funds in each plan, administrators earn differential alphas of 4.3 basis points per month over a 36-month period. The estimate is significant at the 1% level. When participant weights rather than equal weights are used for each plan, the estimate becomes 3.7 basis points per month. Similar results are obtained over 12 and 36 months. From the study, it seems clear that pension fund administrators possess some skill in selecting better performing funds for their plans.

The authors also find that, when administrators add and remove funds from their plans, they seem to be reacting very strongly to the past performance of the funds. In this test, the differential alpha of a fund prior to addition or removal is used as the main measure. Funds that are added to a plan have a differential alpha above those that are dropped of 19 basis points per month over the three years prior to addition or removal. Although plan administrators add funds that have done well in the past, and drop funds that have done poorly, the dropped funds seem to perform no worse than the added funds after these addition or removal decisions.

The authors then turn to the behavior of participants of the 43 funds in the sample. The weights of the investment choices in a participant’s portfolio might change because of different fund returns, participant contributions to the plan, or transfers among funds. To disentangle the effects of returns from those of transfers and contributions, the authors look for changes in weights because of returns first. The sum of these changes is zero by definition, but the sum of the absolute values of the changes gives an idea of the magnitude of the overall change in weights. To prevent double counting, the authors divide this sum by two, since a positive weight change for one fund implies a negative change of the same amount in total for a set of other funds in the plan. On average, across 228 plan-years, the change in weights due to returns is 4.51%, with a median of 3.79%. Calculating changes in weights because of contributions and transfers, using the same measure, the change in weights is 4.62%, with a median of 3.77%. Transfers are much more important than contributions in determining changes in allocation of plan participants.

Do participants ignore changes in allocation due to changes in return, attempt to restore the changed weights towards starting values, or put more money in investment categories with high past returns? It is shown that, when the change in the weight is positive because of high return from an investment, it is more likely that the weight change resulting from transfers and contributions is also positive. Among 786 investment allocations with a positive weight change because of returns, 541 allocations show further positive weight change because of transfers and contributions. Thus, the change in weights due to returns is about the same size as the change in weights due to participant action. However, since plan participants react strongly to past performance in their allocation decisions, their choice accentuates changes in allocations caused by returns.

When plan administrators add new funds into the plans, participants react in interesting ways. When a new fund of a different type is added to the plan, participants allocate to it up to 58% of the amount they could invest in other options. When the new fund replaces a similar fund in the plan, participants allocate as much as 128%.
Finally, the authors show that participant allocations do no better than several naïve allocation rules, such as investing an equal amount in each investment choice offered by the plan.

-Sadi Ozelge

DO MUTUAL FUND MANAGERS HAVE STOCK-PICKING SKILLS?

Investors currently hold over $3 trillion in U.S. corporate equities through mutual funds, and pay sizable fees to fund managers. A crucially relevant question is whether mutual fund managers possess stock-picking skills that indeed beat the market. Although a number of studies address this question, no consensus has been reached. One difficulty is that to evaluate fund performance, it must be adjusted for risk, leading to the joint-hypothesis problem of the correct risk adjustment and true superior performance.

In Can Mutual Fund Managers Pick Stocks? Evidence from their Trades Prior To Earnings Announcement (SCAM working paper no. 05-02), Salomon Center Asset Management member Jeffrey Wurgler, with co-authors Malcolm Baker, Lubomir Litov, and Jessica Wachter, have come up with a novel way to look at the problem. Instead of using the time series of fund performance, they use returns in the three-day window around the earnings announcement dates of fund holdings, with the idea that daily returns around announcement dates are relatively insensitive to risk-adjustment models. These returns are good candidates for analyzing stock-picking skills, since most earnings announcement returns are unexpected and idiosyncratic.

The authors construct benchmark portfolios containing matched-firm average earnings announcement returns in the same calendar quarter, to control for known associations between earnings announcement returns, firm characteristics (size and book-to-market ratio), and past announcement returns. Thus, the study differentiates fund style from skills. Allowing the benchmark to vary from quarter to quarter increases the power of the analysis. The authors investigate two types of returns above the benchmark return. The first are the average announcement returns of fund holdings. They find that, though the average fund manager does not earn significant returns above the benchmark, cross-sectionally, some funds do earn abnormal returns around announcements. The more interesting and convincing analysis involves the second type, which is the average announcement return following fund trades. Intuitively, if fund managers have superior stock-picking skills, holdings with weight increases should have positive returns, and holdings with weight decreases should have negative returns compared to the benchmark. This is verified in the data.

Concluding that fund managers have some degree of stock-picking skills, the authors investigate whether these skills come from quasi-private information. Comparing fund performance around announcement before and after the October 2000 introduction of Securities and Exchange Commission (SEC) regulations regarding fair disclosure does not clearly indicate that skills are generated by private information. Thus, the authors can say that some fund managers have some degree of ability to assemble and interpret publicly available information.

-Yuanzhi Li

MUTUAL FUND FAMILIES AND INVESTOR RISK

Many 401K and 403B plans offer their investors choices from only a single family of funds, and many investors restrict themselves to one fund family. What are the consequences of this kind of restricted choice structure?

Salomon Center Asset Management members Edwin Elton and Marty Gruber, with co-author Clifford Green, answer this important question in The Impact of Mutual Fund Family Membership on Investor Risk (SCAM working paper no. 05-01). They find that restricting investors to one family of funds causes them, on average, to hold higher risk than they would otherwise.

The driving factor in their finding is that funds within the same family have a higher return correlation than funds from different families. The authors examine two causes for this. First, they find that funds in a family tend to hold the same stocks, which explains a large percentage of the correlation difference. Second, individual fund families tend to contain too many (i.e., much more than one-half) high-risk funds or low-risk funds. The authors hypothesize that this is because funds within the same family share similar strategies, which causes them to be closer to one end of the risk spectrum. Taken together, funds within the same family have more correlated returns than they would otherwise, causing naïve investors, acting on
Dealers provide liquidity to the markets, but they are constrained by the amount of capital they have. When a trader—a dealer, hedge fund, or investment bank—buys a security, he can use it as collateral to borrow against, but he cannot borrow the entire value. The difference between the security’s price and collateral value, denoted as the margin, must be financed with the trader’s own capital. Similarly, short selling does not free up capital; it requires it in the form of a margin. What happens to market liquidity if the dealers themselves suffer from liquidity shocks in their funding?

In Market Liquidity and Funding Liquidity (SCAM working paper no. 05-06), Salomon Center Asset Management member Lasse Heje Pedersen, with co-author Markus K. Brunnermeier, offer an intuitive model that shows how funding trades affects, and is affected by, market liquidity in a profound way. When dealer funding is tight, dealers are reluctant to take on high-margin securities, and thus reduce market liquidity. If margin requirements increase market illiquidity, this can create a “liquidity spiral,” in which lower liquidity leads to higher margins, tighten dealers’ funding further, which further reduces market liquidity, and so on.

The model is similar in spirit to Grossman and Miller (1988), with the new feature that dealers face real-world funding constraints. The authors show that if increased market illiquidity leads to either higher margin requirements or losses on dealers’ existing positions, there are multiple equilibria with differing levels of liquidity. Moreover, in any given equilibrium, there is risk of sudden market liquidity dry-ups. With high dealer capital, markets must be in a liquid equilibrium, and if dealer capital is reduced enough, the market must eventually switch to a low-liquidity/high-margin equilibrium.

Further, when markets are illiquid, market liquidity is highly sensitive to further changes in funding conditions. This is due to two liquidity spirals. A “margin spiral” emerges if margins are increasing in market illiquidity, as a reduction in dealer wealth lowers market liquidity, leading to higher margins, which constrains dealers’ funding further, and so on. A “loss spiral” arises if dealers hold a large initial position that is negatively correlated with a customer demand shock. In this case, a funding shock increases market illiquidity, leading to dealer losses on initial positions. This forces dealers to sell more, causing a further price drop, and so on. The liquidity spirals imply, perhaps paradoxically, that a shock in customer demand for immediacy leads to a reduction in the provision of immediacy in stressful times.

The model also explains the empirically documented features of market liquidity, i.e., that it (i) has commonality across securities, (ii) is related to volatility, (iii) experiences “flight to liquidity” events, and (iv) co-moves with the market. Commonality of liquidity across assets arises when shocks to dealer funding constraints affect all securities. Market liquidity declines as fundamental volatility increases, because fundamental volatility leads to price volatility, which leads to higher margins, making it more capital-intensive to trade. This dissuades dealers from providing liquidity in such securities. Similar reasoning implies that the liquidity differential between high-volatility and low-volatility securities increases as dealer capital deteriorates—a phenomenon often referred to as “flight to quality,” or “flight to liquidity.” Finally, when market-making firms are often long in the market, capital constraints are more likely to be hit during market downturns, explaining why sudden...
liquidity dry-ups occur more often when markets decline.

Interestingly, the authors show that central banks can mitigate market liquidity problems in several ways. If a central bank is better than typical financiers of dealers at distinguishing liquidity shocks from fundamental shocks, then the central bank can convey this information, urging financiers to relax their funding requirements—as the Federal Reserve Bank of New York did during the 1987 stock market crash. Central banks can also improve market liquidity by boosting dealers’ funding conditions during a liquidity crisis, or by simply stating an intention to provide extra funding during times of crisis, which loosens margin requirements immediately.

-Anh Le

RESOLVING THE UNDER-DIVERSIFICATION PUZZLE

Why investor portfolios are so concentrated is an important and outstanding question in finance. This fact challenges standard theory, which stresses the benefits of diversification. Previous empirical studies find that individual investors not only hold too few stocks, but the stocks they hold are positively correlated. Many institutional investors, such as hedge funds, have strategies that concentrate on only one risk dimension. The existing literature lacks a rational explanation for this “under-diversification,” and attributes it to either behavioral bias or transaction costs.

In their paper, *Information Acquisition and Portfolio Under-Diversification* (SCAM working paper no. 05-08), Salomon Center Asset Management member Stijn Van Nieuwerburgh and his co-author Laura Veldkamp propose a new rational explanation for under-diversification. The authors develop a model of investors who choose which securities to learn about before forming portfolios, and show how the interaction between portfolio choice and information choice motivates specialization.

The authors’ key insight is that gains from specialization arise when learning and investment choices jointly reinforce each other. When an investor first chooses to learn about an asset, he expects to hold more of that asset in his portfolio, because he will be better informed about its payoff. As the asset’s expected portfolio share rises, it becomes more valuable to learn about: One signal applied to many shares generates more profit than the same signal applied to one share. This motivates the investor to obtain more information about that asset, making the asset even more valuable to hold. Benefits to specialization thus compete with benefits to diversification, resulting in an optimal portfolio that appears less diversified than standard investment theory predicts, as investors hold some fraction of their assets in a diversified fund, and hold the rest in a set of highly correlated assets.

In equilibrium, information is a strategic substitute, because assets that many investors learn about have low expected returns. Increasing returns to information, combined with strategic substitutability, leads ex ante identical investors to specialize in different information and hold different portfolios.

The authors provide a rationale for the existence of active portfolio management—taking a side in one of the hottest debates in the finance literature. Fund managers choose to concentrate their portfolios because they have information advantages, and they can earn excess returns from such information even when the market is efficient.

The authors also bring investor portfolio choice and asset pricing theory closer to what is observed in the data, using the theory to explain quite a few phenomena that are usually deemed anomalous in the literature. In *Information Immobility and the Home Bias Puzzle* (SCAM working paper no. 05-05), they explain why investors tend to hold a large fraction of home assets in their portfolio. They use the same idea of learning and investment decisions reinforcing each other, but extend the earlier paper by introducing two countries.

Leading explanations for home bias rely on information asymmetry; put simply, investors know more about their home assets. However, such explanations raise the question of what prevents home investors from acquiring information about foreign assets. The authors model an investor who starts out knowing slightly more than foreign investors do about what his home asset payoffs will be. He chooses what assets to learn about, and then, what to invest in. This investor will build on his information advantage because of the increasing returns from specialization. A small information advantage makes a local asset less risky to a local investor. Therefore, he initially expects to hold slightly more local assets than a foreign investor would. But expecting to hold more of the asset makes it more valuable to learn about. Home bias persists not because investors cannot learn what locals know, but because they choose not to; learning more about
what they already know is a more profitable strategy. In the end, even small information asymmetries can generate a large home bias, because investors’ information choices amplify the asymmetries.

The authors also use their framework to explain another portfolio anomaly in Inside Information and the Own Company Stock Puzzle (SCAM working paper no. 05-07). Standard portfolio theory dictates that investors should hold less of financial assets that are positively correlated with their labor income. However, U.S. investors allocate around 30% to 40% of their financial portfolio to equity in the company they work for. The authors add labor income risk to the set of factors about which the investor could choose to learn.

An investor can reduce labor income risk by hedging or learning. Learning allows him to adjust labor effort when compensation is likely to be low. Since labor income and payoff to the company stock are positively correlated, learning about labor income reduces investor uncertainty about company stock returns. This increases the risk-adjusted return of the investor’s own company stock. While motivation to hedge labor income risk makes the own company stock less attractive, learning makes it more attractive. Under certain conditions, employees learn about their firms, and then hold an optimal portfolio containing abundant company stock.

An alternative explanation for the own company stock puzzle is that individuals have an information advantage about their own company. Modeling learning choice allows the theory to explain other empirical regularities as well, such as lower holding of own company stock by an employee when the company is a part of a conglomerate. For an employee of a conglomerate, labor income is less correlated with the conglomerate’s stock payoff. This suggests that learning about labor income provides less information about, and less incentive to hold, the conglomerate company stock.

This sequence of papers contributes to our understanding of the behavior of individual and institutional investors by illustrating how the interaction between investing and learning can dramatically shift investors’ optimal portfolios away from those prescribed by traditional finance theory.

- Zheng Sun and Rik Sen

ESTIMATING CORRELATIONS FOR IMPROVED PORTFOLIO SELECTION

The theory of portfolio choice, pioneered by Harry Markowitz in the 1950s, has had a major impact on finance for both academics and industry practitioners. It allows economic agents to optimally invest under uncertainty in financial assets that may differ in both their expected return and their risks. The word “optimal” is used here in a very precise sense. Under certain conditions, an investor will only care about the tradeoff between the expected return and the variance of her portfolio. However, this variance depends on not only the variance of each individual security, but also the entire correlation structure that the portfolio’s securities share. An informed investor who wants to make an optimal decision thus needs to know the expected returns, the variance, and all the pair-wise correlations of the securities in her portfolio.

Many practitioners assume that they can accurately forecast expected returns and variances, but estimating correlation coefficients between securities can be a challenge, given the large number of parameters that need to be estimated. In Improved Estimates of Correlation Coefficients and Their Impact on the Optimum Portfolios (SCAM working paper no. 05-10), Salomon Center Asset Management members Edwin Elton, Martin Gruber, and Jonathan Spitzer offer new insights on this important issue. They develop and test new techniques that outperform the constant correlation model, one of the best methodologies developed so far. In the constant correlation technique, all correlation coefficients are estimated equal to the historic mean, and its simplicity notwithstanding, previous research has shown that it outperforms competing technologies.

The authors assess the performance of each technique with a variety of different measures. First, forecasts for next-year correlation coefficients are compared to the actual correlation observed during that year, by computing the 52-week sample correlation. A more accurate estimate should induce a manager to choose a portfolio that is close to the true optimum. To account for the costs of selecting a portfolio that is not close to the optimum, the authors also compute the variance of a portfolio chosen based on each correlation forecast. If all portfolios have the same mean, the one with the minimum variance is best.

The authors find that using a five-year moving average correlation and an exponential smooth of the past five-year averages outperforms the AR(1)
model, the constant correlation model, and even the contemporaneous mean over the full sample. They improve their correlation estimates even further by forecasting differences in pair-wise correlations from the average level of correlations within and between groups of firms. They group firms either by industry, or by several firm characteristics that affect the return-generating process of each security. Finally, they show that a simple weighted average of the forecasts discussed above performs even better, especially compared to models explored in previous research. This two-step procedure is robust to different measures of performance, and the differences in the Sharpe ratios of the portfolios selected by using alternative forecasting techniques are shown to be statistically significant.

-Lorenzo Naranjo

LABOR INCOME AND PORTFOLIO CHOICE

Models of portfolio choice that include labor income and use standard utility functions have been unable to match the data on some dimensions. These models find, counterfactually, that young agents choose a higher stock allocation than old agents, that they choose a higher stock allocation when they are poor than when they are rich, and that they always hold some stock.

In their paper, Labor Income Dynamics at Business-Cycle Frequencies: Implications for Portfolio Choice (SCAM working paper no. 04-04), Salomon Center Asset Management member Anthony Lynch, with co-author Sinan Tan, point out that all these models assume that the joint distribution of shocks to labor income and asset returns is independently and identically distributed (i.i.d.). Allowing the conditional joint distribution of those shocks to depend on the business cycle enables the model to generate equity-holding patterns that more closely resemble the data. Young agents with low wealth-income ratios now hold much less stock in their portfolios—so much less, in fact, that they hold less stock than both young, rich agents and old agents, and also hold no stock for a large fraction of the time.

The rationale for the result is as follows. Consistent with economic intuition, the data indicate that mean labor income growth varies pro-cyclically, and its volatility to be high. Thus, the correlation between labor income opportunities and stock returns is positive. Merton (1973) shows how a positive correlation between future investment opportunities and stock returns leads to reduced stock holdings by young agents when they are sufficiently risk averse. This positive correlation between labor income opportunities and stock returns reduces stock holdings by risk-averse young investors in the same way. The effect is more pronounced for poor investors, since future labor income is more important for them.

The paper considers a third channel through which labor income can affect stock holdings. A positive conditional correlation between today’s labor income growth and today’s realized return can reduce equity holdings. This is akin to a diversification channel, and available even when the variables are i.i.d. However, the correlation is positive but small in magnitude, and once it is calibrated to the data, the channel has only a negligible impact on holdings.

The authors also model stock return and dividend yield (the state variable) as a vector autoregression. By setting the parameters to appropriately signed values or to zero, the three channels can be switched on or off, and the incremental effect of each channel can be studied. The investor is assumed to have a constant relative risk aversion utility function. The implied Bellman equation has two state variables: the wealth to lagged permanent income ratio, and dividend yield. The presence of the former complicates the solution.

Mean labor income growth is assumed to be either flat, or, more realistically, age-dependent, and therefore hump-shaped. The hump causes young agents to reduce stock holdings even more aggressively. The paper also considers an unemployment state, the occurrence of which is either i.i.d. or Markov. The Markov model allows for persistence in the unemployment state, a feature considered by other authors. In this model, the incremental effects of the three channels on stock holdings remain the same.

-Andre De Souza
WHAT DO LONG-HORIZON PREDICTABILITY REGRESSIONS REALLY TELL US?

Stock return predictability is a topic of major interest to both academics and asset management practitioners. Studies over the last two decades suggest that long-horizon stock returns are predictable, but short-horizon returns are not. Regressions of one-month stock returns on variables such as dividend yields, term structure slopes, and credit spreads yield unimpressive results. Larger coefficient estimates and substantial explained variation are obtained by increasing the regression horizon, and the literature considers this to be convincing evidence of long-horizon return predictability.

Salomon Center Asset Management members Matthew Richardson and Robert Whitelaw, with co-author Jacob Boudoukh, provide an alternative interpretation of the existing evidence in their paper, The Myth of Long-Horizon Predictability (SCAM working paper no. 05-11). They show that higher regression coefficients and increasing R-squareds are totally consistent with the null hypothesis of no predictability when regressors are highly persistent and there is sampling variation in the short-horizon regression.

This result follows from the statistical properties of multiple-horizon regressions. First, regression coefficients across horizons are almost perfectly correlated when the autocorrelation of the regressor is high. Therefore, long-horizon regressions contain very little additional information relative to their short-horizon counterparts. Second, sampling error in small samples, and a persistent regressor, generate coefficient estimates and R-squared statistics that are almost proportional to the horizon. These results hold even when there is absolutely no predictability of returns. Therefore, the authors warn that drawing inferences from individual coefficient estimates can be misleading, and they advocate using a joint test across horizons to test for predictability.

The authors then apply this test to a variety of predictor variables. For the standard set of predictor variables, including the dividend yield, the term spread and the credit spread, there is little or no evidence of predictability. In fact, the joint tests provide even less evidence of predictability than the short-horizon results alone because the pattern of coefficient estimates and R-squareds are completely consistent with sampling error that is magnified in the long-horizon regressions. However, two newer variables, the equity share of new issuances and the net payout yield, do show significant evidence of predictive power for future stock returns.

-Jaewon Choi

THE COMOVEMENT OF STOCK AND BOND RETURNS

There is evidence of return predictability in the stock market, through variables such as the dividend yield. There is similar evidence for the bond market, through variables such as the term spread between long-term and short-term interest rates, as well as the default spread on corporate bonds. However, very few studies concentrate on the relation between bond return and stock return predictability, or cross-sectional variation in the relation between stock and bond returns.

In their paper, Government Bonds and the Cross-Section of Stock Returns (SCAM working paper no. 05-04), Salomon Center Asset Management member Jeffrey Wurgler and co-author Malcolm Baker focus on how relations between bond returns and stock returns vary in the cross-section of stocks. They find that “bond-like” stocks, such as those of large, mature, dividend-paying companies, co-move to a greater extent with government bonds than do stocks of growth firms, distressed firms, highly volatile firms, or non-dividend-paying firms. They also find that some bond market variables predict returns on bond-like stocks, and that some stock market variables, such as investor sentiment, predict bond returns.

Various explanations for these phenomena are possible. The value of a stock is just the expected real cash flow from the firm, discounted by an appropriate required rate of return. Co-movement could arise due to common shocks, to either the real cash flow from the assets, or the required rates of return. The greater the commonality of shocks between a particular stock and government bonds, the greater the co-movement of prices. Since government bonds have fixed nominal cash flows, the only shock to real cash flows arises from unpredictable business-cycle variations. However, if this is the only explanation, there is still no reason why returns should be predictable: Predictability can only arise if there is co-movement in expected returns.

Co-movement in expected returns could arise because of either variations in rationally required returns, or common changes in sentiment-based mispricing. Rationally required returns themselves
can change only because of changes in the betas or market risk premia, though the authors establish that neither of these change enough to explain the co-movements of bond-like stocks. On the other hand, changes in sentiment do induce predictability in both bonds and bond-like stocks. At times of low sentiment, investors prefer to hold safe assets, pushing up their prices. At times of high sentiment, investors prefer to hold riskier assets, leading to overvaluation and an eventual correction. This induces sentiment-based predictability in both stock and bond returns that varies in the cross-section of stocks.

The authors also analyze flows into and out of different kinds of mutual funds classified on the basis of risk. Some funds, such as bond funds and value funds, behave much more like bonds, while other funds, such as growth funds, behave more like equities. The authors show that in times of low sentiment, flows shift into “safer” funds, while in times of high sentiment, flows shift into “riskier” funds, providing evidence of a sentiment-based channel that gives rise to the co-movement of stocks and bonds. The paper thus finds evidence of an important mechanism that affects retail investor flows, sentiment, and bond and stock returns.

- Amrut Nashikkar

RETURN PREDICTABILITY: NOW YOU SEE IT, NOW YOU DON’T

One of the most persistent questions in finance is whether returns are predictable, with both practitioners and academics taking one side or the other of the debate. Recent research has presented evidence suggesting that returns can be predicted at long horizons by financial ratios, such as the dividend-price ratio, earning-price ratio, book-to-market, and others. However, the high persistence of these ratios can create a false result of predictability when there is none. Also, out-of-sample return predictability is poor and unstable over time.

Reconciling the Return Predictability Evidence (SCAM working paper no. 05-13), by Salomon Center Asset Management members Martin Lettau and Stijn Van Nieuwerburgh, sorts out these issues and proposes some solutions. The authors show that the seemingly incompatible results of conflicting studies regarding predictability can be reconciled by relaxing the assumption that the economy evolves around a fixed steady state. Permanent technological innovations can change the economy’s long-term growth rate; improved risk sharing, changes in stock market participation, changes in the tax code, or lower macroeconomic volatility can decrease the long-term expected return of equity. Such shifts in the steady state cause the means of price ratios to change permanently, implying that the ratios include a non-stationary component.

The appropriate return forecasting specifications do not include non-stationary price ratios themselves, but only stationary deviations from steady states. First, the authors identify regime breakpoints in the behavior of financial ratios. They then compute the adjusted price ratios by subtracting the mean of the ratio for each regime. Finally, they study the joint behavior of returns and adjusted price ratios. Their empirical results conclude that adjusted price ratios are preferable to unadjusted price ratios. Forecasting relations of returns with lagged adjusted price ratios are much more stable over time. Adjusted ratios also have better out-of-sample forecasting power than unadjusted price ratios and naïve models. Finally, they are less persistent and volatile than unadjusted price ratios, suggesting that changes in the steady state account for a fair portion of their overall volatility.

These results suggest that the branch of the literature that supports return predictability and the branch that emphasizes instability and poor out-of-sample forecastability are both correct. According to the authors, returns are predictable, but low-frequency shifts in the means of the price ratios cause the forecasting relation to be unstable, and reduce out-of-sample forecasting power if financial ratios are not adjusted for the presence of permanent shifts in their means.

- Radu Gabudean

WHAT DRIVES FOREIGN DIRECT INVESTMENT?

Many studies have looked at the effects of host country market size, economies of scale, comparative advantage, trade restrictions, and taxes on foreign direct investment. Missing is the effect of stock market misvaluations. If cross-capital market arbitrage is limited, causing overvaluations in some countries and undervaluations in others, then rational managers could use foreign direct investment (FDI) flows to exploit these mispricings.

In Stock Market Valuations and Foreign Direct Investment (SCAM working paper no. 04-05, Salomon Center Asset Management member Jeffrey Wurgler, with co-authors Malcolm Baker and C.
**Fritz Foley**, study the effects of limited cross-capital market arbitrage. Overvalued companies can exploit overpricing through foreign direct investment (FDI) in undervalued assets.

The intuition is similar to the Shleifer and Vishny (2003) model of mergers and acquisitions driven by mispricing. Managers of overvalued companies can benefit current shareholders by issuing new equity at a relatively high stock price, then buying zero net present value assets in foreign markets. The FDI does not enhance or destroy the value of the firm; however, some of the capital raised is effectively transferred from new shareholders to existing ones, thus increasing value for the latter group.

This analysis makes the important assumption that capital markets are not always efficient across borders. Why do hedge funds not simply short-sell source country stocks, and arbitrage away the mispricings? In pursuing such a strategy, fund managers may need to absorb considerable risk that in the short term, mispricing might grow. Combined with margin requirements, this could restrict fund managers’ horizons, and prevent them from correcting misvaluations. Overvalued companies, however, can add value to their current shareholders by acting effectively as arbitrageurs through FDI flows.

The authors perform several tests to examine the central hypothesis that FDI flows are a response to mispricings. They find, first, that high FDI flows are associated with a high overall source country market-to-book ratio, which measures source country overvaluation, and with low future source country returns. The relation between FDI and source country returns is consistent with the notion that mispricings are eventually corrected, and FDI flows that occur because of mispricing should therefore precede low source country returns.

Second, the authors test whether capital controls that limit arbitrage can predict FDI flows. They find that flows are higher when capital controls are stronger, consistent with multinationals performing cross-market arbitrage when investors are unable to do so.

Finally, the authors combine the previous two tests to study the interaction of capital regulations and mispricings. They find that the effect of capital constraints is strongest when source country overvaluations are high.

-Abhishek Mistry
PROFILE: WILLIAM F. SHARPE

WILLIAM F. SHARPE won the Nobel Prize in Economics for his contributions to the theory of price formation for financial assets, the so-called, Capital Asset Pricing Model (CAPM). Few academics have matched his achievement in virtually creating one of the central themes in Finance. William agreed to take part in a short interview for our second volume.

Q. What was the initial reception and impact of your original article on the Capital Asset Pricing Model?

A. The initial reaction was very disappointing. I had concluded that whether the paper was good or bad it was likely to be the best that I would produce. I sat by the phone waiting for people to call but the phone didn’t ring. I decided that my best wasn’t good enough. Only later did I discover that people tend to read journal articles some months or years after they arrive.

Much later in seminars younger people in the field tended to refer to this work as “traditional finance theory”. I took this as a great compliment until I realized that this was a term of opprobrium. But at least the paper had an impact.

The most important conclusion of the CAPM is the idea that expected return is related not to a security’s total risk but to its sensitivity to market moves or, more broadly, to its impact on societal risk. While many empirical and theoretical arguments have been raised against this theorem, I think that most people in the field continue to believe that market risk is related to at least the majority of an investment’s expected return.

Q. Is there any incident or incidents that strike you as either very important or humorous in the early stages of acceptance of your work on capital asset prices?

A. It took two years before my CAPM paper was published. This was due in part to a referee’s recommendation that it be rejected because the conclusions were derived from unrealistic assumptions. Fortunately for me, others disagreed and the paper finally became widely available within the field.

Q. What influenced you to become an economist?
I started as pre-med then switched to business. The first semester I had to take an economics course and an accounting course. I loved one and was not excited by the other (to say the least). The next semester I switched to an economics major and never looked back.

Why economics? I found the use of logic to derive surprising conclusions about the real world from simple assumptions very aesthetically pleasing – almost poetic. And the fact that the results were important for public policy and individual decisions was a great bonus. Practical theory – what a combination.

Q. Who had the most influence on your professional career?

A. Two of my professors at UCLA – Armen Alchian and Fred Weston and one of my colleagues at the RAND Corporation – Harry Markowitz.

Q. How did your life change after you won the Nobel Prize?

A. I receive many more invitations to give talks than before the Prize. Moreover, in many cases the organization tells me that I can speak about anything that interests me – a dangerous idea, I might add. The Prize had no effect on my relations with colleagues; they know that I make as many if not more mistakes now as I did before the ceremony in Stockholm.

Q. What, in your view, is your most underappreciated paper?

A. I guess that I would answer that it is my contribution to the binomial option pricing model. This is my own fault since I only published it in my textbook and told John Cox, Mark Rubenstein and Steve Ross to just mention my work in a footnote rather than include me as a coauthor of their paper. The important thing is that the approach has been widely used, due in large part to the major contributions that John, Mark and Steve made in the paper.

Q. If you were to recommend one book to a young business school graduate, what would it be?

A. For an MBA I suppose it would be a good investments text, of which there are several (modesty precludes me from recommending a specific one.) For a PhD I would recommend John Cochrane’s Asset Pricing.

More specific but eminently readable and enjoyable are Suroweiki’s The Wisdom of Crowds and Taleb’s Fooled By Randomness.

Q. What is your favorite non-academic book and what are you reading now?

A. I don’t really have a favorite single book. I like certain authors such as Roth, Barnes, Doctorow, Le Carre, Greene. At the moment I’m reading Doctorow’s March.

Q. What is your favorite movie?

A. Here too, no single one. I like directors such as Bergman, Antonioni, Ford, Altman. A recent film that I believe people should see is Crash (and I said so before Oprah did).

Q. What is your favorite vacation spot?

A. Relatively nearby: Cabo San Lucas. Farther away, almost anywhere in France.

Q. If you had to choose one hobby what would it be?

A. Performing music (for pleasure).

Q. Which paper in the past decade do you think has had the most impact

A. Another hard question. I like much of the work done by John Cochrane and John Campbell.

Q. What is a typical day in your life today?

A. If we are at our house in Carmel I start by skimming the Monterey Herald, buying the New York Times, taking the dog for a walk along the beach front, then reading the Times. I’m then at the computer (corresponding, writing, consulting, doing research) or on the phone pretty much until six. After that my wife and I have dinner (often out) and watch a movie or TV. If we are in the San Francisco bay area it’s mostly meetings, errands and such.

Q. What is the most interesting project you have worked on in the last five years?

A. I was invited to give a series of three lectures at Princeton in 2005 and then to turn the material into a book for the Princeton University Press. I chose for my topic Asset Pricing and Portfolio Choice. This project has taken on a life of its own and become a bit of an obsession. I have tried to summarize much
of standard finance theory and provide extensions, all in a discrete-time, discrete-state context building on the approach of Ken Arrow and Gerard Debreu. An important part of this was building an equilibrium simulation program that allows a user to create a set of securities and a group of people with diverse positions, preferences and predictions, then have them trade with one another until equilibrium is obtained. This allows one to see the impact on security prices, expected returns, risks and so on.

The bad news is that this turned out to be a daunting project. The good news is that it is almost complete. The simulation program is available now on my web site (www.wsharpe.com) as is most of the near-final manuscript for the book. When the book is available the manuscript will disappear from the site but the program will be there for anyone to use at no cost.

Q. What finance projects are you currently working on?

A. I’ve said that starting in January I plan to specialize in “retirement economics”. This is partly a play on words, but I have started working on a state preference approach to the decisions associated with investing, spending and insuring in one’s retirement years.

Q. What projects do you have planned for the future?

A. Research on retirement economics and maybe a life style closer to retirement than I have achieved thus far.
SPECIAL TOPIC: JOHN H. BIGGS ON OPTIONS AND INSTITUTIONAL INVESTORS

John H. Biggs is Executive-in-Residence at NYU Stern School of Business as well as Executive Fellow in the Executive MBA program for the 2005-2006 academic year. He is the former Chairman, President and Chief Executive Officer of TIAA-CREF. Mr. Biggs became Chairman and Chief Executive Officer in January 1993. Previously, he served as President and Chief Operating Officer from 1989-1993.

Mr. Biggs began his professional career with the General American Life Insurance Company in 1958. He served in various actuarial management positions for the company and in 1970 was appointed Vice President and Controller. In 1977, Mr. Biggs became Vice Chancellor for Administration and Finance at Washington University in St. Louis. He was named President and CEO of Centerre Trust Company, St. Louis, in 1985.

Mr. Biggs earned an A.B. degree in classics from Harvard University, and a Ph.D. in economics from Washington University, St. Louis. He is a fellow of the Society of Actuaries.

Mr. Biggs is a Director of the Boeing Company, JPMorgan Chase Co., and a Trustee of the International Accounting Standards Committee Foundation, Washington University, The Danforth Foundation in St. Louis, The Santa Fe Opera, Chairman of the J. Paul Getty Trust and Emeriti, a not-for-profit sponsor of post-retirement medical benefits for higher education. He is also a Director and former Chairman of the United Way of New York City and the National Bureau of Economic Research.

He is a member of the American Academy of Arts and Sciences, and the Council on Foreign Relations. He is Treasurer of the New York City Investment Fund.

Mr. Biggs has published a number of papers on corporate governance, variable annuities, social security, regulation and taxation of pension plans, and demographic effects on pensions.

Mr. Biggs was born in St. Louis, Missouri and now resides in New York City.

ABUSE OF STOCK OPTIONS: A FAILURE OF INSTITUTIONAL INVESTORS TO PROTECT THEIR FRANCHISE

TIAA-CREF, the pension system, provides lifetime pensions for higher education employees through portfolios of assets, with a major component in US public company stocks. These portfolios were vested through a defined contribution pension plan with the expectation of annuitizing at retirement. The portfolio construction accordingly had a very long point of view, over fifty years for new entrants.

Due to institutional limitations, one of the core asset classes of TIAA-CREF portfolios had to consist of public company stocks. Accordingly we believed we had an interest in the long range improvement in the corporate governance of those companies. We devoted substantial resources to that effort. Strangely we were the only private sector institution that saw the same need to protect their franchise: we were not joined by mutual fund companies, or pension fund managers, or other major institutions. Several public sector pension funds also pushed for improvements as did a few hedge funds with concentrated positions.

As a result of their general passivity, institutional investors stood on the sidelines as the governance and market institutions of public companies took several significant losses in the last decade. Examples are the failure of institutional investors to prevent the state initiated limitations on the market for corporate control in the 1980s. Another is the failure of institutional investors to speak up against the independence compromising actions of the public auditing companies – as well as the shrinkage from Big 8 to Big 6 to Big 5 to now Big 4, with current fear for the survival of even those firms.

Another major failure was the lack of any interest by institutional investors in the extraordinary growth of stock options in the compensation plans of senior management in U.S. public companies. That failure is the subject of this essay.

Another result, I believe, of the governance failure of the major institutional investors, is the decline in the
leading role of U.S. public company stock in asset portfolios. Until the 1990s the core asset class, called “equity”, in most portfolios consisted of U.S. companies (with some international interest for diversification). Since that time there has been significant growth in “alternative assets”, mostly equity like in nature, such as real estate, buy out funds, venture capital, oil and gas production, timber, and particularly hedge funds. The source of funds for these investments has come largely from reallocating investments out of U.S. public equities. In the 1980s it was not unusual to see the best performing university and foundation endowments with 50% and more in U.S. public companies. Today many have less than 20%. The corporate defined benefit pension plans are just wakening to the realization of the substantial extra returns earned by educational endowments on those allocation assets. One can argue that much of this has to do with the growing lack of confidence in the governance of American public companies.

Fixed price stock options dominated executive compensation plans in the 80s and 90s, crescendoing with the stock market bubble in the 90s, with side effects still posing problems for American companies in the following decade.

In the Corporate Governance Policy statement of TIAA-CREF, amended in 2000, two sentences on executive compensation are worth repeating: “The governance of the executive compensation process is a critically important and highly visible responsibility of the board of directors of a corporation. In a real sense, it represents a window through which the effectiveness of the board may be viewed.”

The view through that particular window of boards’ behavior in the 1990s was not a particularly attractive one, for those who cared to look through it.

This essay will attempt to describe the motivation for the overdosing of American business with highly leveraged compensation plans, relying primarily on fixed price stock options. Secondly, the dark side of this powerful incentive will be reviewed. Third, I will attempt a description of superior ways to design an equity-based program, with more thoughtful balancing of risks, rewards and elimination of perverse incentives.

### Motivation for Fixed Price Stock Option

The Conference Board’s report of its Commission on Public Trust and Private Enterprise – a Commission of which I was a member – described the confluence of events on executive compensation as a “perfect storm”. Excessive use of stock options, aided and abetted by a flawed accounting standard, compounded by a perverse incentive created by tax law and a general laxity of boards of directors, coupled with an unprecedented bull market led to the well known excesses: CEO total compensation rising more than threefold from 1992 to 2000, huge payouts to executives of failing companies, misstatement of earnings and doubling of the dilution of stockholders in the just one decade.¹

Paul Volcker, another Commissioner, dissented from what was already a strongly worded report, with a terse paragraph:

> “Given both the very large capricious element inherent in the returns from fixed-price stock options and the distorted incentives for management, I believe the use of such options should be strongly discouraged for public companies. There are far better alternatives for seeking and achieving an appropriate alignment of shareholder and management interests.”

Perhaps the strongest motivation toward overuse of options was the expensing issue. Briefly, the Financial Accounting Standards Board was forced by Congress in the early 90s to back off from requiring companies to expense stock options, which had been gaining in popularity during the stock market rise from 1982 on. Virtually any form of stock award – restricted stock, performance based options (i.e., not fixed price), or premium (out of the money options) or indexed options had to be expensed. The sole exception was the fixed price option. This became a dominating argument in Board rooms for using the fixed price option, in spite of the fact that alternative

arrangements might have more closely linked pay to performance.

It seems extraordinary to me that there were virtually no institutional investors who spoke up to defend the FASB position. Warren Buffet at Berkshire Hathaway was a lonely voice; TIAA-CREF later joined him.

It also became a reason for almost reckless awarding of options by seemingly careless Compensation Committees. Many consultants and many committees not only professed not to know what a stock option was worth but made little effort to find out.

One of the consulting firms, most widely quoted in the media, used for all companies a one third rule for valuing options – i.e., a 1,000 share option at $30, for a face value of $30,000 was worth $10,000. No company characteristics were reflected: a volatile technology stock got one third as well as a dull utility stock. Such numbers were used, when anything was used, to balance a total compensation award with bonuses, salary and other forms of compensation. And of course these surveys became the basis for determining the general market for executive salaries.

Contrast this casual approach to the carefully crafted plans of the buy out firms during the 80s and 90s. In the buyout not only the bonus and stock plans, but also the entire financing structure, were carefully designed to encourage long term value creation. Managers were asked to put up their own money for a share of the equity interest. Options were used carefully to add upside incentive but rarely without some true equity interest by the manager. Paying off short term bank loans, thereby creating long term equity value dominated over a quick pop in the stock price. This strengthened governance model explains not only the superior returns of such funds but also the growing role of private equity in portfolios.

In the early nineties, Congress passed a law with a dramatic “unintended consequence”, section 162 (m) of the tax code, that disallowed deductions of amounts paid over $1,000,000 unless they were based on an objective performance requirement. The fixed price stock option was a perfect response.

Lucian Bebchuk in his book “Pay Without Performance” sees a governance failure on the part of Boards of Directors in permitting a “Managerial Power” model to dominate the expected “Bargaining at Arms Length” between a Board and the CEO. He argues that the windfalls and excesses of fixed price options was one of the results, along with many other abuses of executive compensation.3

There was also a herd instinct supporting the use of fixed price options. It was hard to compete for an executive if the stock option awards were not similar to his former company’s. The easy course for a compensation committee was to copy what everyone else was doing.

But finally the bull market of the 80s and 90s made stock options seem extraordinarily attractive. I suggest that there was even a feedback loop going on: Stock option awards were usually taken in cash and reinvested in a diversified portfolio of stocks; the steady flow of funds helped drive the market higher, making still more CEO’s winners and able to cash in and invest still more.4

There is another extraordinary irony in the fact that 60% of S&P 500 CEO’s compensation packages were in fixed price stock options. There is

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The authors describe several methods to prevent such “windfalls”, i.e., indexing, performance conditioned and premium options and then question why such methods were not used. They acknowledge the significance of the accounting standard problem (which I believe to be the dominant reason) but then argue that this is evidence that the “managerial dominance” model has triumphed over arms-length-bargaining in American’s boardrooms.

4 Robert Shiller in his 2005 edition of Irrational Exuberance, Princeton University Press, on pages 68-81, presents a series of interesting ideas on how feedback mechanisms could create stock market bubbles. It seems to me that since most option gains were taken in cash, and mostly invested as a way to diversify an executive’s concentrated portfolio, that the widespread use of options in the 90’s was probably a significant contributor to “feedback”.

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convincing theoretical and empirical evidence that risk averse CEO’s, with heavy concentrations of company stock, put a substantially lower value on the stock option component than the costs to the companies of those options. Such devaluation seems entirely rational when examined with plausible utility functions but was little known to board compensation committees (and too complex to explain by consultants, if one assumes the consultants were aware of the differential).\(^5\)

Accordingly a spread between cost and value, plausibly of as much as 50%, existed in the majority of the CEO compensation package. The window to the board of directors did indeed reveal a room filled with smoke and fog.

**The Dark Side of Options**

Paul Volcker’s word “capricious” is apt for the “performance” rewards of fixed price stock options.

I had a personal experience when I was a young rising executive and received my first stock option award. I asked a shrewd senior executive friend and board member what I should make of this option. His answer: “not much. It is worth something, but who knows. Its pay off will probably have nothing to do with your performance or that of the company”. I thought him a bit cynical. But the company, had some bad problems I did not know about, it was bought out in a hostile takeover, and my option paid off gloriously as it did for all those senior to me who had created the problems. So much for performance.

More generally, events exogenous to the company had very large effects on stock option pay offs. Consider just one example: the dramatic drop in interest rates from 1982 to 2000. We left the inflation of the 1970s with long term government bonds providing a 14% coupon. Similar bonds had dropped to 4% by 2000. Such a change had direct and powerful effects on all asset prices and certainly on stock values. All executives benefited from this “exogenous” effect on their company’s value.

The optimism of the country was raised significantly by the fall of the Berlin Wall, and global economies advanced as trade policies were liberalized. Many other explanations for the exuberant markets of the 80s and 90s can be given that were not driven by high performing executives of public companies. Many might cite, instead, the results that high performing executives in private companies achieved through the monitoring and financing of companies by buy-out firms, and, that excellent performance in turn challenged the leadership of all public companies.

Another dark side of fixed price stock options is the perverse effect of encouraging excessive risk taking by management. Only the upside matters in a stock option since there is no existing value for the executive to protect. The incentives are very different from those of a stock owner: The owner has a balanced view in desiring growth in value but not at the risk of losing his existing value.

In Martin Lipton’s September 6, 2005 Wachtell, Lipton, Rosen and Katz “Thoughts for Boards of Directors in 2005” comments on Director Compensation that “In the current environment, restricted stock grants, for example, may be preferable to options grants, since stock grants will align director and shareholder interests more directly and avoid the perception that option grants may encourage directors to support more aggressive risk taking on the part of management to maximize option values”.

The executive with 50% or more of his pay coming in stock options (common in the 90s) and no actual stock ownership was incented to take on high risk projects or acquisitions or leverage the company to a much lower investment-grade or take other means to “gun the company”. Some see the incentive to force the financial reporting as especially dangerous. The intent in making extreme fixed price option awards may have been to encourage long term value creation. But the reality is very high pressure to produce immediate results. And furthermore, if the high risk strategies fail, you give the company back to the shareholders, with its depleted stock price. Another obvious incentive created by substantial percentage of stock options in senior executive compensation is to reduce or eliminate the company’s dividend. A dollar paid as a dividend reduces the value of the company stock by roughly a dollar (of course, there may be other signaling effects of dividend changes, that would have short term impacts). Is it any surprise that we saw in the 80s and 90s a significant growth in stock options along

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\(^5\) See “ Stock Options for Undiversified Executives,” Brian Hall and Kevin Murphy in *Journal of Accounting and Economics* 33 (2002) 3-42. Using Bloch-Scholes as the cost for the company, and a plausible, robust utility function for the executives, value to cost ratio ranged form 21.1% for more risk averse, highly invested in company stocks to 63.5% for those with less risk aversion and smaller existing positions in the company stock. See Table 1 on page 12.
side a dramatic decline in the rate of corporate dividend payouts?

The very large and capricious payouts to some executives in some companies under fixed price options had a powerful secondary effect in driving up executive compensation in general. I worked for a mutual life insurance company at one time and a non-profit pension system at another and we had no stock to use for optioning. The result was that our compensation committees and, we in management, sought ways to remedy that deficit with substantial add-ons in other forms of executive compensation. This effect pervaded the market for executive talent.

Also, even in public companies, if your stock performed badly so that options had little payout, management and boards would find other ways to make employment attractive. The result: rising salaries and bonuses, more generous pension arrangements, ingenious long-term incentives related to non-stock financial measures such as direct accounting results, RONA, ROE, and growth in cash flow.

Perhaps the darkest side of the overdosing in stock options is the incentive to manipulate financial reporting to influence stock prices in the short run. Several studies have shown a relationship between financial restatements and or even actual fraud, and the extent of stock options in the senior management compensation package.\(^6\)

A Better Approach

Management and Boards of Directors of public companies need a more comprehensive and thoughtful approach to executive compensation. Sarbanes-Oxley punitive measures and the empowered audit committees of boards were our immediate response to the abuses of the 90s. However, they are not a good answer for finding ways to assure our incentive structures are directed toward long term value creation of our companies.

I believe focusing the issue exclusively on the compensation committee of the board is also a mistake. The financial structure of the firm may be as important as the compensation plan in setting objectives. A company that prefers a conservative balance sheet is sending a conflicting message with a compensation plan loaded with stock options. And, vice versa. Dividend policy, growth objectives, strategic issues in the company environment, all must be reflected in a well designed incentive structure.

More narrowly, the compensation committee surely should use equity based compensation but they should think much more carefully about the powerful implicit incentive aspects of the plans. At the most basic level, they should know what they cost.

Perhaps the most powerful way to align executives with shareholders and long term value creation is through asking the managers to make personal investments in the stock. This is done almost always in buy outs organized by outside financial firms. Such commitments can then be sweetened with stock options or restricted stock awards. However, it is unlikely that public companies can recruit outsiders with such a requirement. But do Boards ever try to get such a commitment?

Surely there should be a requirement for growing stock ownership by managers. Any kind of stock award plan should include such a requirement.

Restricted stock awards have a precise and direct relationship to “ownership”. The executive has an exactly matching relationship to the existing shareholder. If the risky investment fails, the executive loses; if it succeeds, his benefit is similar to the shareholders. If the dividend grows, so does the executive cash flow. He has no incentive to eliminate an obvious economic benefit to himself. In short, the executive has a balanced set of incentives – he wants growth, he does not want to lose his wealth; he prefers cash to stock appreciation (taxes are now neutral), and he can use the cash to diversify his ownership portfolio, so dividend growth is good.

The plan should provide a considered development of executive wealth over a likely career term. If a new CEO has a likely 10-year run, then the board should project out where he will be at the end of that run.

For example, if a total compensation package is $5,000,000 a year (low by current standards for Fortune 500 companies), the simple structure might

be $1 million in salary, $1 million as mean value of a performance based bonus with a restricted stock award of $3,000,000 (with some deferred vesting for retention and tax purposes). The stock award may have performance requirements, although performance requirements introduce “complexity”, “gaming the system” and “caprice”. Substantial performance requirements also reduce the expected value of the award so that a competitive award has to be much higher thereby creating more leverage and risk taking. Assume the company pays a dividend of 3% of the market value of the stock, or $90,000 a year (a relatively high number today). Making no allowances for inflation or growth in the business, in current dollars this would provide $2,000,000 in current income for ten years (to live on and to pay taxes on vested deferrals) and $30,000,000 in equity in the stock after ten years, on which there would be a $900,000 a year dividend in the tenth year. In addition the executive would have a pension of, say, 50% of his current income or $1,000,000 having a present value of roughly $10 to $12 million. All of this is in current dollars. Of course with good performance there would be significant growth, net of inflation, in the value of the stock, the dividend rate, the salary and pension. This would be a most significant “wealth building” motivation, closely aligned with investor interests. Isn’t this, in total, an attractive wealth building strategy?

Such a system is surprisingly simple compared to many executive compensation systems in existence. It is also probably not competitive in the current market for recruiting an outside CEO. But could it not be used for an executive rising through the ranks? After a few years of success, the non-vested equity portions would give substantial protection to the company from outside offers. Wouldn’t Bechuk’s “Arms Length Bargaining” board consider it as a possibility?

Note that the risk profile established in this case would line up precisely with the shareholder interests. No incentive exists for reckless risk taking. Yet the incentive for growth in the company’s long run value is commensurate with the desire of the shareholder.

The financial policies of the company can easily fall in line with this situation. Reasonable conservatism in the balance sheet, along with taking advantage of low cost debt capital is consistent with reasonably risk averse shareholders.

Such a plan would also keep the plans for management and line employees reasonably consistent. Stock options might be attractive as a more leveraged incentive for those employees not involved in influencing strategy and financial policy. Such a use of stock options is widely adopted in technology companies, which may be a good compensation policy but leads such firms to put an excessively high value on an accounting standard that make such payments “free”.

Boards of directors need to consider what their present shareholders want and attempt to meet their objectives – frequently conflicting. Or they may wish to go in a different direction, and wish to signal to shareholders a new view. Part of the “brand” of the company should be a reasonably well articulated position on their financial plan. A clear compensation system is an excellent way to articulate that position, to management and to shareholders. But surely mindless use of stock options signals little.

**Conclusion**

There is a great deal of ferment and change in executive compensation. Most of that change is driven, I believe, by the fact that companies will now have to expense stock options. At a fundamental accounting policy level, this demonstrates the benefit of transparent reporting of earnings. I suspect that in five years there will be few executives with half their compensation package in fixed price stock options. Dividend rates will grow. Perhaps there will also be moderation in the total value of executive compensation (particularly CEO) and more acceptance by the public that our system is fair.

Perhaps with the effects of Sarbanes-Oxley, with a new more disciplined regime in executive compensation, there may be a return to confidence in public companies. Mutual fund companies and investment management firms that specialize in common stock investing will see their franchises somewhat protected. The better long range solution for them is to anticipate needs for governance reforms before blow ups.
Evidence of stock return predictability by financial ratios is still controversial, as documented by inconsistent results for in-sample and out-of-sample regressions and by substantial parameter instability. This paper shows that these seemingly incompatible results can be reconciled if the assumption of a fixed steady-state mean of the economy is relaxed. We find strong empirical evidence in support of shifts in the steady-state and propose simple methods to adjust financial ratios for such shifts. The forecasting relationship of adjusted price ratios and future returns is statistically significant, stable over time, and present in out-of-sample tests. We also show that shifts in the steady-state are responsible for the parameter instability and poor out-of-sample performance of unadjusted price ratios that are found in the data. Our conclusions hold for a variety of financial ratios and are robust to changes in the econometric technique used to estimate shifts in the steady-state.


The forward premium anomaly is one of the most robust puzzles in financial economics. We recast the underlying parity relation in terms of cross-country differences between forward interest rates rather than spot interest rates with dramatic results. These forward interest rate differentials have statistically and economically significant forecast power for annual exchange rate movements, both in- and out-of-sample, and the signs and magnitudes of the corresponding coefficients are consistent with economic theory. Forward interest rates also forecast future spot interest rates and future inflation. Thus, we attribute much of the forward premium anomaly to the anomalous behavior of short-term interest rates, not to a breakdown of the link between fundamentals and exchange rates.


The prevailing view in finance is that the evidence for long-horizon stock return predictability is significantly stronger than that for short horizons. We show that for persistent regressors, a characteristic of most of the predictive variables used in the literature, the estimators are almost perfectly correlated across horizons under the null hypothesis of no predictability. For example, for the persistence levels of dividend yields, the analytical correlation is 99% between the 1- and 2-year horizon estimators and 94% between the 1- and 5-year horizons, due to the combined effects of overlapping returns and the persistence of the predictive variable. Common sampling error across equations leads to ordinary least squares coefficient estimates and R²s that are roughly proportional to the horizon under the null hypothesis. This is the precise pattern found in the data. The asymptotic theory is corroborated, and the analysis extended by extensive simulation evidence. We perform joint tests across horizons for a variety of explanatory variables, and provide an alternative view of the existing evidence.


To implement mean variance analysis one needs a technique for forecasting correlation coefficients. In this article we investigate the ability of several techniques to forecast correlation coefficients between securities. We find that separately forecasting the average level of pair-wise correlations and individual pair-wise differences from the average improves forecasting accuracy. Furthermore, forming homogeneous groups of firms on the basis of industry membership or firm attributes (e.g., size) improves forecast accuracy.

Accuracy is evaluated in two ways: First, in terms of the error in estimating future correlation coefficients. Second, in the characteristics of portfolios formed on the basis of each forecasting technique. The ranking of forecasting techniques is robust across both methods of evaluation and the better techniques outperform prior suggestions in the literature of financial economics.

Edwin J. Elton, Martin J. Gruber and Christopher R. Blake, “Participant Reaction and the Performance of Funds Offered by 401(k) Plans,” October 2005. SC-AM-05-09

This is the first study to examine both how well plan administrators select funds and how participants react to plan administrator decisions. We find that on average administrators select funds that outperform randomly selected funds of the same type. When administrators change offerings, they choose funds that did well in the past, but after the change deleted funds do better than added funds. Plan participants react strongly to past performance in their allocation decisions. This accentuates the changes in allocation caused by returns. Participant allocations do no better than naive allocation rules such as equal investment in each offering.


We develop a rational model of investors who choose which asset payoffs to acquire information about, before forming portfolios. Scale economies in information
acquisition lead investors to specialize in learning about a set of highly-correlated assets. Knowing more about these assets makes them less risky and more desirable to hold. Benefits to specialization compete with benefits to diversification. The resulting asset portfolios appear under-diversified from the perspective of standard theory, but are optimal. In equilibrium, information is a strategic substitute because assets that many investors learn about have low expected returns. Increasing returns, combined with strategic substitutability, leads ex-ante identical investors to specialize indifferent information, and hold different portfolios. Information choice rationalizes investing in a diversified fund and a set of highly-correlated assets, an allocation observed in the data but usually deemed anomalous.


U.S. investors allocate 30-40% of their financial asset portfolio in the stock of the company stock they work for. Such a portfolio flies in the face of standard portfolio theory, which prescribes that an investor should hold less of a financial asset that is positively correlated with her undiversified labor income. Nevertheless, we propose a rational explanation that prescribes a long position in own company stock. Precisely because the own company stock is positively correlated with the investor's labor income, any information the investor learns about her earnings is a partial information advantage in her own company stock. When confronted with a choice of what information to acquire, employees may choose to learn about their own firm. Learning lowers the employee's risk of holding own-firm equity, which raises its risk-adjusted returns and makes a long position optimal.


We provide a model that links a security's market liquidity - i.e., the ease of trading it - and traders' funding liquidity - i.e., their availability of funds. Traders provide market liquidity and their ability to do so depends on their funding, that is, their capital and the margins charged by their financiers. In times of crisis, reductions in market liquidity and funding liquidity are mutually reinforcing, leading to a liquidity spiral. The model explains the empirically documented features that market liquidity (i) can suddenly dry up (i.e. is fragile), (ii) has commonality across securities, (iii) is related to volatility, (iv) experiences "flight to liquidity" events, and (v) comoves with the market. Finally, the model shows how the Fed can improve current market liquidity by committing to improve funding in a potential future crisis.


Many explanations for home or local bias rely on information asymmetry: investors know more about their home assets. A criticism of these theories is that asymmetry should disappear when information is tradable. This criticism is flawed. If investors have asymmetric prior beliefs, but choose how to allocate limited learning capacity before investing, they will not necessarily learn foreign information. Investors want to exploit increasing returns to specialization: The bigger the home information advantage, the more desirable are home assets; but the more home assets investors expect to own, the higher the value of additional home information. Even with a tiny home information advantage, and even when foreign information is no harder to learn, many investors will specialize in home assets, remain uninformed about foreign assets, and amplify their initial information asymmetry. The more investors can learn, the more home biased their portfolios become. The model's predictions are consistent with observed patterns of foreign investment, returns, and portfolio flows.


We document that U.S. government bonds comove more strongly with "bond-like stocks"-stocks of large, mature, low-volatility, profitable, dividend-paying firms that are neither high growth nor distressed. This pattern may be caused by common shocks to real cash flows, rationally required returns, or flights to quality in which drops in investor sentiment increase the demand for both government bonds and bond-like stocks. Consistent with both the required returns and sentiment channels, we find a common predictable component in bonds and bond-like stocks. Consistent with the sentiment channel, we find that bonds and bond-like stocks comove with inflows into government bond and conservative stock mutual funds.


The objective of this paper is to provide a deeper insight into the links between financial markets and the real economy. To that end, we study the short-term anticipation and response of U.S. stock, Treasury, and corporate bond markets to the first release of U.S. macroeconomic information. Specifically, we focus on the impact of these announcements not only on the level, but also on the volatility and comovement of those assets' returns. For that purpose, we estimate several extensions of the parsimonious amended GARCH model of Engle (2002) for the excess holding-period returns on seven portfolios of these asset classes. We find that the process of price formation in the U.S. financial markets appears to be driven by fundamentals; yet, "excessive" volatility and comovement play an important role in return dynamics as well. Further, our analysis reveals a statistically and economically significant dichotomy between the reaction of the stock and bond markets to the arrival of unexpected fundamental information. However, we also show that stock and bond returns tend to react to the expected component of these announcements. This evidence casts some doubts on the efficiency of the U.S. financial markets with respect to widely anticipated and tracked releases of

We measure the stock-picking skill of mutual fund managers based on the returns realized around the subsequent earnings announcements of the stocks that they hold and trade. Relative to standard methodologies, this approach exploits the most informative segments of the returns data and ameliorates the joint hypothesis problem inherent in tests of stock-picking skill. Consistent with skilled trading, we find that, on average, stocks that funds buy earn significantly higher returns at subsequent earnings announcements than stocks that they sell. According to our measures of skill, certain funds perform persistently better than others, and the best performers tend to have a growth objective, large size, high turnover, and use incentive fees to motivate managers.


Many investors confine their mutual fund holdings to a single fund family, either for simplicity or through restrictions placed by their retirement savings plan. We find evidence that mutual fund returns are more closely correlated within than between fund families. As a result, restricting investment to one fund family leads to a greater total portfolio risk than diversifying across fund families. The increased correlation is due primarily to common stock holdings, but is also more generally related to families having similar exposures to economic sectors or industries. Fund families also show a propensity to focus on high risk or low risk strategies, which leads to a greater dispersion of risk across restricted investors. An investor considering adding an additional fund either inside or outside the family would need to believe the inside fund offered an additional 50 to 70 basis points in return to achieve the same Sharpe ratio.


We outline and test two theories of foreign direct investment based on capital market mispricing. The "cheap assets" or "fire-sale" theory considers FDI inflows as the purchase of undervalued host country assets, while the "cheap financial capital" theory views FDI outflows as a natural use of the relatively low-cost capital available to overvalued firms in the source country. The results are consistent with the cheap financial capital theory: FDI flows are unrelated to host country stock market valuations, as measured by the aggregate market-to-book-value ratio, but are strongly positively related to source country valuations and negatively related to future source country stock returns, especially when capital account restrictions limit cross-country arbitrage.


A large recent literature has focused on multiperiod portfolio choice with labor income, and while the models are elaborate along several dimensions, they all assume that the joint distribution of shocks to labor income and asset returns is i.i.d. Calibrating this joint distribution to U.S. data, these papers obtain three results not found empirically for U.S. households: young agents choose a higher stock allocation than old agents; young agents choose a higher stock allocation when poor than when rich; and, young agents always hold some stock. This paper asks whether allowing the conditional joint distribution to depend on the business cycle can allow the model to generate equity holdings that better match those of U.S. households, while keeping the unconditional distribution the same as in the data. Calibrating the business-cycle variation in the first two moments of labor income growth to U.S. data leads to large reductions in stock holdings by young agents with low wealth-income ratios. The reductions are so large that young, poor agents now hold less stock than both young, rich agents and old agents, and also hold no stock a large fraction of the time. Our results suggest that the predictability of labor-income growth at a business-cycle frequency plays an important role in a young agent’s decision-making about her portfolio's stock holding.

that individual managers do engage in this trading behavior, particularly when they form part of a team within a large decentralized money management operation and are compensated in the form of an annual bonus based on performance. This result is broadly consistent with the theoretical and empirical results of the principal agent literature which highlight the adverse consequences for the long term objectives of principals where agents are compensated based on observable short term performance. It is also consistent with recent results from the behavioral finance literature which suggest that agents narrowly focus on individual security gambles independent of overall portfolio value considerations.
CONFERENCES

Forthcoming

HEDGE FUNDS ACTIVE INVESTING STRATEGIES: FROM DISTRESSED TO PRIVATE EQUITY (sponsored by Droege & Comp., Inc/NYU Stern Salomon Center), February 15, 2006

NASDAQ DERIVATIVES RESEARCH PROJECT SYMPOSIUM ON TRADING VOLATILITY, February 24, 2006

NASDAQ DERIVATIVES RESEARCH PROJECT SYMPOSIUM ON TRADING CORRELATION, April 21, 2006

THIRD ANNUAL CREDIT RISK CONFERENCE: RECENT ADVANCES IN CREDIT RISK RESEARCH (sponsored by Moody’s Corporation), May 16-17, 2006

NYU STERN AND THE FINANCIAL COMMUNITY CELEBRATE ED ALTMAN'S 65TH BIRTHDAY AND 40 YEARS AT STERN, November 9, 2006

Recent

NASDAQ DERIVATIVES RESEARCH PROJECT SYMPOSIUM ON CREDIT DERIVATIVES, January 27, 2006

NYU STERN FIVE-STAR CONFERENCE ON RESEARCH IN FINANCE, December 2, 2005

FEDERAL RESERVE BANK OF NEW YORK/NYU STERN SALOMON CENTER CONFERENCE FINANCIAL INTERMEDIATION, November 18, 2005

IXIS-NYU BANKING CONFERENCE SERIES: HEDGE FUNDS, September 30, 2005

THE TRANSFORMATION OF OPTIONS TRADING: IN CELEBRATION OF ISE’S 5TH ANNIVERSARY, May 10, 2005

RESEARCH CONFERENCE FOR CORPORATE ASSOCIATES, April 1, 2005

FINANCIAL ECONOMETRICS: IN CELEBRATION OF ROBERT ENGLE’S WORK, 2003 NOBEL LAUREATE IN ECONOMICS, September 30-October 1, 2004

THE CREDIT MARKET: RECENT ADVANCES IN CREDIT RISK RESEARCH, May 19-20, 2004
Moody’s Corporation and the Salomon Center, NYU Stern School of Business are pleased to present the Third Credit Risk Conference, at which leading academic experts and market practitioners will discuss recent advances in credit risk research. Papers will be presented on the latest developments in credit risk analysis, followed by the opportunity to interact with delegates representing academic and leading financial institution.

CONFIRMED SPEAKERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tr>
<td>Myron Scholes</td>
<td>Stanford University</td>
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<td>Timothy Geithner</td>
<td>President, Federal Reserve Bank of NY</td>
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<td>Viral Acharya</td>
<td>London Business School</td>
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<td>Edward Altman</td>
<td>NYU Stern School of Business</td>
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<td>Jeffery Bohn</td>
<td>Moody’s KMV</td>
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<td>Mark Carey</td>
<td>Federal Reserve Board</td>
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<td>George Chacko</td>
<td>Harvard University</td>
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<td>Pierre Colli-Dufresne</td>
<td>UC Berkeley and Goldman Sachs</td>
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<td>Kent Daniel</td>
<td>Northwestern Univ. and Goldman Sachs</td>
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<td>Joost Driessen</td>
<td>University of Amsterdam</td>
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<td>Darrel Duffie</td>
<td>Stanford University</td>
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<td>Jan Ericsson</td>
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<td>Lorenzo Garlappi</td>
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<td>Jens Hilscher</td>
<td>Brandeis University</td>
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<td>John Hull</td>
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<td>David Katzman</td>
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<td>David Lando</td>
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<td>Francis Longstaff</td>
<td>University of California, Los Angeles</td>
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<td>Stephen Schaefer</td>
<td>London Business School</td>
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<td>Tyler Shumway</td>
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<td>Kenneth Singleton</td>
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<td>Roger Stein</td>
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<td>Raghun Sundaram</td>
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<td>Suresh Sundaresan</td>
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<td>Alan White</td>
<td>University of Toronto</td>
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REGISTRATION

Click here for fax registration form
Click here to register online

EVENT LOCATION

NYU Stern School of Business
Schimmel Auditorium, Upper Concourse
40 West 4th Street, New York, NY 10012

Hotel accommodations will be held at local hotel at discounted rate. Check back soon for more information.

FOR MORE INFORMATION

PHONE: 212.998.0700
FAX: 212.995.4220
2006 Droge-NYU Stern Salomon Center
Active Investing Conference

HEDGE FUNDS ACTIVE INVESTING
STRATEGIES: FROM DISTRESSED
TO PRIVATE EQUITY

February 15, 2006
The Helmsley Park Lane
36 Central Park South
New York, NY

Conference Agenda

1:00 Registration and refreshments

1:30 Welcome remarks:
   - Markus Lahrkamp, President, Droge & Comp., Inc.

1:45 Opening address
   Topic: CURRENT CONDITIONS IN THE
   DISTRESSED DEBT MARKET AND
   OUTLOOK FOR 2006/2007
   Speaker: Edward Altman, Salomon Center, NYU
   Stern School of Business

2:15 PANEL: ACTIVE INVESTING IN
   DISTRESSED SITUATIONS—TRENDS,
   OPPORTUNITIES, AND OUTLOOK
   Chair: Allan Brown, Concordia Advisors
   Panelists:
   - David J. Breazzano, DDJ Capital Management
   - Max Holmes, Plainfield Asset Management
   - Thomas Steiglehner, Silver Point Capital
   - Michael Stewart, The Carlyle Group Leveraged Fund

3:30 Refreshment break

3:45 Special address
   Topic: SHAREHOLDER VALUE CREATION
   THROUGH ACTIVE INVESTING
   Speaker: Carl Icahn, Icahn Investments

4:15 Keynote address: TOPIC: PAST, PRESENT
   AND FUTURE OF PRIVATE EQUITY
   INVESTING
   Speaker: Thomas H. Lee, Thomas H. Lee Capital

5:00 Refreshment break

5:15 PANEL: ACTIVE INVESTING AND ASSET
   CLASS CONVERGENCE - HEDGE FUNDS
   AND PRIVATE EQUITY

Chair: Mark Patterson, MatlinPatterson Global Advisers
Panelists:
- Josh Brain, Angelo, Gordon & Co.
- Chinh Chu, Blackstone Private Equity Group
- Kevin Richardson, Prides Capital
- Clifton Robbins, Blue Harbour Group
- Daniel Stern, Reservoir Capital

6:30 Cocktail Reception
Futures, options, swaps and other derivatives play a major role in managing exposure to market risk, i.e., fluctuations in the market price of an underlying risky asset. But banks and many other financial institutions have traditionally been more worried about credit risk. Their primary concern is that a borrower will default on a loan, or the issuer of a bond they own will go bankrupt, not that an adverse change in interest rates will reduce the value of that loan or bond in the market. So it is not surprising that credit default swaps and other credit derivatives that offer a simple and direct means for managing credit risk represent one of the most important financial market innovations since the invention of the interest rate swap.

The NASDAQ Derivatives Research Project is very pleased to present a symposium on credit derivatives featuring three speakers, each of whom has an extraordinarily broad knowledge of this exciting area, from theoretical research at the highest level to execution strategies on the trading desk.

Registration: Admission is free, but please RSVP to the Salomon Center (salomon@stern.nyu.edu, 212-998-0700)
The conference brought together finance researchers from several northeastern universities. We invited colleagues at all schools in the northeast, and others interested in current finance research, to a day of research presentations in finance. Faculty from each of the program participant schools presented one of the papers on the program.

Registration and Continental Breakfast

Introduction
Matthew Richardson, Director, NYU Salomon Center

Opening Remarks
Peter Garber, Global Strategist, Deutsche Bank

Chair: Kose John, New York University

“No-Arbitrage Macroeconomic Determinants of the Yield Curve,” Ruslan Bikbov and Mikhail Chernov, Columbia University

Discussant: Stijn Van Nieuwerburgh, New York University

Refreshment Break

Chair: Geert Bekaert, Columbia University

“Market Liquidity and Funding Liquidity,” Markus K. Brunnermeier, Princeton University and Lasse Heje Pedersen, New York University

Discussant: Charles Jones, Columbia University

Refreshment Break

Chair: Franklin Allen, University of Pennsylvania

“The Myth of Long-Horizon Predictability” Jacob Boudoukh, Matthew Richardson and Robert F. Whitelaw, New York University

Discussant: Motohiro Yogo, University of Pennsylvania

Refreshment Break

Chair: Matthew Spiegel, Yale University

“Back to the Beginning: Persistence and the Cross-Section of Corporate Capital Structure,” Michael L. Lemmon, University of Utah, Michael R. Roberts, University of Pennsylvania, and Jaime F. Zender, University of Colorado at Boulder

Discussant: William N. Goetzman, Yale University

Reception
THE NEW YORK CITY AREA
CONFERENCE ON FINANCIAL
INTERMEDIATION

November 18, 2005
NYU STERN SCHOOL OF BUSINESS

(A conference jointly sponsored by the
Federal Reserve Bank of New York and the Salomon
Center)

Registration and continental breakfast

OPENING REMARKS
Alexander Ljungqvist, Director, NYU Salomon Center
Financial Institutions Research Project

MORNING SESSION
Chair: Anthony Saunders, New York University

Adam Ashcraft, Federal Reserve Bank of New York
Hoyt Bleakley, University of California at San Diego
“On the Market Discipline of Informationally-Opaque
Firms: Evidence from Bank Borrowers in the Federal
Funds Market”

Discussant: Kenneth Ayotte, Columbia University

David Gaddis Ross, New York University
“On Bankers and their Incentives”

Discussant: Donald Morgan, Federal Reserve Bank of
New York

Refreshment break

João A.C. Santos, Federal Reserve Bank of New York
Andrew Winton, University of Minnesota
“Bank Loans, Bonds, and Information Monopolies
across the Business Cycle”

Discussant: Enrichetta Ravina, New York University

Lunch

AFTERNOON SESSION
Chair: Ingo Walter, New York University

Linda Allen, Baruch College, CUNY
Aron A. Gottesman, Pace University
“The Informational Efficiency of the Equity Market as
Compared to the Syndicated Bank Loan Market”

Discussant: James Vickery, Federal Reserve Bank of
New York

Yingjin Hila Gan, University of Pennsylvania
Christopher Mayer, Columbia University and NBER
“Conflicts of Interest and Securitization”

Discussant: Harrison Hong, Princeton University

Refreshment Break

Victoria Ivashina, New York University
“The Effects of Syndicate Structure on Loan Spreads”

Discussant: Daniel Paravisini, Columbia University

Drinks Reception
IXIS/NYU STERN BANKING CONFERENCE SERIES

HEDGE FUNDS

September 30, 2005
NYU STERN SCHOOL OF BUSINESS

Registration & Continental Breakfast

OPENING REMARKS

Luc de Clapiers, CEO, IXIS Capital Markets
Thomas F. Cooley, Dean, NYU Stern School of Business
Michael H. Steinhardt (Steinhardt Management LLC)

HEDGE FUND PERFORMANCE

Chair: Stephen J. Brown, NYU

“Market Price of Variance Risk and Performance of Hedge Funds,” Oleg Bondarenko, University of Illinois at Chicago

“Share Restriction and Asset Pricing: Evidence from the Hedge Fund Industry,” George O. Aragon, Arizona State University


HEDGE FUND PANEL: HOW TO VIEW PERFORMANCE

Moderator: Marti Subrahmanyam, NYU

Clifford S. Asness, AQR Capital Management
Rajiv Soht, Vega Asset Management
Eric Wepsic, D.E. Shaw

HEDGE FUND EVALUATION PANEL: WHAT TO LOOK FOR IN A HEDGE FUND

Moderator: Eric Raiten, IXIS Capital Markets

Kent Clark, Goldman Sachs Group, Inc.
Thomas Strauss, Ramius Capital Group
Donald Sussman, Paloma Partners

Lunch Speaker: Myron S. Scholes, Chairman, Oak Hill Platinum Partners, 1997 NOBEL LAUREATE on “Systemic Risk and Hedge Funds”

RISK MANAGEMENT

Chair: Michel Crouhy, IXIS Capital Markets

Francis X. Diebold, University of Pennsylvania, on "Measuring Volatility"

Robert F. Engle, NYU, 2003 NOBEL LAUREATE, on "Measuring Downside Risk"

RISK MANAGEMENT PANEL

Moderator: Robert Litterman, Goldman Sachs Asset Management

Robert H. Litzenberger, Azimuth Trust
Thomas Daula, Head of Global Risk, Morgan Stanley
Eduardo Canabarro, Global Head of Quantitative Risk Management, Lehman Brothers

Refreshment Break

HEDGE FUND DEBATE: IS IT ALPHA OR BETA?

John Cochrane, University of Chicago
Sanford J. Grossman, Quantitative Financial Strategies, Inc.

Reception & Dinner

Dinner Speaker: Alan Blinder, Princeton University on “Regulation and Hedge Funds: Mixing Oil and Water?”
THE TRANSFORMATION OF OPTIONS TRADING

SPONSORED BY IAFE
IN CELEBRATION OF ISE'S 5TH ANNIVERSARY

May 10, 2005
NYU STERN SCHOOL OF BUSINESS

Registration & Continental Breakfast

Welcome
Thomas F. Cooley, Dean, NYU Stern School of Business

Opening Remarks
Robert F. Engle, Director, Center for Financial Econometrics, NYU; 2003 Nobel Laureate in Economics

THE STORY OF THE ELECTRONIC OPTIONS MARKET
David Krell, President & CEO, International Securities Exchange

PRICE DISCOVERY moderated by Joel Hasbrouck (NYU)

“The Information in Option Volume for Future Stock Prices”
Allen Poteshman (University of Illinois), discussed by Marc Lipson (University of Virginia)

“Price Discovery in the U.S. Options Market”
Liuren Wu (Baruch College), discussed by Robert Jennings (Indiana University)

Refreshment Break

Panel Topic - TRADING VOLATILITY moderated by Peter Carr (Bloomberg LLP)

Pav Sethi (Citadel Derivatives Group)
Emanuel Derman (Columbia University; Head of Risk, Prisma Capital Partners)

Q&A

Lunch
Keynote Address by Stephen A. Ross, Professor, MIT; IAFE Senior Fellow

OPTION DEMAND moderated by Marti Subrahmanyam (NYU)

“Demand-Based Option Pricing”
Lasse Pedersen (NYU), discussed by Andrea Buraschi (London Business School)

Differences of Opinion of Public Information and Speculative Trading in Stocks and Options”
Hui Ou-Yang (Duke University), discussed by Oleg Bondarenko (University of Illinois at Chicago)

“Market Fragmentation Metrics”
Stewart Mayhew (University of Georgia; SEC), discussed by Eric Sirri (Babson College)

Panel Topic - OPTION MARKET DESIGN: ALTERNATIVE STRUCTURES moderated by Menachem Brenner (NYU)

Charles Tall (Co-founder, Archelon Trading)
Chester Spatt (Carnegie-Mellon University; SEC, Chief Economist)

Q&A

Reception
RESEARCH CONFERENCE FOR CORPORATE ASSOCIATES

April 1, 2005
NYU STERN SCHOOL OF BUSINESS

Registration & Continental Breakfast

I: ASSET MANAGEMENT BUSINESS

“The Economics of Asset Management”
Matthew Richardson and Robert Whitelaw, New York University

“Fees on Fees in Funds of Funds”
Stephen Brown, New York University

Q&A

II: ASSET ALLOCATION

“Asset Allocation in 401K Plans”
Edwin Elton and Martin Gruber, New York University

“Testing and Valuing Dynamic Correlations for Asset Allocation”
Robert Engle, New York University

Q&A

III: TRADING

“Individual Investor Sentiment and Stock Returns”
Gideon Saar, New York University

“Trading Costs and Returns for US Equities: Evidence from Daily Data”
Joel Hasbrouck, New York University

Q&A

Refreshment Break

IV: THE CREDIT MARKET

“Informational Efficiency of Loans versus Bonds: Evidence from Secondary Market Prices”
Edward I. Altman and Anthony Saunders, New York University

“How Should We Discount the Costs of Financial Distress?”
Heitor Almeida and Thomas Philippon, New York University

Q&A

V: GLOBAL MACRO

“The Stock Market and Investment: Evidence from FDI Flows”
Jeffrey Wurgler, New York University

“The Information in Long Maturity Forward Rates: Implications for Exchange Rates”
Matthew Richardson and Robert Whitelaw, New York University

Q&A

VI: CROSS-SECTION OF ASSET RETURNS

“Why is Long-Horizon Equity Less Risky? A Duration-Based Explanation of the Value Premium”
Martin Lettau, New York University

“Investor Sentiment and the Cross-Section of Stock Returns”
Jeffrey Wurgler, New York University

Q&A

Lunch
The **NYU Salomon Center** was founded in 1972 as a vehicle for focusing high quality research attention on the global financial services industry and its principal institutions. Among its activities, the Center develops new research sources for financial analysis; conducts high profile conferences for academics, practitioners and regulators; and distributes newsletters to the relevant community highlighting important research developments in specific areas covered by the Center. The Center benefits from an outstanding external academic board, including **Myron Scholes** (1997 Nobel Laureate in Economics and past AFA president), **Sanford Grossman** (1987 John Bates Clark Medal in Economics and past AFA president), and **Robert Litzenberger** (past AFA president).

Currently, the center, under the direction of **Matthew Richardson**, is involved in seven research initiatives, each run by a Stern School of Business professor:

- **Asset Management** directed by **Martin J. Gruber** (Chairman of CREF Board and past AFA President) – focuses on examining and explaining the existence, management and performance of pools of capital, concentrating on institutions such as pension funds, mutual funds, and hedge funds.

- **Financial Econometrics** directed by **Robert F. Engle** (2003 Nobel Laureate in Economics) – focuses on the application of econometrics to the field of finance with special attention to the development of techniques for risk management, derivatives pricing, and market performance.

- **Macro Finance** directed by **Thomas Sargent** (Senior Fellow at Hoover Institution) – focuses on the interaction between the macroeconomy and financial markets.

- **Credit and Debt Markets** directed by **Edward I. Altman** (past FMA President) – focuses on the efficient functioning and dynamic nature of the world’s credit and debt markets.

- **Derivatives Research Project** directed by **Stephen Figlewski** (Founding Editor, *Journal of Derivatives*) – focuses on theoretical and applied research on derivative instruments and markets, risk management and financial engineering.

- **Corporate Governance** directed by **David Yermack** – focuses on interactions between managers, shareholders, debtholders, and other groups such as auditors, bankers, and government regulators.

- **Financial Institutions** directed by **Alexander Ljungqvist** – focuses not only on ‘traditional’ banking questions, such as the regulation of commercial banks and the monetary transmission channels between the banking sector and the real economy, but also on the role and efficiency of investment banks and private equity funds in helping companies raise capital.

The Center funds its activities through the support of **Corporate Associates**. (See front cover for a current list.) For a nominal annual fee that is tax deductible, corporate associates receive several benefits beyond philanthropy towards one of the preeminent research centers in finance. Specifically, they are provided (i) free attendance at high profile conferences held by the Center (examples of which are provided on pages 28 to 31), (ii) unique access to Stern faculty via periodic internal conferences in which faculty and associates discuss and present research developed for each initiative, (iii) timely delivery of newsletters and other reports of the Center, (iv) advertisement as a sponsor in newsletters and links via the Center’s website, and (v) free access to certain data outputs from the Center. For example, the Credit and Debt Markets program maintains a monthly time-series of indices on defaulted bond and bank loan prices since the 1980s that is available free of charge to associates. With the recent development of a database facility, this type of offering is an expanding part of the Salomon Center.

If you would like more information, please contact us at **Corporate Associates Program, Salomon Center, NYU Stern School of Business, Suite 9-160, 44 West 4th Street, NY, NY 10012**; telephone number *(212) 998 – 0700*; fax: *(212) 995-4220*; email address salomon@stern.nyu.edu