AN EXAMINATION OF US DOLLAR RISK MANAGEMENT BY CANADIAN NON-FINANCIAL FIRMS

In an efficient capital market or under the restrictive assumptions of Modigliani and Miller, hedging by itself would not be expected to enhance the value of the firm. However, when one considers the various market frictions, hedging at the corporate level may be justified. Studies, such as Allayannis, Ihrig and Weston (2001), suggest that financial hedging is value maximizing if it is combined with operational hedging. Pantzalis, Simkins and Laux (2001) have demonstrated that it is also important to view the operational hedges as significantly determining exchange rate risk by taking into account both the breadth and depth dimensions of MNCs’ foreign subsidiaries.

While the extant literature in foreign exchange risk management by non-financial firms is diverse, comparatively few studies explore this issue in relation to Canadian non-financial firms. Jalilvand (1999) used corporate hedging explanations to examine observed differences in the use of derivatives by Canadian non-financial firms. The current study, however, examines the US dollar risk management practices of Canadian firms. Specifically, we examine the issue if US dollar risk management by Canadian firms is risk reducing and value enhancing.

This study has analyzed the impact of US$ exchange rate risk management by Canadian non-financial firms traded exclusively in Canadian markets and that have a sales of $100 million and higher in 2001. We hand collect financial and operational hedging information from financial footnotes from the 2001 annual reports of the sample firms, which provide information for 2000 and 2001 on required information.

The results demonstrate that Canadian firms that have higher level of US sales tend to use derivatives more frequently and encounter higher levels of US$ exposure. However, firms with both US sales and assets appear less likely to use financial hedging. Moreover, firms that have a US subsidiary and use financial instruments to hedge US dollar risk have higher value than all other firms. Overall, the paper finds that the use of operational hedging in conjunction with financial hedging of US dollar risk by Canadian non-financial firms is value enhancing. On the average it enhances market to book ratio by over 14% and market value to sales ratio by over 40% compared to an average firm. Even after controlling for size, the incremental value impact of financial and operational hedging is about 7%. The study has two major contributions. First, this is the first study that examines the US dollar risk management by Canadian firms. Second, it documents that it is important to hedge US dollar risk for the firms that have US exports. However, firms are better off implementing both operational and financial hedging of US dollar risk.
FINANCING RETIREMENT IN AUSTRALIA AND CANADA: DEMOGRAPHIC CHALLENGES TO FUNDING SUPERANNUATION /PENSIONS

Australia and Canada display similarities in demography and institutional arrangements on pension systems. In both nations, the Baby-boom, increasing longevity, and declining fertility have resulted in ageing populations. When combined with rising life-style expectations, the rising old-age-dependency ratio is increasing demand for social expenditure in Australia and Canada and the need for institutional financial planning and reform. This study analyses how changing demography challenges retirement funding, examines current issues and basic pros and cons of the existing retirement systems and suggests policy changes. Among the suggestions: it may be useful to reduce the many administrative layers to a single authority that would control the entire superannuation/pension system. Improving employee access to and choice of their pension plan is desirable and has been done in other jurisdictions. Pension plan design can influence a household’s financial decisions outside of the plan. Employees with options to choose their investments are in the position to increase their investment knowledge and are capable of investing well in stocks outside of their retirement plans. A single tax system would simplify the market for pension contributors. Diversification across funds gives investors an opportunity to reduce the risk of fraud and operational risks. Limiting the restrictions to borrow against superannuation and pension plan enhances investment options for employees. Extending the working life adds to the retirement contribution, while reducing the need for draws. Multi-skilling, higher education, easy access to technological know-how, and flexibility makes deferring retirement and finding post-retirement work easier.
The paper empirically examines the theoretical model of Mossman and Rakhmayil (2004), who provide economic reasoning for the empirical relationship between stock returns and firm attributes such as size and book-to-market ratio. First, we find evidence of firm convergence towards the maximum profitability size. Second, we find that an increased growth rate of technology is associated with an increase in optimal size of firm capital. Fama and French (1992, 1993, 1995) relate stock returns to firm characteristics and provide an intuitive explanation why firm attributes may proxy for firm risk sensitivities. In our theoretical model we provide an economic argument why this may be the case, and in this paper we find supporting evidence using methods different from those of Fama and French, while still arriving at the same general conclusions that firm characteristics reflect the firm’s sensitivity to the macroeconomic environment.
TESTING FOR CO-MOVEMENTS BETWEEN CANADIAN STOCK PRICE INDEXES

In this paper, we test for co-movements (or cointegration) between the TSX Composite Index and the TSX Venture Composite Index of Canadian stock prices. The investigation is conducted using two different unit root tests using daily data covering the period from December 10, 2001 to February 6, 2004. An additional objective of the study is to test for causality between the two indexes. The results suggest that although each series has a unit root, the two series are not cointegrated indicating that there is no significant long-run relationship between them. The results show, however, that there is evidence of unidirectional causality from the TSX Composite Index to the TSX Venture Composite Index.
AN APPLICATION OF FAMA AND FENCH (1999) TO THE
ASIA-PACIFIC REGION, 1993-2001

Fama and French’s (1999) IRR method is applied to Australia, Korea, Malaysia, New Zealand and Thailand from 1993–2001. Return on value and return on cost, real and nominal, vary over time between countries. Variations are ascribed to privatization, market development, globalization and the Asian Financial Crisis.
EXAMINING THE RANDOM WALK HYPOTHESIS FOR NORTH AFRICAN STOCK MARKETS

This article examines the random walk hypothesis for most active stock markets in North Africa by testing for linear and nonlinear dependencies in daily returns of Egyptian and Tunisian major stock market indices; CASE 30 and the BVMT. We apply the McLeod-Li test, Engel test and BDS test to discern whether the dependence processes, if revealed, are exclusively linear, or whether we should consider some inherent nonlinearity. The empirical results reject the random walk hypothesis indicating nonlinear structure in the series. Further investigation shows that the rejection is due to high persistent conditional heteroscedasticity, a feature that seems to characterize thin stock markets. Furthermore, we find FIEGARCH(1,1) model capable of capturing all inherent nonlinearity dependence in the Egyptian index; however, a GARCH-Two-Components model favored by model selection criteria to several GACRH type models, yet does not fully account for the nonlinear structure in the Tunisian Index series. This is a call for a more flexible model to capture the complex linearity exhibited by the Tunisian data and illustrates how it is inappropriate to use linear model to forecast future asset price changes, at least where emerging markets are concerned.

JEL classification: G14; G15
Keywords: Random Walk, Nonlinear Dynamics, Conditional Volatility
AN ANALYSIS OF HIGH-TECH MERGERS DURING THE BUBBLE

The S&P500 index rose by an average of 26% between 1995 and 1999. However, even this stellar performance was far less than the 42% returns earned by the NASDAQ composite index, which was dominated by high-tech firms. Subsequently, in 2000, the market, as measured by the broad based S&P 500, fell by almost 11%. As compared to that, the high-tech dominated NASDAQ composite index fell by about 41%. These changes, in the way investors perceive high-tech firms, may have affected the desirability of high-tech firms as targets for acquiring firms.

In their analysis, Kohers and Kohers (2000) find that bidders that acquire high-tech targets between 1987 and 1996 earn positive abnormal returns. They conclude that the growth opportunities possessed by these targets drive the apparent value creation by these transactions. In light of the significant changes in the market’s perception of these firms, it is unclear whether these results would persist in subsequent years. In addition, it is unclear if these results are driven by overoptimistic investors or are backed up by superior performance from the merged entities.

In this paper, we complement prior research by looking at the overall trends in high-tech acquisitions. We find that the number of mergers involving high-tech targets increases steadily from 13 in 1981 to 822 in 1999. Following the crash, there is a sharp decline in the level of activity, and in 2001, we observe only 419 high-tech acquisition announcements. In spite of this decline, over one-third of the mergers continue to involve high-tech targets.

We then analyze the change in the abnormal returns before and after the stock market crash in 2000. To the extent that the investors downgraded their expectations with respect to the future performance of high-tech firms, they would also evaluate these mergers less favorably than before. Consistent with this hypothesis, we find that for a sample of bidders from 1996 – 2003, the abnormal returns earned by the bidders are lower after 2000. In order to further understand the context of such a change, we examine the changes in the accounting-based performance measures of the bidders that completed such acquisitions. In terms of the accounting performance, we find that for mergers completed between 1996 and 2001, the acquisition of a high-tech target is accompanied by deterioration in the performance of the bidders as captured by its profitability and asset turnover ratios. Overall, we conclude that the superior performance of such acquisitions was based, at least in part, on unrealistic expectations of their growth opportunities. The market crash in 2000 forced a revaluation of such growth opportunities and high-tech acquisitions were no longer perceived by investors as value-enhancing actions.
LÉGITIMITÉ ET STRATES GOUVERNEMENTALES
UNE TYPOLOGIE DE LA GOUVERNANCE

Cet article de conceptualisation s’attache à construire un modèle de gouvernance reposant sur une logique de légitimité utile au dirigeant. Pour y parvenir, nous relisons les arrangements managériaux comme un ensemble complexe d’équilibres coopératifs (Aoki, 1982) entre différentes catégories de parties-prenantes (Freeman et Reed, 1983) qui sont autant de strates de gouvernance. La première strate est ainsi une gouvernance actionnariale qui assure un équilibre entre les différents actionnaires portés par des logiques variées et des horizons de gestion distincts. La deuxième strate est une gouvernance partenariale (Charreaux et Desbrières, 1998) dont l’objectif est de gérer les contributions à la réalisation du processus productif apportées par les partenaires socio-économiques. Enfin, la troisième strate est citoyenne : la gouvernance s’applique optimiser les externalités du projet stratégique rejetées dans les environnements social et naturel.

Ces trois niveaux de gouvernement d’entreprise sont couplés avec les travaux de Suchman (1995) qui fixent trois formes de légitimité liées aux conventions sociales ou individuelles, en référence aux individus qui font ou subissent l’action : la légitimité pragmatique, la légitimité cognitive, et la légitimité morale. Ainsi, le noyau stratégique peut se positionner dans une typologie des gouvernances et, selon les déséquilibres constatés, mettre en œuvre des actions de correction visant à établir un gouvernement équilibré, cohérent, vecteur de pérennité, de développement et de durabilité. Il s'agit d'une situation où un consensus s’instaure autour de la légitimité du noyau stratégique. Cette légitimité est un facteur d’adhésion, stimule le développement, constitue le ciment qui permet aux agents d’accepter des sacrifices et donne un sens au projet.

Mais si le projet économique et gouvernement d'entreprise sont deux aspects d'une même réalité avec pour pierre angulaire la légitimité, le projet n’est que le résultat de l’intention stratégique modelée par un décideur dont la légitimité se confond avec celle de l’entreprise. Dans cette construction, le noyau stratégique a un rôle central en développant un pouvoir de légitimation. L'entreprise en tant que projet managérial devient légitime lorsque ses activités s'ajustent à un système socialement construit de normes et de conventions qui définissent les actions considérées comme acceptables par les actionnaires, les partenaires et la société. Cet objectif d’asseoir une légitimité pour le pouvoir des managers auprès d’agents dont les attentes et perceptions sont si différentes est alors emprunt de complexité.
Firms rely on two main sources of financing for their investment projects. First, they rely on internal sources of financing such as shareholders capital and retained earnings. Second, firms also rely on external sources of funding such as loans obtained from banks in the credit market. It is reasonable to think that the transactional costs associated with external financing increase during stressing episodes. According to theory, it is also reasonable to think that during these periods, the borrowing constraints of firms may increase (Calmès 2004a), driving the cost of loans to a higher level and, in some situations, also reducing the supply of loans (Sigouin 2003). The reduction in the aggregate supply of loans may also be the result of the decision of all banks to rebalance their portfolio in favour of safer assets. Then, a natural question arises. Is there any evidence of banks behaving more homogenously during episodes of economic stress?

Typically, the bank manager has to solve a signal extraction problem and to determine the optimal portfolio allocation between loans and securities. He knows that the expected returns from loans are higher compared to those of riskless securities. He thus determines an appropriate level of risk-return, and rebalances the composition of assets from time-to-time to maintain this desired level. At times of greater macroeconomic uncertainty, loans still provide a higher return than securities. However, default is more likely. In this situation, the risk perceived by bank managers may exceed the desired threshold level of risk-return, and therefore the bank managers may reduce the loan portion of the portfolio and increase its security holdings. By doing so, all banks can react in a similar manner to aggregate shocks such as tighter monetary policy or greater macroeconomic uncertainty.

The contribution of this paper is to provide empirical evidence that banks exhibit such a herding behavior. Evidence of this type of behavior has already been documented for the U.S. by Baum et al. (2002). In their paper, the authors present a simple model where the portfolio of assets of banks is allocated between loans to the private sector and other less risky assets. Banks not only respond to monetary policy measures, but also to the level of macroeconomic uncertainty in the economy. Following these authors, we investigate the extent to which Canadian banks alter the composition of their asset portfolios in response to increased macroeconomic volatility. We test whether or not the relationship between the cross-sectional variance of the loan-to-asset ratio of Canadian banks is negative with respect to a measure of macroeconomic uncertainty.

We find that this is the case: a herding behavior seems to prevail in the Canadian banking system too.
REGIONAL AND NATIONAL HOUSING PRICES IN CANADA:
AN EMPIRICAL INVESTIGATION

In this paper, we investigate the main determinants of National and Regional House Prices in Canada. We model trend national prices in a consumption choice model whereby prices depend on relative prices and total household expenditure in an Almost Ideal Demand System (AIDS), implemented in an iterative seemingly unrelated regression system. We also test for co-integration between the new housing price index and our estimate of its equilibrium level. Our findings so far suggest a reasonable ability of the model to capture the main features of national prices. An additional objective of the study is to test for the main determinants of regional prices relative to national price levels by considering Provincial per capita incomes, unemployment rates, macroeconomic commodity price shocks and immigration factors. We use quarterly data for the period 1982 to 2002 for the AIDS model and 1990 to 2002 for the regional model. The results from the regional model reveal a predominant role for immigration factors as measured by relative population and labour market conditions for all provinces. Commodity price shocks are significant for Nova Scotia, Manitoba, Alberta and British Columbia.
EXOTIC OPTIONS PRICING UNDER STOCHASTIC VOLATILITY

This paper proposes an analytical approximation to price exotic options within a stochastic volatility framework. Assuming a general mean reverting process for the underlying asset and a square-root process for the volatility, we derive an approximation for option prices using a Taylor expansion around two average defined volatilities. The moments of the average volatilities are computed analytically at any order using a Frobenius series solution to some ordinary differential equation. Pricing some exotics such as barrier and digital barrier options, the approximation is found to be very efficient and convergent even at low Taylor expansion order.
Trading Time and Trading Activity: Evidence from Extensions in NYSE Trading hours

The NYSE extended trading hours by 30 minutes in 1974 and in 1985, the first extension resulting in a delayed close, and the second in an early open. The paper examines the effects of these extensions in trading hours on trading activity and return variability. We find that trading activity increases after the 1985 extension (the morning extension) though not after the 1974 extension (the afternoon extension), and that return variability is largely unaffected by both extensions.

We study potential explanations for the differential behavior of trading activity, and are able to reject the noise trading and the information production hypotheses. However, the observed patterns in trading activity after the extensions are consistent with the predictions of a new hypothesis based on information cancellation. This hypothesis explains the increased volume after the early open via acceleration of trades to the beginning of the day (which reduces information cancellation). On the other hand, the positive effect of trading on information arriving in the new trading period after the late close is muted by postponement of trade to the end of the day. Also, as observed, the hypothesis predicts that an extension will not influence stock return variability.

Our analysis is important in several respects. Its academic contributions include shedding new light on the relationship between trading time and trading activity. In practical terms, our results have implications for the move towards longer trading hours. The results indicate that there are potentially beneficial volume effects from extending trading hours, and that return volatility is not enhanced. This benefit must be balanced against the added costs of keeping the trading desks open.
COMMODITY PRICE INSTABILITY AND THE LINKING OF DEBT BY DEVELOPING COUNTRIES

The effects of unstable commodity prices on export earnings and economic development have been analyzed and debated for many years. In those instances in which unstable commodity prices are an important source of risk for developing countries, compensating actions are required. One possible response is the linking of the principal and/or interest on external borrowing to one or more major commodity exports. The objective of the present study is to examine the costs and benefits of linking debt compared with other compensating arrangements.

Most developing countries borrow in world capital markets. Typically this borrowing is denominated in one of the major currencies and requires periodic servicing. If exchange earnings vary dramatically from year to year, the country’s ability to sustain stable investment and consumption patterns, while meeting its external debt obligations, may be jeopardized. In order to relieve this dilemma, a number of authors have proposed that principal and/or interest payments on external debt be tied to the export earnings or (because the demand for primary commodities tends to be inelastic) the price(s) of the product(s) upon which the borrower most heavily relies. However, little work, either theoretical or empirical, appears to have been done in connection with commodity specific linked cost.

There is, however, a literature dealing with index linking in general, primarily as a response to domestic inflation. Sarnat (1975) used mean-variance analysis to show that when individuals are risk averse, they will be prepared to pay a premium in order to avoid the risk of fluctuations in the future purchasing power of money. While Sarnat was concerned with purchasing power guarantees, his analysis may have some implications for commodity bonds. If the price of the commodity in question is perfectly positively correlated with the domestic price level of the country in which the investor is resident, a commodity linked bond will be a perfect substitute for an instrument linked to the domestic price index. However, during the investor’s holding period or even over the life of the bond, the correlation may be positive, negative or zero. Moreover, if interest payments (in addition to the customary principal) are linked to the price of the commodity, or if principal repayments can be made before maturity, the investor will face a variable stream of returns. As such, according to the Sarnat analysis, risk averse investors will not be prepared to pay a premium and, indeed, may demand a higher expected real return from commodity linked bonds. The present study is intended to develop a theoretical model based on the Sarnat analysis that will attempt to take into consideration not only the relationship between commodity prices and price indices, but also the premium demanded by investors for inflation exposure and the price volatility of the commodity in question. These may be modeled by examining, first, the covariance between the nominal increase in the price of the commodity and changes in the prices of goods that the investor consumes and, second, the covariance between the future price of the commodity and the marginal utility of investor wealth.
THE CEO – ‘STAR ATHLETE’ ANALOGY: THE ROLE OF VARIABLE COMPENSATION IN PROFESSIONAL SPORT

The six, seven and eight-figure salaries of Chief Executive Officers (CEOs) and professional athletes are popular topics in today’s media. However, it is the absolute size of the salaries that attracts attention not the nature of how they are paid and how they earn their money. This research is based on the fact that how senior managers and professional athletes are paid is different. The distinction is clear as senior management’s compensation is, for the most part, based on performance while star athletes’ compensation, although similarly significant in size, is rarely linked to performance.

In this study, we argue that CEO’s and senior management, the ‘stars’ of the business world, are comparable to star professional athletes in terms of the impact that they have on their respective organizations and the conflicts of interest that they face in performing their functions. An empirical analysis of two distinct databases of athlete and senior management salaries finds that while both groups are paid similarly in terms of amount, CEO’s and senior management are paid principally with stock options and other forms of variable compensation, while star professional athletes are paid almost exclusively with a fixed salary. This analysis reveals that these differences are highly significant. Based on past literature and our own industry experiences, we explore a number of issues. First, we address why there is a difference in the form of compensation paid to these two groups and whether there should be. Second, we argue that senior management and star athletes are both susceptible to the shirking problems common in many agency relationships, and that star athletes may be even more susceptible to these problems given the long-term contracts that they are commonly awarded. Thirdly, we argue that both groups have significant impact on the performances of their organizations. Finally, we provide arguments as to why professional athletes should be paid similarly to senior management. We conclude by arguing that the form of compensation used in professional team sports may not be allocatively efficient. Specific recommendations for future research in this area are provided.
ON ASIAN OPTIONS PRICING

It is a commonly accepted proposition that Asian options are cheaper than their plain vanilla counterparts. This proposition also serves as one of main motivations for using Asian options. In this paper, however, we find that this proposition is not always true. By analyzing the boundary conditions, we show that an average price put is more expensive than a similar plain vanilla European put with the same strike price and maturity when the option is deep-in-the-money and the volatility of the underlying asset is below a certain level. In addition, a sufficient condition is provided.