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# VALUE PREMIUMS AND THE JANUARY EFFECT: INTERNATIONAL EVIDENCE

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### ABSTRACT

Using data from the stock markets of Japan, the U.K, and France, this paper examines the distribution and source of value premium in average stock returns for the period 1975 through 2007. Results from this study indicate a January effect in value premium, which is valid and economically meaningful for all three major non-U.S. markets. Consistent with Loughran (1997), our study suggests that January value premium is more pronounced in large stocks and high January value premium is mostly driven by superior returns of value stocks in January. In particular, value premium for January month is nearly three to nine times that of non-January months. Annualized value premiums for January (non-January months) for Japan, the U.K. and France are 28.08% (9.12%), 15.36% (2.04%), and 30.96% (3.48%). The annualized excess January value premium ranges from 13.32% for the U.K. to 27.48% for France with 18.96% for Japan. Results are robust with respect to alternative value-growth indicators as well as sample periods.

**JEL:** G12

KEYWORDS: Value premium, International, January effect

### **INTRODUCTION**

mple evidence documents that firms with high ratios of book-to-market equity (B/M), earnings to price (E/P), cash earnings to price (CE/P), or dividends to price (D/P) - commonly referred to as value firms - tend to consistently deliver higher returns than firms with low ratios of B/M, E/P, CE/P or D/P - or growth firms - both in U.S and in markets around the world. This finding known as the value premium, turns out to be quite robust to alternative definitions of value and does not disappear over time (see for example, Chan, Hamao, and Lakonishok, 1991; DeBondt and Thaler, 1985, 1987; Fama and French, 1992, 1995, 1996, 1998; Haugen and Baker, 1996; Lakonishok, Shleifer, and Vishny, 1994).

Those who are fascinated by the value premium have hazarded three competing explanations about its cause. The first explanation is that the value premium is associated with the degree of 'relative distress' in the economy, is a rational phenomenon, which is priced in equilibrium, and is a compensation for systematic risk (Black and Fraser, 2004; Fama, 1998; Fama and French, 1995, 1996, 1998; Kiku, 2006; Lakonishok et al. 1994; Lettau and Ludvigson, 2001; Petkova and Zhang, 2005; Zhang, 2005). The second argument is a behavioral one that focuses on systematic irrationalities that characterize investor decision making. Contrarian strategies produce higher returns because they exploit the tendency of some investors to overreact to good or bad news (Daniel, Hirshleifer, and Teoh, 2001; De Bondt and Thaler, 1987; Haugen, 1995; Hirshleifer, 2001; Kothari, 2000; Lakonishok et al. 1994).

The third explanation proposed for the cause of value premium is not because of rational or irrational investor behavior, but because of random occurrences (Kothari, Shanken, and Sloan, 1995). In this situation, the value premium is neither reward-for-risk nor the basis for a profitable trading strategy.

# AN EXAMINATION OF BOARD AND FIRM PERFORMANCE: EVIDENCE FROM TAIWAN

Chang-Jui Lin, Fu Jen Catholic University

### ABSTRACT

This article discusses the impact of duality and board structure in corporate governance on corporate performance. The results showed that, regarding Tobin's Q, outside independent directors have a positive impact while other variables have no impact on corporate performance. Similar results were achieved using ROA and ROE for analysis. Duality, board size, and family-controlled directors had a negative impact on ROA and ROE. Supervisory directors, outside independent directors and inside directors had a positive impact on ROA and ROE. The analysis of large companies showed duality, board size, and family-controlled directors yielded a negative impact on ROA and ROE. Both supervisory directors and inside directors had positive impacts on ROA and ROE. No variable had an impact on Tobins' Q. The results from small and medium-sized companies indicate that supervisory directors, outside independent and inside directors had positive impacts on ROA and ROE. Other variables did not yield impacts on ROA and ROE. Finally, most of the variables had no impact on Tobins' Q.

**JEL**: G34, L25

KEYWORDS: corporate governance, board structure, duality, corporate performance

### **INTRODUCTION**

Orporate governance concerns the effects of board structure on a firm's performance. Since shareholders elect board members, major shareholders have more influence when electing directors and supervisory directors. They account for the majority of share rights, which means they can choose and appoint persons as directors and supervisory directors. Therefore, those individuals holding the majority of share rights can control the company thus influencing the operations of the company. Further, the effectiveness of corporate governance will influence business performance. In recent years, the Taiwanese government has given more attention to corporate governance. In October 2002, the Taiwan Stock Exchange Corporation (TSEC) announced Corporate Governance Best-Practice Principles for TSEC/GTSM (GreTai Securities Market) listed companies, which stipulates that TSEC/GTSM listed companies must establish effective corporate governance structures, formulate their own corporate governance codes to enhance the function of their board of directors, perform supervisory director functions, and ensure shareholder equity.

These tasks are an effort to strengthen corporate governance effectiveness. In order to promote these goals, the Taiwanese government amended *Article 14, Securities and Exchange Act* in January 2007, to require listed companies have at least two and no less than one-fifth of directors to be independent. In Taiwan, board organizations differ from those in the U.S. because they maintain a two-tier board system composed of directors and supervisory directors. Specifically, directors are persons who determine and execute company policies while supervisory directors, thus serving functions similar to executive and non-executive directors in European companies. The principal role of non-executive directors is to protect shareholders' interests when the company makes decisions (Fernandes, 2008). Additionally, the role of supervisory directors in Taiwanese companies is similar to that of non-executive directors in European companies is similar to that of non-executive directors in European companies.

Many studies have investigated the relationship between corporate governance and a firm's performance. Finegold, Benson, and Hecht (2007) reviewed 105 studies conducted in major public companies between

# THE IMPLIED VOLATILITY OF ETF AND INDEX OPTIONS

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### ABSTRACT

We examine the option-implied volatility of the three most liquid ETFs (Diamonds, Spiders, and Cubes) and their respective tracking indices (Dow 30, S&P 500, and NASDAQ 100). We find that volatility smiles for ETF options are more pronounced than for index options, primarily because deep-in-the-money ETF options have considerably higher implied volatility than deep-in-the-money index options. The observed difference in implied volatility is not due to a difference between the realized return distributions of the underlying ETFs and indices. Differences in implied volatility for ETF and index options also do not appear to be explained by discrepancies in net buying pressure, as theorized by Bollen and Whaley (2004).

**JEL:** G11; G12

KEYWORDS: exchange-traded funds, index options, implied volatility, open interest

### **INTRODUCTION**

In this paper, we study the option-implied volatility of exchange-traded funds (ETFs) and their tracking indices. ETFs are relatively cheap instruments for diversification in terms of direct costs. They have greatly increased in popularity and have become important investment vehicles for both professional and individual investors. The Investment Company Institute (ICI) reports that there were 80 ETFs in 2000 and 359 ETFs in 2006, a 350 percent increase. ETF assets also increased significantly from \$65.59 billion in 2000 to \$422.55 billion in 2006, an increase of 544 percent for the period. Most of the literature on ETFs focuses on their tracking errors relative to their respective indices. However, very little research has been conducted on ETF volatility.

The paper contributes to the literature in several ways. First, the paper fills the void in the existing literature on the volatility of ETFs, which play an important role in risk diversification. We examine both the realized return volatility and the option-implied volatility – a commonly used estimate of future volatility. We find that the implied volatility of ETF options is different from that of index options, especially for deep-in-the-money options. However, we find no significant difference in the realized return volatilities of ETFs versus their indices. Second, the paper adopts a unique sample to reexamine the net buying pressure theory of Bollen and Whaley (2004). The advantage of using pair samples of ETF options and index options is that return distributions of ETFs are insignificantly different from those of their tracking indices. Our results are inconsistent with the argument of Bollen and Whaley (2004) that an option's implied volatility function should be positively related to its net buying pressure. Therefore, the difference in implied volatility functions between ETFs and indices can be attributed to other factors.

The remainder of this paper is organized as follows: The next section examines the related literature and develops the scope of this research study. We then describe our data and methodology and discuss the results of our empirical tests. The final section concludes.

# THE DYNAMIC INTERACTION BETWEEN FOREIGN EQUITY FLOWS AND RETURNS: EVIDENCE FROM THE JOHANNESBURG STOCK EXCHANGE

Joseph J. French, University of Northern Colorado

### ABSTRACT

This research examines the dynamic relationship between foreign portfolio equity flows and equity returns on the Johannesburg Stock Exchange (JSE). The primary objective of this research is to uncover how equity market returns influence foreign cross border portfolio equity flows and in turn how those portfolio flows affect equity returns. To understand the linkages between equity flows and market returns, the current research employs vector autoregressive models and presents the results of variance decompositions, impulse response functions and causality tests. The results show that foreign equity flows are 'pulled' into South Africa by high returns on the JSE. This finding is consistent with a broad literature on other emerging markets. This research also finds causal link between net equity flows and returns, indicating that the evolution of the JSE is independent of foreign portfolio activity.

**JEL:** F21; G15; G11; 014; 016

KEYWORDS: Portfolio flows, International investment, Africa

### **INTRODUCTION**

The broad purpose of this research is to understand the dynamic linkages between foreign portfolio equity flows and equity returns in South Africa. The key questions this research addresses are: 1) Do foreign equity flows affect equity returns on the Johannesburg Stock Exchange (JSE)? 2) Do returns on the JSE forecast changes in foreign equity flows? These questions have been of recurrent interest to investors, economists and policy makers, and are posed with greater urgency during times of financial upheaval or changes in the distribution of capital flows. Frequently, the answers to the above questions have cast international investors in a negative light. It is often argued that foreign equity flows lead to price overreaction, and when withdrawn contagion. An alternative efficient markets view is that equity flows are merely one of the processes by which information is incorporated into asset prices.

While there are numerous strongly held views, there is surprisingly little information on the behavior of international portfolio flows and their relation to equity returns, particularly in South Africa. South Africa's economy has been growing at a very healthy rate since 1999. The average annual GDP growth rate between 2000 and 2006 was in excess of 3.5%, well above the previous decade. Consequently, South Africa has become one of the economic powerhouses of Africa, with a gross domestic product (GDP) four times that of its southern African neighbors and comprising around 25% of the entire continent's GDP (African Competitiveness Report, 2007). The country leads the continent in industrial output, mineral production and generates most of Africa's electricity (African Competitiveness Report, 2007). As a result of South Africa being an economic powerhouse, it also has the most developed equity market in the region, and provides one of the best opportunities on the continent for foreign investors seeking diversification or capital appreciation. South Africa also has a relatively solid financial infrastructure. Its banking sector has ranked consistently among the top ten globally according to the World Economic Forum. Additionally, the Johannesburg Stock Exchange (JSE) is the 18th largest stock exchange in the world in terms of market capitalization. A decade of comprehensive institutional reform and sound economic management has been rewarded with solid credit ratings, implying less risk for investors and

### INTERNAL CORPORATE GOVERNANCE MECHANISMS: EVIDENCE FROM TAIWAN ELECTRONIC COMPANIES

Chiaju Kuo, National Taichung Institute of Technology Yung-Yu Lai, Overseas Chinese University Shaio Yan Huang, National Chung Cheng University Chung-Jen Fu, National Yunlin University of Science & Technology

### ABSTRACT

This study's focuses on the effects of directors and employee stock bonus plans on electronic companies listed on the Taiwan Stock Exchange Corporation. In addition, the paper examines the appropriate internal corporate governance mechanisms for firms. The evidence shows firms with different scale measured by paid-in capital, need different corporate governance mechanisms. That is, raising directors' ownership may enhance corporate governance mechanisms for small firms. Appointing independent directors voluntarily may enhance corporate governance mechanisms for middle size firms. Furthermore, large firms may enhance corporate governance mechanisms by raising all directors' ownership, appointing independent directors voluntarily, or decreasing the proportion of managers serving concurrently as directors. Independent directors appear to have more effects on middle size and large firms.

JEL: G 34, G35,M48

KEYWORDS: corporate governance, independent directors, independent supervisors

### **INTRODUCTION**

Sues of corporate governance have received heightened emphasis in recent years, following the event of Enron in the U.S.A. and the scandals of Rocomp Informatics Ltd. and Infodisc Technology Co. Ltd. in Taiwan. To strengthen corporate governance in Taiwan, the government has implemented a series of reforms. One reform is the introduction a system of independent directors and supervisors. Investors hope that independent directors and supervisors are more focused on shareholder rights and interests. On the contrary, many companies doubt the benefits of independent directors and supervisors. Such a situation triggered our motivation to explore the appropriate corporate governance mechanisms for different firms in the perspective of employee bonus plans.

In the USA and UK, the primary duty of a firm's directors is to monitor the managers on behalf of shareholders, thereby reducing agency problems (Fama, 1980; Fama and Jensen, 1983; Williamson, 1983). Agency problems will be more severe when the function of directors and supervisors is ineffective and firm performance and stock price will be affected accordingly (Core et al., 1999). The independent director mechanism is one of the most important determinants of corporate governance, and has been discussed by scholars and enterprisers extensively (Weisbach, 1988; Rosenstein and Wyatt, 1990; Brickley et al., 1994; Core et al., 1999). The results regarding whether inside or independent directors and supervisors bring more benefits to a company are mixed. Many researchers argued that independent directors perform their duty of monitoring, thereby bringing benefits to a company (Weisbach, 1988; Rosenstein and Wyatt, 1990). However, some studies do not find a significant correlation between the proportion of independent directors and firm performance (Baysinger and Butler, 1985; Hermalin and Weisbach, 1991; Yermack, 1996; Bhagat and Black, 1997). Nevertheless, this does not imply there is no need to maintain inside directors. Some suggest that inside directors' expert knowledge is necessary for a company (Rosenstein and Wyatt, 1997), and the inclusion of inside directors on the board can lead to a more effective decision-making process (Fama and Jensen, 1983). Furthermore, inside directors are often concurrently shareholders. Higher the director stock

### THE IMPACT OF SARBANES-OXLEY ON MARKET EFFICIENCY: EVIDENCE FROM MERGERS AND ACQUISITIONS ACTIVITY

Surya Chelikani, Quinnipiac University Frank D'Souza, Loyola University Maryland

### ABSTRACT

One of the main goals of the Sarbanes Oxley Act of 2002 (SOX) is to ensure a greater flow of timely and accurate accounting information to investors. While there has been a lot of criticism of SOX, mostly with regard to compliance costs, very little light has been shed on the impact of SOX on market efficiency. The type of funding (stock vs. cash) used in mergers has been shown to be highly correlated with the level of firm mispricing. We thus use merger data gathered in the pre and post-SOX years to reveal a significant shift from stock type mergers (popular during periods of high misvaluation) to cash type mergers. We use logistic regression analysis to show that the implementation of SOX, resulted in greater reliability of market information, lower levels of mispricing and hence a more efficient market. In addition, our results also provide evidence that the SOX imposed compliance costs are not as burdensome as critics claim.

JEL: G34, G38

KEYWORDS: Sarbanes Oxley, Mergers and Acquisitions, Market Efficiency

### INTRODUCTION

The Efficient Market Hypothesis (EMH) is one of the foundations of finance. It makes strong assumptions that all agents are rational and that new information entering the market is correctly and immediately impounded into securities' prices. An efficient market is essential, because in an efficient market, investors are protected as asset prices are at, or close to their intrinsic values. The availability of relevant information to all investors directly impacts the efficiency of a market. If market participants are presented with a greater amount of relevant information, they will be able to price assets and securities more accurately.

The Sarbanes-Oxley Act of 2002 (SOX) was initiated in response to the blatant acts of manipulation and greed that resulted in significant loss of shareholder wealth. The actions of the management of Tyco, Enron and WorldCom are cases in point. SOX compelled managers to alter their actions and divulge information to investors, in greater quantity and more importantly, with greater reliability, than they had previously done. Managers were now directly accountable for the information firms released. Specifically, under the provisions of SOX, effective July 30, 2002: The CEO and financial officers are required to certify periodic financial reports and are subject to criminal penalties based on such certifications. They are required to forfeit certain bonuses and profits if their companies issue an accounting restatement as a result of misconduct.

In the corporate world, SOX was very unpopular and the main criticism stemmed from the allegation that it was too expensive to implement. Academic research on SOX has also tended to focus mostly on the cost aspect and not so much the benefits. One of the largely ignored benefits of SOX is improved market efficiency. In view of the current financial crisis, and the government's attempt at imposing new regulations, it becomes critically important and beneficial to understand how previous attempts to regulate financial markets fared. We thus advance the literature by investigating the impact of SOX on market efficiency. We also address the cost aspect of SOX.

# THE IMPACT OF SHORT SALE RESTRICTIONS ON STOCK VOLATILITY: EVIDENCE FROM TAIWAN

Shih Yung Wei, University of Science and Technology, Taiwan Jack J. W. Yang, University of Science and Technology, Taiwan

### ABSTRACT

Governments implement policies to stabilize stock markets in times of financial crisis. The most common intervention is to forbid short sales. For instance, around the financial crisis of 2008, eleven governments announced restrictions on naked short sales in their stock markets. In light of the Greek credit crisis in 2010, Germany also disallowed naked short sales. Opinions were widely divided regarding the appropriateness of government to interfere in markets. This paper studies the influence of volatility asymmetries caused by the Taiwanese government's naked short sale restrictions. Intraday data is used to analyze the issue by way of EGARCH models. We find the high liquidity associated with large stocks increases asymmetric volatility. However, asymmetric volatility of middle and small sized stocks decreases around the naked short sale ban.

JEL: C22; C58; G18;

KEYWORDS: Asymmetric volatility, Information exposure, Naked short sale, Firm size, EGARCH

### **INTRODUCTION**

The Greek debt crisis in 2010 caused a variety of financial concerns. In an attempt to stabilize the financial situation, the German Federal Financial Supervisory Authority forbid the naked short sale for Euro zone bonds, and shorting some financial stocks. The rule came into effect on May 19, 2010 until March 31, 2011. In 2008 global financial crisis resulted in global stock market collapse together, It also made every government adopt all kinds of policies to stabilize the stock market, such as limiting or banning the naked short sale in Taiwan, Korea, Belgium, Holland, Canada, German, Ireland, England, America, Australia, and Russia; pausing to trade in Russia, Korea, and Brazil; stopping to trade in Russia, Ukraine, Kuwait and Indonesia.

Limiting or banning naked short sales was the policy nearly every government carried out to stabilize its stock market. The effectiveness of this approach is debated. This paper researches the effects of banning naked short sales in the Taiwan stock market after the financial crisis of 2008. In the past, most research has been based on the closing prices, thereby ignoring changes in intraday volatility. In this paper, we advance the analysis to include intraday volatility. We conclude that the banning naked short sales increases return volatility for large firms, but it can decrease the return volatility for the middle and small sized firms.

This paper is organized into five parts. The following section contains a literature review about short sale restrictions and asymmetric volatility. The third part presents the data and methodology which is based on EGARCH Analysis to assess the influence of short sale bans on intraday data asymmetric volatility in the stock market. The fourth part presents the empirical results, which reveals that interfering policies and the banning naked short sales have certain influences on intraday asymmetric volatility. The paper closes with a summary and some concluding comments.

### LITERATURE REVIEW

Limiting or banning naked short sales was a common policy to provide stability to the stock markets

# DOES FIRM DIVERSIFICATION REPRESENT A VALUE ADDED FOR STOCKHOLDERS?

Juan Otero-Serrano, Universidad Metropolitana

### ABSTRACT

This study empirically tests the effect of diversification on firm performance, controlling for factors influencing returns other than diversification. This study also investigates if the diversification effect has the same impact on firm performance at different points in time. The sample used consists of all firms with available data from Compustat Industry Segment Database and Research Files for the period between 1979 and 2006. Carhart (1997) four-factor model results suggest that diversification is related to firm performance. Diversified firms show a general trend of underperforming non-diversified firms. Results also suggest that the diversification effect may change through time. The evidence presented may help managers and stockholders in considering the effects of diversification on firm value when making decisions.

JEL: G11; G34

KEYWORDS: Diversification strategy, firm performance

### **INTRODUCTION**

Why firms diversify is a question that has been studied broadly in corporate finance. Moreover, academics, management and stockholders have demonstrated interest in the effects that diversification may have on firm performance. Previous research on this topic has shed some light on the issue (Campa & Kedia, 2002; Hyland & Diltz, 2002; Pandya & Rao, 1998; Servaes, 1996). Despite the use of different samples, time frames or methodologies there is no agreement as to how diversification affects firm performance.

There is insufficient corroborating empirical evidence to produce a consensus on the consequences of firm diversification. Some studies favor the notion that diversification is related to a performance discount, while others find that diversification leads to an enhancement in performance. A third group of academics state that diversification does not affect performance. This study contributes to the existent literature by implementing a more accurate and reliable methodology, Carhart's (1997) four factor model. A longitudinal study is also performed to evaluate if the diversification effect has the same impact on firm performance at different moments across time. Both, the stockholders and the firm's upper management, could use this information as guidelines to their investment decisions and strategic planning

The remainder of the paper is organized as follows. Section 2 briefly discusses the relevant literature. Data selection, research methodology, and empirical models are described in Section 3. Section 4 provides analysis and interpretations of the empirical results and Section 5 concludes the paper.

### LITERATURE REVIEW

The main objective of most financial decisions is to increase shareholder wealth. Most of these decisions are made expecting positive and constant growth. Corporate growth normally occurs when there is an internal expansion. This type of expansion takes places when the existing divisions of the firm grow

# MULTI-FACTOR APPROACH FOR PRICING BASKET CREDIT LINKED NOTES UNDER ISSUER DEFAULT RISK

Po-Cheng Wu, Kainan University

### ABSTRACT

This article proposes a multi-factor approach to incorporate issuer default risk into basket credit linked note (BCLN) pricing based on the Gaussian copula. The numerical analysis demonstrates that the issuer default risk increases the fair coupon rate. Contradicting the common belief that a positive default correlation between reference entities and an issuer increases the possibility of double losses and disfavors the BCLN holder, thereby driving up the BCLN coupon rate, analytical results reveal that a positively correlated issuer default mitigates this increase, while a negatively correlated issuer default increases the coupon rate further.

JEL: G01; G12; G13

**KEYWORDS:** Basket credit linked notes, issuer default risk, default correlation, factor copula, financial crisis

### **INTRODUCTION**

Which index the second popular of the protection by the start of the contract maturity is a mode with a price or coupon linked to credit events of reference entities (obligations). The conventional form of BCLN is the k th-to-default BCLN. The BCLN holder (the protection seller) pays the notional principal to the BCLN issuer (the protection buyer) at the start of the contract and receives the coupon payments until either the k th default or the contract maturity, whichever occurs earlier. If the k th default occurs before contract maturity, the BCLN holder receives the recovered value of the reference entity from the BCLN issuer. Otherwise, the BCLN holder receives the notional principal back on contract maturity. In derivative markets, the issuer default risk is attracting considerable attention because of the recent financial turmoil and collapses of large financial institutions. If the BCLN issuer defaults, the BCLN holder will not receive the recovered value of the reference entity as the credit event happens, nor the notional amount at the contract maturity. The coupon payments also ceases due to the issuer default. Thus the issuer default results in a large loss. Therefore, it is important to incorporate issuer default risk in BCLN pricing to obtain a reasonable coupon rate.

This article focuses on how to incorporate issuer default risk into the BCLN pricing under the factor Gaussian copula framework. A new random variable corresponding to the issuer default time is introduced in this model. Numerical analysis reveals that issuer default risk increases the fair coupon rate and a negatively correlated issuer default increases the coupon rate further, while a positively correlated issuer default mitigates this increase. Moreover, considering the issuer default risk results in an asymmetric coupon rate curve and the asymmetry increases with the impact of the issuer default.

The remainder of this article is organized as follows. The Literature Review section reviews literature on the issuer default risk and the factor Gaussian copula model. The Methodology section describes the process for pricing a BCLN under the framework of factor Gaussian copula model and the proposed method for incorporating issuer default event into BCLN pricing. The Numerical Analysis and Simulation Results section summarizes the numerical analysis results and discusses the implication of the results.

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