International Journal of Finance, Insurance, and Risk Management
Volume XV, Issue 1, 2025

pp. 03-36

Good Corporate Governance, Market Stock Liquidity, and Stock Return Volatility: French Context

Submitted 03/02/25, 1st revision 27/02/25, 2nd revision 18/03/25, accepted 30/03/25

Aloui Mouna[1], Daly Imed[2], Jarboui Anis[3]

Abstract:

Purpose: *This paper aims to combine System and dynamic GMM methods and four - stage least squares in order to estimate the relationship between corporate governance- market stock liquidity and the stock return volatility.*
Design/Methodology/Approach: *By applying these methods to French companies listed on the SBF 120 index, for a period including the financial crisis years during 2009 -2015.*
Findings: *The findings show that the institutional investor and the board size are important factors into reducing the stock market return volatility, that the proportion of institutional investors has a positive and significant effect on stock-market liquidity. On the other hand, the existence of good governance index and foreign directors increases the stock market returns.*
Practical Implications: *We believe that our findings further confirm the importance of corporate governance and therefore can help investors and financial economists to understand the behavior of the stock prices. Although the existing studies have referred to the influence of corporate governance on stock market returns and volatility, no one has ever discussed whether better corporate governance can help reduce the stock price volatility in such a situation.*
Originality/Value: *Since the stock returns and risks are the major two factors that need to be considered by investors, our findings suggest that investors need to seriously appraise the firm's corporate governance when making investment decisions, because better corporate governance not only has a positive effect on the stock returns but can also stabilize the stock price volatility.*

Keywords: *Corporate governance index, stock market return, volatility, GMM method.*

JEL Classification: *G34, G12, G15, G32, C58.*

Paper type: *Research article.*

[1]*Department of Financial and Accounting University of Faculty Economics and Management of Sfax, Tunisia, e-mail: mounafba@yahoo.fr;*
[2]*Management department, Higher Institute of Technological Studies of Sousse, Tunisia, e-mail: Imed.daly2@gmail.com;*
[3]*Department of Financial and Accounting, Universities Higher Institute of Business Administration of Sfax, Tunisia, e-mail: anisjarboui@yahoo.fr;*

1. Introduction

In recent years, the failure of corporate governance has been examined at every level of regulation of the global financial market. This has resulted in changes in governance, not only for financial institutions but also for other public companies. The IMD Business School showed that `Lehman Brothers` is seen by many people as a failure of corporate governance, but not as a failure of financial markets.

Eric Platt and Robin Wigglesworth (2017) indicate that the "*SandP Global, the largest of the world's three dominant rating agencies, cautioned that a failure by Congress to lift the debt ceiling would likely be "more catastrophic" than the collapse of Lehman Brothers in 2008 that brought the global financial crisis to a head*". This is due to a fatal error of combination of complex accounting rules, excessive indebtedness and complacency of credit rating agencies.

A dramatic change in corporate governance systems in the financial crisis has drawn the attention of both researchers and policy makers. Previous studies have largely shown the positive effects of corporate governance improvements on the firm's value (Choi *et al.,* 2007; Kim *et al.,* 2010; Black and Kim, 2012; Minand Verhoeven, 2013, among others).

However, several authors (Berger *et al.,* 2013; Kirkpatrick, 2009) agreed to show that poor corporate governance was a key factor of the 2007-2008 global financial crisis. These authors suggest that the weakness of banking governance leads to inadequate risk management where there is insufficient risk oversight by the board of directors. In the same context, Clarke (2010) recommends that the systematic crisis is explained by a crisis in corporate governance and regulations.

In contrast, another research (Fahlenbrach and Stulz, 2011; Beltratti and Stulz, 2012) asserts the opposite. They find that poor governance is not an important factor in the financial crisis because poor governance does not directly contribute to the crisis but presents a factor that contributes to the spread of a vulnerable financial environment.

However, recent studies, such as that of (Siddiqi, 2008; Kirkpatrick, 2009) found out that the moral failure and insufficient corporate governance mechanisms in the global financial system are among several other factors that have contributed greatly to the current financial crisis. It was argued that the existing governance mechanisms in financial institutions during the recent "subprime" crisis could not be effective enough to protect investors. In addition, the OECD report (2009) concluded that the financial crisis can be largely due to shortcomings and weaknesses in corporate governance arrangements.

The Shareholder's Law of 2009, presented by Schumer *et al.* (2009), contains a clause that considers that among the main causes of the financial and economic crisis facing the United? Today is the widespread failure of corporate governance. We can

then conclude that poor corporate governance is a major contributor to the global financial crisis. The financial crisis revealed serious deficiencies in corporate governance and asserted that one of the main reasons for the global financial crisis of 2007 - 2008 is the failure of corporate governance. As a result, many financial institutions collapsed or were bailed out by governments during the 2007 - 2008 global financial crisis.

The major failures that were involved in the banking crisis were particularly compensation, executive incentives, risk management, shareholder activism and board qualification issues. Excess credit, combined with poor governance in the banking industry, can generate failures that carry systematic risk. At this point, the term governance has been the subject of a great deal of attention on the part of jurists and specialists in economics, but also political scientists, sociologists and specialists in management sciences (Charreaux, 2004).

In addition, poor bank governance was a major cause of the global crisis (Anderea *et al.,* 2011). Many researchers are questioning corporate governance as one of the main reasons for the global crisis, while other factors have played an ancillary role (Kirkpatrik, 2009; Fetisov, 2010). Moreover, there are several gaps in the structure and process of corporate governance. These difficulties led to the collapse of many financial institutions and the outbreak of the crisis. In addition, UNTACD (2010), in its analysis report on corporate governance in the wake of the financial crisis, considered bad corporate governance practices as a major cause of the global financial crisis.

The OECD states that "the financial crisis can be largely due to flaws and weaknesses in corporate governance arrangements." The OECD identifies four weak factors in corporate governance that contributed to the financial crisis. These factors are essentially executive compensation, risk management, board practices, and the exercise of shareholder rights.

In addition, Walker review, UK, (2009) shows that the failure of governance is a major cause of the financial crisis« it is clear that governance failures contributed materially to excessive risk taking in the lead up to the financial crisis; Weaknesses in risk management, board quality and practice, control of remuneration, and the exercise of ownership rights need to be addressed in the Uk and internationally to minimize the risk of a recurrence."

In this analytical context, it is essential to study the various aspects of the failure of corporate governance during crises, as they help to determine the normative implications for future reforms (Tarraf, 2010). Many factors contribute to corporate government failure (executive compensation policy and excessive incentives; the Board of Directors; the activities of shareholders; and the property structure).

- ✓ *Executive compensation and excessive incentives play a major role in the failure of corporate governance that contributed to the global financial crisis.*

In the same perspective, the European Committee of Banking Supervisors has shown that the recent market turbulence has highlighted the risks inherent in the institutions due to the inadequacy of the policy and the structure of remuneration. First, the absence of a coherent and adequate remuneration policy generates potential risks for a financial institution to be properly analyzed (CEBS, 2009). In addition, the practice of remuneration of managers is a factor that contributed to this financial crisis. As indicated by Turner (2008), inappropriate incentive structures played a role in the financial crisis. Similarly, some researchers see that excessive executive compensation is the main factor in the financial crisis (Rajan, 2009).

Clarke (2010) indicated that managers' compensation policies were designed to provide incentives to take a high risk. He concluded that the extreme risk coupled with the defective remuneration structure in financial institutions led to this banking crisis. In addition, remuneration practices in some banks have led to misaligned inducements and excessive risk-taking, contributing to bank losses and financial instability (Board of Governors of the Federal Reserve System, 2009).

Similarly, the global banking crisis of 2007-2008 was partly attributed to compensation policy in financial institutions. According to Tuner (2009) *"there is a strong prima facie case that inappropriate incentive structures played a role in encouraging behavior which contributed to the financial crisis".* As a result, the issue of remuneration was seen as one of the main reasons for the banking crisis in the developed countries, in particular the United Kingdom and the United States.

Although these compensation systems have a great influence on the performance of the executive and the wealth of shareholders, in the recent crisis, we distinguish two types of compensation: option pay, and performance pay optional based remuneration and performance-based compensation.

- ✓ *The recent international financial crisis shows that the banks' boards of directors have a great responsibility in this crisis.*

In this context, several studies have shown that the board of directors represents the center of control of the internal mechanisms of corporate governance (Fama and Jensen, 1983). The fundamental task of the board of directors is to approve the decisions of managers and to monitor their performance. The board of directors is defined as an agent of shareholders responsible for managing major decisions.

Thus, the board of directors is seen as a key to the corporate governance function presented as the summit of the hierarchy and supervisory frameworks. In addition, an effective board of directors must have a good understanding of the nature of the

bank's business activities and related risks. It must take reasonable steps to ensure that managers have in place robust monitoring and control systems for these risks (Greuning and Bratanovic, 2004). To do this, an ineffective board of directors can cause banks to fail, causing the global financial crisis.

Eoh (2010) studied many financial institutions during the financial crisis and focused on serious failures in transparency and disclosure of standards. He raised questions about the role of non-executive directors in financial institutions to indicate that non-executive directors of financial institutions did not have sufficient time, knowledge and expertise in dealing with complex financial products. Similarly, several academicians and researchers identified gaps in the compensation system as the main lesson in the crisis and suggested appropriate measures to address these gaps (Bruner, 2010; Laeven *et al.,* 2010).

- ✓ *Shareholder activism is all proactive efforts to change corporate behaviour or governance rules (Black, 1998). This requires efforts on the part of investors to influence management's behaviour in corporate governance.*

Activist investors are often seen as investors who are unhappy with certain aspects of the management or operation of a business. They try to make changes within the company without changing control (Stuart *et al.,* 2007). The common understanding of corporate governance is often narrowly circumscribed to the structure and functioning of the board of directors and the rights of shareholders in corporate decision-making (Clarke, 2007).

However, the literature on financial institutions has shown that shareholder activism can create value and be an effective mechanism for bank supervision (Brav *et al.,* 2008; Klein *et al.,* 2009), as it can be a mechanism for destabilizing shareholder value maximization that can increase risk taking (Bray *et al.,* 2008).

Greenwood *et al.* (2009) found that activist shareholders can induce positive changes in the companies they control and thus increase its value. They report both positive and significant abnormal yields and modest changes in operating performance during the time of activism.

- ✓ *The structure of ownership.*

The report of the Bale Banking Supervisory Committee (2010) stressed the importance of the problem of corporate governance in the banking sector as a *"principle to strengthen corporate governance."*

The Basel committee has shown that bad governance can lead to bank failures. The committee's report adds that *"there are unique challenges in corporate governance when bank ownership structures are too complex and lack transparency."*

In addition, the ownership structure presents itself as a control system that can replace the board of directors (Booth *et al.,* 2002; Belkhir, 2009). As a result, the governance problem, which the board of directors is unable to resolve, appears between the majority and minority shareholders, since the board is controlled by the majority shareholder. In this case, the accumulation of cash flow rights is a crucial governance mechanism.

Additionally, weak corporate governance and excessive risk-taking have caught the oversleeve for recent years, primarily in the financial sector, but in other sectors as well, and have not always been the result of deficiency in financial risk-taking (e.g., Olympus, Enron, WorldCom, Satyam, Parmalat) cases, to name just a few from the non-financial sector. As a result, corporate governance failures led to instability and enormous losses on the market. In fact, these are the reasons that motivate students to study good governance practice in companies (Kirkpatrick 2009; Basel Committee on Banking Supervision 2010; Zagorchev and Gao 2015).

Therefore, the number of studies examining the efficacy of corporate governance in financial institutions during the crisis period has increased. These studies emphasize that corporate governance characteristics in the financial sector, such as board's features, CEO pay, and ownership, played an important role during the global financial crisis (Fahlenbrach and Stulz 2011; Beltratti and Stulz 2012).

Prior literature suggested that the governance mechanisms are specified to mitigate agency conflicts and prohibit expropriation by managers and controlling shareholders. Moreover, active monitoring can mitigate these agency conflicts (Dechow and Sloan, 1991; Wright *et al.,* 2007; Hiroyuki Aman, 2013). In this context, corporate governance should lower the firm's discount rate and firm's value.

However, the minority shareholders suffer from asymmetric information problems when evaluating a firm's corporate governance practices. The nuisance of foreign investors is to determine whether the adoption of formal good governance policies is a sign of good governance practices, or window-dressing to improve a firm's external image. Therefore, good governance implies the organizational structures that help decrease agency conflicts by raising the incentives to select good decisions and deterring choices that damage the firm's value.

Some research studies of corporate governance mechanisms consider that the institutional investors, independent directors and foreign directors are considered as the keys to good governance. In this field, (Zhian Chen *et al.,* 2013; Xuan Vinh Vo, 2016) suggest that the institutional investors have an important role in maintaining the stability of the stock markets.

On the other hand, Paresh Kumar Narayan *et al.* (2015) indicate the countries with well-developed governance, will have this stock market returns increased.

We presented this research, and we examine the direct link between good corporate governance country-level, stock liquidity and stock market return (Paresh Kumar Narayan *et al.,* 2016). This study focuses on the relationship between governance quality and stock market return (Zhian Chen *et al.,* 2013).

The main purpose of this study is threefold. The first part is to document the relationship between good corporate governance, stock market return, and Stock liquidity in the French context. We retain institutional investors, independent directors and foreign directors as three corporate governance mechanisms able to enhance the stock return, reduce and improve stock liquidity.

Our second purpose is to explore further the interaction between risk liquidity and some corporate governance variables to better explain the theoretical adverse selection. To measure that, we use a sample of SBF 120 firms which consists of 89 companies from 2009 to 2015.

Using panel data and Four - stage least squares, three panels are studied. Panel A is Stock return volatility. Panel B is for Stock rerun and Panel C for stock liquidity. For each panel, we examine the relationship between corporate governance and this independent variable. We achieved some very interesting results. First, we observe the GCG Index, firm size, ROA, and market to book that they are positively and significantly correlated with stock liquidity. Second, the result indicates that the GCG Index, firm size, ROA, and market to book are positively and significantly correlated with stock return.

Our paper contributes to literature in several ways. First, few studies examine the relationship between good corporate governance, stock market return, and Stock liquidity in the French context (Paresh Kumar Narayan *et al.,* 2016). The findings of those studies are often not conclusive (Zhian Chen *et al.,* 2013). We also include variables that capture good corporate governance index.

Second, this paper examines this relationship in a different institutional context, the French market. This selection is stimulated by divergence in legal systems and the development of financial markets between France and the Anglo-Saxon context. The French suffered a civil law distinctive regulatory and institutional framework to common law from the US.

The legal systems and the development of financial markets of France as civil low country are different from the common law (Anglo-Saxon) context. The difference is presented in the ownership structure and institutional investors. Indeed, the ownership structure of most French companies is more concentrated than in American companies.

Concerning the institutional investors in France (who are under a civil low country), they are less protected than those under common Low Countries. Institutional

investors are then seen as a guarantee of minority protection and have a favorable influence on corporate governance structures. As a result, these investors are not considered sophisticated investors (anti-selection hypothesis), their main role is being to control the managers.

Third, our studies supply a theoretical framework and lead new evidence for the relationship between good corporate governance, stock market return, and Stock liquidity in the French context.

The rest of the paper is organized as follows. Section 2 presents a literature review and hypothesis development. Section 3 describes in detail the research design with the period, sample, the models, and measures of the variables. Section 4 presents empirical results. Section 5 concludes the paper

2. Previous Literature and Hypotheses Development

Governance is the exercise - political, economic, and administrative exercise of power or authority in other words is the management of the resources and affairs of a country. It includes the mechanisms, processes, and institutions through which citizens and groups articulate their interests, exercise their legal rights, fulfill their obligations and resolve their differences.

"Good governance" means appropriate management of the resources and affairs of a country in an open, transparent, accountable, equitable and responsive manner. In fact, it is now the subject of much theoretical debate and at the heart of the concerns of companies and political and stock exchange institutions that are constantly defining and redefining the rules precisely.

2.1 The Importance of Corporate Governance

It has become important as the classic model has delivered inconclusive results, and because the primacy of shareholders has begun to be challenged. Between 1900 and 2000, Britain’s share of world GDP increased to 5.6 per cent. British companies have been driven out of major markets, such as shipbuilding, vehicle manufacturing, investment banking. Great Britain has seen its lead in innovation of key new products, decreasing to the benefit of their American and other competitors.

This decline was reinforced by several disasters in companies since the 1970s, requiring the rescue of Rolls Royce, Jaguar and others, and more recently by several major scandals (BCCI, Maxwell, Polly Peck, Guinness). It seems that British companies have not only failed in the face of global competition, but also in the face of the risk of internal decay. Such a situation was damaging to the British economy and posed a direct threat to the credibility of the City of London as a market for investors.

As a result, the Stock Exchange launched the Cadbury survey into the financial aspects of corporate governance in 1990, and corporate governance became a focus.

Since the 1997 Asian financial crisis, the issue of corporate governance has received much attention and discussion. In general, corporate governance refers to corporate supervision and control. The primary objective of corporate governance is to prevent or reduce the problem of the agency so that the interests of investors and stakeholders in the company can be treated fairly.

In this context, Mitton (2002) stressed that corporate governance becomes important in times of financial crisis, as that is when the interests of minority shareholders will increase. Corporate governance can generally be discussed either at country level or at enterprise level. At the country level, La porta *et al.* (2000) stressed that corporate governance has an important influence on the development of financial resources, markets and company values, and that it is developed as a whole, financial markets to protect the rights of investors. These authors add that companies in countries that provided better protection to shareholders, had an average a higher Q of Tobin seriously compromised (Johson *et al.,* 2000).

In addition, Johnson *et al.* (2000) suggest that corporate governance mechanisms may explain the depreciation of the currency and the extent of the stock market decline during the financial crisis. In this case, it is useful to study the effects of bad governance on the health of the company.

2.2 Good Governance and Stock Markets

Since the 1997 financial crisis, development in East Asia has revealed the crucial importance of structural reforms in corporate governance. These reforms are necessary to strengthen the microeconomic base of economies. They are also important to ensure sustainable development in markets that have become increasingly free, open and interdependent.

In addition, the many scandals that have taken place in recent years, such as those of Enron, Parmalat and the financial crisis of 2007-2008 highlighted the need for effective corporate governance or good corporate governance. In other words, the events that led to the financial crisis have demonstrated the need for greater transparency in the financial transactions sector, the ability to control corporations and the integrity of financial markets (Johannesson *et al.,* 2012).

Foerster *et al.* (2004) showed a positive relationship between the different corporate governance measures and equity returns for 270 Canadian companies. These authors stated that Canadian companies with good corporate governance practices obtain 8.8% of abnormal returns that are more positive than companies that do not have good corporate governance practices. Similarly, Harris (2009) who examined the relationship between good corporate governance practice and the value of the stock

market to Latino-based companies American finds that good corporate governance increases the market value of companies and improves financial performance. In addition, empirical evidence from US companies supports the view that good governance is highly valued by participants in credit markets.

Bhojraj and Sengupta (2003) show that effective oversight (represented by percentage of institutional ownership) and board independence (proxy by proportion of external directors) have a positive influence on credit ratings and a negative influence on bond yields. Greater transparency has a positive impact on credit ratings.

Anderson *et al.* (2004) noted that the size of the board and financial expertise are associated with lower debt costs. The size and independence of the company's audit committee also has a negative impact on the cost of the company's debt. In addition,

Klock *et al.* (2005) show that anti-OPA provisions, which are normally indicative of poor governance, help lower the cost of corporate debt by allowing managers to pursue low-risk strategies.

Furthermore, Mitton (2002) found that companies with better corporate governance had lower share prices during the financial crisis. In summary, Mitton (2002) also indicated that the price of shares would be better if the company has a better quality of disclosure of information or a greater concentration of outside interests.

There is evidence worldwide that good corporate governance practice positively affects a company's performance. Coombes and Watson (2002) show that investors are willing to pay more for shares in good corporate governance companies. To this end, we can consider institutional investors to be key factors in good governance.

As far as the principal basis of good corporate governance is concerned, there is always ambiguity in the research that has been done. Dutu (2009) assumes the cumulative existence of participation, transparency, responsiveness, the rule of the law, consent, equity and inclusion, effectiveness and efficiency and accountability.

However, other research, such as that of Benham *et al.* (2010), focused on the following four key elements (accountability/accountability, transparency, integrity, and equity).

Firstly, the responsibility implies that the board ensures that companies comply with laws and regulations that reflect society's values (OECD, 2004). It can be practiced through the participation and involvement of stakeholders in strategic decision-making. In addition, accountability is an essential requirement of good governance.

Secondly, the integrity presenting the principle is defined as the predisposition of an organization to provide explanations and justifications for the main players involved

in judgments, intentions and omissions, if they are requested to do so (Arjoon, 2004).

Thirty, transparency means that the information provided is free and directly accessible, which is the subject of these decisions and their application. Transparency can be seen in the use of simple expressions that facilitate public communication with the public. In other words, it depends on the free flow of information and the presence of the procedures and institutions specific to the individuals concerned. Further, transparency means that the company provides adequate and timely information to its partners about its operations and activities (Pahuja *et al.,* 2010).

This information relates to financial performance, corporate governance, ownership structure, voting rights and key executives and their remuneration (OECD, 2004). Finaly, the means that the board of directors must ensure fairness in the execution of contracts between the company and resource suppliers (OECD, 2004).

In the same vein, some research has explained that the institutional investor, the independent and foreign directors and the index of good governance are keys for good corporate governance as they contribute to minimizing the stock market return volatility and at the same time increases the stock market returns.

2.2.1 Institutional Investor and Stock Market Return

Most of the research structures in this area focus on measurement of the effectiveness of corporate governance structures over periods of non-crisis. As a result, the results may not fully reflect the defense capabilities and the caliber of corporate governance mechanisms. Some researchers conducted background studies to assess the impact of the Asian crisis of the late 1990s on firm's performance and governance structure (Johnson *et al.,* 2000; Mitton, 2002), Klapper *et al.,* 2004, Davis-Fri, Eng, and Lin, 2006).

However, due to factors that differ across countries, Miller (2004) suggests that studies should focus on a country or a region of the world to control the effect of these factors. The financial crisis of 2008 raised serious concerns about the effectiveness of corporate governance mechanisms in safeguarding the interests of investors.

In this context, one of the important issues emerging from the recent financial crisis is the negative role played by institutional investors before and during the crisis period. Some observers argue that institutional investors have exacerbated the crisis by putting pressure on financial services entities for short-term profits and increased risk-taking.

First, good corporate governance increases the confidence of investors and their willingness to pay more and make the actions less costly and likely to expropriate

managers. Moreover, good governance means that "more profits from the business would accrue to investors as interest or dividends rather than being expropriated by the entrepreneur controlling the business" (La Porta *et al.,* 2002). On the other hand, investors perceive that well-governed companies which are exposed to risk and better monitored, tend to apply expected rates of returns, leading to a valuation of the company (Krafft *et al.,* 2013).

Similarly, the introduction of foreign capital into domestic stock markets improves risk control and reduces the risk exposure of the listed companies (Wang *et al.,* 2009, Umutlu *et al.,* 2010). Foreign capital chooses to manage well-investing firms, which accelerates the improvement of corporate governance (Stulz, 1999; Chari *et al.,* 2010).

Jordan *et al.* (2012) put forward strong evidence that the proportion of external administration with advanced foreign degrees stabilizes the volatility of stock prices. They also showed that the increase in foreign holdings would then stabilize stock prices. This result, however, may reveal another important difference between foreign and domestic investors in their responses to profiles of directors. The extent to which foreign and domestic investors respond to external administrator's information may be greater in the case of advanced foreign credentials than in other government affiliations, which significantly reduces the volatility of stock prices.

This is based on a conjecture in which both types of investors can perceive the same information with a different meaning. Thus, Yan and Zhang (2009) show that short-term institutional investors are better informed than long-term institutional investors and actively negotiate to exploit the benefit of their information. Elyasiani and Jia (2008) and Elyasiani *et al.* (2010) argue that stable institutional investors are better motivated and have a better ability to effectively monitor and play an important role in mitigating agency conflicts and reducing risk Information in the company.

Similarly, Schuppli *et al.* (2009) showed that foreign institutional investors have a stabilizing effect on the Chinese stock markets. Thus, modern portfolio theory suggests that large investors might want to reduce the specific risk of the firm because they internalize, at least partially, the consequences of the company's failure (systematic risk) and distrust of excessive risk-taking (Gordon and Muller, 2011). These company-specific risks include the risk created by the weak practices of risk management.

An and Zhang (2013) explored the relationship between institutional investors and the sharp fall of stock prices. They concluded that strong supervision by dedicated institutional investors mitigates the bad news of hoarding managers and thus prevents the rapid decline of stock prices. In sum, the first hypothesis of this study is:

H1: the impact of institutional investors on the stability (minimization) of the volatility of stock prices and the increase of stock market returns.

2.2.2 The Impact of Foreign Directors on the Stability of the Stock Market

The role of external directors has been the central theme of the board's literature (Fama and Jensen, 1983; Hermalin and Weissbach, 2003; Adams and Ferreira, 2007; Knyazeva, Knyazeva and Masulis, 2013).

At the heart of the board's role in companies, foreign directors play a very important role. Management researchers have continuously examined the relationship between external directors and corporate performance (Daily, Dalton, and Cannella, 2003; Finegold, Benson, and Hecht 2007; Johnson, Quotidien, and Ellstrand, 1996; Zahra and Pearce, 1992).

Fama and Jensen (1983) Jensen and Meckling (1976) showed the role played by outside directors in monitoring shareholder-manager conflicts. In this regard, the demographic characteristics of external directors can be an important corporate governance mechanism for shaping firms' behavior and influencing their performance.

For example, personal profiles of the board's members influence the investment decisions. Although external directors have higher degrees from abroad, they can contribute to the value of the business in several ways.

Jordan *et al.* (2012) paid particular attention to the impact of independent directors on the volatility of equities and found that external directors contributed to the stability of share prices. Independent directors with some experience tend to take certain roles. Agrawal and Knoeber (2001) showed that independent external directors with political experience tend to play political roles in regulated firms. As a result, we note that administrators can play several roles as monitors, counselors or facilitators for businesses.

Over the past decade, the need for good corporate governance and the numerous bankruptcies that occurred has led to Sarbanes-Oxley legislation in 2002. Moreover, the recent global financial crisis plunged many Organizations in financial distress, among these: Lehman Brothers, Bear Stearns, and General Motors.

Conversely, Andreou *et al.* (2013) considered several characteristics of corporate governance and their effects on future falls of firm-specific stock prices. These authors found that future falls in share prices are positively related to foreign directors.

The CEOs of these companies can be too aggressive, take a lot of risks to lead their companies to financial problems. Conversely, other companies, where the CEO's success is at the helm, have managed to perform better probably because of the good

strategic decisions made by the CEO. Based on the above, the second hypothesis of this study is:

H2: The impact of foreign directors on the stability (minimization) of stock price volatility and the increase in stock market returns.

2.3 The Impact of the Good Governance Index on the Stability of the Stock Market

Using a governance index, we can bring together a heterogeneous set of companies. In this case, the image of the governance structure of firms can be identified through a good distribution of the criteria of this index. The reality, in this context, reflects a variety of indices, namely the IRRC with 24 criteria, the ISS has 61 (Brown and Caylor, 2004), and the GMI shows up to 600 criteria in its index.

Bebchuk *et al.* (2008) created an index based on the relative importance of the 24 provisions followed by the Investor Responsibility Research Center (IRRC). These authors held that they planned to be more adequate and appropriate than the others. Their investigation begins a line of substantial research using their governance index (herein, the GIM index) based on the 24 IRRC provisions (Gompers *et al.,* 2003, Amit and Villalonga, 2006).

The small size of their index is justified by the fact that many criteria could be counterproductive. They stress that the criteria for their index are based on the literature, the recommendations of the AFG and consulting companies like Proxinvest. They also have the specificity to show an exact choice for their adoption. This index depends on the legal context. Indeed, if one of the criteria is required by law, it is no longer usable. The governance index gives each firm a point for each of the ten criteria of the index that the firm respects.

The construction of the index of good corporate governance is simple. According to Wirtz (2009), a point is added to each company for its willingness to restrict good corporate governance practice. Although this simple index does not accurately reflect the relative impacts of different provisions, it has the advantage of being transparent and easily reproducible. This index does not require judgments on the effectiveness of any of these provisions.

Thus, the index of governance ("G") is one point for the existence (or absence) of each provision. According to this index of good corporate governance, we find several works that are based on this index but are different under construction according to the authors.

Peni and Vähämaa (2011) applied Brown and Caylor's Gov-score governance index (2006-2009) to measure the strength of governance mechanisms within banks and analyze the effects of corporate governance on the profitability of the bank, market

valuation, and stock returns. They found that banks with strong corporate governance mechanisms in 2008 had significantly higher returns. This discovery suggests that good corporate governance can moderate the negative influence of the financial crisis on performance.

Moreover, the authors found that banks with stronger corporate governance mechanisms have substantially higher stock market returns in the immediate wake of the crisis from March 2009, indicating that good governance can mitigate the negative effects of the financial crisis on the credibility of the bank between the participants of the stock market.

The authors also indicated that good corporate governance practices might have had adverse effects on the stock market valuations of banks during the crisis. In addition, companies with good governance are associated with Tobin Q's decline of stock market returns. This is specified by the extensive prior literature on the positive influence of good governance on the financial and stock market performance of firms (Ammann *et al.,* 2011; Brown and Caylor 2006; 2009; Caprio *et al.,* 2007; Gompers *et al.,* 2003; Johnson *et al.,* 2009; Sierra *et al.,* 2006; Renders *et al.,* 2010). Based on the above, the third hypothesis of this study is:

H3: The impact of the good governance index on the stability (minimization) of the volatility of stock prices and the increase of stock market returns.

2.4 Corporate Governance and Stock Liquidity

The relationship between corporate governance and liquidity risk is still a subject of debate in academic literature and has not yet reached consensus. Most of the empirical research has examined the effect of corporate governance on stock market liquidity. The main conclusion is that improvements in governance structures reduce the asymmetry of information between Insiders and outsiders and improve market liquidity.

The separation of ownership and control in modern corporations raises an asymmetry problem between managers and investors: the managers have information that investors do not have (Jensen and Meckling, 1976). Empirical studies have also documented that the institutional bargaining is more informational, such as Ali *et al.* (2004), and Bushee and Goodman, (2007) argue that large institutional ownership increases the degree of information asymmetry (Rubin, 2007; Brockman and Yen, 2009) and yield volatility (Wang, 2007).

Baker and Stein (2004) claim that institutional ownership reduces the sensitivity of stock market returns to market liquidity fluctuations due to institutional transactions that are less likely to be motivated by the same feeling as the individual trades. Others argue that different types of institutional investors have the opposite effect on liquidity risk.

For instance, Brunnermeier and Pedersen (2009) show that liquidity risk has a significant impact on institutional ownership. Dennis and Strickland (2002) show that abnormal stock returns during periods of high market volatility are related to the percentage of institutional ownership. Cao and Petrask (2013) find that institutional ownership can be used to predict abnormal stock market returns during the liquidity crisis.

On the other hand, Beber *et al.* (2012) find that institutional ownership affects the liquidity of securities. Chales *et al.* (2014) show that institutional ownership affects the sensitivity of stock market returns to changes in market liquidity (liquidity risk). Overall, institutional ownership reduces the liquidity risk of securities. Some papers also examine that both external governance systems, such as the right to protect shareholders and internal governance mechanisms, as the board structure and management remuneration significantly affect the liquidity of the stock market (Bacidore and Sofianos, 2002; Brockman and Chung, 2003; Chung *et al.,* 2010).

Chng *et al.* (2010), Goh *et al.* (2008) attributed the positive relationship between governance and liquidity of lower agency costs to the cost of adverse selection when the quality of governance improves. Goh *et al.* (2008) suggest that the link between governance and liquidity is largely driven by the effect of governance in addressing agency problems.

In this context, a few studies have attempted to analyse the empirical support of the positive relationship between corporate governance and stock liquidity around the globe, for instance, Chung *et al.* (2010) in the US, Foo and Zain (2010) in Malaysia, Lei *et al.* (2013) in China, Prommin *et al.* (2014) in Thailand, and Karmani and Ajina (2012) in France. Foo and Zain (2010) document a positive relationship between audit committee independence and stock liquidity.

3. Sample and Methodology

3.1 Data Collection

Our sample includes all industrial, commercial and financial sectors (such as banks and insurance) companies listed on the SBF 120 index. Our final sample consists of 89 companies from (2009-2015) who are compound from the study. Financial data related to stock prices and bid and ask prices were retrieved from the"invest.seechos.fr" and the "investor" database.

Table 1 summarizes the sample composition and presents the distribution of firms across sectors: Oil and gas and Basic material, industrials, consumer goods, consumer services, Financials, and Technology which represent a large portion of the total number of firms, although the remaining sectors are lack data.

Table 1. *Sample composition*

Sector distribution	SBF120
Oil and gas and Basic material	10
Industrials	19
Consumer goods Health care	8
Consumer services	27
Financials	17
Technology	8
Total	89

Source: *Own study.*

3.2 Definition and Variable Measures

3.2.1 Dependent variables

- *Stock market return volatility*

The volatility of equity prices is measured by the standard deviation of the stock price returns. The standard deviation is a measure of the historical volatility used by investors to estimate the amount of the expected volatility. This measure, which encompasses both systematic and non-systematic risk, has been widely used in empirical literature. The performance of the index includes not only the United States and the UK stock market (Sentana and Wadhwani, 1992) but also the mature European markets (Koutmos, 1997)), and Emerging markets in Asia (Koutmos and Saidi, 2001) as well as Eastern European (Bohl and Siklos, 2008).

- *Stock market returns*

The returns on equity prices are measured by the following formula: $\mathbf{ln}\ \frac{P_t}{P_{t-1}}$ for the annual data.

- *Stock market liquidity*

The market is described by bid and ask prices, a low bid-ask spread, and small orders (Demsetz, 1968). This research is based on liquidity measures: according to Ayman Ajina *et al.* (2015), the bid-ask spread (quoted) consists of adverse selection. In cases of information asymmetry, the bid-ask spread inflames and liquidity reduce. Also, in cases of a liquid market the variance between the best bid price and the best ask price is poor. We use the quoted spread (BASPA) measures as liquidity indicators (BASPE) measures as liquidity indicators:

$$\text{Quoted spreads} = \frac{Ask_t - Bid_t}{\frac{Ask_t + Bid_t}{2}} \quad (1)$$

3.2.2 Independent variables

- *Good corporate governance index (GCGI)*

The criteria for our index are based on the literature, recommendations of the AFG (French Management Association) and consulting companies like Proxinvest. They

also have the particularity of being a real choice for their adoption. This index depends on the legal context. Therefore, if one of the criteria is mandatory by law, it is no longer usable. The governance index gives each company one point for every 10 criteria of the index that the company respects.

The index is converted into a dummy variable, which equals one if the company has a criterion among the ten criteria of the governance index, and zero otherwise. With our approach, each firm has a score between 0 and 10.

The first observations have shown that no firm has reached a maximum score of 10. Based on prior studies on corporate governance, we use ten relevant corporate governance variables in the construction of the corporate governance index (CGI). This index comprises the following rights:

- Uniformity of voting rights
- Existence of the reference document
- Absence of regulated agreements
- No authorization to increase capital during the offer period,
- No authorization to increase capital without DPS 6) Mandates ≤ 4
- Independence of the board of directors
- The Board's size
- Duality
- Creation of the specialized committee.

Most of these criteria are recommended by the "good practice" reports (Wirtz, 2009), which are based on the governance literature (Biswas and Bhuyian, 2008). Also, each year, Proxinvest, in coordination with AFG, publishes a report on the governance practices of French listed companies. All the criteria of our governance index are drawn from these recommendations.

- *Institutional investors*

Institutional investors have an active role in the stability of the volatility of stock price returns. Many researchers and practitioners stated that excessive risk-taking is the main factor in the global financial crisis (GFC). They highlighted the importance of institutional investors in this scenario (Callen and Fang, 2013; Gorter and Bikker, 2013). Jordan *et al.* (2012) examined the impact of the institutional investors on the stock return volatility of Korean companies.

- *Foreign directors*

To measure the impact of foreign directors on the increase of the stock market returns and the minimization of the stock market volatility, we introduce the foreign directors' variable, which corresponds to the proportion of foreigners in the board of directors. This variable was also considered by Choi and Hasan (2005) and Gulamhussen and Guerreiro (2009).

- *Independent directors*

Representing the independent directors is measured according to whether the firm appoints the number of independent directors is measured by the percentage of independent directors on the board who are presented in the company. This variable was also considered by Brick and Chidambaran (2008), Minton *et al.* (2011), and Cheng Zhang *et al.* (2018).

3.2.3 Control variables

- *Debt ratio*

Debt ratio is the firm's debt ratio which is measured by the ratio of total debt to total assets. This measure has been used in previous work including those of Sumner and Webb (2005) and Pathan (2009).

- *Firm Size*

Firm Size is measured by the natural logarithm of the bank's total assets at the end of the accounting period. This measure was also used by Pathan *et al.* (2007), Pathan (2009) and Santamaria *et al.* (2011).

- *Market to book*

Market to the book is measured by market value/book value equity. This measure was also used by Jordan *et al.* (2012).

- *ROA: rate of return on total assets*

4. Research Methodology

4.1 Model Specification

4.1.1 Pooled Ordinary Least Squares

First, we use pooled ordinary least squares as a basic method for equation (2) testing the variation in the time series and the cross-sectional variation of the combination between GCGI, stock return, return volatility, and stock liquidity. The standard errors are clustered by firm to control heteroskedasticity and within-firm correlation in the residuals (Petersen, 2009). We also incorporate year and sector effects to capture variation over time and between sectors, respectively.

$$(Vol_{i,t}, \mathrm{Re}turn_{i,t,}, SLiqudity_{i,t}) = \alpha_0 + \beta_1 GCGI_{it} + + \beta_2 FD_{it} + \beta_3 INDD + \beta_4 INSTINV_{it} + \beta_5 FSize_{it} + \beta_6 ROA_{it} + \beta_7 Debtratio_{it} + \beta_8 MTB_{it} + \varepsilon_{it} \quad (2)$$

Where the Vol, Ret and Liquidity are dependent variables in the model, Vol is measured by the standard deviation of annual stock returns, Ret is measured by the natural logarithm of stock price, and Liquidity is measured by the quoted spread (BASPA).

The GCGI refers to the index is converted into a dummy variable, which equals 1 if the company has a criterion among the 10 criteria of the governance index, and zero otherwise. In addition to the variables related to corporate governance, the ININV, which represents the institutional investor, INDD represents the independent directors.

The FD which represents the outside directors is measured according to whether the firm appoints outside directors, or by the ratio of outside directors.

The following four control variables are included in the regression model. The ROA represents the firm performance in terms of the relative ROA. The MB represents the market to book the FSIZE which represents the firm size measured by the natural log of the market value of equity. The debt ratio represents the ratio of total debt to total assets.

In the next step, we use the firm fixed effect (FE) method to control unobserved heterogeneity, due to time-unvarying omitted variables that differ across firms but are constant over time.

4.1.2 Fixed Effects and between Estimators (BE) Method

Consider the following fixed effects panel data regression model

$$y_{it} = \alpha + x'_{it}\beta + u_i + v_{it}, \text{ for i= 1,2,……, n; t=1,2,….,T.} \quad (3)$$

where I present the cross-sectional dimension and t indicate the time series dimension. y_{it} is the dependent variable, x'_{it} denotes the k × 1 vector of exogenous regressors, and β is the corresponding k × 1 vector of parameters. u_i mark the invariant individual effects which can be fixed or random and could be correlated with the regressors. Define the vector of disturbances v_{it}= (v1t, . . . , vnt) ′ and its corresponding variance–covariance matrix $\sum n$.

We employ Hausman test is a test of homogeneity to decide whether to use fixed effects or random effects estimator for panel data. If the test statistic, which contrasts the fixed- and random-effects estimates, rejects the null hypothesis, in these cases the reject of the random effects and base their conclusions on the fixed-effects estimates. Third, we use a between estimators (BE) method that is based on the group means of the variables, therefore capturing only the cross-sectional variation. Four, we use a generalized method of moments (GMM)

4.1.3 Generalized Method of Moments (GMM)

To evaluate the literature, we assume a dynamic panel data model using the generalized method of moments (GMM) was purposed by Arellano and Bond (1991) and developed by Arellano and Bover (1995) and Blundell and Bond (1998).

This methodology is explained on the basis that traditional fixed effects estimator is biased in the presence of the lagged dependent variable as regressor, and it also reports for the prospective endogeneity of certain of the dependent variables.

This model treats the endogeneity problems that occur when modeling profit in a dynamic setting for unobserved heterogeneity and the persistence of the dependent variable (Lee and Hsieh, 2013). To resolve the endogeneity problem in the independent variables using a series of instrumental variables generated by lagged variables.

In this research, we use a dynamic panel data model of lagged levels of the dependent variables and for this reason we utilize the Blundell and Bond (1998) two-step system GMM methodology. This methodology is explained on the basis that traditional fixed effects estimator is biased in the presence of the lagged dependent variable as regressor, and it also reports for the prospective endogeneity of certain of the dependent variables. The last step, we use a four-stage least squares (4SLS) method

4.1.4 Four-Stage Least Squares (4SLS) Method

Finally, we employ the four-stage least squares (4SLS) method to eliminate the endogeneity problem from simultaneity bias between GCGI, stock liquidity, stock return, and stock return volatility. The four equations below, (4) with the inclusion of stock return volatility, and (5), (6), (7), are solved as a system of simultaneous equations using the 4SLS method

$$Vol_{it} = \alpha_0 + \beta_1 GCGI_{it} + \beta_2 FSize_{it} + \beta_3 ROA_{it} + \beta_4 Debtratio_{it} + \beta_5 MTB_{it} + + \beta_6 SLiqudity_{it} + \beta_7 Stockreturn_{it} + \varepsilon_{it} \quad (4)$$

$$Stockreturn_{it} = \alpha_0 + \beta_1 GCGI_{it} + \beta_2 FSize_{it} + \beta_3 ROA_{it} + \beta_4 Debtratio_{it} + \beta_5 MTB + + \beta_6 SLiqudity + \beta_7 Vol_{it} + \varepsilon_{it} \quad (5)$$

$$SLiqudity_{it} = \alpha_0 + \beta_1 GCGI_{it} + \beta_2 FSize_{it} + \beta_3 ROA_{it} + \beta_4 Debtratio_{it} + \beta_5 MTB_{it} + \beta_6 Vol_{it} + \beta_7 Stockreturn_{it} + \varepsilon_{it} \quad (6)$$

$$GCGI_{it} = \alpha_0 + \beta_1 SLiqudity_{it} + \beta_2 Vol_{it} + \beta_3 Stockreturn_{it\,it} + \beta_4 FSize_{it} + \beta_5 ROA_{it} + \beta_6 Debtratio_{it} + \beta_7 MTB_{it} + \varepsilon_{it} \quad (7)$$

5. Empirical Results

5.1 Descriptive Statistics

Table 2 illustrates the descriptive statistics for the regression variables. The stock market returns showed a mean of 0.0968908, with a maximum of 0.948. Separately, the second dependent variable in a volatility measure has the mean value is 0.

3093105 and the standard deviation 0.7019694. In terms of third dependent variable, liquidity market, the mean and the standard deviation are .0827279 and .2603019 respectively.

Table 2. *Descriptive statistics*

Variables	Obs	Mean	Std. Dev.	Min	Max
Stock market returns	623	.0968908	.7019694	-8.083	.948
Stock market volatility	623	.3093105	.2031021	0	1.330887
GCGI	623	5.186438	1.62023	.011144	10
FD	622	.184539	.1962405	0	.8
ININV	623	.5447982	.2990051	.0034521	1
INDD	623	.6276051	.0788631	.367	.786
FSIZE	623	6.995961	.5972471	5.512063	8.445513
ROA	623	.0727127	.5701457	-6.95	9.285
Debit ratio	623	.763196	3.042405	0.00598	0.10007
Stock market liquidity	620	.0827279	.2603019	-.9663138	2.035898
Market to Book	622	1.809702	.334848	0	3.357684

Source: *Own study.*

For an independent variable, on mean, the level of foreign directors in the French firms is 0.0968908 with a maximum of 0.8. These figures are consistent with prior research (Xuan Vinh Voa, 2015). We note that the size of the company shows a large gap between the 99 companies in our study with a minimum of 5.512and a maximum of 8, 445. The same trend also characterizes the variable of the index of good governance with a minimum of 0.011144 and a maximum of 10.

The same trend exists for the ratio of profitability, which has a minimum of -6.95 and a maximum of 9.285, whereas the variable of the turnover shows a minimum of -30.77598 and a maximum of 33.26007. Thus, the market to book ratio is present with a minimum of 0 and a maximum of 3.357684. On the other hand, the institutional investor variable also has a minimum of 0.0034521 and a maximum of 1.

5.2 Correlation Analysis

Table 3 shows the Pairwise correlation between the variables used in the analysis. In the relationship between GCGI, stock market return, stock market volatility and stock liquidity, as anticipated, GCGI has a significant positive correlation with stock market return, whereas GCGI has a statistically positive correlation with stock market volatility with stock market volatility.

However, GCGI has a significant positive correlation with stock liquidity. We also observe a significant and positive correlation between alternative of stock return and institutional investor, independent directors, Firm size. Additionally, foreign

directors have significant and negative correlation among alternatives of stock return.

In contrast, foreign directors, firm size, ROA stock liquidity and market to book negative correlation among alternative of stock return volatility except institutional investors a significant and positive correlation among alternative of stock return volatility.

Table 3. *The Pairwise correlation*

	1	2	3	4	5	6	7	8	9	10	11
stock market return	1.0000										
stock market volatility	0.0049	1.0000									
	0.9031										
GCGI	0.0707	0.0232	1.0000								
	0.0779	0.5630									
foreign directors(FD)	-0.1225*	-0.0524	0.0026	1.0000							
	0.0022	0.1917	0.9481								
institutional investor (ININV)	0.0994*	0.0258	-0.1009*	0.0298	1.0000						
	0.0130	0.0117	0.5210	0.4576							
independent directors(INDD)	0.0934*	0.0048	-0.0334	0.0316	-0.1197*	1.0000					
	0.0197	0.9057	0.4049	0.4318	0.0028						
Firm size (FSIZE)	0.1790*	-0.0003	0.1190*	-0.0098	0.1235*	0.1193*	1.0000				
	0.0000	0.9942	0.0029	0.8072	0.0020	0.0029					
ROA	-0.0082	-0.0517	0.0327	-0.0236	-0.0111	0.0289	-0.0066	1.0000			
	0.8388	0.1972	0.4151	0.5570	0.7828	0.4708	0.8694	-0.0045	1.0000		
Debit ratio	-0.0126	0.0472	0.0599	0.0117	-0.1038*	0.0172	0.1507*	0.9113			
	0.7530	0.2389	0.1351	0.7707	0.0095	0.6689	0.0002	0.0098	0.0318	1.0000	
stock market liquidity	0.0084	-0.0654	0.0427	-0.0099	-0.0206	-0.0884*	-0.0353	0.8081	0.4295		
	0.8353	0.1040	0.2884	0.8067	0.6087	0.0277	0.3806	-0.0745	-0.0238	-0.0183	1.0000
Market to Book	0.0031	-0.0685	-0.1994*	-0.1618*	-0.0028	-0.0877*	0.0044	0.0634	0.5531	0.6501	
	0.9387	0.0878	0.0000	0.0001	0.9451	0.0287	0.9118				

Source: *Own study.*

Additionally, CGQ is positively correlated with firm size, foreign directors, roa, and debt, indicating that better governed firms are associated with higher foreign directors and larger size, and have high ROA and debt in their capital structure.

On the contrary, CGQ has a negative correlation with institutional investor independent directors and growth opportunities (MTB), implying that better governed firms are associated with lower institutional investor, independent directors and lower growth opportunities.

5.3 Fixed and Between Effects Tests

To investigate the within variation and to control omitted variable bias, we apply the FE method and present the results in Panel "A" of Table 4. We again find that good corporate governance index and independent directors are positively and significantly related to stock return, also we can find the foreign directors have a negative and significant impact on the stock return. Concerning the relation between the stock return volatility and corporate governance, we observe that the good corporate governance index, independent directors and market to book have a negative and significant impact on the stock return volatility.

Furthermore, the connection between good corporate governance index and stock liquidity is positive but not significant. This result with those of Prommin *et al.* (2014), who do not find significant linkage between GCGI and stock liquidity in a cross-sectional setting, contrast with those *of* Searat Ali *et al.* (2017) indicates that a significant positive relationship between CGQ and stock liquidity, suggesting that better governed firms have greatly improved stock liquidity. Also, we can find market to book have a negative and significant impact on stock liquidity.

Table 4. *Fixed effects test*

variables	*Panel A: Fixed effects*								
	Stock return			*Stock return volatility*			*Stock Liquidity*		
	Coef.	*Std. Err.*	*P>|t|*	*Coef.*	*Std. Err.*	*P>|t|*	*Coef.*	*Std. Err.*	*P>|t|*
G CG index	*.014434**	*.0084986*	*0.089*	*-.0299215**	*.0169826*	*0.079*	*.0092296*	*.0105297*	*0.381*
Foreign directors	*-.4376593***	*.1927165*	*0.024*	*-.1046298**	*.0591656*	*0.078*	*.0567287*	*.0826998*	*0.493*
Institutionnel investors	*-.0516591*	*.2921051*	*0.860*	*-.0007386*	*.0896788*	*0.993*	*-.0554979*	*.1260032*	*0.660*
independent directors	*5.279382****	*1.384047*	*0.000*	*.1177967*	*.4249144*	*0.782*	*.5833001*	*.5942365*	*0.327*
Firm size	*.0313374*	*.2615841*	*0.905*	*.0629175*	*.0803086*	*0.434*	*-.0967214*	*.1123005*	*0.389*
ROA	*.0008359*	*.0437858*	*0.985*	*-.0189824*	*.0134426*	*0.159*	*.0075094*	*.0187866*	*0.690*
Debt ratio	*-.0108074*	*.0098586*	*0.273*	*-.0015503*	*.0030267*	*0.609*	*.003528*	*.0042315*	*0.405*
market Book	*.1097155*	*.0972731*	*0.260*	*-.05881***	*.0298637*	*0.049*	*-.0711305**	*.0417387*	*0.089*
cons	*-3.518446**	*1.897675*	*0.064*	*-.1773011*	*.5826029*	*0.761*	*.3249447*	*.8145121*	*0.690*

Note: ****Indicate statistical significance at 1% respectively, **Indicate statistical significance at 5% respectively, *Indicate statistical significance at 10% respectively.*
Source: *Own study.*

Table 5. *Between Effects Tests*

	Stock return			*Stock return volatility*			*Stock Liquidity*		
	Coef.	*Std. Err.*	*P>|z|*	*Coef.*	*Std. Err.*	*P>|z|*	*Coef.*	*Std.*	*P>|z|*
G CG index	*-.0091833*	*.0200274*	*0.647*	*.0079086*	*.0058397*	*0.176*	*.005599*	*.0069756*	*0.422*
Foreign directors	*-.445794***	*.1600323*	*0.005*	*-.0849088**	*.0468517*	*0.070*	*-.0085381*	*.0565726*	*0.880*
Institutionnel investors	*.1823083*	*.1371473*	*0.184*	*-.0617468*	*.0374934*	*0.100*	*-.0204368*	*.0393074*	*0.603*
independent directors	*1.233946***	*.5310208*	*0.020*	*-.0084934*	*.1438545*	*0.953*	*-.2873901***	*.1489353*	*0.054*
Firm size	*.1816614****	*.0726721*	*0.012*	*.0080549*	*.0195319*	*0.680*	*-.0105486*	*.0199897*	*0.598*
ROA	*-.0061302*	*.0434582*	*0.888*	*-.0195346*	*.0132993*	*0.142*	*.0049222*	*.0182148*	*0.787*
Debt ratio	*-.0096577*	*.0090912*	*0.288*	*.0000576*	*.0027362*	*0.983*	*.003003*	*.003559*	*0.399*
market Book	*.0351587*	*.0879648*	*0.689*	*-.0532436*	*.0262665*	*0.043*	*-.0217842*	*.0333877*	*0.514*
_cons	*-1.973481*	*.6220939*	*0.002*	*.364395*	*.1703997*	*0.032*	*.1829138*	*0.294*	*0.632*

Note: ****Indicate statistical significance at 1% respectively, **Indicate statistical significance at 5% respectively, *Indicate statistical significance at 10% respectively.*
Source: *Own study.*

To gain further insight, we separately investigate the cross-sectional variation through the BE regressions. A contrary, the results (see Panel "B", Table 5), indicate find that the independent directors and firm size have a positive and significant impact on stock return. Furthermore, foreign directors have a negative and significant impact on the stock return. In this table we can see the foreign directors and market to book have a negative and significant impact on stock return volatility. Furthermore, the connection between independent directors and stock liquidity is negative and significant.

5.4 Pooled Ordinary Least Squares

Table 6 presents the results of pooled OLS estimates of regression Equation (2), where good governance index is the proxy of GCGI, Firm size (the natural logarithm of cp), market to Book (BM), the institutional investor (ININV), foreign directors (FD) ROA (firm performance), and debt ratio.

The results in Panel "A" indicate that the coefficient on GCG index is positively significant at the 10% level of stock return. This suggests that GCG index is inversely linked with the stock return. Furthermore, the foreign directors have a negative having a significant effect on the stock return. This result indicates that foreign director's make the stock of the invested firms becoming less volatile when they increase their holdings in local firms. This result is conflicting with that of (Aggarwal *et al.,* 2008). In the same way, we therefore can conclude that the GC Index and debt ratio have a positive and significant effect on stock market returns.

Table 6. *Pooled Ordinary Least Squares*

variables	*Stock retun*			*Stock retun volatility*			*Stock liquidity*		
	Coef.	Std. Err.	P>|t|	Coef.	Std. Err.	P>|t|	Coef.	Std. Err.	P>|t|
G CG index	0.022800*	.0174617	0.019	-.0011733	.0051609	0.820	.0055182	.0058895	0.349
Foreign directors	-.465110***	.1421868	0.001	-.0671403	.0420237	0.111	-.0128503	.0647788	0.843
Institutionnel investors	.21162821**	.0945249	0.026	-.0675757*	.0279371	0.016	-.0199657	.0352274	0.571
independent directors	.77561400**	.3563251	0.030	-.0276709	.105313	0.793	-.295271**	.1339598	0.028
Firm size	.1815121***	.0477907	0.000	.0032052	.014124	0.821	-.010233	.0177949	0.565
ROA	-.014583612	.0483191	0.763	-.0214825	.014280	0.133	.0042771	.0093327	0.647
Debt ratio	-.00701167	.0092144	0.447	.0023219	.002723	0.394	.0030776*	.001855	0.098
market Book	-.048422189	.0855853	0.572	-.0500401**	.02529	0.048	-.0149567	.0374691	0.690
_cons	-1.47712***	.4446137	0.001	.4377939***	.131406	0.001	.1832209	.185781	0.324

Note: ****Significance at the 1% level, **Significance at the 5% level, *Significance at the 10% level.*
Source: *Own study.*

However, the results in Panel "B" present, the coefficients on the institutional investor and the market to book have a significant and negative (at 1%) effect on the stock market return volatility, which indicates that the institutional investor and the market to book are important factors that lead to the reduction of the stock market return stability (Wei Huang *et al.,* 2014).

This result also confirms our hypothesis which implies that institutional investors stabilize the stock price volatility. This result confirms with previous studies (Bernard Olivero *et al.,* 2011). Regarding the foreign directors, independent director and the firm's size, they have an insignificant and negative effect on the stock market return volatility.

Concerning the results in Panel "B" present, the independent director has a significant and negative (at 5%) effect on the stock liquidity also we can observe debt the ratio has a significant and negative (at 10%) effect on the stock liquidity.

5.5 Dynamic Panel Data Estimation

To address the potential endogeneity issue, we employ the dynamic GMM estimation of Arellano and Bond (1991) and Holtz-Eakin *et al.* (1988) to investigate the dynamic relationship between corporate governance and stock price volatility.

This method is recommended for our data set which has the characteristics of large cross-section and short time series. Table7 presents the estimation results. In this table we can see that the GCG Index has a negative impact on the stock return volatility, while the foreign directors, firm size, debt ratio, and market to book have a significant and negative effect on the stock return volatility. This result confirms the studies of (Xuan Vinh Vo, 2015). Furthermore, the results found that the coefficient of the independent directors is positive and statistically significant at the 1% level effect on the stock return volatility.

However, the results indicate that the GCG Index, firm size, ROA, and market to book are positively and significantly correlated with stock price, except the debt ratio, have a significant and negative effect on the stock return. Concerning the relationship between corporate and stock liquidity, we observe the GCG Index, firm size, ROA, and market to book are positively and significantly correlated with stock liquidity. This result suggests that better governance is related to greater stock liquidity. This result confirms the studies of Searat Ali *et al.* (2017) found a significant positive correlation between CGQ and stock liquidity

Furthermore, the institutional investors are significantly correlated with stock liquidity. This result confirms of the studies of Brunnermeier and Pedersen (2009) show that liquidity risk has a significant impact on institutional ownership. Also, we can see the debt ratio is statistically significant and negatively correlated with stock liquidity. To test for the validity of the instruments, we employ the Sargan test to test for the over-identify restrictions in the GMM estimation. The J-statistics provided in Table 7 suggest that the models are valid and do not suffer from over-identifying problems.

Table 7. *GCGI, Stock return Stock return volatility Dynamic panel data estimation*

variables	***Stock retun volatility***			***Stock retun***			***Stock liquidity***		
	Coef.	Std. Err.	P>|t|	Coef.	Std. Err.	P>|t|	Coef.	Std. Err.	P>|t|
L1.	.2007983***	.0360777	0.000	.5182312***	.0115561	0.000	.0618618	.0444376	0.167
G CG index	-.0045009	.0053006	0.398	.0779004*	.0299905	0.011	.032538***	.0086066	0.000
Foreign directors	-.1282265*	.0517146	0.015	-.0627755	.1841507	0.734	-.0306819	.0566081	0.589
Institutionnel investors	-.0194836	.0450685	0.667	-.0914374	.2340152	0.697	-.1674435**	.0714303	0.021
independent directors	.4315342*	.2370046	0.072	-1.127855	1.101632	0.309	-.4550959	.2942277	0.126
Firm size	-.2114177***	.0600753	0.001	1.509514***	.3315011	0.000	.5214932***	.1183136	0.000
ROA	-.0140796***	.0018375	0.000	.0651234***	.0084655	0.000	.0127917***	.0031238	0.000
Debt ratio	.0084802***	.0017852	0.000	-.0312094*	.0119762	0.011	-.009216*	.0037344	0.016
market Book	-.1116713***	.0303147	0.000	.157341**	.0682683	0.024	.0235692	.0440879	0.594
cons	1.704106***	.4324879	0.000	-10.32381***	1.788769	0.000	-3.571871***	.8095429	0.000
AR(1)	Pr > z = 0.000			z = -2.33 Pr > z = 0.020			z = 0.64 Pr > z = 0.522		
AR(2)	Pr > z = 0.199			z = -0.64 Pr > z = 0.522			z = -4.89 Pr > z = 0.000		
Sargan test	chi2(29) = 34.57 Prob > 0.219			104.71 Prob > chi2 = 0.000			28.70 Prob > chi2 = 0.481		
Hansen test	28.43 Prob > chi2 = 0.242			62.52 Prob > chi2 = 0.000			31.80 Prob > chi2 = 0.329		

Source: *Own study.*

5.5.1 Four - Stage Least Squares

The four Equations, (4), (5), (6) and (7) are solved as a system of simultaneous equations using the 4SLS method, results are reported in Table 8. We do not report the control variables for brevity. Table 8 shows the effect of GCGI on stock liquidity. Even with direct control of endogeneity with 4SLS, the findings found that the GCGI have a negative effect on stock liquidity.

This result indicates that the better GCGI improves stock liquidity, also, we can observe that the stock return has a negative effect on the stock liquidity. Furthermore, we can see the stock return volatility return has a positive effect on the stock liquidity.

For the relationship between the GCGI and stock return volatility, the result found that the coefficient on GCGI is negative and statically significantly at 1% on the stock return volatility. However, stock liquidity has a positive effect on stock return volatility.

Concerning the relationship between the GCGI and stock return, the result indicate that the GCGI and firm size have a positive effect on stock return, while ROA have negative and statically significantly at 10% on the stock return.

Regarding panel D, we observe that the coefficient on stock return volatility and stock liquidity is negative and statically significantly at 1% on the GCGI. Moreover, the stock return and roa have a positive effect on the GCGI.

Table 8. *Four - stage least squares: Reverse causality*

	Panel A: Stock liquidity			**Panel B: Stock return volatility**			**Panel C: Stock return**			**Panel D: GCGI**		
	Coef.	Std. Err.	P>|z|	Coef.	Std. Err.	P>|z|	Coef.	Std. Err.	P>|z|	Coef.	Std. Err.	P>|z|
GCGI	-.062301***	.0052462	0.000									
Firm size	.0183845	.0146103	0.208									
roa	.0186339	.0177535	0.294									
Debt ratio	-.0024891	.0025252	0.324									
market too book	-.031321	.0437261	0.474									
Stock return volatility	.6234778***	.0946237	0.000									
Stock return	-.1871298**	.1028601	0.069									
Panel B:												
GCGI				-.1041163***	.01081	0.000						
Firm size				-.0307771	.0228493	0.178						
roa				-.031972	.0269538	0.236						
Debt ratio				.0037543	.0041201	0.362						

market too book				.0502076	.0728482	0.491						
Stock liquidity				1.67896***	.0886116	0.000						
Stock return				.2735033	.1799849	0.129						
Panel C:												
GCGI							.1812918***	.0460104	0.000			
Firm size							.0895187**	.04142	0.031			
roa							.0318381	.0774092	0.681			
Debt ratio							-.0162435*	.0092998	0.081			
market too book							-.0824678	.0735189	0.262			
Stock liquidity							-.5517516	1.129816	0.625			
Stock return volatility							1.806439	1.110434	0.104			
Panel D:												
Stock liquidity										-12.99365***	1.487787	0.000
Stock return volatility										-9.366334***	2.170929	0.000
Stock return										3.135826*	1.321149	0.018
Firm size										.3554036*	.1956413	0.069
roa										.2728226	.2787074	0.328
Debt ratio										-.0472318	.0366991	0.198
market too book										-.4921177	.5933236	0.407

Source: *Own study.*

6. Conclusions and Future Directions for Research

In this study, we investigated empirical research of the relationship between corporate governance, stock market return, stock market volatility and stock liquidity, using a sample of 89 French companies over the period 2009- 2015.

Using on two variables correlated with the board's structure, namely, the board's size and foreign directors, one variable related to institutional investor, three control variables, namely firm size, ROA, and market to book, and we construct a corporate governance index (CGI) for the full sample of the companies listed on the stock exchange SBF120 (89 companies).

This helped us to evaluate the extent to which corporate governance, regarding ownership and the board's characteristics, affects stock market returns and volatility.

The major finding of this research is that firms are characterized by a good corporate governance system that enables them to reduce stock market return volatility, hence, increase the stock market return. Also, the findings found that the better GCGI improves stock liquidity

However, corporate governance considers us the important factor of the failure of many financial and no financial institutions, especially during the global financial crisis. This finding can be explained by the weakness of corporate governance, which leads to the financial crisis (Walker's review, UK, 2009).

Our findings provided several insights. First, the institutional investor and the board 's size have a significant and negative effect on the stock market return volatility, which indicates that they are important factors in reducing the stock market return volatility.

Second, we observe the GCG Index, firm size, ROA, and market to book are positively and significantly correlated with stock liquidity. Second, the result indicates that the GCG Index, firm size, ROA, and market to book are positively and significantly correlated with stock return.

Our research also contributes to the literature dealing with the relationship between corporate governance, stock market return, and volatility. This literature includes many studies Beltratti and Stulz (2012) and Minton *et al.* (2014), among others, and argues that boards require their firm to maximize the shareholders' wealth before the crisis period, which leads to excessive risks taking. However, this brings about considerable losses during the financial crisis.

This study is the first to account for the above results. We believe that our findings further confirm the importance of corporate governance and therefore can help investors and financial economists to understand the behavior of the stock prices. Although the existing studies have referred to the influence of corporate governance on stock market returns and volatility, no one has ever discussed whether better corporate governance can help reduce the stock price volatility in such a situation.

Since stock returns and risks are the major two factors that need to be considered by investors, our findings suggest that investors need to seriously appraise the firm's corporate governance when making investment decisions, because better corporate governance not only has a positive effect on the stock returns but can also stabilize the stock price volatility.

References:

Adams, R.B., Ferreira, D. 2007. A theory of friendly boards. The Journal of Finance, 62(1), 217-250.

Aggarwal, R., Erel, I., Stulz, R., Williamson, R. 2008. Differences in governance practices between US and foreign firms: Measurement, causes, and consequences. The Review of Financial Studies, 22(8), 3131-3169.

Agrawal, A., Knoeber, C. 2001. Do Some Outside Directors Play a Political Role? Journal of Law and Economics 44, 179-198.

Aman, H., Nguyen, P. 2013. Does good governance matter to debtholders? Evidence from the credit ratings of Japanese firms. Research in International Business and Finance, 29, 14-34.

Ammann, M., Oesch, D., Schmid, M. 2011. Corporate governance and firm value: international evidence. J. Empirical Finance, 18, 36-55.

An, H., Zhang, T. 2013. Stock price synchronicity, crash risk, and institutional investors. Journal of Corporate Finance, 21, 1-15.

Andreou, P.C., Antoniou, C., Horton, J., Louca, C. 2016. Corporate Governance and Firm-specific Stock Price Crashes. European Financial Management, 22(5), 916-956.

Bebchuk, L., Cohen, A., Ferrell, A. 2008. What matters in corporate governance? The Review of Financial Studies, 22(2), 783-827.

Beltratti, A., Stulz, R.M. 2012. The credit crisis around the globe: Why did some banks perform better? Journal of Financial Economics, 105, 1-17

Beltratti, A., René, M.S. 2012. The credit crisis around the globe: why did some banks perform better? Journal of Financial Economics, 105(1), pp. 1-17.

Biswas, Pallab Kumar, Bhuiyan, Md Hamid Ullah. 2008. Corporate governance and firm performance : Theory and evidence from literature. Available at SSRN 1257617.

Black, B., Kim, W. 2012. The effect of board structure on firm value: A multiple identification strategies approach using Korean data. Journal of Financial Economics, 104(1), 203-226.

Bohl, M.T., Siklos, P.L. 2008. Empirical evidence on feedback trading in mature and emerging stock markets. Applied Financial Economics, 18(17), 1379-1389.

Brown, L.D., Caylor, M.L. 2006. Corporate governance and firm valuation. J. Account Public Policy, 25, 409-434.

Brown, L.D., Caylor, M.L. 2009. Corporate governance and operating performance. Review Quant Finance Account., 32, 129-144.

Brown, L.D., Caylor, M.L. 2004. Corporate governance and firm performance. Available at SSRN 586423.

Callen, J.L., Fang, X. 2013. Institutional investor stability and crash risk: Monitoring versus short-termism? Journal of Banking and Finance, 37(8), 3047-3063.

Caprio, G., Laeven, L., Levine, R. 2007. Governance and bank valuation. Journal of Financial Intermediation, 16(4), 584-617.

Chari, A., Ouimet, P.P., Tesar, L.L. 2010. The value of control in emerging markets. The Review of Financial Studies, 23(4), 1741-1770.

Choi, J.H., Wong, T.J. 2007. Auditors' governance functions and legal environments: An international investigation. Contemporary Accounting Research, 24(1), 13-46.

Choi, S., Hasan, I. 2005. Ownership, governance, and bank performance: Korean experience. Financial Markets, Institutions and Instruments, 14(4), 215-242.

Clarke, T. 2010. Recurring crises in Anglo-American corporate governance. Contributions to Political Economy, 29(1), 9-32.

Cumming, D., Siegel, D.S., Wright, M. 2007. Private equity, leveraged buyouts, and governance. Journal of Corporate Finance, 13(4), 439-460.

Daily, C.M., Dalton, D.R., Cannella, A.A. 2003. Corporate governance: Decades of dialogue and data. Academy of management review, 28(3), 371-382.

Dechow, P.M., Sloan, R.G. 1991. Executive incentives and the horizon problem: An empirical investigation. Journal of accounting and Economics, 14(1), 51-89.

Elyasiani, E., Jia, J. 2010. Distribution of Institutional Ownership and Corporate Firm Performance. Journal of Banking and Finance, Vol. 34, No.3, pp. 606.

Elyasiani, E., Jia, J.J. 2008. Institutional ownership stability and BHC performance. Journal of Banking and Finance, 32(9), 1767-1781.

Eric, Platt., Robin, Wigglesworth. 2017. Rating agencies warn on failure to raise US debt limit. Financial times.

Ezzine, H., Olivero, B. 2013. Evolution of corporate governance during the recent financial crises. The International Journal of Business and Finance Research, 7(1).

Fahlenbrach, R., Stulz, R.M. 2011. Bank CEO incentives and the credit crisis. Journal of Financial Economics 99, 11-26

Fama, E.F., Jensen, M.C. 1983. Separation of ownership and control. Journal of Law and Economics, 26, 301-324.

Gompers, P.A., Ishii, J.L., Metrick, A. 2003. Corporate governance and equity prices. Quarterly Journal of Economics, 118(1), 107-155. http://dx.doi.org/10.1162/00335530360535162.

Fama, E., Jensen, M.C. 1983. Separation of ownership and control. Journal of Law and Economics, 26, 301-325.

Finegold, D., Benson, G.S., Hecht, D. 2007. Corporate boards and company performance: Review of research in light of recent reforms. Corporate Governance: an international review, 15(5), 865-878.

Gorter, J., Bikker, J.A. 2017. Investment risk-taking by institutional investors. In: Pension Fund Economics and Finance (pp. 189-207). Routledge.

Gulamhussen, M.A., Guerreiro, L. 2009. The influence of foreign equity and board membership on corporate strategy and internal cost management in Portuguese banks. Management Accounting Research, 20(1), 6-17.

Hermalin, B., Weisbach, M. 1991. The effects of board composition and direct incentives on firm performance. Financial Management, vol. 20, pp. 101-112.

Hsu, H.N., Wang, Y.P., Hung, C. 2011. The decomposition, trend and influence factors of the volatility of the components of Taiwan stock market. Web Journal of Chinese Management Review, 14(2).

Huang, Wei, Zhu, Tao. 2014. Foreign institutional investors and corporate governance in emerging markets: Evidence of a split-share structure reform in China. Journal of Corporate Finance, vol. 32, pp. 312-326.

Im, K.S., Lee, J., Tieslau, M. 2005. Panel LM unit-root tests with level shifts. Oxford Bulletin of Economics and Statistics, 67(3), 393-419.

Jensen, M.C., Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of financial economics, 3(4), 305-360.

Johnson, S., Moorman, T., Sorescu, S. 2009. A reexamination of corporate governance and equity prices. Rev Finance Studies, 22, 4753-4786.

Johnson, J.L., Daily, C.M., Ellstrand, A.E. 1996. Boards of directors: A review and research agenda. Journal of management, 22(3), 409-438.

Johnson, S., Boone, P., Breach, A., Friedman, E. 2000. Corporate governance in the Asian financial crisis. Journal of Financial Economics, 58(1-2), 141-186.

Jordan, S.J., Lee, J.H., Bui, E.A. 2012. Outside Directors and Stock Return Volatility: The Foreign Investor Connection. Available at SSRN 2180360.

Kao, C., Chiang, M.H. 2001. On the estimation and inference of a cointegrated regression in panel data. In: Nonstationary panels, panel cointegration, and dynamic panels (pp. 179-222). Emerald Group Publishing Limited.

Kim, I.J., Eppler-Kim, J., Kim, W.S., Byun, S.J. 2010. Foreign investors and corporate governance in Korea. Pacific-Basin Finance Journal, 18(4), 390-402.

Kirkpatrick, G. 2009. The corporate governance lessons from the financial crisis. OECD Journal: Financial Market Trends 2009, 61-87.

Klapper, L.F., Love, I. 2004. Corporate governance, investor protection, and performance in emerging markets. Journal of corporate Finance, 10(5), 703-728.

Knyazeva, A., Knyazeva, D., Masulis, R.W. 2013. The supply of corporate directors and board independence. The Review of Financial Studies, 26(6), 1561-1605.

Koutmos, G. 1997. Feedback Trading and the Autocorrelation Pattern in Stock Returns Further Empirical Evidence. Journal of International Money and Finance, 16, 625-636.

Koutmos, G., Saidi, R. 2001. Positive Feedback Trading in Emerging Capital Markets. Applied Financial Economics, 11, 291-297.

Krafft, J., Qu, Y., Quatraro, F., Ravix, J.L. 2013. Corporate governance, value and performance of firms: New empirical results on convergence from a large international database. Industrial and Corporate Change, 23(2), 361-397.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. 2002. Government ownership of banks. The Journal of Finance, 57(1), 265-301.

Levin, A., Lin, C.F., Chu, C.S.J. 2002. Unit root tests in panel data: asymptotic and finite-sample properties. Journal of econometrics, 108(1), 1-24.

McCoskey, S., Kao, C. 1998. A residual-based test of the null of cointegration in panel data. Econometric reviews, 17(1), 57-84.

Min, B.S., Verhoeven, P. 2013. Outsider board activity, ownership structure, and firm value: Evidence from Korea. International Review of Finance, 13(2), 187-214.

Minton, B.A., Taillard, J.P., Williamson, R. 2014. Financial Expertise of the Board, Risk Taking, and Performance: Evidence from Bank Holding Companies. Journal of Financial and Quantitative Analysis, 49, 351-380.

Mitton, T. 2002. A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. Journal of Financial Economics, vol. 64, pp. 215-241.

Narayan, P.K., Sharma, S.S., Thuraisamy, K.S. 2015. Can governance quality predict stock market returns? New global evidence. Pacific-Basin Finance Journal, 35, 367-380.

Pathan, S. 2009. Strong boards, CEO power, and bank risk-taking. Journal of Banking and Finance, 33(7), 1340-1350.

Pathan, S., Skully, M., Wickramanayake, J. 2007. Board size, independence, and performance: an analysis of Thai banks. Asia-Pacific Financial Markets, 14(3), 211-227.

Pearce, J., Zahra, S.1992. Board Composition from a Strategic Contingency Perspective. Journal of Management Studies, 29(4), 411-438.

Pedroni, P. 1999. Critical values for cointegration tests in heterogeneous panels with multiple regressors. Oxford Bulletin of Economics and statistics, 61(S1), 653-670.

Pedroni, P. 2004. Panel cointegration: asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. Econometric theory, 20(03), 597-625.

Peni, E., Vähämaa, S. 2012. Did good corporate governance improve bank performance during the financial crisis? Journal of Financial Services Research, 41(1-2), 19-35.

Phillips, P.C., Ouliaris, S. 1990. Asymptotic properties of residual-based tests for cointegration. Econometrica: Journal of the Econometric Society, 165-193.

Phillips, P.C., Moon, H.R. 1999. Linear regression limit theory for nonstationary panel data. Econometrica, 67(5), 1057-1111.

Renders, A., Gaeremynck, A., Sercu, P. 2010. Corporate-governance ratings and company performance: a cross-European study. Corp Gov., Int Rev, 18, 87-106.

Santamaria, L., Surroca, J. 2011. Matching the goals and impacts of RandD collaboration. European Management Review, 8, 95-109.

Schuppli, M., Bohl, M.T. 2010. Do foreign institutional investors destabilize China's A-share markets? Journal of International Financial Markets, Institutions, and Money, 20(1), 36-50.

Sentana, E., Wadhwani, S. 1992. Feedback Traders and Stock Return Autocorrelations: Evidence from a Century of Daily Data. Economic Journal, 102, 415-425.

Sierra, G., Talmor, E., Wallace, J. 2006. An examination of multiple governance forces within bank holding companies. J. Finance Serv Res, 29, 105-123.

Stulz, R.M. 1999. Globalization, corporate finance, and the cost of capital. Journal of applied corporate finance, 12(3), 8-25.

Sumner, S.W., Webb, E. 2005. Does corporate governance determine bank loan portfolio choice? Journal of Academy of Business and Economics, 5(2), 1-15.

Umutlu, M., Akdeniz, L., Altay-Salih, A. 2010. The degree of financial liberalization and aggregated stock-return volatility in emerging markets. Journal of banking and finance, 34(3), 509-521.

Villalonga, B., Amit, R. 2006. How do family ownership, control, and management affect firm value? Journal of Financial Economics, 80(2), 385-417.

Vo, X.V. 2016. Does institutional ownership increase stock return volatility? Evidence from Vietnam. International Review of Financial Analysis, 45, 54-61.

Walker review secretariat: http://webarchive.nationalarchives.gov.uk/+/http:/www.hm treasury.gov.uk/d/walker_review_261109.pdf.

Wang, J., Meric, G., Liu, Z., Meric, I. 2009. Stock market crashes, firm characteristics, and stock returns. Journal of Banking and Finance, 33(9), 1563-1574.

Yan, X.S., Zhang, Z. 2009. Institutional investors and equity return: Are short-term institutions better informed? Review of financial Studies, 22(2), 893-924.

Zagorchev, A., Gao, L.2015. Corporate governance and performance of financial institutions. Journal of Economics and Business.

Zhian, Chen, Jinmin, Du, Donghui, Li, Rui, Ouyang. 2013. Does Foreign institutional ownership increase return volatility? Evidence from China. Journal of Banking and Finance, vol. 3, pp. 660-669.