October 2012 1(1)
The Macrotheme Review
A multidisciplinary journal of global macro trends

Quality Regulation and the Changing Structure of the Securities Industry

Anastassios Gentzoglanis
University of Sherbrooke, anastassios.gentzoglanis@USherbrooke.ca
Member of CIRST & CEREF

Abstract

A financial system with high quality regulation and sound legal, judicial and regulatory infrastructure works better in dealing with systemic risk and bad practices than an ill-conceived regulation. Recent regulatory changes aiming at increasing the quality of regulation of the financial industry in Europe (EU Regulation/MiFID) and the USA (Dodd-Frank Act) are far from making unanimity. It is alleged that they increase bureaucracy and costs of compliance and threaten the competitiveness of the securities industry. In contrast, recent theoretical and empirical studies show that regulation is contributing to strengthening the competitive position of the US securities industry, domestically and internationally. Firms and investors benefit from a sound regulatory securities environment in terms of higher valuation ratios, higher returns and lower cost of equity. In the US, the Dodd-Frank Act extends, modernizes and introduces some novel procedures of regulation that bring more market transparency and information. Although the latter may not be adequate in preventing systemic risk, if combined with more refined tools of regulation, contribute to effectively monitor the behavior and practices of marker participants. The Dodd-Frank Act and the EU regulation, although will not eradicate financial crises in the future, they would help to reduce their frequencies.

Keywords: *Dodd-Frank Act, systemic risk, regulatory forbearance, securities industry regulation, network industry regulation, transparency, symmetrical information*

1. Introduction

In the wake of the recent financial crisis, many economists, financial analysts and policy makers (Ford, 2010; Winkler, 2010; Tarullo, 2009), called for more regulation of the financial system in general and the securities industry in particular. The current regulatory frameworks[1] proposed by the US (particularly Title VII on OTC derivatives) and Europe (chiefly, the review of MiFiD regulation) are belated by controversies and vivid debates. This is not a new phenomenon. Regulation of markets has been a mooted

[1] The US and the EU have introduced a number of regulations concerning hedge funds, over-the-counter derivatives and short selling, just to name a few. Lack of consensus and political intricacies have contributed to delays and significant modifications of the original proposals for regulatory reform (*The Economist*, March 5th, 2011; DW, 2010).

theme for many decades. At one extreme, regulation is seen as a benign mechanism for protecting consumers and vulnerable stakeholders, i.e., minority investors, etc. (Balleisen and Moss, 2009; Wintoki, 2007). At the other end, regulation is viewed as a malign mechanism inhibiting private initiative and the good functioning of the markets (Fisch, 2010; Moharanram and Sunder, 2003; Peltzman, 1989; Stigler, 1974). Ideally, regulation should balance the interests of opposing stakeholders and enhance social welfare. To achieve these goals, regulation should be fair, promote efficiency and transparency and protect investors. With respect to the securities industry, an additional objective has been added lately, reduction of systemic risk (IOSCO, 2010).

It is widely believed that the design of an effective regulation has important ramifications and impacts positively on economic growth (Gomes et al, 2007; Gaspar and Massa, 2007; De Serres et al., 2006). To this end, many models of regulation have been proposed which define explicitly the composition and functioning of the regulatory agencies but they pay little attention to their implementation and enforcement mechanisms. The recent financial crisis has brought up the need to implement and enforce regulations in a more effective way (Christensen et al., 2011; Mulherin, 2007). It is the purpose of this paper to discuss the conceptual underpinnings of various models of regulation and identify the reasons for making regulation more effective in practice. It provides a thorough analysis and an analytical critique of the arguments in favor and against regulation and argues that regulation to be effective needs to be implemented and enforced appropriately (quality regulation). The mere design of a regulatory mechanism does not guarantee its success.

To the best of our knowledge, this paper contributes to the literature by providing evidence, through a detailed review of the theoretical and empirical literature, on the idea that the stronger the regulation is (as it is measured by the way it is implemented and enforced) the stronger its effects are. By increasing liquidity, reducing risks and making the cost of capital more affordable, regulation contributes to capital markets efficiency and firm performance. Viewed from this angle, regulation may have significant economic benefits and market participants are better off with regulation than without it. Should these benefits become explicit, regulation would become more easily accepted and may be used to increase the security industry's performance[2].

The remainder of the paper is structured as follows. Section 2 develops the hypotheses about the effectiveness of regulation in the securities industry and provides more details on the institutional setting needed for its implementation and enforcement. Section 3 delineates the regulations of the securities industry with reference to some jurisdictions in industrialized markets (the US and EU). The purpose is to show that weak implementation and enforcement mechanisms are less efficient to achieve the objectives

[2] The US securities industry has long questioned the tendency towards more regulation and many many security dealers have objected to the new rules and amendments brought forward by the SEC and CFTC, particularly the OTC trading derivatives through clearing houses, exchanges and exchange-like swap execution facilities (SEFs) (*The Economist*, March 5th, 2011).

set out during the design of regulation than the strong ones. The latter are usually encountered in countries with tradition of strong prior regulation and strong implementation. Section 4 deals with the international experiences concerning the implementation and enforcement of the securities regulation while the last section concludes and provides policy recommendations.

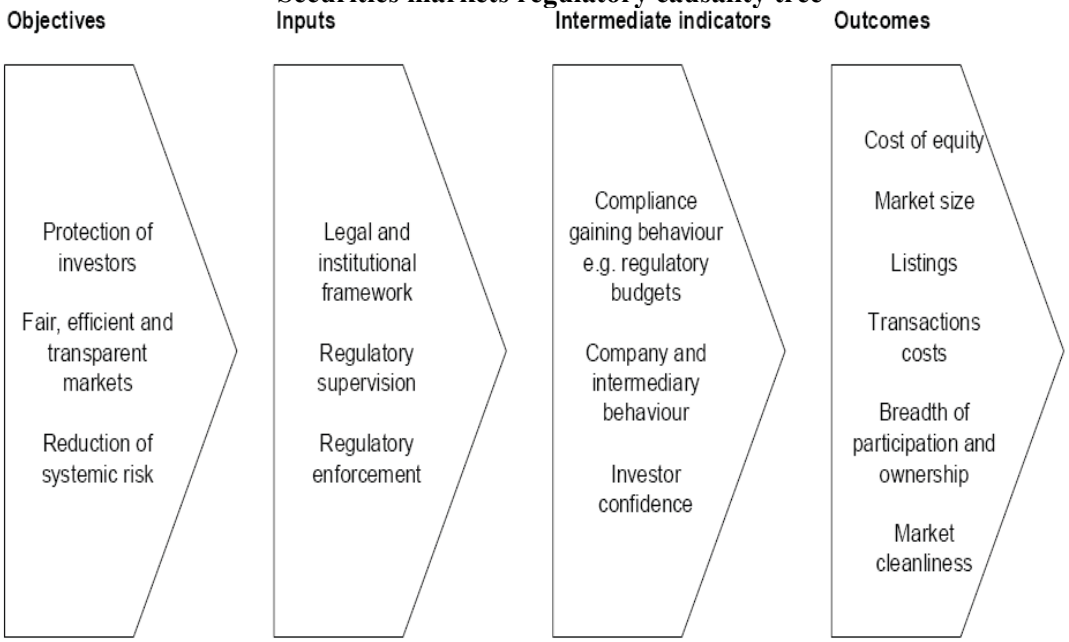
2. Analytical framework for the new securities regulation

The securities industry is considered to be as the most vital one for a country's economic growth and prosperity. In developed economies, the structure of this industry is quite complex. In these countries, there normally exists a well-developed regulatory framework which explicitly specifies the areas of action of the securities firms, their expansion strategies (particularly mergers & acquisitions) and their behavior in conducting businesses. Because of the information asymmetries, but also because of the potential presence of market power and its use (like insider trading and other market manipulations), regulators have a clear objective: protect investors. But the recent financial crisis called into question the efficiency of the existing regulation and as a result of it policy makers and other decision makers want to broaden the objectives of regulators to include the reduction of *systemic risk*.

Systemic risk is better defined by its consequences. It occurs when one institution is unable to meet its obligations and this has negative effects on other institutions which make them, in their turn, unable to meet theirs. Because of its contagion, or knock-on or domino effect, systemic risk, when it occurs, creates significant liquidity and credit problems that threaten the stability of or the confidence in the markets. Systemic risk is widespread and is not only limited to the securities industry but is also encountered in custody business and in other banking and financial activities. The extension of the objectives of regulators to include systemic risk reduction is a daunting task for them. They have to protect not only investors but the public in general.

To that end, regulators have to reconsider their strategies and develop new tools that would allow them to attain their objectives. In the current context, the erstwhile objective of creating fair, efficient and transparent markets becomes of paramount importance (see figure 1). If markets are more transparent, *interconnectedness* could be identified and traced within a reasonable timeframe. Regulators could thus undertake corrective actions before the pervasive repercussions of interconnectedness become publicly apparent and more widespread. To become more transparent, information must be readily available. But the current regulatory model provides an insufficient level of information and the regulatory agencies cannot carry effectively their functions and attain their objectives. Figure 1 shows the links that may exist between regulatory objectives and market outcomes and the intermediate or transmission channels.

Figure 1
Securities markets regulatory causality tree



Source: CRA International

In the US, the Dodd-Frank Act introduces sweeping changes in the structure of regulation of the securities industry in order to make it more transparent. Bringing more transparency is an important issue in the discussions of the EU regulation (ESMA Regulation proposals, 2012) and the revisions of MiFID regulation. This is so because the lack of transparency makes the identification of network transactions difficult and interconnectedness less traceable.

As a matter of fact, both complexity and interconnectedness are not unique to the securities industries. Other industries have complex structures too but their impact on the whole economy is not as great as it is the case with the securities industry. To get a grasp of the complexity and the interconnectedness, it is important to look not only at the number of firms in the industry and their sheer size but also at the so-called vertical restraints – formal and informal interconnections that firms develop to carry-out their business. Some firms may get full vertical control of a market or segments of it and others may use contracts or other industry practices to get market power and make them "too big to fail" and "too interconnected to fail". It is argued in this paper that the Dodd-Frank Act and the ESMA Regulation proposals (2012) aim at attenuating this relationship by making the registration and the deposit of information for many kinds of transactions in most of the cases compulsory.

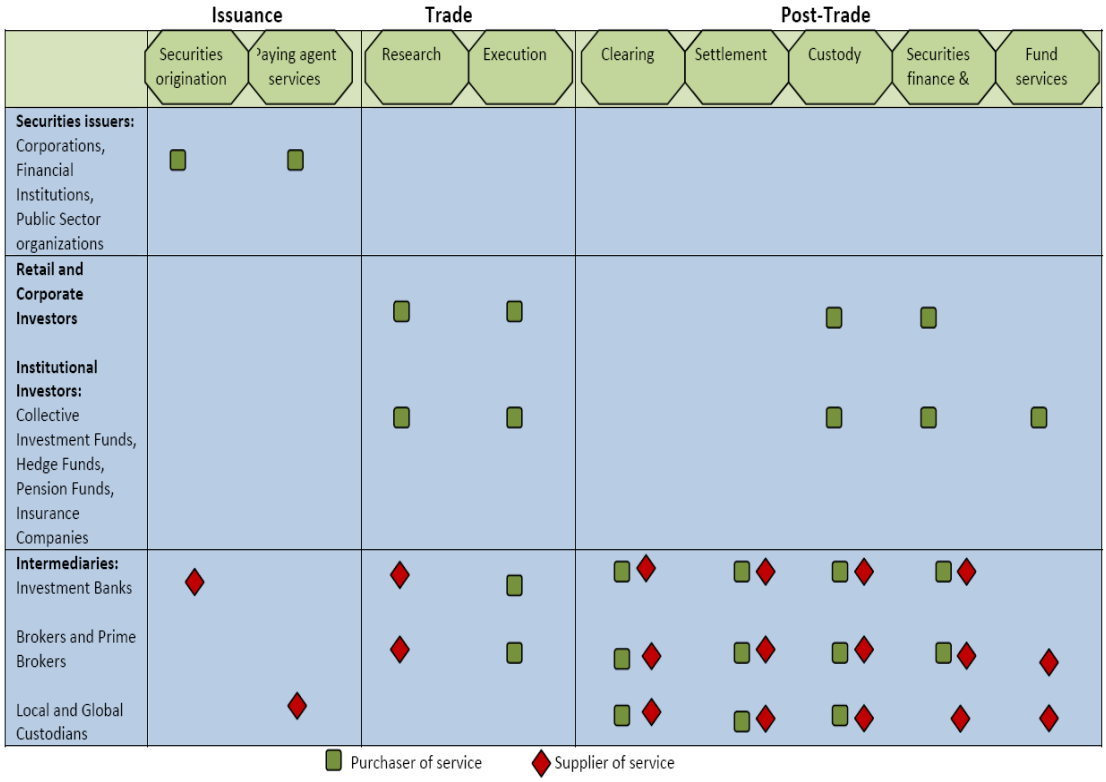
Securities industry participants object to the new Dodd-Frank and ESMA compliance requirements on the ground that competition in the securities industries is fierce. Nonetheless, theory and empirical studies demonstrate that firms use various

strategies to exercise monopoly power even in highly competitive markets. For instance, firms may use vertical restraints by dividing the final market in exclusive territories, either in a spatial sense or in market-segmentation sense (firms specialized in the public versus the corporate market, private funds, etc.). The informational requirements for implementing such restraints are strong. Firms seeking for efficiencies have strong incentives to use vertical restraints and consequently they do not share their valuable information with regulators. Gonzalez (2008) argues that there are important efficiencies to be realized, in terms of higher profits, if two firms, one operating upstream and the other downstream, decide to integrate vertically or to use vertical restraints. Either strategy brings more market power to the integrated firm. This brings forth the question of whether regulators should choose efficiencies or market power.

Mathematical models, developed by Reisingery and Schnitzerz (2008), demonstrate clearly the benefits of vertical restraints and the incentives firms have to interconnect[3]. The authors analyze the welfare effects arising from deregulation of the upstream or the downstream segments of the market. They find that the impact of deregulation is overvalued, particularly when the feedback effects arising from the other markets are ignored. Policy makers have to evaluate all the potential feedback effects that deregulation of one market may have on the other markets. The authors conclude that regulation is justifiable in markets with strong interconnectedness effects. Figure 2 shows the securities industry value chain and the various possible interconnections that may arise in the transactions chain.

[3] The evolution of the securities industry with the development of CDOs and the swaps markets is a case in point of the interconnectedness and its implications as a generator of systemic risk.

Figure 2
Securities services value chain



Source: http://www.ecb.int/pub/pdf/scpops/ecbocp68.pdf, p. 13

Table 2 shows the type of regulation and the measures used to implement it. Issues related to the efficiency of each type of regulation and its possible outcomes, particularly with respect to its capacity to reduce systemic risk, are summarized in the 3rd column. Incentive regulation seems to work less well in the securities industry, if it is compared to the efficiency of this regulation in the network industries (Gentzoglanis, 2010). The ex post crisis intervention and the regulations enacted to solve the immediate problem created by the crisis raise more issues than solves them. Structural regulation, although not perfect, has its advantages and seems to raise fewer issues than the other types of regulations. Nonetheless, the trade-offs between efficiency and market power (interconnectedness) is still present even with this type of regulation. The Dodd-Frank Act cannot eschew this trade-off.

Table 2
Summary of the regulatory measures and corresponding issues to address systemic risk

Type	Measure	Issues
Incentive regulation	Taxation	Calibration, Politicians' opportunism, industry lobbying
	Capital requirements	Calibration, one instrument with too many goals, regulatory capture, limited scope
	Insurance premium	Calibration, pricing incentives, payout trigger, moral hazard
	Market discipline	Irrational market behaviour, implicit governments guarantees
Structural regulation	Portfolio restrictions	Loss of economies of scope, gaming of regulation
	Quantity regulation	Inefficiencies, triggers risk shifting
	Product standardisation	Gaming of regulation, increased cost of tailored products
	Increased transparency	Treatment of non-standard contracts, central counterparty risk,
Ex post crisis intervention	Lender of last resort	Pricing of liquidity, distinguishing illiquidity from insolvency, moral hazard, regulatory forbearance
	Deposit insurance	Pricing, moral hazard, implicit government guarantees, role of private insurers
	Prompt corrective action	Regulatory capture, time-inconsistency problem, trigger-levels
	Living will	Implicit government guarantees, international coordination, trigger variable
	Bank-specific bankruptcy laws	Treatment counterparty risk, distinguishing good and bad assets, credibility, international coordination

Source: http://www.cpb.nl/sites/default/files/publicaties/download/systemic-risk-financial-sector-review-and-synthesis.pdf, p. 13 and 54

The table makes clear that there is no a single measure that can entirely harness systemic risk. The ESMA Regulation and the Dodd-Frank Act, although not a panacea, they may control some risks and contain the effects of interconnectedness. They both belong to the second type of regulation (structural regulation) and call for new registration and compliance requirements and the adoption of annual review programs. These novelties extend the existing requirements and go a step further by introducing new obligations and voluntary measures that would make firms more accountable and transparent in their transactions. The new regulations

a) impose restrictions in the construction of portfolios
b) require more standardization of financial products (particularly derivatives and swaps), and
c) make the increase in transparency a priority by using compulsory and voluntary registration and records keeping of all financial transactions.

Next section makes a critical analysis of the Dodd-Frank Act and ESMA Regulation by adopting the above analytical framework.

3. Critical assessment of the new regulation of the securities industry: the Dodd-Frank Act and ESMA Regulation

In the proposed new regulation under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, there are two regulatory agencies involved; the Commodities Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC). CFTC's major concern is how to increase transparency without

stalling activity. The elaboration of new rules and regulations provides a comprehensive framework for the regulation of the swaps market and extends its scope to include the regulation of non-financial (energy) firms which are active in the swaps market.
The ESMA and the Dodd-Frank Regulations do not address the concerns of each particular sector active in the OTC market. Rather, they use a "one-size-fits-all" approach to retrofit extremely diverse swaps markets into one vision of "how all safe markets must work". This reflects the concerns the securities and futures markets have had to deal with a century ago and this lead to the adoption of the present day regulation under SEC's jurisdiction. Nonetheless, the current Act and ESMA proposals have an additional and very important objective – the management of *systemic risk.* The latter originated in the US housing market and spread all over the economy by the extensive and unregulated use of credit default swaps and other new derivatives.

Theoretical analysis shows and the CFTC believes that moral hazard concerns may be reduced and even eliminated if regulated clearing houses absorb the risks of the global swaps markets. But the size of the latter is 10 times the size of the US securities and futures markets and this may cause serious problems should clearing houses fail. The new regulation (Dodd-Frank Act and ESMA Regulation) may then increase systemic risk in markets which are considered essentially diverse such as credit default swaps, foreign exchange, securities and energy commodities.

Liquidity is another issue in the new securities regulation, in both the US and Europe. Liquidity is essential in the orderly functioning of the markets. New financial regulation should keep costs low for all market participants in order to stimulate market activity and increase liquidity. But regulation may increase costs particularly when it requires that swaps dealers maintain higher amounts of capital for their counterparties' trades. Further, *transparency* depends on market liquidity but the former is also linked to *trade diversion*. Market participants may prefer to trade over physical markets which are less regulated and less costly rather than over the most regulated financial clearing markets. This regulatory arbitrage *diverts trade* reducing thereby market liquidity and increasing volatility risk and both affect negatively investors and consumers alike.
The treatment of *affiliate transactions* is another major area of concern particularly for the US securities regulation as it is specified in the Dodd-Frank Act. The Act discriminates between transactions with affiliates and third parties. It makes transactions with affiliates more costly than the ones completed with third parties. This is inefficient from the standpoint of the affiliated securities firms since the higher cost of affiliated transactions outweighs the economies of scale realized through the affiliation. Recognizing the negative consequences of this discrimination, the CFTC (2012) proposed a rule to exempt affiliated swaps from clearing requirements (the ''interaffiliate clearing exemption'').

Affiliate transactions are also intimately related to *interconnectedness*. The provisions 609, 610 and 611 are instrumental in limiting credit exposure of financial institutions, particularly for banks, with their corresponding affiliates related to capital

requirements. They also provide detailed definitions concerning credit exposure which includes repos (repurchase agreements), reverse repos, derivative transactions and securities borrowing and lending. The so-called Volker rule limits banks' connections with hedge funds and private equity funds. Investment activities particularly keen to promote excessive risk are also treated with special care by taking measures to strengthen capital, liquidity and asset liability.

These regulations are important for mitigating systemic risk but the Dodd-Frank Act would fulfill the role for which it has been created only when it would be possible to enforce it properly and to exercise a vigilant oversight. According to D'Artista and Epstein (2011), this can be done only if two conditions are satisfied:

1) there is readily available data – the latter are required to make an objective assessment of the impact of the new regulations
2) there are human resources, specialized in disciplines such as economics, finance, law, etc., to enforce these regulations

Yet, the Dodd-Frank Act goes a step further to the above mentioned conditions. It recognizes that monitoring and surveillance are exercised differently for small and large investment firms and that there are constraints, budgetary and others, which limit the effectiveness of the current regulations. For these reasons, larger managers who are potentially more risky are supervised at the federal level while less risky small mangers are supervised by the states. This approach of multi-level regulation (i.e., at state and federal levels) is also suggested in the current proposals in the EU Regulation and the creation of a new Eurozone supervisor. In Canada the securities industry regulation is under provincial jurisdiction and there is no a federal regulator. It occurs that the recent debate concerning the establishment of a federal regulatory agency and the corresponding weakening of provincial securities regulators is against the current in the USA and EU favoring the co-existence of federal and state regulators.

The Dodd-Frank Act is not the first Act to aim at large private fund managers. The 2004 SEC hedge fund rule required that managers with more than 15 "clients" be registered with SEC. The history of monitoring hedge managers goes back as far as the 1940s but the role of hedge managers was not important at that time. This is the reason why they have been exempted from registration with the SEC. Following the deregulatory movement of the 80s and 90s in other industries, many regulations specific to the securities industry were repealed in the early 00s making the industry more vulnerable to potential frauds and/or manipulations and abuses. In recent years, Regulatory forbearance became a fact in the securities industry. The evolution of the regulation with respect to private fund managers is described in table 3.

Table 3
The evolution of regulation of Fund managers - Main Clauses and Provisions of various Acts

Year	Acts, rules and regulation	Main clauses and provisions
1940	Investment Adviser Act	Managers are recognized for the first time. Provisions are introduced that exempt Private Fund Managers from registering with the SEC.
2004	SEC Hedge Fund Rule	Managers with more than 15 clients are required to register with the SEC.
2006	Goldstein vs. SEC	The Hedge Fund Rule is repealed. No registration is required any more for managers having more than 15 clients.
2010	Dodd-Frank Act	Registration is re-enacted based chiefly on AUM (assets under management). Specific exemptions with respect to Family Offices, Venture Capital Firms and Foreign Private Advisers are introduced.

Source: Compilation by the author

Thus, under the Dodd-Frank Act, the SEC gets more supervisory powers and has the obligation to monitor large managers who must register with the SEC if the aggregate assets under management (AUM) are over $100 million (RIAs or Registered Investment Advisors). If their AUM are between $25 million and $100 million, managers are required to register with the state in which they have their head office and conduct business. In the absence of a state registration or examination program these managers are required to registering under the SEC[4].

Table 4 shows the requirements for managers and RIAs to register under the SEC. This requirement, although important for mitigating risks, it is nonetheless a type of light-handed regulation since it leaves many important transactions without a close monitoring and examination. This may lead to situations of insidious interconnectedness and result in situations where systemic risk is developed and become difficult to identify in its creation stage. The fact that registered and unregistered managers and RIAs are required to keep records for each private fund they advise gives the SEC and other regulators the possibility to trace the origins of systemic risk but do not prevent it from arising. This may be a serious drawback of the Dodd-Frank Act. Prevention and remediation must be at the heart of the objectives of the new regulatory framework. Financial crises would not be avoided if the design a regulatory framework fails to make the law conducive to preventing systemic risks. It should be stressed though that the Dodd-Frank Act establishes requirements for code of ethics by RIAs but these codes may not be enough to prevent interconnectedness and the development of systemic risk.

[4] Foreign managers, venture capital funds and family offices are exempt from registration and they may choose to remain unregistered if they meet a number of strict criteria. Registered and unregistered managers and RIAs are required to keep records for each private fund they advise.

Table 4
Registration requirements according to AUM

AUM threshold	General rules and regulation	Main exemptions
$100M<AMU>$150M	Managers managing assets *between $100M and $150M* and advising any SMAs are required to register with the SEC	Managers managing *only private funds* are exempt from registering
$25M<AMU>$100M	Managers managing assets *between $25M and $100M* are required to register with their *state* unless such a program does not exist and they have to register with the SEC then	Managers managing assets *between $25M and $100M* may choose to register with the SEC if they a) expect their AUM to be more than $100M within 120 days; they operate in 15 or more states or they have an affiliation with existing RIA
AMU<$25M	Managers managing assets *below $25M* are not required to register with the SEC but they may be registered under the their *state*	Foreign managers are exempt only if: a) their main businesses are not in the US; b) support fewer than 15 clients in private funds; c) have an AMU less than $25M; d) do not market themselves in the US; e) do not act as US-based advisor

Source: Compilation by the author

Nonetheless, Dodd-Frank Act includes some novelties with respect to registration of managers. The new registration requirements differ from the old ones in terms of both content of the Form and the manner new and existing RIAs submit their regulatory filings. The single major change refers to "custody" and RIAs with custody have an additional compliance and regulatory burden to satisfy compared to the ones with no custody. Also, "The Brochure" and "The Brochure Supplement" sections require the disclosure of information about the advisory firm and information about each individual working at the firm and offers advice to clients respectively. Further, under the new rules, RIAs have to submit annually their ADV 2 forms electronically using the SEC Investment Adviser Registration Delivery (IARD) system[5].

One important aspect of the new Form ADV Part IIA is the requirement about code of ethics. RIAs must have an explicit code of ethics and made available upon request. To assure that the possibility for financial fraud is kept to the minimum, RIAs must disclose whether they or their affiliates a) recommend to clients securities in which RIAs or their affiliates have material financial interest; b) invest in securities that they or their affiliates recommend to clients; c) the RIAs or their affiliates trade at or around the same time as the client. In any of these circumstances, RIAs are considered to be in conflict of interest and they have to explain the conflicts and the way they address them.
Potential for fraud also exists in brokerage practices. For instance, soft dollar services (supplying research or other products), client referrals (using client brokerage to compensate brokers for client referrals), directed brokerage (asking or permitting clients to send trades to a specific broker for execution), bundling or trade aggregation (bundling trades to get volume discounts on execution costs) are some of the common practices that may lead to conflict of interest and in some cases to fraud. RIAs are obliged to explain how they address the potential of conflict of interest associated with practices.

[5] Under the old regulation, RIAs simply had to retain copies of the completed Form ADV 2 in their files.

Again, the Dodd-Frank Act takes care of the pros and cons of the vertical relationships and brokerage practices that may exist. On the one hand, maintaining efficiencies is a major concern for policy makers and industry participants. On the other hand, abuse of these relationships and the possible effects it has on industry participants is a serious concern. Vertical relationships and industry practices of this kind exist in other industries (retailing, car dealership, etc.) but it is unlikely to create systemic risk because the interconnectedness is confined within a particular industry and its divisions. Further, these industries, although important, do not represent the blood of the economic system the same way as the financial institutions, brokerage firms and the banking sector does. In this case, the systemic risks arguments must weigh more than the efficiency arguments, should the objective of avoiding the creation of systemic risks is fulfilled. The requirement that RIAs must describe any material relationship with other industry-related firms or individuals is not a serious deterrent to fraud potential. These points ought to be taken into account during the current EU Regulation proposals.

Although care is taken to mitigate fraud and abuse of vertical relationships, there are still some caveats in the new Act. For instance, the Part II Brochure Supplement provides useful information about the advisory personnel who is actually advising clients, but the fact that it is neither required to be updated annually nor to be filled with the SEC and be publicly available, creates an environment that is not fully transparent. Further, the information of the Brochure Supplement may become outdated quite fast. In a world where the realization of an immediate profit is a major concern, updating the Brochure Supplement on a voluntary basis, as it is stipulated in the Act, is equivalent to condemning this measure to failure. Providing narrative brochures to new and prospective clients (ADV Part II) in which RIAs explain their business practices, fees, conflicts of interest and disciplinary information is not enough to entirely eliminate fraud or other inappropriate behavior.

The Dodd-Frank Act defines c*ompliance* programs that aim at *preventing and detecting* violations of the federal securities regulations. The main elements of a robust compliance program are actually not different from the ones originally set forth under the Investment Adviser Act of 1940. In practice, the Dodd-Frank accepts the components of SEC Rule 206(4)-7 and adds guidance around record retention requirements and AML. The three essential elements of a compliance program under SEC Rule 206(4)-7 are:

- CCO (Chief compliance officer) – to ensure that a compliance program exists and is maintained effectively
- Compliance program – designed to detect and prevent violations of the Adviser Act
- Annual review – review annually RIA's written policies and procedures

Also, the *retention* and *AML* requirements included in the Dodd-Frank Act are new and thrust breaking. According to the Act, all managers of private funds, regardless of registration status, must retain records which can be used to evaluate managers' and

RIAs' contribution to systemic risk. Also, records are required to be maintained for the following categories:

- AUM
- The assets and the type of assets held
- Positions with respect to trading and investment
- Trading practices and various valuation policies
- Side or special arrangement

Further, RIAs are required to retain

- financial and accounting records
- records pertaining to investment advice and transactions in client accounts
- records on list of accounts over which RIAs have discretionary authority
- advertising and performance records
- records related to code of ethics
- records with respect to maintenance and delivery of written disclosure documents

These record keeping requirements are related to Rule 204-2 Investment Adviser Act. The current Act extends their scope and practice and makes SEC responsible for requiring managers and RIAs to file reports containing information which is considered particularly important for the assessment of *systemic risk*. Nonetheless, the assessment of the latter could become easier if the records contain information related to leverage, credit and liquidity of the larger managers and RIAs whose business activities may have the potential to impact the market the most. But to make the record-keeping tool more useful and able to provide data suitable for policy purposes, requires important investments in technologies and training. Investments in platforms, software solutions, database valuations, cloud-based solutions, etc., allow managers and RIAs to automate various procedures and identify rapidly situations warranting further investigation.

Technology complexities and the shortage of human resources are not the only obstacles in the rigorous implementation of a quality regulatory framework. The quality and the capacities of a CCO in Dodd-Frank Act stresses the importance of a CCO in particular significance in the capacity of CCO in administering the policies and procedures set out in the Act to within an organization are also issues of concern. These concerns have been expressed by the SEC even before the 2007-08 financial crisis. The SEC had expressed its doubts concerning the potential liability of CCOs. In many instances, the simple title of CCO does not entitle supervisory capacities and as a result a CCO cannot necessarily be subject to sanctions for failure to supervise advisory personnel. Business supervisors who have the responsibility of supervising and examining whether advisory personnel adheres to the program and not CCOs should be accountable for any employee deviation from the compliance program. CCOs'

responsibility in that case is limited to the design and implementation of a compliance program within the organization.

In a competitive environment where efficiency is a major goal, policy makers do not really want to overburden the system with regulations that would make the business less competitive and more costly. Thus, the SEC has set minimum requirements that should be respected within RIA's written procedures. This concern for simplification led the SEC to require from RIAs to develop and implement written policies and procedures "reasonably designed" to prevent and detect violations of the federal securities regulations. The reasonably designed compliance program should be interpreted as if the SEC wanted each Adviser's compliance program to be tailored according to its actual or potential operations. The SEC by avoiding to establish a "one-size-fits-all" approach leaves quite a room for interpretations and potential abuse of the SEC's light-handed regulation approach. The trade-off between efficiency and quality regulation is obvious in this case. The EU Regulation is facing the same dilemma but the European approach weighs more the quality rather than efficiency. This dichotomy may lead investment firms to regulatory arbitrage at the expense of the region with the strictest regulation.

Derivatives and hedge funds trading are at the heart of the current discussions for the final adoption of the EU Regulation. In the US, position limits and crowding-out provisions are also important concerns. In the US, the CFTC proposes to set limits on speculative positions on a certain number of commodities futures, options and economically equivalent swap contracts. It also introduces requirements for the aggregation of certain positions and modification of the bona fide hedging. It seems that the enforcement mechanisms are as important as the design of the rules and regulations. It is thus suggestive to examine the international experiences with the implementation and enforcement of the securities regulation.

4. International experiences with the implementation and enforcement of the securities regulation

The introduction of Dodd-Frank Act and the EU Regulation proposals have created a lot of reactions among market participants and regulators. As the analysis of the previous section indicated, there is a clear difference in the approaches to regulation among countries (the US and the EU) and among industry players, academics and policy makers. By and large, it can be argued that, the differences between the US approach to the securities regulation as incarnated in the recent Dodd-Frank Act and the EU Regulation proposals are not as stark as they first appear. However, the differences lie mostly in the mechanisms to implement these regulations and this may lead to regulatory arbitrage on behalf of the securities firms. This is to be expected since the securities industry is very reluctant to accept new regulations or changes in existing ones given that they are frequently viewed as imposing more costs than benefits. Although, a priori, this may be *generally* true, the impact of regulation and its enforcement is an empirical question. This section deals with these issues.

The experience with deregulation in the network industries is not necessarily transferable to the securities industry. Competition resulted from the introduction of technological changes in the network industries have led to *regulatory forbearance* in transportation, telecommunications, gas and electricity. Important players in the securities industry call for regulatory forbearance too because they believe that this industry is as mature, in terms of competition, as the network industries. Opponents to this argument point out that the recent financial crisis made clear that *systemic risk* is much more important in the securities industry than in the network industries[6]. Further, given its scope and pervasiveness, the securities industry affects the entire economy and not just few sectors of it. This is why many academic studies have examined the links between regulation of the securities industry and its effects on the success of capital markets. Their analysis is based on the assumption that sound capital markets are essential for growth and development.

By and large, empirical academic studies demonstrate that there is a positive relationship between regulation and capital markets success. The early empirical studies showed that the impact of regulation of the securities industry on market success is positive and very important. Markets with strong regulatory frameworks offer greater possibilities for lower capital cost to firms and higher returns to shareholders. Poorly regulated securities industries perform not as good as the well-regulated ones and they are normally smaller and less well-developed. Further, in poorly regulated securities industries the capital cost is higher and the returns to investors lower.

More recent studies found that the link between regulation and capital markets success is essentially correct. Nonetheless, they argue that it is basically the *nature* of the securities laws and regulations and their *enforcement* and not just the mere existence of regulation that have an impact on capital market success. They also found that when a country's regulation is sound and strong and its enforcement mechanisms are proven, its reputation is increased. This reputation is what the capital markets need to function properly and bring the anticipated benefits to investors and consumers. Thus studies realized before the recent financial crisis and also the most recent ones confirm the above findings. The rest of this section reviews the most important studies that establish the link between sound regulation and enforcement and capital market success.

4.1. First generation studies examining the impact of regulation on capital market success

One seminal article dealing with this debate is the one developed by La Porta et al. (1997, 1998). The authors take care to distinguish between "common law" and "civil law" regulatory regimes and construct indices with respect to the strength of legal regimes in individual countries. Since the reputation of a capital market depends on the level of protection investors get from it, legal protection afforded to investors becomes

[6] See Bartle and Laperrouza (2010) for an opposite point of view.

the most important dependent variable. The statistical analysis of their data collected for 49 countries indicate that common law regimes (UK, US) are stronger and protect investors better than civil law regimes (France, Germany). As a result of this, in countries with common law regimes capital markets are better developed[7] than civil law countries. Further, enforcement mechanisms are better developed in common law countries than in civil law countries with the highest enforcement mechanisms found in Scandinavia, fairly strong in other common law regimes and weakest in civil law regimes[8].

Other studies (Lombardo and Pagano, 2000; Doidge et al., 2007) refined the La Porta et al. analysis and established mathematical relationships demonstrating the linkage between security industry regulation and various measures of rewards or returns to investors. This is quite important for the current debate and for industry participants and policy makers because if there is a link between regulation and market outcomes, policy makers should take into consideration the mechanisms that set out this link and develop regulatory frameworks that attain this objective. In the study by Lombardo and Pagano (2000), the authors explain the differences in expected stock returns between "weak" and "strong" regimes in the quality of institutions such as judicial efficiency and rule of law. High quality institutions are better equipped to deal with issues of insider information, market manipulation and other anticompetitive or fraudulent strategies. In another study, Doidge et al. (2004) examine the performance of firms which have not listed in the US and the ones cross-listed in the US and in their country of origin. Performance valuation is measured by using Tobin's Q. They found that firms that have cross-listed have a better valuation than the ones without cross-listing. The cross-listed firms have a valuation premium of 16.5% and this is accounted for by the better regulatory governance of the US securities markets compared to the regulatory governance of the firms' country of origin. The introduction of a stricter regulation after the dot com bubble and its impact on capital markets is examined in another research by Doidge et al. (2007). Their study is interested in knowing whether stricter regulations affect negatively the performance of capital markets. This is particularly interesting because the introduction of Sarbanes Oxley (Sarbox) regulation was originally perceived as a major obstacle in the competition between the US and UK stock exchanges to increase their market shares. Many have argued that stricter regulation in the US would provide incentive to foreign and even domestic firms to list themselves in London instead of New York.

The results of this study show that the cross-listing premiums for New York have persisted despite the introduction of the Sarbox regulation. According to the authors, the US securities regulatory environment accounts for these premiums. The authors take care to underline the fact that these premiums may also result from a number of other factors such as higher levels of enforcement, risk sharing opportunities, higher liquidity of the

[7] Depth and breadth are few of the criteria used to measure market development.

[8] The data used in LLSV study are the ones in the 90s and the institutional and regulatory environment in many countries these data are derived, particularly in the EU, have changed dramatically since then, chiefly due to various European Directives. Now, the EU follows closely the US legal system although both systems are still based on different law regimes (civil and common law).

US markets, disclosure requirements, etc. In sum, the regulatory environment of the US securities industry and enforcement mechanisms are highly viewed by investors and this may explain the better market performance of the US securities markets.

Hail and Leuz (2006) examine the link between securities regulation and a firm's cost of capital. The question is how effective is securities regulation and the overall cost of capital of the firms. To make their results comparable to previous studies, they develop various indices and introduce proxies for the level of disclosure and the overall quality of a country's regulatory and legal systems and investigate the effect of these proxies on the cost of capital. Their findings corroborate the results of previous studies according to which the quality of regulation does play a significant role not only on premiums but also on the cost of capital. Countries with strong regulatory environments, extensive disclosure requirements and effective legal systems have a cost of capital which is significantly lower than in countries lacking these attributes.

In a more recent study, Hail and Leuz (2008) extend their previous study and examine the link between securities regulation and a firm's cost of capital for firms with cross-listings. They found that cost reductions varying between 70 and 120 basis points are observed for firms opting to cross list in the US. The stricter securities regulatory environment in the US accounts for the lower cost of capital of cross-listed firms. These costs reductions persist even in the post-Sarbox era. Thus, once again, the empirical results do establish a link between quality regulation and better securities market performance.

4.2.Second generation studies examining the impact of the quality of regulation (enforcement) on capital market success

Having established that an empirical relationship exists between regulation and good market performance, some authors wanted to go a step further and refine their analysis by examining the quality of regulation and capital market performance. It is increasingly argued that strong regulation and enforcement mechanisms are the key elements for good market outcomes. For this strand of studies *enforcement* is the key variable that may explain good performance of capital markets. Indeed, regulation by itself is not enough to discipline market deviant behavior and a good regulatory system has to have enforcement mechanisms to prevent and correct undesirable market outcomes. Information on regulatory budgets, on penalties and sanctions and on other enforcement activities is essential to evaluate the performance of regulatory agencies and market outcomes. Insider trading is one of the most important deviant activities which affect both the liquidity of the markets and their depth but above all its credibility. Bhattacharya and Daouk (2002) analyze the impact of insider trading regulations on market outcomes using the cost of equity as an indicator. Some countries may have explicit enforcement laws on the books but their record for prosecutions for insider trading may be weak. Controlling for these differences, the authors gathered data for 103 countries that have stock markets but only 87 of them had insider trading rules. Out of 87,

only 38 had insider trading laws on the book evidenced by prosecutions for insider trading offenses.

The findings are quite interesting. Countries that introduce insider trading regulation but lack the enforcement mechanisms had no change in their cost of equity. By contrast, countries with insider trading regulation and enforcement mechanisms have a lower equity cost. These results led to the conclusion that, regulation brings benefits to the securities industry and capital markets in general. But to be effective, regulation must be enforced. This novelty is also introduced in two recent studies by Coffee (2007) and Christensen et al. (2011).

Coffee (2007) criticizes the La Porta et al. (1997, 1998) study and the distinction it brings between civil law and common law and he advances the argument that what makes a difference in market outcomes is not the legal regime (common versus civil law) but the level of resources devoted to its enforcement. The stronger the legal and regulatory regimes of a country the better are the market results. According to Coffee, stronger regulatory regimes mean that a country has a higher capacity to enforce its regulations. To reinforce his arguments, he stresses the differences between common and civil law regimes from the point of view of resources each system dedicates to enforce its laws and not in terms of the content as they did previous researchers. He supports the argument according to which civil law regimes devote less resources to enforcement and this explains the difference in market performance of the two regimes.

Coffee is particularly interested in examining the resources some advanced economies, like UK, US' France, Germany, etc., with different law regimes, devote to enforcement and their efficacy in controlling and monitoring the behavior of deviant securities participants. He uses budgets, penalties and sanctions as major indices of enforcement and analyzes and compares the capital market performance of these countries.

The table below indicates the regulatory budgets for five important economies. To make the numbers comparable, columns 4, 5 and 6 report the costs per common denominator (per staff member, per billion dollars of GDP, per million of population). The data in the table show that France and Germany have low total regulatory costs per billion dollars of GDP, while the three Anglo-Saxon countries have high budgets and costs.

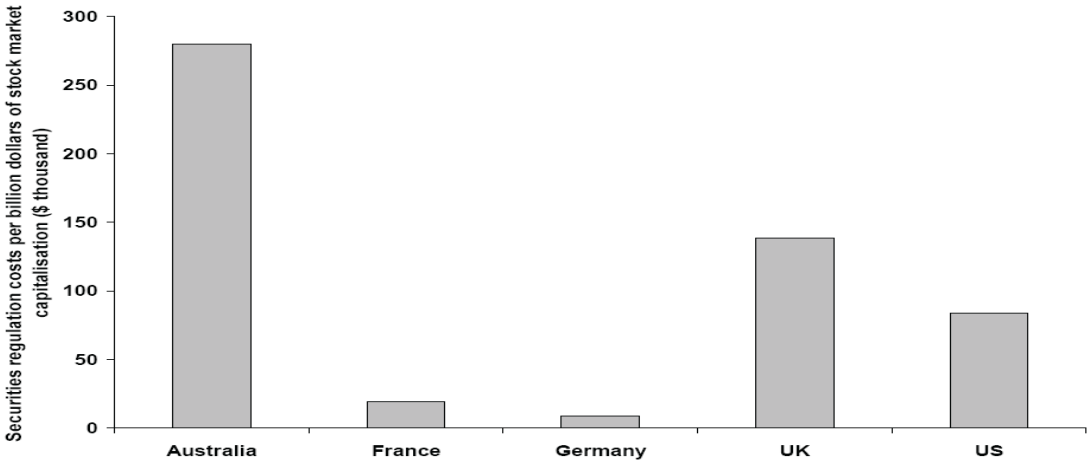
It is worth underline the fact that regulatory costs do not measure regulatory effectiveness. The costs of regulation may be high but its effectiveness low because of waste or simply because of inefficiencies. Nonetheless, regulatory costs may act as an indicator that the regulatory agency is indeed doing certain activities and this may act as deterrent to deviant behavior compared to the situation where the regulatory costs are very low or inexistent which may indicate that the regulatory agency is lethargic and market participants would act without even considering it.

Table 5
Regulatory costs and staffing in selected jurisdictions (2004)

	Total regulatory staff	Total regulatory costs ($ million)	Regulatory costs per staff member ($)	Total regulatory costs per billion dollars of GDP ($)	Regulatory staff per million of population
Australia	1,900	214	112,669	413,265	95.96
France	916	130	142,149	74,533	15.53
Germany	1,319	109	82,683	45,441	16.09
UK	3,069	497	161,798	276,788	52.02
US	29,924	4,633	154,840	425,827	102.83

Source: Jackson, H. E. (2005): "Variation in the Intensity of Financial Regulation: Preliminary Evidence and Potential Implications", John M. Olin Centre for Law Economics, and Business Discussion Paper No. 521.

Figure 2
Securities regulation costs per billion dollars of stock market capitalization (2003/2004)



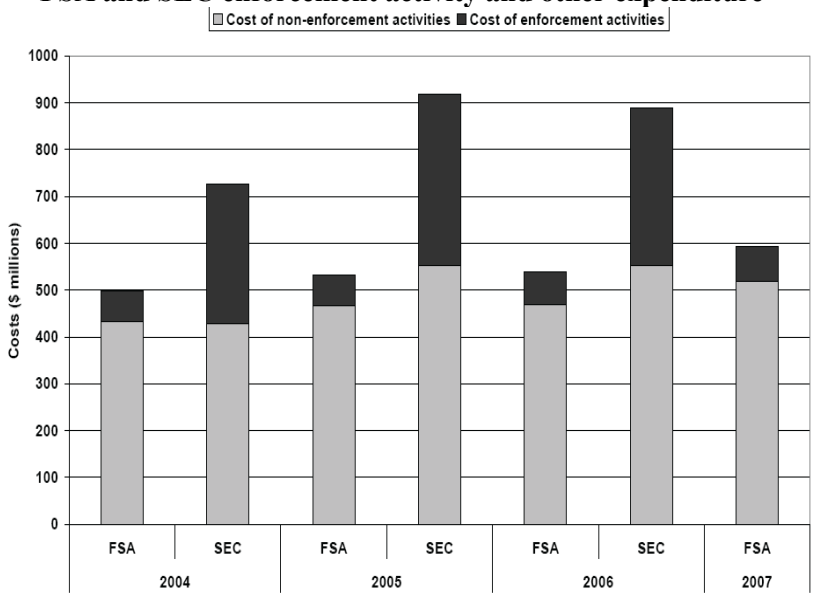
Source: Coffee JC (2007) Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies, Columbia Law School, Working Paper No 304 based on Jackson, H Variation in the Intensity of Financial Regulation: Preliminary Evidence and Potential Implications, John M Olin Center for Law, Economics and Business, Discussion Paper No 521, August 2005 and FSA 2003/2004 Annual Report, Appendix 5.

Given that enforcement is considered as an important factor in explaining good market performance, Coffee (2007) examined the proportion of budgets that the US and UK dedicate to enforcement. The figure below shows that the US spends on enforcement activities much more than the UK regulatory authorities. It should be noted that in the

USA, the SEC is a specialized securities regulation agency while in the UK, the FSA oversees the whole financial services industry, i.e., banking, insurance and the securities industries.

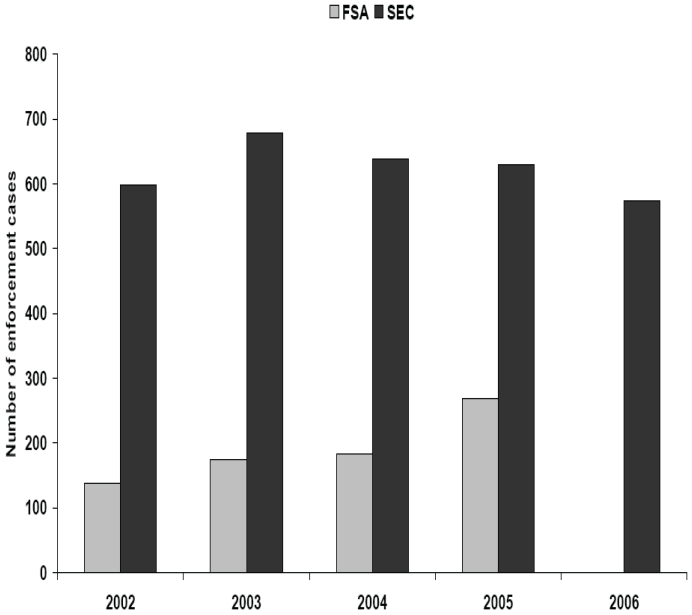
Comparing again the US to the UK in terms of the number of enforcement cases undertaken by the securities regulatory authorities, it is found that the SEC undertakes more enforcement cases than the FSA in UK. But once these numbers are adjusted according to the market capitalization of each economy, it is Australia that is more active than the US or the UK on a number of enforcement cases, given the size of its economy. The graph below indicates these results. Penalties and sanctions may be construed as measures of enforcement and its severity. Regulatory agencies that succeed to bring fraudulent or contravening cases in the courts and impose severe penalties are considered to be more active and these actions increase the credibility of the regulatory institutions. They may act as a deterrent to subsequent offenses. The figure below shows that the SEC in the US imposes substantial penalties and fines as a result of enforcement. For the 2005-06 period, $1.8 billion penalties were imposed by the US legal system as a result of enforcement compared to $30 million imposed by FSA in the UK. Even adjusting for the size of the market of each economy, the picture remains in favor of the USA.

Figure 3
FSA and SEC enforcement activity and other expenditure



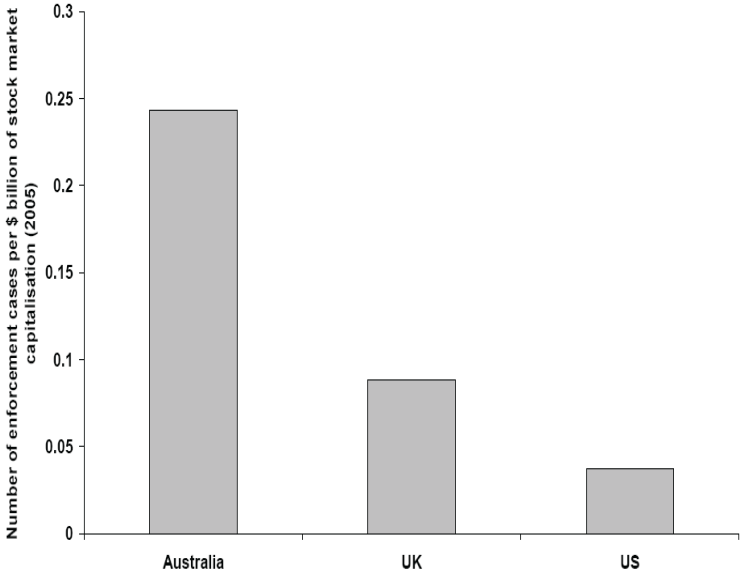
Source: Coffee JC (2007) Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies, Columbia Law School, Working Paper No 304.

Figure 4
Number of Enforcement Cases



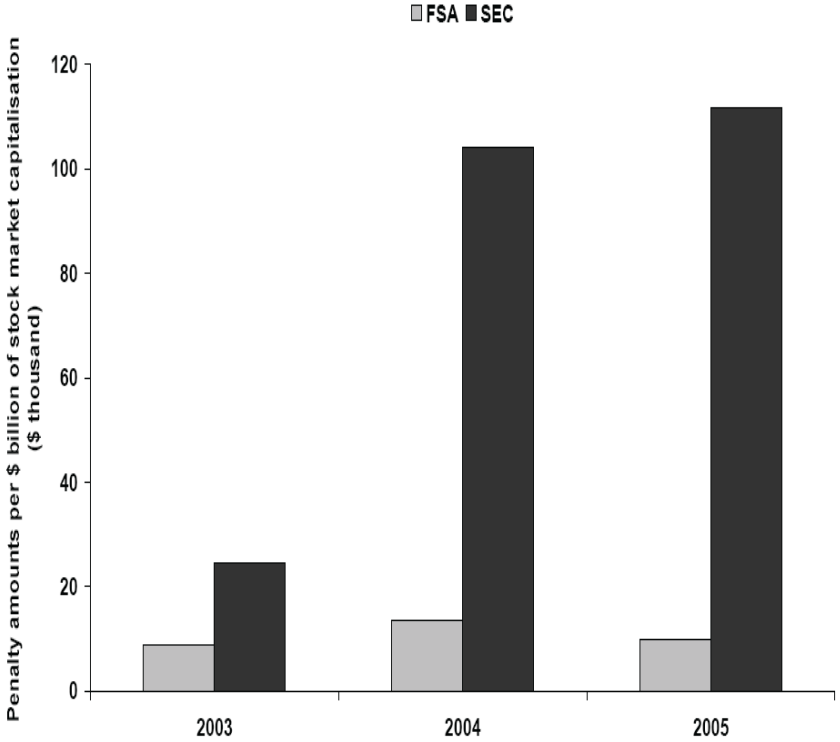
Source: Coffee JC (2007) Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies, Columbia Law School, Working Paper No 304.

Figure 5
Number of Enforcement Cases per $ billion of Market Capitalization (2005)



Source: Coffee JC (2007) Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies, Columbia Law School, Working Paper No 304.

Figure 6
Penalty amounts per $ billion of stock market capitalization



Source: Coffee JC (2007) Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies, Columbia Law School, Working Paper No 304.

In a thorough analysis, Christensen et al. (2011) examine the effects of changes in regulation on capital markets in Europe. They analyze the effects of tightened market abuse and transparency regulation with particular emphasis on their enforcement. Taking advantage of the difference in timing in the introduction of changes in securities regulation across countries in Europe, they are able to isolate the effects of changing regulation from other effects. They focus on two key fundamental elements of securities regulation, i.e., the MAD (Market Abuse Directive), chiefly insider trading and market manipulation, and the TRD (Transparency Directive) which addresses the issues of corporate reporting and disclosure. Using two proxies, one for measuring liquidity (the bid-ask spread and the percentage of zero return days) and another for changes in the cost of capital (dividend yields and implied cost of capital), they estimate quarterly panel regressions for the period 2001 to 2009. To capture the staggered implementation of the two directives across various European countries, they use quarter-year, country and industry fixed effects.

They found that the change in regulation, and in that case the strengthening of transparency and market abuse regulation in Europe, i.e., its enforcement, has significant economic benefits. The latter are more important in countries with strong prior regulation

and enforcement rules. Their econometric results do not reject the "hysteresis" hypothesis according to which countries with weak enforcement and implementation mechanisms are less willing and slower in implementing the new regulations (directives). Also, these countries have less tradition to manpower their regulatory agencies properly and their track record on securities regulation is generally poor.

In other words, their results that market liquidity increases and the cost of capital for the firms' decreases as the new regulations become effective in member countries are stronger in countries with strong prior regulation and institutional capacity than in countries that lack these characteristics. The authors reject the alternative hypothesis, i.e., the "catching-up hypothesis" according to which countries with weak prior regulation and regulatory infrastructure would benefit most from the introduction of the new regulations. The authors conclude by arguing that policy makers should pay particular attention to implementation and enforcement issues when they deliberate about the introduction of new securities regulation. All in all, the analysis above shows that countries with different regulatory and legal infrastructures and approaches to the securities industry regulation have similar market outcomes. Enforcement is an essential ingredient of good market performance but not as strong as suggested by Coffee (2007). The data and the analysis of the results of the most recent empirical studies found in the literature demonstrate that enforcement intensity is not uniform in the five countries (US, UK, Australia, France and Germany) examined by Coffee and other researchers. By contrast, the market outcome is chiefly the same across these countries. Since the market results are the same and the intensity of enforcement varies from country to country, enforcement is not the only factor that can explain the similarity in market performance. It is rather the combination of various regulatory tools that can have a thorough impact on market performance.

Nonetheless, enforcement by itself is quite important. In countries that regulation is not enforced the mere presence of regulation has no impact on market outcomes. The UK securities regulator (FSA) has recently recognized that there is a perception of weak enforcement of regulation in the UK. The FSA has signaled the need to use criminal prosecution more often in order to increase its credibility and deter contraveners from repeating the offenses.

The calls for more compliance and enforcement in the securities regulation are not new. Already in 2000, in its report on "*Reducing the risk of policy failure: Challenges for regulatory compliance*", the OECD was pinpointing the lack of compliance as one plausible cause of regulatory failures. The report stated: *"Dramatic regulatory failures tend to produce calls for more regulation with little assessment of the underlying reasons for failure. Though there is little hard evidence, a growing body of anecdotes and studies from OECD countries suggests that inadequate compliance underlies many such failures. This is a common but little understood form of regulatory failure."* But recent research from IMF (2009), the Basel Committee (2010), IOSCO (2011) and other international organizations finds no evidence that the current financial crisis is linked to lack of enforcement. They indicate, nevertheless, that the role of the regulatory agencies in monitoring and supervising the securities industry is of

paramount importance and may act as an effective deterrent to contagion or domino effects of systemic risk. Further, they point out the need to extend regulation in certain areas which were previously exempted (derivatives and swaps). The spirit of Dodd-Frank Act is in line with these arguments. It brings in new regulations that increase transparency, availability of more detailed information, monitoring and extend the regulation to areas previously exempted from it. In that sense, the Dodd-Frank Act, although is not going far enough with respect to the regulation of the securities industry, it is nonetheless in accordance with the current thinking of the finance literature.

Even if the above mentioned studies find that the current financial crisis and regulatory failure is not a manifestation of lack of compliance, the competencies of regulators and their staff are getting a particular an increasing attention in the discussions of enlarging the goals of the SE and its new responsibility to regulate financial activities which were previously exempted. In effect, it is argued that inadequacies exist between the skills regulators should have and the tasks they have to accomplish. The technological changes and financial innovations in the securities industry make its environment quite complex and very dynamic. These changes leave behind regulators who struggle to regulate the securities industry by using their traditional tools designed to regulate a static rather than a dynamic industry. With largely "obsolete" regulatory tools, regulated firms can escape from effective regulation.

But the weaknesses of the existing regulation and/or the lack of competencies on behalf of the regulators are not the only factors associated with the crisis. The securities firms' "abusive behavior" may be another one. In effect, the financial crisis has made clear that there are weaknesses in risk management techniques used by firms to identify the risks and manage them appropriately before they spread to other firms and sectors. In complex and dynamic environments, securities firms must be able to demonstrate their capacities to manage complex risks internally without relying predominantly on external evaluations and creditworthiness assessment by credit rating agencies. For these reasons risk management, internal controls and valuation techniques should all be identified and addressed accordingly. The existing securities regulation does not deal with firms' internal risk management issues. This is in contrast to the network industries regulation where regulators do examine the leverage and therefore the risk of the regulated firm when determines the firm's allowed rate of return or its price cap. Equally, the Dodd-Frank Act is shy to this aspect and it does not go far enough to require from securities firms to develop better internal risk management techniques which could be used to manage better firm and systemic risks alike. This may be another weakness of the new regulation.

By and large, the Dodd-Frank Act aims at dealing with issues which have been identified as potential causes of regulatory failure and weaknesses of the current regulation to control systemic risk. Although the Dodd-Frank Act is in the right direction, it does not address all the gamut of issues identified in this paper. On certain elements such as data filing, information disclosure, record keeping, etc, the adoption of the Dodd-

Frank Act would increase transparency. But transparency is only one element of good regulatory governance. Firms must develop internal sound risk management techniques to manage their risk and by extension the systemic risk. There no regulations in the Dodd-Frank Act that could be used by the SEC and/or the securities firms to develop tools to manage internal and systemic risk. Regulation would be more effective if it could provide signals for identifying potential increase in internal and systemic risks.

The US securities industry needs stronger regulation and particularly risk management tools and enforcement mechanisms to get the necessary credibility it deserves from domestic and international investors. Based on the current knowledge of the effects of regulation on market performance, it seems that the securities industry's perceptions about the negative consequences of the Dodd-Frank Act are at best exaggerated. The Dodd-Frank Act by focusing its regulations to transparency, it limits the effectiveness of regulation and its capacity to manage systemic risk. The EU Regulation proposals are broader in scope but it remains to be seen how they will be implemented in practice. If the EU Regulation differs significantly from the US Dodd-Frank Act, regulatory arbitrage may ensue as a consequence.

5. Conclusions and policy recommendations

In the past decade or so, regulatory forbearance swept into the securities industry and this is viewed by many as one of the causes of the recent financial crisis. In the US, the securities industry perceives the Dodd-Frank Act as a new regulation which increases bureaucracy and costs of compliance, threatening thereby the viability of the industry and its competitiveness. In Europe, the EU Regulation proposals have certain similarities with the Dodd-Frank Act but also stark differences. The empirical literature demonstrates that the quality of regulation as it is implemented in practice is much more important than its mere design. The comparison of the EU Regulation and the US Dodd-Frank Act cannot be complete before the full implementation of the European Union Regulatory proposals. Nonetheless, the analysis of this paper shows that stronger regulation reinforces the credibility of the securities industry and makes investors, both domestic and foreigners, more confident. The Dodd-Frank Act is a significant change in the regulation and structure of the US securities industry by focusing on market transparency and information and the reduction of systemic risk. Its efficacy though depends on the full implementation of the EU Regulation proposals and the regulatory arbitrage which may ensue from this process.

References

Autoriteit Financiele Markten (2007). *The effects of a change in market abuse regulation on stock prices and volumes: Evidence from the Amsterdam stock market*.

Bartle, I. and M. Laperrouza, (2009). Systemic risk in the network industries: is there a governance gap? Paper presented at the 5th ECPR general conference, Postman University.

Benos E. and M. Weisbach (2004). Private Benefits and Cross-listings in the United States, *Emerging Markets Review*, 5, pp. 217-240.

Beny L. (2006). Insider Trading Laws and Stock Markets Around the World: An Empirical Contribution to the Theoretical Law and Economics Debate, *Journal of Corporation Law*.

Bhattacharya U. and H. Daouk (2002). The World Price of Insider Trading, *Journal of Finance*, 57, 75-108, February 2002.

Bhattacharya, U., H. Daouk, B. Jorgenson, and C.H. Kehr (2000). When An Event Is Not An Event: The Curious Case Of An Emerging Market, *Journal of Financial Economics*, 55(1), 69-101.

Bird H, D Chow, J Lenne and I Ramsay (2004). *ASIC Enforcement patterns*, University of Melbourne Faculty of Law, Legal Studies Research Paper 71.

BIS (2010). Review of the Differentiated Nature and Scope of Financial Regulation, Key Issues and Recommendations, The Joint Forum.

Carlton D and D Fischel (1983). The regulation of insider trading, *Stanford Law Review,* 35, 857-895

Carney W (2005). *The Costs of Being Public after Sarbanes Oxley: The Irony of Going Private.* Law & Economics Research Paper Series, Working Paper No 05-4, Emory School of Law.

Carvajal A and J Elliott (2007*). Strengths and Weaknesses in Securities Market Regulation: a Global Analysis*, Working Paper 07/259, International Monetary Fund.

CFTC (2012). Commodities Futures Trading Commission, Clearing Exemption for Swaps Between Certain Affiliated Entities, Proposed Rule (August). http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2012-20508a.pdf

Coffee J.C. (1999). The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications, *Northwestern University Law Review*, 156, pp. 229-258

Coffee J.C. (2007). *Law and the Market: The Impact of Enforcement, The Center for Law and Economics Studies*, Columbia Law School, Working Paper No 304.

De Serres, A., S. Kobayakawa, T. Sløk and L. Vartia (2006). Regulation of Financial Systems and Economic Growth in OECD Countries: An Empirical Analysis, *OECD Economic Studies No. 43, 2006/2*

Doidge C, G.A Karolyi and R Stulz (2004). Why are Foreign Firms Listed in the US Worth More? *Journal of Financial Economics*, 71, pp. 205-238

Doidge C, G.A Karolyi and R Stulz (2007). *Has New York Become Less Competitive than London in Global Markets? Evaluating Foreign Listing Choices Over Time*, Ohio State University working paper and Journal of Financial Economics forthcoming.

DW (2010). "European Union agrees on new rules to control hedge fund managers" in http//:www.dw-world.de/dw/article/0,,6152669,00.html)

Erskine, A. (2010). "Rethinking Securities Regulation After the Crisis: An Economics Perspective" Paper prepared in response to IOSCO deliberations. Unpublished.

ESMA (2012). European Securities and Market Authority, Draft Technical Standards for the Regulation on OTC Derivatives, CCPs and Trade Repositories, Consultation Paper.

Foerster S and GA Karolyi (1999). The Effects of Market Segmentation and Investor Recognition on Asset Prices: Evidence from Foreign Stocks Listing in the US, *Journal of Finance*, 54, pp. 981-1013.

Foley & Lardner LLP (2005). *The Cost of Being Public in the Era of Sarbanes-Oxley*, June 2005.

FSA (2007). *Updated Measurement of Market Cleanliness*, Occasional Paper 25.

Gompers P, J Ishii and A Metrick (2003). Corporate governance and equity prices', *Quarterly Journal of Economics*, 118, pp. 107–155.

González, X. (2008). "Empirical Regularities on Vertical Restraints" Universidade de Vigo and GRiEE.

Gentzoglanis, A., (2010). "Risk and Regulatory Reforms in the Securities Industry: A Need for a Paradigm Shift?", *International Journal of Financial Markets and Derivatives.*

Hail L and C Leuz (2006). International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter? *Journal of Accounting Research* Vol 44 No 3, June 2006.

Hail L and C Leuz (2008). *Cost of Capital Effects and Changes in Growth Expectations around US Cross-Listings*.

IMF (2009). "Lessons of the Financial Crisis for Future Regulation of Financial Institutions and Markets and for Liquidity Management" Unpublished, approved by J. Caruana.

IOSCO (1998). International Organization of Securities Commissions. *Objectives and Principles of Securities Regulations*.

IOSCO (2008). *Report on the Subprime Crisis*, Technical Committee.

IOSCO (2011). *Mitigating Systemic Risk: A Role for Securities Regulators*, Discussion Paper, Technical Committee.

Jarrell G and A Poulsen (1989). Stock trading before the announcement of tender offers: Insider trading or market anticipation? *Journal of Law, Economics and Organization* 5, 225-248.

Karolyi GA (1998). Why Do Companies List Shares Abroad? A Survey of the Evidence and Its Managerial Implications, *Financial Markets, Institutions and Instruments*, 7, pp. 1-60.

Karolyi GA and R Stulz (2003). Are Financial Assets Priced Locally or Globally? in Constantinides G, M Harris and R Stulz eds, *Handbook of The Economics of Finance*, North-Holland, Amsterdam, pp. 975-1020.

Kabir, R and T Vermaelen (1996). Insider trading restrictions and the stock market: Evidence from the Amsterdam Stock Exchange. *European Economic Review*, 40(8), 1591-1603.

Keown, AJ and JM Pinkerton (1981). Merger Announcements and Insider Trading Activity: An Empirical Investigation. *Journal of Finance*, 36(4), 855-869.

Lambert R, C Leuz and R Verrecchia (2007). Accounting Information, Disclosure and the Cost of Capital, *Journal of Accounting Research*, 45. pp. 385-420.

La Porta, Lopez-de-Silanes, Schleifer and Vishny (1997). Legal Determinants of External Finance, *Journal of Finance*, 52, pp 1131-1150

Lee, Walker and Christensen (2008). *Mandating IFRS: Its impact on the cost of equity capital in Europe*, ACCA.

Lombardo D and M Pagano (2000*). Legal Determinants of the Return on Equity, Centre for Studies in Economics and Finance*, Working Paper No 24.

McKinsey & Company (2008). *Perspectives on Corporate Finance and Strategy*, Number 29, Autumn.

Merton R (1987). A Simple Model of Capital Market Equilibrium with Incomplete Information, *Journal of Finance*, 42, pp. 483-510.

Meulbroek L (1992). An Empirical Analysis of Illegal Insider Trading, *Journal of Finance*, 47, 1661–1699.

Miller M (2003). Financial Markets and Economic Growth, in Joel M. Stern and Donald H. Chew, Jr. ed., *The Revolution in Corporate Finance*, 4th ed, Blackwell Publishing, Chapter 29, pp.443-460.

Mulherin, J.H. (2007). "Measuring the costs and benefits of regulation: Conceptual issues in securities markets", Jornal of Corporate Finance, 13, pp. 421-437.

OECD (2000). *Reducing the risk of policy failure: Challenges for regulatory compliance*.

Oxera (2006). *The Cost of Capital: An International Comparison* prepared for the City of London Corporation and the London Stock Exchange.

Pagano, Roell, and Zechner, *What Makes Stock Exchanges Succeed?* Evidence from Cross-listing Decisions.

Reese W and M Weisbach (2002). Protection of Minority Shareholder Interests, Cross-listings in the United States, and Subsequent Equity Offering, *Journal of Financial Economics*, 66, pp. 65-104.

Reisingery, M. and M. Schnitzerz (2008). "A Model of Vertical Oligopolistic Competition" Working Paper, University of Munich.

Verrecchia R (2001). Essays on Disclosure, *Journal of Accounting and Economics*, 32, pp. 91-180.

Wong E (2002). *Investigation of Market Efficiency: An Event Study of Insider Trading in the Stock Exchange of Hong Kong*, Stanford University Working Paper