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## **REVIEW ARTICLE**

# FINANCIAL CRISIS THROUGH AGENCY THEORY PERSPECTIVE: THE CASE OF INSURANCE COMPANIES

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## **ABSTRACT**

Insurance companies are important institutional investors in the credit market; they have played a significant role in the recent financial crisis by which they were substantially affected. Regulations and risk management did not help to control that crisis or nor did they reduce its magnitude. In this paper, we review the insurers' role in the crisis from the agency theory viewpoint. We point to the presence of information asymmetry and incentive problems as imperfections that the market discipline could not overcome; consequently, they contributed to the failure of the insurance companies. We present the possible implications of the new EU regulations reforms (Solvency II and IFRS) on the performance of insurers: i.e., an increasing volatility and a higher cost of capital in the short term, and new investment strategies and a change in the capital structure in the long term.

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#### INTRODUCTION

The Financial Crisis has substantially influenced insurance companies and highlighted a number of issues relating to the efficiency of the risk management. The effects are dependent on the insurers' line of business. Those investing in the credit market have been the worst hit due to the increase in credit risk. It can be seen that risk management practices have failed to protect insurers from financial failure. Other issues relating to supervisory and regulation arbitrage also underpin the crisis. Actually, the separate regulation of banking and insurance in such highly integrated and interlinked markets created opportunities for regulatory arbitrage which was a main contributor to the crisis. For example, the AIG Financial Product division (AIG FP) exemplifies the need for new global rules applying to insurance institutions operating in international markets. The AIG FP, located in the UK, was able to evade the power of the Financial Services Authority (FSA) in the UK as it is a subsidiary of the parent company in the USA. This paper is organized in three sections. In the first section, we present agency theory in order to explain the insurer's role in the genesis. The second section is devoted to the supervisory framework of the European Union. In the last section, we briefly discuss some possible implications of new EU regulations.

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## **Agency Theory Applied to the Insurance Sector**

The origins of the agency theory paradigm go back to the work of Ross (1973) and Jensen and Meckling (1976). The adoption of agency theory within the insurance literature has been the subject of numerous studies since the 1980s (Mayers and Smith.Jr, 1981, Hansmann, 1985, Jensen, 1986, Mayers and Smith.Jr., 1986), giving rise to hypotheses that have been examined and approved empirically. The starting points for research in this area are ownership structure and risk bearing issues.

## **Ownership Structure Issues**

Agency theory as applied to insurance deals with the conflict of incentives resulting from the separation of ownership and management. From this perspective the insurance company is a set of contracts between: Manager/Shareholder, Manager/Policyholder. The incentive conflict among these three parties is currently being controlled by additional supervising and monitoring. Lamm-Tennant and Starks (1993) prove that the ownership structure has an effect on the firm's decision making process. Pottier and Sommer (1997) found evidence that the ownership structure is a trigger of the conflict type. Stock form, for instance, is more efficient at controlling the owner-manager relationship, while the mutual form is better at controlling the manager-policyholder relationship.

While the customers are owners in the mutual organisation, there is a separation between owners and customers in the stock organisation. This difference in property rights implies other differences in controlling and decision making.

#### Risk bearing issues

The issue of riskbearing amongst the compagny's stakeholders has been firstly highlighted by Fama (1980)who confirms that allocation of risk bearing, when applied efficiently, implies a significant level of separation between the management and the ownership of the organization. The separation demands a delegation of authority and property right devolution from the owners/risk bearers to the manager. The manager is supposed to invest his human capital to promote the best interest of the owner. In order to guarantee that the management practices are in line with the shareholders' interests, managers are controlled by the labour market and they are evaluated through the company performance. Fama (1980) argues that an efficient capital market provides an indication of the organisation's security market values, which is essential for the revaluation of managers in the labour market. Yet, the incentive problem remains present, as the managers can find that it is to their advantage to act for their own objectives.

Consequently, as the managers are not the risk bearers, the separation between management and risk bearing encourages the managers to invest in riskier activities because their wealth will not be affected by the potential loss: instead this which will be incurred by the shareholders.

The question of risk bearing is important in the crisis discussion. Taking the example of AIG, the Geneva Association Repport (2010) concludes that typical insurance activities do not cause any additional systematic risk and that only two non-core activities had the potential to be systematically relevant to additional risk bearing in the last crisis in 2008. The first one is derivative trading on non-insurance balance sheets including CDS, and the second one is the mismanagement of short-term funding raised using commercial papers of security lending.

Figure 1shows the common activities generally undertaken in insurance companies and their potential impacts. We can conclude that activities affecting shareholders are the riskier transfer ones.

Figure 2, shows the relationship between higher risk bearing in risk transfer activities (CDS) and the breakdown in AIG and Lehman Brothers. It demonstrates that in September 2008, there was a peak in the CDS investment, preceded by a sharp augmentation of investment in it. This peak was followed by the breakdown of Lehman Brothers and AIG Group. It is very clear that the high concentration of investment in these risk transfer activities has caused disequilibrium in risk management and allocation. It can be concluded that the distribution of risk bearing had the most significant and important role in the insolvency of insurance companies, causing failure among even the big ones like AIG Group.

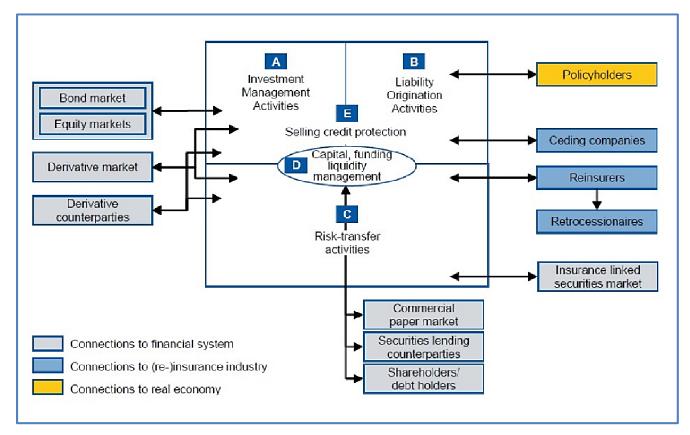


Figure 1. Inter-connections of key risk activities in which insurers are engaged, Source: (Geneva Association Repport, 2010)

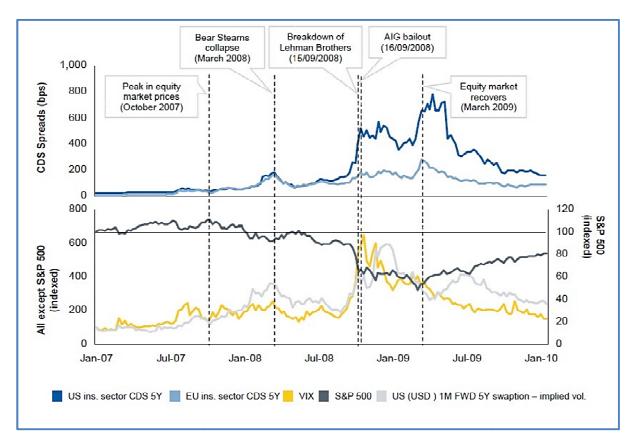


Figure 2. Chronology of the Crisis - Market Developments 2007-2009, Source: (Geneva Association Repport, 2010)

#### The Era of New Supervisory Reform

During the 2008 crisis, systematic issues have shown that financial markets have become increasingly inter-linked and vulnerable. A problem in one sector or country can spread and affect other international markets around the world(Flamée and Windels, 2009). A severe global regulatory system proves to be a real necessity to control market participants who have had the biggest role in aggravating the situation during the crisis. Such control is usually imposed over banks which get involved in high risk short-term investments, whereas the insurance companies have only recently become a subject of this approach (Bomhard, 2010). A number of reforms such as Solvency II and International Financial Reporting Standards (IFRS) norms are really important steps that aim to provide a global system that can assure stability not only for supervision regulators, but also for all market participants: investors, managers, policyholders and other stakeholders over the international markets. Even politicians are now paying significant attention to the improvement of supervisory and control systems. The Group of Twenty for example, has declared its will to strengthen the regulatory framework in order to be more globally consistent, capable of meeting the needs of business and support the global growth (G20 London Summit Communiqué, 2009).

## Regulation and Supervision versus Market Discipline

The recent financial crisis shows that supervision has a very important function; not only to monitor market and

participants, but also to strengthen the market discipline. It is a serious and crucial mission in which failure to achieve success may harm the market mechanism and could turn into a crisis. Following the perspective of agency theory, the market discipline has a central role in solving the agency conflict due to the divergence of interest between the agent and principal. Managers have the incentive to get involved in a high risk investments and activities because of the disjunction between risk bearing and management due to the separation between ownership and control. As a result, in the case of insolvency, losses are paid by the guaranty fund and prudential reserves which are taken out of the capital and ownership dividend. If a manager for instance has the tendency to take higher risks to achieve higher revenues, market discipline should penalize him. In this case, stakeholders like depositors or policyholders can ask for higher interest rates or advanced guaranty funds to protect their rights.

Without the market discipline imposed by risk-averse customers, the risk profile of the financial institutions can be expected to increase (Vaughan, 2009). Yet, sometimes regulation, contrary to its main objective, can ruin the market discipline efficiency. A known example of this case is the guaranty fund. Usually, regular financial contributions are collected from the financial institutions that operate in the financial market, in order to help investors and companies to meet their commitments in case of insolvency and, thereby, to increase the reliability and stability of the financial sector. It is widely discussed that the existence of guaranty funds may encourage managers to accept higher levels of risk (Harrington,

2004, Wall, 2010, Hofmann and Nell, 2011). On the other hand, Implications of Regulatory Change on the Insuran

2004, Wall, 2010, Hofmann and Nell, 2011). On the other hand, it weakens the initiative of stakeholders in monitoring and controlling the performance because they consider that supervisory regulations are sufficient and do guarantee the solvency. Legislative and regulatory responses to the financial crisis should encourage market discipline as a means of promoting safety and soundness in banking, insurance, and other financial institutions (Harrington, 2009).

## **Solvency II for European Insurers**

The need for new global solvency standards is becoming more and more evident to help regulation survive in this global environment. The Solvency II project represents a drive to modernize supervision directives on a global level for insurers and re-insurers in the European Union. The Solvency II framework is a move to a principal-based directive in response to the increasing complexity of insurers' activities. Solvency II relies on internal models to establish capital requirements. Solvency II has another objective: ensuring optimum compatibility between solvency and the international accounting standards. Pillar III of Solvency II includes reporting requirements to strengthen the deployment of risk management and develop public communication. After the new reform of IFRS issued by the International Accounting Standards Board (IASB), insurers have been placed under another obligation related to the market communication. The transition to IFRS may impact on insurers' financial performance and investment processes. We will examine the possible implications of the new regulations in the following

## Implications of Regulatory Change on the Insurance Companies

The regulator focuses on certain indicators to build a real picture about the insurers and establish a measure of their performance. Both regulatory reforms (Solvency II and IFRS) focus on two important criteria to ensure the functioning of the insurer. The first one is risk management and the second is transparency in terms of financial communication. These two criteria influence solvency, capital structure and profitability which are often used to measure performance. Figure 3 schematizes these implications of regulatory reforms and their impact on performance. The key objective of Solvency II is better to allocate capital, taking into consideration the nature of the business risks (EIOPA WEBSITE). IFRS standards are additional requirements in order for this allocation to become transparent and are to be reflected in all indicators of business performance. During the application of these new rules, some implications are also anticipated in the financial practices of insurers. Insurers are facing potential volatility in their financial performance which will result in less risky strategies on their part to counterbalance increased risk in their market.

The clear trend of regulation is the continuous demand for transparency and communication. The concept of performance is based on notions of value observed or calculated at a given moment, and it takes into account a number of financial indicators such as dividends, profitability and solvency ratios(Kaplan and Norton, 1992). With the application of the 'fair value' standard, most of the assets will be evaluated in their market price.

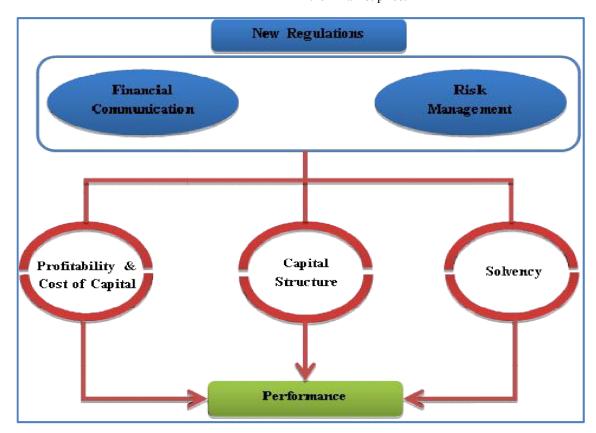


Figure 3. Implication of Regulatory Changes on Insurance Companies' Performance

As a result, the volatility of accounts and equity will increase. Profits as well as losses will be recognized earlier. So, each time market prices fluctuate, the asset value in the insurers' balance sheet will also fluctuate. All changes will be easily observed in the financial statement of an insurance company (Post *et al.*, 2007).

Increased volatility in the financial statement of an insurer might influence the share prices. This implies an increase in the cost of capital (Dickinson and Liedtke, 2004), which is disadvantageous for the financial companies in comparison to non-financial ones because non-financial assets are evaluated by different methods that do not cause as much volatility in financial statements. Several studies suggest that the IFRS will increase the transparency of market information. According to Post et al. (2007), in the context of market efficiency, if the new information reveals that the insurer is in a better situation than previously estimated, the insurer may therefore have access to low cost capital. On the contrary, insurers that have hidden their bad performance may suffer a higher cost of capital. Some other empirical evidence reinforces this thinking but the debate is still not decisive and requires a thorough empirical evaluation over a longer period of time. Leuz and Verrecchia (2000) reported that the IFRS improved the quality of information and reduced the cost of capital, while (Daske, 2006) could not confirm a relationship between the IFRS and the cost of capital.

Other potential long term effects must be taken into consideration. As insurance is a portfolio business, insurance companies must constantly evaluate the value of the portfolios of assets which they manage. Thus, a change in accounting standards can dramatically impact their strategies. Several studies have been conducted with French insurers questioning the potential influence of this change on their investments. According to a study by KBGM (2006) involving 47 groups of related companies, there are a number of questions about the application of new rules that may have a real impact on the management of insurers' financial portfolios, structures and investment policies. Moreover, more than 50% of insurers considered that the application of IFRS criteria poses a problem regarding derivatives and hedging products. This is a sign that insurers' portfolios are sensitive to any change in asset valuation, and that the IFRS can significantly influence the risk management of insurance companies in terms of financial investments.

Beyond the technical issues implied by the IFRS, the major problem of insurance companies is to control the volatility of their investment portfolio. Consequently, insurance companies will try to change the composition of portfolio securities to make them less volatile and less susceptible to risk, and therefore there will be a change in their capital structure. It appears that insurers show great concern at this level. According to Le-Douit (2004), they will have increasing difficulty in fulfilling their role as long-term investors. They will have to change their asset allocation strategies to reduce their exposure to long term rates. On the other hand, insurers will prioritize investments in short term floating rate and fixed rate. The offer of insurance products will evolve to transfer financial risks to policyholders.

#### Conclusion

The insurance industry had a role in the recent financial crisis: although insurance core activities were not a source of alternative risk, it was the non-insurance activities and specially their investments in the credit market which were the offenders. Evidence confirmed that insurers were involved in investments that were much higher than their assets and capital. Risk management practices needed to be reinforced. We have tried to describe the agency relation in that time of crisis. Although agency theory is not recent, it still explains elements of the crisis; Agency relation, incentive problems, regulatory arbitrage and a significant level of information asymmetry were all relevant to what happened. Solutions now need to be seriously sought in order to avoid a similar crisis in the future, given the negative effects it has on the economy. What is needed is an appropriate regulatory system that can help in managing and identifying risk and can detect insolvency problems before they affect market participants. Supervisory committees and regulators have already started to modernize the regulations so that they become more harmonized for international investors and may reduce the possibility of arbitrage. Moreover, they are trying to impose effective monitoring systems that go beyond capital reliance. Yet, the totality of regulations should not replace market discipline. On the contrary, they should emphasize the role of the market in monitoring and supervising investors. New regulations should aim to improve the evaluation of insurers' financial performance in order to ameliorate investors' decisions and the work of supervisors. It is still important to notice potential implications that could create pressure on the insurers. They will need to cope with problems like volatility, cost of capital and even the reconsideration of capital structure and portfolio components.

## REFERENCES

Bomhard, N. V. 2010. The Advantages Of A Global Solvency Standard. *The Geneva Papers On Risk And Insurance - Issues And Practice*, 35, Pp. 79-91.

Daske, H. 2006. Economic Benefits Of Adopting Ifrs Or Us-Gaap—Have The Expected Costs Of Equity Capital Really Decreased? *Journal of Business Finance and Accounting*, 33, 329-373.

Dickinson, G. and Liedtke, P. M. 2004. Impact Of A Fair Value Financial Reporting System On Insurance Companies: A Survey. *The Geneva Papers on Risk and Insurance — Issues And Practice*, 29, 540-581.

Eiopa Website.Solvencyii/ Eiopa's Preparation For Solvency Ii [Online]. Https://Eiopa.Europa.Eu/En/Activities/ Insurance/Solvency-Ii/Index.Html: European Insurance And Occupational Pensions Authority. [Accessed Novombre 2013].

Etude Kpgm 2006.Premiers Comptes Ifrs Des Groupes D'assurance: *Analyse Des Etats Financiers Ifrs*. [Online] Available At:

Fama, E. F. 1980. Agency Problems And The Theory Of The Firm. *Journal of Political Economy*, 88, 288-307.

Flamée, M. and Windels, P. 2009. Restructuring Financial Sector Supervision: Creating A Level Playing Field. *The* 

- Geneva Papers On Risk And Insurance Issues And Practice, 34, Pp. 9-23.
- G20 London Summit Communiqué 2009. Global Plan For Recovery And Reform. [Online] Available At: Www.G20.Utoronto.Ca/2009/ 2009communique0402.Pdf [Accessed 14 Septembre 2014].
- Geneva Association Repport 2010. Systemic Risk In Insurance: An Analysis Of Insurance And Financial Stability. In: Working, T. G. A. S. R. (Ed.). Https://Www.Geneva association.Org/Media/99228/Ga2010-Systemic\_Risk\_In\_Insurance. Pdf: The Geneva Association (The International Association For The Study Of Insurance Economics).
- Hansmann, H. 1985. The Organization Of Insurance Companies: Mutual Versus Stock. *Journal of Law, Economics And Organization*, 1, 125-153.
- Harrington, S. E. 2004. Market Discipline In Insurance And Reinsurance In: Borio, C. (Ed.) Market Discipline Across Countries And Industries. Cambridge: The Mit Press.
- Harrington, S. E. 2009. The Financial Crisis, Systemic Risk, And The Future Of Insurance Regulation. *Journal of Risk And Insurance*, 76, Pp. 785-819.
- Hofmann, A. and Nell, M. 2011. Information Cost, Broker Compensation, And Collusion In Insurance Markets. *Schmalenbach Business Review* 63, 287-307.
- Http://Www.Kpmg.Fr/Fr/Publication/Documents/Assurance/C omptes\_Ifrs\_Groupesassurance.Pdf [Accessed 10 July 2009].
- Jensen, M. C. 1986. Agency Costs of Free Cash Flow, Corporate Finance, And Takeovers. *The American Economic Review*, 76, 323-329.
- Jensen, M. C. and Meckling, W. H. 1976. Theory Of The Firm: Managerial Behavior, Agency Costs And Ownership Structure. *Journal of Financial Economics*, 3, 305–360.
- Kaplan, R. S. and Norton, D. P. 1992. The Balanced Scorecard: Measures That Drive Performance. *Harvard Business Review*, 71–79.

- Lamm-Tennant, J. and Starks, L. T. 1993. Stock Versus Mutual Ownership Structures: The Risk Implications. *The Journal of Business*, 66, 29-46.
- Le-Douit, J. 2004. Un Parcours Semé D'embûches. In: Veron, N. (Ed.) Les Points De Vue Des Investisseurs Sur L'adoption Des Normes Ifrs: Recueil D'opinions.: Etudes Et Conseil Pour L'information Financière (Ecif).
- Leuz, C. and Verrecchia, R. E. 2000. The Economic Consequences of Increased Disclosure. *Journal of Accounting Research*, 38, 91-124.
- Mayers, D. and Smith, Jr, C. W. 1981. Contractual Provisions, Organizational Structure, And Conflict Control In Insurance Markets. *The Journal of Business*, 54, 407-434
- Mayers, D. and Smith.Jr., C. W. 1986. Ownership Structure And Control: The Mutualization Of Stock Life Insurance Companies. *Journal of Financial Economics*, 16, 73–98.
- Post, T., Gründl H., Schmidl, L. and Dorfman, M. S. 2007. Implication OfIfrs For The European Insurance Industry-Insights From Capital Market Theory. *Risk Management And Insurance Review*, 10, 247-265.
- Pottier, S. W. and Sommer, D. W. 1997. Agency Theory and Life Insurer Ownership Structure. *The Journal of Risk And Insurance*, 64, 529-543.
- Ross, S. A. 1973. The Economic Theory of Agency: The Principal's Problem. *The American Economic Review*, 63, 134-139.
- Vaughan, T. M. 2009. The Implications of Solvency Ii For U.S. Insurance Regulation. Working Paper of The Networks Financial Institute, Policy Brief 2009-Pb-03.
- Wall, L. 2010. Prudential Discipline for Financial Firms: Micro, Macro, And Market Structures. Working Paper Series (Federal Reserve Bank of Atlanta), March, 1-53.

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