Insurance and economic growth

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Abstract

The purpose of this paper is to study the relationship between the insurance business and the economic growth of 23 OECD countries over the period 1990-2011, using a static panel data model. The key findings emerged from the empirical analysis show a positive impact of non-life insurance, as measured by the penetration rate on economic growth and a negative effect exerted by the total insurance and non-life insurance, as measured by the density on economic growth.

Keywords: Insurance, economic growth, Static panel data model

1.Introduction

The need to be safe and protect themselves from danger threatening property and the physical integrity of a person is inherent in human nature. This need has developed following an increase in   flow   of   goods   and services, to finally manifest the concept of insurance.

Thus at the end of the Middle Ages , insurance has emerged as maritime form following a business between different cities and countries , but the real development of the insurance is not until the early 19th century in countries (the United States, France , Germany) .

Thinking about insurance is often oriented technical considerations and business exchange. And yet, in a modern economy, the insurance business is important and deserves focuses on understanding its environment and its interactions with other sectors of the economy. A well-organized insurance sector could be one of the vectors catalysts process of socio- economic development of a country or region.

The major development of this activity in the world and especially in recent decades, the expansion of trade and the multiple disasters across the world have prompted us to investigate the importance of this activity for growth and economic development of a country.

Our goal in this work is to analyze the insurance' role in economic   activity. To do this we set the key issue of our research:

Does   insurance affect economic growth?

To answer this question we will try to bring this work according to the following plan, the first section will be devoted to the empirical literature on the link between insurance and economic growth, the second section will be devoted to the choice of variables determining sources and interpretations of the estimation results.

The econometric investigation conducted as part of this research is a static panel data   model   on   23   OECD countries over the period 1990-2010.

2. Empirical literature:

Several empirical studies have attempted to explain the relationship between insurance and   economic   growth using penetration and insurance density or both variables together as a proxy for total insurance, life and non-life.

Several other studies have used other measures of variable insurance. Based on this distinction we fly the empirical literature on the link between insurance and economic growth.

2.1 Penetration and / or insurance density:

Webb et al (2002) tried to examine whether banks, life and non-life insurance individually and collectively contribute to economic growth , to do this they used data from 55 countries for the period 1980-1996 . The result of this research is that the penetration of life insurance is significantly positively correlated with economic growth and the relationship is reciprocal. In addition, they stated that there is no link between economic development and non-life insurance.

Haiss and Sumegi (2008) studied the impact of insurance on economic growth , on a sample of 29 European countries. They conducted an analysis of panel data over the period 1992-2005 , the total sample and then they split into two groups, one consisting of 15 EU countries and the other includes the new member states the EU (such as Turkey and Croatia). They found a positive impact of life insurance on the growth of GDP for the first group of countries, for the second group, they found a greater impact of the non-life insurance (liability insurance). In addition, their results highlight the impact of the real interest rate for the bond insurance growth.

Han et al (2010) studied the relationship between insurance development and economic growth using a dynamic panel data model on 77 countries for the period 1994-2005. The insurance density is used to measure the development of the insurance; they concluded that the development of insurance is positively correlated with economic growth. The estimated sample is then divided into developed and developing countries. For

developing economies, the development of insurance is more important than that played in the case of developed economies assurance role.

Kjosevski, J (2011) examined the impact of insurance on economic growth using the insurance penetration as a measure of insurance development, three variables were used: life insurance penetration, penetration non-life insurance and total insurance penetration. The analysis used data for the period 1995-2010 of the Republic of Macedonia using the OLS technique, followed by an analysis of the variability in order to identify the effects of each variable. The result of this analysis shows that the development of total insurance sector positively affects economic growth; this result is confirmed in non-life insurance, while the results show that life insurance negatively affects economic growth.

Kathy et al (2010) examined the relationship between insurance and economic growth through a study of a large number of countries over the period 1980-2006, using both cross-section   estimates and a   dynamic panel data   model.

In this study as a measure of insurance development, the authors took into account two variables, the insurance penetration and insurance density. They found that the insurance density is significantly positive while the insurance penetration is not significant. In addition, they showed that the quality of a country's legal system and the protection of property rights have a positive effect on the relationship between insurance and economic growth.

This study represents an important addition to the literature, since it focuses on the role of legal factors in the relationship between insurance and economic growth .

2.2 Other variables:

Beenstock et al (1988) examined the relationship between insurance and   economic   growth using time series data for ten industrialized countries for the period 1970-1981. They found that life insurance is directly dependent on income, as measured by GDP per capita.

Outreville (1990, 1996) analyzed the long and short-term causal relationships between economic growth and development of the insurance market. This is done on a country by country basis to allow the worn different causal relationships in size and direction of each country. Nine major OECD countries are examined with real GDP used as a measure of economic activity and total real premiums as a measure of the insurance business. Outreville noted the importance of insurance in the process of economic development.

Browne & Kim (1993) in their study concluded that life insurance is positively correlated with income and national and negatively correlated with inflation expectations wealth. They concluded that economic development and economic stability greatly increases the life insurance consumption.

Browne et al (2000) studied the relationship growing insurance including car insurance and general liability insurance on a sample of countries belonging to the Organization for Economic Cooperation and Development (OECD). The authors' analysis suggests that income has a much greater effect on the auto insurance consumer that the liability insurance consumption. Furthermore, in addition to income , other factors that explain the use of these two types of insurance that include wealth and shape the legal system in the country.

Ward and Zurbruegg (2000) examined the dynamic relationship in the short and long term between economic growth and the development of the insurance sector. This study was conducted on a sample of nine OECD countries by performing a cointegration analysis for the period 1961-1996 by taking real GDP as a measure of economic activity and total premiums as a measure of the insurance business. The results show that the insurance has an impact on economic growth in some countries (Canada and Japan) , and in other countries , the opposite is true. In addition, these results indicate that this relationship is specific to one country to another and depends on a number of circumstances such as the cultural, legal and regulatory environment and the impact of moral hazard in insurance.

Esho et al (2004) studied the role of legal factors in determining insurance density across countries using GMM on panel data for the period 1984-1998. The results show that there is a strong positive relationship between the protection of property rights, income and consumption insurance.

Kugler and Ofoghi (2005) examined the relationship between the size of the insurance market and economic growth in the UK over the period 1966 to 2003 for long-term insurance, and over the period 1971-2003 for general insurance. As a measure of growth , they used the growth rate of real GDP per capita and premiums (car insurance, liability insurance , property insurance, transport insurance) general insurance, insurance premiums in the long term (life insurance , annuities , pensions individuals) as a measure of the activity of insurance. Their study showed that there is a causal link between long-term growth of the insurance market and economic growth for eight of the nine classes of insurance.

Adams et al. (2005) conduct an analysis similar to Kugler and Ofoghi (2005) but focus on Sweden for the period of 1830-1998 and include additional variables like bank lending. Bank lending seems superior to insurance service and cause growth in the nineteenth century. In the twentieth century causality is reversed. Insurance seem to be more driven by the economic growth.

Using the generalized method of dynamic models for panel data for 55 countries times, including high-income countries , middle and low , over the period 1976 to 2004 , Arena (2006) examined the causal relationship between activity of the insurance market and economic growth . He found support for the causal effect of insurance in economic growth. Premiums for life insurance have a positive effect on economic growth in countries with high income only. As for non-life insurance premiums, the effect on economic growth is found in all countries, even if the most important effect is recorded in high-income countries.

Finally, he found that life insurance would have a greater impact on economic growth if the stock market development is deeper then that the results of the non-life insurance, suggest a complementary effect for the initial stages and intermediate stock market development.

V. Njegomir & D. Stojić (2010) in their study examined the impact of insurance on economic growth and the interaction between the insurance and banking activity in promoting economic growth in the former Yugoslavia for the period 2004-2008. The results of this research show that the insurance industry provides a positive effect on economic growth both as a provider of risk management, compensation and an institutional investor.

Michael Ojo (2012) examined the relationship in the short and long -term relationship between economic growth and the development of the insurance sector in the Nigerian economy over the period 1985-2009. The results showed that the development of the insurance sector positively and significantly affects economic growth.

3. Estimation methodology

To verify the relationship insurance growth we analyze a set of data relating to the 23 member countries of the Organisation for Economic Cooperation and Development (OECD) over the period 1990-2011 , using a data model static panel .

3.1 Definitions and sources of variables:

Our model incorporates several measures used to control variables. Previous studies have shown that they account for a significant share of national differences in growth rates in recent decades.

Thus, the variables used in this study are:

- Y: the growth rate of real GDP per capita
- INV: the ratio of gross capital formation in GDP .
- OPEN: the ratio of the volume of trade in GDP (X + M) / GDP.
- Inflation: Inflation as measured by the growth rate of the GDP deflator
- Bank deposits: measured by the ratio of bank deposits to GDP.
- Stock market: measured by the ratio of the total value of negotiated GDP stock market.
- Total Penetration: Penetration rate measured by the ratio of premiums written by GDP.
- Penetration Life: rate of life insurance penetration.
- Non- life penetration: rate of non-life insurance penetration.
- Total density: measured by the ratio of premiums written by the total population.
- Density life: measured by the ratio of life insurance premiums for the total population.
- Non- life density: measured by the ratio of premiums for non-life insurance by the total population.

Table 1. Descriptive statistics

Variables	Average	Min	Max
GDP per capita growth rate	0,9527128	-8,974979	7,904613
Total insurance penetration rate	8,62475	1,042	49,457
Life-insurance penetration rate	0,0580584	0,0014712	0,357356
Non life-insurance penetration rate	0,0334953	0,0106396	0,053695
Total density	4184,865	0,6490916	54268,78
Life-insurance density	3098,495	6,879	51154,94
Non life-insurance density	1280,44	29,692	3415,884
Gross capital formation (%GDP)	21,21609	10,44396	35,60741
Inflation, GDP deflator (annual %)	3,089194	-6,381516	37,42484
Trade (% of GDP)	89,84078	21,16393	333,5322
Bank deposits to GDP (%)	109,1475	13,41976	637,3724
Stock market total value traded to GDP (%)	84,30949	0,4086965	401,2325

All variables are for the period 1990-2011 due to the availability of data for all countries in the sample. All economic variables are taken from the report on the development in the world [2012], while data relating to insurance were collected from the base of Sigma SwissR data.

In light of the foregoing, our equation to be estimated is as follow:

$$Y_{i,t} = \alpha_i + \beta \, X_{i,t} + \varepsilon_{i,t} \qquad (1)$$

Where the indices i , t represent country and time period , respectively , Y is the growth rate of real GDP per capita , X a matrix of explanatory variables already mentioned above, α and β : coefficients to be estimated and ε is the error term .

The average growth rate of GDP of 23 OECD countries is 0.9527128 , the rate is between -8.974979 and 7.904613 . The penetration rate of total insurance is between 1.042 and 49.457 and average is 8.62475 .

As the penetration of life insurance is between 0.0014712 and 0.357356 and has a average of 0.0580584 . The average penetration rate of non-life insurance is 0.0334953 , the rate is between 0.0106396 and 0.053695 . The average total insurance density is 4184.865 and it is between 0.6490916 and 54268.78 . For the average density of life insurance is to 3098.495 and it is between 6,879 and 51,154.94 . The average non-life insurance density is 1280.44 and it is between 29,692 and 3415.884 .

The graphs below show the evolution of each explanatory variable with the dependent variable by country between 2000 and 2010.
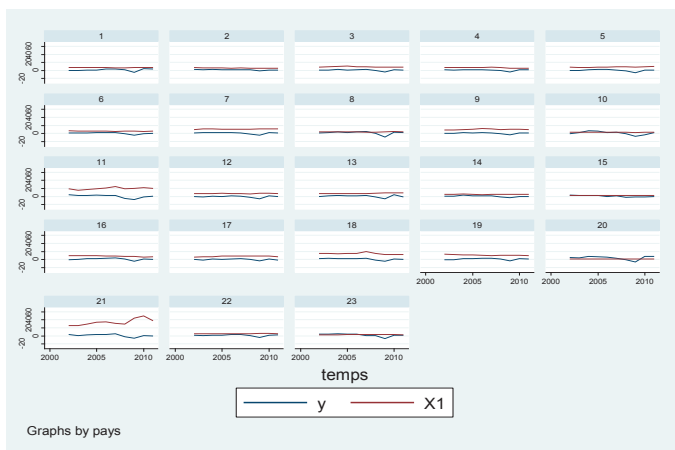
Figure 1: Evolution of the total insurance penetration rate and the growth rate of GDP

We noticed that the rate of total insurance penetration and GDP growth are advanced in parallel in 23 countries during this period, so we can say that there is a probable relationship between the two variables.
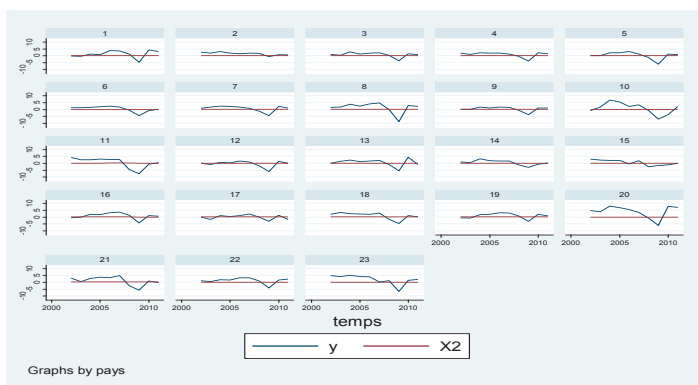

Figure 2: The evolution of the life insurance penetration rate and the growth rate of GDP

We note that there is an inverse relationship between the two variables out of the increased growth rate of GDP , the rate of penetration life is decreasing.
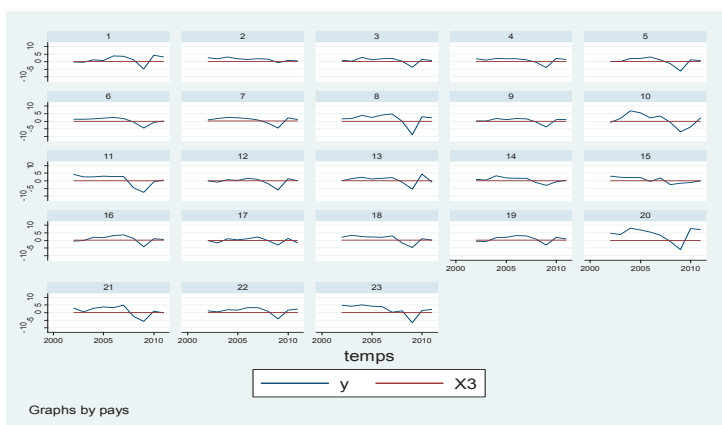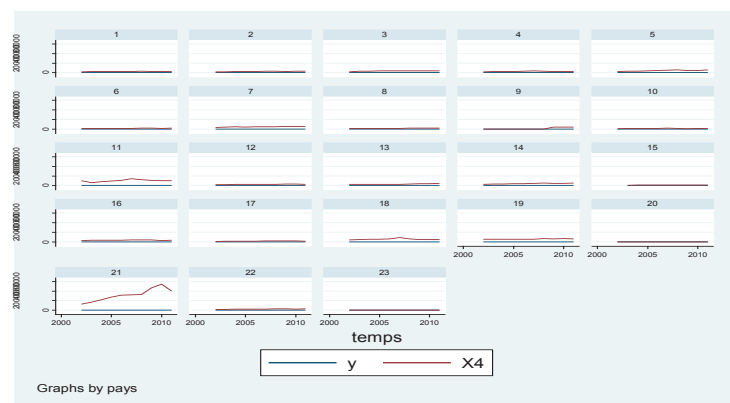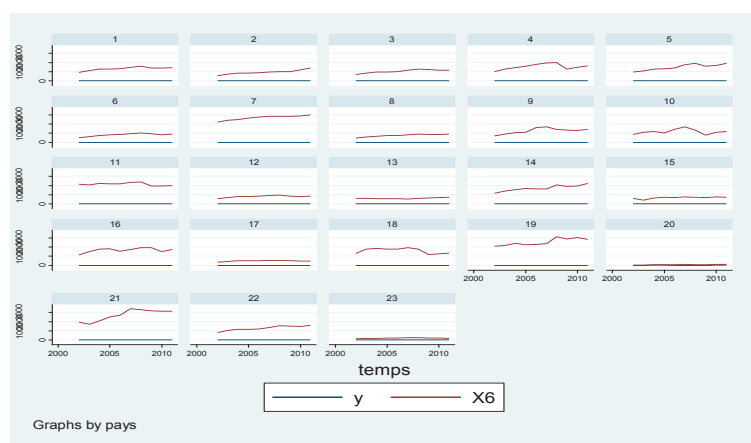

Figure 3: The evolution of non- insurance penetration rate and the growth rate of GDP

We find an inverse relationship between the growth rate of GDP and non-life penetration .

Figure 4 : The evolution of the insurance density and growth rate of GDP

Figure 5: The evolution of the non-life insurance density and growth rate of GDP

There is a likely positive relationship between the growth rate of GDP and non-life insurance density.

3.3 Estimation Results and Interpretations

Our model is a static data to individual effects panel because our sample is 23 OECD countries (countries with similar level of development) is to say that the source of heterogeneity in our model may come from constants α_i . Our sample may know some heterogeneity from certain sources (geographic , climatic, legal) . In addition , the specification of our model is fixed effects from the Hausman test that cuts between the fixed effects model and random effects model .

Most of the variables in our model is either insurance or financial control seem to have had an effect on economic growth. The estimation results of different equations are more or less expected given the theoretical and empirical considerations already mentioned.

Table2: Regression results of the relationship insurance-growth

	1	2	3	4	5	6
C	-7,97 (-2,62)	-9,11 (-3,21)	-18,12 (-3,53)	-8,89 (-3,281)	-1,35 (-1,61)	-1,21 (-1,41)
Penetration	-0,12 (-1,26)					
Penetration life		-8,46 (-0,78)				
Penetration non life			1,80 (1,98)			
Density				-0,00024 (-3,55)		
Density life					-0,00004 (-1,24)	
Density non life						-0,0004 (-2,13)
INV	0,47 (7,1)	0,48 (7,2)	0,50 (7,5)	0,48 (7,2)	0,08 (2,3)	0,07 (2,28)
Inflation	0,047 (0,84)	0,047 (0,86)	0,058 (1,05)	0,047 (0,86)	0,09 (3,51)	0,08 (3,05)
Open	0,037 (2,1)	0,034 (1,95)	0,034 (1,95)	0,04 (2,36)	0,004 (1,45)	0,006 (2,09)
Bank deposits	-0,023 (-1,86)	-0,023 (-1,52)	-0,023 (-1,52)	-0,008 (-0,68)	-0,0001 (-0,08)	-0,001 (-0,89)
Stock market	-0,012 (-2,48)	-0,017 (-2,51)	-0,009 (-1,88)	-0,011 (-2,30)	0,0009 (0,56)	0,004 (1,97)

We will begin the interpretation by key variables in our estimation :

- The total insurance penetration and life insurance does not have an effect on economic growth . In addition, the non-life insurance penetration is positively related to economic growth in these countries.

The estimation results of our model for the sample of 23 OECD countries , listed in the table below:

Table 8: Regression results of the relationship insurance-growth

- For other insurance (insurance density) variable, it seems that there is no link between the life insurance density and economic growth while total insurance density and , non-life insurance density has a negative effect on economic growth for this group of countries . This negative relationship can be explained by the level of development of the insurance business in the countries in our sample that is to say that in the OECD countries , the insurance industry has reached the maximum threshold development, where the total exhaustion of possible positive effects of the insurance business in these countries.

- The investment is significant at 100% in all equations and positively affects economic growth indicating a major effect on the latter which is consistent with the economic literature.

- Since our sample is composed of a set of developed countries, it is expected that inflation has a positive effect on economic growth due to the efficient and effective monetary policy applied in these countries.

- The coefficient of «trade openness» variable is positive and significant in most equations that is to say that the economic growth of these countries trade openness positively influences .

- For the two financial variables, the coefficient of the " Bank Deposits to GDP " variable is always negative , but it is significant that in equations [4] and [6] . The «Stock market total value traded to GDP «variable has a negative effect on economic growth.

The results of our study strengthen those already found by several other researchers. Indeed, the study Kjosevski Jordan (2011) has the same result as to the positive effect of the total insurance on economic growth and the negative effect of non-life insurance . Kathy Avram et al (2010) found almost the same results .

4.Conclusion:

As part of this research, we have tried to contribute to the resolution of the basic question: Does there's a link between the insurance business in a country and economic performance that makes ?

To do this , we use a model of static panel data covering a sample of 23 OECD countries during the period 1990-2011 .

The key findings emerged from the empirical analysis show:

- A positive impact of non-life insurance, as measured by the penetration rate on economic growth

 - A negative effect exerted by the total insurance and non-life insurance, as measured by the density on economic growth.

In general, the mixed results in terms of link between insurance and economic growth, which led the empirical tests conducted as part of this research, consolidates the conclusion reached by the empirical literature on the subject, because a clear relationship between the insurance business and economic performance is far from being found. We conclude, without confirmation, that these analyzes allowed us, even in part, to show the existence of a relationship between the insurance business and the economic performance of developing countries. It is important to note that, despite the importance of empirical evidence which leads this work, shortcomings could be raised:

- Other possible mechanisms of the relationship studied were not considered.

- Lack of data we did not use other variable insurance

- The problem of causality has not been processed.

The relationship between insurance and economic growth could be better understood once its underlying mechanisms remain to be analyzed and the techniques used to quantify are improved.

In light of the current debate concerning more generally the interaction between financial sector and real economy, these fields of investigation could be more future work.

References

Abiad, A, Leigh D, Mody A (2007) International Finance and Income Convergence: Europe is different. IMF Working Paper WP/0764

Adams M, Andersson J, Andersson L, Lindmark M (2005) The Historical Relation between Banking, Insurance, and Economic Growth in Sweden: 1830 to 1998. University of Wales Swansea Working Paper, UK, http://nhh.no/sam/res-publ/2005/26.pdf. Cited 28 Oct 2007

Arena, M (2006) Does insurance market activity promote economic growth? A Cross-Country Study for Industrialized and Developing Countries, World Bank Policy Research Working Paper No. WPS4098

Arestis P, Demetriades P, (1997) Financial Development and Economic Growth: Assessing the Evidence. Economic Journal 107(442):783-799

Beck, T, Levine, R (2004) Stock Markets, banks and growth: Panel Evidence, Journal of Banking and Finance 28(3): 423-442

Beck T, Webb I (2003) Economic, Demographic and Institutional Determinants of Life Insurance Consumption across Countries. The World Bank Economic Review 17(1):51-88

Beenstock M, Dickinson G, Khajuria S (1988) The Relationship between Property-Liability Insurance Penetration and Income: An International Analysis. The Journal of Risk and Insurance 55(2):259–272

Boon Tan Kay, (2005) Do Commercial Banks, Stock Market and Insurance Market Promote Economic Growth? An analysis of the Singapure Economy. Working paper of the School of Humanities and Social Studies, Nanyang Technological University. http://www.ntu.edu.sg/HSS/egc/researchactivities/workingpaperseries/2005.htm. Cited 15 March 2007

Bosworth B, Triplett J (2004) Price, Output and Productivity of Insurance. In: Bosworth, B, Triplett J (eds) Services Productivity in the United States: New Sources of Economic Growth. Brookings Institution Press, Washington D.C., pp 123-177

Browne M, Chung J, Frees E (2000) International Property-Liability Insurance Consumption. The Journal of Risk and Insurance 67(1):73-90

Browne. M and Kim. K, (1993) An International Analysis of Life Insurance Demand. The Journal of Risk and Insurance, 60(4): 616 – 634

Butler R, Gardner B, Gardner H (1998) More than cost shifting: Moral hazard lowers productivity. Journal of Risk and Insurance, 67(1):73-90

Catalan M, Impavido G, Musalem A (2000) Contractual Savings or Stock Markets Development: Which Leads? World Bank Policy Research Paper 2421

CEA (Comité Européen des Assurances) (2004) European Insurance in Figures. CEA Statistics No. 17, Brussels. http://www.cea.assur.org/. Cited 22 Feb 2007

CEA (Comité Européen des Assurances) (2006) European Insurance in Figures. CEA Statistics No. 24, Brussels. http://www.cea.assur.org/. Cited 22 Feb 2007

CGFS (Committee on the Global Financial System) (2007) Institutional Investors, global savings and asset allocation. CGFS Papers 27. http://www.bis.org/publ/cgfs27.htm. Cited 15 March 2007

Chaplin G (1999) Insuring Corporate Failure: Credit Default Swaps. Paper presented at the AFIR (Actuarial Approach for Financial Risks) Colloquium in Tokyo, Japan, 24-27 Aug 1999 http://www.actuaries.org/AFIR/colloquia/Tokyo/papers.cfm. Cited 15 March 2007

Cummins, D, Doherty, N (2006) The Economics of Insurance Intermediaries, Journal of Risk and Insurance 73(3):359-397

Das U, Davies N, Podpiera R (2003) Insurance and Issues in Financial Soundness. IMF Working Paper 03/138

Davis E P (2001) Portfolio Regulation of Life Insurance Companies and Pension Funds. Financial Market Trends 80(1):133-181

Davis E P, Hu Y (2004) Is there a Link between Pension-fund Assets and Economic Growth? – A Cross-Country Study. Public Policy Discussion Papers No. 04-23, Brunel University, England. http://ideas.repec.org/p/bru/bruppp/04-23.html. Cited 15 March 2007

Effenberger D (2004) Kreditderivate: Wirkung auf die Stabilität der Finanzmärkte. EU Monitor 293:1-14

Eller M, Haiss P, Steiner K (2006)Foreign direct investment in the financial sector and economic growth in Central and Eastern Europe: The crucial role of the efficiency channel. Emerging Markets Review 7(4):300-319

Esho N, Kirievsky A, Ward D, Zurbruegg R (2004) Law and the Determinants of Property-Casualty Insurance. The Journal of Risk and Insurance 71(2):265–283

EU (European Commission Directorate-General Economic and Financial Affairs) (2005) The Remarkable Development of the Credit Derivatives Market. Quarterly Note on the Euro-Denominated Bond Markets No. 83: 11-22

Eurostat (2007) Net Household Savings. http://epp.eurostat.ec.europa.eu. Cited 31 Oct 2007

Fink G, Haiss P, Kirchner H (2005) Die Finanzierung über Anleihenemissionen und Zusammenhänge zum Wirtschaftswachstum. Kredit und Kapital 38(3):351-375

Fukuyama F (2001) Culture and Economic Development: Cultural Concerns. In: Smelser N J, Baltes Paul B (eds) International Encyclopedia of Social and Behavioural Science. Pergamon Press, Oxford, pp3130-3134

Grace M F, Rebello M J (1993) Financing and the Demand for Corporate Insurance. Geneva Papers on Risk and Insurance 18:147–172

Han, L., Li, D., Moshirian, F., & Tian, Y. (2010). Insurance Development and Economic Growth. The Geneva Studys on Risk and Insurance-Issue and Practice, 35, 183-199.

HAISS, P AND SÜMEGI, K, (2008), « THE RELATIONSHIP BETWEEN INSURANCE AND ECONOMIC GROWTH IN EUROPE: A THEORETICAL AND EMPIRICAL ANALYSIS »,EMPIRICA, 35 (4), PP. 405-431 .

Hayakawa H, Fischbeck P S, Fischhoff B (2000) The Japanese Automobil Insurance Industry: Regulation and Market Structure. Journal of Insurance Regulation, 18(3):385-403

Hofstede G (1995) Insurance as a Product of National Values. Geneva Papers on Risk and Insurance 20(4):423-429

Holsboer J H (1999) Repositioning of the Insurance Industry in the Financial Sector and its Economic Role. The Geneva Papers on Risk and Insurance 24(3):243-290

Hsiao C (2003) Analysis of Panel Data. Cambridge University Press, Cambrigde,

King R, Levine R (1993a) Finance and growth: Schumpeter might be right. Quarterly Journal of Economics 108(3):717–737

King R, Levine R (1993b) Finance, entrepreneurship, and growth – theory and evidence. Journal of Monetary Economics 32:513–542

Kong Jt, Singh M (2005) Insurance Companies in Emerging Markets. IMF Working Paper 05/88

Kjosevski, J (2011), « The Impact of Insurance on Economic Growth :The case of republic of Macedonia » Stopanska Banka AD, vol 4

Kwok, C, Tadesse, S (2006) National culture and financial systems, Journal of International Business Studies 37(2):227-247

Kugler M and Ofoghi R (2005) Does Insurance Promote Economic Growth? Evidence from the UK. University of Southampton Working Paper, http://repec.org/mmfc05/paper8.pdf. Cited 28 Oct 2007

La Porta, R, Lopez-de-Silanes, F, Shleifer, A, Vishny, R (1998) Law and Finance. Journal of Political Economy 106(6):1113-1155

Leung M K, Young T (2002) China's Entry to the WTO: Managerial Implications for Foreign Banks. Managerial and Decision Economics 23(1):1–8

Levine R, Zervos S (1998) Stock Markets, Banks and Economic Growth. American Economic Review 88(3):537-558

Lim Chee C, Haberman S (2003) Macroeconomic Variables and the Demand for Life Insurance in Malaysia. CASS Business School Working Paper, City University London, http://www.cass.city.ac.uk/conferences/oxmetrics2003/LimHaberman29August.pdf. Cited 15 March 2007

Mahlberg, B, Url, T (2000) The Transition to the Singel Market in the German Insurance Industry. WIFO Working Paper Nr. 131

Miles W (2003) The Role of Non-Bank Financial Intermediaries in propagating Korea's financial crisis. Review of Pacific Basin Financial Markets and Policies 6(1):45-61

Michael Ojo, O. (2012). Insurance Sector Development and Economic Growth

in Nigeria. African Journal of Business Management, 6(23), 7016-7023.

Njegomir. V and Stojić. D, (2010), « Ekonomska istraživanja », Vol. 23 No. 3(96-110)

Outreville J F (1990) The economic significance of insurance markets in developing countries. The Journal of Risk and Insurance 57(3):487-498.

Outreville J F (1996) Life Insurance Markets in Developing Countries. The Journal of Risk and Insurance, 63(2):263–278

Pagano M (1993) Financial Markets and Growth: An Overview. European Economic Review 37(1):613-622

Papaioannou, E (2007) Finance and Growth – A Macroeconomic assessment of the evidence from a European angle. ECB Working Paper No. 787

Park H, Borde S F, Choi Y (2002) Determinants of Insurance Pervasiveness: a Cross-national Analysis. International Business Review 11(1):79–86

Pye R B (2003) The Evolution of the Insurance Sector in Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union. Paper presented to the IX Dubrovnik Economic Conference on "Banking and the Finanical Sector in Transition and Emerging Market Economies", Dubrovnik, Croatia, 26-28 June 2003 http://www.hnb.hr/dub-konf/edub-konf.htm?tsfsg=6a013affe6b3ed375573c47b9ddc8e7f. Cited 15 March 2007

Raikes D (1996) Bancassurance: European Approaches to capital adequacy. Bank of England Financial Stability Review No. 1:58-53, Ranade A, Ahuja R (2001) Impact on Saving via Insurance Reform. Indian Council for Research on International Economic Relations, Working Paper 67

Rousseau P L, Wachtel P (1998) Financial Intermediation and Economic Performance: Historical Evidence from Five Industrialized Countries. Journal of Money, Credit and Banking 30(4):658-678

Rule D (2001) Risk Transfer between Banks, Insurance Companies and Capital Markets. Bank of England Financial Stability Review 11: 127-159

Schiavo S, Vaona A (2006) Poolability and the finance growth-nexus: a cautionary note. Kiel Working Paper 1299. http://opus.zbw-kiel.de/volltexte/2006/5106. Cited 11 Mar 2007

Scholtens B, van Wensveen D (2003) The Theory of Financial Intermediation: An Essay on what it does (not) explain. SUERF Studies 2003/1

Sterling R (2000) Insurance Regulation and Supervision in OECD Countries, Asian Economies, Latin-American Countries and CEEC and NIS Countries. In: Insurance and Private Pensions Compendium for Emerging Economies. vol 1, Part 2:1.b, OECD

Stulz R (2004) Should we fear derivatives? Journal of Economic Perspectives 18:173-192

Wachtel P (2001) Growth and Finance: What do we know and How do we know it? International Finance 4(3):335-362

Ward D and Zurbruegg R (2000) Does Insurance promote economic growth – evidence from OECD Countries. The Journal of Risk and Insurance 67(4):489-506

Webb I P, Grace, M F, Skipper H D (2002) The Effect of Banking and Insurance on the Growth of Capital and Output. Center for Risk Management and Insurance Working Paper 02-1.   http://rmictr.gsu.edu/working.htm. Cited March 15, 2007

Zou H, Adams M B (2004) The Corporate Purchase of Property Insurance: Chinese Evidence. Journal of Financial Intermediation 15(2):165-196

Ward, D. and Zurbruegg, R., (2000), Does insurance promote economic growth?

Evidence from OECD Economies. Journal of Risk and Insurance, 67(4), pp.489-506.

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