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Investment on Insurance and Economic Growth in Iran

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ABSTRACT

Background: The process of insurance has been evolved to safeguard the interests of people from uncertainty by providing certainty of payment at a given contingency. The insurance principle comes to be more and more used and useful in modern affairs. **Objective:** The aim of this paper is to estimate the impact of investment of insurance on economic growth in Iran during 1981-2011 periods. We have used the modified Ram (1986) model to estimate the impact of investment of insurance on economic growth. **Results:** Results indicate that the Investment of insurance has a significant positive impact on economic growth in Iran. Also, growth of labor and growth of government expenditure have a significant positive impact on economic growth. **Conclusion:** The process of insurance has been evolved to safeguard the interests of people from uncertainty by providing certainty of payment at a given contingency. The insurance principle comes to be more and more used and useful in modern affairs.

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INTRODUCTION

According to the finance-growth nexus theory financial development promotes economic growth through channels of marginal productivity of capital, efficiency of channeling saving to investment, saving rate and technological innovation. November 06, 1935 is regarded as a memorable date in Iran's insurance industry. This occasion marks the establishment of Bimeh Iran (Iran Insurance Co.), as the first-ever national Iranian insurance enterprise and, thus, the founding of this country's national insurance industry. (iraninsurance.ir).

This company started issuing policies in various classes of insurance, within just a couple of weeks of being launched, concurrent with setting up its agencies in Mashad, Shiraz, Isfahan, Hamedan, Ahvaz and Bushehr in the very first year of its professional operation. Meanwhile, the newly formed company took up the initiative to extend grants and scholarships to dozens of students of economics and business-related fields, aimed at being subsequently trained in insurance, in a number of credible European universities and other institutes of higher education. (iraninsurance.ir).

Absorbing more than 62 percent of the local market share in competition with its long established foreign rivals, increasing its retention capacity from 10% to 56% was among the immediate achievements scored and the urgent measures adopted by Bimeh Iran (Iran Insurance Co.) during the nuptial early years of its independent professional activities. (iraninsurance.ir).

Furthermore, the effective role assumed by the company in introducing and promoting the basic insurance concepts, granted it with a solid national and international reputation and legitimacy, quite rare for a newly emerged and pioneering insurance enterprise. These are among the characteristic features widely believed to be associated with the proud name and emblem of Bimeh Iran (Iran Insurance Co.), which to this present day and despite the numerous challenges and developments unfolding in the local and international markets during the past seven decades. Bimeh Iran operates in all branches of Life and Non-life businesses. The company by offering commercial and personal coverage, including the Auto, Fire, Marine Engineering and Liability lines holds over 50% of the national market share.

Moreover, Bimeh Iran has underwritten the due risks involved in the majority of Iran's infrastructural projects, such as those in oil, natural gas, petrochemical and aviation industries, dams and power plants. The company would naturally secure the required reinsurance coverage from the international markets for part of the risks it initially underwrites, at its own discretion.

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1.1. Human Resources:

Bimeh Iran enjoys the full-time services of over 4,000 specialists (staff force). Furthermore, in parallel with the needs of the expanding local market the company has been maintaining a portion of its required workforce through the continual recruitments of qualified personnel from the country's growing young, insurance and economy literate population. (iraninsurance.ir).

1.2. Sales Networks:

Bimeh Iran by having over 200 Branches, 4,498 real and legal agencies, covering all the country, as well as overseas branches, agencies and subsidiaries, is equipped with the largest sales network within the Iranian insurance industry. (iraninsurance.ir).

1.3. Capital:

The Company's capital being IRRials 20 million at the time of its commencement, now amounts to over IR. Rials 2,000 billion. It entirely belongs to the government of the Islamic Republic of Iran. This company by virtue of the investments made in over 115 companies inside and 29 companies outside the Stock Exchange market, as well as offering reasonable premium rates, has managed to secure a firm and reliable status among the top-ten Iranian commercial enterprises in the past several years. (iraninsurance.ir).

1.4. Investments:

In line with the Investments Regulations adopted by the State High Council of Insurance, Bimeh Iran's (Iran Insurance Co.) technical provisions, capital and reserves are invested in various forms and means such as bank deposits, partnership bonds, stocks and shares.

The renowned Abbasi Hotel located in the ancient city of Isfahan and the Company's London subsidiary Bimeh Iran-UK Insurance Co. are among the prominent investment ventures of this company. (iraninsurance.ir)

The aim of this paper is to estimate the impact of investment of insurance on economic growth in Iran during 1981-2011 periods.

1.5. Review of Literature:

Ward & Zurbrugg (2000) have examined the short- and long-run dynamic relationships exhibited between economic growth and growth in the insurance industry for nine OECD countries. They have used Causality tests and cointegration analysis on a unique set of annual data for real GDP and total real premiums issued in each country from 1961 to 1996. Their results from the tests suggested that in some countries, the insurance industry Granger caused economic growth, and in other countries, the reverse was true. Moreover, their results indicated that these relationships are country specific and any discussion of whether the insurance industry does promote economic growth will be dependent on a number of national circumstances (Ward & Zurbrugg (2000)).

Haiss & Sümegi (2008) have investigated both the impact of insurance investment and premiums on GDP growth in Europe. They applied a cross-country panel data analysis from 1992 to 2005 for 29 European countries. They found a positive impact of life insurance on GDP growth in the EU-15 countries, Switzerland, Norway and Iceland. For the New EU Member States from Central and Eastern Europe, they found a larger impact for liability insurance. Furthermore their findings emphasized the impact of the real interest rate and the level of economic development on the insurance-growth nexus. They argued that the insurance sector needs to be paid more attention in financial sector analysis and macroeconomic policy (Haiss & Sümegi (2008)).

Arena (2008) has tested whether there is a causal relationship between insurance market activity (life and nonlife insurance) and economic growth. Arena (2008) has applied the generalized method of moments (GMM) for dynamic models of panel data for 55 countries between 1976 and 2004, Arena (2008) found robust evidence for this relationship. Both life and nonlife insurance have a positive and significant causal effect on economic growth. For life insurance, high-income countries drive the results, and for nonlife insurance, both high-income and developing countries drive the results (Arena (2008)). Soo (1996) examined the relationship between life insurance and economic growth, theoretically and empirically, by studying the life insurance effect on three aspects of economic growth: (1) the effect of life insurance and an increase in life insurance premium tax rate on economic savings and consumption, (2) the role of life insurance in economic productivity, and (3) the causality feedback between life insurance growth and economic growth. Soo (1996) suggested that growth in the life insurance industry causes an increase in economic growth. Soo (1996) developed a dynamic optimization model to determine the effect of life insurance in individuals' process of maximizing their expected life-time utility. He concluded that the availability of tax-loaded life insurance affects the accumulation process of individual wealth, but not aggregate wealth. The theoretical model also suggested that a permanent increase in the annuity premium tax rate in a lending economy decreases the steady state aggregate consumption and aggregate wealth.

The conditional directional feedback from life insurance growth to economic growth suggested that life insurance growth explains approximately 14% of the variance in economic growth. He found that a unit shock in life insurance growth has a positive impact on economic growth in both the short-run and the long-run. He

also found that a unit shock in the insurance premium tax rate has a positive impact on economic growth but a negative impact on life insurance growth in the short-run (Soo (1996)). Chang, Lee & Chang (2013) applied the bootstrap panel Granger causality test to test whether insurance activity promotes economic growth, using data from 10 OECD countries over the period of 1979–2006. Their Empirical results indicated that one-way Granger causality running from all insurance activities to economic growth for France, Japan, Netherlands, Switzerland, and the UK, and economic growth Granger causes insurance activities in Canada (for life insurance), Italy (for total and life insurance) and the USA (for total and non-life insurance). There is a two-way Granger causality between life insurance activity and economic growth in the USA, while no causality between insurance activities and economic growth is found in Belgium (for all insurance), Canada (for total and non-life insurance), Italy (for non-life insurance) and Sweden (for life insurance). Their results also confirmed the finding of Ward and Zurbrugg (2000) showing that the insurance–growth nexus varies across countries, since their paper have previously demonstrated heterogeneity in this vein. In an analysis of a broader, though overlapping 17-country sample and taking into account banking activities, their results suggested the importance of including banking activities when investigating the insurance–growth relationship (Chang, Lee & Chang (2013)). Lee, Leen& Chiu (2013) used the panel seemingly unrelated regressions augmented Dickey-Fuller (SURADF) test to re-investigate the stationarity properties of real life insurance premiums per capita and real gross domestic product (GDP) per capita for 41 countries within three levels of income covering 1979–2007. Their empirical results first reveal that the variables in these countries are a mixture of $I(0)$ and $I(1)$ processes, and that the traditional panel unit-root tests could lead to misleading inferences. Second, for the estimated half-lives, the degrees of mean reversion are greater in high-income countries. Third, there is concrete evidence favoring the hypothesis of a long-run equilibrium relationship between real GDP and real life insurance premiums after allowing for the heterogeneous country effect. The long-run estimated panel parameter results indicate that a 1% increase in the real life premium raises real GDP by 0.06%. Finally, they determined that the development of life insurance markets and economic growth exhibit long-run and short-run bidirectional causalities. These findings offer several useful insights for policy-makers and researchers (Lee, Leen& Chiu (2013)). Hongbing, Meng, & Wenhua, (2013) applied the bootstrap panel Granger causality test to investigate the relationship between insurance activity and economic growth using data from 31 regions of China over the period 1997-2011. Their empirical results indicated that the direction of causality seems to be in favor of the neutrality hypothesis in 21 out of 31 regions and a one-way Granger causality running from economic growth to insurance activity in 7 regions. Regarding the direction of insurance activity to economic growth nexus, they found a one-way Granger causality from insurance activity to economic growth for Jiangsu, Zhejiang, and Shandong (Hongbing, Meng, & Wenhua, (2013)). Outreville (2013) proposed a review of 85 empirical papers examining the relationships between insurance and economic development, that is, the insurance-growth nexus. When looking at the economic importance of the insurance sector, most papers in the past have looked at the demand side (the level of economic development is an explanatory variable among other factors that affect the demand for insurance). Because the role of the insurance sector and its contribution to development is at the agenda of international organizations and because the importance of the relationship between financial development and economic growth has been well recognized and emphasized in the field of economic development, more recent papers have examined the causality links between insurance and economic development and the role of insurance as a significant determinant in the process of economic growth (Outreville (2013)).

2. Methodology:

In this paper, we use time series dataset over the period of 1981-2011 to evaluate the relationship between insurance development and economic growth in Iran. In our analysis the variables are transformed through the use of natural logarithm to ease interpretation of the coefficients. For considering the impact of investment of insurance on economic growth, we have used the modified Ram (1986) model as following:

$$\dot{Y}_t = \beta_0 + \beta_1 \left(\frac{I}{Y}\right)_t + \beta_2 g_{L_t} + \beta_3 g_{G_t} \left(\frac{G}{Y}\right)_t + e_t \quad (1)$$

Regression (1) shows that the variables which affect economic growth ($\dot{Y}$) include the insurance investment rate ($\frac{I}{Y}$), growth of labor force (g_{L_t}), and the multiplication effects of government expenditure growth (g_{G_t}) times government size (G/Y).

In addition, we identify the multiplication effects through the sign of β_3 . This indicates that the government sector has a reciprocal effect on economic growth through two ways: one is the direct contribution of the government sector and the other is the indirect effect through the non-government sector (externality effect).

We have used OLS method to estimation the parameters of the model. The data is extracted by database of central bank of Iran and Tehran stock exchange for insurance investment data during 1981-2011 period

3. Result:

Table 1 indicates estimation results with OLS method

Table 1: Estimation Results.

Method: Least Squares				
Date: 02/27/14 Time: 11:26				
Sample (adjusted): 1981 2011				
Included observations: 30 after adjustments				
Newey-West HAC Standard Errors & Covariance (lag truncation=2)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.176838	0.058724	3.011351	0.0064
LOG(INVEST)	6.336793	2.328838	2.721011	0.0125
Labour growth	2.308742	0.591537	3.902957	0.0008
G.GS	0.237496	0.119292	1.990876	0.0511
R-squared	0.662995	Mean dependent var		0.038073
Adjusted R-squared	0.636131	S.D. dependent var		0.072920
S.E. of regression	0.062041	Akaike info criterion		-2.581414
Sum squared resid	0.084679	Schwarz criterion		-2.387861
Log likelihood	37.55839	Hannan-Quinn criter.		-2.525678
F-statistic	8.178878	Durbin-Watson stat		2.127597
Prob(F-statistic)	0.007458			

Results indicate that the Investment of insurance has a significant positive impact on economic growth in Iran. Also, growth of labor and growth of government expenditure have a significant positive impact on economic growth.

Figure1. Actual, Residual and Fitted

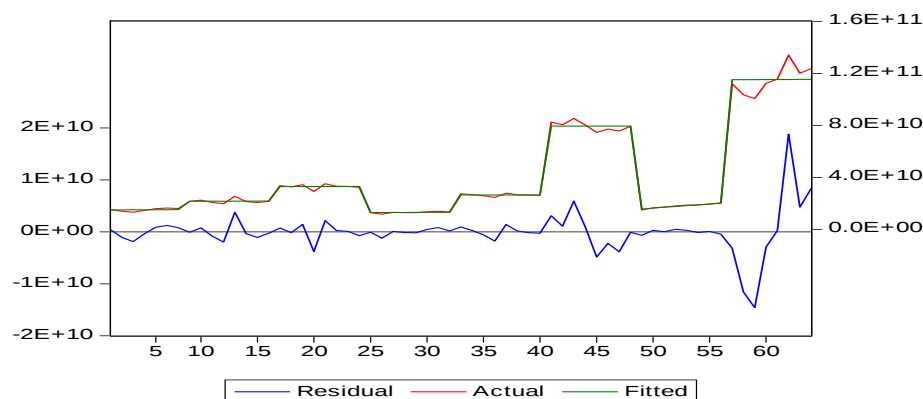


Fig. 1: Indicates actual, residual and fitted for the model that the plot indicates that the model has goodness of fit.

4: Discussion:

The process of insurance has been evolved to safeguard the interests of people from uncertainty by providing certainty of payment at a given contingency. The insurance principle comes to be more and more used and useful in modern affairs.

Not only does it serve the ends of individuals, or of special groups of individuals, it tends to pervade and to transform our modern social order, too. The role and importance of insurance, here, has been discussed in three phases: (i) uses to individual, (ii) uses to a special group of individuals, viz., to business or industry, and (iii) uses to the society. The aim of this paper is to estimate the impact of investment of insurance on economic growth in Iran during 1981-2011 periods. We have used OLS method to estimation the parameters of the model. The data is extracted by database of central bank of Iran and Tehran stock exchange for insurance investment data. Results indicate that the Investment of insurance has a significant positive impact on economic growth in Iran. Also, growth of labor and growth of government expenditure have a significant positive impact on economic growth.

5. Conclusion:

Insurance as an investor institute which obliges to compensate losses can have significant impacts on macroeconomic activities and economic growth. The National wealth protect is one of these impacts. Both individuals and companies can guarantee of their property and installations through payment of a regular insurance premium are transferred to insurance companies. Another economic impact of insurance is investments guarantee. Regarding the fact that creating new investment opportunities leads to the economic growth and development of every country, the security of these capitals plays a significant role in continuing this growth as investors will act to new investments only if they make sure that no danger threatens their capital. In this condition, the insurance market can affect the risk management. Another economic impact of insurance is the investment growth and development. In general, all insurance companies receive their insurance premium beforehand; these premiums create a huge value of capitals which could be invested in various economic sections and can increase the investment level within the country.

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