Financial Deepening of Insurance and Economic Growth in Kenya

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Abstract

The depth of financial sector has been found to promote economic growth. The indemnification and risk pooling properties of insurance facilitate commercial transactions and provision of credit by mitigating losses as well as the measuring and management of non diversifiable risk thus promoting economic activities. Study was set out to examine the relationship between economic growth and insurance penetration in Kenya. The study employed a causal study design. Secondary data was obtained from published reports of Insurance Regulatory Authority (IRA) and Central Bureau of Statistics (CBS) specifically the Annual Insurance Reports and Economic Surveys respectively. The target population was all the 45 Insurance companies registered for operation in Kenya. The study covered six years from 2003 to 2008. Insurance penetration ratio increased by 0.10% to stand at 2.7% in 2008. The long term business accounted for 0.9% and general business accounted for 1.8%. According to the regression equation established, taking insurance penetration factor into account constant at zero, economic growth will still be experienced at 8.395. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in insurance penetration ratio will lead to 1.375 increase in economic growth rate by 1.375.

1. Introduction

Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. In order to highlight specifically the unique attributes of insurance, it is worth focusing on those services that are not provided by other financial services providers, excluding for instance the contractual savings features of whole or universal life products. The indemnification and risk pooling properties of insurance facilitate commercial transactions and the provision of credit by mitigating losses as well as the measurement and management of non diversifiable risk more generally. Typically insurance contracts involve small periodic payments in return for protection against uncertain, but potentially severe losses. Among other things, this income smoothing effect helps to avoid excessive and costly bankruptcies and facilitates lending to businesses. Most fundamentally, the availability of insurance enables risk adverse individuals and entrepreneurs to undertake higher risk, higher return activities than they would do in the absence of insurance, promoting higher productivity and growth.

A measure of the development of an insurance sector is insurance penetration, defined as gross premium income (GPI) as a percentage of gross domestic product (GDP). According to Mahul et al(2010), insurance penetration rate is expressed as the ratio between insurance premium volume and GDP; non–life insurance penetration is expressed as the ratio between non– life insurance premium volume and GDP. According to Mahul et al 2009, the agricultural insurance penetration rate is lower than the non– life insurance penetration in all groups of countries classified by development status. Thus financial penetration is a subset of the financial deepening. The gap decreases with development level. Developing countries' economies rely heavily on agriculture however agricultural insurance has taken a long time to take off. Honohan (2004), the United States and many European countries have had some form of crop or livestock insurance for more than a century and are mature markets with high penetration rates. In contrast, in many developing countries, agricultural insurance has been operating for only 5–10 years (even less in

countries introducing index-based insurance), and agricultural insurance demand and uptake have yet to take off. Agricultural insurance provision is dominated by high-income countries and China. Almost 90 percent of global agricultural insurance premium volume is underwritten in high-income countries. In 2008 the agricultural insurance premium volume in China was estimated at $1.75 billion, making this middle-income country the second-largest agricultural insurance market after the United States. Agricultural insurance provision is largely dominated by crop insurance. The World Bank agrees that governments have a major role to play in reducing informational asymmetry. The development and maintenance of agricultural and weather databases as public goods can help insurers properly design and price agricultural insurance contracts, thus reducing adverse selection. Public extension services, assisting and supervising farmers in the management of their production risks before and after the occurrence of a loss can help reduce moral hazard.

Hardwick *et al*. (1999) define economic growth as an increase in a country's productive capacity, identifiable by a sustained rise in real national income over a period of years. A country's annual rate of economic growth, then, can best be measured by taking the average percentage increase in national income over a long period of time, say five or ten years. The figure obtained will be an estimate of the average annual rate of growth in the country's productive capacity, assuming that the rate of unemployment is roughly the same at the beginning and end of the period. Growth may be stimulated by an increase in the quantity or quality of the factors of production, such as labour and capital. Economic growth results in a number of benefits, such as an increased standard of living and a reduction in poverty levels. On the hand, growth may lead to costs, such as technological unemployment, rapid depletion of non renewable resources and negative externalities. Economic growth and economic development however related are contrasted. Hardwick et al (1999) asserts that for economic development to happen a country should experience economic growth, as defined above, and at the same time undergo major structural changes in its economy, such as a shift from agriculture to manufacturing.

Samuelson and Nordhaus (2005) underscores the importance of economic growth. Continuing rapid economic growth enables economies to provide more of everything to its citizens – better food and homes, more resources for medical care and pollution control, universal education for children, more resources for military and public pensions for retirees. Because economic growth is so important for living standards, it is a central objective of policy. Countries that ran fastest in the economic growth race like Britain in nineteen century and United States in the twentieth century, serve as role models for other countries seeking the path of affluence. They identified four wheels of growth as 1) human resources- labour supply, education, discipline and motivation 2) natural resources – land, minerals, fuels, environment quality 3) capital formation – machines, factories and roads 4) technology – science, engineering, management, entrepreneurship. The relationship is expressed as follows:

$$Q = AF(K, L, R) \tag{1}$$

Where Q represents output, K is productive services of capital, whereas L is labour units, R represent the natural resources, A is the level of technology and F is the production function. From the model as the inputs of capital, labour or resources rise, output would increase. Technology plays the role of augmenting the productivity of inputs.

2. Insurance Development in Kenya

Insurance Institute of Kenya (1999) gives chronological events of the introduction of insurance in Kenya. Insurance industry in Kenya was introduced by foreign nationals mainly the British and Asians during the colonial era. Initially insurance companies in UK opened agency offices in Nairobi. However, between the world wars, local proprietors started setting up insurance companies. Among these were the Pioneer General Assurance Society Limited, Jubilee Insurance Company Limited and the Pan Africa Insurance Company Limited which commenced business in 1930, 1937 and 1948 respectively. Other major developments in the industry began in the post independence period when the government sought to have more effective localized activities at appropriate intervals. Towards this end, the Insurance Ordinance, Cap 486 which came into force in 1961 provided a major impetus in the growth of the industry. It required

insurance companies to be incorporated in Kenya through licensing by the Registrar of Companies and to have share capital of Kshs 1,000,000.

The trend of local registration of insurance firms continued after independence, notable companies established at this time included Insurance Company of East Africa which was incorporated in mid 1970's, being 100% Kenyan owned. Kenya Commercial Insurance Company, also 100% Kenyan owned and associated with Minet entered business in 1977. In 1987 the office of the Commissioner of Insurance was established. This followed the coming into force of the Insurance Act of 1984. A department in the Ministry of Finance, it was charged with the responsibility of supervising the entire Insurance industry. The office has lately been transformed into a Regulatory Authority with enhanced authority and mandate to regulate the insurance industry. The following players were licensed by GOK in 2006: 43 insurance companies, 2 locally incorporated Re-insurers, 200 insurance brokers, 2,633 insurance agents, 200 loss assessors, 30 risk surveyors, 180 medical providers, 26 loss adjusters and 4 risk managers.

Recent regulatory changes have heightened competition within the insurance industry—an area in which competition has always been fierce. Business failures, massive mergers and acquisitions have resulted. The industry has experienced financial innovation whereby a broad range of services and products have been created, ranging from investment products to life insurance. Elsewhere, banks such as Equity Bank of Kenya are slowly gaining market share in the sale of insurance products, particularly annuities and life insurance the concept called Bancansurance.

3. Insurance Penetration and Economic growth

Whereas access to financial services is a potentially important means of alleviating poverty, especially when combined with other supports for poor households, yet access to insurance products has yet to take off in most segments of Kenyan population, reaching only a small segment of the potential market as indicated by low penetration levels. Although long neglected by mainstream financial firms, it would be a mistake to think that Insurance requires some special alchemy for its functioning.

Arena (2006) contends that insurance and banking system deepening appear to play complementary roles in the growth process. Although insurance and banking separately each make positive contributions to growth, their individual contributions are greater when both are present. The development of insurance markets also contributes to the health of securities markets. The deepening of insurance markets makes a positive contribution to economic growth. While life insurance is causally linked to growth only in higher income economies, nonlife insurance makes a positive contribution in both developing and higher income economies. Some research suggests that the positive contribution of life insurance to growth is primarily through the channel of financial intermediation and long term investments. The study indicates a positive relationship between insurance deepening and economic growth, however it paints life insurance as insignificant in developing countries and consequently not leading to economic growth.

4. Demographic Information

4.1. Economic and Insurance Indicators

The table below provides the economic and insurance indicators for the years 2003 to 2008.

*Table 1.* Economic and Insurance Indicators

Item	Years						% Change 2007/2008
	2003	**2004**	**2005**	**2006**	**2007**	**2008**	
GDP at MP(BIL Kshs)	1,131.8	1,274	1,418.1	1,620.7	1,814.2	2,099.7	15.7%
GDPI (in THN Kshs)	29,215,744	32,489,552	36,306,265	41,475,358	48,012,987	56,365,580	17.4%
GDP(% growth)	2.9	5.1	5.8	6.4	7	1.7	-75.8%
I P ratio (%)	2.6	2.5	2.5	2.5	2.6	2.7	3.8%
I D (Kshs.)	884.8	955.9	1,037.1	1,152.8	1,290.6	1,611	24.8%

Source: GOK Annual Economic Survey and IRA Annual Insurance Reports

Insurance penetration ratio increased by 0.10% to stand at 2.7% in 2008. The long term business accounted for 0.9% and general business accounted for 1.8%.

The real premium growth decreased from 5.9% in 2007 to -10.1% in 2008. On per capita basis the insurance density grew from an average of Kshs 1,290.60 in 2007 to an average of Kshs 1,611.00 in 2008. This reflected a growth of 24.8% that was spent on insurance.

Figure 1. Comparative trends of Real GDPI, GDP and Insurance Penetration Ratio
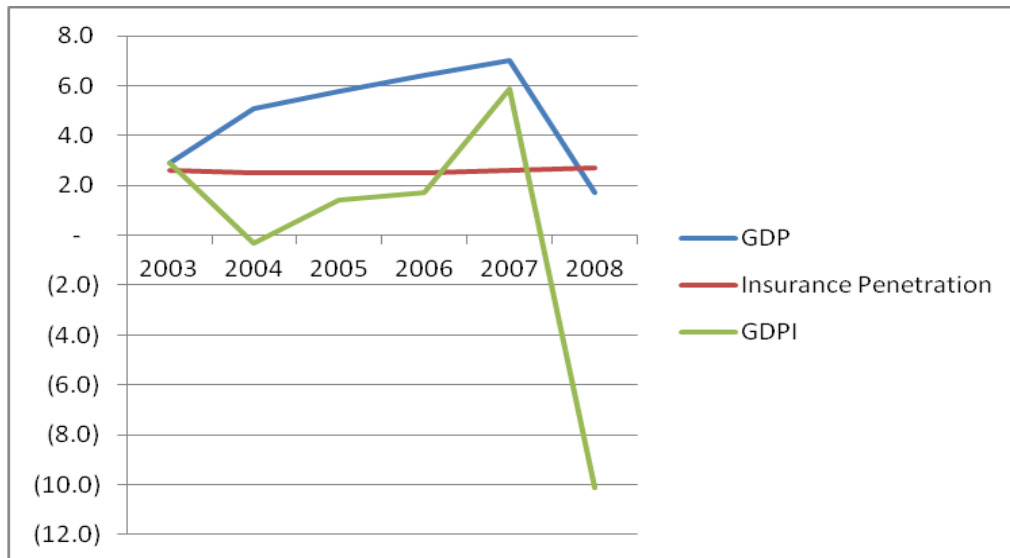
4.2. Type of Business Transacted

The study sought to establish the type of business transacted by Insurance companies in Kenya. From the findings, two classification of business were mentioned namely General business and Long term Insurance business.
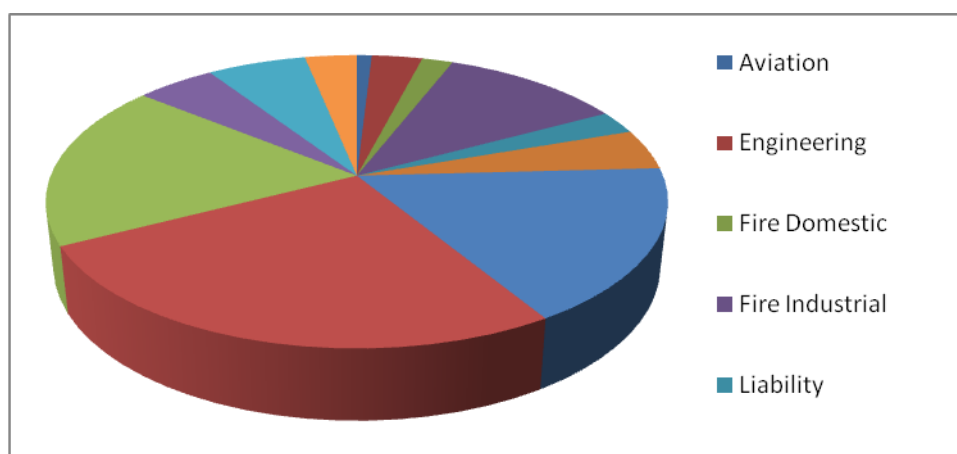
4.2.1. General Business

The table below shows the distribution of gross direct premium incomes per class over the six years period.

Table 2. General Insurance Gross Direct Income Per Class (Figures in Thousands Kshs)

Class of business	Years					
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
Aviation	294,404	252,002	158,007	171,313	257,046	324,968
Engineering	516,227	636,958	748,251	933,137	914,586	1,101,655
Fire Domestic	520,640	537,047	553,847	595,454	620,193	671,182
Fire Industrial	2,843,122	2,886,409	3,056,866	3,339,838	3,429,946	3,953,790
Liability	634,085	654,103	619,672	704,104	731,882	896,002
Marine	1,035,418	1,174,384	1,205,723	1,268,284	1,494,747	1,577,317
Motor Private	3,153,812	3,708,869	4,162,757	4,692,590	5,162,054	6,033,472
Motor Commercial	5,549,879	6,135,711	6,833,071	7,725,967	8,229,243	9,241,837
Personal Accident	3,152,526	3,613,278	4,374,507	5,117,374	6,038,785	6,487,303
Theft	1,103,365	1,288,251	1,387,030	1,572,882	1,582,514	1,723,028
Workmen's Compensation	982,676	1,090,047	1,292,875	1,494,695	1,565,778	2,152,166
Miscellaneous	351,936	490,786	620,850	703,121	928,670	1,130,913
TOTAL	**20,138,090**	**22,467,845**	**25,013,455**	**28,318,759**	**30,955,444**	**35,653,633**

Source: IRA Annual Insurance Report

Figure 2. Distribution of GDPI per class under general insurance business for year 2008

GDPI under general insurance business amounted to Kshs 35.65 billion in the year 2008 as compared to the previous year's Kshs 30.96 billion representing 15.08% increase.

4.2.2. Long term Business
The table below shows the Gross Direct Premium of the Insurance industry under long term business over the six years period.

Table 3. Long Term Business (figures in Thousands Kshs)

Class of business	Years					
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
Bond Investment	-	-	-	-	-	-
Industrial Life	-	-	-	-	-	-
Ordinary Life	3,708,064	4,367,501	4,875,222	6,070,610	6,188,155	7,776,473
Superannuation	4,811,951	5,654,206	6,417,588	7,084,989	10,869,388	11,815,292
TOTAL	**8,520,015**	**10,021,707**	**11,292,810**	**13,156,599**	**17,057,543**	**19,591,765**

Source: IRA Annual Insurance Report

Figure 3. Long Term Gross Written Premium
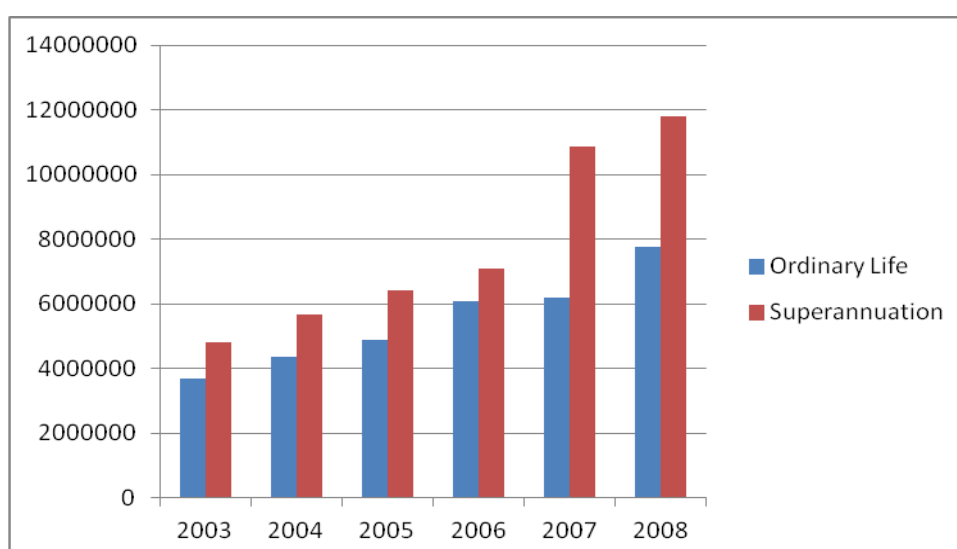
Gross Direct Premium under long term insurance amounted to Kshs 19.60 billion in the year 2008 compared to Kshs 17.06 billion in the year 2007 representing a 14.89% increase.

5. Empirical Framework

5.1. Regression Analysis

In addition a simple regression analysis was conducted so as to test the relationship among variables. The analysis applied the statistical package for social sciences (SPSS) to enter and compute the measurements of the simple regressions for the study. The findings were as shown in the table 4 below.

Table 4. Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998[a]	.997	.996	22.20115

Source: Research Data, 2011

Coefficient of determination is meant to explain the extent to which changes in the dependent variable (economic growth) can be explained by the change in the independent variable (insurance penetration) or the percentage of variation in the dependent variable that is explained by all the independent variable (insurance penetration). The correlation and coefficient of determination of the dependent variable with the independent variable was measured and tested. From the findings the relationship between GDP and GDPI was at 99.7%.

Table 5. Coefficients 0f Determination

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	128.810	40.645		3.169	.034
VAR00002	35.199	.975	.998	36.116	.0001

Source: Research Data, 2011

A single regression analysis helped to determine the relationship economic growth and insurance penetration a single variable. As per the SPSS generated table 4, the equation (**Y = β + βX + ε**) becomes:

Y= 128.810+ 35.199X**+ ε**

Where Y is the dependent variable- economic growth (GDP); X is the insurance penetration (GDPI).

According to the regression equation established, taking all one factor into account (insurance penetration) constant at zero, economic growth (GDP) will be 128.810. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in insurance penetration (GDPI) will lead to a 35.199 increase in economic growth (GDP) in Kenya. This infers that insurance penetration contributes significantly to the economic growth.

At 5% level of significance and 95% level of confidence, insurance penetration had a 0 level of significance. The t critical at 5% level of significance at k = 4 degrees of freedom is 2.245. Since t for the calculated value was above 2.245 then the variable was significant in explaining the economic growth in Kenya.

Table 6. Descriptive Statistics

	Mean	Std. Deviation	N
VAR00001	1559.7500	359.12803	6
VAR00002	40.6527	10.18714	6

Source: Research Data, 2011

Table 7. Correlations

		VAR00001	VAR00002
Pearson Correlation	VAR00001	1.000	.998
	VAR00002	.998	1.000
Sig. (1-tailed)	VAR00001	.	.000
	VAR00002	.000	.
N	VAR00001	6	6
	VAR00002	6	6

Source: Research Data, 2011

Table 8. Economic growth rate and Insurance Penetration ratio (%)

Item	Years					
	2003	2004	2005	2006	2007	2008
GDP growth rate (at constant 2001 prices	2.9	5.1	5.8	6.4	7.0	1.7
Insurance penetration ratio (%)	2.6	2.5	2.5	2.6	2.7	2.7

Source: Research Data, 2011

6. Determinants of Insurance Penetration in Kenya

Policy and institutional factors are critical in the development of insurance industry. Consumers of insurance products require confidence, protection and symmetric information to buy the products. For the sector to play a significant role in the economic growth there is need to innovate more products to cater for a diverse risk preferences.

Enacting a modern legal framework and designating a special judicial authority to handle insurance-related cases are key requirements to enable market development by protecting the rights of policyholders and regulating the activities of market participants. In addition, policymakers should seek to establish a specialized insurance judicial authority to resolve insurance disputes as well as strengthen the regulatory framework.

Fostering a competitive environment drives innovation, competitive pricing, and the adoption of best practices, and is a key enabler for the development and growth of insurance markets. The ultimate objective from the standpoint of market growth should be to have a profitable sector adequately serving market demand, with local insurers equipped to withstand the competitive pressures of increasingly liberalized markets. Although the insurance markets in the Kenya are generally competitive, regulators should seek to raise the competitive bar further through enforcement of higher capital requirements and the introduction of governance and risk-management requirements. This in turn would result in larger local companies with the resources to invest in capabilities, and would also reduce the level of fronting. On the governance side, regulators should introduce minimum governance requirements such as the establishment of internal functions (for example, an internal audit), the definition of fit and proper criteria for board members and senior management, the development of policies and procedures manuals, and the formation of an investment policy subject to review and approval by the board.

Cultivating the growth of a pool of skilled local insurance professionals is paramount to the development of the insurance sector in Kenya, given the existing acute shortage of skills. Policymakers and regulators should act as catalysts in the development of professional knowledge in four ways: 1) Organize specialized training programs**.** In a country where the demand for takaful products is growing rapidly, regulators need to ensure the availability of training programs to educate the market on these relatively new products. 2) Encourage companies to build up the knowledge of their staff. Regulators should require companies to take a more active role in developing the expertise of their employees by mandating training budgets and staff training programs. These programs would be subject to audits by the regulator to ensure companies' compliance. 3) As an incentive, regulators can consider subsidizing part of the training budget through a reduction of annual regulatory fees. 4) To provide more awareness and develop more capacity, the policy makers should make it mandatory that at elementary levels of schooling the students are taught insurance to inculcate an enabling culture that will foster more consumption of insurance products. This will improve future accessibility to insurance products and consequently increase its depth.

Promoting the involvement of industry wide bodies, whether at a local or regional level, is a valuable enabler for the development of the market. The regulator should aim at providing forums for the harmonization of standards and activities, and for the sharing of best practices across the region. By definition, market-led initiatives lie outside the boundaries of regulators' direct control. Nevertheless, insurance regulators can play a key role in bridging market gaps while stimulating the emergence of more-effective industry-led market development initiatives. In particular, policymakers and regulators can play a valuable role in promoting more active involvement from industry associations, encouraging the adoption of market standards, fostering the availability of granular market statistics, generating consumer awareness of insurance, and raising the profile of the industry to attract new talent. Policymakers and regulators should encourage the formation of industry wide associations as a way to harmonize the representation of market participants. Regulators should emphasize the role of the industry wide association by channeling regulatory consultation efforts through these bodies or adopting industry standards endorsed by associations

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