Analysis of Factors Affecting Financial Performance Evidence from Selected Ethiopian Insurance Companies

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Abstract: *Financial performance is the key question for survival and stability of insurance industry. The main objective of the study was to investigate factors affecting financial performance of Ethiopian Insurance Companies. These factors categorized in to firm specific, industryand macroeconomic variables using Return on Asset used for measuring financial performance. The researcher applied quantitative approach and explanatory research design and purposive sampling. Secondary data collected from 12 insurance companies out of 17 and National Bank of Ethiopia (NBE) from 2011 to 2016. Descriptive statistics and Random Effect econometric model applied for data analysis. Finding of the study indicated that previous profit performance and volume of capital positively and significantly affects the financial performance but solvency margin and loss ratio have negative association and significant effect. The lag GDP rate and current inflation have positive and significant impact on ROA whereas the lag inflation and exchange rate had negative and significant influence. Accordingly,it is better for companies to improve their solvency margin and, the government to stabilize the currency exchange rate.*

Keywords: Performance, Insurance Companies, Ethiopia, Return on Asset

1. Introduction

The insurance industry forms an integral part of a country's financial sector. If this crucial sector was missing, the consequences on the economy would be devastating. Insurance companies are important for both businesses and individuals as they indemnify losses and put them in the same positions as they were before the occurrence of the loss. Insurers provide economic and social benefits in society such as mitigating the impact of losses, reduction in fear and uncertainty as well as employment creation (Mazviona, et al., 2017). Outreville, (1998) suggests that the insurance sector plays a significant role in a country's economic growth and offers financial protection to individuals or firms against monetary losses suffered from unforeseen circumstances. Lack of insurance coverage can leave individuals and families vulnerable to the uncertainties of everyday life and emergencies. According toCharumathi (2012) awell-developed insurance market paves way for efficient resource allocation through transfer of risk and mobilization of savings**.** In addition, insurance companies contribute substantially to the national economy by using capital gathered through premiums for investment (Gulsun&Umit, 2010).Therefore, the current business world without insurance companies is unsustainable, because risky businesses have not a capacity to retain all types of risk in current extremely uncertain environment.

For insurance companies to be sustainable in the competitive globalized environment, earning profit is a pre- requisite. In the absence of profit, insurers can't attract outside capital so as to meet their objectives (Teklit&Jasmindeep, 2017). Performance of insurance company depends on the effectiveness of designed policies and their performance can be estimated by measuring its profitability, and insurer's performance is related to potential determinants other than external factors (Malik, 2011). The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. High performance reflects management effectiveness and efficiency and it contributes to the country's economy at large (Naser & Mokhtar, 2004). Profitability ratio is a class of financial metrics that are used to assess the business ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period (Jiang, Tang, Law & Angela, 2003).

Even though there was liberalization of financial system and many changes has been registered in the finance industry in Ethiopia, insurance sector is relatively undeveloped which is exemplified by the sectors of low penetration levels and where an estimated 0.3 million formal insurance clients (Association of Ethiopian MFI, 2011) andonly 0.1% of Ethiopian population has access to insurance services (NBE, 2012). Smith and Chamberlain (2010) compared and ranked 12th the insurance penetration of Ethiopia in terms of their contribution to GDP with some other African countries following South Africa(15.3%), Namibia (8.1%), Botswana (3.9%), Morocco (3.4%), Kenya (2.5%), Tunisia (2.0%), Angola (1.4%), Egypt (0.9%), Nigeria, Algeria and Uganda (0.6%) and Ethiopia (0.2%).Still the contribution of Ethiopian insurance industry to the national GDP growth is very low which accounts to only 0.5% (Herald Magazine, 2018) and the status depicts the low level of insurance development in Ethiopia, even by East African standards like Kenyan insurance industry which contributes to national GDP about 2.8% (AIB Capital 2018). Though low-level penetration, Ethiopia's insurance industry has grown rapidly over the past few years in numbers (17), branches (492) and its capital (Br. 4.332 billion) (NBE, 2017).

2. Review of Related Literature

2.1 Financial Performance

Performance is the function of the ability of an organization to gain and manage the resources in several ways to develop competitive advantage (Iswatia, &Anshoria, 2007). Wellalage et al, (2012) showed that performance is the result of the fulfillment of the tasks assigned. Company's performance describes how individuals in the company try to achieve a goal. Financial performance refers to a firms' profitability that is how large the revenues exceed the costs incurred in generating them. There are several ways that financial performance is measured, including return on assets, returnon equity, gross margin rate. Financial performance of general insurance underwriters attempts to measure how well the firm is attaining the objective of its establishment Almajali, Alamro and Al-Soub, (2012); Calandro, (2006); Pottier and Sommer (1999); and Berger and Humphrey, 1997). Financial performance emphasizes on variables related directly to the financial report. Before investing their funds, investors should first know about the performance of the company (Tita & Lionel, 2015). Financial performance indicates a measure of an organization's earnings, profits, appreciations in value as evidenced by the rise in the entity's share price. In insurance, performance is normally expressed in net premiums earned, profitability from underwriting activities, annual turnover, returns on investment and return on equity (Chen and Wong, 2004; & Asimakopoulos, Samitas, and Papadogonas, 2009). The financial performance of insurance companies can be analyzed at micro and macroeconomic level, being determined both by internal factors represented by specific characteristics of the company, and external factors regarding connected institutions and macroeconomic environment. Identifying the factors that contribute to insurance companies' profitability is useful for investors, researchers, financial analysts and supervisory authorities (Burca & Batrinca, 2014).

Lord Keynes (n.d) remarked that profit is the engine that drives the business enterprise. It is the index to the economic progress, improved national income and rising standard of living. Although there are numerous approaches, generally, insurers' profitability is estimated through the examination of premium and investment income and of the underwriting results or of the overall operating performance. Greene and Segal (2004) argued that the performance of insurance companies in financial terms is normally expressed in profitability from underwriting activities, net premium collected from their customers, annual sales turnover, ROA as well as ROE. Even though there are many profitability measurements, according to Rasiah (2010), the choice of the profitability ratio will depend on the objective of the profitability measure. ROA is primarily an indicator of managerial efficiency and it shows how profitable a company is relative to its total assets (Ahmed, 2008). ROA is a valuable measure when comparing the profitability of one company with other company (companies). Unlike the ROE, the ROA cannot be subject to an increase of higher borrowings. The higher the ratio of ROA, the better the profits of the company. Again Jiang et al. (2003), expressed ROA as a key indicator of firm's profitability which is defined as the before tax profits divided by the total assets of the industry.

2.2 Empirical Review

Financial performance of a firm is either positively or negatively affected by different factors of which some are internally related to the firm's performance and can be technically controlled and others are external which become out of the firm's ability to overcome. The following are the empirical findings investigated by different researchers (both academicians and practitioners).

Past Profitability
Past profitability may affect the financial performance of insurance companies. If insurance companies generated good profit in the previous year, this will help them as a force to drive more gain in the coming year. Pervan et al. (2012) indicated past performance of firms has positive and significant impact on the Bosnia and Herzegovina insurance companies' profitability. Tadesse (2013) identified one-year lag profit showed positive and insignificant impact on profitability of the insurance companies.

Age of the Company
Regarding firm age, older firms are more experienced, have enjoyed the benefits of learning, are not prone to the liabilities of newness, and enjoy superior performance. Older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales. They might have developed routines, which are out of touch with changes in market conditions, in which case an inverse relationship between age and profitability or growth could be observed (Malik, 2011). Bates et al., (2008) found that both age and size of the firm had positive and significant effect for enterprise investment scheme recipients: the highest the level of fixed assets formation, the older and larger the company. Through a dynamic panel model, Pervan et al (2012) investigated that age has significant positive impacts on insurers' financial performance. Mehari and Aemro (2013) found that that there is insignificant and negative relationship between age and profitability of Ethiopian private Insurance companies. Nahusenay (2016) also found that the Company age has no significant statistical impact on financial Performance of insurance companies. Several earlier studies (Amal, et al., 2012, Liargovas & Skandalis, 2008) argued that firm age has no influence on its performance. Sorensen and Stuart (2000) argued that organizational inertia operating in old firms tend to make them inflexible and unable to appreciate changes in the environment. Newerand smaller firms, as a result, take away market share inspite of disadvantages like lack of capital, brand names and corporate reputation with older firms (Swiss, 2008, Kakani, Saha, and Reddy, 2001).

Solvency Margin
Solvency margin is one of the indicators of financial soundness. Insurance firms with higher solvency margins are considered to be more sound financially. In theory, financially sound insurers are better able to attract prospective policyholders, but, in practice, for most personal line's policyholders, it is the price that dictates the attractiveness to the policyholder. In addition, adhering to

underwriting guidelines will not help to improve the underwriting results, unless they are appropriate for the business and market segment involved. Moreover, it is worth nothing that insurer performance may be improved through a higher solvency margin, as better risks are attracted to the more stable insurers, and these insurers are better able to achieve higher premium revenues. Consequently, a higher solvency margin may result in better insurer performance. Nevertheless, this does not mean that solvency is a driver of profit. In fact, it is the other way around (Shiu, 2004). As for the solvency margin, there is a positive linkage between this variable and the insurer's financial performance, because the insurer's financial stability is an important benchmark to potential customers (Burca & Batrinca, 2014). The solvency margin is calculated as ratio of net assets to net written premiums, and represents a key indicator of the insurer's financial stability.

Retention Ratio

Retention ratio is the percentage of the underwritten business which is not transferred to reinsurers. A more efficient insurance company in underwriting decisions accompanied by higher retention should have higher profitability (Charumathi, 2012). Insurance companies reinsure a certain amount of the risk underwritten in order to reduce bankruptcy risk in the case of high losses. Although reinsurance improves the stability of the insurance company through risk dispersion, achievement of solvency requirements, risk profile equilibration and growth of the underwriting capacity, it involves a certain cost. As a result, determining an appropriate retention level is important for insurance companies, and they have to try to strike a balance between decreasing insolvency risk and reducing potential profitability. Although it increases operational stability, increasing reinsurance dependence lowers the retention level, and reduces the potential profitability. Therefore, it can be conjectured that the relationship between performance and the retention ratio would be negative. A higher retention ratio with lower claims ratio is likely to impact on the performance of insurers' positively. Theoretically, a more efficient insurance company in underwriting decisions accompanied by higher retention should have higher profitability (Charumathi, 2012). The retained risk ratio is computed as ratio of net written premiums to gross written premiums, and reflects the proportion of the underwritten risk retained by the insurer, the difference being ceded in reinsurance. This variable is expected to have a positive influence on the insurer's financial performance, as reinsurance involves a certain cost(Burca & Batrinca, 2014). and (Mirie & Cyrus, 2014). The retained risk ratio has a positive influence on the insurer's financial performance, as reinsurance involves a certain cost (Burca & Batrinca, 2014). Retention ratio were not significantly related to financial performance in the study of (Mirie & Cyrus, 2014)

Reinsurance Dependence

The reinsurance dependence is calculated as ratio of gross written premiums ceded in reinsurance to total assets. Insurance companies reinsure a certain amountof the risk underwritten inorder to reducebankruptcy risk in the case of high losses. Although reinsurance improves the stability of the insurancecompany through risk dispersion, achievement

of solvency requirements, risk profile equilibration and growth of the underwriting capacity, it involves a certain cost. Therefore, a negative connection between the reinsurance dependence and the insurer's financial performance is expected(Burca & Bartica, 2014). General insurers usually take out reinsurance cover to stabilize earnings, increase underwriting capacity, and provide protection against catastrophic losses. The purchase of reinsurance can substitute for capital and allow an insurance firm to hold less capital without increasing its insolvency probability. It is worth mentioning that reinsurance dependencies complicated by insurer type. As a result, they rely on reinsurance to a large extent in order to stabilize their results and take on larger risks, which cannot be justified by their capital base alone or by arbitrage (Shiu, 2004). Since there is also a cost for reinsurance, determining an appropriate retention level is important for general insurers, and they have to try to strike a balance between decreasing insolvency risk and reducing potential profitability. Although it increases operational stability, increasing reinsurance dependence, i.e. lowering the retention level, reduces the potential profitability. To be more specific, in the short term the insurer may gain as the reinsurer covers a poor underwriting year; profitability is reduced wither insurance in the long term, otherwise there would be no profitable reinsurers. Therefore, reinsurance dependence maybe negatively related to performance (Shiu, 2004).

Investment Ratio: The investment ratio is computed by dividing investments to total assets, being expected a positive influence of this variable on the financial performance, as investments generate investment income (Burca&Batrinca, 2014).

Size of Company

One of the early themes in the empirical study of this relationship is economies of scale. Firms attain economies of scale when their operating costs increase at a rate lower than their output. Firms do not perform economies of scale simply by raising up their size. According to Ammar et al. (2003), economies of scale are likely to result only if the firms have sufficient idle capacity and organization systems already in place prior to expanding. Insurance company's size is also generally used to capture potential economies or diseconomies of scale in the insurance sector. This variable controls for cost differences and product and risk diversification according to the size of the financial institution. Large corporate size also enables insurers to effectively diversify their assumed risks and respond more quickly to changes in market conditions (Adams &Bukkle, 2000). **Re (2008)** indicated that, larger firms are found to grow faster than smaller firms. The study of Browne, Carson and Hoyt (2001), Ahamed (2008), Ahmed et al. (2011), Charumathi (2011), Idris, Asari, Taufik, Salim, Mustaffa, and Jusoff, (2011), Malik (2011), Mehari and Aemro (2013)found that size of the asset has a positive relationship and significant effect on the profitability of insurance companies. Teklit and Jasmindeep (2017), also found in their study that size of the firm has a positive and significant influence on the profitability of insurance companies. They associated the result of the study goes in line with the relative market power hypothesis theory which states that those companies that have large sizes are usually capable of

exercising their market power in utilizing their products so as to earn maximum profits. On the other hand, Company size is not found to be an important determinant of operational performance (Adams and Buckle, 2000). Adams and Buckle (2000, 2003), found that size of the company insignificantly affects the profitability of insurance companies of Bermuda insurers.Saklain (2012) conducted his assessmentand revealed that asset size does not have significant effect on the profitability. Singapurwoko and El-Wahid (2011) found that firm size is insignificantly related towards profitability of the company.

Volume of Capital
Insurance companies' equity capital can be seen in two ways. Narrowly, as stated by Aburime (2008), it can be seen as the amount contributed by the owners of an insurance (paid-up share capital) that gives them the right to enjoy all the future earnings. Comprehensively, it can be seen as the amount of owners' funds available to support a business. The second definition includes reserves, and is also termed as total shareholders' funds. No matter the definition adopted, volume of capital is widely used as one of the determinants of insurance companies' profitability since it indicates the financial strength of the firm (Ayele, 2012). Capital adequacy has a positive and significant relationship with the profitability of insurance companies (Teklit&Jasmindeep, 2017). This implies that the Ethiopian insurance companies with adequate amount of capital can have a great number of investment alternatives and thereby higher tendency of harvesting profit. However, those insurance companies which are poorly capitalized can have less investment opportunities and therefore, their profitability might be highly influenced. Athanasoglou, Brissimis, and Delis (2005), Ahamed (2008), Malik (2011), Ayele (2012) and Merin (2012) found in their separate studies thatvolume of capital reveals significant impact and positive association with profitability. Higher capital level breeds higher profitability level since by having more capital, a bank can easily stick to regulatory capital standards so that excess capital can be provided as loans (Ramhall, 2009). Berger (1995) provides empirical evidence that there is a positive association between bank profitability and capital. Charumathi (2011), found that logarithm of equity capital has negatively and significantly influenced the profitability of Indian life insurers. However, in opposite to the others' findings, Idris et al. (2011) in their investigation concluded that capital adequacy has no relation with profitability.

Liquidity
Liquidity refers to the degree to which debt obligations coming due in the next twelve months can be paid from cash or assets that will be turned into cash. It reveals the ability to convert an asset to cash quickly and reflects the ability of the firm to manage working capital when kept at normal levels. A standard argument to justify the decision of a firm to maintain excess liquidity in its assets relates to both speculative and precautionary motives in financial economics. A firm can utilize liquid assets to finance its activities and investments when external finance is not available or it is too costly. In another way, higher liquidity would allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low

earnings (Liargovas & Skandalis, 2008).Adams and Bukkle (2000) stated that high liquidity obviates the need for management to improve annual operational performance. Furthermore, high liquidity could increase agency costs for owners by providing managers with incentives to misuse excess cash flows by investing in projects with negative net present value and engaging on excessive perquisite consumption (e.g., luxurious offices).Liquidity from the perspective of insurance companies is the probability of an insurer to pay liabilities which include operating expenses and payments for losses/benefits under insurance policies, when due then shows us that more current assets are held and idle if the ratio becomes more which could be invested in profitable investments (Ayele, 2012). Nahusenay (2016) found significant impact of liquidity on profitability of insurance companies in Ethiopia. Companies with more liquid assets are less likely to fail because they can realize cash even in very difficult situations. Therefore, it is expected that insurance companies with more liquid assets will outperform those with less liquid assets. Browne et al. (2001), provide evidence supporting that performance is positively related to the proportion of liquid assets in the asset mix of an insurance company (Shiu, 2004). Empirical evidences with regard to liquidity revealed almost inconsistent results. Charumatti (2012) in his study concluded that liquidity positively and significantly influences profitability of life insurer. The study of Ayele (2012) also shows that liquidity is negatively related. Shiu (2004) revealed that liquidity was statistically significant determinants of the insurers' performance. In opposite, Merin (2012) in his study of determinants of bank profitability in Ethiopia, liquidity was positively and significantly related to banks' profitability. In contrast, Ahmed et al. (2011) in their investigation, ROA has statistically insignificant relationship with liquidity. Abera (2012) found that the relationship for liquidity risk and profitability is found to be statistically insignificant.

Leverage
Debt is one of the tools used by many companies to leverage their capital to increase profit. However, the impact of debt to increase profitability differs between companies. The ability of the company's management to increase their profit by using debt indicates the quality of the management's corporate governance. Good corporate governance shows the companies' performance on their use of debt to increase their profit (Singapurwoko & El-Wahid, 2011). Insurance leverage could be defined as reserves to surplus or debt to equity. The risk of an insurer may increase when it increases its leverage. Literatures in capital structure verify that a firm's value will increase up to optimum point as leverage increases and then declines if leverage is further increased beyond that optimum level. Insurance companies collect premiums in advance and keep them in reserve accounts for future claim payments. For instance, most premiums collected by non-life insurance companies are kept in outstanding claims and unearned premiums reserves which are two main accounts in the liability side of the balance sheet. Since neither the magnitude nor the timing of the cash flows is known, outstanding claims reserve is considered riskier than ordinary long-term corporate debt. Unearned premium reserve is the same to ordinary short-term loans because most general insurance policies are short-term and

expire in one year (Briys&deVarenne, 2001). Policyholders obtain a discount in their premiums to compensate for the opportunity cost of the funds held by insurance companies. Like other ordinary stock companies, stock insurance firms issue debt and equity securities to obtain funds. The choice of capital structure, the collection of different securities, has been one of the most significant concerns on corporate finance.

The trade-off theory suggests a positive relationship between profitability and leverage ratio and justified by taxes, agency costs and bankruptcy costs push higher profitable firms towards more leverage. So, more profitable firms should prefer debt financing to get benefit from tax shield. In opposite to this, pecking order theory of capital structure is designed to minimize the inefficiencies in the firms' investment decisions. Because of asymmetric information cost, firms prefer internal finance to outside finance and, when external financing is required, firms prefer debt to equity because of the lower information costs. The pecking order theory states that there is no optimal capital structure since debt ratio occurs as a result of cumulative external financing requirements (Ayele, 2012). Mehari and Aemro (2013) identified in their study that leverage is positively and significantly related to the performance of the insurance companies at l percent level of significance. But the study of Nahusenay (2016) found in reverse to the result of Mehari and Aemro which indicates leverage ratio has statistically significant negative impact on financial performance of insurance companies.Adams and Buckle (2000) provided evidence that insurance companies with high leverage have better operational performance than insurance companies with low leverage. However, more empirical evidence supports the view that leverage risk reduces company performance. Carson and Hoyt (1995) found that leverage is significantly and positively related to the probability of insolvency. Brown et al. (2001), Ahmed et al. (2011) and Malik (2011) in their investigation identified that leverage ratio showed negative but significant association with profitability of insurance company. In contrast to this, Almajali et al. (2012) investigated that leverage has a positive statistical effect on the financial performance. Harrington (2005) examined that the relationship between leverage and profitability has been studied extensively to support the theories of capital structure.

Loss Ratio
Loss ratio is the ratio of annual claims paid an insurance company to the premiums received. Insurers establish premium rates based up on anticipated loss ratio that supports claim payments, administrative costs, profit requirements and an appropriate risk margin for adverse experience (Ahmed, 2008). Organizations that engage in risky activities are likely to have more volatile cash flows than entities whose management is more averse to risk-taking (Fama& Jensen, 1983). As a consequence, insurers that underwrite risky business (e.g. catastrophe coverage) will need to ensure that good standards of management are applied to mitigate their exposure to underwriting losses and maximize returns on invested assets. For this reason, it is likely that managers in insurance and reinsurance companies that are engaged in risky lines of insurance will be given more discretion to respond to market events than their

counterparts in companies that are engaged in less risky business activities (Oppenheimer & Schlarbaum, 1983). Such decision-making discretion could improve annual financial performance by encouraging managers to increase cash flows through risk-taking. The study of Nahusenay (2016) found that there is negative relationship and statistically insignificant between loss ratio and financial performance of insurance companies in Ethiopia. Excessive risk taking could adversely affect the annual performance of insurers and reinsurance companies. For example, unanticipated market forces, such as enhanced competition and a sharp fall in share prices, could limit management's ability to increase annual premiums and investment income to compensate for losses arising as a result of poorly priced risks. Furthermore, high annual insurance losses will tend to increase the level of corporate management expenses (e.g. claims investigation and loss adjustment costs) that could further aggravate a decline in reported financial performance. In contrast, insurers and reinsurance companies with lower than expected annual losses are likely to exhibit better financial performance because, they do not incur such high monitoring and claims handling costs (Adams & Buklle, 2003). Study of Ahmed (2008) ,Malik (2011) and Pervan et al. (2012) indicated that loss ratio showed negative relationship and significant effect on profitability. Charumathi (2012), in his study concluded that there was no evidence that shows significant association of underwriting risk and profitability of Indian life insurers.

Premium growth
The Premium growth of insurers is measured as a year to year change in the new premium of insurance companies. The new premium comprises of first year premium and single premium policies procured in a particular year in comparison with new premium of previous year. Charumatti (2012) concluded that the insurers with more premium growth will have low profitability due to increased underwriting risk and related provisioning for solvency margin. He further concluded that premium growth has negatively and significantly influenced the profitability of Indian life insurers. The study conducted by Tadesse (2013) tried to generalize that growth in premium of Ethiopian insurance companies has positive and strong impact on their profit. The sound positive change in premium collection from year to year, improves the profit growth in insurance companies. But, it needs great care of risk management techniques, because as collection in premium increases, the probability of risk bearing of insurance companies also increases with the same direction. Higher premium collection does not necessarily mean that there is always higher profit unless sound risk management techniques applied. In this result, the coefficient is very weak even if it has positive contribution to profitability. This may be due to that amount of premium collected (the insurance penetration rate) in Ethiopian insurance industry is very low as Smith and Chamberlian (2010) stated in their study.

Market Share
Market share is often used to describe the position and success of a company in the insurance industry. Market share shows the relation between company and the total performance of the observed industry. A linear positive relationship can be expected in case of a constant decrease in

marginal costs across companies (Pervan & Kramaric, 2012). Pervan et al. (2012) also stated that lots of academicians agree that market share is often positively associated with the company's profitability. Reasons for that can be found in economies of scale & scope and resulted cost advantage; large firms have more capital (internally generated or easily accessed from external sources) and be more innovative than their smaller competitors. Larger firms may also have greater bargaining power. Shepherd (1972), showed that the value of the market share coefficient is higher and statistically more significant than the concentration ratio coefficient, which suggests that the positive relationship between profit and concentration on the industry level. Buzzel, Gale, and Sultan (1975) and Shanklin (1988) showed a strong, positive relationship between market share and profitability. Some researchers arrived at the conclusion that market share has no relationship and others indicated negative relation with profitability. Using panel data, Slade (2004) found out no systematic relationship between a firm's market share and its profitability, i.e. within a market, smaller firms are just as profitable as larger ones. Choi and Weiss (2005) examined and identified that market share is negatively related to price and profit. Kozak (2011) indicated that increase of the market share of foreign owned companies positively influenced on profitability of non-life insurance companies. Results of dynamic panel analysis by Pervan et al. (2012) revealed significant positive influence of market share on current profitability. Merin (2012) investigated that market share were not significant to affect banks' profitability during the study period. Pervan and Kramaric (2012) while investigating the effects of diversification and market share on nonlife insurers' performance using the two-step generalized method of moments (GMM) estimator; they found evidence of a positive and statistically significant impact of both market share and diversification on insurers' profitability.

GDP growth Rate

GDP growth rate is measured by the real annual GDP growth rate, is expected to impress insurance profitability positively. Economic growth can enhance the insurance companies' profitability by increasing income of the individuals i.e. GDP per capita income and then households. Increase in income of individuals, households and businesses will increases the demand for security (the need to be secured against risk in case of life, businesses and other properties in general). Fear of risk or uncertainty initiates to buy an insurance policy by paying premium according to their desire for life, non-life and health insurance to be insured. Therefore, increased in premium will lead to increase in profits of insurance companies assuming that the claims to be paid in normal condition. But during weak economic condition all this become reverse. Kozack (2011) and Tadesse (2013)in their studyidentified increases of the GDP growth(one period GDP lag) positively impact profitability of insurance companies. The investigation of Bashir (2003) showed that favorable macroeconomic conditions impact performance measures positively. Pervan and Kramaric (2012) and Abera (2012) arrived at the conclusion that GDP per capita has positive and significant impact performance. Srairi (2009) investigated that all macroeconomic determinants with the

exception of inflation rate are positively significant in explaining profits. Ben Naceur and Omran (2011) found that macroeconomic and financial development indicators had no significant impact on bank performance. Merin (2012) found that all external variables were not significant to impact bank profitability during the study period including GDP growth rate.

Inflation

According to Pervan and Kramaric (2012),the influence of inflation on company's profitability is unclear. There are two possible scenarios. According to the first one, inflationary periods reduce the profitability of firms. In terms of insurance companies, the most important reason for this lies in the fact that an insurance company has to pay higher amount of indemnity in periods of higher inflation than in periods of lower inflation. The difference between these two situations undermines the profitability of an insurance company. Contrary to this, and according to the second scenario, high inflation rate may lead to irrational pricing and consequently high levels of earned premium. They also found that inflation has significant and negative influence on firm's performance. Inflation certainly plays a role in insurance and has adverse impact on many aspects of insurance operations such as claims, expenses and technical provisions (Daykin, Pentikainen & Pesonen, 1994). If inflation is significantly greater than that of expected, it could cause insurance companies financial difficulty. For instance, unexpected inflation makes real returns on fixed-rate bonds lower than expected. As a result, profit margins of insurance companies are compressed and financial performance is accordingly impaired (Browne, Carson, & Hoyt, 1999). Additionally, unexpected inflation could also have an adverse impact on equity returns. As Damena (2011) stated, during inflation the central bank can raise the cost of borrowing and reduce the credit creating capacity of commercial banks. Empirical studies on the association between inflation and bank profitability suggest that if a bank's income increases more rapidly than its costs, inflation is expected to positively affect profitability. In another way, a negative coefficient is expected when its costs increase faster than its income. Furthermore, Abera and Merin (2012), investigated that inflation has no significant relationship with profitability. Abreu and Mendes (2002) investigated that inflation rate is relevant in explaining profitability. Francis (2006) concluded that profitability of sub-Sahara African countries is influenced by macroeconomic factors that are not the direct result of a bank managerial decision. Ahmed et al. (2011) examined that inflation positively related while efficient expense management and high interest rate negatively related.

Exchange Rate and Its Concept in Ethiopian Context

Exchange rate risk occurs when there are influential foreign liabilities which are not compensated by investments in the same currency. This kind of risk is less significant for life insurance sector than non-life (KPMG 2002). Recently, there have been significant exchange rate movements of the US Dollar appreciated against the Ethiopian Birr. This fact might have impact on the profitability of insurance companies and their solvency. Exchange rate risk management is an integral part in every firm's decisions about foreign currency exposure (Allayannis, Ihrig, &

Weston, 2001). Currency risk hedging strategies entail eliminating or reducing this risk, and require understanding of both the ways that the exchange rate risk could affect the operations of economic agents and techniques to deal with the consequent risk implications (Barton, Shenkir, &Walker, 2002). Selecting the appropriate hedging strategy is often a daunting task due to the complexities involved in measuring accurately current risk exposure and deciding on the appropriate degree of risk exposure that ought to be covered. Gladys (2017)was concluded that exchange rate negatively affects ROA. Foreign exchange rate volatility negatively impacts on the ROA of the insurance industry (Nyairo, 2015).

Exchange rate affects the financial performance of Ethiopian Insurance Companies in different ways. Insurance companies' financial performance depends on the size of the insurance premium they collect from their policy holders. These premium collections depend on the price of insurance policy set by insurance companies. The price of insurance company's premium policy depends on the acquisition price or the carrying amount of the asset to be insured. These prices of the asset may include the purchase price of the asset, transportation cost, and insurance paid while the assets are in transit especially for goods imported to the Ethiopian market. Most of the Ethiopian Commodities are import oriented which is to be purchased and imported at the international market price. These international market prices are set by the foreign currency like US dollar, pound sterling or other currency of which most international markets are covered by US dollar. The international commodity price changes from time to time on the basis of market situation. Ethiopia is one of the international market participants which need foreign currency to import necessary commodities like vehicles, machineries, different plants. These business organizations insure their assets mostly property, plant and equipment acquired by foreign currency. The local insurance companies estimate the insurance premium price on the basis of price of the commodity imported mostly (mostly on CIF basis) or others. It is at this time exchange rate affects the premium price. When the foreign currency appreciated and Ethiopian Birr depreciates

like the case of 2009 and the 2017 in which the Ethiopian government decided to take policy measurement on the exchange rate, the price of the commodity increases and at the same time the price of insurance premium rises on the basis of carrying cost of the asset because the local transaction is by the local Birr. This may possibly show two scenarios in insurance businesses. When premium price increases because of depreciation/devaluation of Ethiopian Birr or appreciation/revaluation of foreign currencies, loss of customers may occur to insurance businesses except mandatory insurance like third party liability cases in Ethiopia and since their financial performance depend on the written premium, decline in their annual profit takes place. The other scenario is especially for those assets to be mandatorily insured (Third party liability), when insurance premium price increases because of nothing but devaluation of Ethiopian Birr, insurance companies collect more premium which in turn results to increase the profit of insurance companies even though indemnity cost (claim to be paid) depends on the contract price assuming possibility of occurrence of risk as usual (The researcher argument).The other dimension on reinsurance cases. Reinsurance is the term that describes the dispersion of risk specially to minimize the large losses which may become beyond the capacity of insurers. The reinsurer usually pays a ceding commission to the direct writer to compensate it for the acquisition of the new business. Ethiopian insurance businesses were reinsuring their insured assets to foreign reinsurance companies before the establishment of Ethiopian Reinsurance Company. When they reinsure the insured asset, they were paying the reinsurance fee in foreign currencies. But later on, Ethiopian Reinsurance Company established with a paid-up capital of 500 billion birr and one billion birr subscribed capital (Capital, 2016).

2.3. Conceptual Frame Work/Model of the Study

From the theoretical and emperical literature reviews, the following conceptual framework of the study is developed by the researcher.
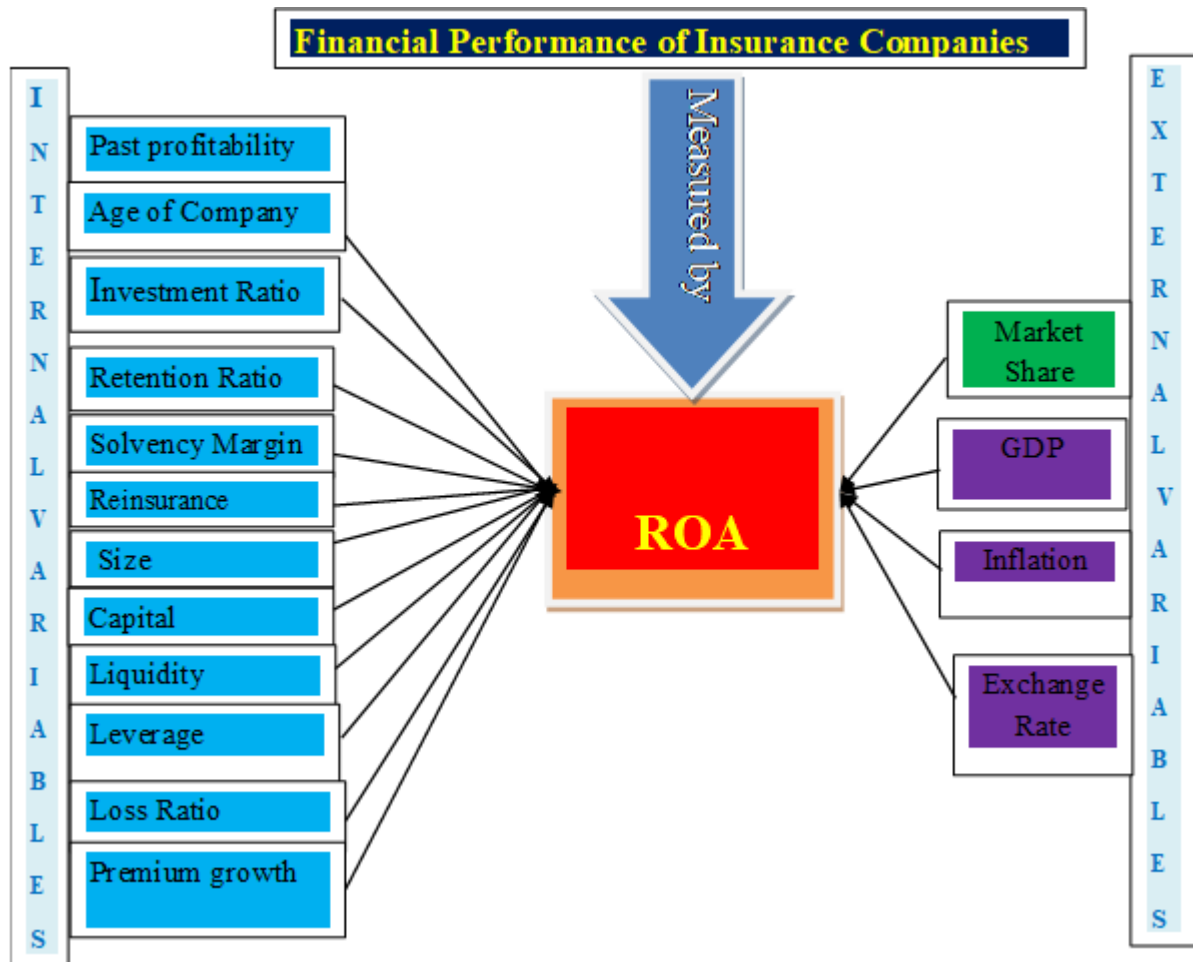
Figure 2.1: The conceptual framework or model of the study
Source: Emperical Literatures, 2017

3. Statement of the Problem

The insurance industry is a vital part of the entire financial system. Insurance companies contribute significantly to financial intermediation of the economy. Their success means the success of the economy; their failure means failure to the economy Ansah and Abor (2012); and Agobenebo and Ezirim, (2002).Insurance companies have the ability to remedy socioeconomic crashes stemming from the failure of enterprises due to economic disasters in addition to securing funds and reinvesting in the national economy (Gulsun&Umit, 2010). Insurance companies provide unique financial services to the growth and development of every economy. Such specialized financial services range from the underwriting of risks inherent in economic entities and the mobilization of large amount of funds through premiums for long term investments. The risk absorption role of insurers promotes financial stability in the financial markets and provides a sense of peace to economic entities. A well developed and evolved insurance industry is a boon for economic development as it provides long- term funds for development (Charumathi, 2012; (Ahmed, Ahmed, and Ahmed, 2010; and Agiobenebo and Ezirim, 2002). To do so, the insurance industry is expected to be financially solvent and strong as well as should be profitable in operation.

Financial performance is a measure of an organization's earnings, profits, appreciations in value as evidenced by the rise in the entity's share price. In insurance, performance is normally expressed in net premiums earned, profitability from underwriting activities, annual turnover, returns on investment and return on equity. These measures can be classified as profit performance and investment performance measures. Profit performance includes the profits measured in monetary terms. It is the difference between the revenues and expenses. These two factors, revenue and expenditure are in turn influenced by firm-specific characteristics, industry features and macroeconomic variables (Mirie &Jane, 2015). At the micro level, profit is the essential pre-requisite for the survival, growth and competitiveness of insurance firms and the cheapest source of funds. Without profits, insurers cannot attract outside capital to meet their set of objectives in this ever changing and competitive globalized environment. Profit does not only improve up on insurers' solvency state but it also plays an essential role in persuading policy holders and shareholders to supply funds to insurance firms. Thus, one of the objectives of management of insurance companies is to attain profit as an underlying requirement for conducting any insurance business (Chen & Wong, 2004; Harrington &Wilson, 1989).

Identifying the key success indicators of insurance companies can help in facilitating the design of policies that may improve the profitability of the insurance industry. Hence, the determinants of insurers' profitability have

attracted the interest of investors, researchers, financial markets analysts and insurance regulators. The scientific knowledge of the determinants of insurers' profitability has further been reinvigorated by the 2007/2009 global economic and financial crises (Asimakopoulos, Samitas, & Papadogonas, 2009). In insurance literature, the determinants of profitability are empirically well explored although the definition of profitability varies among studies. Batsirai et.al, (2017) identified that expense ratio, size of company, claims ratio, leverage and liquidity are the factors that significantly affect the performance of insurance companies in Zimbabwe. The study of Almajali, Alamro and Al-Soub (2012) revealed that liquidity, leverage, size of the company and management competence index have a significant and positive effect on Jordanian insurance companies' financial performance.Kozak (2011) found that offering too broad spectrum of classes of insurance negatively impacts its profitability and cost efficiency. In addition, size of gross premiums and operating expenses, GDP growth and the market share of companies influence profitability. Burca andBatrinca (2014) investigated the major determinants of financial performance like leverage in insurance, company size, growth of gross written premiums, underwriting risk, risk retention ratio, and solvency margin.Malik (2011) and Charumathi (2012) in their study also identified firm level factors like age of company, size, leverage, volume of capital and loss ratio affects profitability of insurance companies.Pervan and Kramaric (2010) also identified in their studies the impact of different variables such as past profitability of the company, size of the company, ownership, expense ratio, industry concentration, market growth of the company and inflation; on the insurance companies' performance in a developing country. Again, they also found in their study in 2012 that diversification has positive and significant effect on insurers' profitability.

Empirical studies revealed different factors that affect the financial performance of insurance companies both in developed and developing countries. But in Ethiopia, evidences show that to the best of the researcher's knowledge regarding the financial performance of insurance companies in Ethiopia, there are only few studies. Most of the study concentrated on the investigation of financial performance of Banks in Ethiopian Financial Institutions. The study (Ayele, 2012, Mehari, 2013 and Nahusenay, 2016), assessed only firm specific (internal variables such as ageof company, size of company, liquidity, leverage, volume of capital, firm growth, tangibility of assets and management competencies) as factors affecting the financial performance of Ethiopian insurance companies. Tadesse (2013) in his studies focused only on the sample of eight private insurance companies in Ethiopia for 10 years, assessing only ten explanatory variables (past profitability, size, liquidity, volume of capital, leverage, loss ratio, premium growth, market share, lag GDP and inflation) and one dependent variable (ROA).In this study other firm level variables like solvency margin, retention ratio, reinsurance dependence, investment ratio and experience of the company variables were assessed. The effect of exchange rate and the lag GDP growth rates were examined using quantitative research approach. Besides, annual reports of some of private insurance companies in Ethiopia show high fluctuations from year to year which shows high reduction in the size of their profit and some of them registered good profits continuously over period of years. Eyesuswork (2016), one of the experts in finance industry, on his interview with Medical Magazine, form 2/ no. 121, pointed as the profit of insurance companies are declining from time to time. Based on his points, the researcher tried to check whether the performance of these companies is declining from time to time. As the table 3.1 indicated below, most of the insurance companies' profitability were declining especially from 2014 to 2016 continuously except Awash and Abay insurance companies.

Table 3.1: ROA of Sample Insurance Companies from 2011- 2016.

Year	AFIC	AWIC	GIC	NIB IC	NICE IC	NILE IC	NYIC	UNIC	LIC	ELIC	OIC	ABIC
2011	0.048	0.0726	0.0368	0.0845	0.0029	0.0902	0.1370	0.0767	0.0065	-0.0473	0.0223	-0.0285
2012	0.0480	0.0726	0.0027	0.0885	0.1743	0.0859	0.1567	0.1075	0.1074	0.005	0.0632	-0.0604
2013	0.0542	0.1319	0.1532	0.1099	0.1393	0.0994	0.1475	0.1523	0.1079	-0.1294	0.1071	-0.0193
2014	0.0683	0.0923	0.1603	0.1072	0.0694	0.1239	0.1188	0.1324	0.1322	0.0336	0.0817	0.2019
2015	0.0600	0.1006	0.1364	0.0716	0.1202	0.0755	0.1223	0.1121	0.0813	0.0820	0.1148	0.1389
2016	0.0543	0.1038	0.1173	0.0525	0.0678	0.0273	0.0789	0.0710	0.0743	0.0408	0.0559	0.1486

Source: Audited Financial Statements of Insurance Companies (2011- 2016)

Despite this, insurance penetration and density are still low in Ethiopia. The development of insurance companies is a pre-requisite even for the development of stock market that the government is planning to act. Unless this industry is given due attention from stakeholders, it becomes challenging over all the economy. Profitability is the question of survival as an entity in the insurance industry and in the financial sector as a whole. Then, it needs to identify factors that influence profit performance in the industry.

4. Research Objectives

4.1. Main Objective

The general objective of this study was to investigate factors affecting the financial performance of Ethiopian insurance companies.

4.1.1 Specific Objectives
1) To identify firm specific factors that affect the financial performance of Insurance Companies in Ethiopia.
2) To assess whether industry specific factor affectthe financial performance of Ethiopian Insurance Companies.

3) To investigate those macroeconomic factors affect financial performance of Ethiopian Insurance Companies.

5. Research Methodology

The researcher applied quantitative research approach and explanatory research design on retrospective basis. Secondary data collected from head offices of sample insurance companies and National Bank of Ethiopia for analysis on purposive sampling technique. The data collected from 12 private insurance companies out of 17 for the period of 2010 to 2016. To be included in the sample they were expected to have insurance business experience of at least five years and not government owned.

6. Research Hypothesis

H1: There is positive and significant relationship of past and current financial performance of insurance companies.
H2: Age has a positive relationship and significant effect on insurance companies' financial performance.
H3: There is a positive relationship and significant effect of solvency margin on insurance companies' performance.
H4: Retention ratio has positive relationship and significant effect on financial performance of insurance companies.
H5: Reinsurance dependence has negative relationships and significantly affect financial performance of Insurance Companies.
H6: There is positive and significant relationship between investment ratio and their financial performance.
H7: There is positive and significant relationship between the size and their financial performance of Insurance Companies.
H8: There is a positive and significant relationship between liquidity and financial performance of Insurance Companies.
H9: Increase in volume of capital positively and significantly affects the financial performance of Insurance Companies.
H10: Leverage negatively and significantly affects insurance companies' financial performance.
H11: Loss ratio negatively and significantly affects the performance of insurance companies.
H12: There is positive and significant relationship between premium growth and financial of insurance company.
H13: Market share has positive relationship and significant impact on financial performance of insurance company.
H14: Lag GDP growth rate significantly and positively affect financial performance of insurance companies.
H15: Inflation negatively and insignificantly influences the financial performance of insurance companies.

H16: Exchange rate negatively and significantly influences the financial performance of insurance companies.

7. Method of Data Analysis

Descriptive statistical techniques employed for each variable in the study that covers from 2010 to 2016. In addition, panel random effect econometric model for regression analysis is applied to examine the relationship between financial performanceand explanatory variables.

7.1 Model Specification: Panel Model

$$\prod it = \beta 0 + \theta \prod it - 1 \sum_{m=1}^{M} \beta m \beta it + \sum_{k=1}^{K} \Phi k \beta t + \epsilon it$$

Where $\prod it$ is the dependent variable and is observation on financial performance measures of ROA, for insurance company i, at time t. $\theta \prod it\text{-}1$ is the one period lagged financial performance measure and θ is the speed of adjustment to equilibrium. A value of θ is between 0 and 1 implies that profits persist, but they eventually return to their average level. The Value close to 0 means that the private sector is fairly competitive and a value to 1 imply that the insurance industry has a less competitive structure. The first set of independent variables βit, include the mth insurance company specific characteristics of insurance i at time t, while the second set of independent variables βt, the kth macroeconomic variable while ϵit, is the error term and finally βo,is the constant term.

ROAi,t = βo + β1ROAi,t-1 + β2AGi,t+ β3SMi,t + β4RRi,t + β5RIDi,t +β6SZi,t+ β7IRi,t+ β8VOCi,t + β9LQi,t +β10LEVi + β11LRi,t + β12PGi,t + β13MSi,t + β14GDPt_1i,t + β15INFi,t + β16ERi,t + €i,t .……(3)
Where:
ROA = Current profit, βo = Constant, ROA i, t-1= is the lag value or past performance, AG= Age of Company, SM= Solvency Margin, RR=Retention Ratio, RID= Reinsurance Dependence, SZ = Size of insurance company, IR= Investment Ratio, VOC=Volume of the capital, LQ = Liquidity, LEV= Leverage, LR= Loss ratio, PG= Premium growth, MS= Market share, GDPt_1= Lag Real GDP growth, INF= Inflation, ER=Exchange Rate, €= error term, i= Firms from 1 up to 8, t= period covered by the researcher from 2002 to 2011 years.

7.2. Measurement of Variables

Table 7.1: Definition, notation and expected effect of the explanatory variables on insurance performance

	Variables	Measurement	Notation	Expected Relation
Dpt. Variable	Profitability	Return on Assets= Net Income Before Tax/Total Assets	ROA	
Internal Independent Variables	Past Performance	Lag of one-year profit	LAGROA	+
	Age	From date of establishment to up to date	AG	+
	Solvency Margin	Net asset divided by net premiums written	SM	+
	Retention ratio	Net written Premium to Gross Premium	RR	+
	Reinsurance Dependence	Gross written premiums ceded in reinsurance to total assets.	RID	-
	Investment Ratio	Total Investment to Total Assets	IR	
	Assets size	Natural logarithm of Total Assets	SZ	+

	Volume of Capital	Natural log value of equity	VOC	+
	Liquidity	Current asset to current liability	LQ	+
	Leverage	Ratio of total debt to total equity	LEV	-
	Loss Ratio	Net annual claims incurred to net earned premiums collected	LR	-
	Premium Growth	Year to year percentage change in new premiums	PG	+
External Variables	Market Shares	Total gross written premium of insurance company to total gross written premium of insurance industry	MS	+
	GDP growth rate	One period lagged GDP growth rate	GDPt_1	+
	Inflation rate	Annual inflation rate (consumer price index, CPI)	INF	-
	Exchange Rate	Percentage Change over time	ER	-

Source: Adams and Bukkle (2000, 2003), Ahmed (2008), Charumathi (2012) and others

8. Results and Discussion

8.1. Results of Descriptive Statistics

The descriptive statistics in this study tried to indicate the mean of all variables in three ways to have clear and comparative understanding. The mean of the variables presented 1) as mean values in general, 2) as mean values of variables by insurance companies to have comparative understanding for each insurance companies on each variable and 3) as mean values by year for all variables to compare the mean of each variables over period of the study. The following tables express these facts in orderly basis.

Table 8.1: Statistical Mean Values as general for the study variables

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	72	.0810767	.0577065	-.1294041	2019011
ROA-1	72	.0769463	.0670631	-.1294041	.2019011
AGE	72	13.44444	6.480499	1	22
SM	72	1.125331	.876836	.3266028	6.951247
RR	72	.7747675	.593898	.0787914	4.508922
RID	72	.0812183	.0706931	0	.3829266
IR	72	.1690027	.1909997	0	.7579914
SZ	72	19.45685	.9793768	16.01547	20.73112
VOC	72	18.33461	1.127563	13.52783	19.92551
LEV	72	2.044213	1.097106	.1716596	7.254652
LR	72	.574569	.2096138	.1558923	1.15466
LQ	72	1.193969	.6172276	.1658917	4.77434
PG	72	.6608196	2.391653	-.8110943	19.66886
MS	72	.0469329	.0268365	.000387	.0996489
GDP-1	72	.1022	.0081986	.087	.114
GDP	72	.0979167	.0113947	.08	.114
INF-1	72	.1405	.1024485	.028	.341
INF	72	.152	.0924246	.077	.341
ER-1	72	17.27108	2.34762	12.89	20.0956
ER	72	18.6404	1.688588	16.1178	21.1059

Source: Audited Financial Statements of Insurance Companies and NBE Report (2011- 2016)

Table 8.1 shows that the financial performance for insurance companies in Ethiopia was ranged from -0.1294041 to20.19011 indicating the minimum and maximum financial performance from 2011 to 2016 respectively. The result revealed that some of the insurance companies tried to earn a maximum 20.2% return on asset within this study period. But on average these insurance companies earned about 8.12% of return on asset which showed great variation from the maximum ROA. The result implies that for one birr the insurance companies invested in their total asset tried to generate a maximum return amounts to 0.202 cents and 0.0812 cents for the companies on average basis in the years of study. From table 8.1 above, it is also observed that the

average age of selected insurance companies (private insurance companies) showed 13.44 years and the maximum insurance business experience in insurance industry were 22 years up to the final study period. This reveals that still the insurance industry is at an infant age lacking more business experience in insurance sector. This was mostly due to the command economic policy that Ethiopia followed during Derg Regime since there was no private insurance company.

Volume of capital is measured as natural logarism of equity for insurance companies, its minimum and maximum values revealed13.52783 and 19.92551 respectively. The average value of this variable is 18.33461 which showed that how much insurance companies utilized capital of owners for financing and indicated the level of their capital strength over the study period. The table 8.1 also shows the minimum and maximum value for liquidity of selected private insurance companies as0.1658917 and 4.77434,respectively. The mean value of the liquidity variable for Ethiopian private insurance companies revealed 1.193969. This average liquidity position is less when it is compared with the average international ratio of 2.0 accepted as bench mark. This puts in question the solvency position of the private insurance companies in meeting their current liabilities with the current resources they have. The mean value of leverage is 2.044213 which is measured by the ratio of total debt to total equity. The minimum and maximum value of the variable indicated 0.1716596 and 7.254652, respectively. This is an indication for some private insurance companies that as they highly levered company utilizing debt that amounts to 204.4% and the less levered company was utilized debt around 17.2% over the study period in relation to equity financing. The mean of loss ratio which is measured as the ratio of net claim incurred or paid by insurance companies in a year to the net premium collected in such period is 0.574569. It is to mean that from the net premium collected over the study period, about 57.46% was paid as a claim to policy holders on average. This may point out that there was more risk on asset on average that resulted the insurance business to pay more than half of the premium they collected in the form of compensation for the asset or life damaged within these six years. But, the highly loss incurred company paid about 115.47% from its net premium collected which implies the insured asset or life highly exposed to risk and the less loss incurred company paid only about 15.59% in the same period. The premium growth in table 8.1showed 0.660819. It implies that within this six year there was more effort exerted on collection of additional premiums. Hence, the growth of premium depicted on average about 66.08%. The minimum and maximum values of premium growth range from -0.8110943and 19.66886,respectively in period under

consideration. It is to mean that the company that collected more premium exhibited growth of around 1966.89% and for some companies the sale of their policy declined which resulted decline in their premium growth indicating about -81.12% within the study period.

From table 8.1 above, market share is another variable which is to be considered in financial performance of insurance companies measured in terms of the gross written premium of each selected insurance companies to the total gross written premium of the insurance industry. The average value of the market coverage for insurance company indicated0.0469329. This indicates one insurance company on average covers the market of the insurance industry in Ethiopia about 4.7% over the six years of the study period. The average market share of the insurance industry is declining from time to time. For the same industry the study conducted by Tadesse (2013), showed the average market

coverage was 6.5% for the period covered from 2002 to 2011.But now it declined to 4.7%. This might be due to failing to sale more of their insurance policy. The other cause might be due to increasing number of insurance companies which were 14 insurance companies up to 2013 and now increased to 17 insurance companies for sharing market from senior insurance companies. Political instability in Ethiopia especially since 2014 also one of the driving forces for declining in market share. This might be one of the indications why the financial performance of some of the insurance company was declining especially in the last three years consecutively. The minimum and maximum value of market share of the descriptive output revealed 0.000387 and 0.0996489 respectively. From the selected companies, relatively the largest company cover the market of insurance industry by 9.96% and the small market coverage of the company was about 0.04% over the same years.

Table 8.2: Statistical Mean Values of Variables by Insurance Companies

Variables	Mean Values of Variables by Insurance Companies											
	ABIC	AFIC	AWIC	ELIC	GIC	LIC	NIB IC	NICE IC	NILE IC	NYIC	OIC	UNIC
ROA	.064	.055	.096	-.003	.101	.085	.086	.096	.084	.127	.074	.109
Age	3.5	19.5	19.5	5.5	16.5	6.5	11.5	19.5	18.5	18.83	5.5	16.5
SM	1.851	0.869	.817	1.824	1.42	.477	1.186	.645	.826	1.293	.585	1.716
RR	0.426	.713	.775	1.127	.837	.665	.506	.747	.756	.632	1.45	.658
RID	.247	.026	.037	.098	.140	.022	.092	.069	.050	.093	.043	.058
IR	.042	.413	.127	.061	.019	.071	.371	.128	.424	.137	.083	.150
SZ	18.53	20.24	20.27	17.67	18.7	19.19	20.19	19.1	20.01	20.09	19.5	20.05
VOC	17.28	19.05	19.22	16.54	17.8	17.71	18.96	17.8	19.06	19.20	18.3	19.10
LEV	2.909	2.463	2.192	1.213	1.43	2.567	2.051	2.74	1.600	1.447	2.42	1.504
LR	0.455	.856	.579	.358	.52	.649	.425	.825	.734	.524	.395	.575
LQ	1.297	.527	.988	2.005	1.45	.976	1.337	1.19	.931	1.099	1.31	1.219
PG	1.523	.169	.240	3.601	.333	.377	.309	.276	.217	.196	.483	.205
MS	0.020	.075	.083	.005	.012	.036	.072	.030	.068	059	.039	.061
GDP	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098
INF	.152	.152	.152	.152	.152	.152	.152	.152	.152	.152	.152	.152
ER	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64

Source: Audited Financial Statements of Insurance Companies and NBE Report (2011- 2016)

The above table 8.2 shows the mean values of variables for each insurance companies over the last six years. These values used for comparing the mean value of variables for one insurance company with the other insurance company. As table 8.2 indicates, the ROA of insurance company presented for each and the company with the highest return on asset is Nyala Insurance Company and United Insurance Company on average 12.7% and 10.9%, respectively over the study period. These insurance companies have relatively more business experience when compared with the other selected insurance companies around 22 and 19 years old respectively even if United Insurance Company is preceded by Africa Insurance, National Insurance Companies of Ethiopia and Awash Insurance Company in terms of business experience on the basis of their establishment. The insurance company with the lowest return on asset as indication of low financial performance was Ethio-Life and General Insurance Company with -0.3% and the second lowest performance is Africa Insurance Company with 5.5% which spent about 22 years in insurance business from date of establishment. As it is observed from the statistical result, the financial performance of these insurance companies ranges from the lowest performance -0.3% to the highest performance of 12.7%. One of the probable cause for being

least performer in its financial performance for Ethio-Life and General Insurance Company can be due to the least market share it covers which was 0.5% when compared with other insurance companies. But the market share of the company with the highest return on asset is in sixth rank with 5.9%.

Table 8.2 also indicates the leverage status of the sampled insurance companies separately. The highest leveraged insurance company compared with other was the recently established insurance business, Abay Insurance Company with 2.909 compared with its equity financing having an insurance business experience of six years. It implies that there was more debt financing for the company than using equity financing in generating profit over the study period. This action might be due to being new for the insurance business and difficulty for raising more fund through issuing share to the public at large since there is no active stock market for security issuance. This may need care over the future operation of the insurance company because having more debt in the capital structure will have more risk. The lowest leveraged insurance company was Ethio-Life and General Insurance Company with 1.213. This indicates that there was no great difference between its debt financing and

equity financing over the study period. But as it is discussed above, Ethio-Life and General Insurance Company exhibited the lowest financial performer over the study period with -0.3%. Both of insurance companies with the highest and lowest leverage ratio has almost same business experience of 6 and 8 years respectively but great difference of financial performance with 6.4% and -0.3%. This can be due to their capital structure policy they were following. Debt is one of the tools used by many companies to leverage their capital in order to increase profit. However, the impact of debt to increase profitability differs between companies. The ability of the company's management to increase their profit by using debt indicates the quality of the management's corporate governance. Good corporate governance shows the companies' performance on their use of debt to increase their profit (Singapurwoko & El-Wahid, 2011). The average liquidity ratio of the sampled insurance companies showed below the standard 2.0 except Ethio-Life and General Insurance Company. The lowest average liquidity ratio showed 0.527 which was registered for Africa Insurance company over the study period. The company also levered as 2.463. This show that the company isilliquidity which was far apart even from the standard and higher leverage ratio. This may reveal that care should be taken by the company and National Bank of Ethiopia even expected to oversee such issue since such effect can affect the economy. As it is observed from table 8.2. above, the highest average market share over six years for Ethiopian private insurance companies showed about 12% for Global Insurance Company. The company has more insurance market when compared with other insurance businesses. This might be due to the experience that the company gained in 19 years in the insurance business even if this cannot be the sole reason for being it. Ethio-Life and General Insurance Company tried to secure only 0.5% of market share on average over 8 years spent in the insurance business which was the least when compared with other sample insurance companies. Most probably less covered market share could be a cause for being registered -0.3% of return on asset over the study period which was an indication of very low financial performance.

Table 8.3: Statistical Mean Values of Variables by Year

Mean Values of Variables by Year for Insurance Companies						
Variables	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Return on Asset	.042	.071	.088	.110	.101	.074
Age of Company	10.92	11.92	12.92	13.92	15	16
Solvency Margin	1.560	.891	1.106	1.108	1.012	1.075
Retention Ratio	.849	.940	.659	.694	.747	.758
Reinsurance dependence	.091	.079	.092	.080	.074	.071
Investment Ratio	.108	.181	.144	.211	.169	.202
Size of Company	18.81	19.08	19.36	19.59	19.86	20.05
Volume of Capital	17.58	17.59	18.24	18.63	18.87	19.09
Leverage	2.186	2.733	2.177	1.750	1.700	1.722
Loss Ratio	.524	.570	.638	.514	.569	.631
Liquidity	1.903	.940	.976	1.035	1.195	1.114
Premium Growth	.342	.917	.363	1.789	.348	.207
Market share	.050	.046	.044	.048	.047	.047
GDP	.114	.087	.099	.1035	.104	.08
Inflation	.181	.341	.135	.081	.077	.097
Exchange Rate	16.12	17.25	18.19	19.07	20.10	21.10

Source: Audited Financial Statements of Insurance Companies and NBE Report (2011- 2016)

Table 8.3 above shows the statistical mean values of variables by year. This is to mean that how the insurance industry is responding to each variables over the study period. These values used for comparing the mean values of each variables over six years for the industry rather than for each insurance companies as done in table 8.2 above. Based on this, the financial performance measured by return on asset for insurance industry was highly fluctuating which ranges from 4.2% in 2011 to 11.0% in 2014 after three years. Even if there was some progress in financial performance of the insurance industry for the first three years, the return on asset changed its direction to the opposite as it is shown in the statistical result over study period. The cause of this fluctuation might be mostly the macro economic variables because these variables were also revealed higher fluctuations over the last six years such as GDP (which ranged from 8.0% in 2016 to 11.4 in 2011, inflation (which ranged from 7.7% in 2015 to 34.1% in 2012. Even the market share of the insurance companies over the study period showed less changes which indicates almost stagnant situation which might contribute for becoming less performer of the insurance industry.

8.2. Identification of Panel Model

All of the classical linear regression assumption diagnostic tests such as tests for normality, heteroskedasticity, multicollinearity, model specifications have checked on the basis of panel data model. On the basis of tests for these assumptions, multicollinearity problem detected. Therefore, variables like size and age dropped from the model and the model modified as follows.

$ROA_{i,t} = \beta_0 + \beta_1 ROA_{i,t-1} + \beta_2 SM_{i,t} + \beta_3 RR_{i,t} + \beta_4 RID_{i,t} + \beta_5 IR_{i,t} + \beta_6 VOC_{i,t} + \beta_7 LQ_{i,t} + \beta_8 LEV_i + \beta_9 LR_{i,t} + \beta_{10} PG_{i,t} + \beta_{11} MS_{i,t} + \beta_{12} GDPt\_1_{i,t} + \beta_{13} INF_{i,t} + \beta_{14} ER_{i,t} + \epsilon_{i,t}$

The model was estimated using Random Effects regression on the basis of the use of the Hausman test. The result from Hausman test showed in favor of random effect model than fixed effect since the P-values (Prob>chi2) is 0.1945 which greater than 0.05.

8.3. Panel Data RegressionResults

This regression analysis is based on the data collected from each insurance company's head offices and National Bank of Ethiopia. It shows the relationships of the financial performance measured by ROA and their determining factors without the inclusion of size of the firm and age due to multicollinearity problem.

Table 8.4: Panel Random Effect Estimation Result

Random-effects GLS regression				Number of obs.	=	72	
Group variable: insu1				Number of groups	=	12	
R-sq: within = 0.4147				Obs per group: min =		6	
between = 0.8510				avg =		6.0	
overall = 0.5394				max =		6	
				Wald chi2(15)	=	65.58	
corr(u_i, X) = 0 (assumed)				Prob > chi2	=	0.0000	

ROA	Coef.	Std. Err.	Z	P>|z|	[95% Conf. Interval]	
ROA_1	.3072405	.1252266	2.45	0.014**	.0618008	.5526802
SM	-.023741	.0091017	-2.61	0.009*	-.04158	-.005902
RR	-.0080809	.0123332	-0.66	0.512	-.0322534	.0160917
RID	.0350818	.1239395	0.28	0.777	-.2078351	.2779987
IR	-.0189413	.035885	-0.53	0.598	-.0892747	.0513921
VOC	.0233494	.013599	1.72	0.086***	-.0033042	.0500029
LEV	-.0078454	.0082852	-0.95	0.344	-.0240842	.0083933
LR	-.0576359	.0319364	-1.80	0.071***	-.1202301	.0049582
LQ	-.0029885	.0136882	-0.22	0.827	-.0298168	.0238398
PG	-.0014161	.0027422	-0.52	0.606	-.0067908	.0039586
MS	-.4357493	.4873542	-0.89	0.371	-1.390946	.5194473
GDP_1	7.437476	4.144872	1.79	0.073***	-.6863237	15.56128
INF	.5276166	.2609615	2.02	0.043**	.0161415	1.039092
INF_1	-.6251295	.3578855	-1.75	0.081***	-1.326572	.0763132
ER	-.0195921	.0091117	-2.15	0.032**	-.0374506	-.0017335
_cons	-.6372446	.3658933	-1.74	0.082	-1.354382	.0798931
sigma_u	0					
sigma_e	.03870279					
rho	0	(fraction of variance due to u_i)				

Note: *, ** and ***denotes significance at 1%, 5% and 10% level, respectively**.**
Source: Audited Financial Statements of Insurance Companies and NBE Report (2011- 2016**)**

Table 8.4 shows the results of the independent variables from the regression model and the overall model is very strongly significant (P-value = 0.0000) with R² of 41.47% and its overall R^2 is about 53.94% in the model. The overall regression result shows that about six of the independent firm specific variables like retention ratio, reinsurance dependence investment ratio, leverage, liquidity and premium growth and the industry specific variable, market share were insignificant. Therefore, the result of the random effect model regression presented in the following manner.

9. Discussion of The Regression Results

Table 8.4 presents the regression result of panel data using random effect econometric model. The model has established based on the conventional methods of panel data model and the data set of 72 observations that provides the basis for econometric analysis to show the relationship and effect of explanatory variables on the financial performance.

Past Financial performance
From the regression result, the past financial performance (one-year lag of ROA) has depicted positive relation with the current financial performance. It has also revealed significant effect on the current performance which shows that the higher the profit that private insurance companies generated in the past period, the more it significantly contributes to this year performance of insurance companies. The contribution to the current profit might be through reduction in dividend distribution (increasing retained earnings) which can reduce the possibility for shortage of

fund required for the current period operation. Further reduction in shortage of fund may lead to reduction in cost of borrowing which contributes to decline in current financial performance if borrowed. Even having good profit in the previous period will give more energy (become driving force) to the manger, the employees and the board of directors to generate more and more profit. The regression coefficient from table 8.4 showed,0.3072405 with z value of 2.45 including significance value of 0.014. Therefore, H1 is accepted. This result supported from the empirical evidence with the work of Pervan et al. (2012) indicated past performance of firms has positive and significant impact on the Bosnia and Herzegovina insurance companies' profitability. But the work of Tadesse (2013) using fixed effect model on the same industry showed that past profitability has no significant impact on the current profitability of those companies even if it showed positive relation with the dependent variable.

Solvency Margin
Solvency margin measured by net asset to net premiums written and it has shown negative relation on the financial performance of private insurance companies but significantly affecting the dependent variable. The regression result from table 8.4 indicated the p value of the solvency margin as 0.009 with Z result of -2.61 and coefficient of - 0.023741.Thus, it implies that insurers with high liability will have adverse impact on their profitability. This is because solvency margin measured by net asset to net premium earned. Net asset of the firm is the difference between total asset and current liabilities. Increasing in current liability reduces the net asset and reduction in net asset when compared to the high premium collected, it negatively affects the sound financial stability which is proxied by solvency margin. In theory, financially sound insurers are better able to attract prospective policyholders,

but, in practice, for most personal lines policyholders, it is the price that dictates the attractiveness to the policyholder. Higher solvency margin may result in better insurer performance. But this does not mean that solvency is a driver of profit. In fact, it is the other way around (Shiu, 2004). This is because the insurer's financial stability is an important benchmark to potential customers (Burca & Batrinca, 2014). Therefore,H3 is accepted in terms of its significant effect on financial performance Ethiopian private insurance companies even if the relation is to the opposite direction.

Volume of Capital

Insurance companies' equity capital (Aburime, 2008), can be seen as the amount contributed by the owners of an insurance (paid-up share capital) that gives them the right to enjoy all the future earnings. The random effect regression result in table 8.4 indicated that, there is positive relationship between volume of capital and financial performance of Ethiopian private insurance companies with the coefficient of .0233494 and p-values of 0.086. The result also indicated that the equity capital volume affects the financial performance significantly. Therefore, H9 has to be accepted both in terms of its relation and significance level. This finding is also similar with the study of (Teklit&Jasmindeep, 2017). Athanasoglou, Brissimis, and Delis (2005), Berger (1995), Ahamed (2008), Malik (2011), Ayele (2012), (Merin, 2012) and Tadesse (2013) in which they investigated that there that volume of capital revealed significant and positive association with financial performance of the companies. This empirical finding is implying that when capital adequacy increases, insurance companies become competent enough through having adequate working capital for their current operation and even for further investment in order to increase market share. The more the insurance companies possess adequate capital, the more that they become financially sound and the more to be stable in the finance industry to attract even more policyholders. Capital adequacy will enable the insurers even in meeting the claim timely and build trust to the policyholders. This further contributes more to the profitability of these insurance companies in the long run. But, the study of Charumathi (2011), in opposite to the other investigators, equity capital has negatively and significantly influenced the profitability of Indian life insurers.

Loss Ratio

According to Ahmed (2008), Insurers will establish premium rates based up on anticipated loss ratio that supports claim payments, administrative costs, profit requirements and an appropriate risk margin for adverse experience. This variable is measured by the ratio of net claim incurred to net premium collected in a year by each insurance companies. The result of the regression regarding loss ratio in this study indicated negative relationship and significant impact at 10% with P-value = 0.071 and having coefficient of -.0576359**.** on performance of insurance companies which is consistent with the theoretical aspects. Therefore, H11is accepted. By considering other things remain constant, financial performance of private insurance companies will decline by 5.76% because of growing of loss ratio by 1%. The magnitude of the effect is relatively showing low when compared with the study of Tadesse

(2013). The loss ratio increases when risk of insured asset increases. But the exposure to the risk units by the insurance companies helps them to manage properly their risk and the future risk even can be predicted possibly considering the law of large numbers. Different empirical findings are consistent with this finding. Study of Malik (2011) indicated that loss ratio showed negative but significant relationship with profitability. Results of the study conducted with dynamic panel analysis of B&H insurance companies' profitability by Pervan et al. (2012) revealed negative and significant influence of claims ratio on profitability. In the study of determinants of profitability of insurance companies' profitability in UAE, Ahmed (2008) investigated that loss ratio has an inverse relationship with profitability of insurance companies in UAE. But, in the study of Adams and Buckle (2003), underwriting risk has positive and significant effect on the performance of Bermuda insurance market.

GDP growth rate

The result of random effect regression in table 8.4 indicated that past GDP growth rate positively and significantly affects the financial performance of private insurance companies in Ethiopia. It is significant at 10% level of confidence with p value of 0.073 and coefficient of 7.437476. This implies that fast growth in GDP in the past period will have a significant contribution for profit generation of insurance companies in the current period as it is indicated theoretically, when economy is at boom, companies become prosperous. Therefore, H14 is accepted. This result implicated that Lag GDP growth rate is a major determining factor in insurance companies' financial performance. Positive impact of economic conditions on the profitability of insurance companies indicates that the good shape of the domestic economy is a source of the growth of operations of the real sector and other customers of insurance companies and creates higher demand for new insurance i.e. property insurance and protection against financial risk and fast-growing economy is associated with lower values of gross paid claims. These factors contribute to the highest technical result and net financial profit of insurance companies.

The impact of economic growth on financial performance can be reflected in different ways. When economy grows, it is expected that investment will grow rapidly due to promising economic changes. Growth in investment results to increase in demand to have guarantee for their business or property and the life of their employees at large from expected or unexpected risk. This leads them to purchase insurance policy to diverse the risk from their property. This action enables insurance companies to raise more amount of premium through selling their policy. Then insurance companies will generate good profit even if the possibility for claim of insurance will increase. Even growth in economy results to innovation of technology for good risk management practice. The other way of impact of GDP growth on financial performance is through individuals' demand for insurance policy. This is, when there is good economic growth, it is expected that the per capita income of individuals grows. Pervan and Kramaric (2012) in order to test the influence of market share and diversification on companies' performance in Croatian non-life insurance

industry for the period from 1999 to 2009, investigated that GDP per capita has positive and significant effect on non-life insurance performance. On the other way, when everybody secure job because of good investment movement lead by economic growth, income of individuals increases and then will result to need for to be secured for their life. This need will result purchase life insurance policy and growing in premium takes place for insurance companies and their financial performance become growing. This result is supported with empirical evidences like Tadesse (2013) on determinants of profitability of insurance companies in Ethiopia and Kozack (2011) on determinants of profitability of non-life insurance companies in Poland during integration with the European financial system additionally increases of the past GDP growth (one period GDP lag) positively and significantly affects the current profitability of non-life insurance companies. The investigation of Bashir (2003) on the determinants of profitability in Islamic banks: some evidence from the Middle East, the regression results showed that favorable macroeconomic conditions impact performance measures positively. Srairi (2009) on factors influencing the profitability of conventional and Islamic commercial banks in GCC Countries, identified that all macroeconomic determinants with the exception of inflation rate are positively significant in explaining profits. Abera (2012) revealed in his study that GDP has positive relation and significantly affects profitability of banks in Ethiopia. To this opposite the study of Merin (2012) investigated that GDP has positive but insignificant impact on profitability of Ethiopian private commercial banks.

Inflation

The result indicated that current inflation is positively and significantly affects the profit performance of insurance companies with the significance level at 5% (0.043) and coefficient of .5276166. According to Pervan and Kramaric (2012),the influence of inflation on company's profitability is unclear. There are two possible scenarios. The first scenario related with these finding. This is high inflation rate may lead to irrational pricing and consequently high levels of earned premium which in turn results to high profit considering others will remain constant. This result is consistent with the finding of Flamini, Donald, and Schumacher (2009) who investigated in their study that inflation has a positive impact on bank profits, that suggests banks forecast future changes in inflation correctly and promptly enough to adjust interest rates and margins. The other study done on bank by Damena (2011) stated, during inflation the central bank can raise the cost of borrowing and reduce the credit creating capacity of commercial banks. Empirical studies on the association between inflation and bank profitability suggest that if a bank's income increases more rapidly than its costs, inflation is expected to positively affect profitability. Ahmed et al. (2011) examined the determinants of performance of Malaysian banks over the 10 years period from 1986 to 1995. As a result, they selected both micro and macro level characteristics. The results showed that inflation positively related while efficient expense management.

From table 8.4 also the regression result depicted that lag inflation have negative and significant effect on current financial performance of insurance companies having p value of 0.081 with coefficient of -.6251295. This indicates the higher the inflation rate in the previous period, the more the financial performance possibly decline. The second scenario of Pervan and Kramaric (2012), indicated that inflationary periods reduce the profitability of firms. In terms of insurance companies, the most important reason for this lies in the fact that an insurance company has to pay higher amount of indemnity in periods of higher inflation than in periods of lower inflation. The difference between these two situations undermines the profitability of an insurance company. They also found that inflation has significant and negative influence on firm's performance. The study of Shiu (2004), on determinants of UK general insurance company performance identified that unexpected inflation has negative relationship and significant impact on performance.

Exchange Rate

Table 8.4 indicated that exchange rate negatively related to the financial performance of insurance companies. It has also significant effect on the financial performance with significance level at 5% (0.032) and coefficient of -.0195921. The hypothesis 16 should be accepted. This result is consistent withGladys (2017)who concluded that exchange rate negatively affects ROA. The findings show that Foreign exchange rate volatility negatively impacts on the ROA (measure of financial performance)of the insurance industry (Nyairo, 2015). This result might be mostly inclined to the issue of over pricing of insurance policy due to exchange rate especially due to high exchange rate for US dollar against Ethiopian Birr for most property imported like machineries and other plants. This exchange rate does not have effect that much on life insurance policy as property insurance. Therefore, fluctuations in exchange rate result to fluctuation in financial performance of insurance companies.

10. Conclusions

From the study it is generalized as the financial performance of insurance companies is a function of internal and external factors. From these both internal and external variables, the results of this research concluded as all of the macroeconomic factors (one-year lag GDP), the inflation variable (both current and past inflation) and the exchange rate definitely affects the financial performance of insurance companies. On the other side, the firm specific factors like LAG ROA, Solvency margin, volume of capital and loss ratio were the key factors affecting the financial performance of Ethiopian insurance companies. The past performance of insurance companies showed positive coefficient and statistically significant at 5% level. This depicts that the previous year performance is contributing positively to the current performance. This indicates that if insurance companies generated higher profit in the previous year it will highly contributes to the current profit generation. solvency margin has shown negative coefficient and became significant at 10% level of significance. Thus, it implies that insurers with high liability will have adverse impact on their profitability. volume of capital showed positive relation on its coefficient and became significant at 10% level of significance. This implies that Insurance companies holding more capital have the ability utilize the investment opportunities which generates more return. This

again even enable them to meet unexpected loss and competent in the finance industry local and internationally which results to building confidence to policy holders and even powerful to attract prospective policyholders to strength more its financial performance. Loss ratio revealed negative coefficient and became significant at 10%. The coefficient of loss ratio was very high among those negatively affecting the financial performance indicating about negative 57.64% over the time period included in the study. This is an alarm to insurance companies when they are highly accepting risk or implies excessive risk-taking results to decline in their financial performance. Retention ratio, reinsurance dependence, investment ratio, leverage, liquidity and premium growth have shown insignificant impact on financial performance.LAG GDP indicated positive association with return on asset being significant 10%. The implication is that the pervious GDP growth contributes more to the current financial performance of insurance companies. current inflation has shown positive relation and significantly affecting at 5% the performance of Ethiopian insurance companies but pervious inflation shown negative result on return on asset and significant at 10% level. Exchange variable has shown negative and significant effect on profit performance of Ethiopian insurance companies. It is significant at 5% level. This effect might be from the fluctuation in currency exchange especially at time of reinsuring the policy at foreign reinsurer companies which was paid in us dollar.

11. Recommendation

On the basis of the finding, the researcher forwarded the following recommendation to the concerned body. The insurance companies' Previous profit, Solvency margin, Volume of capital, loss ratio, lag GDP, inflation, lag inflation and exchange rate variables are significant key drivers of performance of Ethiopian insurance companies. Giving due attention to the sector in line with key factors affecting the performance will improve the overall performance of the insurance companies in Ethiopia. It is better for them to improve their solvency margin to improve their financial performance and to be stable in the insurance industry. This can be done through reducing liability which reduces the net asset of such companies. If due attention is not given to this variable, it will contribute to instability in and push away the prospective policyholders. Again, they are advised to reduce their cost i.e. loss ratio since it adversely affects their profit performance. This variable showed great negative coefficient when compared with other variables negatively affecting the return on asset having 57.64%. Therefore, insurance companies are expected to improve through reduction of their cost by applying sound risk management practices from their own and policyholders since it is in highly risk sensitive sector. Sound risk management system requires the setup of an effective risk management framework at first place, which should include clearly defined risk management policies and procedures covering risk identification, acceptance of risk, measurement of risk, monitoring it, reporting the result as well as control of the risk. It is suggested to the government to make stable the currency exchange rate because it is highly affecting the financial performance of insurance companies. This is because when high fluctuation takes place, there will be

distortion in price of items to be purchased and to be insured. But most of the insured assets are import oriented which is acquired by foreign currency like dollar. Making stable this variable is making stable the local economy. Therefore, the government is expected to give due attention to this variable.

12. Future Research Direction

The study tried to deal with firm specific, industry specific and macroeconomic variables affecting financial performance of Ethiopian Insurance Companies. There are also other variables which may affect the financial performance but not included in this study like business relationship of insurance companies, management competence, political effect and risk management practices of insurance companies. Therefore, future researchers expected include these variables and identify their effect on financial performance of insurance companies.

References

[1] Abera, A.M. (2012). Factors affecting profitability: an empirical study on Ethiopian bankingindustry. (Unpublished master'sthesis). Addis Ababa University, Ethiopia.

[2] Abreu, M., & Mendes, V. (2002). Commercial bank interest margins and profitability: Evidence from E.U countries. Porto Working Paper Series.

[3] Aburime, T. (2008). Determinant of bank profitability: Company level evidence from Nigeria. Working Paper.

[4] Adams, M. B., & Buckle, M. J. (2000).The determinants of operational performance in the Bermuda insurance market. European Business Management School, EBMS

[5] Adams, M.B., & Buckle, M.J. (2003). Determinants of corporate financial performance in the Bermuda insurance market. Applied Financial Economics, 13, 133–143

[6] Adams M., Hardwick P., & Zou, H. (2008). Reinsurance and corporate taxation in the UK life insurance industry. Journal of Banking and Finance, 32.

[7] Agiobenebo, T. J., &Ezirim, B. C. (2002). Impact of financial intermediation on the profitability of insurance companies in Nigeria. First Bank of Nigeria Quarterly Review,2(1),4-14.

[8] Ahmed, H. (2008). Determinants of insurance companies' profitability in UAE. (Published master's thesis). University of Utara, Malaysia. Retrieved from http://etd.uu,m.edu.my/256/

[9] Ahmed, N., Ahmed, Z., & Ahmed, I. (2010). Determinants of capital structure: a case of life insurance sector of AIB Capital (2018): Insurance industry report: Retrievedfromhttps://www.aibcapital.com/reports/253/show

[10] Almajali, A.Y., Alamro, S.A, & Al-Soub, Z.Y. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange, Journal of Management Research, 4 (2) 1941-899X

[11] Ammar, A., Hanna, A.S., ASCE, M., Nordheim, E.V., Russell, J.S., &Asce, M. (2003). Indicator variables model of firm's size-profitability relationship of

electrical contractors using financial and economic data. Journal of Construction Engineering andManagement.DOI:10.1061/~ASCE!0733-9364~2003! 129:2~192!

[12] Ansah, A. K., Andoh, C., &Abor,J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. Journal of Risk Finance, 13(1), 61-76.

[13] Association of Ethiopian Micro-Finance Institutions,(2011).Retrieved from http://microfinanceafrica.net/tag/association-of-ethiopian-microfinance institutions/

[14] Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2005). Bank-specific, industryspecific and macroeconomic determinants of bank profitability. Bank of Greece working paper 06.

[15] Ayele, A.G. (2012). *Factors affecting profitability of insurance companies in Ethiopia: panel evidence*: (Published Master's thesis). Addis Ababa University, Ethiopia.

[16] Bashir, A. H.M. (2003). determinants of profitability in Islamic banks: Some evidence from the Middle East. *Islamic Economic Studies,11*(1).

[17] Batra, G. (1999). Job Reallocation, the export market, and firm performance: microeconomic evidence. *World Bank Policy and Research; Business EnvironmentUnit, 10(1),* 683-26.

[18] *Batsirai, W.M., Mbakisi D., &Tendai, S. (2017). An analysis of factors affecting the performance of insurance companies in Zimbabwe: Journal of Finance and Investment Analysis, vol. 6, no.1, 2017, 11-30 ISSN: 2241-0998 (print version),2241-0996(online) Science press Ltd, 2017*

[19] Berger, A. (1995). The Relationship between capital and earnings in banking. *Journal of Money, Credit and Banking*, 27, 404-431.

[20] *Berger, A. N. & Humphrey, D. B. (1997). Efficiency of financial institutions: international survey anddirections for future research. European Journal of Operational Research, 98, 175-212*

[21] Browne, M. J., Carson, J. M., & Hoyt, R. E. (1999). Economic and market predictors of insolvencies in the life-health insurance industry. *The Journal of Risk and Insurance*, 66, 643-659.

[22] Browne, M. J., Carson, J. M., &Hoyt, R. E. (2001). Dynamic financial models of life insurers. *North American Actuarial Journal, 5,*11-26. Retrieved from*www.Aria.Org/Meetings/.../Shiudfa%20in%20insurance_v01.doc*

[23] Briys, E., & De Varenne, F. (2001). *Insurance from underwriting to derivatives*. Wiley, U.K.

[24] Burca&Batrinca, (2014). The determinants of financial performance in the Romanianinsurance market. *International Journalof Academic Research in Accounting,Finance and Management Sciences, vol. 4, (1)*, pp.299-309.

[25] Buzzel, R., Gale, B., & Sultan, R. (1975). Market share-key to profitability. *Harvard business review,* 53, 97-106.

[26] Calandro, J. (2006). Accident year development, bonus banks,and insurance incentive compensation.*RiskManagement and Insurance Review,9(2),* 205-217

[27] Capital, M. (September 05, 2016*). Establishment of Ethiopian Reinsurance Corporation*

[28] Carson, J. M., & Hoyt, R. E. (1995). Life insurer financial distress: classification models and empirical evidence, *The Journal of Risk and Insurance*, 62, 764-775.

[29] Charumathi, B. (2012). Determinants of profitability of Indian life insurers – An empirical study.*Proceedings of the World Congress on Engineering*, *1* (4 – 6). Retrieved fromwww.iaeng.org/publication/WCE2012/WCE2012_pp505-510.pdf

[30] Chen, R., &Wong, K. A. (2004). The determinants of financial health of Asianinsurance companies. *TheJournal of Risk and Insurance, 71(3),* 469-99.

[31] Choi, B.P., & Weiss, M.A. (2005). An empirical investigation of market structure, efficiency, and performance in property-liability insurance. *The Journal of Risk and Insurance, 72*(4), 635-673 Commercialcode of Ethiopia (1960:140).Retrieved fromwww.ethiopia.gov.et/English/MOTI/.../Commercial%20Code.pdf

[32] Damena, B.H. (2011). *Determinants of commercial banks profitability: an empirical study onEthiopian commercial banks*. (Unpublished master's thesis). Addis Ababa University, Ethiopia.

[33] Dawit, T. (2017). *Establishment of Ethiopian Reinsurance corporation. Reporter Magazine,19December, 2017.*

[34] Eyesuswork, Z. (2016, March, n.d). Annual profit of insurance companies was declining. *Medical Magazine 2/121.*

[35] Gladys, M. (2017). Effects of Macroeconomic Variables on Financial Performance of Insurance Companies in Kenya;

[36] Gulsun, I., &Umit, G. (2010). Early warning model with statistical analysis procedures Turkish insurance companies. *African Journal of Business Management ,4*(5), 623 630: Retrieved from http://www.academicjournals.org/AJBM: Academic Journals

[37] Harrington, C. (2005). *The effect of competitive structure on the relationship between leverage and profitability.*

[38] Harrington, R., &Wilson, D. (1989). Corporate financial analysis. *Journal of Financial Economics, 3,* 316-20.

[39] Iswatia, S., and Anshoria, M. (2007). The influence of intellectual capital to financial performance at insurance companies in Jakarta stock exchange (JSE), Proceedings*of the 13th Asia Pacific Management Conference*, Melbourne, Australia.

[40] Idris,A.R., Asari, F. F. A. H., Taufik, N. A. A., Salim, N. J., Mustaffa, R., & Jusoff, (2011). Determinant of Islamic banking institutions' profitability in Malaysia*. World Applied Sciences Journal, 12*(01-07) 1818-4952.

[41] Jensen, M.C., &Meckling, W.H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

[42] Jiang, G., Tang, N., Law, E. and Angela (2003). *The Profitability of the banking sector in Hong Kong*: Hong Kong Monetary Authority Quarterly Bulletin

[43] Kozak, S. (2011). Determinants of profitability of non-life insurancecompanies in Poland during integration with the European financial system: Electronic Journal of Polish agricultural universities, 14(1).

[44] Liargovas, P.G., & Skandalis, K.S. (2008). Factors affecting firms' performance: the case of Greece: Global business and management research. An International Journal,2(2 & 3). Retrievedfrom;http://www.scribd.com/doc/61668010/Factor-s-Affecting Firm, Performance.

[45] Malik, H. (2011). Determinants of insurance companies' profitability: An analysis of insurance sector of Pakistan. *Academic Research International*, *1*(3), 2223-9553.

[46] Merin, M.A. (2012). *Determinants of bank profitability in Ethiopia a case study of private commercial banks.* (Unpublished master's thesis). Mekelle University, Ethiopia.

[47] Mirie, M. & Cyrus I. (2014). Determinants of financialperformance of general insurance underwritersin Kenya: *International Journal of Business and Social Science Vol.5*, No. 13; December 2014

[48] Mirie, M., & Jane, W.M. (2015). The determinants of financial performance in general insurance companies in Kenya: *European Scientific JournalVol.11 No. 1* ISSN 1857 - 7881

[49] National Bank of Ethiopia (2011*). Annual report of national bank of Ethiopia. Retrieved from* http//www.nbe.gov.et

[50] National Bank of Ethiopia (2012*). Annual/quarterly report of national bank of Ethiopia. Retrieved from* http//www.nbe.gov.et

[51] Naser, K., & Mokhtar, M. (2004). Determinants of corporate performance of Malaysian companies. *Fourth Asia Pacific Interdisciplinary Research in Accounting Conference,* Singapore.

[52] Nyairo, E. K. (2015). The effect of foreign exchange rate volatility on profitability of insurance industry in Kenya.

[53] Oppenheimer, H. R., &Schlarbaum, G. G. (1983). Investment policies of property-liability insurers and pension plans: a lesson from Ben Graham. *The Journal of Risk and Insurance, 50,* 611–30.

[54] Outreville, J. F. (1998) Theory and practice of insurance. *1st ed. New York: Springer Science, Business Media, LLC, pp 15-40.*

[55] Pervan, M., Ćurak,M., &Marijanović,I. (2012). dynamic panel analysis of B&H insurance companies' profitability.*Recent Researches in Business and Economics*, *31* Recent: 978-1- 61804-102-9. Retrieved from http://www.efst.hr

[56] Pervan, M., &Kramaric, T.P. (2010). *Determinants of insurance companies' profitability Croatia.The Journal of American Business Review*,16(1). Retrievedfrom http://www.jaabc.com/brcv16n1preview.html

[57] Pervan, M., &Kramaric, T.P. (2012). Effects of market share and diversification on non-life insurers 'performance. *World Academy of Science, Engineering and Technology,61*. Retrieved fromhttps://www.waset.org/journals/ijshs/v6/v6-12.pdf.

[58] Pottier, S. W. & Sommer, D. W. (1999). Property-liability insurer financial strength ratings: differences across rating agencies, *The Journal of Risk and Insurance, 66(4),* 621-642

[59] Rasiah, D. (2010). Theoretical framework of profitability as applied to commercial banks in Malaysia*. European Journal of Economics, Finance and Administrative Sciences,19,* 1450-2275

[60] Re, S. (2008), *Profitability of non-life insurance industry, Egyp*t. Retrieved from Www.Insureegypt.Com.

[61] Saklain, M.S (2012). The profitability determinants of private commercial banks in Bangladesh. *Asian Institute of Technology School of Management* (Dissertation), University of Thailand.

[62] Shanklin, W.L. (1988). Market share is not destiny. *Journal of Consumer Marketing, 5*, 5-16.

[63] Shepherd, W.G. (1972). The elements of market structure. *Review of Economics and Statistics, 54* (1), 25-37

[64] Singapurwoko, A., El-Wahid, M. S.M (2011). The impact of financial leverage to profitability study of non-financial companies listed in Indonesia Stock Exchange. *European Journal of Economics, Finance and Administrative Sciences*, *32*, 1450

[65] Slade, M. E. (2004). Competing models of firm profitability. *International Journal of Industrial Organization 22,* 289-308. *Governance and Ethics Vol 7, No 1*

[66] Smith, A., and Chamberlain, D. (2010). *Challenges and opportunities for micro insurance in Ethiopia analysis of the supply, demand and regularity*: Access toInsurance Initiatives. Retrievedfromwww.access-to-insurance.org/useful.../document details.html?dam

[67] Srairi, S.A. (2009). Factors influencing the profitability of conventional and Islamic commercial banks in GCC countries. *Review of Islamic Economics,13* (1).

[68] Shiu, Y. (2004). *Determinants of Uk general insurance company performance*. Retrieved fromhttp://www.docstoc.com/docs/69679838/determinants-of-united kingdom general- insurance-company-performance

[69] Tadesse, T.T. (2013). *Determinants of insurance companies' profitability in Ethiopia.* (Master's thesis:unpublished*).* Mekelle University, Ethiopia

[70] Teklit, A. B., &Jasmindeep, K. (2017). Determinants of insurance companies' profitability Analysis of insurance sector in Ethiopia Punjabi University, Patiala, India. *International Journal of Research in Finance andMarketing(IJRFM)Vol. 7 Issue4.* Retrieved from http://euroasiapub.org/current.php?title=IJRFM

[71] Tita D., Lionel, G. H. (2015). Factors affecting the financial performance of property andrealestate companies listed at Indonesia stock exchange. *Asian Business Review, Volume 5. Retrieved from* Number 2/2015 (Issue 11 ISSN 2304-2613 (Print); ISSN 2305-8730 (Online).

[72] Webb, I.P., Grace, M.F., & Skipper, H.D. (2002). *The effect of banking and insurance on the growth of capital and output*. Retrieved from rmictr.gsu.edu*/Papers/WP02-1.pdf*

[73] Wellalage, Nirosha H., &Stuart L.(2012). Ownership structure and firm financial performance: Evidence from Panel Data in Sri Lanka. *Journal of BusinessSystems,*

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