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Competition in the insurance sector – An application of Boone indicator

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Abstract: Competition in the insurance sector is an important element since it leads to the reduction in risk and uncertainty, enables efficient resources allocation, enhances product innovation, enhances economic growth and improves efficient production of financial services. The study evaluates competition in the insurance sector in Zimbabwe during the period 2010–2017. Of interest is the evolution of competition during the period when the economy had transitioned from hyperinflation. How competition evolved during this period is of interest due to the changes in macroeconomic management styles that were experienced after the hyperinflation period. Of novelty to this study is the use of the Boone Indicator, one of the new empirical industrial organisation methods. The method is premised on the idea that efficient firms achieve higher market shares or profits. The study established that competition was moderate in the insurance industry during the study period. The results further revealed that there was no significant difference in competition in the periods 2013–2017 and 2010–2012. The study recommends that the government should ensure that the macroeconomic environment is conducive for businesses to compete. The economy should be prevented from sliding into hyperinflationary environment, which negatively impacts policy holders as well as insurance companies. The government should put in place pro-growth policies to

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PUBLIC INTEREST STATEMENT

Economists agree that competition is health for an economy but should be moderated by the government through relevant legislation. A competitive environment ensures an efficient allocation of resources. This paper investigated how competition has been developing in the Zimbabwean insurance sector. To achieve this objective, the paper adopted the Boone Indicator approach which is based on the view that if a firm is efficient, it will earn more profits which might drive away those firms that are not efficient. The result of the study has shown that there was moderate competition in the insurance sector in Zimbabwe between 2010 and 2017. The recommendation from the study is that the government should put in place policies that improve the macroeconomic environment for competition to thrive. The government should put in place pro-growth policies where insurance companies can thrive. It has been shown that since the economy started experiencing moderate growth rates, there has been increased activity among insurance companies

ensure insurance companies thrive. It has been shown that since the economy started experiencing moderate growth rates, there has been increased activity among insurance companies.

Subjects: Economics; Econometrics; Finance; Insurance

Keywords: Boone; Competition; Insurance; Efficient; Hyperinflation

1. Introduction

The role of competition in the insurance sector cannot be understated as it helps in reducing risk and uncertainty (Antwi & Antwi, 2013; Claessens, 2009). In addition, competition enables efficient resources allocation, brings balanced development in a country, enhances product innovation, enhances prospects of economic growth, improves efficient production of financial services and reduces credit risk (Caminal & Carmen, 2002). Competition should take place systematically since it can potentially lead to insolvency (J.A. Bikker & Boss, 2005). Competition gives firms continuing incentives to make their production and distribution more efficient, adopt better technology, and innovate (Cook et al., 2007). The benefits of competitive markets can be inferred from the negative social welfare effects of monopoly (Guzman, 2000). In a monopoly market, firms price their products above competitive prices which managers use to maintain cost at unreasonable levels. Managers then pursue other objectives different from profit maximisation. Under monopoly, managers can use resources to sustain market power. Monopoly power may allow the persistence of inefficient managers, leading to increased cost inefficiency (Abel & Le Roux, 2017).

Insurance is a financial product that reduces or eliminates the cost of loss or effect of loss caused by different types of risks. Insurance is a key instrument of risk transferring, indemnification and intermediation (Outreville, 2015). Insurance is important because the world is defined by uncertainties and risks (Din et al., 2017). In that regard, it provides safety and security to economic agents, reduces uncertainty and smoothens out volatile economic conditions (Chau et al., 2013), wielding a stabilizing effect on financial systems, protecting them against external shocks. Insurance also inspires creativity, innovation, entrepreneurial activities and trade that are vital for sustainable economic growth (Billah, 2014; Cristea et al., 2014).

Insurance like other financial services is responsible for mobilising long-term savings used for building infrastructure assets such as roads, ports, power plants, dams, etc. that contributes to economic growth (Haiss & Sümegi, 2006). Sigma Swiss-Re (2016) notes that insurance spending is 6.23% of World's GDP. This varies between developed and developing countries where it contributes 8–11% and 2–4%, respectively (Din et al., 2017).

This study evaluates competition in the insurance sector in Zimbabwe during the period 2010 to 2018. Of interest is the evolution of competition during the transition period from hyperinflation (2007/2008). The post hyperinflation period has two quite distinct episodes; the period of government of national unity (2010–2012) and the period of single political party (2013–2018). How competition evolved during this period is of interest due to the differences in macroeconomic management styles. Of novelty to the study is the use of the Boone Indicator, one of the new empirical industrial organisation methods which has not been applied in the insurance market in Zimbabwe. Boone (2001) proposed a measure, based on relative profits, which is more robust than the different ways in which competition can be parameterised in theory. Boone's model (Boone, 2008) argues that efficient firms achieve higher market shares and/or profits and the effect is stronger in the environment where competition is more intense. The intuitive idea behind the relative profits measure is that in a more competitive industry, firms are punished more harshly for cost inefficiency. In other words, when two firms in an industry are compared and one is more efficient than the other, the more efficient firm will have higher profits than the less efficient firm. As the industry becomes more competitive concerning the efficiency levels of firms, the profits of the more efficient firm go up relative to the profits of the less efficient firm.

The rest of the paper is organised as follows: stylised facts about the Insurance sector in Zimbabwe are presented in section 2, followed by literature review in section 3. The methodology of the study is presented in section 4, while the results of the study are discussed in section 5. Conclusions and recommendations are presented in section 6.

2. Stylised facts about Insurance sector in Zimbabwe

The financial sector in Zimbabwe is made up of various players (banks, insurance companies, pension funds, etc.) offering a wide spectrum of financial products and services. The financial system in Zimbabwe is currently leveraging on the high mobile phone penetration rate by partnering mobile network operators to offer a range of efficient and safe digital financial services to different market segments, thereby broadening the consumer choices. The deregulation of the financial sector and emergence of new financial instruments and services offered by financial institutions has blurred boundaries between different types of financial institutions such as banking, insurance and securities.

The insurance sector in Zimbabwe is one of the key pillars of the financial system offering a wide range of products. The importance of the insurance sector to the economy and financial system is evidenced through the total assets held by players in the sector, number of players, penetration rate and the gross premium written over time. The total assets held by the insurance sector increased from \$4.2 billion in 2018 to \$17.2 billion in 2019, phenomenal growth which is second only to the banking sector in the financial sector. The breakdown of the number of entities per class of business is shown in [Table 1](#).

[Table 1](#) shows that the number of players in the insurance industry ranged between 88 and 93 between December 2012 and December 2018. The highest number of insurance firms were recorded in 2013, while the least number of 88 was experienced in 2018. The number of players has been a moving target since the regulator has registered and deregistered players in the industry. The insurance sector is mostly dominated by the non-life insurance and insurance broking. The number of insurance broking firms increased over the period 2012–2013. On the other hand, the amount of non-life insurance firms declined significantly from 28 in 2012 to only 16 in 2018. Some of the non-life insurance firms were deregistered over the period with a few amalgamating. The number of reinsurance broking firms increased by 100% during the period from 4 to 8 which might have increased competition in the industry.

The penetration rate indicates the level of development of insurance sector in the country. Penetration rate is measured as the ratio of premium underwritten in a particular year to the GDP. [Figure 1](#) shows insurance penetration in Zimbabwe between 2012 and 2018.

There has generally been a steady increase in insurance penetration from 3.35% in 2012 to 4.7% in 2016. The increase is positively correlated with the increase in GDP from US\$12.5 billion in 2012 to US\$15.3 billion in 2016. Deceleration in economic activity experienced in the economy resulted in the insurance penetration rate declining consecutively in 2017 and 2018.

[Table 2](#) shows that total gross premiums written by insurance companies. The insurance sector has experienced phenomenal growth since 2009. The growth trends experienced by the insurance sector since 2009 are a reflection of the performance of the economy. The rebound of the economy after dollarization saw the insurance industry experiencing phenomenal growth, peaking at 80.1% in 2010, in terms of gross premiums written by both life and non-insurance companies. However, since 2011 the sector has begun to experience receding growth, recording an overall growth rate of 22.1% in 2011 which ebbed to 7.6% by 2014. The slow growth of the sector was in response to the generally depressed performance of the national economy over the same period. The sector wrote business amounting to \$3.04 billion for the year ended 31 December 2019, showing an increase of 250% from \$869 million written during 2018.

Table 1. Number of regulated entities

Class of business	Dec 2012	Dec 2013	Dec 2014	Dec 2015	Dec 2016	Dec 2018
Non-life insurance	28	28	25	24	20	16
Non-life reinsurance	10	10	9	9	8	3
Life assurance	9	10	11	11	11	11
Funeral assurance	11	9	9	9	9	9
Life reassurances	2	2	2	2	3	3
Insurance broking	27	29	31	30	32	32
Reinsurance broking	4	4	5	6	6	8
Total	91	93	92	91	89	88

The insurance sector has been facing a number of industry-specific challenges since 2008. These include lack of consumer confidence which reduces the uptake of insurance policies. The complete loss of insurance savings in 2008 because of hyperinflation remains the major cause of low consumer confidence. The amount of insurance pay-outs has been perceived to be low as compared to the premium consumers are forced to pay monthly. The shortage of foreign currency in Zimbabwe affected the sector hampering payment of premiums for most reinsurance programmes. The sector has been affected by corporate governance challenges which have led to the loss of incomes by the insurance companies (IPEC, 2017). The COVID-19 pandemic has not spared the sector which is experiencing higher than usual lapse rates as a result of potential liquidity issues anticipated as customers' incomes become constrained. Most people lost their jobs as a result of mandatory lockdown which the government introduced in March 2020. The pandemic also affected negatively investment income as a result of reduced returns on property and equity investment

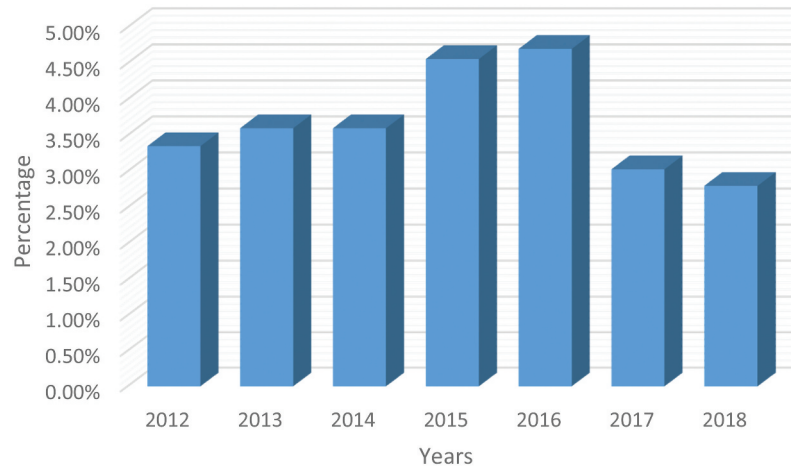
The sector has not been spared from the economy-wide challenges; low economic growth; lack of fiscal space; the rapid growth in the fiscal deficit, which left public finances with a borrowing requirement of US\$1.4 billion; negative balance of payment owing to poor export performance; limited development finance; increasing unemployment, which reduced household consumption by 11.8%. There have also been country-wide interruptions in the power supply affecting insurers' ability to operate.

Despite the challenges above, a number of opportunities are presenting themselves in the insurance sector. The insurance sector players have been experiencing increased digitalisation, paving the way for changes in business models and the development of new products. There are great incentives to innovate and offer products that meet consumers' changing needs as lapse rates increase, especially given that insurance may now be more front-of-mind than before the pandemic

3. Literature Review

The Boone indicator model (Boone, 2001) assumes that firms with lower marginal costs are more efficient and gain more market share or profits. This view is dominant in cases where there is substantial competition in the market. The Boone indicator model has been credited for its ability to compare competition over a long period of time, to measure competition for several specific

Figure 1. Insurance penetration rate.



product markets and categories, and to measure competition of different market segments separately (Kar & Swain, 2014). The challenges associated with the model include that it suffers from a multicollinearity problem if the efficiency hypothesis holds; it assumes that at least some profit gained by more effective firms is transferred to their clients; it does not account for differences in the quality of products; and it neglects design across firms and their incentive for innovations (Boone, 2000, 2001 & Boone et al., 2004, 2005; CPB, 2000; Schaeck & Čihák, 2008).

The challenges associated with the model include suffering from a multicollinearity problem if the efficiency hypothesis holds, assuming that at least some profit gained by more effective firms is transferred to their clients, not accounting for differences in the quality of products and neglecting design across firms and their incentive for innovations. In Zimbabwean case, there is some level of competition among insurance companies with some degree of product differentiation (Musiiwa & Dzingai, 2021). They establish that insurers in Zimbabwe were operating under monopolistic competition during the period 2010–2017 with competition increasing during the period differentiation (Musiiwa & Dzingai, 2021).

A number of studies have analysed competition in the insurance sector. Cobbinah et al. (2020) explored the relationship between competition and financial stability in 10 countries in West Africa over the period of 2000–2014. The study employed the Generalized Method of Moments style Panel Vector Autoregressive estimation model. The study established that competition enhances stability. The Granger causality test revealed bidirectional causality. The impulse response function revealed that the impact of one standard deviation shock in the rise of Boone indicator as a proxy for competition on stability was zero for the first year and dropped to negative through to the tenth year. Kramarić and Miletić (2019) evaluated the effect of competition on soundness of Croatian insurers. They also adopted the Boone indicator method for measuring competition. The Boone indicator reveals the impact of competition on the performance of efficient insurers in post-EU accession period only accounting for the reallocation effects proving that efficient insurers make higher profits. The premium to surplus ratio and inflation in pre-EU accession period were significant while reinsurance and GDP growth rate became statistically significant after EU accession. Competition increased in the years after the EU accession. Kasman et al. (2019) evaluated the impact of competition and concentration on stability in the Turkish insurance sector for the period 2002–2014. The main results indicate that non-life insurers are more stable in a less competitive and highly concentrated environment. This finding provides support for the competition–fragility view in the Turkish non-life insurance sector. In contrast, life and pension insurers are more stable in a highly competitive and more concentrated market. Hence, their findings provide support for the competition–stability view for Turkish life and pension insurers.

Table 2. Total gross premium written

USD Million

Class of business	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non-life insurers	100.19	143.30	189.92	207.69	208.02	213.44	215.74	143.9	273.6
Life assurers	85.02	161.82	169.58	199.90	280.66	313.04	325.86	361.3	426.0
Funeral assurers	4.79	37.17	58.31	77.48	33.01	36.54	38.43	39.9	43.9
Total direct insurance	190.01	342.29	417.81	485.07	521.70	563.02	580.03	545.10	743.5
Non-life reinsurers	27.04	66.43	92.14	99.38	100.38	102.67	101.11	107.9	116.4
Life reassures	3.24	3.61	5.98	7.06	9.38	8.77	7.38	7.71	9.1
Total reinsurance	30.28	70.04	98.13	106.44	110.18	111.45	108.49	115.61	125.5

Camino-Mogro et al. (2019) studied competition in the life and non-life segments of the Ecuador. The study period spanned between 2001 and 2006 and applied the Panzar and Rosse model to evaluate the competitiveness of the industry. The study established that the insurance industry in Ecuador was operating under perfect competition. The study further revealed that insurance firms related to banks in the Ecuadorian financial system improved their revenue generation; being a public insurer and receiving foreign investments do not have a relationship with revenue. Ishammari, Alhabshi, and Saiti (2019) examined the impact of competition on the cost efficiency of conventional insurance in the Gulf Cooperation Council (GCC) countries for the period 2009 to 2016. The study applied the stochastic frontier cost function. The study established that there is a positive relationship between competition and efficiency supporting the quiet life hypothesis where managers in a less competitive market may utilise the market power of their firms and reduce their efforts. The study recommends that policy makers and regulators should ensure a competitive insurance industry to enhance efficiency.

Cummins et al. (2017) did a cross-country study on the association between soundness and competition in the life insurance industry in 10 European countries. They employed the Boone indicator method for the period 1999–2011. The study established that competition increases the soundness of the EU life insurance markets implying that efficiency is the mechanism through which competition contributes to insurer solvency. The soundness-enhancing effect of competition is greater for weak insurers than for healthy ones. J. Bikker and Van Leuvensteijn (2008) used the Boone indicator to study the Dutch life insurance market. Their study involved calculating the Boone indicator using three different approximations of the marginal costs: average variable costs; marginal costs derived from a trans-log costs function; and scale-adjusted marginal costs. The results showed that there was weak competition in the Dutch life insurance industry compared to other industries.

In the microfinance sector, Kar and Swain (2014) measured competition using the Boone indicator. Their study sought to ascertain the effect of competition on the outreach, financial performance and quality of loan portfolios of micro-finance institutions (MFIs). The study used the generalised methods of moments (GMM) estimation technique to circumvent the problems of endogeneity. It found that increased competition in the micro-finance sector led to an increase in the amount of loans and a decline in financial self-sustainability. The results also concluded that competition negatively affected the loan portfolio quality.

4. Methodology

The study employs one of the new empirical industrial organisation methods, the Boone indicator. The Boone indicator measures the degree of competition, calculated as the elasticity of profits to marginal costs. The study follows the Boone et al. (2004) model and is shown below:

$$p(q_i, q_{j \neq i}) = \alpha - \beta q_i - \delta \sum_{i \neq j} q_j \quad (1)$$

The industry has a constant marginal cost mc_i . The firm profit function is given by (2)

$$\pi_i = (p_i - mc_i)q_i \quad (2)$$

The firm is therefore supposed to choose the optimal level of output q_i . Assuming that $\alpha > mc_i$ and $0 < \delta \leq b$, the first-order condition for the Cournot-Nash equilibrium becomes

$$\alpha - 2\beta q_i - \delta \sum_{i \neq j} q_j - mc_i = 0 \quad (3)$$

Equation 3 shows the relationship between output and marginal costs. The equation shows that profits depend on marginal costs in a quadratic way. The competition in the market can increase

when the products of the insurance firms become close substitutes that is when δ increases but remains below β . Alternatively, competition can increase when entry costs decline.

When N insurance firms are producing positive output levels, the N first-order condition can be solved yielding

$$(q_i(c_i) = \frac{\left(\left(\frac{2\beta}{\delta} - 1\right)\alpha - \left(\frac{2\beta}{\delta} + n - 1\right)mc_i + \sum_j mc_j\right)}{\left(2\beta + \delta(N - 1)\left(\frac{2\beta}{\delta} - 1\right)\right)} \quad (4)$$

Profit π_i is defined as a variable profit excluding the entry costs; ε means a firm enters the sector only if $\pi_i \geq \varepsilon$. From equation 4, profit can be defined as

$$\pi_i = \alpha + \beta \ln(M_i) \quad (5)$$

Marginal cost cannot be observed directly or extracted from the financial statement of insurance companies; hence, this study proxy it from the trans log cost function (Pruteanu-Podpiera and Weill and Shobert 2008) and is specified below.

$$\begin{aligned} \ln[TC/w_3] = & \alpha_0 + \alpha_1 \ln y + 1/2\alpha_2 (\ln y)^2 + \alpha_3 \ln(w_1/w_3) + \alpha_4 \ln(w_2/w_3) \\ & + \alpha_5 \ln(w_1/w_3) \ln(w_2/w_3) + 1/2\alpha_6 [\ln(w_1/w_3)]^2 + 1/2\alpha_7 [\ln(w_2/w_3)]^2 \\ & + \alpha_8 \ln y \ln(w_1/w_3) + \alpha_9 \ln y \ln(w_2/w_3) + \varepsilon \end{aligned} \quad (6)$$

The model assumes the cost function has one output (y) representing gross premiums and three input prices (w_1 = Price of labour, w_2 = price of physical capital, w_3 = price of borrowed funds). The cost function (TC) takes the form of a translog cost function. The assumption of linear

Table 3. Correlation matrix

	w_{1i}	w_{2i}	w_{3i}	Y_i	TC_i
w_{1i}	1				
w_{2i}	0.263	1			
w_{3i}	0.235	0.384	1		
Y_i	0.489	-0.497	0.0234	1	
TC_i	0.576	0.681	0.543	0.243	1

Source: Authors' computation.

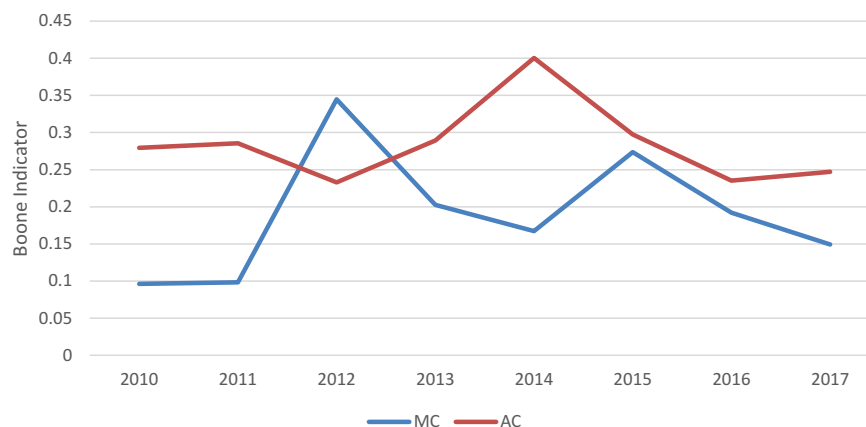
Table 4. The Boone indicator values

Year	Boone indicator (MC)	Boone indicator (AC)
2010	0.0962**	0.2795***
2011	0.0984**	0.2854***
2012	0.3448***	0.2327***
2013	0.2026***	0.2891***
2014	0.1673***	0.4005***
2015	0.2735**	0.2973***
2016	0.1921***	0.2351***
2017	0.1491***	0.2472***

Source: Authors' computation * 10% significant level, ** 5% significant level, *** 1% significant level.

Figure 2. Dynamics of the Boone indicator in the Zimbabwean insurance industry.

Source: Authors' computation.



homogeneity in input prices is imposed by normalising total costs and input prices by one input price. The estimated coefficients of the cost function (1) are then used in the calculation of the marginal cost in equation 2. The marginal cost is equal to the product of the derivative of the logarithm of total cost (TC) over output (y).

$$MC = \frac{TC}{y} \left[\alpha_1 + \alpha_2 \ln y + \alpha_8 \ln \left(\frac{w_1}{w_3} \right) + \alpha_9 \ln \left(\frac{w_2}{w_3} \right) \right] \quad (7)$$

For robustness check marginal cost is proxied by the average cost as done by other studies (Cummins et al., 2017, Shaeck and Cihák, 2014; J. Bikker & Van Leuvensteijn, 2008). This is a static model as compared to the above which is dynamic. The modified profit function becomes:

$$\pi_i = \alpha + \beta \ln(AC_i) \quad (8)$$

The market shares of insurance firms with lower marginal costs are expected to increase so that β is negative. The market share can be calculated for either the gross premium or net premiums market segment separately. The stronger the competition, the stronger the effect and the larger in absolute terms the value of β . The β parameter is the Boone indicator.

Profit is calculated as the difference between variable revenues and variable costs divided by total assets. The average variable costs are measured as variable costs to variable revenues ratio. Variable costs are composed of net incurred claims and operating expenses while variable revenues are the sum of net premiums and net investment income. Linear regressions are estimated for each year starting from 2010 to 2017 following the works of Cummins et al. (2017).

The study employs quarterly data for the period 2010 to 2017. A total of 19 life Insurance companies constituted the sample, with equal numbers of observations across firms reflecting a balanced panel. The advantages of panel data are that it contains more information, more variability, and more efficiency as compared to any time series data (Baltagi 2008; Wooldridge 2010). In this case, each firm has 32 observations, but the total number of observations under consideration is 608 observations providing more information and viability to the study. The degrees of freedom for the regressions are also increased with panel data as compared to time series. The data was extracted from the financial statement of the insurance companies as posted on their websites.

5. Result presentation and analysis

Prior to any regression, the study evaluated the presence of correlation among the variables. The correlation coefficient matrix (Table 3) shows that there is no strong correlation among the variables. Gujarati (2007) argued that the problem of multi-collinearity exists if the correlation between independent variables is above 0.8. All the correlation coefficients between the independent variables were less than 0.8. As a result, all variables were taken into consideration in the estimation of the regression model.

Table 4 shows that the values of the Boone indicator, which were estimated using linear regression equations 5 and 8. In line with prior expectation, the Boone indicator had negative values for all the years reflecting the fact that the more efficient insurer (with lower average costs) makes higher profits. Since all the results had a negative sign for the Boone indicator, for ease of discussion only the absolute value is shown.

The rationale behind the indicator is that higher profits are achieved by more-efficient firms. The greater the absolute value of the Boone indicator, the higher the degree of competition since the effect of reallocation is stronger. The results revealed that the values of Boone indicator were statistically significant throughout the study period for average cost and marginal cost models.

The results show that the amount of competition in the insurance sector was almost consistent mean reverting around Boone indicator of 0.26 and 0.2 using average cost and marginal cost, respectively, implying moderate competition in the sector.

Using average cost, intense competition was registered in 2014 when the indicator score was 0.4005 after which competition declined (Figure 2). Overall, the range of the Boone indicator for the study was 0.232 to 0.4005 with average cost and 0.096 to 0.344 with marginal cost which compares favourably with the results obtained in a Croatian study. Kramarić and Miletić (2019) evaluated the effect of competition on soundness of Croatian insurers and established that the Boones indicator for the sector ranged from 0.2536 to 0.4142 between 2006 and 2010. The results also compare favourably well with those obtained by Abel, Khobai and Le Roux (2017) for the Zimbabwean banking sector where they obtained the average Boone indicators of 0.4950 and 0.2781 for the loan and deposit markets, respectively, for the period 2009–2016. The results confirm moderate competition in the financial system in Zimbabwe.

Another important dimension reflected in the results shows that the average Boone indicator for the period 2010–2012 does not significantly differ from the one for the period 2013–2017. The average Boone Indicator for the period 2010–2012 was 0.1798 and 0.2659 using the marginal cost and average cost, respectively. The average for the period 2013–2017 was 0.1969 and 0.2938 for the marginal cost and average cost, respectively. Hence, there was more competition during the period 2013–2017.

These two periods reflect periods of different governance structure in the country. Post the hyperinflation environment starting 2009 to 2012, there was consummation of a government of national unity which has been credited with stabilising and phenomenally growing the economy. The elections in 2013 led to the disbanding the government of national unity which saw a single part taking charge of the government. During this period, there was deceleration of economic growth. The earlier period was mostly affected by lack of confidence in the market mostly as a result of the hangover people had from hyperinflation period when they lost the majority of their savings as most insurance policies were rendered valueless. This devastated the majority of the insurance policy holders since their livelihoods were destroyed after contributing for a long period of time more still for some retired persons who had contributed during their whole working life. Insurance companies had to start afresh building portfolios after their capital and customer base was wiped away. Post 2010–2012 period, most insurance companies had fulfilled their capital requirements and hence were on good footing to compete in the sector. Most firms had managed to attract new clients and hence able to build their portfolios. This then enhanced their capacity to compete in the sector.

6. Conclusion

The study investigated the evolution of competition in the Zimbabwean insurance sector during the period 2010–2017. The study employed one of the new empirical industrial organisation methods, namely the Boone indicator. The intuition behind the Boone Indicator is that in a more competitive industry, firms are punished more harshly for cost inefficiency. Put differently, if the two firms in the industry are compared and one is more efficient than the other, the more efficient firm will have higher profits than the less efficient firm. The study has found that competition was moderate in the insurance industry. The results further revealed that there was no significant difference in competition in the periods 2013–2017 and 2010–2012. The 2010–12 period was mostly affected by the lack of confidence in the market mostly as a result of the hangover the people had from hyperinflation period when people lost the majority of their savings as most insurance policies were rendered valueless. In the period 2013–2017, most insurance companies had fulfilled their capital requirements hence were on good footing to compete in the sector while at the same time insurance firms had opportunity to build their portfolios, hence increased competition. The government should put in place pro-growth policies so as to ensure insurance companies thrive. It has been shown that since the economy started experiencing moderate growth rates, there has been increased activity among insurance companies.

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