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Measuring Macroeconomic Uncertainty in Zimbabwe

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Abstract: *What matters to economic decision-making is whether the economy has become more or less predictable. People and businesses use information around them to form judgements about what might happen in the future. The rise in uncertainty might be associated with increased concern about extreme events, skewed towards worries about bad or disastrous events. The study seeks to measure macroeconomic uncertainty in Zimbabwe, using stock market indices - industrial index and mining index - for the period 2010M1 to 2019M3. Prevalence of macroeconomic uncertainty has been traced from the stock market index trend and stock market returns volatility. The squared residuals of the GARCH(1,1) regression model proxied macroeconomic uncertainty levels. The prevalence of significant macroeconomic uncertainty has been observed, with some periods highly uncertain. The study linked periods of uncertainty to some known political, social and economic events to derive meaning. The study found that some political, social and economic events have a contributing effect on the level of macroeconomic uncertainty. Good events and policies are accompanied by low levels of uncertainty while bad events and controversial policies match with high levels of uncertainty. The study recommends that to create a good economic climate, to attract investment and boost confidence in the economy, policymakers should dwell on reducing macroeconomic uncertainty. Reducing macroeconomic uncertainty require policy consistency, policy consultations, less frequent policy changes, avoiding numerous policies, avoiding policy reversals, among other measures. The observed macroeconomic uncertainty affects proper economic decision-making and is not conducive for high levels of investment for local and international investors; companies may struggle to hire labor, and employees and corporates may delay spending and saving pattern distorted.*

Keywords: *Economic Development, Employment, Expectations, Expected Volatility, GARCH (1,1), Investment, Investors, Macroeconomic Uncertainty, Savings, Stock Market Indices, Zimbabwe*

JEL Codes: *B22, B26, C58, D01, D02, D03, D14, D21, D22, D84, D81, E02, E03, E21, E22, E24, E44, E58, E61, F16, F33, F42, F62, G28, G38, H30, L51, N17, N27, O11, O21, O43, O44.*

1. Introduction

Zimbabwe, just like any other country that has macroeconomic objectives that require attainment, has a greater need for macroeconomic uncertainty to be evaluated using credible evaluation techniques that applies observable data rather than mere opinions. This current study present a credible measure to determine the level of macroeconomic uncertainty in the country. Uncertainty, in general, is typically defined as the conditional volatility of a disturbance that is unforecastable from the perspective of economic agents (Juradon Ludvigson and Ng, 2015). Heightened uncertainty was believed to be a reason contributing to the weakness in global economic growth in recent years (Wong, Ng and Cheng, 2017). Uncertain times are associated with the growing difficulty of predicting future accurately (Grimme and Stockli, 2018). Different types of uncertainty are likely to affect individuals sectors of the economy differently and also have different degrees of persistence (Haddow and Hare, 2013). The future course of taxes, regulation, monetary policy, and trade policy, among others should be at least clear. Baker, Bloom and Davies (2013), indicated that a rise in policy uncertainty slowed recovery from the recession by causing businesses and households to cutback or postpone investment, hiring and consumption. Harin (2006), also highlighted that future events may be considered as, at least partially, uncertain, and this uncertainty or partial uncertainty may be invisible, imperceptible.

Economic policy uncertainty can create negative externalities for the economy, as it is negatively correlated with the business cycle, and it has the potential to intensify the impact of recessions and to contribute to the build-up of risks during good times (Kaya, 2018). Krol (2018) indicated that there might be value in waiting until the uncertainty is reduced. There also exist spillover of uncertainty across economies. If domestic uncertainty does increase, then international uncertainty feedbacks are likely to prolong the adverse effects on the domestic economy (Christou et. al, 2019). With crucial measures by policymakers and central banks during and after the financial crisis, economic policies are under ever-growing scrutiny. A challenge in empirically examining the behavior of uncertainty, and its relation to macroeconomic activity, is that no objective measure of uncertainty exists (Jurado et al., 2015). As a result, a better understanding and a reliable estimation of economic policy uncertainty has become particularly relevant in recent years (Kaya, 2018).

The study seeks to evaluate how users of Zimbabwe policies respond or react to policy announcements. The users include investors, business world, employees, and the country citizens. International community is also included. Crucial events include elections, annual budgets, monetary policy announcements, political events among others that captures various individuals decisions. Events that delay decisions or trigger decisions are crucial. Previous

experiences are also influential to drive future uncertainty. The study is important for the country to aid important investment decisions to drive the economy.

1.1 Research Problem

Zimbabwe is one economy that has undergone economic crisis for a long period. After a decade of crisis that ended by the formation of Government of national Unity (GNU) in 2009, the economy entered a recovery path, however before the recovery reached significant levels, another crisis emerged. The new crisis have seen the change in leadership from the long serving president to a new president from the same ruling party. The political environment remained tense with the opposition challenging elections results, which were finalised by the Constitutional Court. The economic climate remained unconducive for rational economic decision making, as investment remained low, unemployment rates rising, increased company closures, retrenchments of workers, currency depreciation and the growing of the black market. The happenings in the economy contributed to the depth of the recession and weakened the recovery process from the previous crisis. With all these noted, the study sees it relevant to empirically examine the macroeconomic uncertainty levels in the economy, using a credible methodology, and provide ways if any to correct the economic climate for improved economic growth. If the economic climate becomes less predictable; business become more unsure of business transactions, evaluation of demand for company products among others, and families may also be unsure of their future earnings, building up of buffer stocks among other concerns. Such behavior impacts on the overall economy and spill to international relations of the country and hence retards growth. It is hence necessary to evaluate the level of unpredictability that the economy poses to its citizens and international community for proper policies and solutions to be made. Uncertainty affects both the supply side and the demand side. It is crucial to understand these effects in order to determine the appropriate policy response.

1.2 Research Questions

- What is the level of macroeconomic uncertainty in Zimbabwe?
- How do political, social and economic events relate to macroeconomic uncertainty in Zimbabwe?
- What measures can be adopted to reduce macroeconomic uncertainty in Zimbabwe?
- What effects does macroeconomic uncertainty have to the economy?

1.3 Organisation of the Study

To attain study objectives, the study is organized in seven sections.

2. A Glimpse on Policy Formulation and Macroeconomic Uncertainty in Zimbabwe

Various governments undertake economic plans but surprisingly, some plans are not followed or something that is not on the plan happens or there is failure to follow the plan (Bonga, 2014). Zimbabwe, like any other country in the world do undertake policies to determine the development path of the nation, and to correct any deviations from the desired outcomes. A country's economic or social development depend heavily on the various policies being adopted in the economy (Bonga, 2014). Not every economic or social policy is guaranteed to succeed, hence evaluations are necessary and deviations should be acceptable. Policy success requires a lot of ingredients including policy support, policy evaluation before gazette, and policy consultations, among others. The policy formulation and implementation in Zimbabwe is guided by the Constitution of Zimbabwe particularly sections 299 and 301; Section 317 giving the Reserve Bank of Zimbabwe the mandate to protect the country's currency in the interest of balanced and sustainable economic growth (Chigumira, Chipumho, Chiwunze, 2018). Economic policies are typically implemented and administered by the government (Bonga, 2014). Policies dialogues are usually in place for many nations, and they include various economic players, and civil society groups. Country leadership usually take the central determining role for many policies.

Economic policy formulation and implementation is directly related to macroeconomic uncertainty level for future events in the eyes of both local and international investors, institutions, and general populace at large. Frequently changing policies and their inconsistent application, often based on political or personal grounds, creates additional challenges for planning and operating businesses in Zimbabwe (Export.gov, 2017). The public's expectations of future happenings in the economy are crucial in policy formulation (Bonga, 2016). One of the key challenges in Zimbabwe is the partial implementation of government policies and programmes (Chigumira *et. al*, 2018); hence poor implementation record. If such is the case, many designed future policies (with any good they might carry) may not receive full support and hence unsupported policies are linked to failure. Other issues observed in Zimbabwe, include lagging behind in terms of implementation, lack of policy consistency and co-ordination; lack of stakeholder buy in government programs and inadequate provision of funding to finance the government policies and

program among others. Lack of policy consistency upset efforts toward economic reforms and recovery (World Bank, 2014). Chigumira *et. al*, (2018), indicated with concern that the policy formulation and implementation processes have been identified not to be fully inclusive in terms participatory and taking into account the views and opinions of the various stakeholders. Bonga (2014), indicated that a well drafted economic policy, should be easily adopted, well-funded, and accurately implemented through proper communication between sectors of the economy and economic players. The likely responsiveness of the public and business whenever a policy is announced determine policy success (Bonga, 2016), and worth to note is that the behavior of stakeholders on policy announcement depend on the level of uncertainty prevailing in the economy.

3. Empirical Literature Review

Grimme and Stockli (2018), in their study, presented a new measure of macroeconomic uncertainty in Germany, based on the method by Jurado *et al*. (2015). The study showed that there was a strong increase in uncertainty during the 2008 financial crisis. In contrast to alternative measures, the study found a declining trend during the Eurozone crisis. Their study demonstrated that macroeconomic uncertainty may explain part of the volatility in German investment activity. The measure extends the number of uncertainty measures that were available for Germany.

Krol (2018) examined the impact of uncertainty about economic policy on US exports, imports, and direct foreign investment inflows. The study found that uncertainty over domestic and international economic policy adversely affects the international flow of goods, services, and investment. Also, when sunk costs are associated with acting, uncertainty about expected profits leads entrepreneurs to wait rather than act, reducing commerce domestically and internationally. The study opined that international organizations such as the WTO and agreements such as the North American Free Trade Agreement reduce policy uncertainty, and the resulting positive effect on international commerce raises living standards in the United States and abroad.

Andrea, Todd and Massimiliano (2017), undertook a study measuring uncertainty and its impact on the U.S economy. The authors proposed a new model for measuring uncertainty and its effects on the economy, based on a large VAR model with stochastic volatility driven by common factors representing macroeconomic and financial uncertainty. The uncertainty measures reflected changes in the conditional mean and the volatility of the variables, with their impact on the economy assessed within the same framework. Estimates with U.S. data show substantial commonality in uncertainty, with sizable effects of uncertainty on key macroeconomic and financial variables. However, historical decompositions show a limited role of uncertainty shocks in macroeconomic fluctuations.

Moore (2016), constructed a monthly index of economic uncertainty for Australia. the study observed that economic uncertainty rose to historically high levels during the global financial crisis and remained elevated until late 2013, and recently, it has been a bit below its long-term average. The conclusion was that index is higher around recessions, elections, monetary policy surprises and some major geopolitical events;, and tends to increase faster than it decreases; and is driven by both domestic and foreign factors. Uncertainty reduces investment and employment growth. Similarly, uncertainty raises the household saving ratio and reduces consumption growth for durable goods, consistent with the ‘precautionary savings’ channel of uncertainty. The study results suggested that economic uncertainty can be an important independent driver of economic outcomes.

Baker, Bloom and Davis (2013), in their study, assessed the view by many commentators who argued that uncertainty about fiscal, monetary and regulatory policy slowed recovery from the 2007-2009 recession. In their assessment, the study developed a new index of economic policy uncertainty (EPU) that draws on the frequency of newspaper references to policy uncertainty and other indicators. The index spiked near tight presidential elections, after the Gulf wars, 9/11 attack and Lehman Brothers bankruptcy, and during the 2011 debt ceiling debate. Using micro data, the study investigated the effects of EPU on investment and hiring, finding negative effects for firms heavily exposed to government contracts.

From the reviewed literature, various indices have been employed for various countries, with comparisons done for some cases. For compared indices, they seem to perform almost in a similar way, giving almost similar derivations. There is, however, a battle of which indicator is most accurate.

4. Uncertainty Indicators

Uncertainty is a latent variable, and hence one requires ways to measure it (Christou *et. al*, 2019). There are various uncertainty indicators developed to measure macroeconomic uncertainty. To date, different measures have been proposed to proxy uncertainty in macroeconomic indicators and financial markets (Kaya, 2018). The commonly used indicators are the VDAX, FDISP and EPU.

VDAX, is a measure of expected volatility of the DAX stock market index. The VDAX represents stock market indices for any country that has an existing stock exchange. The use of stock market indices as a proxy for uncertainty

was popularized by Bloom (2009). The VDAX is calculated on the basis of traded options on the DAX, where option prices are used to infer expected volatility. An increase in the VDAX indicates that the market expects the DAY to be more volatile. Data availability for most countries makes stock market indices a viable choice of proxy for uncertainty. The main benefit of this measure of stock volatility is that it provides a very long time series (Moore, 2016). It is worth noting that proxies based on stock market volatility do not remove the ‘forecastable component’ of the time series – this suggests that some of the variation in stock market volatility is, in fact, forecastable, and we erroneously attribute this variation to increases in uncertainty (Grimme and Stockli, 2018). Higher uncertainty in the financial market may not have an impact on the real economy - especially where many firms are not publicly listed. However, Kaya (2018), indicated the strength of stock market proxies, narrating that, market participants may take a wait-and-see approach during episodes of elevated economic policy uncertainty, which may affect asset prices, market liquidity, etc. Hence, it is therefore reasonable to look at the transmission from all-time high policy uncertainty to financial markets.

FDISP, is a measure of firm-level uncertainty. The measure was proposed by Bachmann et al. (2013). The measure uses micro data from the business confidence survey. Firm level uncertainty is identified as the cross-sectional variation of individual survey participants’ responses to a question on expected domestic production. The higher the dispersion of expected production, the higher is uncertainty. The measure implies that uncertainty is associated with heterogeneous expectations - this link does not necessarily always hold (Grimme and Stockli, 2018). The advantage of this indicator is that it is generated from survey data and is therefore based on the expectations of real decision-makers.

EPU, a measure of economic policy uncertainty. The measure was proposed by Baker et al. (2016). EPU measures the frequency of articles in daily newspapers in which keywords related to economic uncertainty are used. The index increases when there are more reports on economic policy uncertainty. EPU index critique is whether the choice of newspapers, which are used to construct the index, is representative for the media market under review. It is also unclear whether the index, with its focus on media coverage, has an impact on firm activity; firms are mostly concerned with policy measures that have a direct effect on their activity (Grimme and Stockli, 2018).

The study will use stock market indices measure due to data availability in the country. The other measures are yet to be constructed for the country. The measure will however help the study to meet its objectives. Stock market indices reflects the responses of investors to various happenings in the economy. Investors work in the best interest of their wealth. Investors seeks to maximize profits, and using market information, they choose when to invest, investment amount, investment period among others. In general, every economic would want to make economic decisions using every information available for the present and future. Bonga (2015), indicated that what is of crucial importance for an investor is to rely on an analysis rather than making a blind investment, which will turn the objective of saving funds or the need to increase value and wealth.

5. Research Methodology

The study used the stock market indices to proxy uncertainty. Zimbabwe Stock exchange has three indices running; Industrial index, Mining index and All-Share index. The All-Share index is relatively new, and came into operation in January 2018. The study will use the two old indices with more data points in the analysis, namely industrial index and mining index. The indices are for the companies registered on the Zimbabwe Stock Exchange, hence the indices are not exhaustive of all firms in the economy. The number of listing is currently 64, mixing various sectors of the economy. Kaya (2018), supported the fact that financial markets uncertainty and economic policy uncertainty usually co-move closely. Data used in the study was obtained from the Zimbabwe Stock Exchange publications, Reserve Bank of Zimbabwe publications and ZimStats publications: the legal data compilation institutes.

The trend of the stock market index will be observed to check the general movement of prices in the economy. This will provide a glimpse of how predictable the future is. The trend aid in the forecast of future prices and the level of stability in the economy. Data will be in levels, with no adjustments from published statistics. However, the trend alone is not enough.

Stock market returns will be used in the study. Returns for the two indices will be calculated using the formula;

$$INDRETURN_t = \log(IND_t / IND_{t-1}) \text{ ----- (1)}$$

$$MINRETURN_t = \log(MIN_t / MIN_{t-1}) \text{ ----- (2)}$$

, where *INDRETURN* - Industry index return, *MINRETURN* - mining index return, *IND* - industry index, *MIN* - mining index, *t* - time and *log* - is the logarithm.

Volatility of returns will be used for better information regarding macroeconomic uncertainty. A graphical analysis will be done using the volatility of the returns for the 2 stock market indices. The volatility will give a glimpse

of macroeconomic uncertainty. To advance the analysis the study will model the returns, both positives and negatives to proxy uncertainty.

Macroeconomic uncertainty will be measured using the following formula;

$$UNCERTAINTYIND_t = (INDRETURN_t)^2 \text{ -----(3)}$$

$$UNCERTAINTYMIN_t = (MINRETURN_t)^2 \text{ -----(4)}$$

,where *UNCERTAINTYIND* - is uncertainty as measured by the industry index return and *UNCERTAINTYMIN* - is uncertainty as measured by mining index return.

Equation (3) and (4) implies that macroeconomic uncertainty is proxied by squaring the calculated returns from the two indices. Squaring implies that only positive values will be dealt with.

Alternatively the study will estimate the GARCH (1,1) model for each return. Store the residuals of the estimated equations, and squaring the residuals. The squared residuals will be the proxy for macroeconomic uncertainty. The two approaches leads to same magnitudes of macroeconomic uncertainty. The GARCH (1,1) model is derived from the following equations;

$$y_t = \mu + \varepsilon_{0t} \text{ -----(5)}$$

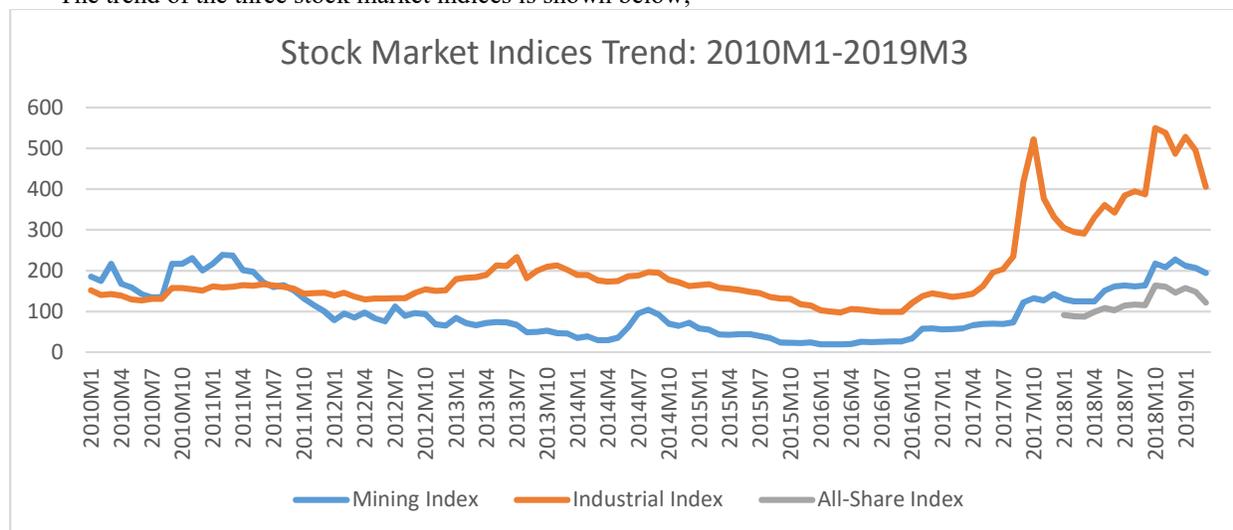
$$\sigma_t^2 = \omega + \alpha\varepsilon_{t-1}^2 + \beta\sigma_{t-1}^2 \text{ -----(6)}$$

Equation (5) is the mean equation, and equation (6) is the variance equation. Equation (6) is the GARCH (1,1) specification, and the residual from the estimated model will be used to approximate macroeconomic uncertainty through squaring.

To gather more information from the measure of macroeconomic uncertainty above, the study will match the levels of uncertainty observed for the period with some known political, social and economic events obtained in the economy during the period under study. The important dates will be traced to check how they are linked to level of uncertainty observed.

6. Data Analysis

The trend of the three stock market indices is shown below;



The All Share Index was introduced in January 2018, while the Mining index and the Industrial index have been in place for the entire period. The industrial index trend has been above the mining index from 2011M7 to the end period. According to the shown trends of the indices, they almost show the same pattern, indicating almost the same information. However, it is also crucial to indicate that there are noticeable minor difference for the indices that might require exploration. From the shown trends 2010M8 to 2016M10 the indices have shown fluctuations around the same magnitude, and there was a sharp increase until 2017M11, with a significant decline till around 2018M4, and the increase persisted till 2018M11 reaching a peak, and finally a slight decline till end period 2019M3. The trend patterns reflects the responses by investors to macroeconomic happenings. The prices have significantly risen from period 2017M11 to end period, indicating a changing environment and investor perceptions to the economy.

Before analyzing volatility of returns, stationarity tests for the return series for both mining index and industrial index was performed. Using non-stationary time series data in financial models produces unreliable and spurious

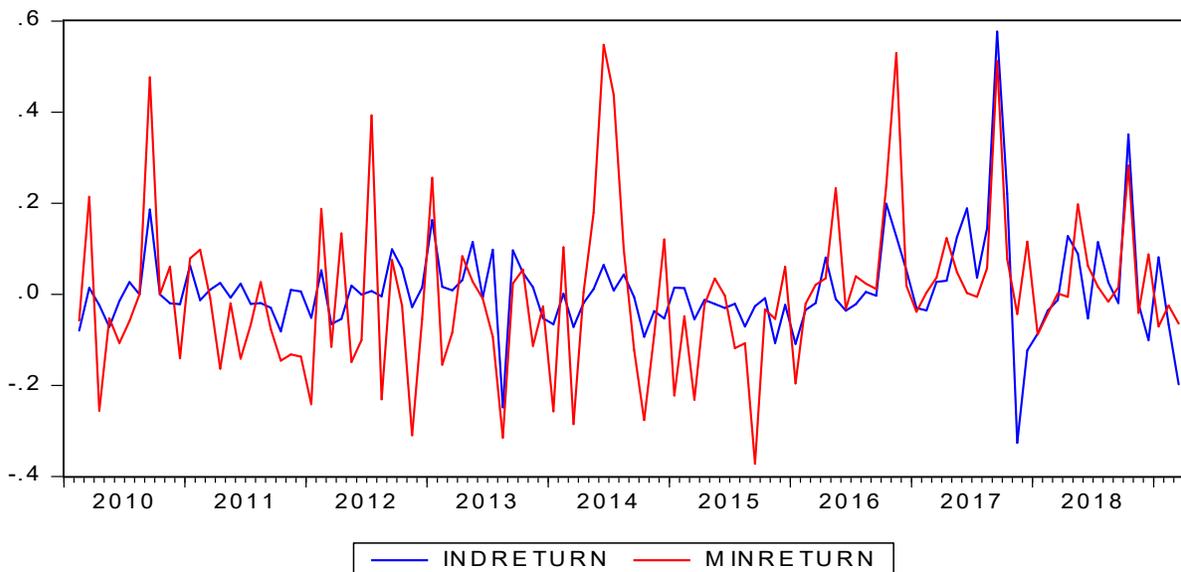
results and leads to poor understanding and forecasting. The stationarity test results using Augmented Dickey-Fuller test are presented below;

Null Hypothesis: INDRETURN has a unit root Exogenous: Constant Lag Length: 0 (Automatic - based on SIC, maxlag=12)			Null Hypothesis: MINRETURN has a unit root Exogenous: Constant Lag Length: 0 (Automatic - based on SIC, maxlag=12)		
	t-Statistic	Prob.*		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.245995	0.0000	Augmented Dickey-Fuller test statistic	-9.031810	0.0000
Test critical values:			Test critical values:		
1% level	-3.491345		1% level	-3.491345	
5% level	-2.888157		5% level	-2.888157	
10% level	-2.581041		10% level	-2.581041	

The above results shows that both the mining index return series and the industrial index return series are stationary. The ADF statistic is less than the critical value at 1% level (-8.246 & -9.032 < -3.491), indicating stationarity of the series. Given that the series are stationary, no data transformation to attain stationarity is required; the study will proceed with the analysis.

The volatility of returns give a clear picture of the investment returns, relating to bad news and good news in the economy. Investors act according to the news prevailing in the market and to policies put in place in the economy to make investment decisions. Bonga (2015) noted that an investor may use fundamental analysis or technical analysis or both in making investment decisions and this defines the investor’s risk appetite. Such information is revealed by volatility of returns, indicating how economic agents have reacted to the news and events announcements from policy makers. The graph below shows how economic agents have reacted to the happenings in the economy over the period.

Volatility of Stock Market Returns

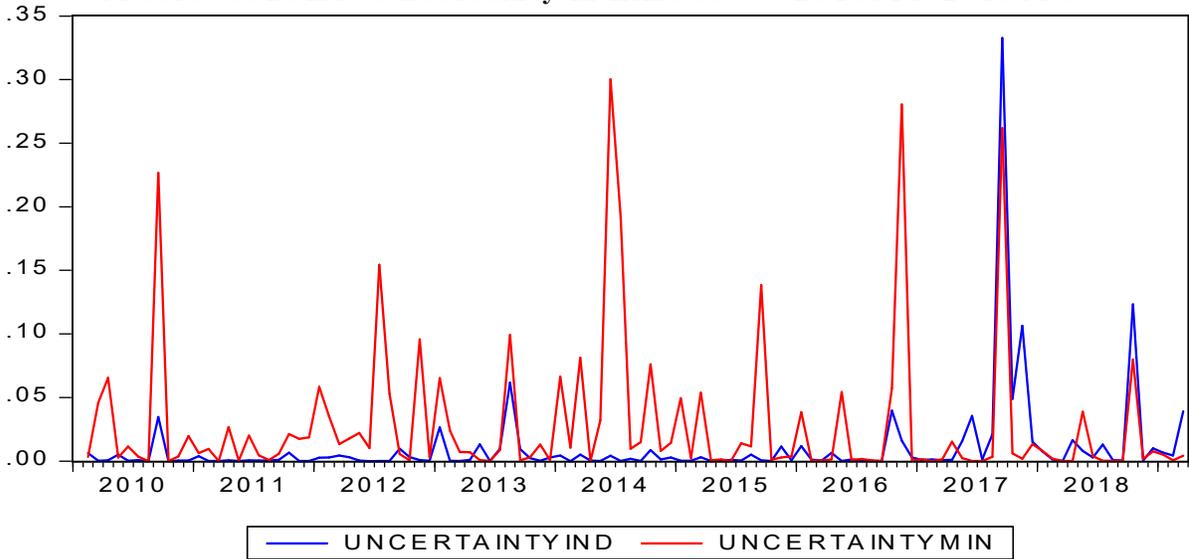


The above graph show the volatility of both the mining and industrial returns. The mining returns are more volatile than the industrial returns. For both trends there are both positives and negatives shocks shown. Some periods are associated with an exceptionally high level of uncertainty. The volatility is linked to uncertainty in the economy, and hence determines the impact of both good and bad news prevailing during that time. The volatility trends for both returns reveal almost similar behavior, however with the mining returns more responsive to news in the economy. This shows that the mining sector is more responsive to policies and events announcements in the economy.

Measuring the level of macroeconomic uncertainty in the economy is critical. The expected stock market volatility is a proxy. Macroeconomic uncertainty is calculated by squaring returns of the mining and industrial indices. Alternatively the measure of macroeconomic uncertainty is obtained by squared residuals of the GARCH (1,1) model of the mining returns and industrial returns equations.

The graph below shows macroeconomic uncertainty in Zimbabwe over the period;

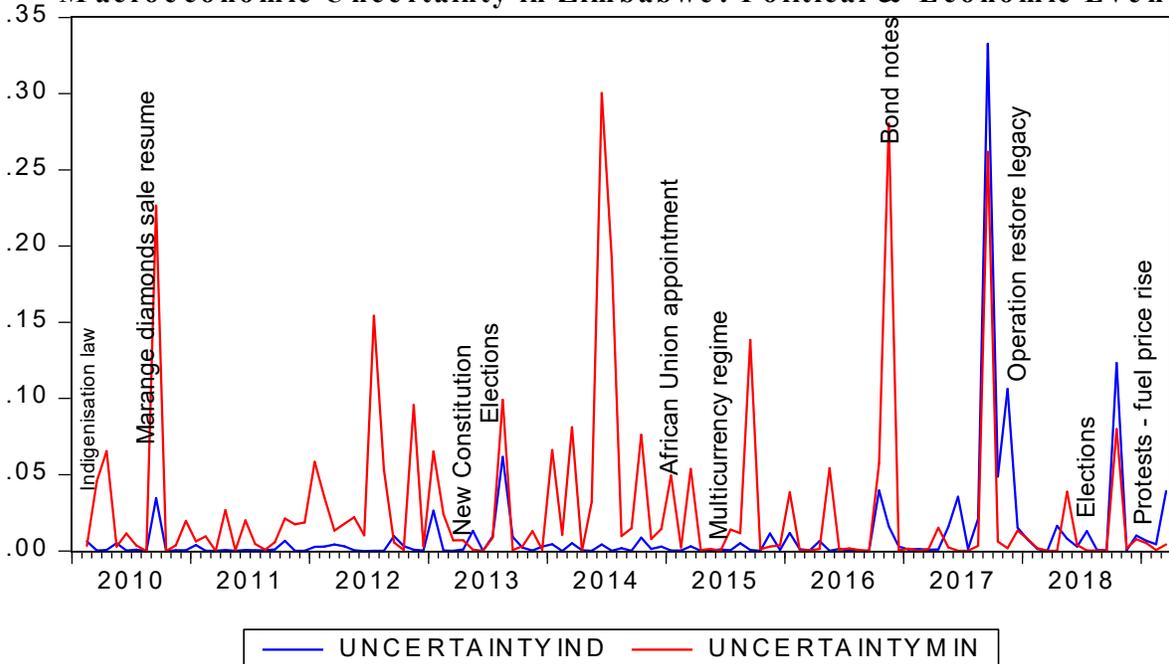
Macroeconomic Uncertainty in Zimbabwe: 2010M 1-2019M 3



The graph above shows levels of macroeconomic uncertainty as measured by derivations from both the mining index returns and industrial index returns. Macroeconomic uncertainty is significant as shown by spikes above the zero line, and hence prevails. Some periods are characterized by exceptionally high levels of uncertainty more than other periods. The mining index shows more uncertainty than the industrial index, with some periods converging to same levels of uncertainty. The significance of fluctuating macroeconomic uncertainty over the entire period is a sign of instability in the economy. Predicting the macroeconomic environment is a challenge to both local and international investors, and entirely all economic agents depending on their risk appetite. Evidence of the effect of uncertainty can be seen in the spending patterns, investment decisions, asset prices and policy choices (Haddow and Hare, 2013). There is greater need to check on the events that have resulted in high levels of uncertainty in the economy.

Major economic and political events in the economy have been traced and an effort to link with macroeconomic uncertainty made. As supported by Haddow and Hare (2013), to understand how changes in uncertainty affect the economy, it is important to recognize their source. Figure below shows the chronology of political, social and economic events linked to levels of macroeconomic uncertainty.

Macroeconomic Uncertainty in Zimbabwe: Political & Economic Events



The above graph shows macroeconomic uncertainty in Zimbabwe together with major and known political and economic events over the period. Worth to note is that, while there is an assumption that the mentioned events are linked to levels of macroeconomic uncertainty in the economy, there exist other contributory policies and events omitted, whose impact remains significant. As shown above, periods after elections in the economy have led to increased macroeconomic uncertainty. The two elections results were disputed, with the 2018 elections finalised with the Constitutional Court. The indigenization law that required 51% ownership of companies by indigenous citizens and the introduction of Bond Notes in 2016 by the Reserve Bank to beef up cash shortages was associated with increased macroeconomic uncertainty. The passing on of the new constitution in 2013, adoption of multicurrency in 2015, operation restore legacy in 2017 led to decreased uncertainty. Macroeconomic uncertainty increased after the public protests on fuel price that doubled, adding an additional cost of living. As noted by Haddow and Hare (2013), different types of uncertainty are likely to affect individual sectors of the economy differently and also have different degrees of persistence.

7. Conclusion and Policy Recommendations

Macroeconomic uncertainty measurement is critical for every economy to assess the operating environment for investment policy. There are no direct measures of uncertainty. Given the difficulty of providing direct measures, economists are forced to approximate the true level of uncertainties (Sheen and Wang, 2016). The study managed to measure macroeconomic uncertainty in Zimbabwe using stock market indices – industrial index and mining index. Macroeconomic uncertainty was proxied using the squared residuals of the GARCH(1,1) models of the returns series for the two indices. It has been observed that macroeconomic uncertainty has been present in the economy for the entire study period, with some periods having high levels of uncertainty. The mining index indicated high levels of uncertainty as compared to the industrial index - with some periods reporting same levels of macroeconomic uncertainty. Known social, economic and political events have been matched with levels of uncertainty to derive meaning. The study observed that favourable events and good policies in the economy have been associated with low levels of uncertainty, while controversial policies and bad events have matched with high levels of uncertainty.

Zimbabwe to attract credible and permanent investment, it should work on a number of issues to reduce the level of macroeconomic uncertainty. Krol (2018), indicated that a solution is for governments to commit to a set of rules that provides businesses with a predictable economic environment, reducing policy uncertainty (Krol, 2018). Government must recognize the importance of the right institutional and political framework for policymaking and work constantly toward improving it, so as to limit the scope for potentially damaging policy mistakes (Bonga, 2014). Complete policies should be put in place that cover every affected individual with fairness and equality. Quasi policies are never encouraged in developing world like Zimbabwe (Bonga, 2014). Economic collapse is not inevitable but if Zimbabwe is to avoid this outcome, the government needs to adopt policies to build international business confidence, support technocratic and entrepreneurial expertise at home as well as reaching out to a sizable and skilled diaspora population, encourage good governance and reduce inequality (Chitiyo and Kibble, 2014).

In conclusion, the level of macroeconomic uncertainty observed by the study posit an investment threat to the economy, and policies should be put in place to try and correct the macroeconomic environment. The climate is not that attractive in the eyes of the investors. Businesses are holding their efforts in business as the future is not certain. The economy should be decorated to attract investment, and boost confidence of the indigenous citizens. With increased uncertainty, households may save more by building buffer stock, and this decrease current consumption levels. It is crucial to understand these effects in order to determine the appropriate monetary policy response. Various measures may be put in place, and may include; resolving political issues by enabling free and fair elections, currency reforms to be implemented after stakeholder consultations, avoiding past mistakes in policy formulation and implementation, increasing commitment levels in policy implementation, credibility of policymakers to be corrected to enhance public support, among others. With these measures to correct uncertainty levels, economic agents will be able to plan and forecast ahead for their investments and other economic decisions. The economy becomes more attractive for long-term investment for an average risk taker, who is the majority. Otherwise, only few high risk takers will be in place as investors with no significant contribution to the macroeconomic objectives of the nation. Strong institutions are necessary for good investment climate, and corruption by government officials addressed.

References

- [1]. Bachmann, R., S. Elstner and E.R. Sims (2013), “Uncertainty and Economic Activity: Evidence from Business Survey”, *American Economic Journal: Macroeconomics* 5, 217–249.
- [2]. Baker, S.R, Bloom, N. and Davis, S.J. (2013). *Measuring Economic Policy Uncertainty*. The Centre for Economic Performance, Economic and Social Research Council, London.

- [3]. Bloom, N. (2009), “The Impact of Uncertainty Shocks”, *Econometrica* 77, 623–685.
- [4]. Bonga, W. G (2014). Economic Policy Analysis in Zimbabwe: A Review of Zimbabwe Economic Policies: Special Reference to Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET). Social Science Research Network, <http://ssrn.com/abstract=2384863>
- [5]. Bonga, W. G (2014). Planning to Fail: An Analysis on Economic Planning Failure in Developing Countries. Social Science Research Network, <http://ssrn.com/abstract=2524857>
- [6]. Bonga, W. G (2015). The Need for Efficient Investment: Fundamental Analysis and Technical Analysis. Social Science Research Network (SSRN), <https://dx.doi.org/10.2139/ssrn.2593315> .
- [7]. Bonga, W. G (2016). An Explanatory Analysis of Components Constituting Economic Policy Success in Zimbabwe. *Dynamic Research Journals - Journal of Economics and Finance*, Volume 1, Issue 1, pp: 07-12.
- [8]. Carriero, Andrea, Todd E. Clark, and Massimiliano Marcellino, 2017. “Measuring Uncertainty and Its Impact on the Economy,” Federal Reserve Bank of Cleveland Working Paper, no. 16-22R.
- [9]. Chigumira, G., Chipumho, E., and Chiwunze, G. (2018). An Assessment of the Macroeconomic Policy Formulation and Implementation Processes in Zimbabwe. *Zimbabwe Economic Policy Analysis and Research Unit*, ISBN: 978-1-77906-371-7.
- [10]. Chitiyo, Knox and Kibble, Steve (2014). Zimbabwe’s International Re-engagement: The Long Haul to Recovery. Chatham House Report, The Royal Institute of International Affairs.
- [11]. Christou, C., Gozgor, G., Gupta, R., and Lau, C-K. M. (2019). Are Uncertainties across the World Convergent?. University of Pretoria, Department of Economics, Working Paper Series, Working Paper: 2019-07.
- [12]. Export.gov (2017). Zimbabwe – Market Challenges. International Trade Administration.
- [13]. Grimme, Christian and Stöckli, Marc (2018). Measuring Macroeconomic Uncertainty in Germany. *CESifo Forum* 1, Volume 19, pp. 46 – 50.
- [14]. Haddow, A and Hare, C (2013). Macroeconomic Uncertainty: What is it, how can we measure it and why does it matter? *Quarterly Bulletin*, Q2.
- [15]. Harin, Alexander (2006). Economic Uncertainty Principle? HAL Id:halshs-00090791.
- [16]. Jurado, K., S.C. Ludvigson and S. Ng (2015), “Measuring Uncertainty”, *American Economic Review* 105, 1177–1216.
- [17]. Kaya, Orçun (2018). Economic policy uncertainty in Europe: Detrimental to capital markets and bank lending. Deutsche Bank Research, Germany.
- [18]. Krol, Robert (2018). Does Uncertainty over Economic Policy Harm Trade, Foreign Investment, and Prosperity? Mercatus Research, Mercatus Center at George Mason University, Arlington, VA.
- [19]. Moore, Angus (2016). Measuring Economic Uncertainty and Its Effects. Research Discussion Paper, Reserve Bank of Australia.
- [20]. Soric, P. and Lolic, I. (2017). Economic uncertainty and its impact on the Croatian economy. Croatian Science Foundation, Project No. 3858.
- [21]. Wong, K., Ng, P. and Cheng, M. (2017). Measuring Economic Uncertainty and its Effect on the Hong Kong Economy. Research Memorandum 11, Hong Kong Monetary Authority.
- [22]. World Bank (2014). Republic of Zimbabwe - Zimbabwe Economic Policy Dialogue: Policy Notes for the New Government – 2013. Discussion Document, Report No: ACS13915.