Crime and Economic Growth Nexus in Zimbabwe

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Abstract: This study sought to determine the causes of crime upsurge, despite having a positive economic growth in Zimbabwe. Yearly secondary data for the period 2008 to 2018 of armed robbery and economic growth were used. The study adopted mixed method research approach, where sequential explanatory research design was used. Normality test was adopted using the Jarque-Berra Test Technique, before the Correlation Matrix Test Technique was adopted to determine the association between the variables. The study revealed that association between armed robbery cases and economic growth in Zimbabwe is inverse. Basing on the quantitative research approach results, the study adopted qualitative research approach, where interviewing method were used to determine the causes of armed robbery cases in Zimbabwe. The study found that having access to dangerous weapon access to dangerous drugs, unemployment, social economic inequalities, lack of self-control, inadequate support systems non-sound financial system contribute to the commission of armed robbery cases in Zimbabwe. The study recommended that Zimbabwe policy makers, revisit its community policing initiatives, by adopting the latest means of technology to enhance policing of armed robbery cases. Advocating for stiffer penalties on crimes involving laws on possession and use of firearms and other dangerous weapons, that a mandatory custodial sentences for breaching any legislation that governs the possession and use of firearms be introduced, continuous training on police officers on new methods criminals have adopted in the commission of armed robbery cases and drug abuse. Ensuring that a sound financial system exists so as to eliminate the existence of illegal foreign currency dealing, thus enhancing target removal strategies.

Keywords: Correlation, Armed Robbery, Economic Growth (GDP), Normality

1.1. INTRODUCTION

Theory posits that economic growth results in the decrease in crimes (Burnham, Feinberg & Husted, 2004). The limitations of this statement is embroiled in the blanketing of all crimes to have an inverse relationship with economic growth. Empirically, the number of cases of armed robbery are increasing despite increased economic growth in Zimbabwe. This raises questions as to whether, it is, reminiscent to the new-normal which is invalidating economic theory that has been guiding economics literature for long. This paper, therefore, seek to determine the relationship between armed robbery cases and economic growth in Zimbabwe, with the view of coming up with recommendations that would enhance reduction of armed robbery cases.

2.1. BACKGROUND TO THE PROBLEM OF THE STUDY

Violent crimes of robbery have been on the increase as they now occur daily in every town or city or even in rural areas in Zimbabwe (Mphisa, 2019). As a result people have lost their lives, property and the business fraternity have not been spared either. Some sources of spikes in armed robberies were pronounced in the mining areas of Mashonaland and Midlands provinces (Mining in Zimbabwe, 2019). There have been violent terror groups who gave themselves different names, such Ma Shangwe, Ma Shurugwi, Ma Ziga, Ma Kwekwe, who were moving in groups armed with machetes, knives, catapult, and axes. They recklessly attack their victims in search for money and other valuables like gold and cellphones.

The Zimbabwe Republic Police which is mandated by section 219 of the Constitution of Zimbabwe Amendment Number 20 to enforce and protect the society from violent crimes made frantic efforts to arrest the tide, with success (Dube, 2018). Some of the cases were sporadic, where criminals targeted business entities in hunt of the United States Dollars which the country adopted during dollarization era. The tide seemed to have continued even post- dollarization period. Figure 2.1 below depicts GDP data trend for Zimbabwe.

According to information depicted in Figure 2.1, there seem to be an upward trend in economic growth for the period analysed. Infact, GDP at current price was used, which is the sum of gross value added by all resident producers in the economy and any product taxes, less any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets. Data are in current United States dollars. Dollar figures for GDP were converted

Figure 2.1: Real GDP for Zimbabwe (Adapted from Global Economy Database, 2019)


for domestic currencies using simple year official exchange rates. Figure 2.2 below depicts armed robbery data trend for Zimbabwe.

Figure 2.2: Armed Robbery cases for Zimbabwe. (Adapted from Zimbabwe Republic Police Crime Statistics Database, 2019)
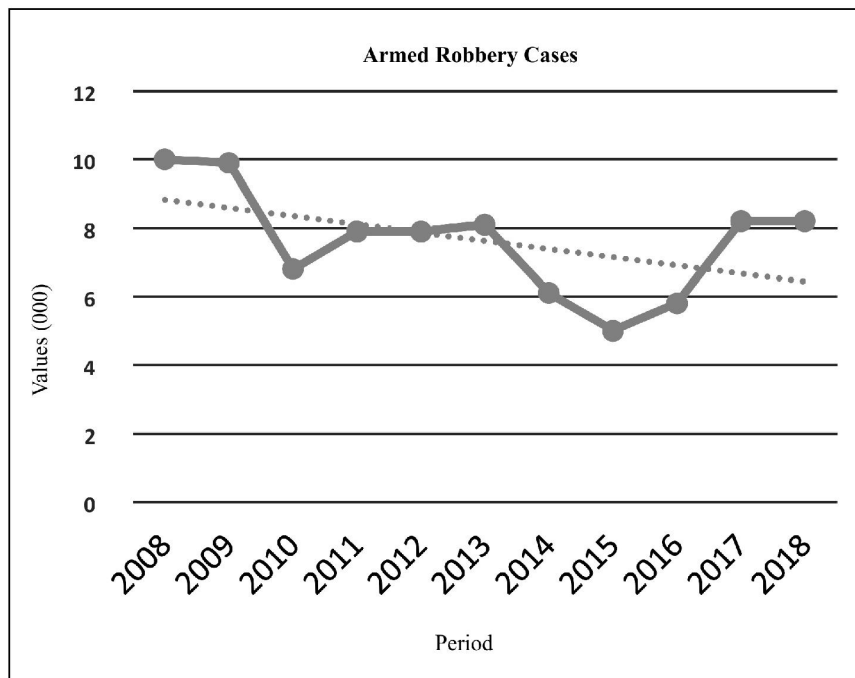
The data on cases of armed robbery depicts a random walk, with an implied downward trend as shown by the trend line. Figure 2.3 depicts data trends for the two variables for comparison basis.

Figure 2.3: GDP-Armed Robbery Cases Data for Zimbabwe. (Adapted from World Bank and Zimbabwe Republic Police Crime Statistics Database, 2019)
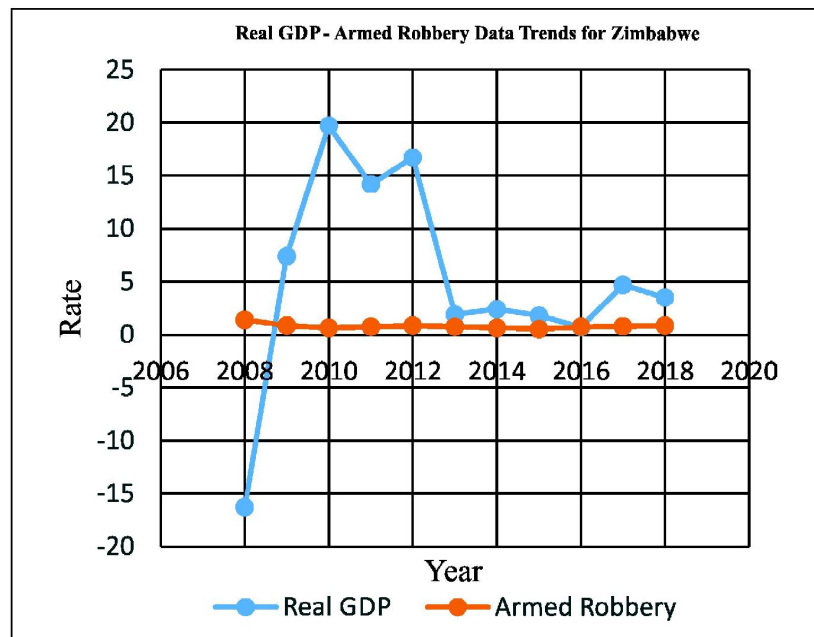
The information depicted in Figure 2.3 suggest that economic growth (GDP) and armed robbery cases association is not clear. However, the dotted lines shown in Figure 2.1 and 2.2 suggest an opposing trends, with GDP and armed robbery cases depicting a downward trend. Given this information, this study, seek to determine the relationship between armed robbery cases and economic growth (GDP) in Zimbabwe, with the view of coming up with recommendations that would enhance reduction of armed robbery cases. The following section looks at some studies which were carried out in different countries related to this study.

3.1. REVIEW OF RELATED LITERATURE

A number of empirical studies have been conducted to understand the determinants of crime, and these includes the works of Dreze & Khera, (2000); Sharma, (2011);

Fajnzylber et al., 2002a, 2002b; Pridemore, 2011 in cross country context. Most of the published literature focused on the determinants of crime. However, crime as one of the determinants of economic growth largely remains neglected in macroeconomic frameworks (Detotto & Otranto, 2010).

In a study done on the relationship between GDP per capita and crime rates from the US Department of Justice at the state level during the recession from 2007 until 2010, the findings concluded that those states hit hardest by the recession had the biggest drop in crime rates (The Economist, 2011). In other words, crime rates decrease in those states experiencing bad economies. In a different study, Roman (2013) conducted research to examine the relationship between GDP and violent and property crime rates from 1960 until 2013. He begins by outlining the difficulty in testing the hypothesis that big macroeconomic factors explain crime trends. He found out that crime obviously affects macroeconomic factors as well as being affected by them, thus, causing an interdependent relationship among the two.

Looking on the paradigm context, Becker (1968) provides economic rational to criminal activities. Criminals respond to economic incentives in the same way as the law-abiding citizens do. This model predicts that law enforcement depends on the probability of detection of a crime and severity of the punishment. Likewise, Ehrlich (1973) models the participation of individuals in non-market, legal and illegal activities, and predicts an unspecified effect of crime on economic development. Moreover, he finds that inequalities increase the level of crime.

Besides, the aforementioned studies, some contributions have theoretically tried to establish the relationship between crime, growth and development (Bourguignon, 2001; Fajnzylber *et al.*, 2002a, Mauro & Carmeci, 2007) and some studies quantify economic and social cost of crime for different countries [Australia (Mayhew, 2003); France (Palle & Godefroy, 2000); the United Kingdom (Brand & Price, 2000); New Zealand (Roper & Thompson, 2006); the United States (Miller et al., 1996); Italy (Detotto & Pulina, 2012); for some Latin America States (United Nations, 2007) and Colombia (Poveda, 2012)]. Overall, the econometric results show that crime leads to a negative effect on real per capita output and employment.

A World Bank study, using a sample of 43 countries for the period of 1975-2000, found a strong negative relationship between crime and growth even after controlling for human-capital accumulation and income inequality (World Bank, 2006). Similarly, Cardenas (2007) finds a significantly negative association between crime and percapita output growth in a panel of 65 countries using homicides data for 1971-1999. Moreover, time-series studies (Dettoto & Pulina 2009; Dettoto &

Otranto, 2010) using single country data also find a negative association between crime and income levels.

However, study by Chatterjee and Ray (2009) based on a large cross-country sample for the period of 1991-2005 and controlling for human capital and institutional quality, find no strong evidence of a uniformly negative association between crime and growth. This result is in line with a study using US county level data which found no clear connection between central city crime and per capita income growth (Burnham *et al.,* 2004).

It can be understood from the reviewed studies that the relationship between crime and economic growth is rather inconclusive. Infact, it would be rightfully put to say, the relationship is peculiar to country specific. This study, therefore, sought to disentangle crime to individual crimes. The study goes further to use a sequential explanatory research design which is more informed than other designs when policies and or strategies are to be recommended. To that end, this study seeks to determine the association between armed robbery cases and economic growth in Zimbabwe using a quantitative research approach. The study further probes for the strategies that seeks to reduce cases of armed robbery using qualitative research approach, basing on results quantitatively determined.

4.1. MATERIALS AND METHOD

4.1.1. Sample of the Study

The sample comprises of data for real GDP and Armed Robbery Cases in Zimbabwe. The data covers period 2008 to 2018. The period was chosen on that basis that it gives the dynamic social-economic environment relevant for this analysis.

4.1.2. Data Sources

Data for the study were collected from Zimbabwe Republic Police, in respect of Armed Robbery Cases and World Bank in respect of real GDP data.

4.1.3. Methodology Adopted

This section explores the methodology applied in the study to determine the association between armed robbery and economic growth in Zimbabwe. This study, therefore, adopted a correlational Matrix technique. (Shin & Smith, 2001) argue that it is a bivariate analysis that is used to measure the strength of the association which tend to exist amongst two variables as well as the direction of the relationship. Eviews

Version (8) Statistical Package was used. As has been alluded to in the background of the study, the results of the correlation analysis were used to structure the interview guide that was used to obtain information regarding strategies that can be adopted in reducing cases of armed robberies in Zimbabwe. This research paradigm is reminiscent to researches where mixed method is chosen and sequential explanatory research design adopted. Which was the case for this study. We start by presenting results of the quantitative research phase, followed by findings of the qualitative phase.

5.1. DATA ANALYSIS AND INTERPRETATION OF RESULTS: QUANTITATIVE RESEARCH PHASE

This section focuses on the empirical estimation, presentation and economic interpretation of the results carried out using the methodology highlighted in the previous section. The analysis of results is centered on the data normality and correlational results.

Diagnostic Test Result

(a) Normality Test

Table 5.1: Descriptive statistics result of armed robbery and real GDP data for Zimbabwe for period 2008 to 2018

	Real GDP	*Armed Robberies*
Mean	5.154545	7,927273
Median	3.500000	7,600000
Maximum	19.70000	1,400000
Minimum	-16.30000	0,530000
Std. Deviation	9.717239	0,222894
Skewness	-0,536530	-0,072487
Kurtosis	3.476927	2,156897
Jarque-Bera	0.632004	0,335426
Probability	0,729058	0,863421

Source: Secondary data: Eviews Version 8 Statistical Package Output

Armed Robbery (Firearm)

Table 4.1, result on armed robbery reflects a mean of 7.927273 with a standard deviation of 0.222894. The table also depicts a median of 7,600000, which shows

that the median is closer to the mean though smaller than the mean. Skewness of the data is -0, 072487 which is greater than -0.5 and below 0.5 which indicate that the distribution is approximately symmetric. A kurtosis of 2,156897 was recorded, suggesting that there are no outliers. On the Jarquea Bera, a probability value of 0,863421 was recorded, implying that data for armed robbery cases are normally distributed.

Economic Growth (GDP)

Table 5.1, result on real GDP reflects a mean of 5.154545 with a standard deviation of 9.717239. The table also shows a median of 3.500000, which suggesting that the median is closer to the mean though smaller than the mean. Skewness of the data is -0, 436530 which is greater than -0.5 and below 0.5 suggesting that the distribution is approximately symmetric. A kurtosis of 3.476927 was recorded, suggesting that there are no outliers. Jarquea Bera, a probability value of 0.729058 was recorded, implying that data for GDP are normally distributed.

(b) Correlation Test

Table 5.2: Correlational Matrix Test Technique Results of armed robbery and real GDP data for Zimbabwe for period 2008 to 2018

	Real GDP	*Armed Robbery*
Real GDP	1,000000	-0,620124
Armed Robbery	-0,620124	1.000000

Source: Secondary data: Eviews Version 8 Statistical Package Output

Results in Table 5.2 shows that economic growth (GDP) and armed robbery have a relatively strong negative association as shown by a value of -0, 620124. This implies that when there is an expansion in economic growth, armed robbery cases tend to contract. However, the correlation coefficient given the relationship is not permanent since the figure is relatively far from 1 and -1 for strong association to exist. It follows, therefore, that the remaining 0.379876 explains the possibility of armed robbery being associated with other variables other than economic growth, and or the association can be positive. To that end, the study considered these results in the qualitative phase. According to the results above, simple logic indicates that in good economic conditions, criminal activity should decrease. The better a country's economy means more jobs created, less unemployment, improving income levels

and consequently less criminal activity. However, this does not always happen. The opposite is true where criminal activity tends to increase although at the time of good economies.

6. DATA ANALYSIS AND INTERPRETATION OF FINDINGS: QUALITATIVE RESEARCH PHASE

Some interviews that were conducted were concerned on the 0.393257 implied correlation coefficient that other tan improved economic growth, people still commit armed robberies. The interviews sought to determine the reasons why people commit armed robberies, as well as the possible strategies that can be put in place to reduce cases of armed robberies. The following responses were obtained guided by content and thematic data analysis approaches:

- having access to dangerous weapon
- having access to dangerous drugs
- prevailing unemployment
- social economic inequalities
- lack of self-control
- inadequate support systems
- Sound financial system

Basing on the findings stated above, the study presented the following conclusion and recommendations.

7. CONCLUSION AND POLICY RECOMMENDATIONS

This study concludes that economic growth is not the ultimate indicator determining the occurrence of armed robbery cases. In fact, there are some other factors that cause people to commit cases of armed robberies. It follows, therefore, that strategies that seeks to reduce cases of armed robberies should consider some other factors which are independent of the growth of an economy. In that regard, the economic theory apropos economic growth-crime association seem to be shaky, and the new-normal, thus, being that economic growth-crime association can be either way.

This paper, therefore, recommends that policy makers in the Zimbabwe Republic Police, revisit their community policing initiatives, by adopting the latest means of technology to enhance policing of armed robbery cases. They should engage the government on that, laws on possession and use of firearms and other related

weapons be stiffer, and that custodial sentences be mandatory for breaching any legislation that governs the possession and use of firearms. Police officers be continuously trained on new methods criminals have adopted in the commission of armed robbery cases. Drug abuse cases be treated the same as those involved in armed robberies. Sound financial systems that seeks to eliminate illegal money changers be put in place, thus enhancing target removal strategy.

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