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Investigating the Impact of Social Security on Economic Growth: Ghana as a Case Study

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Abstract

In recent years, retired workers eligible for social security receive their emoluments from the appropriate regulatory agency and this provides more realistic evidence on the better living standard of the aged (retirees) under the scheme. Empirically, this paper examines the impact of social security on economic growth in Ghana using time series secondary (monthly) data ranging from 2000 – 2018. The author answers in two questions: 1) how significant are pensioners benefit payments dependent on economic growth and also, 2) how business environmental policy is contributing to economic performance as far as pensioners well-being are concerned. Using STATA analytical software, the findings show a positive significant relationship between social security and economic growth. The study concludes by outlining appropriate policy measures to help strengthen the current social security scheme in Ghana.
Keywords: Social security; Economic growth; Multiple linear regression; Ghana.

1. Introduction

The need for financial provision for the aged and retired persons attracted essential attention of the Government of Ghana eight years after gaining independence. Hence, the need to guarantee pensioners brighter future retirement package led to the introduction of the Social Security Scheme in 1965. The historical evolution of the program was not related to any political system but rather cut across all nations. For instance, Emperor William's German state introduced such a national pensions system for the first time in the 1880s. Also, the United Kingdom in 1908, Sweden in 1913, King Alfonso XIII's Spain created a similar package in 1919, The United States under President Roosevelt in 1935, Emperor Ito's of Japan in 1941, Mexican General named Avila-Camacho in 1943, Argentina under General Peron in 1946 and many others signed into law such social insurance program designed to pay retired workers a continuing income after retirement. This unique package suggests that resources are transferred from the young to the old giving present generations the incentive to make investments that will benefit future generations (Rangel and Zeckhauser, 2001). But as cited by Van Ginneken (2007), the initiative on strengthening the security is to promote coverage in social security and develop such programs worldwide. Currently, Ghana's allocation of pensioners' benefits package had not been favorable because of the lapses in facilitating newly retired workers benefit payment on time. In a nutshell, the study explores social security impact and how its regulatory policy contributes to economic growth in Ghana. Globally, about 95 percent of persons aged 20 to 49 who worked in jobs covered by social security in 2018 earned life insurance protection through social security while 87 percent of persons aged 21 to 49 who worked in covered employment in 2018 were insured through social security in case of severe disability (Hemerijck, 2018). Currently, Ghana's retirement benefits scheme faces a lot of challenges and the major problem is the increasing cost of benefits growing more than the growth rate in contribution received and also, the non-performance of investments. But the rationale behind such a social package is to ensure a better and brighter future of the retired worker and the society as a whole. It is for this reason that the study empirically investigates the impact of social security on national economic growth in Ghana. The primary objective of the research is to investigate whether there is a significant relationship between social security and economic growth in Ghana. Additionally, the study seeks to measure the trend of retirement benefit in Ghana from 2000 – 2018 and also, explore the level of significance pensioners benefit payment have on economic growth in Ghana. This study seeks to answer the following two questions: firstly, how significant are pensioners benefit payment dependent on economic performance? Secondly, are regulatory policies contributing to economic growth as far as retired workers benefit payment are concerned? Furthermore, the study seeks to address key hypothesis areas.

H0: There is no significant impact of Pensioners benefit payment on economic growth in Ghana?

H0: Regulatory policy does not contribute significantly to economic growth in Ghana?

2. Literature Review

Theories of social security can be partitioned into two broad categories: a) Political Theory and b) Efficiency Theory.

2.1. Political Theory

Mulligan and Sala-i-Martin (2004), model a political competition between the young and old. Both researchers argued that an important ingredient in the competition for each group is the time allocation of its members. The theory views social security as redistribution in the form of a political struggle. That is, to illustrate their hypothesis: groups whose members work less are more successful. Such justification is that people who do not work have a smaller amount of political issues to worry about and as a result, they concentrate their efforts on getting a pension or a transfer from the other group. Clearly, social security affects retirement by allowing the aged to afford a life of leisure and also, reducing the pecuniary gain to working during old age. Another political reason is taxpayer protection where taxes and other spending policies favor the elderly in giving up their jobs for early retirement (with the purpose of managing the unemployment problem among the young or raising wages for the young). Lastly, citing the theory as a political outcome in a democratic voting process where the prize for the elderly voting is a pension. This predicts that the size of social security increases with the fraction of the population that is elderly and with income inequality (Browning, 1979; Tabellini, 2000). This justifies why the social security program was introduced by the government and consistent with the fact the scheme is unrelated to whether the beneficiary is disabled and with the benefits of the fact take the form of annuities.

2.2. Efficiency Theory

Again, Mulligan and Sala-i-Martin (2004) discuss and explain how social security program might be created to alleviate poverty among the elderly. Typically, although not always, this theory explains why it must be the government who administers a social security program. These criteria include social security as elderly welfare. Here, the theory bases on the idea that the market fails to alleviate the poverty of the old and as a result, the government steps in to create a social security program that addresses this menace. The second point explains that induced retirement enhances efficiency. Both authors argued that social security was designed as a mechanism to influence the elderly to retire because aggregate GDP is larger if the elderly don't work than if they do. The third supporting case is where social security was viewed as retirement insurance where for instance, human capital depreciates with age so the elderly tend to have less than average human capital. Therefore, this serves as an incentive to induce the aged to work less or better still retire. Another point is the myopic prodigality which explains that people make mistakes when they are young and they save too little. Diamond (1977) supports this point by suggesting several reasons: people lacking information, unable to make effective long term decisions and failure to give sufficient weight to future decisions. Other salient points raised includes social security serving as return on human capital investment, economies of scale in administration costs on the part of the government, and many others.

Figure-1. Conceptual Framework: Political and Efficiency Theories
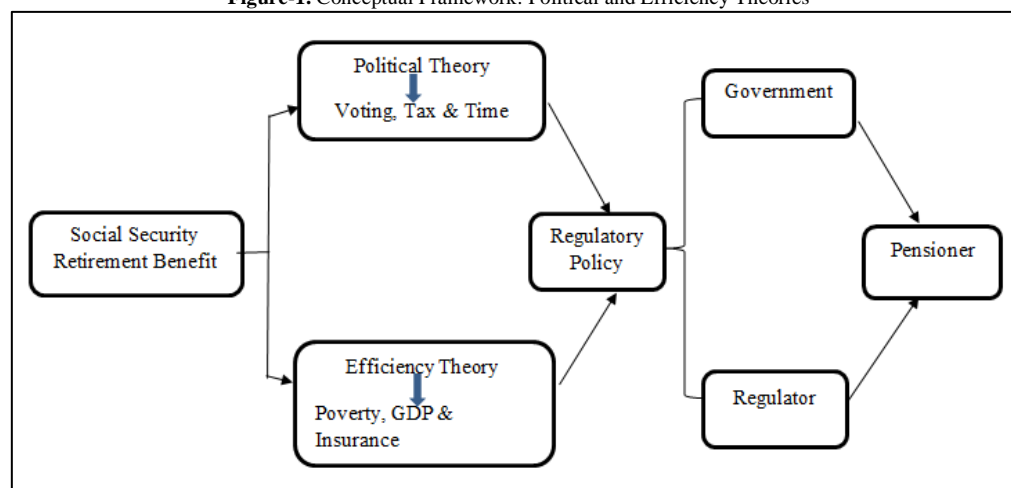
Source: Author's model developed from the concept on Political and Efficiency Theories, 2019.

From the above-mentioned theories, it's paramount to express an unqualified opinion on the subject matter taking into account the essential benefit of the scheme. The truth is that social security offers more than just retirement benefits. It does not benefit only the eligible worker(s) but also the entire family members. For example, disabled persons and survivors (spouse and children) of deceased persons enjoy a similar package with medical care from the social security benefit.

Generally, both theories highlight the principal need for the establishment of retirement benefits in ensuring longevity and better investment (saving) portfolio for retired workers. On the other hand, regulatory agencies should be up and doing as far as compliance and timely payment of retirement benefits to pensioners are a concern. Through efficient enforcement of the policy, SSNIT (regulator) will be in the best position to pay retirement benefits on time.

On this premise, the study investigates how significant social security benefits payment impact on economic growth in Ghana.

2.3. Definition of Social Security

International Labour Organization (International Labour Organization, 2011) define Social Security as protection which society provides its members through a series of public measures against the social and economic distress that otherwise would be caused by the stoppage or substantial reduction of earnings resulting from sickness, maternity, employment, unemployment, invalidity, old age and death, medical care and provision of subsidies for families with children. According to Scherman (2000), the concept is a global issue because it protects us against work and life risk, namely; old age, disability, healthcare, and unemployment. In other research, social security protects the aged from poverty and improve the standard of living of retired workers (Feldstein and Liebman, 2002). Feldstein and Liebman (2002), gave an empirical opinion on issues in South African by elaborating that the concept is a sustained improvement in the living standards of citizens against old age, illness, and unemployment. Lastly, studies on social security in Ghana revealed that the scheme immensely provided social and economic support to various family members at the appropriate time of need (Kumado and Gockel, 2003).

3. Overview: Ghana's Economic Performance and Social Security
## 3.1. Structure of Economic Performance

Ghana is an independent state located on the Atlantic Ocean towards the west side of Africa and consisting of 16 regions. The country is bordered by the north, Burkina Faso; south, the Atlantic and Gulf of Guinea, east, Togo; and west by the Ivory Coast (Decker, 2008). Also, Ghana has an estimated population of 30 million and ranked 46th in the world. In addition, the country attained an economic growth rate of 6.3 percent (2018), 5.7 percent in the second quarter of 2019, and a positive trade balance of US$1.64 M (2018). On the other hand, the growth of government expenditure over the years had taken a sharp increase in the share of government spending in the overall national income throughout the world. As cited by Roubini and Sachs (1989) the structure of government expenditures has shifted away from the provision of traditional collective goods (public administration, defense, and economic services) towards those associated with the growth of the welfare state (health, education and income maintenance). This affirms that government spending (expenditure) is a useful economic policy tool for every economy. Government spending can be financed by government borrowing or taxes. Changes in government spending is a major component of fiscal policy used to stabilize the macroeconomic component of every economy. Unfortunately, the rising government expenditure has not translated into meaningful growth and development as far as Ghana is concerned. Fiscal performance for the first half of 2019 showed an overall budget deficit of 3.3 percent higher than the target of 2.9 percent of GDP. Mainly, this is due to the revenue shortfalls of 1.6 percent of GDP higher than expenditure cuts of 1 percent of GDP.

Figure-2. GDP Growth (annual %) in Ghana: 2000-2018
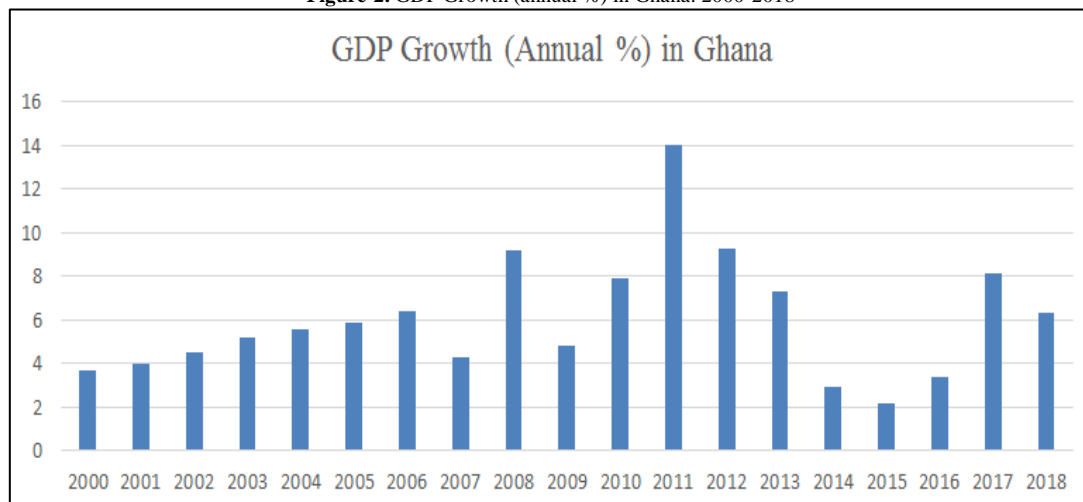
Source: World Bank

**Figure-3.** Total Government Expenditure in Ghana: 2000-2018
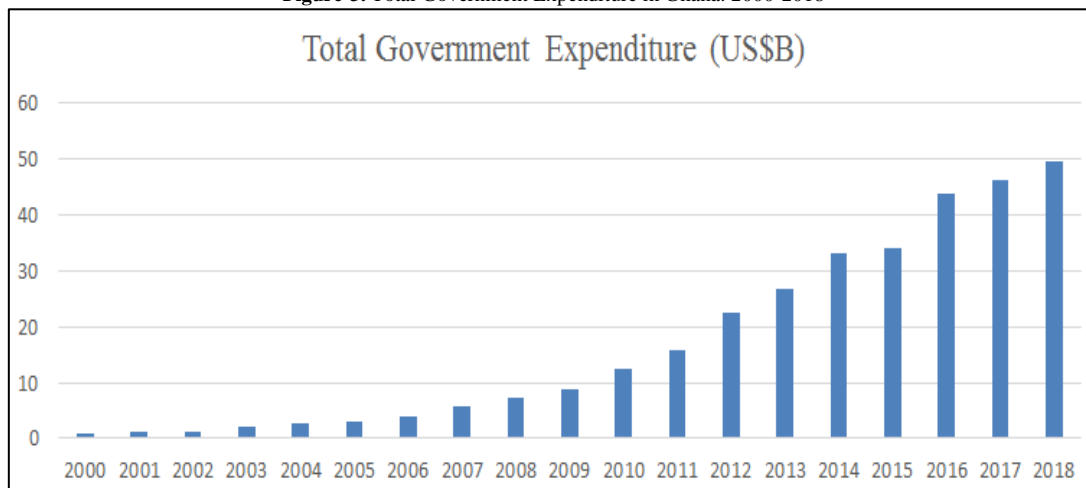
Source: World Bank

3.2. Social Security Scheme

Ghana's Social Security and National Insurance Trust (SSNIT) is a statutory public trust tasked under the National Pensions Act, 2008 (Act 766) to cater for the first tier of the three-tier pension scheme through excellent business practices. It consists of three broad programs; namely, the old age, disability, and medical benefits. Over the years, the scheme had catered for workers upon retirement, injury and also, replaced part of the lost income of workers in the country. Furthermore, the key features of Act 766 mandates all workers in the formal sector and optional for self-employed in the three-tier category: Tier One (1) fund contribution is managed by SSNIT. Tier two (2) fund contribution is privately managed by the occupational scheme and Tier three (3) is a voluntary fully funded privately managed provident fund and personal pension plan. Significantly, the contribution rates under the fund/scheme are as follows: Employer – 13% from worker basic salary, Employee – 5.5% from workers' basic salary. Total fund contribution is 18.5%; out of which 11% is going to Tier 1.5% goes to Tier 2 and 2.5% goes to National Health Insurance Authority (NHIA) for member's health insurance. The scheme entry age is 15 years (minimum) and 45 years (maximum) only for new entrants (age 45+ can enter mandatory Tier 2). The exempted age from joining the scheme is 55 years and above. The qualifying conditions for such scheme include: a) qualifying period is for 180 months (15 years); b) Survivors benefits payment period is for 15 years; c) Underground Miner to retire at age 55 (Hazardous employment benefit), and d) Must be between 50 and 60 years to benefit. However, the scheme exempts the following people by law from joining: members of the Armed Forces, the Police Service, National Fire Service, and the Prison Service; Foreigners in the diplomatic missions; and senior members of the universities and research institutions (Kumado and Gockel, 2003). In a nutshell, Ghana's social security trust fund paid over Ghs1.7 billion to more than 200,000 pensioners on the pension payroll as at July 2019 and also, the largest non-banking financial institution in Ghana (Neequaye, 2019).
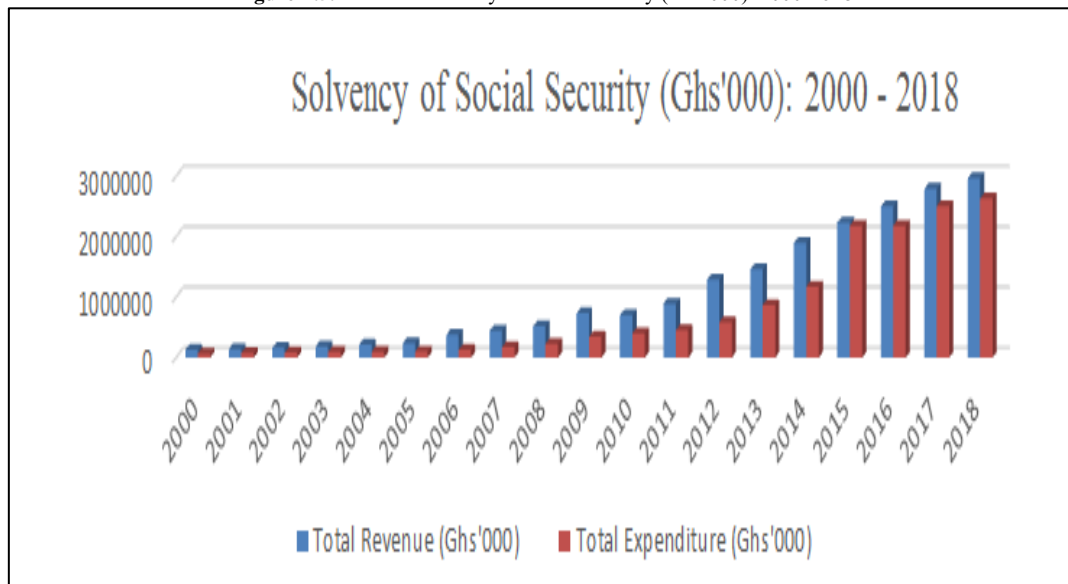
Figure-4. Trend of Actively Registered Pensioners in Ghana: 2000-2018
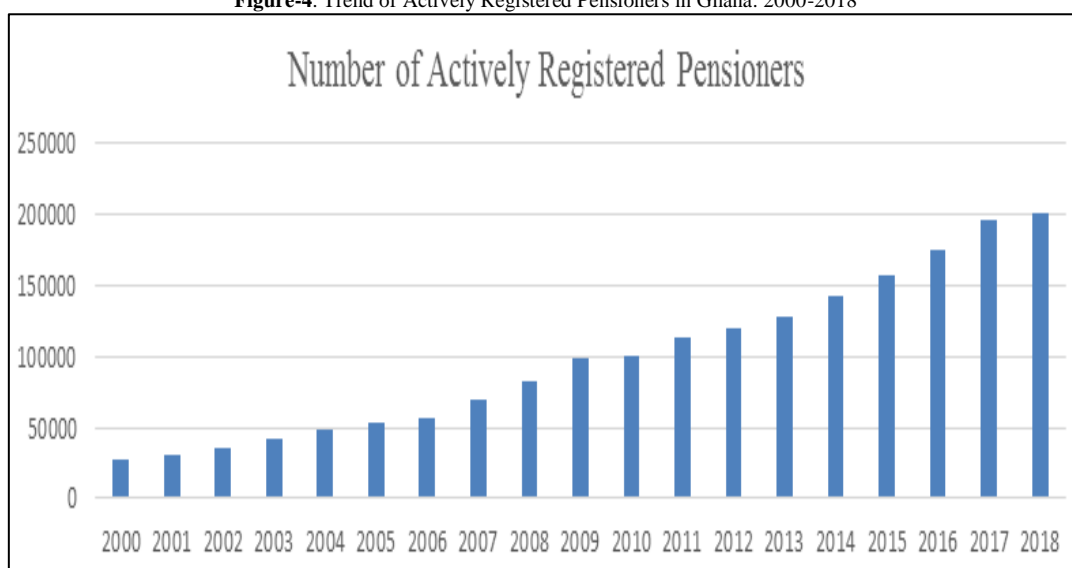
Source: SSNIT Annual Report, 2018

Figure-5. Trend of Contributions Collected and Benefit Payment (Ghs'M): 2000-2018
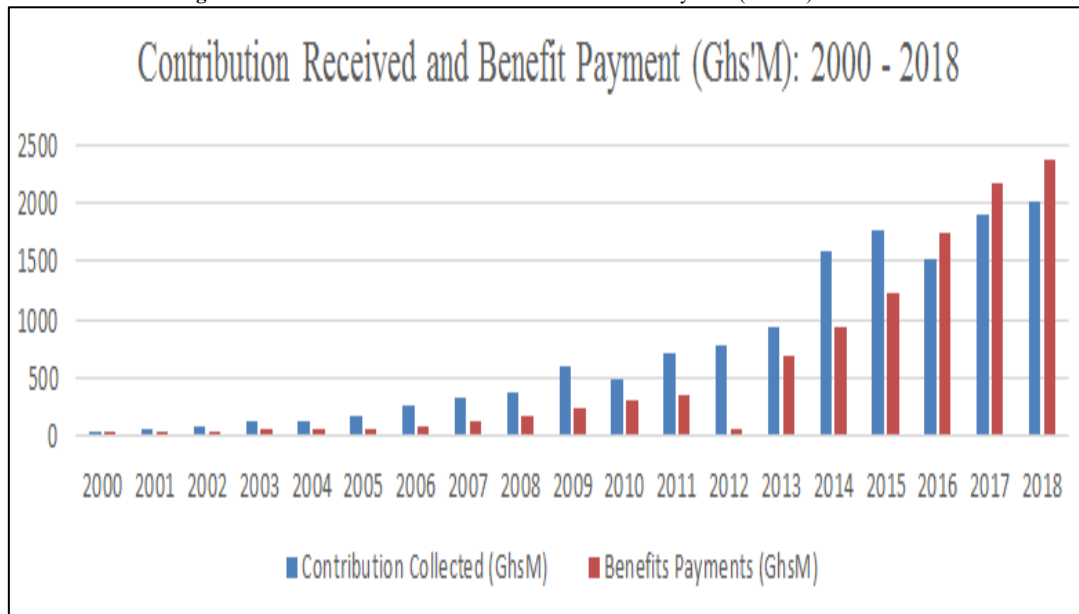
Source: SSNIT Annual Report, 2018

Figure-2.5. Trend of Solvency in Social Security (Ghs'000): 2000-2018

Source: SSNIT Annual Report, 2018

3.3. Reasons for the Establishment of Social Security

Globally, the concept was designed to provide basic economic security and welfare of individuals and their dependents. Among the core purposes for the establishment of the scheme includes the following: Firstly, social security guarantees workers and their families the needed financial support at future date. Secondly, the scheme serves as an insurance package for the aged when he/she runs out of cash support. Also, it promotes a better standard of living among pensioners. Moreover, the scheme serves as a replacement tool / perfect substitute at the peak of one's career. Lastly, there is security in the labour force (productivity) and sustainability in national income.

3.4. Problems Associated With the Scheme

A number of fundamental problems had been associated with Ghana's social security scheme and below are some points. The first issue is investment areas. The inability of administrators of the scheme's to invest contributors fund into lucrative ventures had been a major problem and this consequently affects the scheme inability to meet pensioners' claims upon retirement. Secondly, the low coverage of the informal sector. The primary concentration is on the formal sector and this is due to the lack of understanding of the scheme among the working population. Another challenge is the delays in processing benefits which takes relatively a long time. In addition, the high increasing cost of benefits growing more against the lower contribution to the fund is another major problem affecting the scheme. Last but not the least is excessive interference of government has resulted in poor management of the scheme, for instance, government appointment of Director General, Board Chairman, and a greater percentage of appointment as Trustee members of the scheme.

3.5. Strategies for Sustaining and Improving the Scheme

Strengthening Ghana's social security largely depends on the government and its policy in broadening the scheme coverage in both formal and informal sectors. Below are strategies to improve the scheme (Kaseke, 1999). Firstly, there should be an improvement in the minimum wage set by the government to enable workers to save and prepare for old age. Secondly, widening coverage of the social security systems to help increase the fund base and meet retirement benefits on time. Also, there should be a restructuring of laws governing the management of the scheme. In addition, the introduction of the severe penalty is default employers who refuse to make such statutory payment. Lastly, adequate resource is made available to institutions responsible for compliance of such schemes to help monitor employees' contribution.

4. Methodology

According to Brotherton (1992), a quantitative approach to research play a pivotal role in the collation, aggregation, and analyses of data as well as the presentation of findings. This concept addresses the central purpose of every study and ensures that the research questions are adequately responded to. Significantly, allows for greater objectivity and accuracy of results and also gives the better understanding of the relationship between dependent and independent variables (Kruger, 2003). Additionally, the study employs time series (monthly) data to investigate the impact of pensioners benefit payment on economic growth in Ghana for the sample period 2000 – 2018. Moreover, secondary data was employed because the data collection set is widely used by experts and professionals and also, helps to improve the understanding of the problem. Lastly, the data source is very economical (time, efforts, and expenses). The secondary data used include social security data (benefit payment), GDP growth, labor (employment), Inflation (consumer price index), regulatory policy and management, and lastly, government spending statistics of Ghana. The dataset for this study was obtained from a variety of different sources. Namely, World Bank Group, Bank of Ghana (BoG), Social Security and National Insurance Trust (SSNIT) and Ghana Statistical Service (GSS).

Multiple Linear Regression (MLR) Model test was employed in answering the research questions as well as meet the objectives of the study. The model is written as:

$$lnGDP_t = \beta_0 + \beta_1 lnSSB_{t-1} + \beta_2 lnEmp_{t-1} + \beta_3 lnINF_{t-1} + \beta_4 lnRPM_{t-1} + \beta_5 lnGoS_{t-1} + \varepsilon_t \qquad (1)$$

Where:
GDP = Gross Domestic Product Growth (annual %)
SSB = Social Security Benefit (monthly benefit payment)
Emp = Employment (public sector employment as a share of total employment)
INF = Inflation (Consumer Price Index Growth rate)
RPM = Regulatory Policy and Management (Regulatory Quality)
GoS = Government Spending (total government expenditure as a % of GDP)
β_0 = Constant Coefficient
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Short-run Coefficients
ε_t = Error Term

4.1. Definition of Variables
4.1.1. Dependent Variable
4.1.1.1. Gross Domestic Product

Gross Domestic Product gives a total monetary value of all goods and services in the country either produced by nationals of the country or not. Real GDP growth was used because it captures the salient aspect of economic growth and it is often used to measure a nation's well-being. It is another control variable in the regression. GDP growth data were obtained from the Bank of Ghana (BoG).

4.1.2. Independent Variables
4.1.2.1. Social Security Benefit

Retirement benefit payment provides a better source of income to retirees and their legal dependents. More importantly, the scheme was designed to provide the consumption needs of the elderly. In addition, such future income provides secured insurance against future unemployment, healthcare, and other national development. Data on pensioners benefit payments were obtained from Social Security and National Insurance Trust (SSNIT) of Ghana.

4.1.2.2. Employment

Employment is said to be the main bridge between human development and economic growth. The level of employment, job quality and the access which the poor have to decent earnings opportunities will be crucial determinants of poverty reduction (Hull, 2009). Employment refers to the total annual employment growth rate created at a particular time. It is one of the control variables in the regression model. Data on Labour were obtained from the Ghana Statistical Service (GSS).

4.1.2.3. Inflation

Inflation plays a critical role in the increase in poverty and inequality among nations. It has a major effect on the entire country's economy and it does not only impacts governments but also in the living standard of citizens in a

country (Becker and Mulligan, 1997). By definition, inflation is a sustained increase in the general price level of goods and services in an economy over a period of time. Inflation data were obtained from the Bank of Ghana (BoG).

4.1.2.4. Regulatory Policy and Management
Good government policy is a core tool of every administration and also determines its success or failure. The regulatory policy addresses opportunities via a mixture of technical assistance and national capacity building. Currently, policy regulation is becoming government's preferred choice in the implementation of its national agenda. Data on variables were obtained from The World Bank Group.

4.1.2.5. Government Spending
Government spending is an essential ingredient needed to fulfill government economic objectives via the provision of goods and services for societal needs. Governments around the world rely heavily on such spending on physical assets like bridges, hospital buildings, roads, and other expenses. Therefore, government expenditures comprise different payments including purchases of consumption goods and services, tangible assets, interest payment, and transfer payments to individuals, companies (profit and non-profit organizations). Data on government spending were obtained from The World Bank Group.

5. Analysis and Discussion of Results

Table-1. Descriptive Statistics

Variable	Mean	SD	Min	Max	Skew	Kurt
Gross Domestic Product	4.20505	0.09489	1.80623	5.92051	0.11463	0.37625
Social Security Benefit	2.62317	0.12638	0.12814	2.94835	0.54675	0.01207
Employment	3.05263	0.17727	2.17262	4.74652	0.82051	0.58305
Inflation	0.13936	0.26314	0.00431	1.14343	0.96423	0.79437
Regulatory Quality	0.57372	0.05389	0.09287	2.84732	0.12359	0.81915
Gov't Spending	0.63910	0.13927	0.03844	1.18734	0.20337	0.70149

Source: Author's computations (2019)

The above descriptive summary results show a score of 4.20505 and 2.62317 suggesting an average rate of about 4 percent growth in economic growth and 2.6 percent social security benefits payment (respectively) whilst employment represents 3 percent of the overall public employment structure in the country. This symbolizes a low growth rate in employment during the period under review. Also, inflation recorded an averaged mark of 14 percent on national income and regulatory quality experienced a less rigid policy of approximately 57 percent in the country. Additionally, government spending saw a growth rate of averagely 64 percent (approximately). Furthermore, the coefficients of skewness for all variables are positively low near zero and the kurtosis of each variable is below the benchmark for normal distribution of 3 which confirms near normality.

5.1. Empirical Regression Results

Table-2. Regression Summary Output (Dependent Variable: lnGDP)

Variable	Coefficients	Std. Error	P-value
Social Security Benefit	0.894732	0.132948	0.000***
Employment	0.557471	0.103294	0.000***
Inflation	-0.610186	0.123950	0.049**
Regulatory Quality	0.704189	0.354964	0.092*
Government Spending	0.542062	0.069432	0.037**
Constant	5.284953	0.219485	0.000***
Prob > F	0.0000		
R-Squared	0.8691		
Adjusted R-Squared	0.8573		
Observation	216		

***, **, and * denote significance at 1%, 5%, and 10% respectively
Source: Author's computations (2019)

The summary regression result shows that the proposed model is significant at the level of p-value 0.0000. In addition, the model has R-squared and adjusted R-squared of 0.8691 and 0.8573 (respectively). The former (0.8691) which is of higher value suggests that 86 percent of the variations in economic growth are explained by the independent variables whilst only 14 percent is unexplained, suggesting that the above equation is an ideal model in answering our research questions. The coefficient for social security benefits payment is positive and significant at the 0.01 level. This finding supports the empirical works of Bellettini and Ceroni (2000); Galasso and Profeta (2002) recording a statistically significant and positive relationship between social security benefit and growth. In addition, employment showed a growth rate of about 56 percent whilst inflation had 61 growth rate (approximately). This

means that employment and inflation are very responsive to economic growth Aryeetey and Baah-Boateng (2007); Epstein and Yeldan (2008). Lastly, both regulatory policy and government spending had a positively significant impact on economic growth by 70 percent and 54 percent (respectively). These empirical findings compliment Nketiah-Amponsah (2009) and Fosu (2017) work on public spending in Ghana proved significant in key government expenditures in relation to economic growth.

5.2. Correlation Analysis

Table-3. Correlation Analysis

Variable	Gross Domestic Product	Social Security Benefit	Employment	Inflation	Regulatory Quality	Gov't Spending
Gross Domestic Product	1.000000					
Social Security Benefit	0.752184***	1.000000				
Employment	0.430291*	0.271973**	1.000000			
Inflation	-0.480473**	0.144582	0.024648	1.000000		
Regulatory Quality	0.527932*	0.453793**	0.392041	-0.583747	1.000000	
Gov't Spending	0.473398**	0.063841	0.574923**	0.376211**	0.636287**	1.000000

* * *, * *, and * denote significance at 1%, 5%, and 10% respectively.
Source: Author's computations (2019)

Table 3 shows that economic growth is positively correlated with social security benefits payment by approximately 75 percent in Ghana. This outcome supports (Younger *et al.*, 2017) empirical works on Ghana's fiscal incidence. Again, employment and inflation recorded both positive and negative correlation (respectively) with economic performance. These trends are consistent with Obeng (2015) work on revenue-expenditure nexus in Ghana. Finally, the quality of regulation and government spending had a positively significant correlation with economic growth. This outcome support (Jalilian *et al.*, 2007) work on the impact of regulation on economic growth in developing countries.

6. Conclusions and Policy Recommendations
6.1. Conclusion

Ghana's social security offers stakeholders a relatively promising future environment with a variety of stable and secured income allocation to retirees. The scheme continues to play a major role in the country and contribute to the enhancement of better living standard and human capital for the nation. As a result, the descriptive statistics show a growth rate of 2.6 percent in pensioners' social security benefit and 4 percent growth in economic growth during the period under investigation. Again, the regression outcome confirms the existence of a positively significant impact of social security on economic growth in Ghana. Furthermore, the study found other key controlling variables that equally influence economic performance in the country. Additionally, this empirical result supports the efficiency theories in achieving economic growth as indicated in the conceptual framework above. In a nutshell, further diagnostic tests showed that the regression model is ideal and reflect the true effect of social security on economic growth in Ghana.

6.2. Recommendations

In ensuring effective delivery of retirement package and stable economic growth, the Government of Ghana needs to put in place appropriate policy to facilitate the rapid flow of funds by the regulatory agency to beneficiaries in the country. Based on the findings of this study, the following are recommended.

Firstly, the Government must critically restructure the scheme investment portfolio ventures into more lucrative areas of the economy. A strict policy geared towards resource mobilization needs to be introduced in improving retirees' payment. In doing so, there will be available financial resources to distribute as and when the need arises. Secondly, an independent administrative body should be in place to ensure policy compliance and good governance in the business environment. Thirdly, the study proposes an increment in the statutory minimum wage. Thus, increasing the wage guarantee a brighter future for retirees who earned a minimum wage after retirement. Also, the study recommends an "Electronic Point of Retirement Application" process to help reduce the level of bureaucracy in the system and raise the image of the Ghana social security pension scheme. Furthermore, the age limit for social security needs to be prolonged to aged 65. This will boost benefit by working longer and earning enough (higher) to replace lower earned salary. Another measure is to expand the contribution base by encouraging the informal sector to enroll onto the scheme. An Integrated Rural Education Program (IREP) should be introduced in the rural areas. By this, the regulatory body should embark on the sensitization program in rural areas to attract more funds to the scheme. In a nutshell, Ghana has great potential to improve the lives of retirees and their dependents via the creation of a sound social policy geared towards human capital development and sustainable economic growth.

7. Limitation

The structure of the social security system constitutes one aspect of Ghana's labor Act 2003 (Act 621) and the study was limited to only the benefits payment on economic growth. Considering this limitation, the study cannot be

generalized to include other divisions of the scheme. In this regard, there is a need for future studies in order to make well-informed conclusions on the subject matter. In spite of the above limitations, the results of the study give credible information with respect to social security impact on economic growth in Ghana.

Dedication

To my Loving Mother, Madam Theresa Acheampong.

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Appendices
Appendix 1
Results of Residuals Diagnostic Tests

	F-stat	P-value
Breusch-Godfrey Serial Correlation test	1.483719	0.2360
Heteroskedasticity: Breusch-Pagan-Godfrey	1.059843	0.3058
Ramsey RESET Test (log likelihood ratio)	2.352012	0.2101

Source: Author's computations (2019)

Appendix 2
Results of Coefficient Diagnostic Test: Variance Inflation Factors

Variable	VIF	1/VIF
Social Security Benefit	1.67	0.607641
Employment	1.98	0.503981
Inflation	1.95	0.513734
Regulatory Quality	1.36	0.743223
Gov't Spending	1.35	0.735610
Mean VIF: 1.662		

Source: Author's computations (2019)