

The Limitations of the Economic Indicators of GDP Rate, Inflation Rate & Unemployment Rate in Measuring Grenada's Wellbeing

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Abstract

The economic indicators of GDP Rate, Inflation Rate and the Unemployment Rate have been used by countless scholars in the field of Economics to indicate the economic performance of a country. The Caribbean island of Grenada has followed suit with the practice of using these economic indicators to determine the economic performance of the country. However, a number of loop holes have been observed with the stated economic indicators. This paper provides a brief overview of Grenada's economic situation, followed by the meaning and limitation of the economic indicators and finally, recommendation of economic instruments that can buttress or add clarity to the interpretation of Grenada's economic statistics.

Keywords: Grenada, GDP Rate, Inflation Rate, Unemployment Rate

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I. INTRODUCTION

The beautiful island of Grenada is located in the Eastern Caribbean and is to the southern end of the Windward Islands. Grenada is made up of three (3) islands: the mainland Grenada; Carriacou and Petite Martinique; thus, making it a tri- island state. The total Area of the mainland Grenada is 348.5 km² (134.6sq mi) with a length of 21km (13 mi). Neighbouring the country are: Trinidad & Tobago to the South; Venezuela to the Southwest; Barbados to the North East; and St. Vincent and the Grenadines to the North. The island of Grenada along with other islands that are a part of the Windward Islands lies in the path of hurricanes that emerge off West Africa in the period of July to December. Other natural disasters that the island is susceptible to are: 1. Volcanic Eruption from two underwater volcanoes; and 2. Earthquakes that frequently affect the Caribbean region(www.caribbeannetnews.com, 2018).

Grenada grew out of a colonial period where the island was once ruled by the British and the French. The nation's citizens are primarily of African Descent (75%), followed by others such as East Indian, American, White, Mixed and other (Syrian/ Lebanese). Grenada's population in 2008 was estimated to be 108,132 people; with Carriacou and Petite Martinique having a combined population of 6,521 people(www.caribbeannetnews.com, 2018). Semblance of the colonial period is evident in Grenada's adaptation of the Westminster Parliamentary System and the cultivation of a number of crops such as cocoa and nutmeg which was brought to Grenada during that period.

Though relatively small compared to countries such as the United States and China, Grenada also shares in the economic stage as these countries. However, the economic activity experienced in Grenada is heavily influenced by the outside world since the country is small and quite vulnerable to forces originating from larger countries. For example, when America experienced the economic meltdown in 2008 the economy of Grenada; especially the Agricultural and Tourism Sectors were negatively affected. Simply put, Grenada is at the mercy of the larger operating nations.

Although Grenada is at the mercy of the larger operating nations it is important to note that main sectors, which are Agriculture and Tourism continue to contribute significantly to the development of the country (Budget Report Grenada, 2018)(See Appendix 1 for graphs on these sectors). To measure the overall contribution of these sectors, a number of economic indicators have been adapted to measure the economic wellbeing achieved to date in the nation. Some of these indicators are internationally accepted GDP Rate, Unemployment Rate and Inflation Rate. Prime Minister of Grenada, Dr. the Rt. Hon. Keith C. Mitchell in his 2018 Budget Statement to the country cited the three mentioned economic indicators as a means of demonstrating Grenada's present wellbeing as well as improvement in the country's wellbeing from years gone by.

This claim put forward by the Prime Minister begs the question: Are the economic indicators of GDP Rate, Inflation Rate, and Unemployment Rate are the only measures of Grenada's Economic Wellbeing? Can

the people of Grenada rest assured that these indicators are reliable measures that will provide answers that are multidimensional? In so doing, the aim of this paper is to provide; 1. Some insight into the meaning of the economic indicators GDP Rate, Unemployment Rate, and Inflation Rate; 2. The limitation of these indicators; and 3. Possible suggestions of other economic indicators that will give a more accurate measure of aspects that are missing in GDP, Unemployment and Inflation rates.

II. LIMITATION OF WELL-KNOWN ECONOMIC INDICATORS

GDP as an Economic Indicator and its Limitations

For the 2018 Budget Report the Prime of Grenada as well as Minister of Finance and Energy, Dr. the Rt. Hon. Keith C. Mitchell commented, “Mr. Speaker, a primary surplus of 4.7% of GDP is provisionally estimated for 2017, the third consecutive year” (Budget Report Grenada, 2018,p.5). This statement made by the Prime Minister of the nation is indicative of the notion that growth and development has increased in the nation; and has been increasing in subsequent years. The table below presents Grenada’s GDP data from 2013 to 2017 in Real measurements.

GDP	2013	2014	2015	2016	2017 (P)
Real GDP Growth (%)	2.4	7.3	6.5	3.7	4.5

Figure 1: Table showing Grenada’s Real GDP from 2013 to 2017

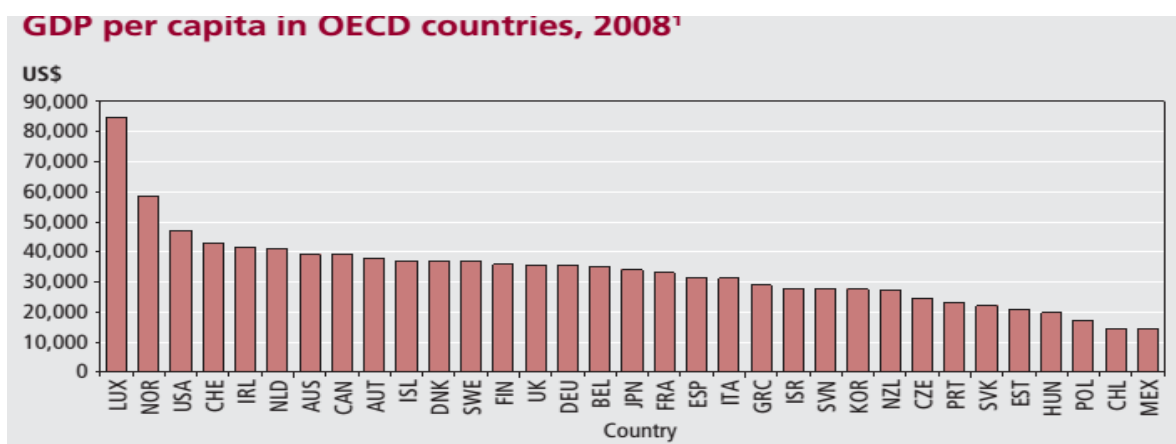
Despite GDP being calculated using the method of Real Measurement for GDP, is this an accurate account of the economic wellbeing of Grenada?

2.1 Limitations of GDP as an Economic Indicator

Briefly, GDP can be defined as “an aggregate measure of production of goods and services in an economy” (Blessing Chiripanhura, Office for National Statistics, 2010, p.56). According to Harlem Brizan, Director of Statistics in Grenada, the GDP measurement along with other economic measurements used in Grenada are internationally accepted standards; they are scientifically produced and reliable; and they are produced using established international methodology (Brizan, 2018). Although this is the case, GDP has been reprimanded by many critics for being unable to measure the societal wellbeing of a country despite not being designed for this purpose (Blessing Chiripanhura, Office of National Statistics, 2010). Agreeing with the shortcomings of GDP, Mr. Brizan suggested that what is really needed to improve the robustness of the statistics produced by the Ministry of Finance in Grenada are additional economic indicators that will compliment the measures that are already used.

Where GDP gives an aggregate measure of the goods and services produced in the economy of Grenada it fails to speak to or do not make any deduction for the Consumption of Fixed Capital. **The Consumption of Fixed Capital** can be described as the wear and tear of machinery, buildings and other capital products that have been used in the production process. A better measure that gives a more accurate description of the new wealth created during a period is **Net Domestic Product**. The Net Domestic Product can be derived by subtracting the consumption of fixed capital from GDP (Blessing Chiripanhura, Office of National Statistics, 2010). However, when using the Net Domestic Product to make comparisons of rates of capital consumption between countries thoughtfulness must be applied.

This cautiousness must be noted because of differences in what is counted as fixed capital as well as the accounting treatment that is applied by different National Statistical Institutions (Blessing Chiripanhura, Office of National Statistics, 2010). (Office of National Statistics, 2010) gives convincing statistical evidence which demonstrates that when the Net Domestic Product measurement is applied there is a better measurement of economic well-being. The following graphs give a comparison between GDP and NDP as economic indicators. The UK’s rank improves from 14th (GDP) to 11th in material wellbeing when the Net Domestic Product is used to calculate material wellbeing.

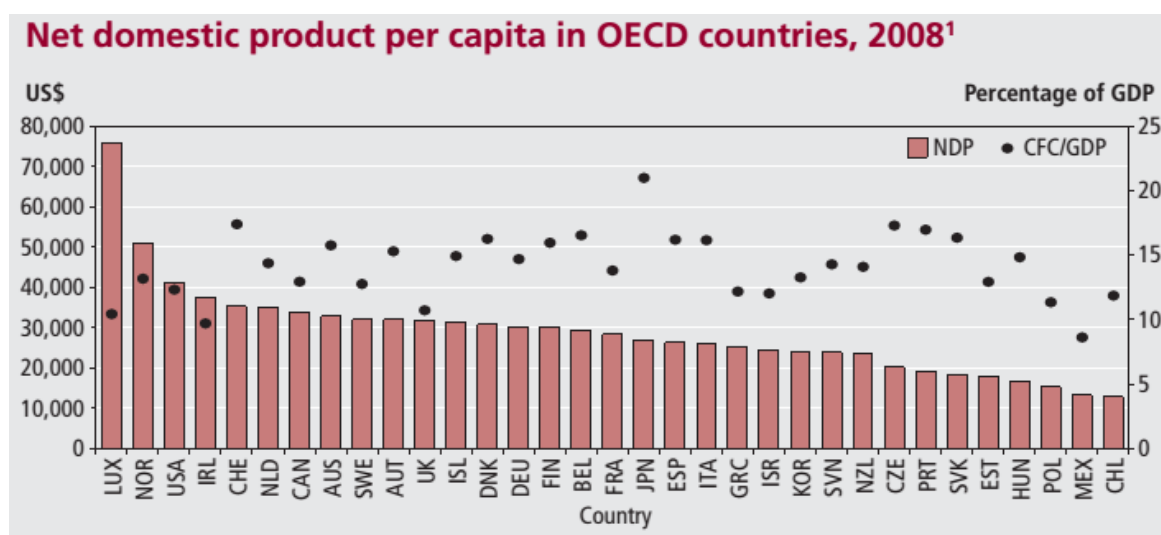


Note:

Source: OECD Annual National Accounts, 2010

1 US\$ current prices and PPPs.

Figure 2: Graph Showing UK Ranked at position 14th Using GDP Measurement



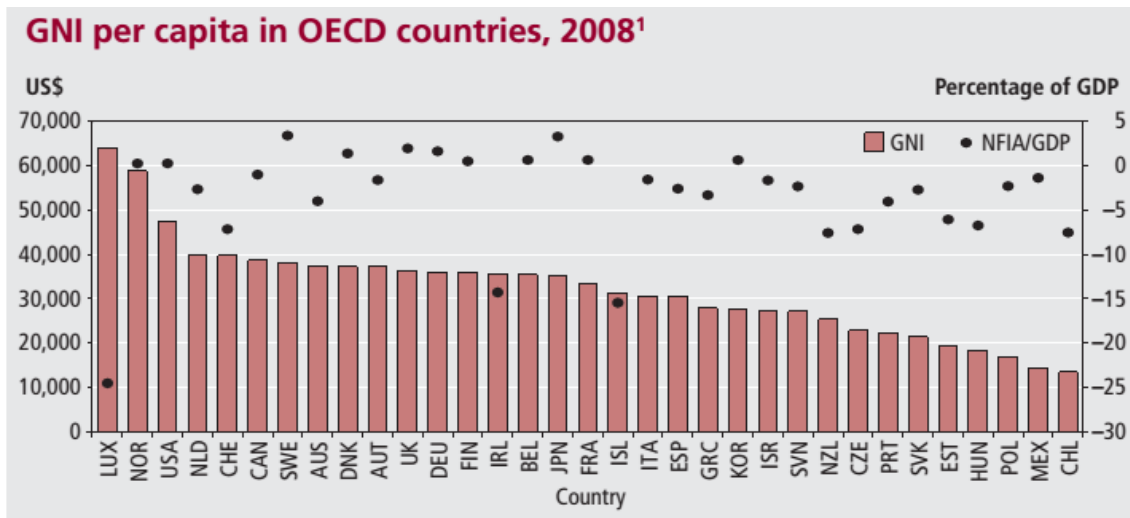
Note:

Source: OECD Annual National Accounts, 2010

1 US\$ current prices and PPPs.

Figure 3: Graph Showing the UK Ranked at 11th Using Net Domestic Product

The very nature of the GDP as a measurement calculates activity within the economic territory of Grenada. However, the GDP measurement do not account for production or resources that are owned by nationals of a country abroad. With this obvious lack in GDP to calculate cross border ownership and production there is need for a measurement that will do so. One such method comes to mind, that is **Gross National Income**. The Gross National Income is theoretically a better measurement because it is able to give a more accurate measurement of society's welfare. The measurement is able to replicate cross border ownership of economic assets that belongs to nationals of international countries (Blessing Chiripanhura, Office of National Statistics, 2010). The following graph produced by (Blessing Chiripanhura, Office of National Statistics, 2010) demonstrates once again that GDP do not adequately account for cross border ownership. In this graph, with the inclusion of cross border ownership the UK is once again ranked higher in Gross National Income than with GDP.

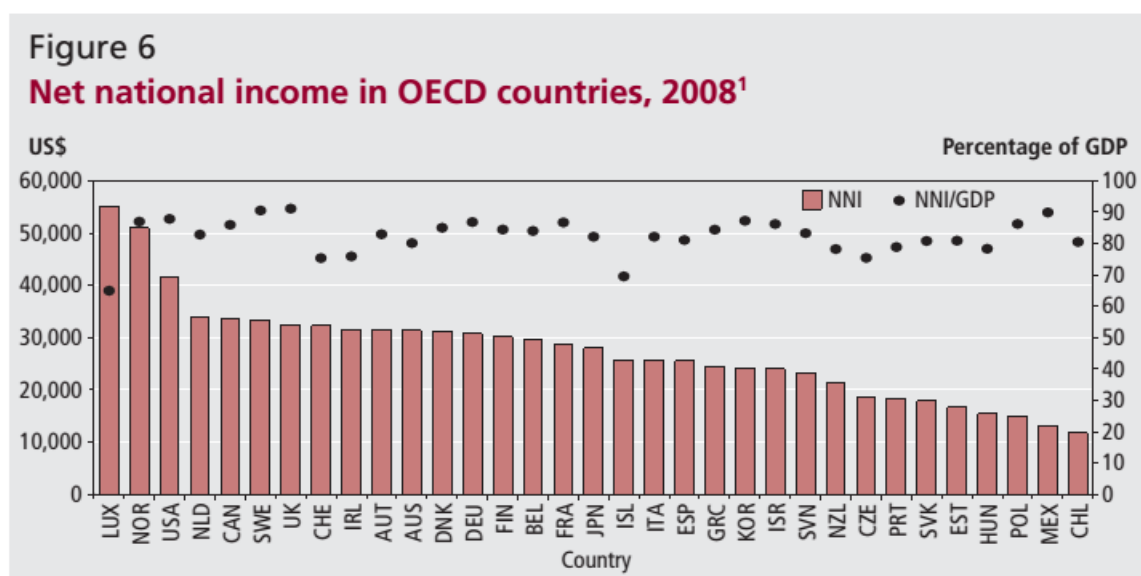


Note: Source: OECD Annual National Accounts, 2010

1 US\$ current prices and PPPs.

Figure 4: Graph Showing the UK Ranked 11th Using GNI

Gross National Income is “calculated by adding to GDP the income that is received from abroad by one’s country’s resident unit and deducting the income created by production in the country but transferred to units residing abroad” (Blessing Chiripanhura, Office of National Statistics, 2010, p.58). The net income acquired from international investors and income transferred to units residing abroad is calculated as NFIA. However, a more precise economic indicator of material wellbeing is *NNI, Net National Income*. This is an adjustment that has been combined to reflect the consumption of fixed capital and net factor income from abroad in GDP (Blessing Chiripanhura, Office of National Statistics, 2010). With the use of Net National Income the gap between the UK and top ranking country Luxembourg decreases significantly. In fact, the gap between all the countries represented in the graph decreases. Here the UK is no longer placed at position 14th or 11th, but has moved up to position 7th. This confirmation is replicated in the following Net National Income OECD Graph from 2008.

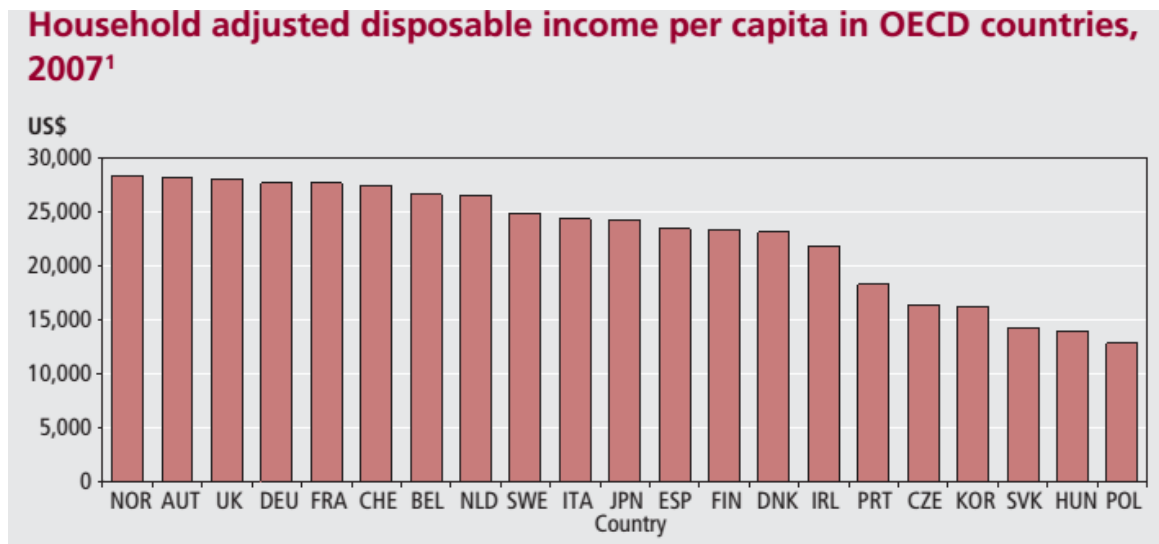


Note: Source: OECD Annual National Accounts, 2010

1 US\$ current prices and PPPs.

Figure 5: Graph Showing the UK Ranked 7th Using Net National Income

As it stands, GDP measures National Income in Grenada. This calculation does not reproduce the income allocated to individual households in Grenada or the material well-being of Grenada's citizens. Each household can improve their welfare by either increasing consumption through the allocation of more resources or improving future welfare by increasing savings. A measure that will give a clearer understanding of present and future consumption possibilities available to a household is **Household Disposable Income** (Blessing Chiripanhura, Office of National Statistics, 2010). Once again (Blessing Chiripanhura, Office of National Statistics, 2010), was able to provide evidence in regard to GDP failing to measure societal wellbeing of the UK, along with a select sample of countries in the OECD 2008. In the following graph the UK is ranked 3rd following after Norway in the 1st position and Austria in the 2nd position. This shows that in the UK, disposable income is higher than other countries in the sample presented. The increase in disposable income leads to higher consumption among households as well as better welfare. This increase in income can also lead to saving for the future.



Note:

1 US\$ current prices and PPPs.

Source: OECD Annual National Accounts, 2010

Figure 6: Graph Showing the UK Ranked at 3rd Using Household Adjusted Disposable Income

Other factors that have to be considered as limitations to the measurement of GDP are factors such as quality changes. The measurement does not capture that with time the quality of goods and services can improve. Although quality can be captured in the price of the good or service this cannot be used to assess all goods and services. There are those goods and services where their quality increases; however, due to competition within the market the prices of these goods and services will decrease.

Additionally, with the improvement in the quality of goods and services there will be an increase in the quality of life experienced by persons in Grenada. This improvement in the quality of life is not calculated into the GDP. An additional factor to consider is the several productive activities that contributes to a portion of societal wellbeing in Grenada are activities from the underground market. In this market the goods are not taxed, therefore government has no means to trace their income. This is so, because the products or services produced are illegal such as the undergone brewing of alcohol and the drug trade. (Brizan, 2018) suggested that one way the government of Grenada can track the use of illegal drugs such as Marijuana or any other illegal economic activity is through big data. He communicated that government would have to arrange an online survey that will allow persons to answer accordingly toward these activities. Mr. Brizan also noted that Statistics Canada was able to use this method to collect information on the use of Marijuana in Canada.

1. Unemployment Rate as an Economic Indicator and its Limitations

With a review of Grenada's 2018 Budget Report, the Prime Minister also presented statistics for the unemployment rate in Grenada. According to the Prime Minister after a preliminary review of results of a 2017 Labour Force Survey there has been an increase of 1,095 in the number of persons employed compared to 2016. He also noted that there has been a decline in unemployment to the count of 2,822 individuals. This decline in the number of unemployed persons has led to a decrease in the unemployment rate, from 28.2% in 2016 to 24.0% in 2017 (Budget Report Grenada, 2018). This statistic can be observed in the following graph below.

Figure 23: The Unemployment Rate

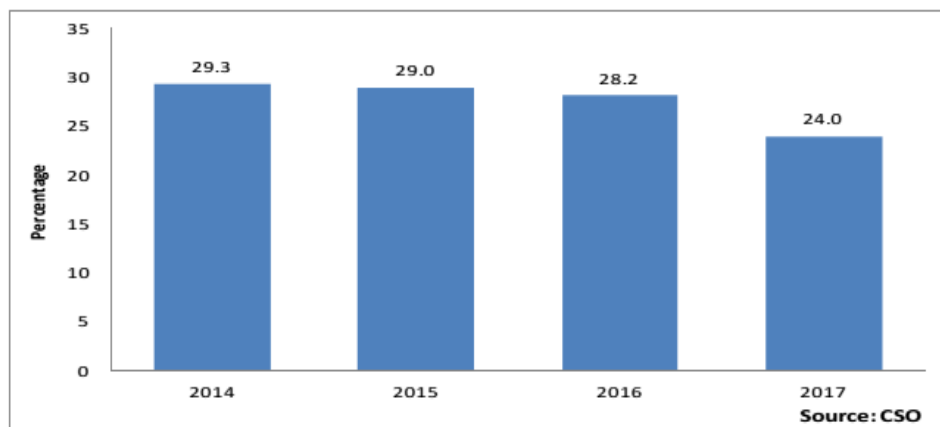


Figure 7: Graph Showing the Unemployment Rate in Grenada from 2014 to 2017

2.2 Limitation of the Unemployment Rate as an Economic Indicator

According to N. Gregory Mankiw in his book *Macroeconomics* (2012) the word unemployed takes the following definition, “a category that includes those who were not employed, were available for work and had tried to find employment during previous four weeks. It also considers those waiting to be recalled to work after being laid off” (p.37). Considering this definition of what it means to be unemployed there are a number of concerns such as underemployment which is a major issue in Grenada that the unemployment rate does not measure. Concerns like these provides evidence that the unemployment rate is also not the best economic indicator of Grenada’s wellbeing.

In case of Grenada there has been countless situations where persons have a job; but, they are either underpaid or may be working part time. These persons are counted as employed rather than unemployed. They are counted as employed since the unemployment definition do not carter for such scenarios. If the unemployment rate carters for such persons, the number of persons unemployed in Grenada will surely be higher than what is being currently stated. This situation has been coined Disguised Unemployment (Samba, 2013).

An additional issue that can be observed in Grenada and most third world countries are non-wage employment. Examples of non-wage employment situations can be Agricultural employment, family workers and apprentices who are most times not receiving a salary because of the nature of the job. However, these persons may be counted into the employment rate when in fact they should be counted as unemployed. Other concerns are related to child labour, where persons under fifteen (15) are engaged in work. Additionally, stay at home mothers or fathers are not counted into this rate. Discouraged persons who have been without work and has stopped looking for a job is also not counted into the unemployed rate (Dornbusch, Fischer & Startz, 2011). All these concerns prove that the unemployment rate is not a perfect measure of the unemployment environment in Grenada because in reality it may be higher than what is officially stated to be.

According to (Dornbusch, et al, 2018) in their book entitled Macroeconomics the unemployment rate can be complemented with the calculations of three important areas. These supplemented calculations will give a more accurate measure of the unemployment rate in Grenada. These calculations are computing: 1. Official rate plus discouraged workers; 2. Official rate plus discouraged workers and marginally attached workers; and 3. Official rate plus discouraged, marginally attached and part time for economic reasons. (Dornbusch et al, 2011) purported that with these additions the unemployment rate will be much higher than without their addition. The following graph from (Dornbusch et al, 2011) reflects this concept well.

FIGURE 2-8 UNEMPLOYMENT RATES, 1948–2010.
(Source: Bureau of Labor Statistics.)

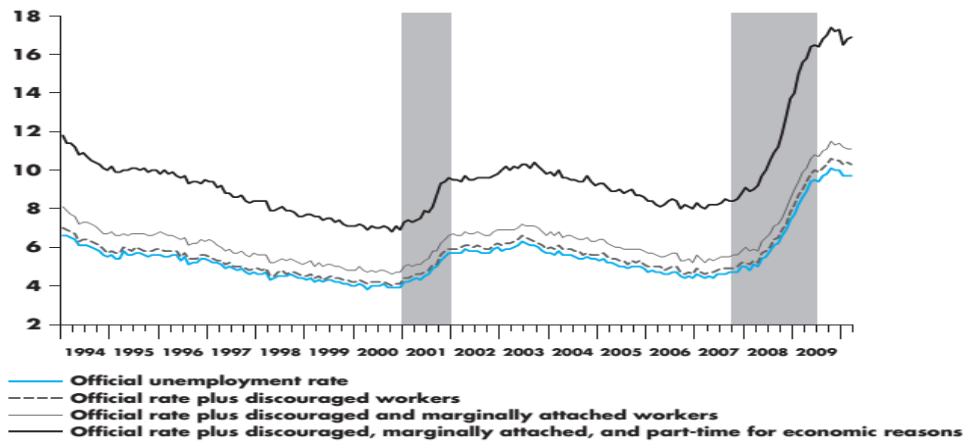


FIGURE 2-9 ALTERNATIVE MEASURES OF UNEMPLOYMENT RATES, 1994–2010.
(Source: Bureau of Labor Statistics.)

Figure 8: Graph Showing Inclusion of Alternative Unemployment Methods

2.3 Inflation Rate (CPI) as an Economic Indicator and its Limitations

The government of Grenada is equally concern with the cost of living in Grenada as it is with the rate of unemployment and the rate of growth within the nation. As other countries the government also seek to measure and control the rate of inflation. The Prime Minister in his 2018 Budget Report to the nation stated, “inflation remained positive in 2017, and [is primarily] the result of increases in the cost of food and fuel as the prices of these commodities continue to rise internationally” (p.47). The table below shows the Inflation Rate in Grenada from the year 2013 to the year 2017 as calculated by the CPI.

Inflation	2013	2014	2015	2016	2017
Inflation (CPI %)	0.0	-1.0	-0.6	1.7	1.7

Figure 9: Table Showing the Inflation Rate in Grenada from 2013 to 2017

As with the GDP Rate and the Unemployment Rate, is the inflation rate calculated by the Consumer Price Index (CPI) the best measure of Grenada’s citizens’ cost of living? A number of short comings have also been identified for this measurement. Firstly, since CPI is the weighted index of goods purchased by consumers the basket of goods considered for this index do not provide a sample that represents all production or consumption in the economy. The basic barometer that is used to represent the goods are flawed since it only account for some goods (Investopedia.com, 2018).

An additional problem that the CPI poses is the issue of substitution. Substitution in this sense can be described as when the price for a certain good becomes too expensive for a consumer to purchase. In reality if this is the case the consumer will more than likely find an alternative product that is less expensive. Although this is the reality, the calculation of the CPI does not take this aspect into consideration. Instead, the CPI only presents numbers with the assumption that the consumer is continuing to purchase the product despite the marked increase in the product’s price (Investopedia.com, 2018).

A core weakness of CPI is that it does not represent novelty and innovation. A lot of a consumer expenditure may be the expense of a new product. However, it may be years before the prices of these new products are included in the calculation of the CPI. Additionally, the true construct of the CPI focuses on the purchasing habits of consumers in the urban communities. Therefore, CPI can be criticised for not providing an accurate measure of prices or consumer buying habits in the rural areas (Investopedia.com, 2018).

(Mankiw, 2012) provides two suggestions to combat the issues presented by the CPI. The first is that law makers should seek to reduce the degree of the indexation and the second, apply the **Core Inflation** in some cases. The Core Inflation measures the increase in price of a consumer basket; but excludes food and energy products.

III. Conclusion

There is no doubt that the economic indicators presented by the Prime Minister of Grenada in his Budget Report 2018 are not perfect measures of Grenada's Economic or social wellbeing. The GDP as an indicator do not calculate: the consumption of fixed capital, the economic activity that is outside of Grenada, citizen material wellbeing, quality change in goods and the non-market output. On the other hand, the Unemployment Rate do not factor in Disguised Unemployment, Informal Non- Waged Employment and Discouraged Workers. Finally, the CPI also lacks in: providing sampling for all production or consumption in the economy, factoring in product substitution, assessing novelty and innovation and assessing consumer behaviour in the rural areas of Grenada. The wellbeing of a nation is multidimensional (health, social relations, education) and as such it would be challenging to find a single economic indicator that would possess the full potential to assess a nation in all the dimensions noted previously. However, one economic indicator can be complemented with another indicator so as to give a clearer picture of the true performance of Grenada's wellbeing.

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Appendix

Figure 10: Growth in Agriculture, Livestock, Forestry and Fishing

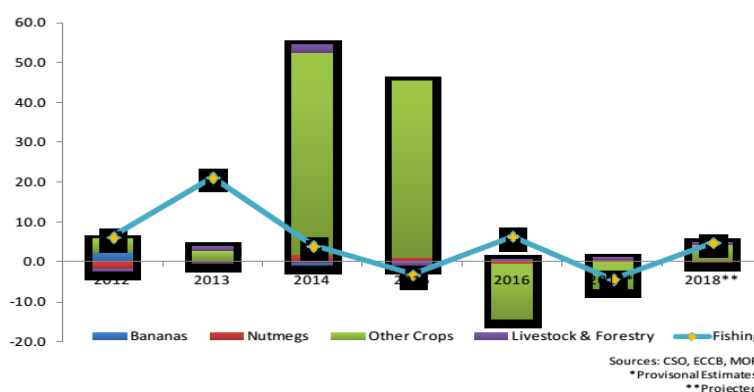


Figure 1: Graph Showing Growth in the Agriculture, Livestock, Forestry and Fishing Industry



Figure 2: Graph Showing Total Stay Over Visitors & Cruise Passengers for the Years 2012 to 2017

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