Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

The Relationship between Inflation and Economic Growth in Ethiopia

Getachew Wollie[1]

[1]Haramaya University, Etiopia
Email: getachewwollie53@gmail.com

Abstract: Since both inflation and economic growth are not a new concept rather their relationships are waited still now as a debatable issue among macro-economists, policy makers, policy analysts, politicians and even the population itself by giving their own analysis by conduct a research and assumption based on the trend as before. Basically, the aims of this seminar paper are to review the relationship between inflation and economic growth as well as to review the causes, sources, determinants and impacts of Ethiopian inflation. Most of the studies indicated above shown that, higher and volatile inflation is bad for the economy. On the other hand, lower and stable inflation is considered as a promoter of the economy. Then the question should focus on what level of inflation is harmful to economic growth? Many economists have made researches on estimating the threshold level of inflation using panel data for a number of countries and time-series data for single country cases and these researchers fix the threshold level of inflation for both developing and developed country. But in this seminar paper, quantifying or fix the exact number of threshold level of Ethiopian inflation and decide below this level inflation has a positive effect on growth and beyond this level it has negative impact on growth is very difficult by simply review previous literature without conducting actual research and make a deep analysis. Even if it is the case, based on the literature it is surely possible to conclude the inflation rate has a serious negative effect on the growth of one country's economy especially in Ethiopia, if inflation has a double digit of an annual growth.

Keywords: *economy; inflation; surplus; growth*

1. INTRODUCTION

The relationship between inflation and economic growth is one of the debatable issue and the most important macroeconomic discussions among macro economists, policy-makers and monetary authorities in all countries. Particularly, whether inflation is necessary or harmful form economic growth constitutes the basis of the matter in question (Eden 2012). Before 1936, the economic theory was influenced by an idea which says market forces play major role in stabilizing the price of goods and services. According to this thought (classical economic thought), any surplus/deficit output reduces/increase price and maintains stable price. But this argument was criticized when the USA economy faced a great depression. Then since 1927, the country experienced higher price rise (inflation), higher unemployment rate and surplus production. In 1936, the high government involvement was suggested to adjust the market failure. One of the instruments for the involvement of government was fiscal policy that is higher government spending to increase investment and employment opportunity. This argument believes that inflation and economic growth have positive relationships. The higher government spending in various activities stimulates higher consumption or investment spending which attracts higher price for goods and services in the economy. The higher desire for spending encourages producer to produce goods and services that demanded by the consumers. Such situation enables the country to achieve economic growth with higher inflation. (Teshome, 2011b).

Historically, Ethiopia has not suffered from high inflation. The annual average inflation rate was only 5.2 percent 1980/81–2003/04, and major inflationary episodes occurred only during conflict and drought. Annual average inflation reached a record of 18 percent during 1984/85 because of drought, 21 percent in 1991/92 at the peak of civil war, and again 16 percent during the 2003 drought (Dick Durevall et. al, 2013). The overall inflation rate recorded for the year 2002 indicates below zero (i.e. Deflation). However, since 2004 the country faced a constantly increasing rate of inflation, which is historically unprecedented as some commentators explained it. The average over all inflation rates in 2006 was 13.7 percent. This figure rose to 21 percent and 39.8 percent in 2007 and 2008 respectively (CSA 2009). In July 2008, inflation was at its peak of 64 percent, the biggest macroeconomic challenge in the history of the county. By the end of 2010, the rate has declined to 8.2 percent and then accelerated to 40.6 percent in 2011and started to decline afterwards. Its irregularity and volatility nature has conveyed diversified macroeconomic risks and uncertainties (Eden 2012).

Ethiopia has registered remarkable economic performance with annual growth averaging 10.9% over the past ten years. This is double the Sub Sahara Africa and triples the world average growths over this period and has led to Ethiopia being rated as one of the fastest growing economies in the world. Since the experience of sustained inflation rate in Ethiopia had begun since 2003. By the same fashion the real GDP growth of Ethiopia in 2006 was 11.8 while, for the next consequent six year 2007 to 2012 was 11.2, 10.0, 10.4, 11.4, 8.8 and 9.7 respectively. As well as the year average inflation rate of Ethiopia was 15.8, 25.3, 36.4, 2.8, 18.1, 34.1, and 13.5 respectively (UNDP, 2014) and (NBE data).

Recently, the mounting infrastructural development supported by the increasing flow of external aid and growing domestic revenue enabled the economy to stimulate the outperforming growth. Despite the rapid economic growth and poverty reduction progress, sustained fiscal imbalances and macroeconomic instabilities mainly inflation, had been constantly limiting the bouncing economy (Desta 2008). Similarly, the World Bank report in (2013), declared that the main source of inflation in the country is the mounting aggregate demand due to the growth of Private consumption and public investment, out of which the latter has due importance in explaining the recent inflation. Therefore this creates more demand of goods and services than supply it by peoples come up with the market by holding only money to buy goods and services. Due to this shortage of goods and services and excess supply of money inflation is highly aggravate rather than decrease towards.

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

II. Review of Literature

2.1. Inflation

Inflation rate is measured as the percentage change in the price index (consumer price index, wholesale price index, producer price index). Essien (2005) opine that the consumer price index (CPI), for instance, measures the price of a representative basket of goods and services purchased by the average consumer and calculated on the basis of periodic survey of consumer prices. Owing to the different weights the basket, changes in the price of some goods and services have impact on measured inflation with varying degrees. There are several disadvantages of the CPI as a measure of price level. First, it does not reflect goods and services bought by firms and/or government, such as machinery. Secondly, it does not reflect the change in the quality of goods which might have occurred overtime. Thirdly, changes in the price of substitutable goods are not captured. Lastly, CPI basket usually does not change often. Despite these limitations, the CPI is still the most widely used measurement of the general price level. This is because it is used for indexation purposes for many wage and salary earners (including government employees). Another measure of inflation or price movements is the GDP Deflator. This is available on an annual basis. However, it is rarely used as a measure of inflation. This is because the CPI represents the cost of living and is, therefore, more appropriate for measuring the welfare of the people. Furthermore, because CPI is available on a more frequent basis, it is useful for monetary policy purposes.

The neo-Keynesian attributes inflation to diminishing returns of production. This occurs when there is an increase in the velocity of money and excess of current consumption over investment. The structuralists attribute the cause of inflation to structural factors underlying characteristics of an economy (Adamson, 2000). For instance, in the developing countries, particularly those with a strong underground economy, prevalent hoarding or hedging, individuals expect future prices to increase above current prices and, hence, demand for goods and services are not only transactionary, but also precautionary. This creates artificial shortages of goods and reinforces inflationary pressures.

Generally, economists have classified inflation into two broad categories; demand pull inflation and cost push inflation (Asari et al. 2011). The first is the demand-pull inflation, which occurs when aggregate demand is in excess of available supply (capacity). This phenomenon is also known as the Phillips curve inflation. The output gap can result from an increase in government purchases, increase in foreign price level, or increase in money supply.

The second is known as cost-push inflation, ‘’commodity inflation’’ or ‘’supply shocks’’ inflation and occurs in the event of a sudden decrease in aggregate supply, owing to an increase in the price/cost of the commodity/production where there are no suitable alternatives (Thomas, 2006). This type of inflation is becoming more common today than before, as evident in the rising price of housing, energy and food. It is often reflected in price/wage spirals in firms, whereby workers try to keep up their wages with the change in the price level and employers pass on the burden of higher costs to consumers through increase in prices.

2.2 Theories of Inflation and Economic Growth

a. The mercantilists view

This view was popular from 1650 up to 1776, the time when Adam Smith’s book “Wealth of Nations” was published. During the time of enlightenment Britain achieved rapid

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

economic growth that was highly based on trade and commerce. According to the Mercantilists, export surplus is a source of growth while balance of payment (BOP) deficit was considered as a negative growth factor. Thus, in order to have export surplus imports are discouraged and exports are encouraged, so that economic growth can be secured (Pentecost 2000: 3-5).

b. The classical view

The publication of "Wealth of Nations" in 1776 is considered as the birth of Classical economic thinking. This economic thinking was popular until it was questioned by John Maynard Keynes in 1936 with his publication of "The General Theory of Employment, Interest and Money". Early classical economists, in particular Adam Smith and David Ricardo, adopted Richard Quesnay's social class analysis and revised these classes as landlords, capitalists and workers. Based on the self-interest assumption of classical economists, capitalists compete with each other even in the labor market. Such competition increases labor wage. The rising cost of production through an increase in labor wage reduces the profit of the capitalist benefiting workers and landlords. The fall in the profit level discourages the capitalist who is the source of wealth creation. Thus, the price increase will have a negative impact on productivity of the capitalist leading to decline in the level of the economic growth (Pentecost 2000: 7 - 11).

c. The monetarists view

The monetarists, following from the Quantity Theory of Money (QTM), have propounded that the quantity of money is the main determinant of the price level, or the value of money, such that any change in the quantity of money produces an exactly direct and proportionate change in the price level. The QTM is traceable to Irving Fisher"s famous equation of exchange: **MV=PQ**, where M stands for the stock of money; V for velocity of circulation of money; Q is the volume of transactions which take place within the given period; while P stands for the general price level in the economy. Transforming the equation by substituting Y (total amount of goods and services exchanged for money) for Q, the equation of exchange becomes: MV=PY. The introduction of Y provides the linkage between the monetary and the real side of the economy. In this framework, however, P, V and Y are endogenously determined within the system. The variable M is the policy variable, which is exogenously determined by the monetary authorities. The monetarists emphasize that any change in the quantity of money affects only the price level or the monetary side of the economy, with the real sector of the economy totally insulated. This indicates that changes in the supply of money do not affect the real output of goods and services, but their values or the prices at which they are exchanged only. An essential feature of the monetarist's model is its focus on the long-run supply-side properties of the economy as opposed to short-run dynamics (Dornbush, et al, 1996).

d. The new classical view

Based on the rational expectations and continuous market clearing approach, the relationship between inflation and economic growth is explained by the inter-temporal substitution approach and the surprise model in the New Classical economics (Lucas 1996: 254 - 55). According to the inter-temporal substitution approach rational workers supply more labor when real wage increases and they take more leisure when real wage falls. When workers supply more labor, productivity is expected to move up leading to economic growth. An increase in nominal wage however, will not have an impact on real economic variables such as employment and growth (Lucas and Rapping 1969: 726 – 33).

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

III. DISCUSSION

Theoretically the source of inflation can be categorized into two broad parts: demand-pull and cost push inflation. The demand-pull inflation arises due to the higher demand for goods and services while the cost-push inflation is due to an increase in the cost of production of goods and services. Or some time inflation may arise due to both demand-pull and cost-push factors. Ethiopia's source of inflation is not out of these major sources of inflation. The major source of inflation in Ethiopia is related with aggregate demand and aggregate supply. Aggregate Demand (AD) refers to the amounts of goods and services demanded by domestic consumers, businesses, government and foreign buyers at a given price level. Or it refers to all consumers (domestic or foreign) who have desire to spend their money to buy goods and services. On the other side Aggregate Supply (AS) is the quantity of goods and services willing and able to sell at the given price. Or it represents all businessmen and government involved in the production and distribution of goods and services. The amount of aggregate demand (goods and services demanded by the consumer, investor, government and net foreign desire) is greater than the aggregate output produced by the economy. For instance until 2004, the difference between aggregate demand and supply was less. For instance in 2000, the desire to buy goods and services in the economy was only 63 billion Birr. In the same year the value of goods and services produced in the economy was 72 billion Birr. That means the value of output produced in the economy was higher by 14 percent as compared to the desire of the consumer ability to spend. In other words there was demand deficiency. This may be the reason for the 7.1 percent deflation in 2000. After 2004, the situation in the country completely changed. The desire for goods and services (aggregate demand) started to grow at a faster rate than the value of goods and services produced in the economy. In 2004, the aggregate demand started to exceed the aggregate supply by 7 billion Birr. After two years, in 2006, the gap between aggregate demand and supply reached 47 billion Birr. During these two years, the desire for goods and services increased by 58 billion Birr while the value of aggregate supply increased only by 21 billion Birr. In 2008 also, the aggregate demand exceeded the aggregate supply by 181 billion Birr. In other words, the economy produced only 42 percent of the national need (the desire to spend). Both AD and AS were increasing at a higher rate as compared to before 2004, but after 2004, the growth rate of aggregate demand was much higher than the aggregate supply. Between 2004 and 2008, the annual growth rate of aggregate demand and supply was 29.7 and 10 percent respectively. Anybody would guess what will happen if annual growth of aggregate demand exceeded the available supply goods and services in the economy by 19.7 percent. This caused the price to increase at a higher rate than ever before. This justifies the source of inflation in Ethiopia to be due to the higher demand growth in the economy. This type of source of inflation is called demand-pull inflation. One of the conditions for economic growth is level of demand in the economy. The higher demand in the economy should be supported by the proper functioning market and other institution which enable us to manage the higher demand. I do some what support the need for higher demand to create the supply. If there is no demand, the businessperson may not be encouraged to produce new goods and services that improve the welfare of the nation (Teshome A., 2011. Part I).

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

IV. CONCLUSION

Since both inflation and economic growth are not a new concept rather their relationships are waited still now as a debatable issue among macro-economists, policy makers, policy analysts, politicians and even the population itself by giving their own analysis by conduct a research and assumption based on the trend as before. Basically, the aims of this seminar paper are to review the relationship between inflation and economic growth as well as to review the causes, sources, determinants and impacts of Ethiopian inflation. Most of the studies indicated above shown that, higher and volatile inflation is bad for the economy. On the other hand, lower and stable inflation is considered as a promoter of the economy. Then the question should focus on what level of inflation is harmful to economic growth? Many economists have made researches on estimating the threshold level of inflation using panel data for a number of countries and time-series data for single country cases and these researchers fix the threshold level of inflation for both developing and developed country. But in this seminar paper, quantifying or fix the exact number of threshold level of Ethiopian inflation and decide below this level inflation has a positive effect on growth and beyond this level it has negative impact on growth is very difficult by simply review previous literature without conducting actual research and make a deep analysis. Even if it is the case, based on the literature it is surely possible to conclude the inflation rate has a serious negative effect on the growth of one country's economy especially in Ethiopia, if inflation has a double digit of an annual growth. The reason is that inflation increases the uncertainty of both producers and consumers. But, if inflation grows in a single digit it has a positive effect on economic growth. Because, rise in the price of goods and services promote the producers to produce more and maximize the welfare of the consumers by increasing their consumption habit.

REFERENCES

Abbott, A. & De Vita, G., 2011, 'Revisiting the Relationship between Inflation and Growth: A Note on the Role of Exchange Rate Regimes', *Economic Issues 16(1)*, 37 – 52.

Abis Getachew Makuria and Dr. Senia Nhamo 2013, The Relationship Between Inflation And Economic Growth In Ethiopia. Master Thesis. University of South Africa.

Adamson, Y.K.(2000). "Structural Disequilibrium and Inflation in Nigeria: A Theoretical and Empirical Analysis".

Alesina, A. and Summers, L.H. (1993). "Centra Bank Independence and Macroeconomic Performance: Some Comparative Evidence" Journal of Money, Credit and Banking, Vol. 25, Number 2, May.

Alemayehu Geda and Kibrom Tafere The Galloping Inflation in Ethiopia: A Cautionary Tale for Aspiring 'Developmental States' in Africa, Institute of African Economic Studies (IAES) Working Paper Serious NO. A01/2011.

Aminu Umaru and Anono Abdulrahman Zubairu (2012). "Effect of Inflation on the Growth and Development of the Nigerian Economy (An Empirical Analysis)". *International Journal of Business and Social Science Vol. 3 No. 10 May.*

Baharumshah, A.Z., Hamzah, N.A. & Sarbi S.R.M., 2011, 'Inflation Uncertainty and Economic Growth: Evidence from LAD ARCH Model', *Journal of Applied Statistics 38(1)*, 195 –

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

206.Center for Economic Research on Africa. New Jersey 07043: Montclair State University, Upper Montclair.

Dholakia, R. H., & Sapre, A.A., 2011, 'Speed of Adjustment and Inflation – Unemployment Trade-off in Developing Countries – Case of India', *Indian Institute of Management Research and Publication*, Working paper Series no. 2011-07-11, July 2011, 2 – 30.

Dick Durevall, Josef L. Loening And Yohannes A. Birru (2013). Inflation Dynamics and Food Prices in Ethiopia. Working Papers in Economics No. 478 May.

Domar, E.D., 1946, 'Capital Expansion, Rate of Growth and Employment', *Econometrica 14(2)*, 137 –47.

Dornbush, R., S. Fischer, and C. Kearney. *Macroeconomics.* Sydney: McGraw-Hill Companies, 2002.

Dr.P.Nandeeswara Rao and Abate Yesigat Inflation and Economic Growth: Inflation Threshold Level Analysis for Ethiopia International Journal of Ethics in Engineering & Management Education Website: www.ijeee.in (ISSN: 2348-4748, Volume 2, Issue 5, May 2015)

Eden, S. (2012) 'Modeling Inflation Volatility and its Effect on Economic Growth in Ethiopia'.

Essien, E.A. (2005). "Exchange Rate Pass-Through to Inflation in Nigeria". West African Journal of Monetary and Economic Intergration (First Half),Vol. 5, Number 1, Accra: West African Monetary Institute.

Fekadu Dereje Girma 2012 Relationship between Inflation and Economic Growth in Ethiopia: An Empirical Analysis, 1980-2011 Master Thesis. University of Oslo.

Habtamu Getnet Altasseb (2013). An Investigation into the Causes and Dynamics of Price Inflation in Ethiopia. A Macro-Econometric Approach [1980 – 2012] Master Thesis. The Hague, The Netherlands.

Hamilton, A. (2001). "Exploding Inflation". Zeal Intelegence.

Hasanov, F., 2011, 'Relationship between Inflation and Economic Growth in Azerbaijani Economy: Is there any Threshold Effect? , *Institute for Scientific Research on Economic Reforms MPRA no. 33494*, 2-10

Hodge, D. "Inflation and Growth in South Africa." *Cambridge Journal of Economics*, 2005: 163-180.

Moser, G. (1995). "Money Demand in Nigeria: 1970 1994". Appendix II in Nigeria: Experience with Structural Adjustment, IMF Occasional Paper Number 148, by Gary Moser, Scott Rogers and Reinhold van Til (Washington: International Monetary Fund), pp.55-62.

Ojo, M.O. (2000). "The role of the Autonomy of the Central Bank of Nigeria (CBN) In Promoting Macroeconomic Stability". Central Bank of Nigeria Economic and Financial Review, Vol.38, Number 1, March.

Olafin, S. (2001). An Introduction to Macroeconomics. Malthouse Social Science Series, Lagos; Malthouse Press Limited.

Pentecost, E.J., 2000, *Macroeconomics: an open economy approach*, 1st Ed., Macmillan Press Ltd., New York.

Piana, V. (2001). Inflation Economic. Web Institute.

Romer, P.M., 1994, 'The Origins of Endogenous Growth', *Journal of Economic Perspectives*, 8(1), 3 – 22.

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume I, No 3, October 2018, Page: 264-271
e-ISSN: 2615-3076(Online), p-ISSN: 2615-1715(Print)
www.birci-journal.com
emails; birci.journal@gmail.com
birci.journal.org@gmail.com

Salian, P.V., & Gopakumar, K., 2012, 'Inflation and Economic Growth in India – An Empirical Analysis', *IGDIR Delhi*, 1 – 28.

Solow, R.M., 1956, 'A Contribution to the Theory of Economic Growth', *Quarterly Journal of Economics 70 (1),* 65 – 94.

Teshome A. (PhD) Sources of Inflation and Economic Growth in Ethiopia: Descriptive Analysis Part I. page 1-7. August 10, 2011

Thomas, P. (2006). "Does the US have a Handle on Inflation?" Street Insight. Vegh, C. (1992). "Stopping High Inflation: an analytical Overview". IMF Staff Paper 39. United Nation Development Program *Country Economic Brief* Analysis Issue No. 1/Feb.2014, Ethiopia

Vikesh Gokal and Subrina Hanif, Relationship between Inflation and Economic Growth Working Paper December 2004, Reserve Bank Of Fiji Suva

World Bank report (2013) 'Economic Overview of Ethiopia' available at http://www.worldbank.org/en/country/ethiopia/overview