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The Role of Inflation and its Targeting for Low-Income Countries (Lessons from Post-Communist Georgia)

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Abstract

The inflation index regrettably fails to fully reflect the expectation of the population in developing and, especially, poorer countries. Some of the commodity groups (e.g. electronics, new and used cars, furniture, hotel and restaurant services, etc.) fail to reflect the problem of the low-income population. Under these conditions, a logical question arises concerning the kinds of problems which might occur when the main goal for a central bank's monetary policy is only to retain price stability, which is known as inflation targeting. For countries where import exceeds export by several times, it should be clear that calculations must be made not only by the traditional inflation index but also according to their consumer basket made up exclusively of imported goods and services (imflation). Agrarian inflation, that is agflation, becomes more and more popular in economics. The agflation index use area is restricted because it fails to reflect the change in prices on such substantial spheres as medication and utilities. In the paper we propose a new statistical indicator, munflation, which reflect price fluctuations on the medication, utilities and nutrition.

Keywords: inflation, inflation targeting, low-income population, imflation, agflation, munflation.

1. Introduction

Inflation is an important macroeconomic indicator for the analysis of an established economic situation as well as forecasting the economic development for any country. Post-Communist Georgia regrettably belongs to the list of countries which have experienced a hyperinflationary spiral (Gurgenidze et al., 1994). In particular, at the initial stage of the restoration of independent statehood, mistakes made by the Georgian Government and the National Bank of Georgia (NBG) have led to hyperinflation in the country (Khaduri, 2005: 20-24; Papava, 1995). To overcome the problem of hyperinflation, complex economic reform was carried out in Georgia (Kakulia, 2008; Papava, 2011) as a result of which macroeconomic stability has been achieved (Papava, 1996; Wang, 1998; Wellisz, 1996). Based on this particular experience as well as

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international practice, price stability preservation has been established, and quite logically so, as the primary goal of the NBG's monetary policy (Kakulia, Gigineishvili, 2005).

The purpose of this research is to study the aspect of the traditional inflation indicator which acquires a great importance in a country's development, especially in poorer countries, based on the Georgian example.

2. Why Inflation Index is not Understandable for Low-Income Population

The National Statistics Office of Georgia (Geostat) has been engaged in the inflation monitoring of six Georgian cities at over 1,700 retail and service outlets since 1992. The "consumer basket," which helps to indicate the consumer price index (CPI) or the average inflation rate, incorporates 12 commodity groups and given the correspondent weights encompasses 305 different goods and services (Geostat, 2017b).

The basket is rather balanced and covers all of the products required by an ordinary citizen. However, the majority of these commodity groups fails to reflect the problem of the Georgian population as well as for other developing and, especially, poorer countries. In particular, for Georgia, where poverty represents the most urgent problem for 30 % of the population (NDI, 2017), the price dynamics; that is, their decrease or increase on expensive alcoholic beverages, furniture, recreation and entertainment, and hotel and restaurant services are of no importance. Consequently, we can conclude that the abovementioned basket for those poverty affected fails to adequately reflect the structure of expenditure for the country's average (that is, poorer) consumer.

It is a fact that the inflation index and its internationally recognized and approved calculation practice regrettably fails to fully reflect the expectation of the population in developing and, especially, poorer countries as conditioned by the perception of the average price level. Moreover, this can also possibly cause the rise of negative emotions based on distrust among society. In particular, when the official low inflation rate is characterized by a significant price increase on essential products for low-income households, these negative emotions occur when the low-income group sees a price reduction for only lesser important products.

Given the fact that in 2013 around 746 million people (of which 383 million are in Africa and 327 million are in Asia) lived in extreme poverty (Roser, Ospina, 2017) and that in 2014-2016 around 10.9 % of the world population was starving (WHES, 2016) (that is, as poverty remains a global problem (e.g. Sachs, 2005)), it is obvious that the average price level as assessed by the traditional inflation index is meaningless at its best. The price dynamics on food, basic medicine and elementary utilities is what concerns people most of all.

Ultimately, using the inflation index alone cannot guarantee successful decision-making.

Under these conditions, a logical question arises concerning the kinds of problems which might occur when the main goal for a central bank's monetary policy is only to retain price stability. This is known as inflation targeting.

3. On the Inflation Targeting

Beginning from 1967, New Zealand experienced a stretch of high inflation lasting for more than two decades (the average annual inflation was 15 % and it peaked at 20 %) (e.g. Sherwin, 1997: 261). In 1984, the Reserve Bank of New Zealand issued an act under which the desired maximum inflation level was set for the monetary policy which paved the way for the so-called inflation targeting. By doing this, New Zealand was the first country in the world to renounce the internationally recognized priority of the monetary aggregates and exchange rate (e.g. Archer, 2000; Bernanke et al., 1999; Brash, 2002; Fischer, Orr, 1994; Spencer et al., 2006). New Zealand's example was soon adopted by several other countries – Canada, the UK, Finland, Sweden, Australia and Spain (Debelle et al., 1998). By 2006, there were 25 inflation targeting countries (Mishkin, Schmidt-Hebbel, 2007: 1) with the number growing to 62 by 2017 (CBN, 2017).

It should be mentioned that the NBG (starting from 2009), like the central banks of Georgia's main trade partner countries (Turkey, Russia, Azerbaijan, Belarus, etc.), has already been exercising inflation targeting for years.

Central banks employing inflation targeting frequently justify their decisions to do so and state that they have reached not only their desired target (price stability) but have also contributed to stable economic growth such as, for example, was announced by Canada's central bank (Bank of Canada, 2006: 3). The fact that the average inflation level was comparatively low in both

developing and developed countries utilizing inflation targeting is proven by research studies (Mishkin, Schmidt-Hebbel, 2007; Vega, Winkelried, 2005).

This said, however, inflation targeting does have serious opposition (e.g. Plushchevskaya, 2012; Snooks, 2008). For example, Joseph Stiglitz, the Nobel Prize winner in Economics, is almost confident that this system will be changed because the central banks of developing economies are incapable of managing their inflation which is frequently imported (Stiglitz, 2008). In the opinion of Jeffrey Frankel, a Professor at Harvard University and a member of President Bill Clinton's Council of Economic Advisers: "One reason that inflation targeting gained such wide acceptance as the monetary-policy anchor of choice was the demise of its predecessor, exchange-rate targeting, in the currency crises of the 1990s; pegged exchange rates had come under fatal speculative attack in many of these countries whose authorities thus needed something new to anchor the public's expectations concerning monetary policy. Inflation targeting was in the right place at the right time" (Frankel, 2012). However, subsequently inflation targeting died and central banks have not yet decided what new commitment monetary policy should be given in order to become a new hope for stability (Frankel, 2012).

The Bank for International Settlements resists inflation targeting which, in most cases, runs counter to financial stability (BIS, 2010; Jones, 2016). Inflation targeting does not take into account the financial cycle and thus produces an excessively expansionary and asymmetric monetary policy (Weber, 2015). It is noteworthy that inflation targeting creates a great deal of questions. A major argument in favor of inflation targeting – that it has contributed to a decline in inflation since the early 1990s – is questionable at best. From the 1980s on, the inflation trend was already on the decline where globalization and China's integration into the world economy – and not inflation targeting – have probably been the most important reasons for the drop (Weber, 2015).

It is a fact that Georgia, like other developing and, especially, poorer and import-dependent countries, is experiencing problems that cannot be fully explained by the inflation index alone. In particular, such examples for Georgia are:

a) 80 % of the consumer basket comprises imported products; therefore, inflation is also to a certain degree imported;

b) A high level of dollarization takes place (over 70 % by the end of 2016 (NBG, 2017b)[*]);

c) Over half of the employed (in 2015, the number of self-employed in the total number of employed was more than 57 % (Geostat, 2017a)) do not receive any income/wages to a bank account and a considerable part of the population lives on money transfers from abroad.

The tightening or mitigation monetary policy by the NBG, therefore, may be accompanied by a completely unplanned revaluation or devaluation of the national currency based on the regional and world political and/or economic actions which can completely "absorb" the decision taken by the NBG.

This problem is clearly fixed by the NBG itself which indicates the difficulty in forecasting a purposeful inflation rate: "The forecast is largely dependent on exogenous factors affecting the market and contains **risks in both upward and downward directions**. The main risks continue to stem from the external sector; in particular, from the economic conditions of trading partner countries and the global strength of the US dollar as well as international commodity prices. The current forecast does not expect any significant changes in these factors" (NBG, 2017a: 7).

For the lower income part of the Georgian population, like in any other country, it is difficult to provide for their satisfaction when the government is keeping the inflation rate at a certain level (targeted inflation by NBG – 5 % in 2016, 4 % in 2017 and 3 % in 2018). The country's relatively low level of inflation in the past resulted from the drop in oil prices on international markets (Nasdaq, 2017) and the devaluation of national currencies in the neighboring (main trade partner) countries (IMF, 2016: 12-13) (correspondingly, by a reduction in the prices for their products on the Georgian market). Ignorance of the importance of the national currency exchange rate rather painfully affects a wider group of the population and business which ultimately increases both fear and uncertainty (Anguridze et al., 2015).

[*] For Georgia, this problem has been studied in detail in the work: (Kakulia, Aslamazishvili, 2000)

4. Modifications of the Imflation

In order not to mislead a country's population, its central bank, its government and business as well as for an adequate reflection of the reality in developing and mostly poorer countries, other indices must also be used together with the inflation index.

For countries where import exceeds export by several times, it should be clear that calculations must be made not only by the traditional inflation index but also according to their consumer basket made up exclusively of imported goods and services. Such an index can be called **imflation** which is a combination of two terms – "import" and "inflation" (Charaia, Papava, 2017).

It is noteworthy that if targeting parameters also include imflation together with ordinary inflation, then central banks will need to adequately respond to the issue of national currency devaluation in order to prevent price increases of imported goods on the domestic market owing to the particularly large volume of import.

It should be mentioned that the NBG has been engaged in the monitoring of "imported" and "local" commodity prices (e.g. NBG, 2017a: 18) which, to be sure, is very important for Georgia's economy and its negative trade balance.

Given that the Georgian consumer basket contains many goods and services (both imported and domestic) which are generally not purchased by lower-income citizens, neither inflation nor the imflation index will meet the goal of assessing price dynamics in those spheres important for the poorer population, especially in developing countries.

As is well known, agrarian inflation (or the growth of average prices for agricultural products) or the **agflation** index, becomes more and more popular in economics. The term "agflation" is relatively new and its introduction is associated with the substantial increase in the prices for fruit, eggs, grain and other commodities in 2006-2007 (Chorafas, 2016: 139). The agflation measurement is very important in developing and, especially, poorer countries which are characterized by permanent increases in foodstuff prices (for example, in India*).

Many studies have proven that the agflation index is higher and rather more important in developing poorer countries where food products constitute about half of the total consumer basket (Georgia – 31 % (Geostat, 2017b), Russia – 50 % (Mashirova, Stepashova, 2015), Azerbaijan – 50 %, Armenia – 50 %, Turkmenistan – 60 % and Tajikistan – 57 % (EPRC, 2012: 12, 32)) in contrast to developed Western countries (USA – 15 % (EPRC, 2012: 32), Eurozone countries – 18 % (Eurostat, 2016) and Turkey – 24 % (Daily News, 2016).

It is noteworthy that agflation is not only a problem for developing economies. This is evidenced by the challenges experienced by the new EU Member States (the ten Eastern European countries which joined in 2004) (IMF, 2008). Prices for a whole range of products (dairy, vegetables and sugar) are going up not only in the EU but all over the world whereas the prices for some individual products (e.g., pork) in the EU are higher on average than in the rest of the world (EC, 2016).

As is also well known, food inflation is not only higher, more instable, shows great volatility and lasts longer than non-food inflation, it also needs more time to adapt to new reduced prices which is unlike the process of price increases (e.g. EPRC, 2012: 31).

The agflation index use area is restricted because it fails to reflect the change in prices on such substantial spheres as medication and utilities.

For example, the average inflation index in Georgia in 2016 exceeded the average index for agflation. However, the annual average price increases for products such as medication and utilities, which are a major concern for the wider population, has exceeded the average annual inflation rate (see Table 1).

Given that the population in poorer countries gives special attention to how prices of food products, medication and utilities (mainly water, electricity, sewage, gas and other fuels) fluctuate, the statistical indicator adequately reflecting these prices should be calculated.

Hence, we propose a new statistical indicator, **munflation**. This new term comes from the first letters of the English words – medication, utilities and nutrition (Charaia, Papava, 2017).

The respective parameters for medication, utilities and food products from the consumer basket should be used for a munflation calculation. Food products prices are also used for the agflation calculation as mentioned above.

* For example, the agflation index acquires a special importance for India (see, Suryanarayana, 2008)

Table 1. Consumer Price Indices in Georgia in 2016
(the respective month of the previous year=100)

Groups	2016												
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Average
Total	105.6	105.6	104.1	103.2	102.1	101.1	101.5	100.9	100.1	99.8	100.2	101.8	102.2
Food and non-alcoholic beverages	105.1	104.6	102.3	101.9	101.4	100.7	101.1	100.6	100.3	100.2	99.9	101.6	101.7
Housing, water, electricity, gas and other fuels	108.4	106.0	105.6	105.4	105.5	106.1	106.1	101.5	99.9	99.3	99.0	100.1	103.6
Healthcare	111.0	110.5	110.2	107.5	105.7	104.3	104.1	103.3	101.2	101.3	101.5	102.1	105.2

Source: (Geostat, 2016).

According to Geostat, the "food and non-alcoholic beverages" commodity group is comprised of 92 items (Geostat, 2017b) which comply with the products included in the agflation basket. It is noteworthy that this basket can differ from country to country given the more or less dependence of the local population on individual products.

Further according to Geostat, the "healthcare" commodity group currently comprises 19 goods and services. The "utilities" commodity group comprises 17 products (Geostat, 2017b).

To calculate munflation, all three groups of products included in the consumer basket need some adjustment. For example, from if we look at the "food and non-alcoholic beverages" group, soft drinks such as cola and other similar drinks can be withdrawn because they are generally not consumed by the poorer population. Further, we can remove clinical thermometers from the "healthcare" group (which, notwithstanding poverty, can be found in every family) and maternity services (which are government-funded in Georgia). Additionally, building materials (which are not generally used by lower-income segments of the population) can be taken out of the "utilities" commodity group.

The issue of the possibility of extending the existing inflation targeting practice and studying the indicators of imflation, agflation and munflation in developing and relatively poorer countries, together with the inflation index, is the subject for a separate study.

5. Conclusions and Recommendations

There is no reason to doubt the significance of the inflation index for economic development or the fact that the inflation indicator is used as a central bank's target. For more than a quarter of a century, a rather rich experience of inflation targeting has been collected based on the experiences of many countries as well as serious research. Two groups of economists – opponents and supporters of inflation targeting – have been outlined.

The critics of inflation targeting believe that the association of a central bank's monetary policy with the planned inflation target alone; that is, for countries mostly dependent on import and where inflation is also imported together with the incoming goods, is one of its weak points (as evidenced by many studies) and fails to produce adequate results. Hence, for those countries whose economies are largely import-dependent, the importance of imported inflation, or imflation targeting, should be studied together with the inflation targeting.

In its corresponding publications, the NBG also clearly confirms the difficulty in forecasting an inflation target because of the country's so-called imported inflation.

For over a decade, the agflation index has been calculated in world practice and this is of special importance for poorer countries where the food problem is especially acute.

For developing poorer countries, the dynamics of average prices and not only for food but also for medication and utilities is of importance. This purpose is met by the munflation index

which reflects the dynamics of the average prices of all three commodity groups deemed the most important for poorer groups of the population.

The statistics office of a developing poorer country must calculate the imflation, agflation and munflation indices, together with the inflation index, which requires the development and practical implementation of a special methodology (especially for imflation and munflation).

The calculation of these indices at more or less perfect levels creates an objective possibility for the central bank of a developing poorer country to diversify the inflation targeting system with the imflation, agflation and munflation targeting components. This should be a subject of an individual study.

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