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On the Inflation and its Modifications in the Era of Global Pandemic: The Case of Some ADB Countries

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Abstract

The article discusses the problems caused by inflation in the developing Asia-Pacific region during the time of the worldwide pandemic and suggests innovative solutions to the problem. The reality is that some of the commodity groups from the consumer basket (e.g., non-seasonal fruits, electronics, furniture, hotel, and restaurant services, etc.) fail to reflect the needs of the low-income earners, which make the majority in developing countries. At the same time, the inflation targeting regime has become outdated and not reliable, because of uncontrolled exogenic factors (imported inflation, fluctuation in oil prices, supply chain disruption, Russia-Ukraine war, etc.) prevailing on endogenic factors and thus making it impossible to control the price stability, especially in developing countries. Since, the old-fashioned inflation index and inflation targeting mechanisms regrettably fail to fully reflect both the society and governmental/central banks' expectations, based on which we first should have better care and second create better policies; we propose to use a combination of already well-known indexes and policies, with the new statistical indicators, which reflects price fluctuations on the medication, utilities, and nutrition.

Keywords: Inflation, Munflation, Inflation Targeting, COVID-19, Asia, and Pacific

JEL Classification Code: E31, I32, O13, P22, P36

1. Introduction

The inflation issue goes to another level when speaking about import-dependent and exchange rate vulnerable countries, where local and global challenges play a huge role in countries' sustainable development and affects both monetary and fiscal policies (Papava & Charaia, 2021). Moreover, inflation triggered by supply-side bottlenecks and the global economic recovery (Weber, 2021), ultimately puts at stake not only inflation as such but, more significantly the trust in government actions and democracy as well (Acemoglu, 2021). Also, pushing deglobalization or pseudo-deglobalization (Papava, 2021) and unemployment increase, because of expensive transportation costs and increasing labor costs all over the world, nowadays leading toward the combination of onshore production (or near-shore, rather than offshore) and the trend of the fast-increasing robotization (Marin, 2021).

From one side, inflation plays a huge role in citizen's everyday life, and thus regulators (usually central banks) respond to the challenge by strengthening monetary policy. However, increased interest rates, in their turn, are hindering the economic development of the country at large. At the same time, the central bank's strict policy pushes the government either to increase the taxes or to raise the deficit, which could finally lead to even higher inflation and put extra stress on the exchange rate. Thus, for the developing and import-dependent countries, the result will be an increase in prices anyway (Papava & Charaia, 2019).

Because of the COVID-19 global pandemic, temporary price increases are expected, theoretically leading to business closures (Pham & Nguyen, 2022) in recovery following an economic shutdown (Stiglitz, 2021), which could be characterized by exchange rate volatility (Gongkhonkwa, 2021). Inflation forecasts, despite having been revised many times, are still underestimated by the regulators

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(El-Erian, 2021). However, the central bankers in the major advanced economies are taking a costly wait-and-see approach, while only a progressive rethink of their tools and aims can help (Varoufakis, 2021). With such a policy from the major economies, probably representatives of the developing countries are strongly demotivated to initiate any changes, transferring the financial burden down to the population. From different perspectives, no reason to expect the pandemic to alter the obvious tendencies even before the crisis (Rodric, 2020).

Unlike developed economies, developing ones usually are less sensitive to inflation parameters in general, meaning that in rich countries, people are used to buying almost all products from the consumer basket, while in low-income countries, citizens spend most of their income only on several products, such as food, medicine, and utilities (usually the most price-sensitive products). Consequently, the majority of commodity groups in the consumer basket fail to reflect the needs of the ordinary population in developing countries. Moreover, unlike in developed countries where overall economic growth and inflation are usually reflected in their salaries/income; in developing countries, the economic growth is usually unequally distributed, resulting in low inclusiveness, at the same time leaving the inflationary challenges in the hands of employees, seldomly ending up in a salary increase. Consequently, leading to a metamorphosis of growth policy (Rodric, 2021).

To address key development challenges in developing Asia and the Pacific, especially topical and practical issues during the global pandemic - inflation was brought for analysis, along with its original modifications named Munflation, Inflation proposed by the authors, and the already well known – Agflation index. New indexes, in combination with already existing inflation and Agflation are able to help central banks and the governments of developing Asian and Pacific countries to use their monetary, fiscal, legislative, and other policies for the goal of reaching more stable prices, better economic growth, more useful social policies, and other benefits explained in the article. The authors of the paper, as representatives of Georgia, an Asian Development Bank (ADB) member country, carried out the main calculations based on the statistical information of this country. At the same time, some calculations were made for randomly selected countries of the Asia-Pacific region (Azerbaijan, Bangladesh, Fiji, India, and Russia), which are also ADB members.

On top of the coronomic crisis, there is a great additional challenge to the price stability, namely the Russia-Ukraine war consequences. The latest outbreak of Russia's war in Ukraine and economic sanctions imposed by the West against Russia (and also Belarus) further complicated economic problems already existed as a result of the global pandemic. As a result of war and international sanctions, the confrontational nature of the modern world economy manifested itself at the beginning of significant difficulties, primarily in the energy (Montgomery, 2022) and food sectors (Farrer, 2022), which ultimately contributed to the emergence of a deficit in the global economy (Kung, 2022). It is no coincidence that because of the food shortage caused by the war, the so-called "Food War" is going on in the world (Frum, 2022). For the same reason, there is an "Oil War" (Bugriy, 2022).

2. Literature Review

2.1. Inflation Perception by Low-Income Population

It is important to better understand how inflation is calculated, later to focus on the inflation targeting mechanism, which is the dominant instrument for the central banks all over the world nowadays. Usually, there are several hundreds of different products split into several subgroups, such as food and non-alcoholic beverages (usually from 15 to 50 percent of the total basket), alcoholic beverages and tobacco, clothing and footwear, household maintenance, healthcare, transport, utilities, communication, entertainment, education, and other goods and services (Charaia & Papava, 2017).

On the surface, the basket seems attractively balanced. However, in the reality of developing countries the majority of these goods and services fail to reproduce the real challenges of the residents, especially in case those countries that are also import-dependent and exchange rate vulnerable. In particular, for Asian developing countries, where poverty represents the most pressing challenge for the bigger part of the inhabitants, the price change (does not matter increase or decrease) on different products including, but not limited the alcoholic beverages, meat and dairy products, furniture, recreation and entertainment, hotel and restaurant services are insignificant. Consequently, the consumer basket mentioned above and its diversification is only a challenge and not an advantage. In other words, unlike in developed countries, the consumer basket fails to represent the real needs of the vast majority of the local population.

Usually, the inflation indicator causes frustration and negative emotions, if not protests among locals of developing Asian countries, when they are explained that inflation has decreased, but they face a huge price increase on the essential products they can only afford and usually consume not within the needed amount. Or imagine another case, such as it is going on during the Global Pandemic of COVID-19, statistics offices report that inflation is high (according to their standards), double/triple as it used to be in previous times, but in reality, the population of developing countries see those prices on medicine, utilities, and healthcare which they can only afford to consume from the consumer basket, has increased three, four, or even 5 times then the average inflation is reporting. For instance, the prices for such products, as cooking oil, flour, bread, eggs, and other ordinary products in different countries has been increased around twice only for the last two years of the global pandemic, while officials are constantly claiming that overall inflation is higher than predicted, but affordable one-digit price increase annually for the average basket (Statista, 2021).

Remembering that extreme poverty (living on less than $1.90 a day) rose by up to 80 million people in Asia and the Pacific due to the disruptions in economic activity caused by the global pandemic of COVID-19 (ADB, 2021), leading to the long run declining poverty curve again upward and equaling the total number of poverty in Asia and Pacific to hundreds of million people. Consequently, for these people and not only for them, the price dynamics on food, basic medicine, and elementary utilities are also the essential products and services for survival, which should be considered by the local governments and regulators. Disruptions in supply chains make it obvious that service-oriented and import-dependent, especially developing countries will have to change their economic policies (Charaia et al., 2022).

At the end of the day, it comes out that using the inflation index alone for decision-making cannot guarantee ultimate success. Thus, a logical question arises concerning the kinds of problems that might occur when the main goal of a central bank's monetary policy is only to retain price stability, known as inflation targeting. Moreover, the governmental policies could not be comprehensive, if they don't consider a specific peculiarity of the local economy, considering only the best practices from developed countries.

On top of those challenges mentioned above, the coronomic crisis as a result of the COVID-19 pandemic has brought both demand and supply shocks in the food industry, further leading toward food security challenges and malnutrition-related issues in developing Asian and Pacific region economies (OECD, 2020). This shows a need for a modern governmental approach that is able to affect consumer behavior (Iriani et al., 2021). Some economists say this is only a temporary event because of the Covid-19 pandemic; however, they forget at least about the mass increase of money supply globally, which will not be easy to overcome next years (Issing, 2021). Moreover, new COVID-19 variants systematically appearing here and there could significantly prolong the global pandemic, putting its own impact on inflation (Rajan, 2021). However, there is also an opposite opinion, which is based on microchips, transportation, and the oil prices simultaneous increase, that it is causing only temporary inflation or even a "good inflation", which will come down after producers will increase the supply to the market finally causing a technological cheapening (James, 2021), but this idea does not answer several important questions raised in the given paragraph.

However, before the prices stabilize, the attempt to curb inflation (negative supply shock) caused by increased expenditures through monetary restrictions is escorted by an increase in average interest rates triggering the overall expenditures (negative supply shock). Consequently, it is making inflation targeting policy entirely unproductive (Chikobava, 2021).

2.2. Experience of Inflation Targeting and Considerations

Starting from the 1984 year's success story of New Zealand, inflation targeting has become globally popular (Bernanke et al., 1999). The new instrument was soon adopted by Canada, the UK, Finland, Sweden, and others (Debelle et al., 1988). By 2021, there were 74 inflation-targeting countries all over the world (CBN, 2021), including those Asian and Pacific countries. Even though most countries are satisfied with the policy they chose, however, inflation targeting does have serious opposition. Joseph Stiglitz, the Nobel Prize winner in Economics, is confident that this type of system will be reformed (Stiglitz, 2008), at least for the developing world, since regulators in those countries are incapable of managing their inflation which is often imported and has not local origin. According to the Jeffrey Frankel, a Professor at Harvard University and a member of President Bill Clinton's Council of Economic Advisers: "Inflation targeting was in the right place at the right time" (Frankel, 2012). However, afterward inflation targeting "died," and regulators have not yet come up with a decision on what should be a new anchor for stability (Jones, 2016). Others believe that from the 80s on, the inflation trend was already going down, where China's incorporation into the global economy and globalization at large, has provoked the real inflation drop and not the targeting mechanism just following the situation (Weber, 2015).

Although no central bank from developing countries has even raised a question on inflation targeting that does not mean it is the best option for them. This has been proved once again under the coronomic crisis, where no central bank in the world has met its target, sometimes missing from the ultimate goal more than 4 times, as is in the case of ADB member – Georgia, which "managed to achieve" inflation 12.5% (GEOSTAT, 2021), while having a target of 3% (NBG, 2021). Even more, worth to mention that the inflation target has never been met in Georgia, since its introduction in January 2009. But this is not only developing Georgia but even a group of the most advanced countries from the Euro Area, which had the same problem of not meeting the target (Bosomworth & Veit, 2021). However, unlike developed economies, challenges in developing Asian and Pacific economies are slightly different, and that's why they need significant assistance.

2.3. Agflation, Munflation, and Imflation

To better understand the index, we propose for central banks and the governments for wider use, let's explain them first. The Agrarian Inflation index or the Agflation calculates the price change for agricultural products, which becomes more and more problematic both for developing and developed countries (Charaia & Papava, 2018). This index could be especially important for developing countries like India or Pakistan or other developing countries in Asia and the Pacific, where basic food prices are the top priority. Different studies show that Agflation is higher and more important in developing poorer countries where food products create around half of the total consumer basket (Georgia – 31%, Azerbaijan – 50%, Armenia – 50%, Turkmenistan – 60% and Tajikistan – 57% (EPRC, 2012) in contrast to developed Western countries (the USA – 15% and Eurozone countries – 18% (Eurostat, 2016).

To reflect the most essential problem of the price instability in developing and especially in the poor countries, along with the already existing (but not in wider use) – agflation index, we elaborated the more detailed macroeconomic indicators of – *Imflation* and *Munflation* (Charaia & Papava, 2017).

Because of superior attention to the prices of food, medication, and utilities, a new statistical indicator sufficiently reflecting the fluctuation should be invented and calculated. Hence, we propose a new statistical indicator – munflation, which is combining the first letters of the English words – medication, utilities, and nutrition plus inflation. However, not all products from the given group of products should be used for munflation calculation, since they could be of no interest to the wider population or simply financed by different governmental programs. For instance, in the case of the "food and non-alcoholic beverages" group, products such as non-seasonal fruits (usually the most expensive ones) can be removed from the calculation, because they are generally not a product of significant interest to the wider population in developing poor countries. We do not say these products are not consumed by the wider population, but this is the product that will fall out of the ordinary consumer's basket first in case it will have to choose from different food products. 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 particular countries, like Georgia). Also, building materials can be taken out of the "utilities" commodity group, since this is not every day, but almost once in a decade purchased products for average families in developing countries.

The munflation indicator will also serve as an instrument for such important issues as – subsistence minimum, amount of pension, minimal wage, and also for the creation of adequate socio-economic policy oriented on the needs of the majority of the population, especially in developing and poor countries.

For economies where import exceeds export significantly, calculations should be done not only for the traditional inflation index but also for the imported goods and services, which will provide a clear vision of where the inflation is coming from. Index calculating import effect we named as – imflation, a combination of two terms – "import" and "inflation." Imflation could be important in a way that it will push regulators to focus not only on monetary policy strengthening or weakening but also exchange rate aspect, which central banks usually don't recognize as part of their duty or essential player in the overall financial stability.

The importance of imflation is crucial for developing countries, which usually import the greatest number of goods they consume, i.e., are import dependent. However, only an imflation calculation is not enough to see the whole picture, and of course, it should be used with the overall inflation index. This fact was once again and the most proved during the pandemic, and not only in the developing countries.

For an adequate reflection of the reality in developing and mostly poorer countries, munflation, imflation, and Agflation must also be used together with the inflation index.

Coronomic crisis, unlike other challenges in the past, proved to be special. If the financial crisis of the past were more deflation oriented and the governments were considering how to increase inflation through consumption increase, the COVID-19 effect proved to be inflation triggering. Because of the aggregate demand above the supply level and some other additional inflation supportive events such as oil price increase, semiconductors scarcity, brake-up in global supply chains, deficit spending, and unprecedented financial aid (Galbraith, 2021; Roach, 2021), as well as significant governmental payments for unemployment causing working force price increase and so on, the major inflation shock is in front of us. Consequently, it is impossible to find a country that managed to meet its targeted inflation rate. While some try to explain this inflation targeting failure, as a balancing mechanism with undershooting inflation before the pandemic and overshooting it after the pandemic, the reality hits economies not only developing but also rich/developed economies as well. Responding timely and smartly from the legislative point of view is not about the next month or the next year; it is about the next generation (Sachs, 2021).

Based on the coronomic crisis and the Russia-Ukraine war, specific importance should be devoted to the prices of food, medication, and utilities, or the "munflation" index. Munflation should play a vital role in a deeper understanding of the societal challenges caused by price volatility. The economic sanctions on Russia provoked the construction of new supply chains, as well as disruptions in existing channels, to exclude Russia and Belarus from the already existing ones, i.e., making the issue of foreign trade diversification a part of the international agenda.

3. Alternative Indicators and the Case of ADB Member Countries

To make the above-mentioned indicators more understandable / clearer, we can see the differences based on the Georgian example (Table 1) for different years and through the prism of Agflation, Utilities, Medication, and munflation to compare it to the average inflation rate.

Statistical data for the last 12 years available for Georgia individually (Table 1) or combined on average (Figure 1), shows that inflation was never equal to the price increase of those products which are the most significant for the wider population, quite often making a difference of hundreds of percent.

Based on the research, a significant correlation was found in several selected countries between inflation and Agflation. In particular, Georgia and Azerbaijan show a range between $r = 0.83$ and $r = 0.93$ (Figure 2). However, other randomly selected countries show insignificant correlation; those countries are Russia, India, Fiji, and Bangladesh. Low correlation does not mean there is no relation between Agflation and inflation, but rather it hides some other answers such as agricultural subsidies, food price control at some level, etc.

Despite the low correlation between inflation and Agflation in some countries, it's obvious that for different years and quite often, an agflation price increase was higher than average inflation (Figure 3).

Higher prices for agricultural products, in general, should be followed by the supply increase, which should balance the price at least at some time in the future, but the observation shows that agricultural products are not so easily responding to the market rules. However, this is the topic for another research. Higher Agflation is especially problematic during the times of global crisis, such as pandemics nowadays. Considering the fact of rising unemployment and/or freezing/decreasing salaries because of the crisis, Agflation challenges the wider population in their everyday expenditures considerably.

Higher Agflation incorporated into the inflation makes a push on the central banks to tackle the consumer price increase, usually through the monetary policy strengthening,

Table 1: Average Annual Inflation and Munflation in Georgia

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Inflation	7.1	8.7	–0.9	–0.5	3.1	4.0	2.1	6.0	2.6	4.9	5.2	8.8	4.3
Agflation	11.7	16.8	–0.9	–0.7	5.1	4.2	1.6	6.8	2.2	8.2	10.6	9.8	7.7
Utilities	0.4	2.6	0.8	–0.9	4.3	3.9	3.6	1.6	4.3	1.8	0.8	3.7	2.2
Medication	2.4	1.3	1.7	2.7	5.5	8.3	5.2	6.1	4.8	3.4	6.5	11.2	4.9

Source: National Statistics Office of Georgia. Annual Inflation Rate, %. https://geostat.ge/media/41414/Consumer-Price-Index-%28The-same-month-of-the-previous-year%3D100%29.xlsx.

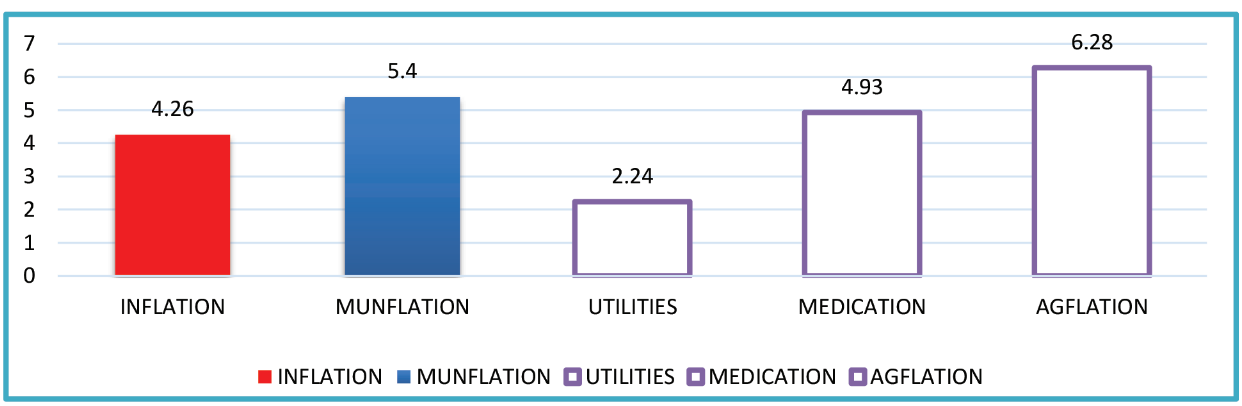

Figure 1: Average Inflation, Munflation, Utilities, Medication, and Agflation for 2010–2021* in Georgia *10 Months of the 2021 Year

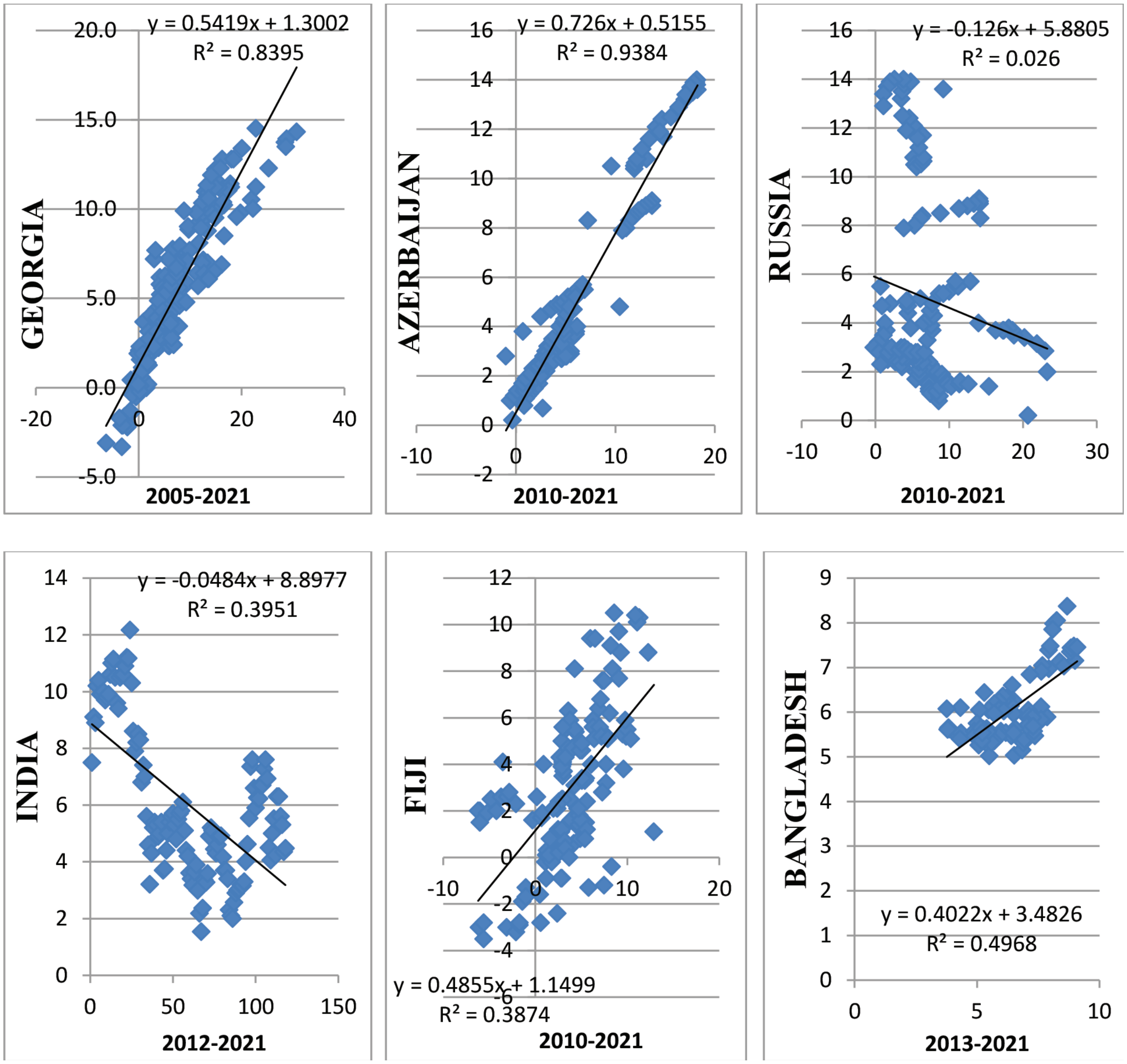

Figure 2: Correlation Between Inflation and Agflation at Some Selected ADB Member Countries

Source: Authors Calculation Based on the Data Available on Each Country with the Latest Update on October 2021

which limits economic recovery opportunities and even increases price for different bank products, such as mortgages or Auto loans (does not matter new or used ones), which usually are stick to the monetary policy rate. Thus, a society that has been one step forward in terms of moving from the poor to the middle class is pushed back to the poor class from one side through the higher price increase on the essential products and second from the bank payments increase. This double stress on society is usually happening in parallel with the jobs market unrecovered, which can lead to other traps from the socio-economic prism.

4. Discussion - Influence on Economic Growth

Nowadays, despite the fact of a floating exchange rate regime, different countries are often using the mechanism of partial exchange rate moderation (for instance: currency interventions, minimum reserve norms, refinancing loans,

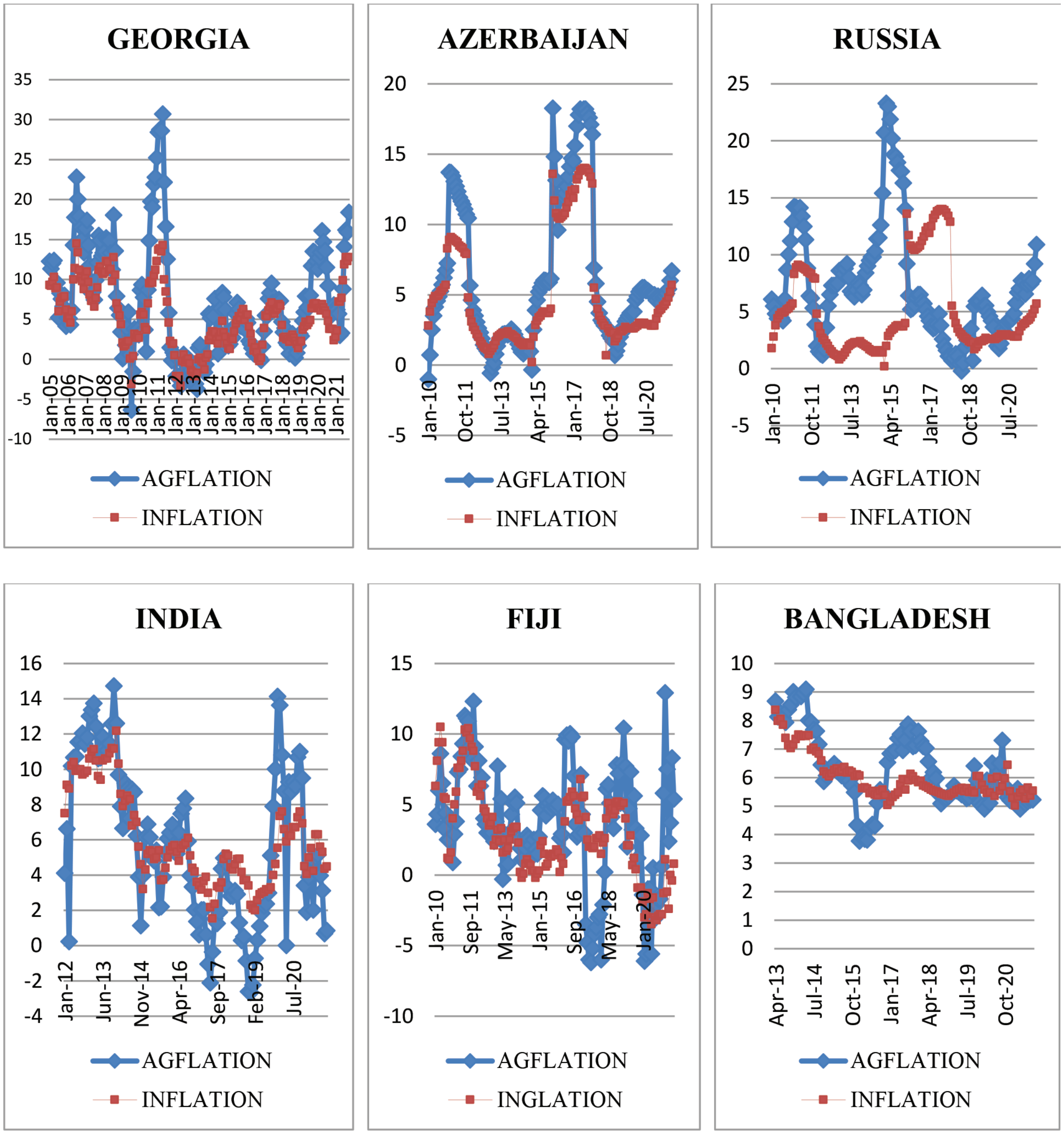

Figure 3: Inflation and Agflation at Some Selected ADB Member Countries

Source: Trading Economics, Food Inflation, https://tradingeconomics.com/country-list/food-inflation

and others). We believe that these new instruments, combined with the old ones, could be used to achieve higher results. The combination of traditional and new instruments could lead to better monetary and fiscal policies, finally leading toward higher economic growth and inclusiveness, while not harming the price stability goal.

A good example of munflation effectiveness was shown during the last pandemic year of 2020 when average inflation seemed to be quite acceptable/understandable for such a challenging time, while the average price of essential medicine and nutrition (and not only) increased several times higher than the average inflation. Also, underlining that some products which (formally) decreased in price were not available on the market at all, at least for some time (theaters, hotels, restaurants, gyms, public transport…). At such times average inflation rate gives a lot of wrong messages to the central bank, government, business, International Financial Organizations, and also Society. Consequently, wrong policy decisions could be taken if based only on old standard instruments.

That's why we propose to use an old instrument, along with new ones, which could help to see both, the bigger and more detailed pictures at the same time, thus leading to better policymaking.

There is one more option, an index based on the inflation and imflation parameters, which we call – Complex Inflation Targeting (CIT). Nowadays, the inflation targeting regime is oriented only on the single inflation indicator, but with the help of CIT, a comprehensive approach could be elaborated; with the tools at the central bank's disposal, they will be able to regulate the dynamics of prices in the domestic market. For example, if the level of import prices increases, central banks will be able to "mitigate" this price increase as necessary by a corresponding interference in the exchange rate market (not thought setting the exchange rate directly, but rather pushing it toward necessary direction). If the price increase will be caused by the local sources, then the monetary policy strengthening tool could be implemented, as well as tightening of some macro-prudential norms (Papava & Charaia 2019).

CIT differs from the Hibrid Inflation Targeting regime, where the exchange rate of the national currency is the target indicator along with inflation (Restrepo et al., 2009). in the CIT system, the target indicators are inflation and imflation, and the exchange rate of the national currency acts as an effective tool to maintain the target imflation indicator. It could be an especially important tool for highly import depended countries (such as Georgia), where inflation is another imported. Thus, if the CIT system includes the imflation indicator along with the traditional inflation indicator, then central banks will have to respond to the devaluation of the national currency to prevent a rise in the prices of imported goods in the local market (Papava & Charaia, 2019).

Along with the inflation targeting mechanisms, important to remember the possibilities of different countries, especially those developing ones, compared to developed economies. Research shows that the economic growth model in developing post-Communist countries (most of them Asian and ADB members) differs from the model of developed EU member states (Papava, 2018). The key reason for this is the lack of modern technologies and innovative systems, which is the case for any average developing country when comparing it to the developed economies, making them fall behind. This reality facilitates divergence between developed countries and developing countries, pushing the last to become a labor-intensive and resource-oriented economy (Nassif et al., 2013).

To move from falling behind the model to catching up with the model of economic growth, human resources are of vital importance (Kim, 2007). In other words, policies chosen by the developing economies for their economic development have a crucial role in their future economic growth, thus taking a closer look at inflation-related issues, especially at the time of the global pandemic, can support the governments in creating more society and future-oriented policies.

5. Conclusion

Inflation has become one of the most challenging issues, especially among the developing economies all around the world, including Asia and the Pacific region. It becomes even more complicated when considering some common problems of the developing world, such as significant import dependence, exchange rate vulnerability, high unemployment, low average salaries, etc., as it was not enough topped by the COVID-19 global pandemic for the last years.

Coronomic crisis has brought its own challenges, which made even more negative impact on developing economies, such as an increase in transportation prices, disruption in global supply chains, increase of governmental deficit spending, as well as significant governmental payments for unemployment causing working force price increase and so on.

From one side, inflation plays a huge role in citizen's everyday life, and thus regulators (usually central banks) responded to the challenge by strengthening monetary policies. However, increased interest rates, in their turn, hindered the economic development of the country at large. Central bank's strict policies, on one side, pushed the governments either to increase the taxes or to rise the deficit, while on the other side, an increase in average interest rates triggered the overall expenditures themselves, all of which finally are able to lead to even higher inflation. Thus, making central banks' inflation targeting policies invalid by default.

Because of superior attention to the prices of food, medication, and utilities, especially in the era of global pandemic a new statistical indicator sufficiently reflecting the fluctuations – munflation was invented. Studies show that this indicator is more sensitive to the needs of the wider population in developing countries, rather than inflation. However, both of them used in combination could lead to more progressive decision-making both for the central banks and the governments.

A new approach has the ability to consider not only the poor but also the middle class. Unfortunately, the middle class, which has made its progress already is pushed back to the poor class from one side through the higher price increase on the most essential products and second from the bank payments increase linked toward the monetary policy rate strengthening by the central banks in response to the higher than targeted inflation; and all of that happening during the mass unemployment increase. In this time of unprecedented challenges, new approaches such as munflation could be helpful.

A good example of munflation effectiveness was shown during the last pandemic year of 2020 when average inflation seemed to be quite acceptable/understandable for such a challenging time, while the average price of essential medicine and nutrition (and not only) increased several times higher than the average inflation giving a solid sign of something going wrong. However, central banks and the governments armed with only inflation parameters took the decisions, which even accelerated the problem, proving that, wrong policy decisions could be taken, especially the developed economies, based only on old standard instruments once working perfectly in developed countries.

On top of munflation, a complex inflation targeting could be used to tackle the inflation in many developing countries, where central banks do not recognize their role in the overall financial stability but claim to be responsible only for the final inflation rate. This is wrong by default, especially if one is import and foreign exchange rate dependent, which is top with a bunch of different exogenic challenges.

To move from falling behind the model to catching up with the model of economic growth, developing economies have to concentrate more on their human resources and technological progress, otherwise risking staying in the low-skill, low-income, and low-developed economies trap, leading to even more dependence on exogenic factors and thus inability to control the price stability at a long run.

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