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Tax Cut-Induced Wage Growth as a Source of Inflation in a Dollarized Economy – Review of the Case of Montenegro

Abstract: Available studies suggest that fiscal policy measures aimed at increasing disposable income growth may have an impact on inflation. As inflation in Montenegro in 2022 was higher compared to the euro area, several studies were conducted to estimate the impact of external and domestic inflation factors. They identified a positive relationship between external factors (changes in import prices) and domestic factors (fiscal policy measures), as well as between these factors and inflation. However, they did not quantify the impact of any component, particularly of the fiscal programs implemented in Montenegro. This study aims to estimate the effects of fiscal policy programs on growth in disposable income implemented in 2022, which in turn led to increased household deposit growth. The empirical analysis based on estimated correlation coefficients between household deposits' annual change, import prices, and CPI in Montenegro (yearly data from 2014 to 2024) shows a strong positive linear relationship between changes in household deposits and CPI and also between changes in import prices and CPI, with a stronger correlation between change in import prices and CPI. This leads to the conclusion that deposit and import price growth influence inflation, with different impacts on its intensity.

To estimate the impact of fiscal measures on inflation in Montenegro in 2022, we apply an accounting approach and use a dynamic mathematical model based on the quantitative theory of money. The study shows that inflation in Montenegro in 2022 was partly driven by household deposit growth, influenced by wage growth (in the part where wages grew above productivity growth), which contributed to half of the rate of price growth. The growth in prices of imported products contributed the remaining half of the inflation. The in-

creased disposable income led to growth in demand deposits and time deposits of the house-holds (up to one-year time deposits may be used as transaction money) which, according to the quantitative theory of money, led to price growth as it was not followed by similar production growth. During the same period, net public debt increased, which was associated with declining reserves financed through external borrowing in earlier periods, explaining the source of money supply growth.

This study contributes to the literature by offering an additional approach to analyzing short-term inflation sources in dollarized countries during a short period or after specific fiscal instruments have been implemented. The accounting approach, combined with a mathematical dynamic model, provides the opportunity to investigate inflation determinants in more detail, giving a more in-depth view than the analysis conducted by applying the standard econometric models.

Keywords: Dollarization, Fiscal policy, Inflation.

JEL Code: E65

1. Introduction

Dollarization is a monetary regime chosen, in some forms, by at least 60 small countries or territories (Alesina & Barro, 2001). The expansion of independent countries after the Second World War led to an increasing number of those applying for currency unions or dollarization[1] Full official dollarization is a "rational policy when the country is relatively small and highly import-dependent, experienced hyperinflation; seigniorage income is small due to already present informal dollarization, and foreign currency reserves are sufficient to replace the national currency with foreign currency." (Fabris, Vukajlović Grba, Radunović & Janković, 2004).

In a dollarized country, where the foreign currency is used as the official currency alongside or instead of the local currency, inflation dynamics can differ from those in countries with independent monetary policies. Since these countries use a stable foreign currency (the US dollar or the euro), they often benefit from its stability, which enables them to control inflation more effectively compared to countries with volatile local currencies. Dollarized countries lack control over their monetary policy, thereby limiting the available instruments to respond to economic shocks and inflationary pressures. Therefore, governments often use

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[1] There are two types of dollarization. "Unofficial dollarization prevails when residents extensively use a foreign currency (in most cases, the US dollar) alongside or instead of the domestic currency and/or hold foreign currency notes or bank deposits to protect against high inflation in the domestic currency. In contrast, official dollarization occurs when a government adopts a foreign currency as the predominant or exclusive legal tender" (Maute, 2006).

fiscal policy instruments to manage economic challenges, impacting inflation indirectly through taxation and spending. Global economic conditions, including changes in interest rates and fluctuations in global commodity prices, also influence inflation rates in these countries. A country's import dependency level strongly determines that influence.

The causes of inflation in fully dollarized countries, as in countries with independent monetary systems, can be various. As in Mishkin (2000), demand-pull inflation typically results from a higher rate of money growth, which in turn leads to subsequent inflation. It can be associated with extensive fiscal stimulus, such as tax cuts or other components of government spending. Cost-push inflation (supply-side inflation) influences prices, among other things, through higher wages, disruptions in manufacturing and transportation of goods, and rising fuel and food prices. This is particularly relevant for import-oriented countries where fluctuations in global commodity prices have a significant impact on domestic prices. Dollarized countries may experience imported inflation, where the prices of goods rise due to fluctuations in the prices of imported goods or changes in the exchange rates of other currencies. Mishkin also noted that it is challenging to distinguish between demand-pull and cost-push inflation in practice, as both types of inflation are typically associated with higher money growth. If demand and cost dynamics are associated with fiscal policy measures, the source of budget revenues to finance the fiscal policy (e.g. tax cuts) will determine whether inflation is created. If a government deficit is financed by an increase in bond holdings by the public, there is no effect on the monetary base and, hence, on the money supply. However, if the deficit is not created by increased bond holdings by the public, the monetary base and the money supply will increase. In dollarized countries, it is common for the government to borrow money from the international financial markets, which leads to money growth in the country.

Therefore, fiscal policy can have a significant impact on inflation in a dollarized country. Increased government spending can boost demand for goods and services if not followed by corresponding increases in production. Changes in tax policy, social programs, and subsidies can impact disposable income, potentially leading to increased demand.

In summary, while a dollarized country lacks control over its monetary policy, fiscal policy may influence inflation. The effectiveness of fiscal measures will depend on their design and how they interact with economic conditions. When government spending is a temporary measure, it will only lead to a temporary increase in the inflation rate, not inflation in which the price level continually

rises. However, if government spending increases continually, the price level may also rise (Mishkin, 2000, p. 670).

Montenegro introduced the "dual currency" regime in 1999, officially allowing the dinar and the Deutsche mark (DM) to be legal tenders. In November 2000, the new Law on the Central Bank of Montenegro was passed, introducing the DM and later the Euro (since January 2002) as the only legal tender. Since introducing the Euro as the only legal tender, Montenegro had experienced inflation trends similar to those in the EU and EMU countries in most periods until 2022, when significant deviations occurred.Available studies (Ivanović, 2023; Bojaj, 2024) indicated that fiscal policy measures influenced inflation in Montenegro in 2022 but did not estimate their impact.

This study aims to estimate the impact of fiscal policy programs implemented in 2022 (those that influence the disposable income of households, such as "Europe Now 1" or tax on product cuts) on short-term inflation in Montenegro. The increased disposable income leads to growth in demand deposits and time deposits of the households (up to one-year time deposits may be used as transaction money), which, according to the quantitative theory of money, leads to price growth if not followed by production growth. As net public debt increased in Montenegro in 2022, it is reasonable to assume that money borrowed from the international market was the source of implementing fiscal measures and influencing the growth of household deposits.

To estimate the impact of fiscal measures on inflation in Montenegro in 2022, we will apply an accounting approach and use a dynamic mathematical model based on the quantitative theory of money. Data from the Central Bank of Montenegro and Monstat (Statistical Office of Montenegro) will be used to estimate the impact of household deposit growth on price change.

This study has five sections. After the introduction, the second part presents a literature review. The third part presents an empirical analysis of inflation in Montenegro. The fourth section presents the data and methodology of this study. The final part presents a discussion and conclusion.

2. Literature review

The literature on fiscal sources of inflation in dollarized economies is available, although it is not extensive. More extensive research has been conducted on fiscal policy and inflation in the euro area, especially in recent years.

Bankowski et al. (2023) demonstrate that several studies for the euro area have found that fiscal policy temporarily affects inflation, primarily through the output gap channel, and for specific instruments, particularly indirect taxes and government consumption, via the public wage component. Checherita-Westphal and Pesso (2024) show that fiscal policy's effect on inflation is non-linear, with debt levels significantly influencing the inflationary outcome of fiscal measures. They concluded that high debt levels amplify the inflation response to fiscal expansion. Ascari, Bonam, Mori, and Smadu (2024) investigated the relationship between fiscal policy and inflation dynamics in the euro area, focusing on the post-pandemic inflation surge. They found that buoyant demand and adverse supply shocks contributed to inflation, but demand shocks were relatively more important. Their study shows that fiscal stimulus influenced domestic-based inflation measures and that fiscal shocks' relative impact on inflation dynamics varies across (selected) euro area countries. Savluk & Breheda (2024) pointed out that the deposit channel is very rarely treated as a separate line of the monetary policy from the credit channel.

Korab, Fidrmuc, and Dibooglu (2023) emphasized that since monetary policy cannot be formulated independently of fiscal policy, the absence of monetary discretion in a dollarized country necessitates fiscal discipline. Rother (2004) presents panel estimations for a sample of OECD countries, which suggest that activist fiscal policies may have an important impact on CPI inflation volatility. From a policy perspective, these results suggest the possibility of destabilizing the effects of discretionary fiscal policies and their potential to disrupt output. Fares, Libman, and Zack (2023) show that traditional stabilization policies, such as fiscal spending to sustain aggregate demand, may shift their currency demand, leading to domestic money depreciation. Makena (2020) shows that the external influences in the form of changes in crude oil prices, the South African Rand/US Dollar exchange rate, and the CPI for South Africa are being viewed as the main factors explaining inflation dynamics in Zimbabwe, which is a dollarized country (multi-currency system). Moosa, Al-Saad, and Khatatbeh (2024) studied the missing inflation phenomenon, including the declining velocity of circulation, and other determinants of inflation, and found that none of them can explain the huge gap between monetary inflation and price inflation. They proposed an alternative explanation, suggesting that monetary inflation is more accurately reflected in stock prices than in the CPI.

Fabris (2025) analyzes the application of monetary regimes with two nominal anchors (exchange rate and monetary and interest rate targets) and presents a framework for how such a system could be implemented over a longer period. Bailey (2005), in the study on the relevance of financial dollarization to the in-

flation process in the Jamaican economy, found that dollarization increases the inflation outcome for a given fiscal deficit due to the substitution of economic agents away from the domestic currency.

Ivanović (2023) concluded that fiscal policy measures should be targeted in dollarized countries to alleviate inflationary pressures from the global environment, i.e. the softened transmission of international food and oil prices to other prices. Furthermore, addressing inflation requires the implementation of structural reforms in the public sector and the social benefits system. Implementing structural reforms in the public sector opens up space for applying a flexible fiscal policy in addressing the adverse effects of inflation and ensuring the well-being of the population. On the contrary, increasing salaries and social benefits expenditures to amortize inflationary shocks would further fuel inflation.

Bojaj (2024), using data for Montenegro from January 2006 to December 2023, quantifies the correlation between shocks to inflation due to fiscal and monetary shocks, foreign market shocks, demand and supply, economic inequality, and internal and external shocks. He discovered that when the government expands its investments beyond a specific limit, the expectations of citizens, companies, and institutions are too high, creating cost pressure and demand and increasing inflation. The results highlight the enormous obstacle posed by imbalances in fiscal policy, expectations, demand and supply, labor inputs, governance indicators, global supply, foreign markets, and economic inequality.

3. Empirical analysis of inflation in Montenegro

Since introducing the EURO as the only legal tender, Montenegro had experienced inflation trends similar to those in the EU and the EMU countries for most of the period until 2022, when significant deviations occurred (Graph 1-2). The deviations were also visible in 2017 and 2018, although to a lesser degree. Both periods correspond with the preceding above-average household deposit growth[2] (graph 4).

The analysis of the monthly change in HCPI shows that in 2022, monthly inflation was significantly higher in Montenegro compared to the EU and the EMU, with the most notable difference in July 2022. In 2023, Montenegro's annual inflation rate was slightly higher than in the EU (4.9% versus 3.4%), although monthly deviations remained high. In 2024, there was little variation. By January 2025,
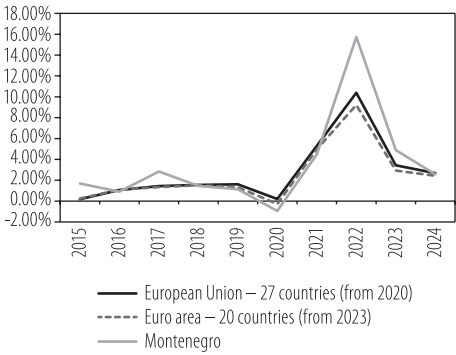
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[2] Household deposits in this study cover demand deposits plus time deposits up to one year.

Graph 1: Harmonized CPI in Montenegro, EU and EMU, 2014-2024, monthly data, 2015=100
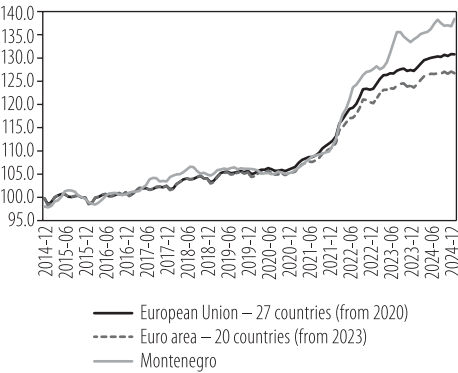
Source: Eurostat (HICP - monthly data (index) [prc_hicp_midx__custom_15813906])

**Graph 2: HCPI (end of the year) in EU, EMU, and Montenegro, 2015-2024**

Source: Eurostat (HICP - monthly data (index) [prc_hicp_midx__custom_15813906])

inflation (measured by the HCPI) in Montenegro was again higher than in the EU (1.18% versus -0.05%) (graph 3).

An analysis of inflation sources in Montenegro, conducted by Ivanović (2023), reveals that inflation in Montenegro is primarily influenced by global factors related to price changes, particularly those of raw materials, food, and oil. The influence of the regional factor is small, which is understandable because its influence is "absorbed" by the global factor. The analysis reveals that in times of increasing fiscal burdens, the domicile factor has a significant impact on price changes, and the level of inflation in Montenegro exceeds the average inflation in the Eurozone.

Graph 3: Harmonized CPI in Montenegro, EU and EMU, 2022-2024, monthly data
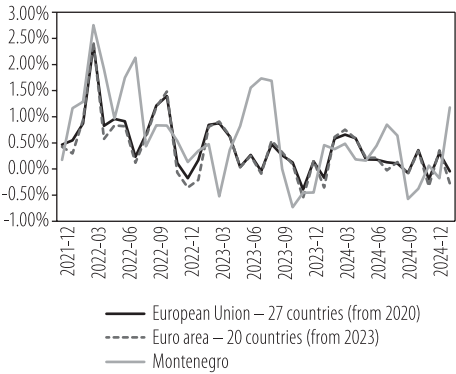
Source: Eurostat (HICP - monthly data (index) [prc_hicp_midx__custom_15813906])

To evaluate the possible existence of a monetary impact on inflation in Montenegro, we estimated the correlation between CPI and household deposits based on monthly data from January 2013 to December 2014 (table 1). The rationale behind selecting household deposits to represent the money supply is that households

create the largest proportion of aggregate demand for final goods and services and, therefore, have the greatest impact on market equilibrium.
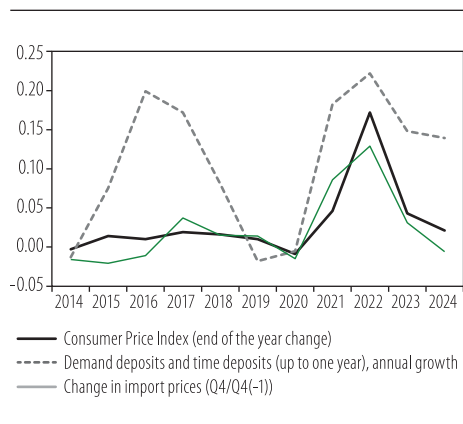
The estimated correlation coefficients show that the most significant positive linear relationship exists between households' demand deposits and CPI, equal to between households' demand deposits aggregated with time deposits up to one year and CPI. Changes in time deposits of up to one year, similar to changes in demand deposits, influence market equilibrium within a short time frame (up to one year). This is why the analysis of the monetary impact on inflation in Montenegro will be based on the dynamics of household demand deposits aggregated with time deposits (up to one year).

Table 1: Correlation coefficients between CPI and households' deposits in Montenegro

	CPI	Household demand deposits (HDD)	Household demand deposits plus time deposits up to one year (HDDT1y)	Households' total time deposits (HTT)	Households` total deposits (demand plus time) (HD)
CPI	1.00				
HDD	0.25	1.00			
HDDT1y	0.25	1.00	1.00		
HTT	0.15	0.44	0.43	1.00	
HD	-0.31	-0.94	-0.93	-0.31	1.00

Source: Author`s calculations

Graph 4: CPI, household deposits growth, and import prices change, Montenegro, 2014-2024

Consumer Price Index (end of the year change)
Demand deposits and time deposits (up to one year), annual growth
Change in import prices (Q4/Q4(–1))

Source: Central Bank of Montenegro; Monstat

Observed trends in CPI (end of the year), household deposits (demand deposits plus time deposits—up to one year) annual growth, and annual change in import prices in Montenegro from 2014 to 2024 (graph 4) show that higher CPI in Montenegro than import price change corresponds with household deposits growth, and vice versa.

The estimated correlation coefficients between household deposits' annual change, import prices, and CPI in Montenegro (annual data from 2014 to 2024) show a strong positive linear relationship between changes in household deposits and CPI and also

between changes in import prices and CPI, with a stronger correlation between change in import prices and CPI (table 2).

Table 2: Correlation coefficients between CPI, households' deposits, and import prices change in Montenegro

|	CPI (end of the year)	Households deposits annual growth	Import prices annual change
CPI (end of the year)	1.00		
Household deposits annual growth	0.61	1.00	
Import prices annual change	0.88	0.61	1.00

Source: Authors' calculations

This is consistent with the findings by Ivanović (2023), who shows that in the first quarter of 2022, the domicile factor went from a negative to a positive zone, indicating the fiscal reform's impact at the beginning of the year. In addition to the program implemented in January 2022 (households' disposable income increased due to the abolition of health contributions), the government reduced another fiscal burden in June 2022. Numerous measures have been implemented to temporarily lower the fuel price and reduce the value-added tax rate on basic foodstuffs and other production inputs. However, the influence of the domicile factor has not decreased; it has actually increased.

Which fiscal measures influenced disposable income and deposit growth in Montenegro in 2022? In January 2022, the Government of Montenegro introduced the reform package "Europe Now 1!," which introduced a higher minimum wage and the abolition of healthcare contributions. The program had three main components: abolition of health insurance contributions, which amounted to 10.8% of gross earnings, in order to relieve the tax burden on earnings and stimulate employment, with the transition to financing of the public health sector directly from the budget; more progressive taxation by introducing a high non-taxable threshold of 700 euros monthly in order to provide the most significant relief for low and below-average earnings (while retaining the 9% earnings tax rate and introducing another progressive rate of 15% for gross earnings over 1,000 euros per month); and a significant increase in the legal minimum wage, from 250 euros in net amount per month to 450 euros (Altiparmakov, Ugrinov, & Lakićević, 2024). As Altiparmakov et al. show, after reforms in 2022, the nominal cost for employers on all wage levels increased. The cost increases mainly in the case of minimum wages, which amounts to approximately 35% nominally. As a result of this program, the average net wage in Montenegro increased by 27.7% in January 2022[3].

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3   Source: Monstat

Graph 5: Household's deposits and GDP (current prices, 000 €), Montenegro, 2013-2024
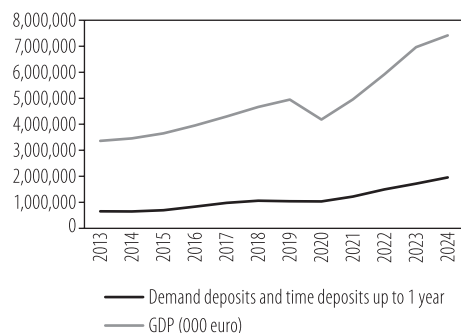
Source: Central Bank of Montenegro; Monstat

Net wage growth influenced household deposit growth (graph 5), which is elaborated in more detail in section 4.3 below.

The analysis of household deposits (demand deposits and time deposits (up to one year)) and GDP in current prices in Montenegro from 2013 to 2024 show that, since 2022, deposits increased faster compared to previously observed dynamics. This coincides with fiscal measures toward higher household' disposable income.

4. Data, methodology, and empirical results

4.1. Data

This study used data from the Central Bank of Montenegro and Monstat, with annual frequency (from 2021 to 2023), and Eurostat and Central Bank of Montenegro, with monthly frequency (from 2014 to January 2025). The indicators are listed in table 3.

Table 3: Data used in the study

Period	Indicator	Source
2021-2023	Demand deposits of the households, % of GDP	Central Bank of Montenegro
2021-2023	Time deposits up to one year of the households, % of GDP	Central Bank of Montenegro
2021-2023	Contributions for health insurance (fiscal accounts)	Central Bank of Montenegro
2021-2023	Primary income, revenues (Balance of payments)	Central Bank of Montenegro
2021-2023	GDP, real growth rate	Monstat
2021-2023	Price indices of imported industrial products	Monstat
2021-2023	Average net wage	Monstat
2014-2025	Harmonized Consumer price index (HCPI)	Eurostat

Source: Author's compilation

Given that the research goal was to examine the impact of household disposable income growth on inflation, the money supply in this study is defined as household demand deposits and time deposits for up to one year (short-term time deposits can be used as transaction money after the expiration of the term period).

$$Deposits\ of\ households$$
$$= Demand\ deposits\ of\ the\ households$$
$$+ Time\ deposits\ of\ the\ household\ (up\ to\ one\ year)$$

The rationale behind this definition of the money supply is that households create the largest share of demand for final goods and services, while tax cuts (including health contributions and taxes on products) directly impact household income. We also considered incorporating the growth in household loans in the equation, but as its trend was linear, it did not influence any unordinary demand growth in this period.

4.2. Methodology

The theoretical foundation for this study is the quantitative theory of money, which can be used to measure the impact of money supply growth on price level changes, taking into account real production growth and the velocity of money. We assumed that growth in fiscal spending in dollarized countries, if financed from external sources (international financial markets), may lead to an increase in the amount of money in circulation, which causes an absolute change in the price level.

Irving Fisher's version of the quantitative theory of money examines the link between the total quantity of money M (the money supply) and the total amount of spending on final goods and services produced in the economy ($p * Y$), where the p is price level, and Y is aggregate output (income). The v is the velocity (the rate of money turnover – the average number of times a currency is spent per year in buying the total amount of goods and services).[4]

Therefore, the quantitative theory of money can be expressed as:

$$M * v = p * Y \tag{1}$$

The velocity of the money is:

$$v = \frac{p*Y}{M} \tag{2}$$

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[4] Fisher, I (1911). The Purchasing Power of Money, in Mishkin (2000), p. 538.

Assuming the v is constant, we may rewrite equation (1) as:

$$(M + \Delta M)\frac{p*Y}{M} = (p + \Delta p)(Y + \Delta Y) \tag{3}$$

After dividing with $p*Y$,

$$\left(\frac{M+\Delta M}{M}\right) * p = (p + \Delta p)\frac{(Y+\Delta Y)}{Y} \tag{4}$$

$$\left(1 + \frac{\Delta M}{M}\right) = \left(1 + \frac{\Delta p}{p}\right)\left(1 + \frac{\Delta Y}{Y}\right) \tag{5}$$

If denote $\frac{\Delta M}{M}$ as m, $\frac{\Delta Y}{Y}$ as y, and $\frac{\Delta p}{p}$ is p', the impact of changes in the money supply on price growth (inflation), assuming a constant velocity of money circulation is:

$$p' = \frac{1+m}{1+y} - 1 \tag{6}$$

Where m represents the money supply growth rate (demand deposits and term deposits up to one year - household); v – velocity of money; p' – price level change due to money supply growth (monetary source of inflation); y – real income (GDP) growth rate.

To quantify the impact of growing household disposable income on price change, we will adjust the m with the β – the marginal propensity to consume, as part of the household income is used for saving (positive or negative).

$$m^\beta = m * \beta \tag{7}$$

Where m^β is the money supply growth rate adjusted for the marginal propensity to consume.

Imported inflation is determined by the change in prices of imported industrial products, corrected for the marginal propensity to import.

$$p^{u'} = p^m * m^u \tag{8}$$

Where $p^{u'}$ denotes imported inflation, p^m - change in import prices of industrial products, and – m^u- marginal propensity to import.

Total inflation (p_t) in period t is equal to monetary-influenced inflation and import-influenced inflation.

$$p_t = p_t' + p_t^{u'} \tag{9}$$

4.2. Empirical results

Based on indicators in Table 3 and equations 6-9, we estimated inflation in Montenegro from 2021 to 2023 (Table 4). The marginal propensity to consume - MPC (0.7) and marginal propensity to import – MPI (0.66) used in this study were estimated by applying the aggregate demand model (equilibrium in goods markets).[5] Also, it is important to emphasize that estimation results are susceptible to changes in the value of the MPC and MPI, which may fluctuate over time.

The estimated results show that total inflation in Montenegro in 2022 resulted from domestic (monetary expansion) and external (imported price growth) factors. This is the opposite of 2021, when inflation was determined only by imported price growth. This confirms the findings from previous research (Ivanović, 2023) that until 2022, inflation in Montenegro was dominantly influenced by external factors. In 2023, inflation growth was also influenced by domestic and external factors, which was expected as several fiscal measures toward wage growth were implemented in 2023 (wage growth after the collective agreement's amendments), although with a smaller scope in terms of its influence on aggregate macroeconomic indicators.

Table 4. Estimated inflation in Montenegro (2021-2023)

	Demand deposits and time deposits up to 1 year (million €)	Deposit growth rate	GDP real growth rate	Deposits growth*MCP	Inflation-monetary component	Import prices (Q4t/Q4t-1)	Inflation-imported	Inflation-total	CPI - annual growth rate, official data (Monstat)	Difference from Monstat data
2021	1,223	18.26%	13.0%	12.8%	-0.2%	8.6%	5.7%	**5.4%**	4.6%	0.8%
2022	1,495	22.21%	6.4%	15.5%	8.6%	12.9%	8.5%	**17.1%**	17.2%	-0.1%
2023	1,717	14.82%	6.3%	10.4%	3.8%	3.1%	2.0%	**5.8%**	4.3%	1.5%

Source: Central Bank of Montenegro; Monstat; Author's calculation

As estimated in this study, the inflation rate in Montenegro in 2022 corresponds to the official end-of-the-year inflation rate produced by Monstat. The estimated inflation rate in this study is 17.1% in 2022, while Monstat's is 17.2%. The variations between the study's and Monstat's inflation rates in 2021 and 2023 are slightly higher (0.8% and 1.5%, respectively). However, if we adjust MPC and MPI with data for 2021 and 2023 (in both years, the share of household consumption and import of goods and services in GDP were lower than in 2022), the difference

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5   Bacovic, M., Pejovic, B. (2025). *Economic Outlook for Montenegro from 2025 to 2028*, MICEB 2025 (forthcoming)

between estimated and official inflation data is reduced. As this study aims to explain sources of inflation in 2022, we will omit a detailed analysis of 2021 and 2023 sources of inflation in Montenegro.

The results of this study confirm the findings presented by Ivanović (2023) and Bojaj (2024), showing that in times of increasing fiscal burden, the domicile factor had a significant impact on the movement of prices, and the level of inflation in Montenegro was above the average inflation in the Eurozone.

What are the sources of household deposit growth in 2022? Data from the Central Bank of Montenegro show that 2022 household deposits (demand deposits and time deposits (up to one year)) increased by 271 million euros. There are three sources. Based on real growth (production growth), the population's income increased by 95.7 million euros. This growth has no inflationary impact. The household income increased by 160 million euros after the abolition of health care contributions ("Europe Now 1!"), which corresponded to the reduced income based on health contribution in the budget of Montenegro in 2022 compared to 2021 (corrected for real growth). Net factor incomes from abroad amounted to 16.5 million euros.[6] When we summarize all three sources of household deposit growth, the total growth in deposits is 271.5 million euros. This amount corresponds to the growth of household deposits shown in the Central Bank's data. The monetary source of deposit growth is net public debt growth of 292 million euros, financed with declining government reserves[7], as seen from the fiscal accounts[8].

The study shows that inflation in Montenegro in 2022 resulted from wage growth (in the part where wages grew above productivity growth), which contributed to half of the rate of price growth and the growth in prices of imported products.

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[6]   Growth of non-resident deposits was 2% (16.5 million) in 2022, so we decided to exclude this variable from the analysis.

[7]   The reserves increased at the end of 2020, after the government sold 750 million euros worth Eurobonds

[8]   Data source: Central bank of Montenegro, data on fiscal sector (https://cbcg.me/en/statistics/statistical-data/fiscal-developments)

5. Conclusion

Since full dollarization was introduced in Montenegro, and the euro became the only legal tender, Montenegro has experienced the benefits of monetary stability and low inflation in most periods (similar to inflation in the euro area), reduced transaction costs, and international transactions.

Since 2021, inflation has started rising not only in Montenegro but also in the euro area. While inflation in Montenegro was determined mainly through external sources (imported inflation) in 2021, fiscal policy interventions implemented since 2022 toward households' disposable income contributed to higher inflation than in the euro area. Therefore, fiscal policy measures should be implemented carefully, especially in dollarized economies, where monetary policy cannot intervene if inflationary pressures become too strong.

To prevent inflation, a government can implement several strategies, such as limiting excessive government expenditure, managing a balanced budget, and implementing or increasing taxes, which can help reduce disposable income and aggregate demand, easing inflationary pressures. Conversely, targeted tax cuts can stimulate growth without sparking inflation if the economy is underperforming and enhance productivity through investing in infrastructure, technology, and education, increasing the supply of goods and services. Encouraging competition in markets can help keep prices down. Anti-monopoly laws and regulations can be enforced to ensure a fair business environment.

This study contributes to the literature by offering an additional approach to analyzing short-term inflation sources in dollarized countries during a short period or after the specific fiscal instruments have been implemented. The accounting approach, combined with a mathematical dynamic model, provides the opportunity to investigate inflation determinants in more detail, giving a more in-depth view than the analysis conducted by applying the standard econometric models.

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