



THE IMPORTANCE OF MONITORING PUBLIC FINANCES

WHY EFFICIENCY MATTERS AND HOW THE POPULATION IS

DIRECTLY AFFECTED BY THE STATE'S DECISIONS

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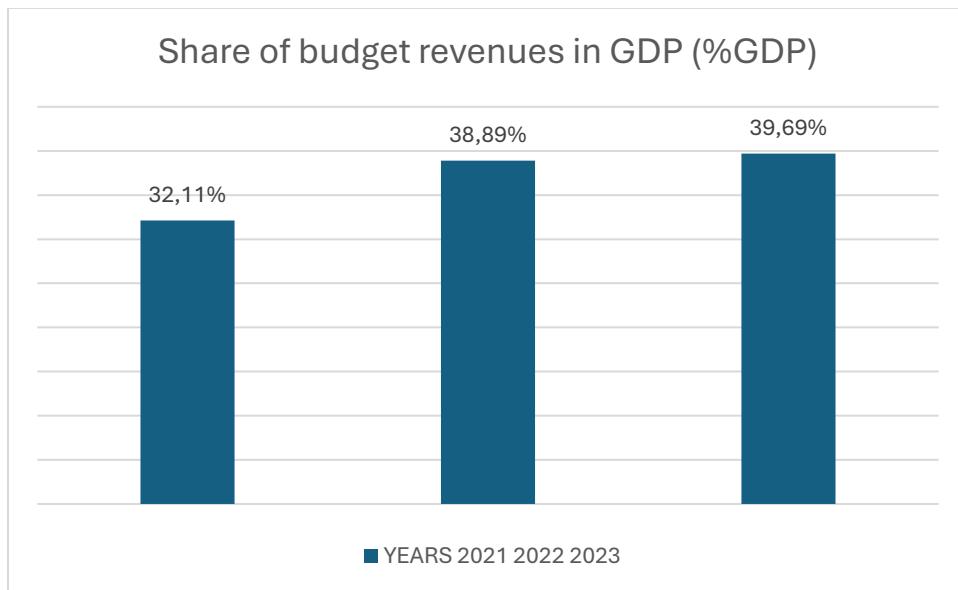
1. Abstract

The analysis of public finances in Estonia, Cyprus and Belgium highlights significant differences in the tax structure, public spending and debt sustainability. Estonia stands out for its prudent fiscal policy, with the lowest level of public debt in the EU. Cyprus, hit by the 2013 financial crisis, has implemented reforms to stabilise finances but still faces economic vulnerabilities. Belgium, with a large public sector, has high public debt but benefits from a diversified economy. Taxation is lower in Estonia, attracting investment, while Belgium has higher taxes to support social services. Cyprus adopts a mixed strategy, with favourable taxes for companies. The differences reflect distinct economic models and varying approaches to financial sustainability.

Keywords: public finances, tax structure, public spending and debt sustainability, public debt, economic vulnerabilities, economy, economic models.

2. The public finance situation of Estonia

This analysis focuses on the state of Estonia's public finances in the period 2021-2023. Regarding budget revenues, they recorded a slight increase in the analyzed period, from EUR 12.3 billion in 2021 to EUR 14 billion in 2022, then to EUR 15.2 billion in 2023, but in real terms, budget revenues recorded a decrease of 4.71% in 2022, respectively of 0.77% in 2023. This decrease in budget revenues in real terms occurred because the nominal increase in budget revenues was lower than the increase in prices during the analyzed period.



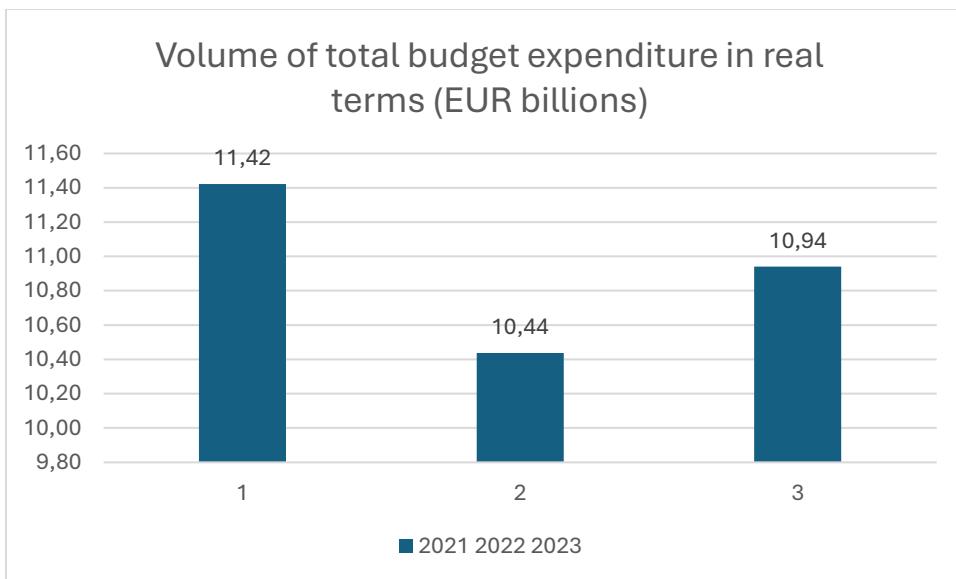
Unlike revenues, budget expenditures recorded a more pronounced increase in 2023 (14.69% compared to 8.57% in the case of budget revenues). Average budget revenues/capita. recorded a slight increase, from EUR 10379.6/capita. (in 2022) to 10987.42 EUR/capita (in 2023), and average budget expenditures/capita also recorded an increase in 2023 by 1252.83 EUR compared to 2022. Average budget expenditures/capita recorded a more pronounced increase compared to average budget revenues/capita, which may be due to the Covid-19 pandemic, which affected both revenues, but, to a greater extent, affected the budget expenditures of all states.

Budget expenditures had a higher share in GDP during the analyzed period, compared to budget revenues (41.99% compared to 32.11% in 2021, 39.72% compared to 38.89% in 2022, 42.82% compared to 36.69% in 2023). We also note that in 2022, budget revenues had a slower growth than GDP, and in 2023 they had a somewhat stronger growth than GDP.

This is shown by the size of the elasticity coefficient which is sub-unit in 2022 (0.9) and super-unit in 2023 (1.34). As for budget expenditures, they also recorded a slower growth than GDP in 2022 and a stronger growth than GDP in 2023, the size of the elasticity coefficient being 0.60 in 2022, and 2.30 in 2023. Regarding the structure of budget revenues, indirect taxes had the highest share throughout the analyzed period, although they decreased in 2023 compared to 2022 (34.15% in 2021, 34.29% in 2022 and 33.55% in 2023).

Regarding the structure of budget expenditures, in terms of economic classification, social transfers had the highest share throughout the analyzed period (27.48% in 2021, 27.97% in 2022, 28.05% in 2023). From the point of view of the functional classification of budget expenditures, social protection had the highest percentage in both 2021 and 2022 (32.01% and 31.91% respectively).

Both categories had the highest share in the analyzed period, amid the Government's support for the population in overcoming financial difficulties caused by the Covid-19 pandemic. Also against the backdrop of the Covid-19 pandemic, the Estonian Government has turned its attention to the "Health" category, occupying the second position after the allocated share of budget expenditures in both 2022 and 2023 (15.62% and 15.01% respectively).



Source: Ameco

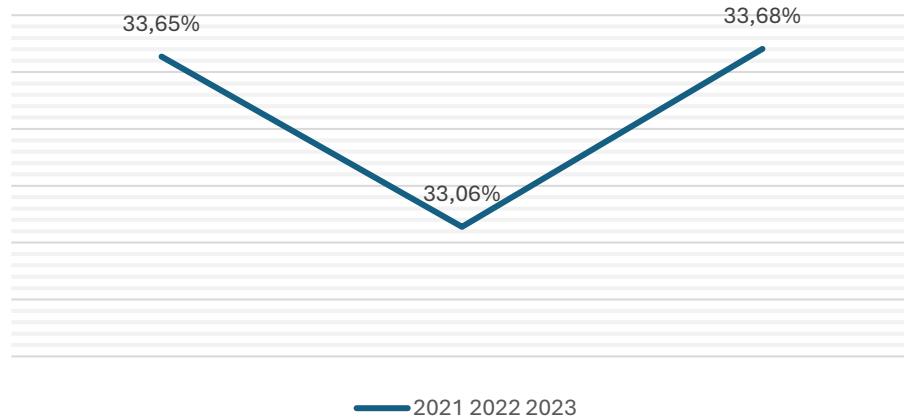
As for fiscal pressure, that exerted only by indirect taxes (VAT, excise duties) has the highest percentage in all 3 years analyzed (13.46% in 2021, 13.33% in 2022, 13.32% in 2023) compared to direct taxes (8.33% in 2021, 8.06% in 2022, 8.09% in 2023) and social security contributions (11.86% in 2021, 11.67% in 2022, 12.27% in 2023).

Throughout the analysis period, there are no major changes in the fiscal pressure in any of the mentioned categories. Regarding the marginal tax rate, it increased in 2023 compared to 2022 in all analyzed categories except indirect taxes, where Rmg remained constant. The highest tax rate among all the targeted categories was had by indirect taxes (0.13) in 2022 and social security contributions (0.22) in 2023.

Regarding the budget balance, Estonia recorded a budget deficit in all three years of analysis (2021, 2022, 2023), but it decreased by 0.43% in 2022 compared to 2021 and by 0.17% in 2023 compared to 2022. The new values of the budget balance in 2022 and 2023 (-2.78%, -2.71%) is below the maximum accepted threshold of -3% GDP, which means that the Estonian economy is

starting to stabilize.

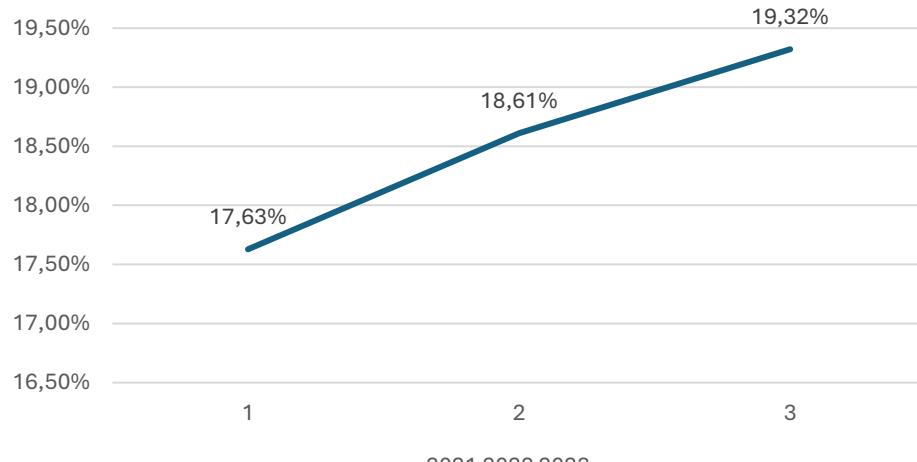
Macroeconomic fiscal pressure exerted by tax revenues



Source: Ameco

At the same time, Estonia recorded a public debt of: 17.63% GDP in 2021, 18.61% GDP in 2022, 19.32% GDP in 2023. We note that Estonia's public debt increased in 2022 compared to 2021 by 0.98%, and in 2023 compared to 2022 by 0.71%. This increase in public debt occurred against the backdrop of high budget expenditures compared to budget revenues, the main cause of these changes being the effects of the Covid-19 pandemic felt in the Estonian economy.

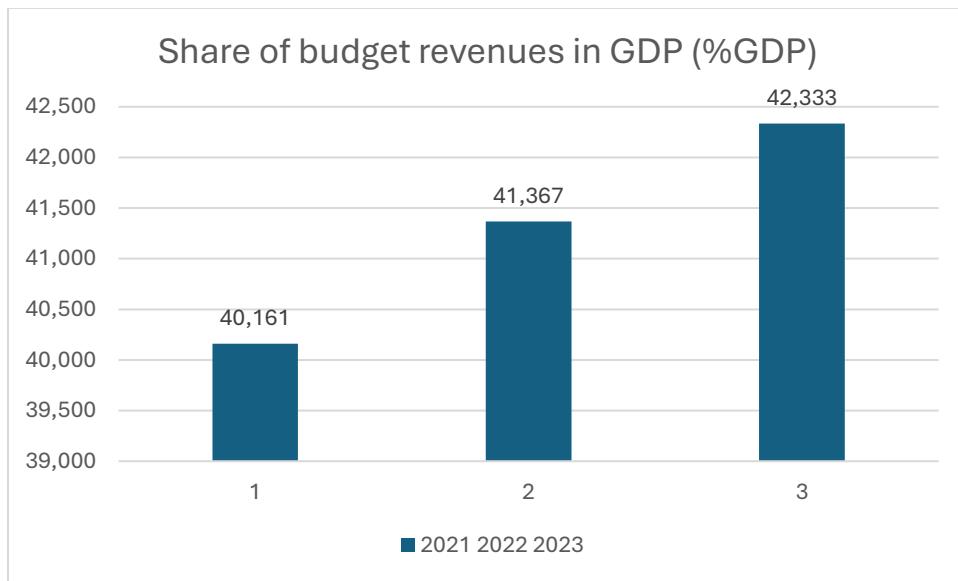
Public debt to GDP ratio (% GDP)



Source: Ameco

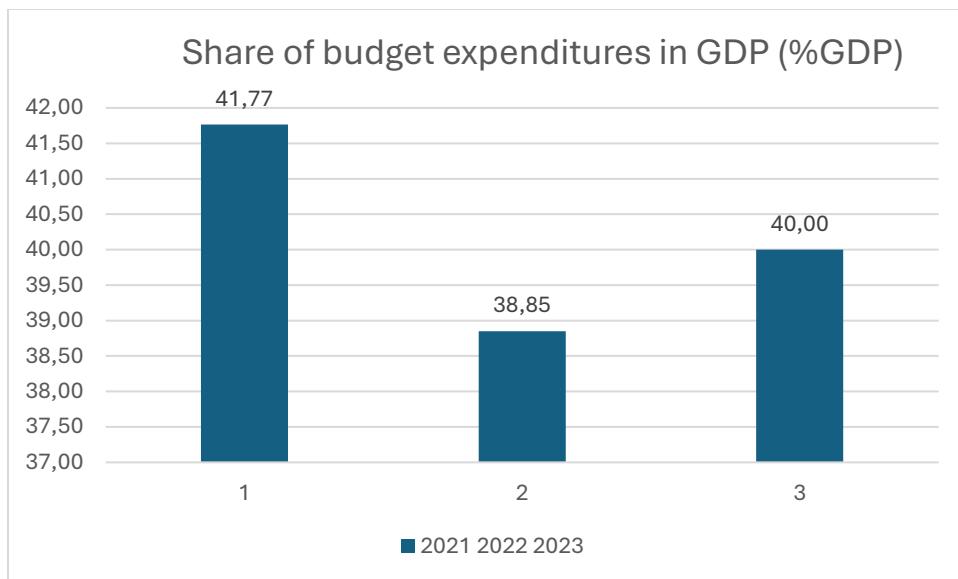
3. The public finance situation of Cyprus

During the analyzed period, the main effect on public finances was manifested through a very slight year-on-year increase in budget revenues in both nominal and real terms. It can be seen that the percentage change in VB in nominal terms in 2022 was 15% compared to the previous year, and in 2023 it was 10.435% compared to 2022. The share of VB in GDP increased by 1.2% in 2022 compared to 2021, and in 2023 it increased by 0.96% compared to 2022. Average income per capita increased by approximately 1,500 euros in 2022 compared to the previous year, and in 2023 they increased by approximately 1,100 euros compared to 2022. At the same time, budget revenues in real terms in 2022 increased to a lesser extent, by 6.34% compared to 2021, and in 2023 they increased by 6.1% compared to the previous year. Budget revenues grew faster than GDP. This is highlighted by the size of the elasticity coefficient, which is above unity. Regarding the structure of budget revenues, approximately 59%-63% of the total are tax revenues. We also note that indirect taxes have the largest share (34%-35%).



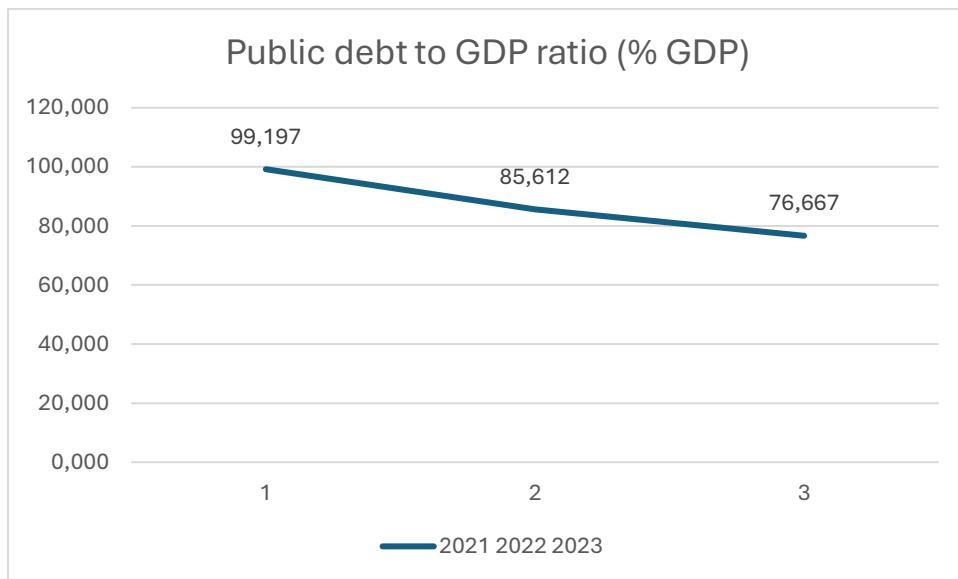
Source: Eurostat

A slight increase can also be observed in budget expenditures: budget expenditures in nominal terms in 2022 increased by approximately 4% compared to the previous year, and in 2023 they increased by 11% compared to 2022; the share of budget expenditures in GDP decreased by approximately 3% in 2022 compared to 2021, and in 2023 it increased by 1% compared to the previous year; and average expenditures per capita increased in 2022 by approximately 300 euros/capita, and in 2023 by approximately 1100 euros compared to the previous year. At the same time, budget expenditures in real terms decreased by 0.4% in 2022 compared to the previous year, but in 2023 they increased by 7% compared to 2022. During the analyzed period, it can be seen that GDP grew faster than budget expenditures. This is visible in the size of the elasticity coefficient which is sub-unit, or approximately equal to 1. Also, average expenditures per capita increased due to the increase in budget expenditures. In the structure of budget expenditures, 82%-85% are current expenditures, and 28%-30% are personnel expenses.



Source: Ameco

At the same time, in terms of the functional classification of budget expenditures, social protection expenditures have the highest share (28%-31%), followed by health and general public services. Through the fiscal pressure, it can be seen that the proportion of GDP collected from taxpayers is 34%-38%, social contributions have had the greatest contribution to increasing the level of taxation, respectively 13%-15% of GDP. The marginal rate of tax revenues, including CSS, increases from year to year by 0.5-0.6. It can be seen that at the beginning of the analysis period, the state recorded a budget deficit, but later it has a budget surplus. It is found that the analyzed state has a high level of indebtedness, over 60% of GDP, but a tendency to reduce it is observed.



Source: Ameco

4. The public finance of Belgium

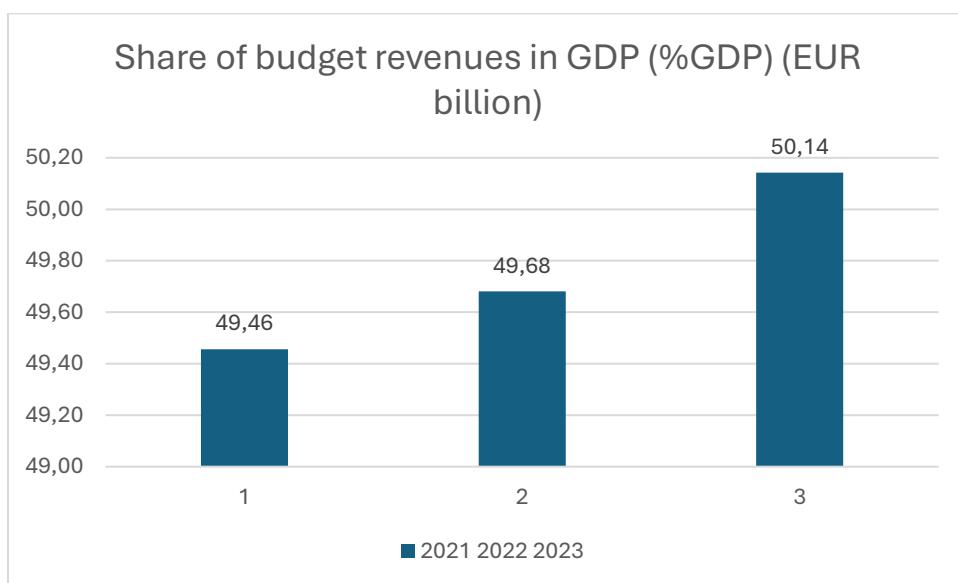
As part of the project, we conducted a brief analysis of public finances in Belgium, one of the member states of the European Union, during the period 2021-2023. The Kingdom of Belgium is a country located in Western Europe, a founding member of the European Union. The official monetary unit of Belgium was the Belgian franc, replaced by the EURO in 2002.

We collected recorded values at the level of budget revenues and expenditures, structured by economic or functional classifications, dynamics indicators and several other variables to understand how the Belgian state modifies its inputs or outputs at the level of resources allocated at the macroeconomic level, depending on the economic situation it is facing at that time.

The first major change that caught attention was the significant increase in the consumer price index in 2022 (123.26), compared to 2021 (111.71), registering an increase of 11.55%, which then remained at the same high level during 2023. This price inflation helps to understand the other changes that occurred in the public finance budget in Belgium.

Throughout the analyzed period, the country's budget resulted in a budget deficit, at a slightly lower level in 2022 compared to the first year, but which returned to the same value in 2023. The situation of the decrease in DB in real value in 2022 occurred due to the decrease in both budget revenues and budget expenditures.

The nominal value of receipts initially shows us that the Belgian state has received increasingly larger amounts, but the real value calculated with the HICP reveals the situation in which the budget actually received less money in 2022 than in 2021, with a decrease of 0.69%, and recorded an increase of only 4.11% in budget revenues, namely an increase of 9.05 billion euros, in 2023 compared to 2022. The elasticity coefficient of VB in relation to GDP was analyzed throughout the period at a level close to unitary elasticity, with very slight increases in 2023.



Source: Eurostat

The situation of budget expenditures shows changes in the same directions as VB, but relatively major. In nominal terms, budget expenditures had a gradual and upward growth rate, but in real terms we have the following data: in 2022, the ChB decreased by 4.04% compared to 2021, and then changed by 5.73% in 2023 compared to 2022. Budget expenditures proved to have a sub-unit elasticity in 2022, and then super-unitary in 2023, which reveals that the state decided to increase its expenditures without increasing its revenues in order to support the economy in 2023.

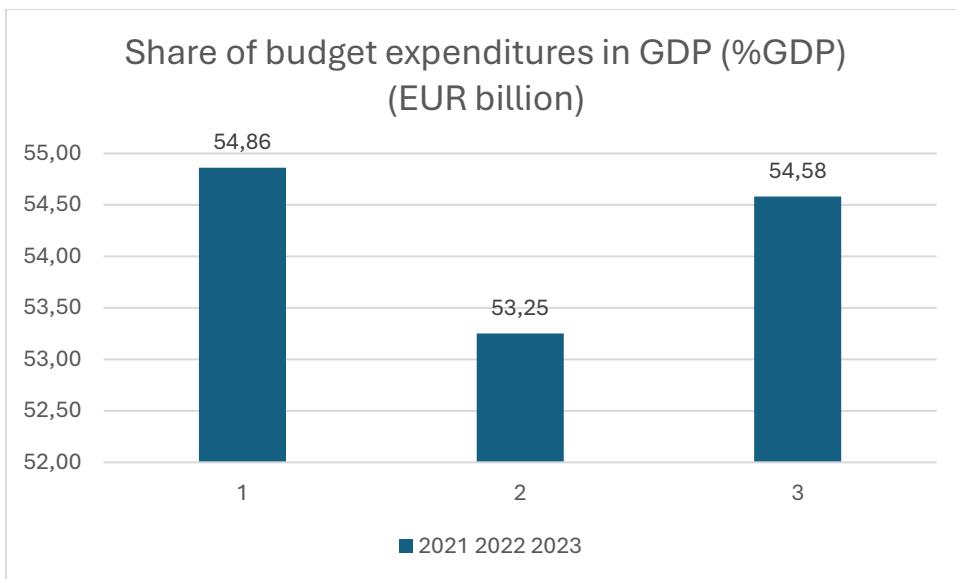
Regarding the share of VB and ChB in GDP, both level indicators remained at an approximately constant level, with very slight continuous increases at the VB level (~49% GDP -> ~50% GDP), and a slight decrease in 2022 (from 54.86% GDP to 53.25% GDP), then a return of ChB to 2023 (54.58% GDP).

Another situation that caught attention was the evolution of the average values of vb and chb per capita. The population of the Belgian state recorded negligible increases of 0.7% and 0.6% respectively in 2022 and 2023, its number being 11.59 million in 2021. During the period 2021-2023, the inhabitants of the Belgian state benefited from an average amount higher than the average amount with which they contributed to the composition of budgetary revenues. Basically, the Belgian state spent an average of 25,484.69 euros per capita, while collecting an average of only 23,394.60 euros, an annual difference of 2,090.09 euros that it partially covered through various methods.

The fiscal pressure (PF) at the macroeconomic level exerted by tax revenues recorded an approximately constant level throughout the analyzed period, but with a slight increase overall during the study. The PF of tax revenues (VF) has a higher share (~29% GDP), compared to social security contributions (SSC) (~15.09% GDP). An interesting thing about the composition of the PF exerted by budget revenues is the fact that the shares of direct taxes (ID), indirect taxes (II) and CSS are approximately the same, with II having the lowest share (~12.99% GDP). The PF of ID increased in 2022, compared to the weight of the other two indicators, which decreased, and then in 2023 the fiscal pressure of ID decreased, while the PF of II and CSS increased slightly.

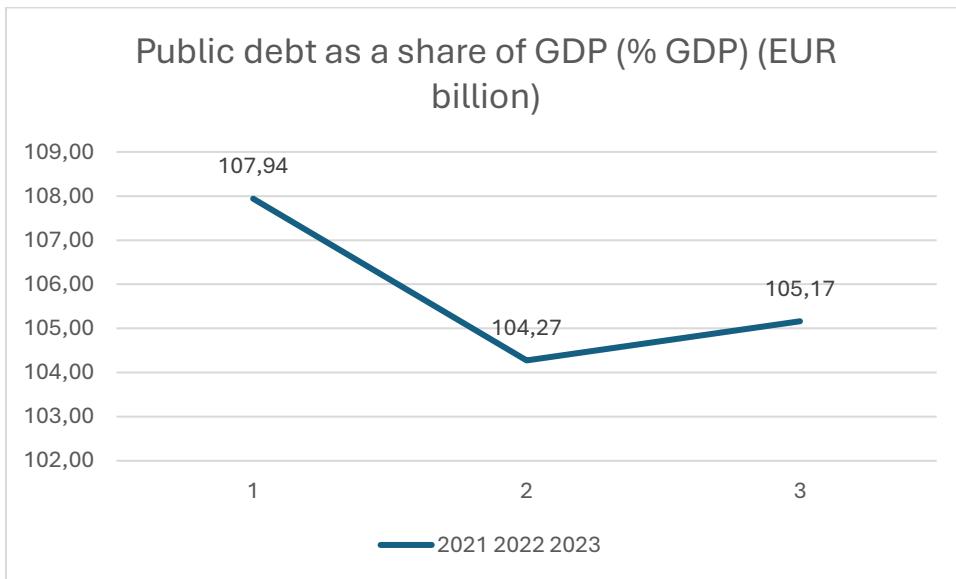
This denotes the fact that the state has not significantly changed its strategy for accumulating budget revenues.

According to the VB structure, the state drew its budget revenues equally from both direct taxes and indirect taxes and social security contributions. According to the ChB structure, according to the economic classification, source Ameco, the largest budget expenditures were recorded at the level of social transfers (on average ~28.86% ChB) and at the level of personnel expenses (on average ~22.90% ChB), and according to the functional classification, source Eurostat, the largest expenditures were sent to social protection (on average ~37.90% of ChB).



Source: Eurostat

Public debt increased enormously in nominal value, and in each year of the analysis, it had a value well above the effective GDP of the state. However, like VB and ChB, in real value, adjusted with HICP, we can see how it actually decreased in 2022, from 490.91 billion euros in 2023 to 468.85 billion euros. The share of GDP of the DP decreased by 3.67% in 2022 compared to 2021, and then immediately increased to approximately the same level recorded in 2021 in 2023, namely to 487.74 billion euros. With the significant increase or decrease in the ChB, this was predominantly reflected in the value of the DP.



Source: Eurostat

Another major change that caught attention was the dynamics of the budget balance. Relatively similar to the DP situation imposed by changes in budget inflows and outflows that had

cascading consequences on the dynamics of other indicators, the budget deficit registered a significant decrease in 2022 compared to 2021, by 7.68 billion euros, and then in 2023, compared to 2022, the budget deficit increased by 6.18 billion euros. eur, returning almost to the initial level of 2021.

These changes reflect the way in which the public finances of the Belgian state have managed a crisis situation, namely the inflation that Belgium faced in 2022, according to statistical data, which the government managed to reduce without endangering the well-being of the population. According to the calculated data, already from 2023 public finances begin to easily return to the levels initially recorded, while inflation is significantly reduced. Budget revenues have been kept at an approximately constant level in real prices, so that the fiscal pressure of the budget on the living standards of the inhabitants has not increased. The marginal tax rate attests to the fact that no extreme changes have been experienced relative to the growth of the country's GDP. The danger has not yet been overcome, so the state has decided to continue spending more than it receives from the country's inhabitants, in order to keep inflation under control. Therefore, public debt continued to increase in 2023, compared to 2022.

5. Conclusions

Comparing the public finances of Estonia, Belgium and Cyprus, we see three distinct economic models, each with its own advantages and challenges. Estonia stands out for its extremely prudent management of public finances, with very low public debt and a simplified tax system based on reinvested corporate income tax, which favours investment and sustainable economic growth. In contrast, Belgium has a developed economy but faces high public debt, driven by a large public sector and a progressive tax system designed to support robust social services. Cyprus, hit by the 2013 financial crisis, has adopted reforms to stabilise its finances while maintaining a competitive tax regime to attract foreign investment, particularly in the financial and real estate sectors.

While Estonia exemplifies a model of fiscal responsibility and advanced digitalisation of public administration, Belgium relies on a strong social protection system, but with risks related to long-term debt sustainability. Cyprus, while achieving a relatively rapid economic recovery, remains vulnerable to financial market fluctuations and challenges related to economic diversification. Thus, each country reflects a different balance between economic growth, public debt sustainability and taxation levels, offering varied perspectives on public finance management in Europe.

The comparative analysis of public finances in Belgium, Cyprus, and Estonia highlights distinct fiscal approaches shaped by their economic structures, policy priorities, and historical contexts. Belgium, as a highly developed economy with a complex federal system, faces challenges in managing a high public debt-to-GDP ratio while maintaining robust social welfare and public infrastructure. Cyprus, emerging from a financial crisis in the past decade, demonstrates a focus on fiscal consolidation and economic diversification, with an emphasis on reducing debt levels and attracting foreign investment. Estonia, renowned for its fiscal discipline and innovative e-governance, boasts a low public debt ratio, reflecting its conservative borrowing policies and efficient tax administration.

Despite their differences, all three countries share common challenges such as adapting to global economic uncertainties, ensuring sustainable fiscal policies, and addressing the financial pressures of aging populations. Moving forward, their experiences underscore the importance of tailoring fiscal strategies to national contexts while maintaining a commitment to transparency, efficiency, and long-term stability.

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