EU FISCAL POLICY: THE NEED FOR FLEXIBILITY IN TIMES OF CRISIS

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ABSTRACT
The introduction of the Maastricht criteria was a crucial step in ensuring fiscal discipline and economic stability in the European Union. However, the crises of recent decades, including the Great Recession, the sovereign debt crisis, the Covid-19 pandemic, and the energy crisis, have revealed the limitations of these rules. Strict fiscal requirements have hindered countries' responses to economic challenges, highlighting the need for a more flexible and adaptive fiscal policy to better withstand future economic shocks. The aim of this paper is to evaluate the effectiveness of the European Union's fiscal rules over the 20-year period, analysing GDP growth differences between the EU and the Eurozone, as well as the fiscal performance of individual member states. It also seeks to classify countries in groups based on economic indicators, identifying those with varying growth rates and levels of effectiveness in managing public finances. The study has revealed differences in GDP growth patterns between the European Union and the Eurozone, with the EU showing more favourable results. In analysing data from 27 EU member states over the 20-year period, four clusters were identified based on economic performance and fiscal policies: catching-up, slow-growing, underperforming, and cutting-edge countries. New members after 2004 demonstrated rapid growth, while countries like Ireland and Luxembourg stood out by their effective economic policies.
KEY WORDS: *European Union, fiscal policy, fiscal discipline, public debt, budget deficit.*

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Introduction

The introduction of the Maastricht criteria marked a key step in advancing economic and monetary integration among European Union member states. These criteria aim to uphold fiscal discipline, prevent the accumulation of excessive public debt, and manage budget deficits, all of which are essential for maintaining stability in the Eurozone. Over the past two decades, however, a series of crises, including the Great Recession, the sovereign debt crisis, the Covid-19 pandemic, and the recent energy crisis, have challenged the sustainability and adaptability of these standards.

Each crisis has exerted unique pressures on the economies of EU member states. The 2008 financial crisis, which resulted in the Great Recession, led to considerable increases in public debt and budget deficits across the Eurozone, as governments took extensive measures to support their economies. Countries such as Greece, Spain and Portugal were especially affected, facing near-default scenarios that triggered a sovereign debt crisis in Europe (Pjanić et al., 2020). During this time, the strict Maastricht limitations on budget deficits and public debt proved to be a constraint, making it difficult to respond effectively to the economic downturn.

The Covid-19 pandemic further underscored the need for flexibility in fiscal policy, as EU fiscal rules were temporarily suspended to address the emergency. The pandemic's asymmetrical impact on EU economies called for macro-prudential, fiscal and budgetary policies to alleviate its social and economic consequences (Ferreiro, Serrano, 2021). To counteract the economic disruption, numerous countries increased their public expenditure, leading to unprecedented rises in national debt (Popescu et al., 2023). This period demonstrated that while the European Central Bank's unified monetary policy ensured price stability, it did not prevent disparities in how individual member states absorbed the pandemic's effects.

The energy crisis, driven by a sharp rise in energy prices starting in late 2021, has similarly threatened the fiscal sustainability of EU member states. Increasing prices of oil and gas have pushed inflation higher, complicating debt servicing for countries with substantial deficits. To shield consumers from soaring prices, many EU nations have enacted additional fiscal measures, placing a further strain on public finances (Dubbert, 2024). This economic strain is exacerbated by demographic shifts, which are expected to increase government spending on pensions and health care over the coming decades.

Initially designed as a safeguard against inflation and excessive spending, the Maastricht criteria have faced criticism with each subsequent crisis. Economists argue that uniform fiscal rules are not equally effective across all EU countries, especially amid an unstable global economy. Modern debt management strategies suggest a need for more adaptable guidelines that accommodate the unique economic conditions of each nation and enhance resilience against economic shocks (Kinnunen et al., 2021).

In conclusion, the series of crises over the last decade underscores the need for the EU to revisit its approach to fiscal policy, prioritising flexibility in fiscal rules to better adapt to future economic challenges.

According to the given relevance, many scientific works are dedicated to revealing the topic. The studies and their results can be divided into several sections: the impact of economic shocks on fiscal discipline and its consequences; the ratio of public debt and budget deficit to other economic indicators; the number of analysed countries and their grouping; etc. Recent literature on public debt and budget deficit problems in the European Union (EU) shows the multifaceted nature of these issues, examining the causes, consequences and regional differences of public debt between EU countries.

The study aims to assess the effectiveness of fiscal rules over a 20-year period, examining the differences in GDP growth patterns between the EU and the Eurozone, as well as the fiscal performance of individual member states. By identifying clusters of countries with varying economic performance, the study seeks to provide insights into how fiscal policies and economic conditions have shaped the long-term growth trajectories of EU member states.

The paper seeks to cover the following objectives:

- To evaluate the fiscal discipline rules in the European Union and their evolution, particularly in relation to economic crises such as the 2008 financial crisis and the Covid-19 pandemic.
- To analyse the GDP growth patterns, debt to GDP ratios, and budget balances of all 27 EU member states over a 20-year period, identifying key trends and disparities between the EU and the Eurozone.
- To classify EU member states in distinct clusters based on their economic performance and fiscal policy outcomes, identifying countries with high, slow or negative growth, as well as those that have effectively managed public debt.

Methods. Literature review of peer-reviewed publications, statistical analysis, clusterisation of results, and comparative analysis.

The evolution of fiscal discipline criteria in the European Union

Issues of fiscal discipline in the European Union are crucial for ensuring long-term economic stability and the sustainability of member states' public finances. The origins of these criteria are associated with the 1992 Maastricht Treaty, which established requirements for EU countries seeking to adopt the euro, including strict regulations on public finances. The primary goal of these criteria was to prevent imbalances in public finances and to maintain fiscal discipline among eurozone countries. The rules were based on classic principles of fiscal prudence, focusing on two key indicators: the budget deficit should not exceed 3% of GDP, and public debt should not surpass 60% of GDP (Afonso, Coelho, 2024; Popescu et al., 2023; Ioannou, 2023). Compliance with these thresholds was expected to ensure sustainable fiscal discipline, but in practice these criteria proved too restrictive for some countries.

In 1997, the Stability and Growth Pact (SGP) introduced additional measures to ensure that strict fiscal discipline continued after the adoption of the euro. The pact allowed the initiation of excessive deficit procedures against countries that failed to meet the budget deficit or debt level targets. The SGP created mechanisms enabling EU institutions to oversee and penalise states violating fiscal discipline rules, preventing large economic imbalances in the eurozone (Popescu et al., 2023). However, the rigid rules of the SGP presented challenges, especially for countries facing economic difficulties, and the pact was reformed in 2005 to allow for greater flexibility. The reforms introduced a more gradual approach to reducing budget deficits, allowing countries to consider qualitative economic factors, such as investment in education and innovation, even if these temporarily increased the deficit.

Although fiscal rules were designed to prevent crises, they also limited governments' ability to respond to economic shocks through public investment and social spending. The global financial crisis of 2008 revealed the shortcomings of these mechanisms, prompting a reassessment of Eurozone fiscal policy. As a result, budget deficits and public debt levels in most EU countries surged, necessitating new reforms. In 2011, the rules of the Stability and Growth Pact were strengthened through the Six-Pack legislation, which aimed to enhance fiscal discipline and accountability. For instance, additional corrective measures were imposed on countries with public debt exceeding 60% of GDP, requiring them to reduce their debt by at least a twentieth annually (Bušs, Grüning, Tkačevs, 2024).

In 2012, the Fiscal Compact (part of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union) was adopted as part of the long-term strategy to ensure public finance stability. It introduced rules requiring structural budget deficits to remain below 0.5% of GDP for countries with public debt exceeding 60% of GDP, and 1% for countries with lower debt (Bušs, Grüning, Tkačevs, 2024; Ferreiro, Serrano, 2021).

In 2013, the Two-Pack regulations were introduced, further strengthening budgetary oversight and management mechanisms in the euro area. This helped establish a stricter monitoring system for early warnings and corrective actions in countries experiencing significant fiscal imbalances.

The fiscal rules also allowed for certain exceptions in times of economic shocks. For example, if a country's GDP contracted by more than 2%, its budget deficit could exceed 3% without sanctions. However, if GDP fell by between -0.75% and -2%, the European Council would decide whether the deficit limit could be exceeded (Ferreiro, Serrano, 2021).

The Covid-19 pandemic caused a significant economic shock across the EU, prompting the temporary suspension of fiscal discipline rules to allow member states to run larger budget deficits to address the crisis (Fedajev et al., 2022; Martinho, 2021; Pinilla et al., 2021). While fiscal stimulus measures contributed to economic recovery in 2021, the pandemic also highlighted the need to simplify the EU's fiscal discipline framework to make it more flexible and adaptable to unexpected economic shocks (Bušs et al., 2024; Claeys et al., 2021; Kinnunen et al., 2021; Thomas et al., 2021).

1. Criticism of fiscal rules and proposals for improvement

The fiscal discipline rules enshrined in the Maastricht Treaty and the Stability and Growth Pact (SGP) have faced substantial criticism from both the academic community and politicians. Since their inception, these rules have been seen as overly strict, and limiting the flexibility of member states' economic policies, particularly during economic shocks (Ferreiro, Serrano, 2021). One of the most significant points of criticism has been the establishment of the 3% budget deficit and 60% public debt thresholds, which have often been regarded as arbitrary. Luigi Pasinetti (1998) argued that these limits lack a clear definition of sustainability, and fail to consider the economic differences between countries, which depend on growth rates, interest rates and inflation (Deleidi, Garbellini, Oro, 2024).

The fiscal austerity measures aimed at stabilising the high ratio of public debt to GDP were based on a theoretical concept that suggests a correction mechanism linked to the idea of expansionary austerity. According to this approach, fiscal consolidation can stimulate productive investment by automatically reducing interest rates. This should encourage economic growth while simultaneously lowering the debt to GDP ratio. However, numerous empirical studies have demonstrated the negative effects of fiscal consolidation in the short, medium and long term (Fatas, Summers, 2018; Fatas, 2019; Gechert, Horn, Paetz, 2019). Based on these findings, Blanchard (2022), and Blanchard, Gopinath and Rogoff (2021), re-evaluated the concept of expansionary austerity, and concluded that the dynamics of the debt to GDP ratio are primarily determined by the primary deficit and the gap between the interest rate and the rate of economic growth. In other words, as Pasinetti noted, any debt to GDP ratio can be stabilised as long as the primary deficit results in an economic growth rate higher than the interest rate.

Additionally, the rigidity of fiscal rules became especially apparent after the Great Recession of 2008 and the Covid-19 pandemic, when the budget and debt limits constrained countries from responding effectively to unexpected economic shocks. Although temporary exemptions were allowed, long-term flexibility remained limited (Ferreiro, Serrano, 2021; Grosu, Pintilescu, Zugravu, 2022). This led to discussions about the sustainability of public debt and the need for changing the requirements, including proposals to introduce Stochastic Debt Sustainability Analysis (SDSA), which could provide a more flexible approach to debt management by taking macroeconomic factors into account (Blanchard, Leandro, Zettelmeyer, 2021; Dubbert, 2024).

A review of the fiscal rules has also been proposed to increase their flexibility and simplicity. It has been suggested to focus on limits to expenditure growth, which would be linked to long-term economic growth rates (Benassy-Quere et al., 2018; Darvas et al., 2018). This approach would be clearer and more easily understood by the public. The European Fiscal Board (2019) also proposed a so-called 'golden rule', which would exclude investment aimed at promoting long-term economic growth from fiscal rule calculations, thus encouraging significant public investment without breaching fiscal discipline.

Criticism has also been directed at the complexity of the rules and the use of dual operational indicators, which allowed states to choose the most favourable metrics for themselves, thereby enabling the 'tailoring' of rules to fit their needs. Therefore, it has been proposed to simplify the EU fiscal system, by setting limits on the public debt to GDP ratio and annual expenditure growth (Benassy-Quere et al., 2018; Darvas et al., 2018). Kamps and Leiner-Killinger (2019) suggested reducing the focus on the structural deficit, although completely abandoning it would be politically difficult. Debrun and Jonung (2019) proposed a simple rule linking the fiscal deficit to the output gap, which could be supported by independent observers.

Further criticism has been aimed at the purchase by the European Central Bank (ECB) of public debt. Although the ECB manages around 30% of Eurozone countries' debt, some economists have proposed partially annulling public debt to increase the 'fiscal space' for member states, allowing them to invest in green and social reforms (Ferreiro, Serrano, 2021; Grosu et al., 2022). However, this idea faces legal and political challenges, as such actions are prohibited under EU treaties.

Overall, these proposals demonstrate that the EU's fiscal rule system needs simplification to improve its transparency, flexibility and effectiveness in maintaining fiscal sustainability.

2. Methodological guidelines

For the analysis of all 27 European Union states, Cluster Analysis techniques were used. In terms of data to be compared, the following metrics were chosen: GDP per capita, debt to GDP ratio, annual inflation, and budget balance. In terms of periods, four were chosen: 2004 to 2008, 2008 to 2019, 2020 to 2023, and the 20-year average. During the research, elements of Gounded Theory were used, including the constant comparison method. For a better country performance categorisation, Cluster Analysis has also been introduced.

The work first included the determination of key performance indicators. As stated on the United Kingdom's official website, government efficiency, or rather 'the government efficiency framework', is simply 'maximising output for the minimum input' (Gov.uk, 2023). While this definition looks like a mixture of efficiency and effectiveness, it outlines the need for the determination of inputs and outputs. Similar conclusions have been drawn by the researchers M. Georgescu et al. (2023), who have outlined the need for input and output differentiation. However, with the great differences between the economic condition, size and population of EU members, the decision was made to focus on the budget balance instead of each state's revenues and losses. Additionally, considering how dynamic the last 30 years have been for both new members and more mature ones, undergoing multiple crises, parameters such as debt to GDP have been added, calculated

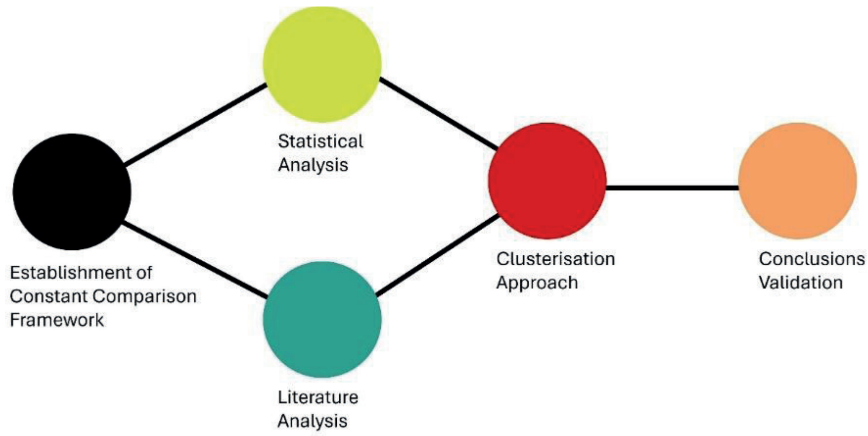

Figure 1. The five main steps of the research process, from data collection to analysis

in tens of thousands of dollars for comparative metrics. Both debt balance and budget balance were given the role of input, aimed at assessing the degree of spending and leverage. Both were calculated as positive or negative percentages in relation to Gross Domestic Product for better picture representation. Arguments for the selection of these two elements in terms of efficiency inputs have been provided through a literature review and usage by researchers such as M. Onofrei et al. (2022) and J. Mencinger et al. (2015). However, in their work the parameters of budget balance were ignored, which has been found to be valuable for adding and comparing. In terms of output indicators, GDP per capita adjusted for purchasing power parity has been used, calculated in thousands of dollars. Data for the country's indicators has been collected through World Bank and Eurostat published records. The choice prioritising Gross Domestic Product over Gross National Income has been made in order to prioritise the focus on local statewide effects rather than its citizens. However, in the future, research can be widened, with the addition of migration figures and FDI changes in particular.

Table 1. The EU and Eurozone debt to GDP ratio, 2003–2023

Catching-up members	Cyprus, Malta, Lithuania, Estonia, Poland, Latvia, the Czech Republic, Romania, Bulgaria, Slovakia, Slovenia, Hungary
Slow-growth members	Belgium, France, the Netherlands, Germany, Denmark, Portugal, Sweden, Finland, Austria, Croatia
Underperforming members	Greece, Spain, Italy
Cutting-edge members	Ireland, Luxembourg

The cauterisation step has shown four clear groups of countries: catching-up, slow-growth, underperforming, and cutting-edge members (Table 1). These clusters were created after observing the results of the performance of EU members graphically. As a result, catching-up members had a common feature of gaining high debt to GDP changes after the 2008 crisis, and usually had over 25% GDP adjusted to purchasing power parity growth in the 20-year period, making it higher than the European Union average, as well as higher than cases in other members' deviation in debt changes. Deviation has been calculated in percentages, and also represented in the table outlining not only the highest and lowest points, making it possible to observe changes dynamically. This way helped to identify special features of cutting-edge members.

Members that were in the European Union before 2004 and had stable growth around the European Union average (25% in 20 years) formed the slow-growth members cluster. Their debt to GDP figures, calculated as percentages, while prone to certain changes, did not result in fundamental changes, rising closer to

20% on average. These members included Belgium, France, the Netherlands, Germany, Denmark, Portugal, Sweden, Finland, Austria and Croatia.

On the contrary, underperforming members were members with growth below 25% of GDP adjusted for purchasing power parity in the last year, with, at the same time, significant changes to debt to GDP, which additionally was proven by the measurement of standard deviation. These members included Greece, Spain and Italy. While having Hungary in the contenders, this group had to outline only clear undebatable cases in order to avoid the miscommunication of the stated cluster goals.

The last cluster of cutting-edge countries included Ireland and Luxembourg. Created as stand-out cases, it has a criterion of growth which clearly does not fit into any other category. In the case of Ireland, this meant growth higher than 25%, despite being an old member, while also going through a fast-paced transition period after 2008 in terms of debt to GDP. Unlike both new and old members, the country managed to lower the rapidly expanded debt and continue its growth, even despite the pandemic. The case of Luxembourg is similar to other old members, and even showed a lower speed of growth, yet when taking into account the share of the size of the economy at the beginning of the period (2004) compared to other European Union economies, as well as debt to GDP changes, one can notice outstanding performance described in a positive budget balance (0.8% on average), low debt to GDP (18.5% on average), and GDP adjusted to purchasing power parity of 278.2% of the European Union average.

3. The research results

The debt of the Eurozone and the European Union has grown continuously over the last 20 years. This observation can be said to be true for both old and new members joining the EU after 2004. However, some members have managed to show a difference while looking at three main periods, 2004, 2009 and 2020.

After analysing the 27 member states, a couple of trends can be noticed, the very first being austerity itself. Despite the principal goal of it being debt reduction and budget balance, thanks to the average it can be seen that national debts were only rising until 2014, with only some countries being exceptions. These countries were Germany, Hungary, Latvia and Malta. The other 23 countries still had national debts going up. That led to a change where the average EU debt in 2007 was 62.4%, while by 2014 it was 87.2%, or 1.4 times the initial amount. In the period between 2014 and 2019, debt across the European Union was going down. In five years, it went down to 77.8%, a 10.8% fall in a slightly shorter period. In other words, if the pandemic had not happened, and the EU were to continue at the same pace, it would need an additional eight years to get to 60% debt to GDP as an average in 2027. The reason why seven years of increasing debt would have required 13 years of austerity lies in two aspects: tax gains and public spending.

The period between 2019 and 2023 was marked by a high rise in debt in 2020, with general debt reduction in the two years afterwards, only to go back up in 2023. The size of the debt expansion was also bigger than in 2008 and 2009. Another difference which cannot be ignored is the attempt to lower debt rapidly in 2022, which failed considerably in 2023, when debt almost reached 90%, as it was in 2020.

Table 2. The EU and Eurozone debt to GDP ratio (in per cent), 2003–2023

	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
EU	66.8	67.1	67.2	65.1	62.4	65.2	75.9	80.6	82.0	85.2	87.0
Euro zone	69.4	69.7	70.4	68.4	66.1	69.7	80.3	85.8	87.7	91.2	93.3
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
EU	87.2	85.4	84.3	82.0	79.9	77.8	90.0	87.4	83.4	89.9	
Euro zone	93.5	91.6	90.4	88.1	86.2	84.1	97.2	94.8	90.8	88.6	

As is shown in Table 2, the EU and the Eurozone showed little difference, with identical trends for 20 straight years. In both cases, debt was slowly decreasing until 2007, reaching a low of 66.1% for the Eurozone and 62.4% for the European Union. From 2008 to 2014, debt was continually increasing in both areas, peaking at 93.5% for the Eurozone and 87.2% for the EU. Despite the trend being similar, the gap in growth between the EU and the Eurozone was seen to grow further apart in 2023, being 6.4% instead of the old 3.7% in 2007.

While the Eurozone situation has seemingly been better, it cannot be described as positive. In fact, when looking at Eurozone members at the time in greater detail, only half the members managed to increase their debt by less than 10%, including Sweden, Poland and Hungary. Looking at Bulgaria, Romania and the Czech Republic, a much worse situation can be seen in Romania's case, with debt even going as far as doubling. From 2014 to 2019 in these zones the debt to GDP ratio started to gradually decrease, reaching 84.1% for the Eurozone and 77.8% for the EU. The trend of a 6.3% difference continued. Out of the six EU non-Eurozone countries, only Romania and Bulgaria had difficulty in reducing their debt to GDP ratio by more than 4%, while the other members had above a 9% decrease.

At the end of 2020, the situation changed. If the EU average reached 90%, the Eurozone was structured by a 97.2% average. The gap continued to grow after its slowdown in the quiet years of slowdown. The same can be said about the two years afterwards, when in 2022 the difference between the Eurozone and the EU remained at over 7%, leaving a noticeable difference in performance in both post-pandemic debt reduction and overall performance during the last 20 years. It is also worth noting that non-Eurozone members of the EU cannot be described as particularly similar or successful members. While the situations of Denmark and Sweden can be called somewhat similar, the differences with fast-growing catching-up Romania and Bulgaria are quite noticeable. The much more stable yet also fast-growing Poland also fails to be comparable with the closely located Hungary or the Czech Republic, both of which have raised different amounts of debt from 50% and 72% to 34%. Nonetheless, the advantageous performance overall compared to the Eurozone is undeniable.

Table 3. The EU and Eurozone budget balance (in per cent), 2003–2023

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU	-3.1	-2.9	-2.5	-1.3	-6.0	-2.1	-6.3	-6.2	-4.1	-3.7	-3.0
Euro zone	-3.1	-2.9	-2.6	-1.6	-0.7	-2.2	-6.3	-6.3	-4.3	-3.9	-3.3
	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	
EU	-2.5	-1.9	-1.4	-0.9	-0.4	-0.4	-6.7	-4.7	-3.4	-3.5	
Euro zone	-2.6	-2.0	-1.5	-1.0	-0.4	-0.5	-7.0	-5.2	-3.7	-3.6	

According to Table 3, budgetary policies in both the European Union and the Eurozone have exhibited similar trends with no significant differences. Periods of change can be divided into four timelines between 2003 and 2024. The first period can be described as the years between 2003 and 2008, when the budget balance slowly recovered from the deficit, but still did not reach a surplus. In non-Eurozone EU countries, northern members like Sweden and Denmark showed a positive performance, while Balkan and Central European countries performed worse, except for Poland.

The years 2007 to 2009 marked a heavy hit on the budget balances of all EU members, reaching over six times the loss. This hit would be overcome only 11 years later in 2018. Both the years 2010 and 2011 showed quite a fast growth in the budget balance, still far from the 3% budget deficit goal, yet making a very marginally stable recovery during the years 2011 to 2018. In 2014, the majority of both EU and Eurozone countries reached the EU recommended norm for a budget deficit, continuing raising revenue for the budget. At the same time, the recovery speed has been noticeably different as well. If the EU managed to reduce its budget deficit by 49.3%, the Eurozone lagged behind at 47.2%. The last year, 2023, also marked a significant difference between new debates over EU policy. If the EU with the Eurozone members continued their quest to lower government budget deficits, the US entered a new spending spiral, which questions the efficiency of both systems, with one more than the other.

Clusters of members: from top to bottom

Thanks to European Union states' ability to navigate their fiscal policy individually, different results can be seen throughout the 20-year period. As much as each of these cases is worth a deeper investigation, some common patterns can be outlined. This includes categories such as:

- catching-up members
- slow-growth members
- underperforming members
- cutting-edge members.

The year 2004 marked the accession to the EU of new members such as Hungary, Poland, the three Baltic States, Slovenia, Slovakia, Cyprus, Malta and the Czech Republic. Before that, new members joined nine years ago (1995), while only three years later Romania and Bulgaria joined the union (2007). In many of these countries, what is known as catching-up growth has started to happen. This can be noticed when looking at GDP adjusted for purchasing power parity growth. All new members (with the only exception being Cyprus) have reached higher growth than the EU's 20-year average of 25%. For countries like Lithuania, Poland, Romania and Bulgaria, this meant especially fast growth of over 100%. For new members like Latvia, Hungary, Slovakia and Cyprus, this meant difficult years after the Great Recession, when members struggled to get GDP growth back to normal, balancing between fast-rising national debt (e.g. Hungary) or having a negative budget balance for a longer time (e.g. Cyprus). Nevertheless, members like Latvia, Hungary and Slovakia managed to achieve an over 70% growth rate. New members that stayed in the middle were well represented by Croatia (56% growth), the Czech Republic (41% growth), and Slovenia (38% growth). Both experienced national debt growth of over 10%, and both hit an average budget deficit of over 3.2% for the 20-year period. While of the two, the performance of the Czech Republic can be called better, it still puts it far enough from both ends of the metric to call it a better or worse case than what it is. Malta and Estonia can be counted as special cases of the catching-up growth category. Both countries' growth, while being considerable, was not the highest (52% and 77%); however, with the budget balance and the debt to GDP ratio being under EU regulations, they have created a difference in pattern compared to other new members. Both achieved the goal from different angles. In Estonia's case, the average budget deficit of only 0.4% has been achieved thanks to fast debt growth, which was only 5.6%, and reached almost four times growth with 19.6% in 2023. Over a double increase in debt in 2020 has shown a negative tendency already, with the prospect unlikely to change soon. In Malta's case, on the other hand, the budget balance was not as positive, reaching a 2.4% budget deficit on average. While being better than the rest of the EU, the country also had a difficult debt situation in 2003, having a debt to GDP ratio of 68.6%. Despite the number of crises, its average debt has reached only 58.8%, getting significantly lower in 2016 and 2017, and reaching 50.4% in 2023. Such an effective debt reduction, along with 77% growth, could put Malta in a higher position if it was not a new member of the union, which means part of its success has to be discounted with the newly opened opportunities and investment figures.

When looking at many old members of the European Union, slow growth can be noticed as a pattern, especially between the 12% and 24% marks. At the same time, slow-growth members cannot be called stagnant. The size of their GDP, as well as high living standards, can explain why the growth rates of the GDP of Sweden (24%), Germany (22%), the Netherlands (21%), Denmark (20%), Belgium (17%), Portugal (17%), Austria (13%), France (12%) and Finland (11%) have been so comparatively low. However, on further investigation, differences in handling such low growth can be noticed. For example, when looking at the cases of France and Portugal, many similarities can be seen, from both high national debts at the start to over 99% at the end (also with over a 90% average), and quite high budget deficits of 4.6% and 4.4% respectively. The noticeable difference, however, is in GDP movement, which shows ups and downs in France's performance, yet almost a full Plato in Portugal's case. In that respect, France has a great similarity with neighbouring Germany, especially in the cases of high GDP growth in 2011, 2014, 2018 and 2021. What makes the countries significantly different is payments. Germany managed to keep its deficit at 1.1%, while France reached

4.6%. The same can be said about debt, which in Germany's case averaged 69.7%, a figure which almost did not change in 20 years (63.5% versus 63.6%). In France's case, the debt added 45% of comparative GDP, averaging 90.9%. Another pair of surprisingly similar neighbours is Sweden and Denmark, which, while at a slightly different pace, went through the same economic cycles in this period. Similarly, both countries managed to maintain a budget surplus (1.3% and 0.3%), both started with a budget balance within EU norms, and both also managed to lower it, averaging 40% and 37.7% respectively. Nevertheless, the slow economic growth of less than the EU average puts it into the slow growth category. Luxembourg can be counted a special case in this category. Despite only 6% growth, its 0.8% budget surplus on average, as well as only 25% debt to GDP, puts it well into the category. However, the growth of national debt, which started as 7.4% in 2003, shows at what cost the surplus has been maintained, creating a potentially troublesome future ahead.

The list would not be complete without the under-achievers, which included Spain, Cyprus, Greece and Italy. A member which stands out from the list may be Cyprus, which joined the EU only in 2004. With growth figures of 24%, it is not even the worst performer of all the members, but what makes it different is the lack of sufficient starting boost, which seems to be present in the cases of all the other new members. Looking at the 2008 crisis, it took the island 13 years to get back to its pre-Great Recession figures, while debt from 2003 to 2023 was only under 60% for five years, averaging 81.4%. Looking at the budget balance figures, a standard issue 2.1% budget deficit can be seen, which was hard hit between 2008 and 2015, and yet managed to show a recovery in the last two years. Nonetheless, that is the best performance compared to Italy, Spain and Greece, which are also on the list. In all three cases, the budget deficit averaged over 4%, the national debt grew to over 82%, while GDP growth peaked at 9% in Spain, 2% in Italy, and -6% in Greece. The uncontrolled spending in all three cases mentioned has already entered some economics textbooks. In the last three years, Spain and Greece have noticeably been trying to lower their budget deficits; however, the same cannot be said about Italy, which, despite looking better than other EU members in terms of economic growth, does not differ in its 'better performance' from Spain or Greece, which also enjoy better outlooks, not thanks to high growth, but slowed-down competition.

Finding a cutting-edge type of economy is almost always followed by many debates, but looking at Ireland's case, it is hard to find a country (in the EU) comparable to it. An EU member since 1972, it managed to reach a staggering 91% GDP growth in 20 years, while achieving surprising results in national debt cuts, despite a high budget deficit. With a 29.8% debt to GDP ratio in 2003, Ireland ramped up its debt from 23.9% in 2007 to 110.4% in 2011, putting it in 120% territory in a few years. Yet looking at current data, it sits at 43.7% (as of 2023). Over 60% of the national debt has been cut in six years (2014 to 2019). At the same time, the period between 2014 and 2019 further marks much higher GDP growth compared to the rest of the European Union, with the only exception being 2016 and 2023. This surprisingly correlates with much lower taxes collected, which is an area studied separately.

Deviation in debt to GDP before and after crises

When examining European Union members' debt to GDP, one thing becomes obvious: newly joined members took a hard hit after the 2008 crisis. Another commonality lies in the deviation between 2019 and 2023, which shows that the debt difference was greater than in 2008. To be more specific, the debt of 17 out of 27 countries deviated higher in the years after the pandemic than it did after the Great Recession. Ten countries which are exceptions to this list are mostly the new members (except Spain, Greece, etc). The reason for this is mostly in the light start, whereby many previously non-EU countries did not have a debt of a size considered 'normal' across older members. One exception worth pointing out is Ireland, which stands out clearly from the crowd. Its ability to change its debt to a positive direction can be called nothing other than outstanding. Looking at Luxemburg, while deviation figures show a slowdown of degree changes, the change itself has been going in only one direction for the last 20 years, which is towards slow debt growth.

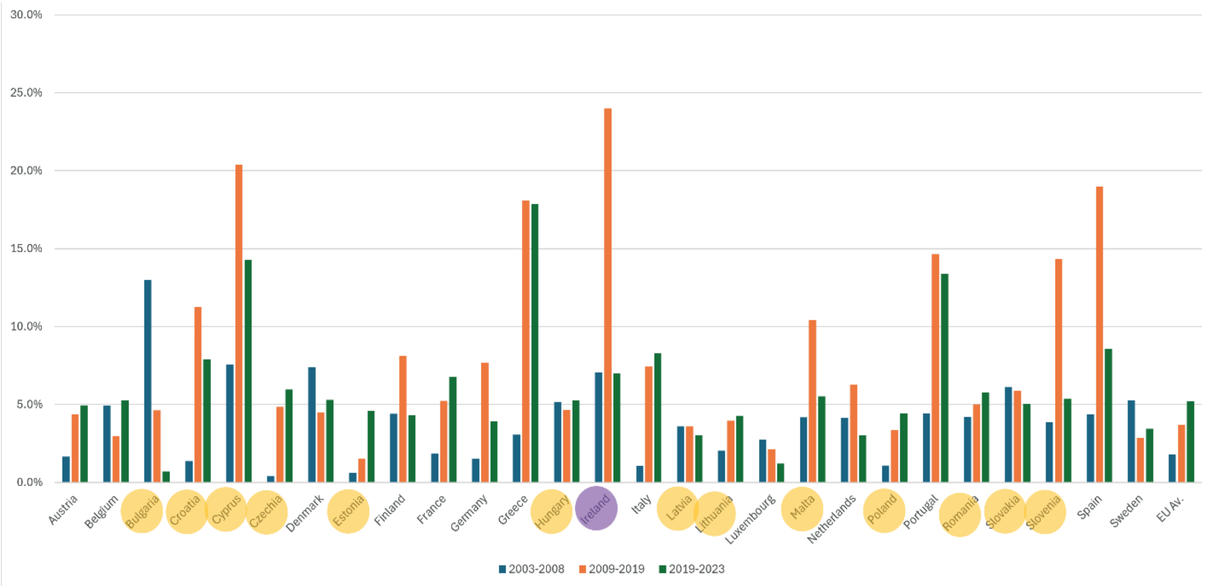

Figure 2. Debt to GDP standard deviation in the EU27, 2024

Conclusions

The evolution of the European Union's fiscal discipline criteria highlights efforts to balance economic stability with the need for member states to respond flexibly to economic challenges. The initial strict requirements of the Maastricht Treaty and subsequent Stability and Growth Pact mechanisms were focused on fiscal austerity, but economic crises, such as the 2008 global financial crisis and the Covid-19 pandemic, revealed the limitations of this system. Although reforms (e.g. the Six-Pack, Two-Pack, and Fiscal Compact) introduced greater flexibility by allowing the consideration of structural investment, there remains a need for a simpler and more adaptable fiscal discipline framework. In the future, it will be essential to reconcile the goal of ensuring long-term fiscal stability with the capacity of member states to adapt to shocks by investing in innovation, infrastructure and other strategic areas that foster economic growth.

The fiscal discipline rules of the European Union have faced significant criticism due to their rigidity, complexity and lack of flexibility, particularly during economic crises. Proposals to reform the system include initiatives such as introducing the 'golden rule', which would exclude strategic investment from fiscal discipline calculations, and creating simpler rules related to debt and expenditure growth management. There is also a suggestion to employ more advanced methods, such as Stochastic Debt Sustainability Analysis, to adapt fiscal rules to macroeconomic conditions. All these reform directions aim to make fiscal discipline more flexible, transparent and effective, allowing for a better alignment of economic stability with long-term growth and strategic investment.

The result of the study was the identification of differences in the pattern of GDP growth between the European Union and the Eurozone, which differed favourably in favour of the former. The study covered indicators such as debt to GDP, budget balance, and GDP growth adjusted for purchasing power parity. The indicators identified the advantageous outperformance of non-Eurozone member countries over the entire 20-year period, including the addition of new EU and Eurozone member countries, the years before and after the Great Recession, and the years before and after the Covid pandemic. Based on these observations, it was decided to expand the research by analysing all European Union and Eurozone member states, and form one common system of clusters.

Using a literature review as well as statistical data available through Eurostat and the World Bank, all 27 member states of the European Union were analysed. The periods of analysis of the EU member states were divided into the period before the 2008 crisis, the recovery period afterwards (2009 to 2013), and the pandemic period (2019 to 2023). The overall 20-year GDP growth and its average in particular were also analysed separately. In the case of debt to GDP, standard deviation was also applied, showing not only the degree of change in the long term. The indicators used revealed four main clusters of countries that stand out in terms of economic performance and fiscal policy. The clusters identified were catching-up members, slow-growth members, underperforming members, and cutting-edge members.

The countries that joined the European Union after 2004 showed high growth rates, following the concept of catching-up growth. At the same time, each of the new members experienced high rates of growth of public debt, which is typical of older members of the European Union, both immediately after accession and especially after the 2008 crisis. For the vast majority of new members, the situation repeated itself after 2019. However, there were no major economic crises among the new members, which cannot be said about more experienced members of the European Union such as Spain and Italy.

The members that joined the EU before 2004 were divided into three clusters: slow-growth members, cutting-edge members and underperforming members. The first group, slow-growth countries, was identified by an average GDP growth rate adjusted for purchasing power parity. The countries included in it showed the expected weakness in terms of budget balance, which on average showed a negative trend, as well as slower growth and an increase in public debt. However, since this trend had striking exceptions, sections of underperformers and cutting-edge members were identified.

The exceptions in terms of underperformance were Greece, Italy and Spain. Each of these EU member states showed below-average growth rates, a sharp increase in public debt, and a long-term negative trend. In stark contrast to all the other participants were the cutting-edge economic growth countries. These were Ireland and Luxembourg. High growth rates and an effective fight against public debt in the first case, and a stable strengthening of one of the strongest economies in Europe with little change in public debt and a stable positive public balance on the other hand in the second case, make these countries an example of effective economic policy within the European Union and the Eurozone.

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EUROPOS SĄJUNGOS FISKALINĖ POLITIKA: LANKSTUMO POREIKIS KRIZIŲ LAIKOTARPIŲ KONTEKSTE

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Santrauka

Mastrichto kriterijų taikymas buvo esminis žingsnis siekiant užtikrinti fiskalinę drausmę ir ekonominį stabilumą Europos Sąjungoje. Tačiau pastarųjų dešimtmečių krizės, įskaitant Didžiąją recesiją, suverenių skolų krizę, COVID-19 pandemiją ir energetikos krizę, atskleidė šių taisyklių ribotumą. Griežti fiskaliniai reikalavimai lėtino valstybių reakcijas į ekonominius iššūkius, pabrėždami lankstesnės ir labiau prisitaikančios fiskalinės politikos poreikį, siekiant geriau atlaikyti ateities ekonominius sukrėtimus.

Šio darbo tikslas – įvertinti Europos Sąjungos fiskalinių taisyklių efektyvumą 20-ties metų laikotarpiu, analizuojant ES ir euro zonos BVP augimo skirtumus bei paskirų valstybių narių fiskalinę būklę. Be to, siekiama suskirstyti šalis į grupes pagal ekonominius rodiklius, nustatant skirtingus augimo tempus ir viešųjų finansų valdymo efektyvumą.

Tyrimas atskleidė Europos Sąjungos ir euro zonos BVP augimo modelių skirtumus, palankiau išsiskiriant ES. Analizuojant 27-nių ES valstybių narių duomenis 20-ties metų laikotarpiu nustatyti keturi šalių klasteriai ekonominio našumo ir fiskalinės politikos aspektais: sparčiai augančios, lėtai augančios, atsiliekančios ir pažangiausios šalys. Naujosios šalys narės po 2004 m. parodė spartų augimą, o tokios šalys kaip Airija ir Liuksemburgas išsiskyrė efektyvia ekonomine politika.

PAGRINDINIAI ŽODŽIAI: *Europos Sąjunga, fiskalinė politika, fiskalinė drausmė, biudžeto deficitas, viešojo sektoriaus skola.*

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