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Financial Sustainability in the European Union: Public Debt and Deficit Dynamics in EU Member States

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Summary: This study analyses the evolution of public debt and budget deficits and the evolution of health spending in the 27 Member States of the European Union between 2018 and 2023, examining their policies during this period and the effects caused by European rules on deficit and public debt limits for member states. We aim to characterize the behaviour of Eurozone Member States and non-Eurozone Member States, conducting a comparative analysis of these two groups. The data collected from Eurostat databases leads us to conclude that fiscal consolidation and long-term sustainability are fundamental principles incorporated into the national finance management of both groups of states. The freedom of action for both groups of Member States did not result in the abandonment of these rules nor in an apparent disregard for the adverse effects that high levels of deficit and debt have on the resilience of European Union Member States in the face of future crises.

Keywords: financial sustainability, public debt, budget deficit, European union, health spending

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1. Introduction

In recent decades, the scope of state functions has expanded significantly, leading to notable increases in public expenditure, budget deficits, and accumulated public debt as a percentage of Gross Domestic Product (GDP). This situation appears to stem from inconsistent fiscal policies rather than a single, sustainable approach.[1] Such circumstances have raised concerns about the ability of states to meet their financial obligations, as seen during the 2007–2011 crisis in countries like Portugal, Ireland, Greece, and Spain, as well as, to a lesser extent, France, Italy, and other European Union (EU) Member States. As a result, international institutions expressed doubts about the solvency of these states, prompting markets to respond with increased interest rates.[2]

High public debt levels are widely recognized for their adverse effects on long-term economic growth and fiscal sustainability.[3] According to the International Monetary Fund (IMF), debt vulnerabilities and associated risks remain significant, particularly for emerging economies and low-income countries.[4]

The IMF reports a concerning global trend in public debt levels, which reached record highs in 2023. It emphasizes that addressing the risks of high sovereign debt requires a collaborative international approach to develop coordinated solutions for excessive indebtedness, particularly in the most vulnerable states. Additionally, the IMF highlights that this trend will manifest asymmetrically across different regions.

1 BYSTROV, V., MACKIEWICZ, M. Recurrent explosive public debts and the long-run fiscal sustainability. *Journal of Policy Modeling.* 2019*,* vol. 42, no. 3, pp. 437–450. Elsevier.

2 Ibid; HEINRICH, M., KUTTER, A. A Critical Juncture in EU Integration? The Eurozone Crisis and its Management 2010–2012. In: Panizza, F. E. and Philip, G. (eds.). *The Politics of Financial Crisis. Comparative Perspectives.* London: Routledge, 2013, pp. 120–139; HERRMANN, C. Legal aspects of the European sovereign debt crisis. *Hitotsubashi Journal of Law and Politics.* 2013, vol. 41, pp. 25–40; SCHWARZER, D. Building the euro area's debt crisis management capacity with the IMF. *Review of International Political Economy.* 2015, vol. 22, no. 3, pp. 599–625.

3 REINHART, C. M., REINHART, V. R., ROGOFF, K. S. Public Debt Overhangs: Advanced-Economy Episodes since 1800. *Journal Of Economic Perspectives*. 2012, vol. 26, no. 3, pp. 69–86; WOO, J., KUMAR, M. Public Debt and Growth. *Economica*. 2015, vol. 82, no. 328, pp. 705–739; MATEUS, A. Sustentabilidade da Dívida – Anexo E. In: Mateus, A. (coord.). *Orçamento, economia e democracia*. Lisboa: Fundação Francisco Manuel dos Santos, 2018; ROMANO, P. *O bê-á-bá da dívida*. Lisboa: Fundação Francisco Manuel dos Santos, 2017.

4 INTERNATIONAL MONETARY FUND. *Relatório Anual 2023*. Publicações do Departamento de Comunicação do FMI, 2023.

For instance, within the 27 Member States of the EU, public debt levels are projected to experience noticeable consolidation and improvement.[5]

Despite these risks, many EU Member States continue to face excessive public debt levels, and maintaining national budget deficits within prescribed limits has proven to be a persistent challenge[6]. The Organization for Economic Cooperation and Development (OECD) underscores the importance of achieving substantial fiscal consolidation and implementing structural reforms in critical areas such as social spending, labour markets, pension systems, and state governance. However, containing public expenditure remains a significant challenge, particularly in Europe. This is especially notable given that European countries, despite their above-average levels of economic development relative to other regions, face weak economic growth rates that hinder competitiveness.

The following economic growth rates illustrate this trend: 2018: 2.0%; 2019: 1.8%; 2020: –5.9% (reflecting the severe impact of the COVID-19 pandemic); 2021: 5.4% (a robust post-pandemic recovery); 2022: 3.6%; and 2023: 0.4%[7]. Enhancing European competitiveness will require improving these growth rates through more effective implementation of structural reforms.

In line with OECD recommendations, the EU has encouraged its member states to implement restrictive public expenditure policies to contain and reduce high deficits and public debt through structural reforms and adherence to the limits set by the Stability and Growth Pact (SGP). The Economic and Monetary Union (EMU) requires member states to achieve high fiscal sustainability. The SGP establishes deficit and public debt limits for all 27 EU member states, emphasizing those adopting the euro as their currency.[8]

The 27 member states are subject to strict budgetary consolidation obligations, which vary depending on their monetary framework. During the period under review, 19 states adopted the single currency, while eight did not. While all states must adhere to strict rules on the soundness and sustainability of their public finances under the SGP and related instruments, only the first group is subject to a unified monetary policy overseen by the European Central Bank Council. In contrast, the remaining states retain autonomy over their economic and financial policies, including monetary policy. This autonomy grants them greater flexibility in managing their currencies,

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5 Ibid.

6 CHEN, S. *Public Debt and Its Impacts on Output: A Long-Horizon Perspective*, 2014.

7 STATISTA. *Gross domestic product (GDP) growth in the EU and Euro area*. Statista, 2024 [online]. Available at: https://www.statista.com/statistics/267898/gross-domestic-product-gdp-growth-in-eu-and-euro-area/; TRADING ECONOMICS. *GDP Annual Growth Rate*. Trading Economics, 2024 [online]. Available at: https://tradingeconomics.com/european-union/gdp-annual-growth-rate; WORLD BANK DATA. *GDP growth (annual %) – European Union*. World Bank Group, 2024 [online]. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=EU

8 TRADING ECONOMICS. *GDP Annual Growth Rate*. Trading Economics, 2024.

allowing them to influence interest rates, control the money supply, purchase financial assets, provide favourable loans to domestic banks, and shape future policy directions.

These factors underscore concerns about the long-term fiscal sustainability of states. Fiscal sustainability refers to a state's ability to maintain its financial and budgetary policies over the long term without abrupt fiscal adjustments. In simpler terms, a state is considered fiscally sustainable if it can meet its public debt obligations and control its budget deficit to prevent its debt-to-GDP ratio from becoming unsustainable. In the EU, fiscal sustainability is assessed by analysing the evolution of public debt levels relative to GDP. This assessment ensures that states actively monitor their fiscal health and implement corrective measures to limit or eliminate budget deficits and stabilize public debt through continuous oversight.[9]

Fiscal sustainability is achieved through fiscal consolidation of public accounts, which involves budget adjustments to improve the annual budget balance by either increasing revenue or reducing expenditure. These adjustments aim to reduce the budget deficits of national public administrations by implementing restrictive discretionary fiscal policies. Financial consolidation is typically measured in structural terms, reflected in the variation of the structural primary balance.

The research problem focuses on understanding the fiscal consolidation behaviour of Eurozone and non-Eurozone member states between 2018 and 2023, during which fiscal rules were temporarily suspended. This suspension was intended to provide member states greater flexibility in managing their fiscal and economic policies in response to the pandemic crisis and the subsequent financial uncertainties caused by the war in Ukraine, rising energy prices, and supply chain disruptions.

During the period under review, EU Member States were not subject to the usual adverse consequences, such as excessive deficit procedures or macroeconomic imbalance procedures, established under the SGP and the Treaty on Stability, Coordination, and Governance in the EMU (commonly referred to as the Fiscal Compact). These procedures would typically apply under normal economic and social conditions. Against this backdrop, the research questions this study addresses are:

1) Is it possible to observe differences in the fiscal policies aimed at fiscal consolidation and sustainability between the groups of Member States during the period in question, given the temporary suspension of these rules?
2) What is the role of health expenditure in contributing to financial sustainability?

Given the absence of punitive procedures, the objective is to determine whether the suspension period was associated with the adopting of national policies that exacerbated budget deficits or increased public debt. Additionally, we seek to analyse the evolution of health spending and its contribution to fiscal consolidation and public debt management.

[9] BRENDER, A., PISANI, F., GAGNA, E. *The sovereign debt crisis: Placing a curb on growth*. Brussels: Centre for European Policy Studies, 2013.

Several studies highlight significant trends during this period. For instance, some report an increase in out-of-pocket healthcare payments in countries where citizens lack robust health insurance policies and a decline in healthcare access in others.[10] In contrast, other studies note that public healthcare systems in countries like Italy and Spain demonstrated strong resilience during the crisis, retaining their universal characteristics. However, these studies also point to a broader trend of rising risks associated with healthcare expenditure analysis. This includes the growing prevalence of supplementary private coverage (such as "occupational-mutual" schemes) and its adverse effects on access to public healthcare services.[11] These factors underscore the complexity of evaluating healthcare spending's role in shaping public finances and fiscal sustainability.

These questions are relevant because, from 1999 to 2012, the control of debt evolution relied on a cooperation model rooted in the political commitment of Eurozone member states, formalized through European Directives and Regulations comprising the SGP[12]. However, the public debt crisis in the Eurozone (2007–2011) revealed that this cooperation model was insufficiently robust to ensure improvements in public debt ratios and the strengthening of long-term fiscal sustainability.[13]

Keefe and Hepp[14] found that the European debt crisis (2007–2011) catalysed significantly greater fiscal discipline across all EU Member States. They observed that the revitalization of the SGP in 2005 and 2011, along with the adoption of the Treaty on Stability, Coordination, and Governance in the EMU, reinforced the framework of European economic governance. Furthermore, they emphasize that the crisis spurred a multi-level response, including the reform of the SGP, the introduction of a new macroeconomic imbalance procedure (in addition to the strengthening of the excessive deficit procedure), and the institutionalization of an economic governance model within the EMU through the adoption of the Fiscal Compact, effective since 2013. This response also extended European oversight of Member States' economic and financial policies through the "European Semester" mechanism.

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10 PALASCA, S., JABAB, E. Economic Crisis' Repercussions on European Healthcare Systems. *Procedia Economics and Finance.* 2015, vol. 23, pp. 525–533.

11 BOZIO, A., EMMERSON, C., PEICHL, A., TETLOW, G. European Public Finances and the Great Recession: France, Germany, Ireland, Italy, Spain and the United Kingdom Compared. *Fiscal Studies, the Journal of Apllied Public Economics.* 2015, vol. 36, no. 4, pp. 405–430.

12 CATARINO, J. R. *Finanças Públicas e Direito Financeiro.* Coimbra: Almedina, 2024; CATARINO, J. R., FONSECA, J. Sustentabilidade Financeira e Orçamental em Contexto de Crise Global Numa Europa de Moeda Única. *Seqüência Estudos Jurídicos e Políticos*. 2013, vol. 34, no. 67, pp. 21–52, 2013.

13 ARMINGEON, K., GUTHMANN, K. Democracy in crisis? The declining support for national democracy in European countries, 2007–2011. *European Journal of Political Research*. 2014, vol. 53, no. 3, pp. 423–442; HERRMANN, C. Legal aspects of the European sovereign debt crisis. *Hitotsubashi Journal of Law and Politics*. 2013, vol. 41, pp. 25–40.

14 KEEFE, H. G., HEPP, R. The effects of European fiscal discipline measures on current account balances. *Int Econ Econ Policy*. 2024, vol. 21, pp. 251–283.

Economic governance has consequently become a cornerstone of the EMU. It aims to identify and address economic imbalances that could weaken national economies or have cross-border spillover effects on other EU countries. As emphasized by the European Central Bank, economic governance is a critical pillar of the EMU, designed to detect and mitigate such imbalances.[15]

Afonso and Rault[16] found that while fiscal sustainability remains a concern in certain countries, fiscal policy was sustainable for the EU-15 panel as a whole and within the sub-periods 1970–1991 and 1992–2006. In response to the weaknesses in the EU's economic governance exposed by the financial and economic crisis, the Fiscal Compact introduced an annual European coordination mechanism in 2011. The European Semester builds on and redefines the EU's pre-existing coordination processes in fiscal, economic, employment, and social policies. These processes, developed throughout the 1990s and 2000s, include the SGP, the Broad Economic Policy Guidelines (BEPGs), the European Employment Strategy (EES), the Lisbon Strategy, and the Social Open Method of Coordination (OMC).[17]

2. Economic institutionalism and financial sustainability in the European Union

Financial sustainability constitutes a fundamental value of public action. Sustainable public finances provide greater security, giving states the capacity to address crises. Understanding the evolution of public debt and budget deficits is essential to grasp their impact on driving economic activity[18]. However, the case of the European Union's SGP, which imposes fiscal discipline on member states, exemplifies the application of the principles of economic institutionalism theory. This pact was designed to maintain stable budgetary positions long-term, mitigating the risks of

[15] CATARINO, J. R. *Finanças Públicas e Direito Financeiro*. Coimbra: Almedina, 2024; JUNCKER. J. C., TUSK. D., DIJSSELBLOEM, J., DRAGHI, M., SCHULZ, M. *Completing Europe's Economic and Monetary Union*. Brussels: European Commission, 2015.

[16] AFONSO, A., RAULT, C. What do we really know about fiscal sustainability in the EU? A panel data diagnostic. *Review of World Economics*. 2010, vol. 145, no. 4, pp. 731–755. Springer.

[17] VERDUN, A., ZEITLIN, J. Introduction: the European Semester as a new architecture of EU socioeconomic governance in theory and practice. In: Verdun, A. and Zeitlin, J. (eds.). *EU Socio-Economic Governance since the Crisis – The European Semester in Theory and Practice*. London: Routledge, 2018, pp. 1–12.

[18] EUROPEAN COMMISSION. European semester thematic factsheet: sustainability of public finances, 2017. https://commission.europa.eu/system/files/2020-06/european-semester_thematic-factsheet_public-finance-sustainability_en_0.pdf; EUROPEAN COMMISSION. Overview of sustainable finance, 2024 [online]. Available at: https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

default, excessive indebtedness, or economic instability, thereby ensuring sustainability.[19]

Economic institutionalism and the sustainability of public finances are interconnected. Rules, norms, laws, and formal and informal organizations shape countries' governance and, by extension, Europe. Institutions play a critical role in designing and implementing budgetary policies. They provide governance structures and are responsible for ensuring or contributing to financial stability in the short, medium, and especially the long term.[20]

The theory of economic institutionalism focuses on the role of institutions — rules, norms, laws, and organizations — in shaping behaviour and economic outcomes. According to Silva, Macedo and Thompson[21], institutions influence how resources are allocated, decisions are made, and economic stability is achieved. Examples of formal institutions include legal frameworks, fiscal rules, and tax systems, while informal institutions include norms, social contracts, and cultural practices that influence policy-making and compliance.[22] In other words, according to this perspective, mechanisms for controlling and reducing deficits are created by institutions, which in turn foster fiscal discipline, accountability, and transparency in public accounts.[23] However, it is important to remember that fiscal stability is vulnerable to external shocks[24], such as pandemics or crises.

Thus, the implementation of European rules regarding member states' deficit and public debt limits, as motivated by the SGP, is also explained by the theory of economic institutionalism. These rules translate into standards aimed at controlling and regulating deficits. In other words, and according to Menguy[25], these measures also prevent fiscal profligacy – the tendency to engage in unwarranted and ruinous expenditures disproportionate to a country's financial capacity.

It is worth emphasizing that the imposition of institutional frameworks contributes to reducing corruption (by increasing transparency in processes and requiring the creation

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[19] ARIF, A., ARIF, U. Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*. 2023, vol. 13, no. 2, pp. 1–9; MENGUY, S. Reform of the stability and growth Pact: Which changes for the governments? *Journal of Government and Economics*. 2024, vol. 15, 100120.

[20] ARIF, A., ARIF, U. Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*. 2023, vol. 13, no. 2, pp. 1–9.

[21] SILVA, L. C., MACEDO, I. M., THOMPSON, M. Revisiting the debate on institutions, the state and institutional change: The relevance of institutional theory to public administration teaching. *Teaching Public Administration*. 2024, vol. 42, no. 1, pp. 73–94.

[22] ASPERS, P. *Formal Institutions, Uncertainty: Individual Problems and Public Solutions*. New York: Oxford Academic, 2024.

[23] GRUNER, H. Mechanisms for the control of fiscal deficits. *Journal of Economic Behavior & Organization*. 2017, vol. 144, pp. 133–152.

[24] ARIF, A., ARIF, U. Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*. 2023, vol. 13, no. 2, pp. 1–9.

[25] MENGUY, S. Reform of the stability and growth Pact: Which changes for the governments? *Journal of Government and Economics*. 2024, vol. 15, 100120.

of regulatory and supervisory bodies, such as courts of auditors, while tax systems develop mechanisms to enforce compliance and combat tax evasion), mismanagement (through the requirement of multi-annual fiscal frameworks and periodically monitored budgets), and unnecessary expenditures (through planning and the possibility of citizen participation via participatory budgets).[26] According to Masuch, Moshammer, and Pierluigi[27], economic institutionalism applied to public finances promotes sustainability, especially in the medium and long term, by preventing indebtedness, improving forecasting and budgeting, and increasing investor and market confidence in those countries.

Conversely, the temporary suspension from 2020 to 2023 of European rules on deficit and public debt limits for member states allowed for an adjustment period in which more significant investment and expenditure were possible, laying the foundations for generating long-term economic value. Some authors consider that this period functioned as an adjustment mechanism, enabling adaptation, without which it would have been tough to achieve the objectives set out in the SGP in the future. The suspension likely supported sustained growth, theoretically expanding fiscal policies and reducing fiscal pressure over time.[28] The risk of fiscal profligacy could have arisen even without the usual restrictions. However, institutions have cultivated a sense of responsibility in constructing budgets and generally uphold this principle.[29]

The economic expenditure of states, including health expenditure, is primarily assessed by the soundness of their public accounts and the levels of indebtedness among businesses and households. High public debt levels undermine resilience to economic and financial crises, leaving states without sufficient financial reserves to address such challenges. In times of economic crisis, states with high deficits, substantial public debt, and weak domestic savings are compelled to borrow from markets under less favourable financial conditions, further increasing debt costs.

Acknowledging that the long-term stability of the European single currency heavily relies on the quality of member states' public finances, the EU established maximum limits for budget deficits and public debt at 3% and 60% of GDP, respectively, as conditions for entering the third phase of the EMU in 1999. However, these limits proved to have a limited practical impact. Between 1999 and 2006, reductions in individual deficit and debt levels were minimal[30], as demonstrated in the following table.

[26] ARIF, A., ARIF, U. Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*. 2023, vol. 13, no. 2, pp. 1–9.

[27] MASUCH, K., MOSHAMMER, E., PIERLUIGI, B. *Institutions, public debt and growth in Europe*. Frankfurt: European Central Bank publishing, 2016.

[28] REUTERS. *EU Commission to propose keeping fiscal rules suspended in 2023-officials*. Brussels: Reuters, 2022 [online]. Available at: https://www.reuters.com/markets/europe/eu-commission-propose-keeping-fiscal-rules-suspended-2023-officials-2022-05-19/

[29] MENGUY, S. Reform of the stability and growth Pact: Which changes for the governments? *Journal of Government and Economics*. 2024, vol. 15, 100120.

[30] PANIAGUA, J., SAPENA, J., TAMARIT, C. (2017). Fiscal sustainability in EMU countries: A continued fiscal commitment. *Journal of International Financial Markets, Institutions & Money*. 2017, vol. 50, pp. 85–97.

Table 1 – Budget Balances in the EU from 1999–2013 (as a % of GDP)

Country	Acronym	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU-28		-1.1	0,5	-1.5	-2.6	-3.2	-2.9	-2.5	-1.5	-0.9	-2.4	-6,8	-6.5	-4.4	-4,0	-3.3
Euro Zone		-0,9	0,7	-1.4	-2.5	-3.1	-2.8	-2.4	-1.4	-0,8	-2.4	-6.8	-6.5	-4.5	-4.0	-3.3
Austria	AT	-2.4	-1.8	-0,2	-0,9	-1.7	-4.6	-1.8	-1.7	-1.0	-1.0	-4.1	-4.5	-2.4	2.6	-1.5
Belgium	BE	-0.7	-0.1	-0.4	-0.2	-0.2	-0,2	-2.6	0.3	-0.1	-1.1	-5.6	-4	-4	-4.1	-2.7
Bulgaria	BG	0.1	-0.5	1.1	-1.2	-0.4	1.9	1.0	1.9	1.2	1.7	-4.3	-3.1	-2.0	-0.8	-1.5
Croatia	HR	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	-5.3	-6.4	-7.8	-5.0	-4.9
Cyprus	CY	-4.3	-2.3	-2.2	-4.4	-6.6	-4.1	-2.4	-1.2	3.5	0.9	-6.1	-5.3	-6.3	-6.4	-5.4
Czechia	CZ	-3.6	-3.6	-5.6	-6.5	-6.7	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.7	-3.2	-4.2	-1.5
Denmark	DK	1.3	2.2	1.2	0.3	-0.1	1.9	5.0	5.0	4.8	3.3	-2.8	-2.7	-2.0	-3.9	-0.9
Estonia	EE	-3.5	-0.2	-0.1	0.3	1.7	1.6	1.6	2.5	2.4	-3.0	-2.0	0.2	1.1	-0.2	0.2
Finland	FI	1.7	7.0	5.1	4.2	2.5	2.3	2.7	4.1	5.3	4.3	-2.7	-2.8	-1.0	-2.2	-2.5
France	FR	-1.8	-1.5	-1.7	-3.3	-4.1	-3.6	-3.0	-2.4	-2.8	-3.3	-7.5	-7.0	-5.2	-4.9	-4.3
Germany	DE	-1.6	-1.1	-3.1	-3.8	-4.2	-3.8	-3.3	-1.7	0.2	-0.1	-3.1	-4.2	-0.8	0.1	0.0
Greece	GR	-3.1	-3.8	-4.5	-4.9	-5.8	-7.5	-5.6	-6.2	-6.8	-9.9	-15.6	-11.0	-9.6	-8.9	-12.7
Hungary	HU	-5.2	-3.1	-4.1	-9-0	-7.3	-6.5	-7.9	-9.5	-5.1	-3.7	-4.6	-4.4	-4.2	-2.2	-2.4
Ireland	IE	2.5	4.9	1.0	-0.3	0.4	1.4	1.6	2.9	0.2	-7.4	-13.7	-30.6	-13.0	-8.1	-7.0
Italy	IT	-0.2	-0.9	-3.2	-3.2	-3.6	-3.6	-4.5	-3.4	-1.6	-2.7	-5.4	-4.4	-3.6	-2.9	-2.8
Latvia	LV	-3.8	-2.8	-2.0	-2.3	-1.6	-1.1	-4.0	-0.6	-0.7	-4.4	-9.1	-8.1	-3.5	-1.4	-0.9
Lithuania	LT	-2.8	-3.2	-3.5	-1.9	-1.3	-1.5	-0.5	-0.4	-1.0	-3.3	-9.4	-7.2	-5.5	-3.3	-2.2
Luxembourg	LU	3.4	6.0	6.1	2.1	0.5	-1.1	0.0	1.4	3.7	3.2	-0.7	-0.8	0.2	0.0	0.1
Malta	MT	-6.9	-5.7	-6.3	-5.7	-9.0	-4.6	-2.9	-2.7	-2.3	-4.6	-3.7	-3.5	-2.7	-3.3	-2.8
Netherlands	NL	0.4	2.0	-0.3	-2.1	-3.2	-1.8	-0.3	0.5	0.2	0.5	-5.6	-5.0	-4.3	-4.0	-2.4
Poland	PL	-2.3	-3.0	-5.3	-5.0	-6.2	-5.4	-4.1	-3.6	-1.9	-3.7	-7.5	-7.8	-5.1	-3.9	-4.3
Portugal	PT	-3.1	-3.3	-4.8	-3.4	-3.7	-4.0	-6.5	-4.6	-3.2	-3.7	-10.2	-9.9	-4.3	-6.5	-5.0
Romania	RO	-4.1	-4.7	-3.5	-2.0	-1.5	-1.2	-1.2	-2.2	-2.9	-5.7	-9.9	-6.8	-5.5	-3.0	-2.3
Slovakia	SK	-7.4	-12.3	-6.5	-8.2	-2.8	-2.4	-2.8	-3.2	-1.8	-2.1	-8.0	-7.5	-4.8	-4.5	-2.8
Slovenia	SI	-3.0	-3.7	-4.0	-2.4	-2.7	-2.3	-1.5	-1.4	0.0	-1.9	-6.3	-5.9	-6.4	-4.0	-14.7
Spain	ES	-1.3	-1.0	-0.6	-0.3	-0.3	-0.1	1.3	2.4	2.0	-4.5	-11.1	-9.6	-9.6	-10.6	-7.1
Sweden	SE	0,8	3.6	1.6	-1.5	-1.3	0.4	1.9	2.2	3.6	2.2	-1.0	0.0	0.0	-0.7	-1.3
United Kingdom	UK	0.9	3.5	0.4	-2.1	-3.5	-3.5	-3.4	-2.8	-2.8	-5.0	-11.3	-10.0	-7.6	-6.1	-5.8

Euro Zone countries in Bold

Budget balance of less than 3% of GDP

Source: Authors elaboration based on Eurostat

Table 1 illustrates that minimal progress was made in consolidating budget deficits during the early years, leading to stagnation in the desired reduction or stabilization of Member States' debt levels over time. This trend was observed across Euro-adopting and non-Euro-adopting states, albeit at varying rates. Furthermore, it is apparent that some states with deficit levels initially below the European threshold (3% of GDP) either allowed or could not prevent exceeding this limit, even if only temporarily (e. g., Germany and France).

As noted by Paniagua, Sapena and Tamarit[31], the findings suggest that the distinction between core and peripheral EMU countries is mainly arbitrary, with fiscal

[31] PANIAGUA, J., SAPENA, J., TAMARIT, C. (2017). Fiscal sustainability in EMU countries: A continued fiscal commitment. *Journal of International Financial Markets, Institutions & Money*. 2017, vol. 50, pp. 85–97.

responses differing significantly within these groups. The study further revealed that certain countries, such as Germany and Belgium, demonstrate consistent and sustained efforts to combat debt. In contrast, others, like France and Spain, tend to adopt more sporadic or episodic approaches.[32]

Due to the weak fiscal consolidation observed in the early years of the third phase of the EMU, which began in 1999, the EU expanded its oversight role in 2013 to include economic and financial supervision. This expansion was implemented through the adoption of two key legislative packages, the “Two-Pack” and “Six-Pack”, and the introduction of the “fiscal compact”, which took effect in 2013. These measures established a comprehensive European economic governance framework known as the “European Semester”.

The European Semester is a procedural framework that operates annually from October/November to March/April, enabling the EU to coordinate the economic and fiscal policies of its Member States. The primary objective is to ensure the sustainability of public finances by the rules outlined in the SGP and other applicable regulations.[33] It enhances clarity regarding fiscal rules, improves coordination of national policies throughout the year, and enables the European Union to monitor budget deficits and public debt levels regularly. This framework supports Member States in meeting their budgetary and reform commitments while strengthening the implementing overall functionality.

The implementation of the European Semester has enabled the EU to effectively coordinate these policies, proactively addressing excessive deficits[34] and macroeconomic imbalances. As a result, recent years are anticipated to have shown positive developments in deficit and public debt levels.

This increased rigor in instruments and surveillance is expected to contribute to the long-term sustainability of Member States’ public finances, fostering greater discipline and adherence to deficit and debt limits.[35]

However, the pandemic crisis necessitated suspending rules governing deficit and debt limits from 2020 to 2023. During this period, Member States were not at risk of facing an excessive deficit procedure under Article 126 of the TFEU, even if their public deficits exceeded 3% of GDP. This prompts the central inquiry of how public debt and budget deficit levels evolved in the two groups of Member States during this time.

To address the research questions regarding the evolution of deficit and public debt levels and the evolution of health spending, in these two groups, it is first essential to

[32] AFONSO, A., RAULT, C. What do we really know about fiscal sustainability in the EU? A panel data diagnostic. *Review of World Economics*. 2010, vol. 145, no. 4, pp. 731–755. Springer.

[33] CATARINO, J. R. *Finanças Públicas e Direito Financeiro*. Coimbra: Almedina, 2024.

[34] Article 124 of the TFEU.

[35] BYSTROV, V., MACKIEWICZ, M. Recurrent explosive public debts and the long-run fiscal sustainability. *Journal of Policy Modeling*. 2019, vol. 42, no. 3, pp. 437–450. Elsevier.

identify the states in each group during the period under consideration. The first group, comprising Euro Area Member States, included Germany, Austria, Belgium, Cyprus, Croatia, Slovakia, Slovenia, Spain, Estonia, Finland, France, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, and Portugal. The second group, consisting of Non-Euro Area Member States, included Bulgaria, the Czech Republic, Denmark, Hungary, Poland, Romania, and Sweden.

3. Methods

To address the objectives of this study – observing the differences in behaviour between the two groups of states (those belonging to the single currency and those that do not) – we separately analysed the evolution of deficit and public debt levels during the considered period in these two groups. The qualitative analysis is based on existing literature on the broad issue of sustainability in the European Union. The quantitative study is based on the performance data of each of the 27 EU Member States from 2018 to 2023, concerning three specific indicators: general government gross debt (public debt); general government deficit/surplus (public deficit/surplus); healthcare expenditure (public health spending). The data (expressed in % of GDP) were extracted on November 12, 2024, from Eurostat.[36] For each variable analysed, the missing values in a country's time series were estimated using methods adjusted to the trend indicated by the data at available points. The compiled dataset containing the variables of interest was analysed using appropriate statistical methods in the R software.[37]

For this purpose, we applied univariate descriptive statistical methods, including calculating average values, and econometric methods, particularly the difference-in-differences (DiD) method using doubly robust estimation.[38] This method enables us to evaluate the effect of the temporary suspension, from 2020 to 2023, of the rules on deficit and public debt limits in two groups of the 27 EU Member States: the group of 19 states belonging to the Eurozone (the "treatment" group, subject to the temporary suspension), and the group of 7 states (Bulgaria, Czech Republic, Denmark, Hungary, Poland, Romania, Sweden) not belonging to the Eurozone (the "control" group, not subject to the temporary suspension).

The performance of the states in the variables of interest after the temporary suspension. (2020 to 2023) was compared with their performance in the preceding years (2018 to 2020) between the two groups. To ensure the comparability of the two groups throughout the entire period of analysis (2018 to 2023), Croatia was not included in the

36 Available at: https://ec.europa.eu/eurostat/databrowser/explore/all/all_themes
37 See https://www.r-project.org/
38 CALLAWAY, B., SANT'ANNA, P. H. C. Difference-in-Differences with multiple time periods. *Journal of Econometrics*. 2021, vol. 225, no. 2, pp. 200–230.

study of the evolution of the variables of interest over the six years, nor the calculation of the difference-in-differences, because it joined the Eurozone only in 2020. Thus, the Eurozone analysed corresponds to the Eurozone 19 before Croatia's integration in 2020. For each variable analysed, the results are presented as a percentage of GDP to allow comparison between states and groups of states. The acronym of its name is used to facilitate the presentation of the results for each analysed country.

4. Results

The results enable us to characterize the behaviour of Euro Area Member States and Non-Euro Area Member States concerning the ratios under consideration: public debt, budget deficit and health spending during the period under review. Moreover, the findings provide insight into the extent and impact of the temporary suspension of deficit and public debt limit rules that applied to Euro Area Member States during this period, in contrast to their Non-Euro Area counterparts. Let us now examine the evolution of each aggregate.

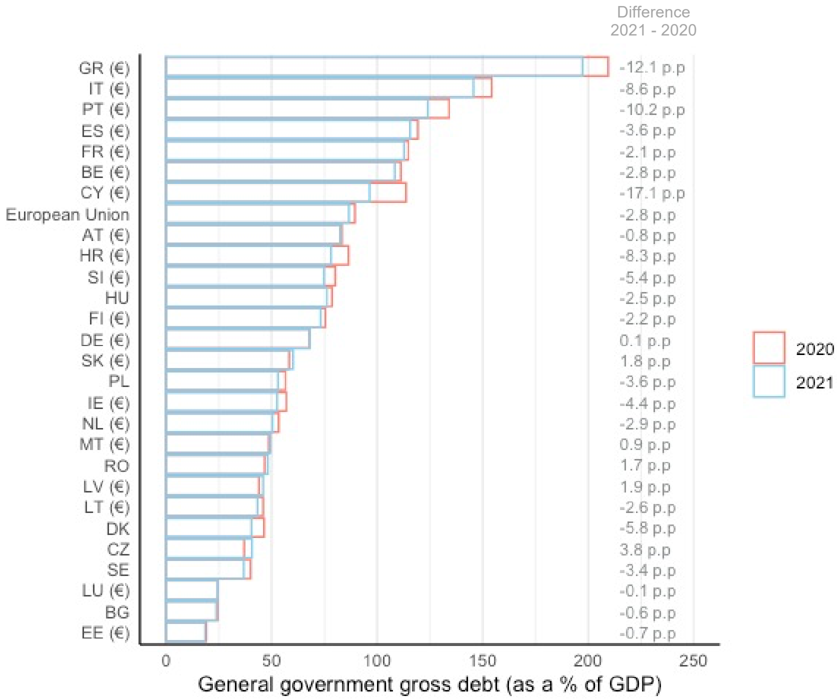
4.1. Public Debt

Using the research methodology mentioned above, the results reveal that in 2020, the EU Member States with the highest public debt (as a percentage of GDP) were Greece (209.4% of GDP), Italy (154.3%), Portugal (134.1%), Spain (119.3%), France (114.8%), Cyprus (113.6%), and Belgium (111.2%), all of which are in the Eurozone (Figure 1).

Conversely, Estonia (19.1%), Luxembourg (25.4%), and Bulgaria (24.4%) had the lowest public debt (as a percentage of GDP). Bulgaria is the only one of these three states not in the Eurozone.

In most of the 27 Member States, public debt (as a percentage of GDP) decreased from 2020 to 2021. The Eurozone states that the most significant reductions were Cyprus, with a decrease of 17.1 percentage points (p. p.); Greece, with a decline of 12.1 p. p.; and Portugal, with a reduction of 10.2 p. p. Conversely, in the Czech Republic, Latvia, Slovakia, Romania, Malta, and Germany, public debt (as a percentage of GDP) increased in 2021 compared to 2020, with the most significant increase observed in the Czech Republic (up 3.8 p.p.). Among these states with disfavourable variations, only the Czech Republic and Romania do not belong to the Eurozone (Figure 1).

Figure 1 – General government gross debt (as a % of GDP) of each of the 27 EU member states (and the EU as a whole) in 2020 and 2021. The difference in performance between 2021 and 2020 (in p.p.) is shown on the far right of the graph area. The 20 Member States that belong to the Eurozone are marked with the Euro symbol (€).



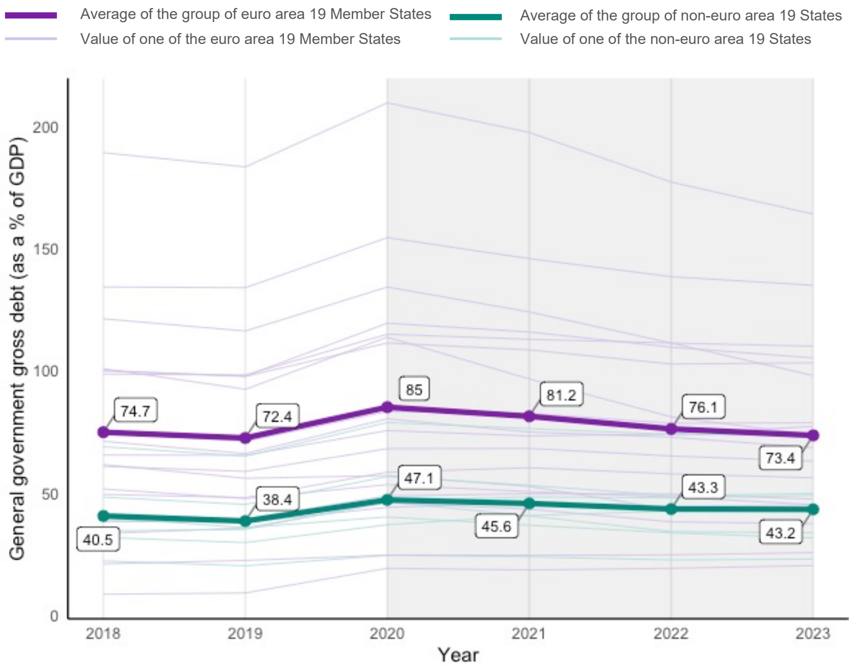
Between 2018 and 2020, public debt (as a percentage of GDP) increased in parallel in the Eurozone 19 states and the other states, with an overall increase between 2018 and 2020 (Figure 2A). After 2020, a decreasing trend was observed for this indicator, which gradually became more pronounced in the Eurozone 19 group than in the group outside the Eurozone 19.

The parallel evolution of this indicator in the period before the temporary suspension of the deficit and public debt limit rules, allows for establishing, in the group of states outside the Eurozone 19, a counterfactual of the indicator's evolution in the Eurozone 19 group if the temporary suspension had not been applied. Therefore, it is possible to use the difference-in-differences method to identify and estimate the effect of the temporary suspension on the evolution of this indicator in the Eurozone. The overall difference-in-differences in the post-temporary period was, on average,

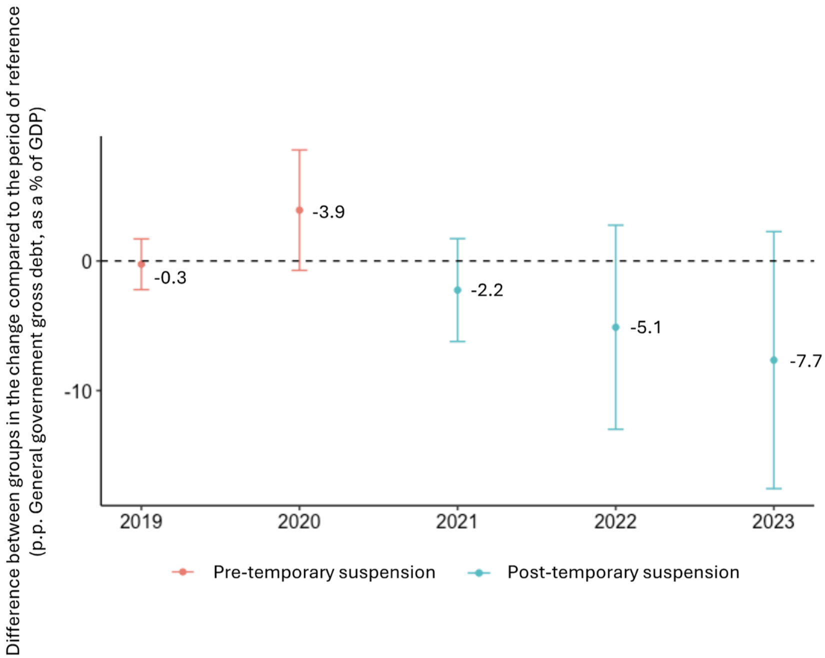
–5.0 p. p., with a wide 95% confidence interval of –10.9 p. p. and 0.9 p. p. Despite not being statistically significant, this indicates that the temporary suspension of the deficit and public debt limit rules in the Eurozone 19 tended to have a beneficial effect, when compared to 2020, reducing public debt (as a percentage of GDP) more in this group of states than in the non-Eurozone 19 group. The magnitude of this estimate increased gradually from 2021 to 2023 (Figure 2B).

Figure 2 – (**A**) Evolution of the average of general government gross debt (as a % of GDP) in Eurozone states and non-Eurozone states between 2018 and 2023 (Croatia was excluded from the analysis, so the Eurozone considered corresponds to Eurozone 19 before Croatia's integration in 2020). The grey area is intended to show the evolution observed after 2020 due to the temporary suspension, from 2020 to 2023, of the deficit and public debt limit rules. (**B**) Difference between the two groups (Eurozone 19 minus non-Eurozone) in the change observed in each group, compared to the period of reference: previous year, for pre-temporary suspension; year of 2020, for post-temporary suspension. The dot represents the point estimate of the average value, and the error bars represent 95% confidence intervals.

A



B

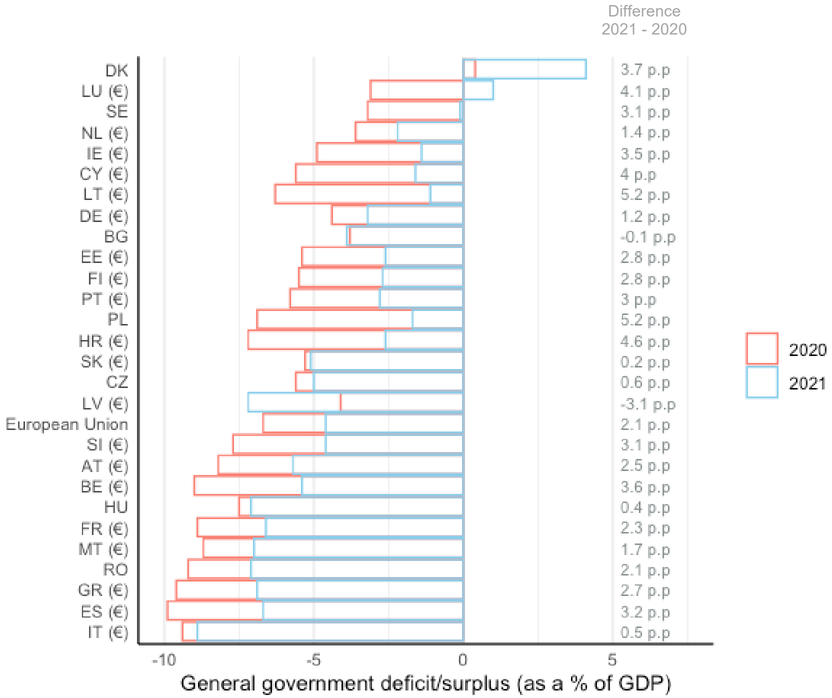


4.2. Budget Deficit / Public Surplus

The EU Member States with the highest budget deficit/public surplus ratios (as a percentage of GDP) in 2020 were Denmark (0.4% of GDP); Luxembourg (–3.1%); Sweden (–3.2%); Netherlands (–3.6%); Bulgaria (–3.8%); Latvia (–4.1%), Germany (–4.4%) and Ireland (–4.9%); (Figure 3). Denmark, Sweden, and Bulgaria are not part of the Eurozone. On the other hand, the states with the lowest budget deficit/public surplus ratios (as a percentage of GDP) were Spain (–9.9%), Greece (–9.6%), Italy (–9.4%), Romania (–9.2) and Belgium (9.0%), of which only Romania not in the Eurozone. In 2020, Portugal recorded a budget deficit/public surplus of –5.8% of GDP, higher than the EU average of –6.7%.

In almost all 27 Member States, the budget deficit/public surplus ratio (as a percentage of GDP) increased from 2020 to 2021, with the most significant changes observed in Lithuania and Poland, each with an increase of 5.4 p. p., and Croatia with a rise of 4.6 p. p. (Poland and Croatia, not being part of the Eurozone); (Figure 3). In Portugal, the ratio also improved, with an increase of 3 p. p. The two Member States where the ratio decreased from 2020 to 2021 were Latvia (a decrease of 3.1 p. p.) and Bulgaria (a reduction of 0.1 p. p., and not part of the Eurozone) (Figure 3).

Figure 3 – General government deficit/surplus (as a % of GDP) of each of the 27 EU member states (and the EU as a whole) in 2020 and 2021. The difference in performance between 2021 and 2020 (in p. p.) is shown on the far right of the graph area. The 20 Member States that belong to the Eurozone are marked with the Euro symbol (€).



Between 2018 and 2020, the variation in the budget deficit/public surplus ratio (as a percentage of GDP) remained consistent in the Eurozone 19 states and the other states. This indicator slightly increased from 2018 to 2019 and then decreased sharply from 2019 to 2020, with a more pronounced variation in the Eurozone 19 states and the group of other states (Figure 4A).

This divergent (non-parallel) evolution in the period before the temporary suspension of the deficit and public debt limit rules (Figure 4A and 4B), does not allow for identifying and estimating the effect of the temporary suspension on the evolution of this indicator in the Eurozone—that is, the group of states outside the Eurozone cannot be used as a counterfactual for the evolution of the indicator in the Eurozone group if the temporary suspension had not been applied. However, as a mere indication, it is noted that from 2021 to 2023, the variation compared to 2020 was gradually more pronounced in the Eurozone 19 group than in the group of other states, reaching positive values in the difference between 2021 onwards and compared to 2020 — in other words, the budget deficit/public surplus ratio (as a percentage of GDP) had a more significant variation, and to higher values, in 2021, 2022 and 2023 (compared to 2020) in the Eurozone 19 group than in the other states (Figure 4B).

Figure 4 – (**A**) Evolution of the average general government deficit/surplus (as a % of GDP) in Eurozone states and non-Eurozone states between 2018 and 2023 (Croatia was excluded from the analysis, so the Eurozone considered corresponds to Eurozone 19, before Croatia's integration in 2020). The grey area is intended to show the evolution observed after 2020 due to the temporary suspension, from 2020 to 2023, of the deficit and public debt limit rules. (**B**) Difference between the two groups (Eurozone 19 minus non-Eurozone) in the change observed in each group, compared to the period of reference: previous year, for pre-temporary suspension; year of 2020, for post-temporary suspension. The dot represents the point estimate of the average value, and the error bars represent 95% confidence intervals.

A

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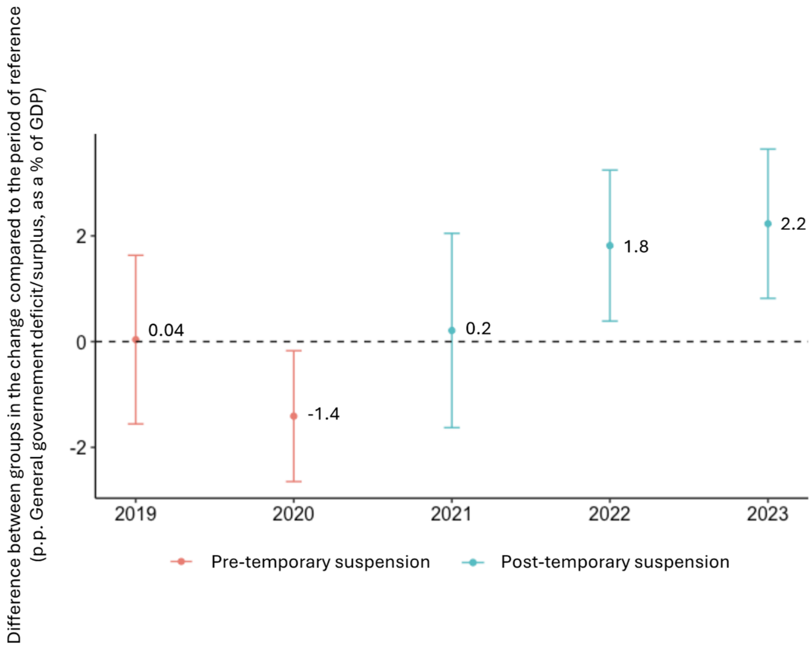
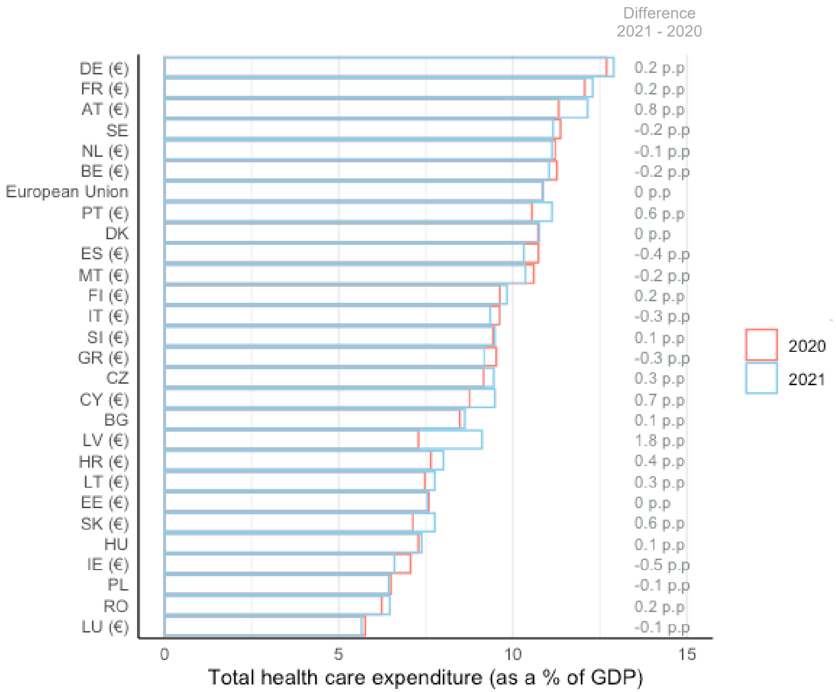


4.3. Health Spending

In 2020, Germany and France stood out among the other EU Member States and the Eurozone for having the highest public health expenditure as a percentage of GDP (12.7% and 12.1%, respectively) (Figure 5). On the other hand, the states with the lowest health spending (as a percentage of GDP) were Luxembourg (5.8%), Romania (6.2%), and Poland (6.5%), with the latter two being outside the Eurozone.

In most of the 27 Member States, health spending (as a percentage of GDP) increased from 2020 to 2021, with the most significant variation observed in Latvia, with an increase of 1.8 percentage points (Figure 5). Conversely, in 11 states, public health spending decreased in 2021 compared to 2020, with the most significant decreases observed in Ireland (down by 0.5 percentage points) and Spain (down by 0.4 percentage points).

Figure 5 – Public health care expenditure (as a % of GDP) of each of the 27 EU member states (and the EU as a whole) in 2020 and 2021. The difference in performance between 2021 and 2020 (in p.p.) is shown on the far right of the graph area. The 20 Member States that belong to the Eurozone are marked with the Euro symbol (€).



Between 2018 and 2020, public health expenditure (as a percentage of GDP) evolved in a parallel manner in the group of Eurozone 19 states and the group of non-Eurozone states, with the indicator stabilising in 2019 compared to 2018, followed by an increase in 2020: an increase of 10.2% in 2020 in the average of Eurozone 19 states, compared to 2019; a rise of 10.3% in the average of non-Eurozone states (Figure 6A). After 2020, the two groups maintained a parallel evolution up to 2023: upon a modest positive variation from 2020 to 2021 (+1.9% in the average of Eurozone 19 states, and +0.9% in non-Eurozone states), the indicator decreased in 2022 (–5.4% in the average of Eurozone 19 states, and –7.9% in non-Eurozone states), but levelled again with a positive variation in 2023 (+0.7% in the average of Eurozone 19 states, and +0.9% in non-Eurozone states).

It is essential to highlight that the increase in public health expenditure observed in 2020 aligns with the increase observed in total public spending in both groups under analysis: +14.9% in 2020 in the average Eurozone 19 states compared to 2019; +11.5% in non-Eurozone states. However, public health expenditure increased slightly between 2020 and 2021, but total public spending decreased in the same period: –4.0% in the average Eurozone 19 states, and –5.1% in non-Eurozone states. After 2021, the evolution of total public spending and public health expenditure were realigned. Between 2021 and 2022, the evolution of total public spending kept decreasing in both groups (–4.8% in the average Eurozone 19 states, and –2.1% in non-Eurozone states), but in 2023 the downward tendency was stalled with modest positive variation in both groups (1.4% in the average Eurozone 19 states, and 1.7 in non-Eurozone states).

The parallel evolution of public health expenditure in the period prior to the temporary suspension of deficit and public debt limit rules allows the establishment of a counterfactual for the indicator's evolution in the Eurozone 19 group, using the group of non-Eurozone 19 states. The overall difference-in-differences in the post-temporary period (the difference between the two groups, Eurozone 19 minus non-Eurozone 19, in the observed change in each group between 2021 onwards and compared to 2020) was, on average, 0.2 p. p., with a 95% confidence interval of –0.1 p. p. and 0.5 p. p. This indicates an identical variation in 2021, 2022 and 2023 (compared to 2020) (Figure 6B), although slightly more pronounced in the Eurozone 19 group compared to the non-Eurozone 19 group in 2021 (when public health expenditure increased, compared to 2020), but slightly less pronounced in 2022 and 2023 (when public health expenditure decreased, compared to 2020) (Figure 6A).

Figure 6 – (**A**) Evolution of the average of public health care expenditure in Eurozone states and non-Eurozone states between 2018 and 2023 (Croatia was excluded from the analysis, so the Eurozone considered corresponds to Eurozone 19 before Croatia's integration in 2020). The grey area is intended to show the evolution observed after 2020 due to the temporary suspension of the deficit and public debt limit rules, from 2021 until the end of 2023. (**B**) Difference between the two groups (Eurozone 19 minus non-Eurozone) in the change observed in each group, compared to the period of reference: previous year, for pre-temporary suspension; year of 2020, for post-temporary suspension. The dot represents the point estimate of the average value, and the error bars represent 95% confidence intervals.

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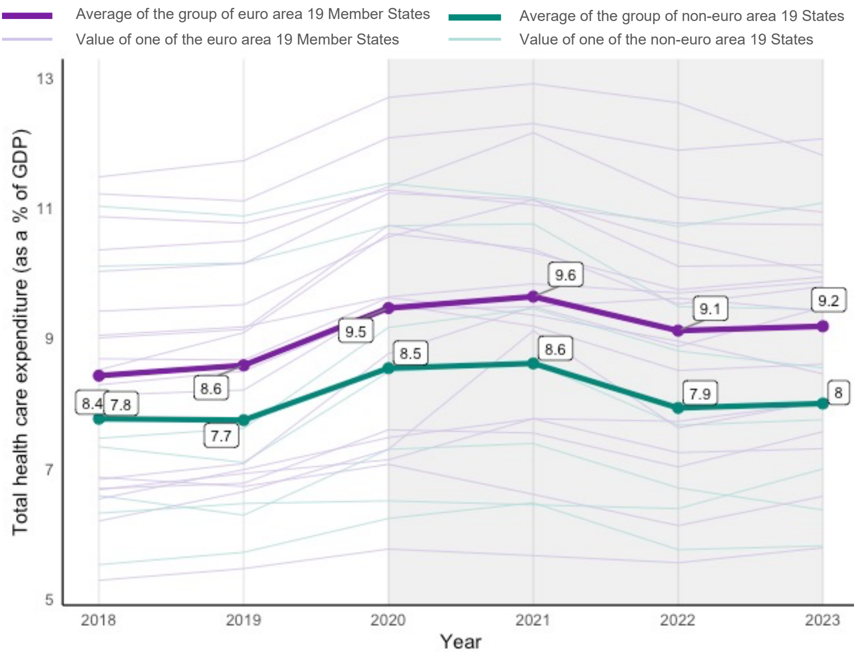

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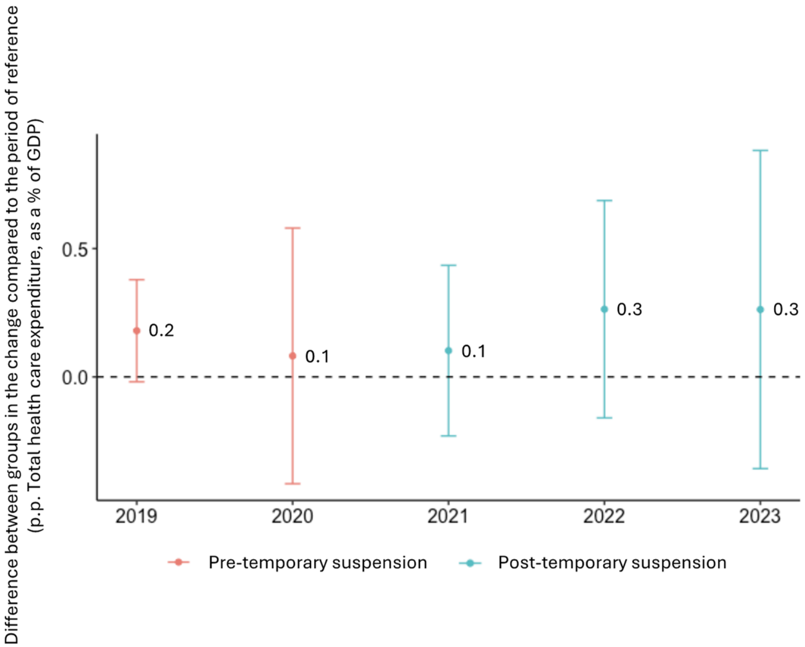

5. Discussion

Consistent with the findings of Keefe and Hepp[39], the results suggest that fiscal consolidation and long-term sustainability are core principles embedded in the financial management practices of states in both groups. This highlights the critical importance of enhancing fiscal discipline across all EU Member States, supported by the revitalization of the SGP and the adoption of the Fiscal Compact as essential pillars of strengthened European economic governance.[40]

The data reveal that in nearly all 27 Member States, the budget deficit/public surplus ratio (as a percentage of GDP) increased from 2020 to 2021, underscoring the

[39] KEEFE, H. G., HEPP, R. The effects of European fiscal discipline measures on current account balances. *Int Econ Econ Policy*. 2024, vol. 21, pp. 251–283.

[40] BYSTROV, V., MACKIEWICZ, M. Recurrent explosive public debts and the long-run fiscal sustainability. *Journal of Policy Modeling*. 2019, vol. 42, no. 3, pp. 437–450. Elsevier.

challenges in controlling deficits.[41] Furthermore, the data indicate that between 2018 and 2020, the budget deficit/public surplus ratio (as a percentage of GDP) remained relatively stable in both the Eurozone 19 group and the group of non-Eurozone states.

The two groups exhibit notable differences in the budget deficit/public surplus ratio (as a percentage of GDP), which is particularly interesting given the significant variation in fiscal responses.[42] In the Eurozone 19 group, this indicator increased slightly from 2018 to 2019 before decreasing from 2019 to 2020. In contrast, the non-Eurozone group has experienced a consistent decline in this ratio since 2019, with more pronounced variations than those observed in the Eurozone group.

Regarding public debt (as a percentage of GDP), many Member States saw a decline between 2020 and 2021, although six states experienced an increase during this period. The EU Member States with the highest public debt levels (as a percentage of GDP) were also those most affected by the Eurozone public debt crisis (2007–2011). This underscores the importance of maintaining European oversight of Member States' economic and financial policies through mechanisms such as the "European Semester". This framework includes reforms to the SGP, introducing a new macroeconomic imbalances procedure, and the institutionalization of an economic governance model within the EMU through the adoption of the Fiscal Compact.[43]

Between 2018 and 2020, health spending in different groups of countries evolved in parallel, mirroring the overall trend in public expenditure. However, divergent trajectories emerged after the COVID-19 pandemic and the temporary suspension of deficit and debt limit rules from 2020 onward. In the Eurozone states, public health expenditure increased while overall public expenditure declined during this period. Conversely, in the non-Eurozone states, both public health expenditure and overall public expenditure decreased. This difference may reflect the greater flexibility afforded by the suspension of deficit and debt limit rules in the Eurozone group. In contrast, non-Eurozone states may have faced stronger internal pressures to restore spending to pre-2020 levels.

The findings also indicate that the temporary suspension of deficit and public debt limit rules between 2020 and 2023 did not negatively affect the evolution of these aggregates in the Eurozone 19 states. During this time, Member States were not at risk of being subjected to an excessive deficit procedure under Article 126 of the TFEU for exceeding the 3% GDP public deficit threshold.

Moreover, a more favourable outcome is evident in the reduction of public debt (as a percentage of GDP) in the Eurozone states compared to non-Eurozone states.

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41 CHEN, S. *Public Debt and Its Impacts on Output: A Long-Horizon Perspective*, 2014.

42 PANIAGUA, J., SAPENA, J., TAMARIT, C. (2017). Fiscal sustainability in EMU countries: A continued fiscal commitment. *Journal of International Financial Markets, Institutions & Money*. 2017, vol. 50, pp. 85–97.

43 KEEFE, H. G., HEPP, R. The effects of European fiscal discipline measures on current account balances. *Int Econ Econ Policy*. 2024, vol. 21, pp. 251–283.

The more prudent fiscal trajectory observed in the Eurozone states can be partially attributed to their lack of a national currency, which imposes constraints on monetary and economic policies, and to their recognition of the temporary nature of the rule suspension. Developing imprudent fiscal policies during this period would have necessitated significant consolidation efforts once these rules were reinstated, rendering such policies strategically unviable.

6. Conclusion

Economic institutionalism and the sustainability of public finances are deeply interconnected. Institutions play a central role in shaping the trajectory of individual countries and, by extension, Europe as a whole. They are pivotal in designing and executing budgetary policies, serving as governance frameworks, and ensuring or contributing to financial stability over the short, medium, and particularly long term. Furthermore, institutions have fostered a strong sense of accountability in budget formulation and consistently adhere to this principle.

The data indicate that increased flexibility in implementing national policies during the years under review did not lead to a deviation from the fiscal discipline rules. The study concludes that the temporary suspension of deficit and public debt limits from 2020 to 2023 did not adversely impact the financial sustainability of EU Member States. On the contrary, the findings highlight a heightened awareness—across both groups analysed—of the harmful effects of high deficit and debt levels on the resilience of EU Member States to future crises and their long-term financial sustainability. These rules have played a crucial role in fostering the adoption of stricter structural fiscal discipline criteria as a norm throughout the EU.

The parallel increase in overall public expenditure and health expenditure up to 2020 is consistent with broader trends. From 2020 onward, overall public spending began to decline, and in non-Eurozone states, this was accompanied by a reduction in health expenditure. However, this symmetrical downward trend was not observed in Eurozone states, where health expenditure followed a distinct and divergent trajectory.

A key limitation of this study lies in the lack of clarity regarding the motivations that led EU Member States to maintain restrained annual deficit levels, even when it was more feasible to deviate from them. The underlying factors driving such fiscal restraint remain unclear. Interviewing qualified stakeholders could provide valuable insights into the rationale behind public budgetary and financial policies.

Nonetheless, as coordination among EU Member States continues to improve, it will be necessary to closely examine how the Union manages stabilization policies during future crises and recessions. Such an analysis could shed light on the evolving dynamics of economic governance and fiscal sustainability within the EU.

List of references

AFONSO, A., RAULT, C. What do we really know about fiscal sustainability in the EU? A panel data diagnostic. *Review of World Economics.* 2010, vol. 145, no. 4, pp. 731–755. Springer.

ARIF, A., ARIF, U. Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*. 2023, vol. 13, no. 2, pp. 1–9.

ARMINGEON, K., GUTHMANN, K. Democracy in crisis? The declining support for national democracy in European countries, 2007–2011. *European Journal of Political Research.* 2014, vol. 53, no. 3, pp. 423–442.

ASPERS, P. *Formal Institutions, Uncertainty: Individual Problems and Public Solutions*. New York: Oxford Academic, 2024.

BOZIO, A., EMMERSON, C., PEICHL, A., TETLOW, G. European Public Finances and the Great Recession: France, Germany, Ireland, Italy, Spain and the United Kingdom Compared. *Fiscal Studies, the Journal of Apllied Public Economics.* 2015, vol. 36, no. 4, pp. 405–430.

BRENDER, A., PISANI, F., GAGNA, E. *The sovereign debt crisis: Placing a curb on growth*. Brussels: Centre for European Policy Studies, 2013.

BYSTROV, V., MACKIEWICZ, M. Recurrent explosive public debts and the long-run fiscal sustainability. *Journal of Policy Modeling.* 2019, vol. 42, no. 3, pp. 437–450. Elsevier.

CATARINO, J. R. *Finanças Públicas e Direito Financeiro*. Coimbra: Almedina, 2024.

CATARINO, J. R., FONSECA J. Sustentabilidade Financeira e Orçamental em Contexto de Crise Global Numa Europa de Moeda Única. *Seqüência Estudos Jurídicos e Políticos*. 2013, vol. 34, no. 67, pp. 21–52, 2013.

CALLAWAY, B., SANT'ANNA, P. H. C. Difference-in-Differences with multiple time periods. *Journal of Econometrics*. 2021, vol. 225, no. 2, pp. 200–230.

CHEN, S. *Public Debt and Its Impacts on Output: A Long-Horizon Perspective*, 2014.

EUROPEAN COMMISSION. *European semester thematic factsheet: sustainability of public finances.* 2017 [online]. Available at: https://commission.europa.eu/system/files/2020-06/european-semester_thematic-factsheet_public-finance-sustainability_en_0.pdf

EUROPEAN COMMISSION. *Overview of sustainable finance*. 2024 [online]. Available at: https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

GRUNER, H. Mechanisms for the control of fiscal deficits. *Journal of Economic Behavior & Organization.* 2017, vol. 144, pp. 133–152.

HEINRICH, M., KUTTER, A. A Critical Juncture in EU Integration? The Eurozone Crisis and its Management 2010–2012. In: PANIZZA, F. E. and PHILIP, G. (eds.). *The Politics of Financial Crisis. Comparative Perspectives*. London: Routledge, 2013, pp. 120–139.

HERRMANN, C. Legal aspects of the European sovereign debt crisis. *Hitotsubashi Journal of Law and Politics.* 2013, vol. 41, pp. 25–40.

INTERNATIONAL MONETARY FUND. *Relatório Anual 2023*. Publicações do Departamento de Comunicação do FMI, 2023.

JUNCKER. J. C., TUSK, D., DIJSSELBLOEM, J., DRAGHI, M., SCHULZ, M. *Completing Europe's Economic and Monetary Union*. Brussels: European Commission, 2015.

KEEFE, H. G., HEPP, R. The effects of European fiscal discipline measures on current account balances. *Int Econ Econ Policy.* 2024, vol. 21, pp. 251–283.

MASUCH, K., MOSHAMMER, E., PIERLUIGI, B. *Institutions, public debt and growth in Europe.* Frankfurt: European Central Bank publishing, 2016.

MATEUS, A. Sustentabilidade da Dívida – Anexo E. In: MATEUS, A. (coord.). *Orçamento, economia e democracia*. Lisboa: Fundação Francisco Manuel dos Santos, 2018.

MENGUY, S. Reform of the stability and growth Pact: Which changes for the governments? *Journal of Government and Economics.* 2024, vol. 15, 100120.

PALASCA, S., JABAB, E. Economic Crisis' Repercussions on European Healthcare Systems. *Procedia Economics and Finance.* 2015, vol. 23, pp. 525–533.

PANIAGUA, J., SAPENA, J., TAMARIT, C. (2017). Fiscal sustainability in EMU countries: A continued fiscal commitment. *Journal of International Financial Markets, Institutions & Money.* 2017, vol. 50, pp. 85–97.

REINHART, C. M., REINHART, V. R., ROGOFF, K. S. Public Debt Overhangs: Advanced-Economy Episodes since 1800. *Journal Of Economic Perspectives.* 2012, vol. 26, no. 3, pp. 69–86.

REUTERS. *EU Commission to propose keeping fiscal rules suspended in 2023-officials*. Brussels: Reuters, 2022. https://www.reuters.com/markets/europe/eu-commission-propose-keeping-fiscal-rules-suspended-2023-officials-2022-05-19/

ROMANO, P. *O bê-á-bá da dívida*. Lisboa: Fundação Francisco Manuel dos Santos, 2017.

SCHWARZER, D. Building the euro area's debt crisis management capacity with the IMF. *Review of International Political Economy.* 2015, vol. 22, no. 3, pp. 599–625.

SILVA, L. C., MACEDO, I. M., THOMPSON, M. Revisiting the debate on institutions, the state and institutional change: The relevance of institutional theory to public administration teaching. *Teaching Public Administration.* 2024, vol. 42, no. 1, pp. 73–94.

STATISTA. *Gross domestic product (GDP) growth in the EU and Euro area*. Statista, 2024 [online]. Available at: https://www.statista.com/statistics/267898/gross-domestic-product-gdp-growth-in-eu-and-euro-area/

TRADING ECONOMICS. *GDP Annual Growth Rate.* Trading Economics, 2024 [online]. Available at: https://tradingeconomics.com/european-union/gdp-annual-growth-rate

VERDUN, A., ZEITLIN, J. Introduction: the European Semester as a new architecture of EU socioeconomic governance in theory and practice. In: VERDUN, A and ZEITLIN, J. (eds.). *EU Socio-Economic Governance since the Crisis – The European Semester in Theory and Practice*. London: Routledge, 2018, pp. 1–12.

WOO, J., KUMAR, M. Public Debt and Growth. *Economica*. 2015, 82, no. 328, pp. 705–739.

WORLD BANK DATA. *GDP growth (annual %) – European Union*. World Bank Group, 2024 [online]. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=EU