European Commission

Clean, Just and Competitive Transition

State aid Scoreboard 2024

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Policy and Strategy
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Executive Summary

In 2023, Member States have overall continued to reduce their spending… - EU27 Member States spent EUR 186.78 billion, corresponding to 1.09% of their 2023 GDP, on State aid overall. This corresponds to a reduction by -23%, from EUR 243.27 billion of expenditure in 2022. There is still a significant spending dispersion across Member States: ranging between 2.9 and 0.4 percent of national GDP.

…the reduction is driven by less aid spent for measures to counterbalance the negative effects of the Russian invasion of Ukraine… - Measures related to the Temporary Crisis and Transition Framework (TCTF) amounted to EUR 39.45 billion at the EU level, around 21% of the total spending and 0.23% of the EU27 GDP. Of those, EUR 447.5 million was spent to foster transition to a net-zero economy under the TCTF. While Germany was the largest spender in absolute amounts (EUR 27.81 billion), Hungary was the Member State with the largest share of TCTF-related State aid expenditure relative to its national GDP (1.81%). Overall, around 19% of all the aid approved was disbursed in 2022 and 2023, in nominal amounts.

… and by the phase-out of measures to mitigate the devastating economic effects of the COVID-19 pandemic - In the period between the adoption of the COVID-19 Temporary Framework (on 19 March 2020) and December 2023, Member States mobilised unprecedented levels of support under temporary COVID-19 measures to ensure that otherwise viable businesses hard hit by the pandemic crisis could keep afloat, and this support corresponded to around 1.36% of the EU27 GDP at the peak of the crisis in 2020, and kept it to a similar level (1.24 % of their GDP) in 2021, and then reduced it to 0.45% of their GDP in 2022, and to 0.06% of the EU27 GDP in 2023. In 2023, Member States implemented COVID-19 measures worth EUR 10.55 billion, around 6% of the total State aid spending.

… while Member States have increased their spending for non-crisis objectives - In 2023, Member States spent EUR 136.78 billion on State aid for non-crisis objectives. This corresponds to 0.8% of the EU27 2023 GDP, covering around 73% of the total State aid spending. It corresponds to a 14% increase compared to 2022, when the expenditure for non-crisis measures was EUR 119.98 billion. It appears that in 2023, due to the strong reduction in crisis aid, Member States have diverted back resources to support companies for non-crisis-related objectives.

Environmental protection and energy aid remains the main policy focus of Member States - Environmental protection and energy savings was by far the policy objective for which Member States have spent the most in 2023 (EUR 55.32 billion), showing a 20% increase compared to 2022. The second non-crisis policy objective in 2023 was research and development including innovation (EUR 15.95 billion), that showed an even greater increase, by around 33% in real terms compared to the previous year, followed by regional development (EUR 15.39 billion), which showed a 4% increase.

State aid to boost industrial innovation and manufacturing of clean tech also a key priority of Member States - Ambitious research, development, and innovation activities by industry which, due to the high risks involved, would not occur in the absence of public support, are facilitated by State aid rules. In 2023 alone, the expenditure reported for measures supporting Important Projects of Common European Interest (IPCEI) amounted to EUR 2.22 billion. Looking at selected measures for regional development and to support the manufacturing of batteries or battery components, solar panels and electric vehicles, the expenditure amounted to EUR 138 million in 2023. EUR 218.81 million has been paid out for semiconductor manufacturing in line with the Chips Act Communication.

Direct grants are still the preferred State aid instrument - Direct grants were still by far the most popular aid instrument in 2023, representing 59% of total expenditure and a 16-percentage point increase compared to the previous year, in which 43% of the expenditure was channelled through direct grants and direct grants/interest rate subsidies. Tax measures represented 22% of the total spending, guarantees represented 3% and loans at favourable terms 2%. Equity interventions represented only 1% of the total aid, a 12 percentage points decrease with respect to 2022, when they represented 13% of the total aid.

Co-financed projects increased - Compared to 2022, total spending on non-crisis projects co-financed with EU Funds increased, from about EUR 16.01 billion in 2022 to about EUR 22.55 billion in 2023. This corresponds to a significant 41% increase in nominal terms, which corresponds to a still notable 32% increase when adjusting for inflation. Co-financed COVID-19 measure expenditure remained substantially unchanged in 2023 but was still higher than expenditure on co-financed State aid for measures related to the Russian invasion of Ukraine, which was minimal (approximately EUR 21 million).

State aid to rail transport increased again - The trend of subsidies to the rail sector showed a slight increase since 2016, with a steep increase in 2020 of +17.3% in nominal values, when the need to compensate providers of rail services for the damage suffered due to the COVID-19 outbreak and the ensuing containment measures was more acute. Total subsidies to the rail sector showed a significant drop in 2021 (-19.8% compared to the previous year), followed by another steep reduction in 2022 (-17.5%) that brought the total compensation and aid granted to the rail sector to EUR 38.38 billion, from EUR 46.53 billion in 2021. The decrease was observed in 2021 when containment measures on transport by rail were generally less tight and then in 2022, when those measures were entirely removed. In contrast with this tendency, in 2023 we observe a very steep increase in the total aid granted to the rail sector (+25% compared to the previous year), that brought the total amount of subsidies to EUR 47.98 billion.

Aid to the financial sector continues to decline – Since the outbreak of COVID-19, the Russian invasion of Ukraine, and the adoption by the Commission of the corresponding temporary State aid frameworks, the Member States have targeted their State aid at undertakings that could not cover their liquidity needs due to the pandemic or due to economic effects of the war in Ukraine. The banking sector, which has indirectly benefitted from this support to the real economy, has shown increased resilience. This is evident in the declining amounts of aid to the financial sector for 2020 to 2023 in comparison to the previous years.

Aid to agriculture and fisheries increased - In 2023, EU27 Member States have provided a total of EUR 9 billion for non-crisis State aid to agriculture, forestry, and rural areas, corresponding to 0.05% of total GDP. State aid expenditure in the fishery and aquaculture sector amounted to EUR 589.74 million in 2023, a 191% increase compared to the last year (EUR 202.73 million in 2022). This consistent increase is mainly due to the implementation of measures related to the Brexit Adjustment Reserve (BAR).

Wrapping-up State Aid Modernisation (SAM) - the 2024 Scoreboard has assessed the implementation of SAM in practice, and its impact on State aid spending, with the following main findings:

- **The share of block-exempted measures keeps rising –** As observed in previous Scoreboards, Member States are increasingly using the General Block Exemption Regulation (GBER). In 2023 Member States implemented 2 105 new GBER, 690 Agricultural Block Exemption Regulation (ABER) and 30 Fishery Block Exemption Regulation (FIBER) measures, corresponding altogether to 88% of the new State aid measures. Excluding the crisis measures, the **new block exempted** measures account for **93% of total new non-crisis measures**. As opposed to the general reduction in expenditure, the actual expenditure of GBER schemes increased in 2023 compared to the previous year (+6%). In 2023, similar to 2022, there was a reduction of around 34% of the number of notified measures, and the relative share of notified aid also reduced to around 66% of the aid expenditure.

- **Does the Commission case practice focus on the potentially most distortive aid measures? -** The median annual expenditure for notified measures was much higher than for block-exempted measures. While the median annual expenditure for notified measures is around EUR 4.22 million in 2023, the median spending for active State aid measures under GBER is around EUR 0.62 million.

1 Introduction

Keeping competition effective in the EU is a prerequisite to the well-functioning of the Single Market. Competition in goods and services in the European Single Market provides companies with incentives to innovate, enter new markets and improve productivity, which in turn brings a greater variety of choice and lower prices for consumers. These forces also play a fundamental role in making European firms more competitive on the global stage.

State aid control is a key pillar to ensure fair competition and a level playing field across companies in the EU. State aid refers to any advantage in any form whatsoever conferred on a selective basis to undertakings by public authorities. A company that receives government support through State aid gains a competitive advantage over the other players in the market. Favouring some firms to the detriment of others might create inefficiencies by allowing less efficient companies to survive or even expand at the expense of the more efficient. This is why the Treaty on the Functioning of the EU (TFEU) generally prohibits State aid unless its positive effects outweigh the negative impact of the distorted competition. This balancing is more likely to be positive when the aid is aimed at addressing market failures or correcting market inefficiencies.

The TFEU leaves room for a number of exceptions to the general prohibition of State aid, for which support can be considered compatible with the functioning of the Single Market. Specifically, in some circumstances, government interventions are necessary for the functioning and equitability of an economy, for example, due to the presence of externalities. State aid control therefore does not prevent Member State governments from supporting businesses. State aid control rather aims at ensuring that any detriment arising from distortions of competition is outweighed by the positive effects of the aid. It also ensures efficient use of taxpayers' money by maximising resources from limited national budgets that need to address essential purposes, such as education, health, national security, and social protection Moreover, by steering public aid towards objectives of common interest that otherwise would not be realised (*e.g.,* R&D&I, major infrastructure projects, investment in renewable energy), State aid control helps ensure benefits for society and minimise distortions of competition. The TFEU also explicitly states that aid "to remedy a serious disturbance in the economy of a Member State" may be considered compatible with the internal market[1].

The present State Aid Scoreboard is based on State aid expenditure made by Member States in 2023 and provides updates of State aid expenditure from previous years.

1.1 What is the State aid Scoreboard?

Context - Under Article 6 of Commission Regulation (EC) 794/2004[2], the European Commission must publish, annually, a State aid synopsis ("State aid Scoreboard" or "Scoreboard") based on the expenditure reports provided by Member States.

Objective - The Scoreboard is the Commission's benchmarking instrument for State aid. It was launched by the Commission in July 2001 to provide a transparent and publicly accessible source of information on the overall State aid situation in the Member States and on the Commission's State aid control activities. Furthermore, the data in the report are used for further statistical analysis and represents an important source of information. Scoreboard data are also used by Member States and external stakeholders.

Apart from providing the aggregated information on State aid expenditure at the EU and national levels, the Scoreboard is a key component of the State aid monitoring toolbox for tracking and assessing the effects of the main past and ongoing policy developments in the State aid field. It gives the reader complementary information on the impact of recent developments in State aid policies and additional opportunities for analysis. It also highlights the role of State aid control in steering public aid towards objectives of common interest.

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[1] Article 107(3)(b) TFEU

[2] Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EC)No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty (OJ L 140, 30.4.2004, p. 1–134).

Focus points – The 2024 edition[3] includes special focus points on six areas:

1) State aid measures supporting the economy in mitigating the impact of Russia's war of aggression against Ukraine and to foster the transition to a net zero economy[4].
2) State aid expenditure for COVID-19 related measures.
3) A closer look at block-exempted measures.
4) Clean transition: State aid for environmental protection, renewables and energy savings.
5) Digital Europe: State aid to deploy broadband networks.
6) State aid to boost industrial innovation and manufacturing of clean tech.

Open data – The Scoreboard is supplemented by further information. The Annexes provide additional material (illustrative tables and charts) to allow a more informed reading of the 2024 Scoreboard results. **State aid expenditure data gathered by the Commission is also available on its data repository webpage on the Competition website[5]**.

1.2 Methodology

Scope - The Scoreboard contains primary information about Member States' expenditures for all existing State aid measures in favour of industries and services (including agriculture, fisheries, and aquaculture), for which the Commission has either adopted a formal decision or received a summary information sheet from the Member States for measures qualifying for exemption under the GBER[6] or sectoral block exemptions (ABER[7] and FIBER[8]).

Cases which are still under examination are excluded. General measures that do not favour certain enterprises or sectors, and public subsidies that do not affect trade or distort competition, are not covered by the Scoreboard as they are not subject to the Commission's investigative powers under the State aid rules or deemed not to constitute State aid[9]. Therefore, the data presented in the Scoreboard exclude funding granted under the *de minimis* rules[10].

Furthermore, State aid expenditure data presented in the Scoreboard excludes most of the aid to railways[11], services of general economic interest[12], and schemes approved under the Temporary

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[3] Based on State aid expenditure made by Member States in 2023.

[4] In the current State aid Scoreboard, the data regard expenditures until the end of 2023. Additional information on the aid granted until the end of June 2024 is provided in the Competition State aid brief series available here.

[5] Scoreboard State Aid data - European Commission is an interactive tool that allows for produce analyses by Member State and download the Scoreboard data at different levels of aggregation.

[6] Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty Text with EEA relevance (OJ L 187, 26.6.2014, p. 1–78).

[7] Commission Regulation (EU) 2022/2472 of 14 December 2022 declaring certain categories of aid in the agricultural and forestry sectors and in rural areas compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union (OJ L 327, 21.12.2022, p. 1–81).

[8] Commission Regulation (EU) 2022/2473 of 14 December 2022 declaring certain categories of aid to undertakings active in the production, processing and marketing of fishery and aquaculture products compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union (OJ L 327, 21.12.2022, p. 82–139).

[9] Subsidies granted to individuals or general measures open to all enterprises are not covered by this definition since they do not constitute State aid.

[10] Commission Regulation (EU) 2023/2831 of 13 December 2023 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid, Commission Regulation (EU) No 1408/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid in the agriculture sector (OJ L 352, 24.12.2013, p. 9–17)), as amended by Commission Regulation (EU) 2024/3118 of 10 December 2024 and Commission Regulation (EU) No 717/2014 of 27 June 2014 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid in the fishery and aquaculture sector (OJ L 190, 28.6.2014, p. 45–54) , prologued by Commission Regulation (EU) 2022/2514.

[11] Subsidies to railways are excluded from the total State aid figures as they may fall under Article 93 TFEU and corresponding regulations. They however appear in a dedicated table in the Scoreboard, together with data falling under Regulation (EU) 2016/2338 of the European Parliament and of the Council of 14 December 2016 amending Regulation (EC) No 1370/2007 concerning the opening of the market for domestic passenger transport services by rail (OJ L 354, 23.12.2016), which are reported on a voluntary basis by Member States.

Union Framework[13], for which the corresponding legal bases impose limited reporting obligations on Member States. Aid to railways and aid to the financial sector are covered separately in Sections 4.6 and 4.7.

Data and methodology - This State Aid Scoreboard comprises aid expenditure made by Member States from 1 January 2013 to 31 December 2023 which falls under the scope of Article 107(1) TFEU. State aid data on the repository webpage includes longer time series, covering the period from 1 January 2000 to 31 December 2023. The data is based on the annual reporting by Member States pursuant to Article 6(1) of Commission Regulation (EC) 794/2004. **The accuracy of the data remains the responsibility of Member States**.

The actual data on State aid expenditure concerning previous years may differ from data previously published for the same year. Indeed, Member States may have revised provisional figures or estimates from previous years by final actual expenditure, in particular, with regards to expenditure in tax schemes.

As of the 1 January 2021, the United Kingdom is required to report to the Commission expenditure under measures affecting trade between Northern Ireland and the EU[14], and schemes where EU funds are involved.[15] Only these measures are therefore included in the scope of the present State aid Scoreboard for 2021 expenditure year and are presented separately in a dedicated section on the United Kingdom. All aggregate statistics are disclosed at the EU27 level.

State aid expenditure in constant prices have been calculated to adjust for the effects of inflation. Constant series have been calculated in constant 2023 prices by using the GDP price deflator[16].

Unless otherwise specified, State aid expenditure is presented in terms of **aid element** granted by the Member State to the recipient of the aid. The aid element does not represent the nominal amount granted by the public authority, but measures the economic advantage passed on to the undertaking. For crisis measures, State aid expenditures are presented both in terms of nominal amount and in terms of aid element. The unit of measurement is specified in the figures.

Further details on the methodology used in the State aid Scoreboard are provided in Section 11.

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[12] SGEI package: European Union framework for State aid in the form of public service compensation (OJ C 8, 11.1.2012); Commission Decision of 20 December on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest (OJ L7, 11.01.2012, p. 3-10).

[13] Communication of the Commission- Temporary Union framework for State aid measures to support access to finance in the current financial and economic crisis (Official Journal C6, 11.1.2011).

[14] See Article 10 and Annex 5 of Protocol (No 15) On Certain Provisions Relating to The United Kingdom of Great Britain And Northern Ireland (OJ C 202, 7.6.2016, p. 284–286).

[15] See Article 138 of Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (OJ C 384I, 12.11.2019, p. 1–177).

[16] Source AMECO online. Series GDP price deflator (PVGD), 2024 Autumn forecast.

2 Recent developments in State aid policy

In recent years, the Commission has revised its State aid framework to address Europe's environmental and technological challenges while aligning with the green and digital "twin transition" goals. These revisions aim to build a foundation for sustainable economic growth, ensuring competitive markets and guiding the EU towards a future of sustainability and resilience.

At the heart of this revision are the revised **Climate, Environmental Protection, and Energy Guidelines (CEEAG)[17]**. The new Guidelines broaden the categories of investments and technologies that Member States can support, covering new areas and all technologies that can deliver the Green Deal. These Guidelines also enhance flexibility, streamline the existing rules, and introduce safeguards such as a public consultation requirement above certain thresholds. Moreover, they ensure coherence with the relevant EU legislation and policies in the environmental and energy fields, among others by phasing out subsidies for fossil fuels.

Another key feature of the revised framework is the Communication on **Important Projects of Common European Interest (IPCEI) [18]**. The IPCEI Communication includes several targeted adjustments, such as enhancing the European and open character of IPCEIs by requiring participation from at least four Member States and ensuring transparency and inclusivity in their design. It also strengthens the benefits of SME participation and aligns relevant rules with current EU priorities, including the requirement for Member States to provide evidence of compliance with the 'do no significant harm' principle.

The **Regional State Aid Guidelines[19]** have undergone significant enhancements that widen their scope; now covering 48% of the EU population, these guidelines introduce increased aid intensities geared towards fulfilling the Green Deal and Digital Strategy objectives. They are designed to provide substantial support to economically disadvantaged regions, propelling them towards sustainable development and innovation while upholding robust safeguards against unfair competition within the Single Market.

Additionally, the **R&D&I Framework[20]** supports research, development, and innovation activities crucial for the EU's economic future. This framework prioritizes cutting-edge innovation and reflects contemporary regulatory, economic, and technological advancements. By facilitating the development, testing, and scaling of new technologies, it directly supports the EU's strategic emphasis on fostering a climate of industrial and digital advancement.

In the field of digital infrastructure, the **Broadband Guidelines[21]** have supported comprehensive broadband deployment across the EU. These guidelines are integral to the EU's objective of achieving digital inclusivity and transitioning into a digital-ready Union. Enhancements in these guidelines' clear pathways for both fixed and mobile network advancements, thereby fostering connectivity and societal resilience amidst rapidly evolving technological landscapes.

In addition to the above-mentioned guidelines, parts of the **GBER**[22], which allow for direct implementation of State aid projects by Member States without the need of a prior notification to

[17] Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022 C/2022/481 OJ C 80, 18.2.2022, p. 1–89.
[18] Communication from the Commission Criteria for the analysis of the compatibility with the internal market of State aid to promote the execution of important projects of common European interest 2021/C 528/02 C/2021/8481 OJ C 528, 30.12.2021, p. 10–18.
[19] Communication from the Commission Guidelines on regional State aid 2021/C 153/01 C/2021/2594 OJ C 153, 29.4.2021, p. 1–46.
[20] Communication from the Commission Framework for State aid for research and development and innovation (2022/C 414/01) OJ C 414/1, 28.10.2022.
[21] Communication from the Commission Guidelines on State aid for broadband networks 2023/C 36/01 C/2022/9343 OJ C 36, 31.1.2023, p. 1–42.
[22] Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187 26.6.2014, p. 1-78).

the Commission, have also been amended. The revision adopted on 23 July 2021[23] aimed at facilitating national funding provided in the context of the current **Multiannual Financial Framework (MFF)**. The rules on EU funding and the relevant State aid rules have been aligned in order to avoid unnecessary complexities, while at the same time preserving competition in the Single market. The revision has also allowed for new possibilities for Member States to speedily provide aid for the recovery from the COVID-19 pandemic (**Recovery and Resilience Facility, RRF**). These new possibilities have concerned aid for energy efficiency in buildings, low emission mobility and broadband. A further amendment of the GBER ("**Green Deal GBER amendment**"[24]) has been endorsed by the Commission on 9 March 2023 to reflect the recent changes to various sets of State aid Guidelines and to ensure that the GBER remains fit for the green and digital transition. This amendment grants Member States more flexibility to design and implement support measures in sectors that are key for the transition to climate neutrality and to a net-zero industry. It also helps speed up investment and financing for clean tech production in Europe, in line with the Green Deal Industrial Plan. The Green Deal GBER amendment also sets the right foundations to tackle some of the economic effects stemming from Russia's war against Ukraine and contributes to the recovery of Europe's economy, affected also by the coronavirus pandemic and the high energy prices.

In times of crisis, the Commission has proven its ability to swiftly implement agile responses to economic disruptions. This was first evident in 2020 with the outbreak of the COVID-19 pandemic and the introduction of the **COVID-19 Temporary Framework**[25]. Drawing on its experience from the financial crisis, the Commission acted decisively and rapidly, designing a set of rules that accommodated the diverse approaches taken by Member States to support their economies. Member States deployed a wide range of State aid measures, utilizing various instruments, including credit-based options such as guarantees and subsidized loans, as well as direct grants, recapitalizations, and other non-repayable forms of support.

Further building on this adaptability, the **Temporary Crisis and Transition Framework (TCTF)**[26] grants Member States vital tools in response to the geopolitical impact following Russia's invasion of Ukraine. Extending aid provisions through 2025, the TCTF supports structural investments critical for the transition to a net-zero economy, ensuring sufficient liquidity for businesses, and incentivizing reductions in energy consumption amidst global economic challenges.

Embedded in the broader NextGenerationEU initiative, the **Recovery and Resilience Facility (RRF)** reflects the EU's commitment to a sustainable and resilient recovery post-pandemic. By allocating EUR 723.8 billion towards Member States' recovery plans, the RRF aims to balance immediate economic recovery efforts with long-term climate and digital commitments. These plans are strategically assessed and funded based on their alignment with overarching EU objectives.

The Commission's revised State aid framework have provided Europe with an enhanced set of rules to tackle emerging economic, environmental, and technological challenges also in 2023. As the EU continues to navigate an evolving global landscape, these rules helped ensure that Member States have the necessary tools to support innovation, accelerate the green and digital transition, and also maintain economic stability in times of crisis.

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[23] Commission Regulation (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 270, 29.7.2021, p. 39–75, Entered into force on 1.8.2021.

[24] Commission Regulation (EU) 2023/1315 of 23 June 2023 amending Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty and Regulation (EU) 2022/2473 declaring certain categories of aid to undertakings active in the production, processing and marketing of fishery and aquaculture products compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 167, 30.6.2023, p. 1–90).

[25] Communication from the Commission Temporary Framework for State Aid measures to support the economy in the current COVID-19 outbreak 2020/C 91 I/01 C/2020/1863 OJ C 91I, 20.3.2020, p. 1–9.

[26] Communication from the Commission Temporary Crisis Framework for State Aid measures to support the economy following the aggression against Ukraine by Russia 2022/C 131 I/01 C/2022/1890 OJ C 131I , 24.3.2022, p. 1–17, then replaced by Communication from the Commission, Temporary Crisis and Transition Framework for State Aid measures to support the economy following the aggression against Ukraine by Russia 2023/C 101/03, C/2023/1711, OJ C 101, 17.3.2023, p. 3–46.

3 Overall trends on State aid expenditure

3.1 Total State aid expenditure

The State aid Scoreboard presents State aid expenditures in terms of **aid element** granted by the Member State to the recipient of the aid. The aid element does not represent the nominal amount granted by the public authority, but measures **the economic advantage passed on to the undertaking**. Therefore, the aid element depends on the type of instrument used: for grants, the advantage passed on to the beneficiary normally corresponds to the budgetary expenditure. For other aid instruments, such as loans or guarantees, the advantage to the beneficiary and the cost to government is respectively the lower interest rate and the reduced guarantee fee actually paid by the undertaking with respect to the one that should have been paid at market values. Further methodological details on the calculation of the aid element can be found in Section 11.

All the figures reported hereinafter refer to all types of aid, including aid for agriculture and fisheries, while only aid to railways and to the financial sector are excluded. These two categories are presented separately in Section 4.6 and Section 4.7 respectively.

According to the 2023 national expenditure reports [27], there were 8.766 active measures reported, with a large majority being schemes (75%). Among all the active measures, 200 (2.3%) are related to the Russian invasion of Ukraine and to foster support measures in sectors which are key for the transition to a net-zero economy, approved under the TCTF or based on its principles and 167 (1.9% of total active measures) are measures related to the COVID-19 crisis. **The new measures for which Member States have spent for the first time in 2023 are 3 222.** The new measures implemented in response to the Russian invasion of Ukraine and to support the transition to a net-zero economy represent 4.7% of the new measures (151 new measures), while the new COVID-19 related measures are 17. New GBER measures are 2 105, which represents 65% of the total new measures and 69% of the new non-crisis measures. In 2023 Member States reported expenditure for 690 new ABER measures and 30 new FIBER measures. Including ABER and FIBER measures, the **new measures implemented under block exemptions** account for **88%** of total new measures and **93%** of total new non-crisis measures.

EU27 Member States spent EUR 186.78 billion, corresponding to 1.09% of their 2023 GDP, on State aid for both crisis and other measures. The total expenditure measures related to the Russian invasion of Ukraine and to foster the transition to a net-zero economy under the TCTF amounted to EUR 39.45 billion, around 21% of the total spending and 0.23% of the EU27 GDP, while expenditure for COVID-19 measures amounted to EUR 10.55 billion, covering around 6% of the total spending and representing 0.06% of EU27 GDP. Overall, crisis aid represented 27% of the total aid expenditure in 2023. 73% of the aid was spent for non-crisis related objectives, for measures approved under the ordinary State aid rules.

In relative terms, looking at the distribution of State aid expenditure at the Member State level as a share of national GDP (Figure 1), **there is still a significant spending dispersion across Member States**. The Member States spending the most, spent around 2.9-1.9% of their national GDP (Hungary and Croatia), while the Member State spending the least allocated around 0.4% of GDP (Ireland), followed by Cyprus and Bulgaria, with around 0.5% of their national GDP.

[27] Submitted in conformity with Article 6(1) of Commission Regulation (EC) 794/2004.

Figure 1: Total State aid expenditure by Member States, as % of national 2023 GDP

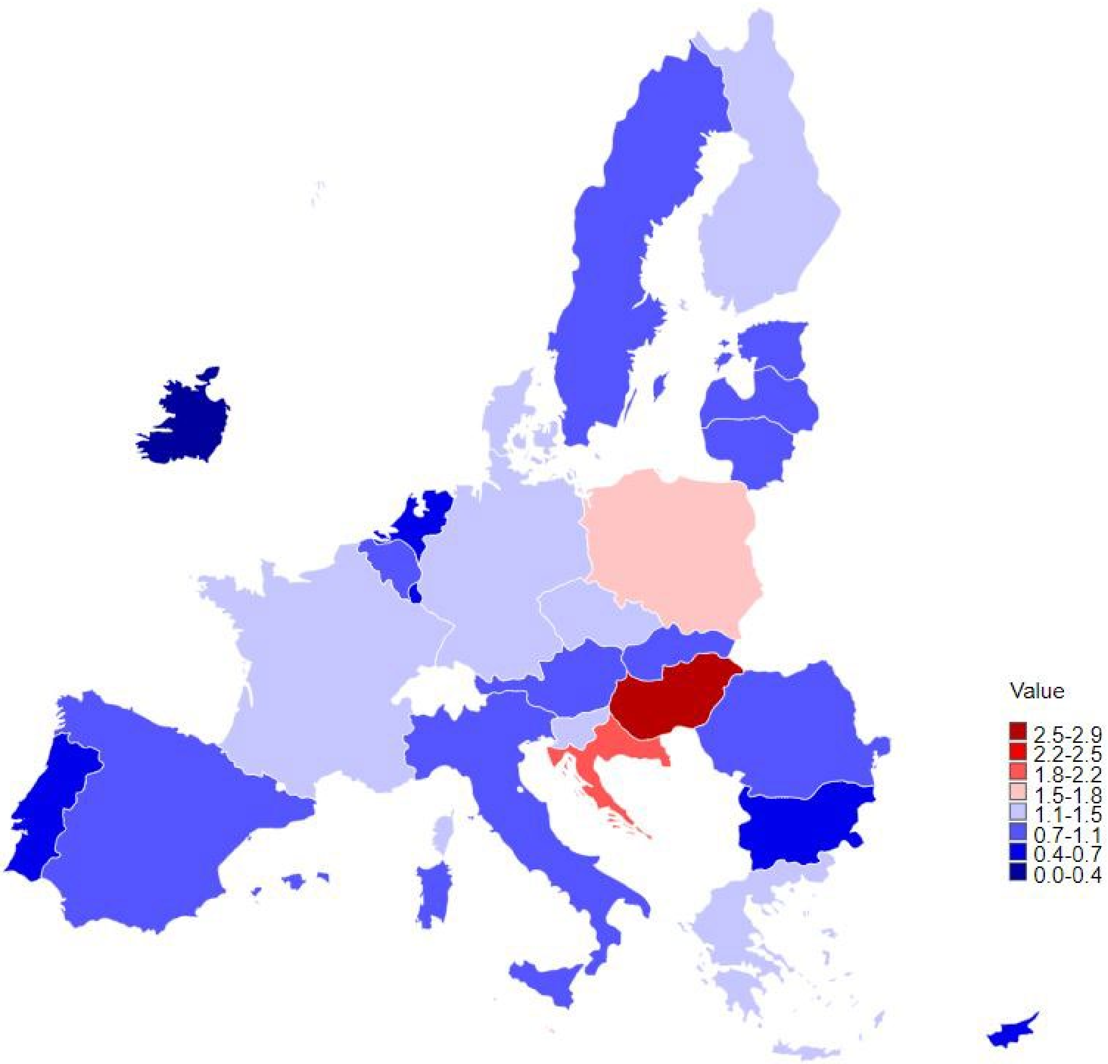
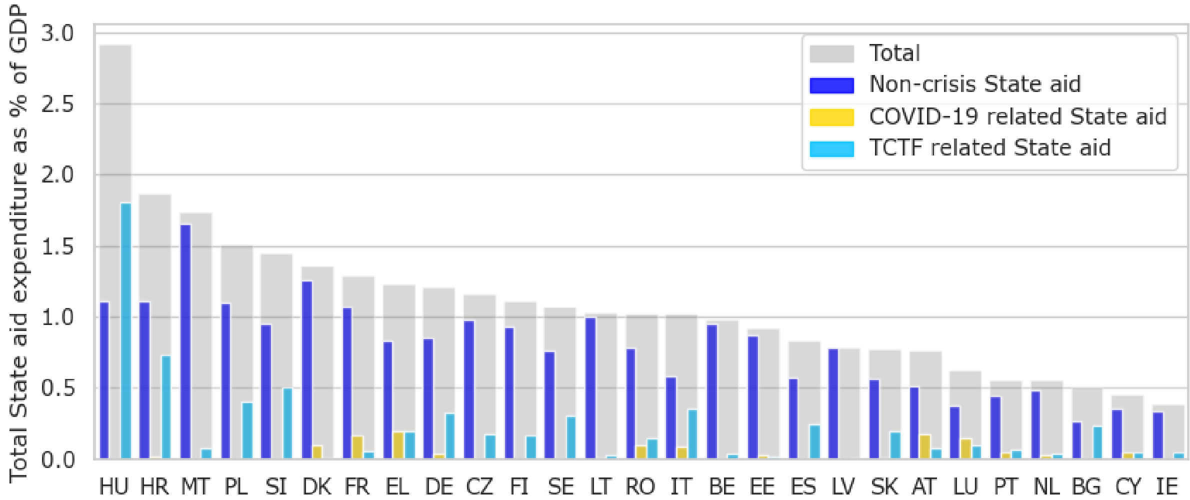


Figure 2 shows the breakdown of expenditure as a share of national GDP (grey bar) into expenditure for non-crisis State aid measures (blue bar), COVID-19 related measures (yellow bar), TCTF related measures (light blue bar).

The distribution of expenditure in relative terms by type of measure reveals notable differences among Member States. In Hungary, the largest spender, a large portion of the total expenditure (approximately two-thirds) was allocated to TCTF measures. Notably, Hungary is the only Member State where spending on TCTF-related measures exceeds that on non-crisis measures. In contrast, Malta allocated only a small portion to TCTF measures, focusing mainly on non-crisis measures. A similar trend can be observed in Denmark and France, where most of the expenditure was also directed toward non-crisis measures. Conversely, among the Member States with the lowest overall spending, Bulgaria distributed its expenditure in nearly equal parts between non-crisis and TCTF-related measures, while other low-spending countries, such as the Netherlands, Cyprus, and Ireland, directed most of their resources toward non-crisis measures.

In 2023, expenditure on measures related to the COVID-19 crisis accounted for a small fraction of total spending in all Member States or was entirely absent, as in Malta, Hungary, and Finland. As a percentage of national GDP, the Member States with the largest expenditure on COVID-19 measures were Greece (0.20%), where spending on COVID-19 measures closely matched that on TCTF measures, followed by Austria (0.17%), France (0.16%), and Luxembourg (0.15%).

Figure 2: Total State aid expenditure by Member State, as % of 2023 national GDP, breakdown between non-crisis State aid measures, COVID-19 measures, and State aid in response to the Russian invasion of Ukraine and to foster the transition towards a net-zero economy



In nominal terms, as represented in Figure 3, **the Member State that spent the most in 2023 was Germany with EUR 50.59 billion, representing around 27.1% of the total State aid expenditure in the EU27**. France was the second largest spender, with EUR 36.43 billion (19.5%), followed by Italy with EUR 21.61 billion (11.6%). The Member States that spent the least in 2023 were Cyprus with EUR 142 million (less than 0.1% of the total State aid expenditure), Latvia (0.16%), and Estonia (0.19%). As previously observed, France shows a clear predominance of expenditure on non-crisis measures. In 2023, only EUR 1.6 billion out of a total expenditure of EUR 36.43 billion was allocated to TCTF-related measures, accounting for just 4% of overall spending. Other large spenders in nominal terms, such as Germany, Italy, Spain and, Poland, also allocated more to non-crisis measures than to TCTF-related measures. However, TCTF-related measures still represented a significant share of the overall spending (27% in Germany, 35% in Italy, 30% and 27% in Spain).

Figure 3: Total State aid expenditure by Member State in 2023, in EUR billion, breakdown between non-crisis State aid measures, COVID-19 measures, and State aid in response to the Russian invasion of Ukraine and to foster the transition towards a net-zero economy

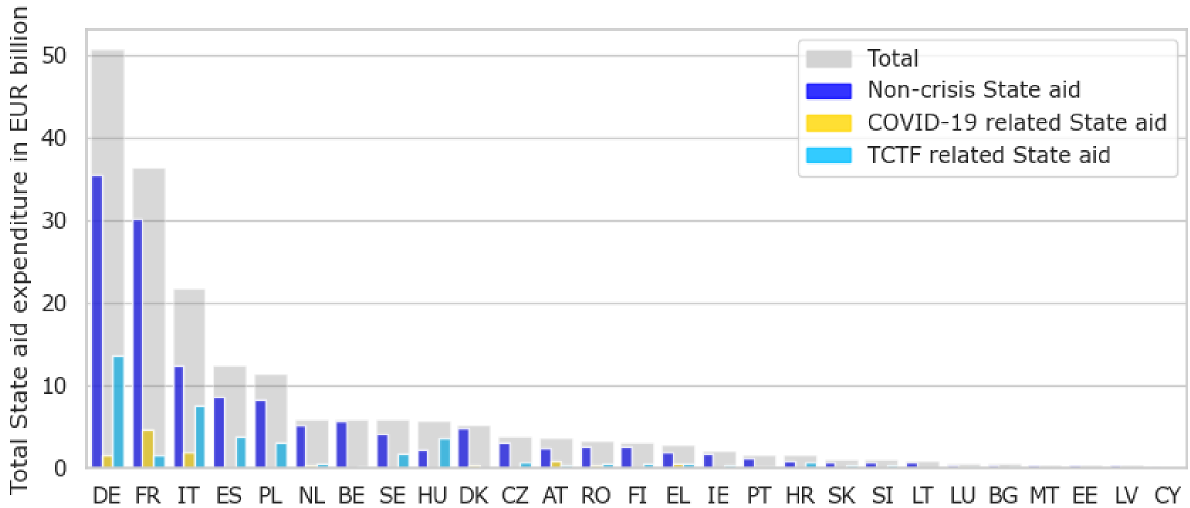


Figure 4 shows the evolution of State aid expenditure in the EU-27 Member States over the last decade in absolute values. **The overall trend across Member States over the last decade** (as also shown in Figure 5 at EU-wide level) **indicates a stable increase in State aid expenditure, with a sharp spike in 2020 and 2021 due to the COVID-19 crisis, followed by a decline in 2022 and 2023.**

Not considering 2020 and 2021, **from 2013 to 2019 the State aid expenditure of EU27 Member States has almost doubled in size** (EUR 78.44 billion in 2013 versus EUR 153.34 billion in 2019, in constant prices). Significant State aid expenditure increases from 2013 to 2019 can be observed for: **Germany** (+247%), **Lithuania** (+232%), **Slovakia** (+188%), **Croatia** (+165%), **Italy** (+116%) and **Estonia** (+102%). A positive trend can be observed for most of EU-27 Member States in State Aid spending, except for: **Latvia** (-50%), **Bulgaria** (-33%), **Greece** (-24%), **Slovenia** (-21%), **Finland** and **Cyprus** (-18%), **Ireland** (-11%) and **Austria** (-3%) where the expenditure in State aid measures was lower in 2019 than in 2013 in nominal terms.

In 2020, due to the implementation of COVID-19- related State aid measures, the overall levels of State aid **increased in all the EU-27 Member States.** Given the unprecedented levels of support that have been mobilised to counteract the negative shock due to the COVID-19 outbreak, 15 Member States more than doubled their State aid expenditure in 2020 compared to the previous year[28]. **In 2021, the total State aid expenditure started slightly decreasing** (-2%, from EUR 370.43 billion in 2020 to EUR 362.29 billion, in constant prices). However, compared to the previous year, in 2021 the total State aid expenditure continued to increase in 16 Member States[29].

In 2022, the total State aid expenditure strongly decreased (-32%, to EUR 243.27 billion)**,** despite the implementation of new measures to counterbalance the negative economic effects of the Russian invasion of Ukraine. Spain was the only Member State to increase aggregate expenditure in 2022, compared to 2021 (+15%), while in Romania, the expenditure remained constant (+0.2%). For all the other Member States an aggregate negative trend is observed, driven mainly by the reduction of COVID-19 related aid, but also by the reduction of non-crisis aid.

In 2023, the total State aid expenditure continued to decrease (-23%, to EUR 186.78 billion). Despite the overall decrease, State aid expenditure more than doubled in Croatia (+128%), and increased in 8 other Member States[30]. It remained constant in Denmark (+0.2%).

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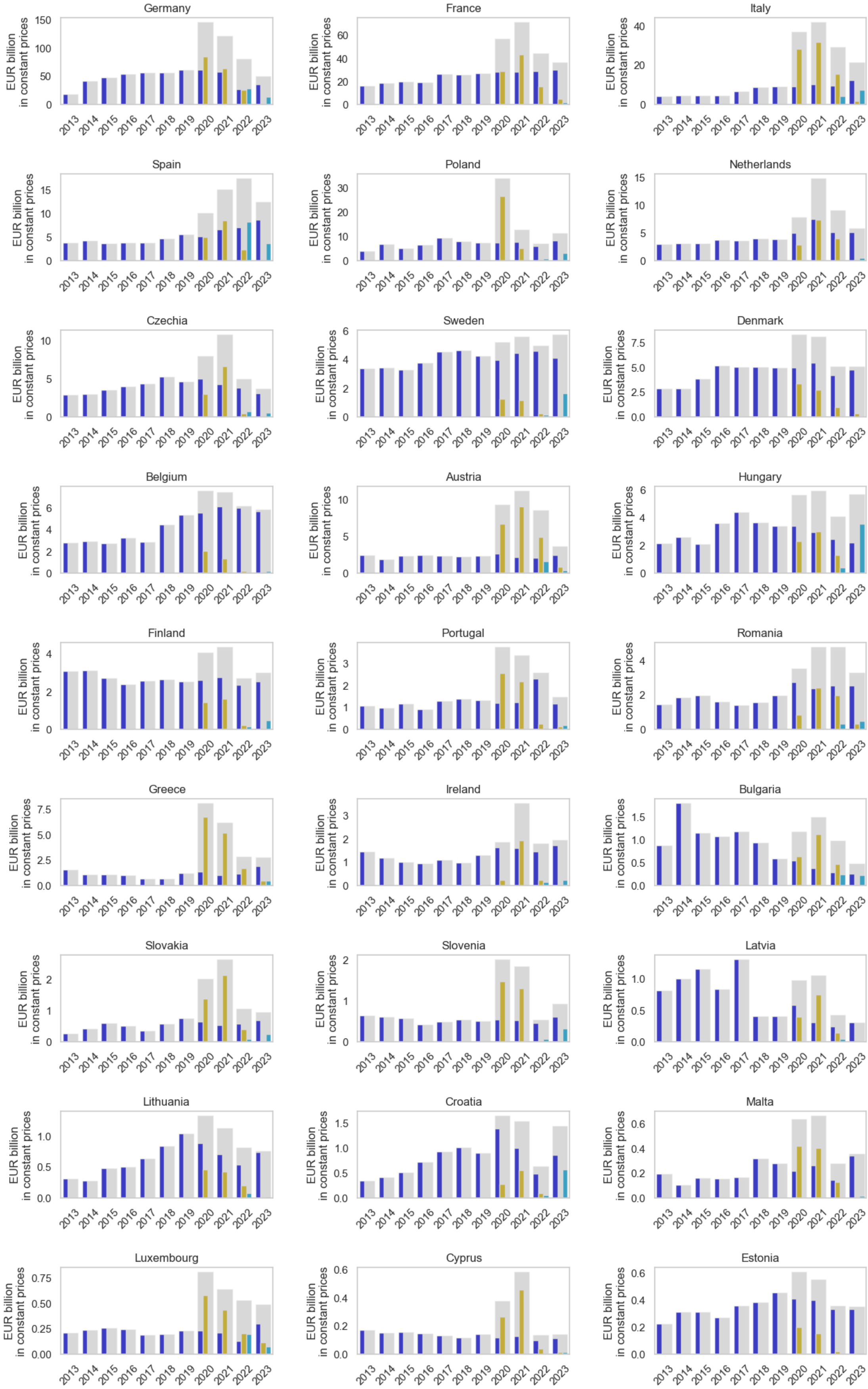
[28] Greece (+582%), Poland (+355%), Italy (+309%), Slovenia (+298%), Austria (+296%), Luxembourg (+253%), Portugal (+183%), Cyprus (+170%), Slovakia (+167%), Latvia (+143%), Germany (+138%), Malta (+128%), France (+113%), the Netherlands (+103%) and Bulgaria (+102%).

[29] The Netherlands (+90%), Ireland (+89%), Cyprus (+54%), Spain (+49%), Czechia (+36%), Romania (+35%), Slovakia (+32%), Bulgaria (+26%), France (+25%), Austria (+20%), Italy (+13%), Finland and Latvia (+8% each), Sweden (+7%), Hungary and Malta (+5%).

[30] Slovenia (+73%), Poland (+58%), Hungary (+39%), Malta (28%), Sweden (16%), Finland (+11%), Ireland (+9%), Cyprus (+3%).

Figure 4: Evolution of State aid expenditure from 2013 to 2023, by Member State, in EUR billion in constant prices



At the EU-wide level, State aid expenditure in **current prices** steadily increased over the last decade, with a sharp spike in 2020 and 2021 due to the COVID-19 crisis, followed by a decline in 2022 and 2023 (Figure 5). In 2023, the continuation of crisis-related measures for both COVID-19 and TCTF kept the overall level of State aid expenditure significantly higher than pre-crisis levels in 2019, representing a 43% increase in absolute terms. Non-crisis aid (the dark blue bar in Figure 5) also increased compared to 2022 (+21%) and exceeded its pre-crisis level in 2019 by 5%.

In **relative terms**, as shown in Figure 6, **total State aid expenditure as a share of EU27 GDP steadily increased between 2013 and 2019** (rising from the 0.54% of the EU GDP to the 0.92% in 2019, an increase of 0.39 percentage points in those 7 years)**. It spiked in 2020 and 2021, reaching 2.36%** (+1.44 percentage points compared to the previous year) **and 2.19%** (+1.26 percentage points compared to 2019), respectively. This sharp increase in 2020 and 2021 was followed by a **consistent decrease in 2022, in which 1.42% of the EU GDP was allocated to State aid measures** (-0.77 percentage points compared to the previous year) **and in 2023, in which the expenditure represented 1.09% of the EU GDP** (-0.33 percentage points).

Compared to pre-crisis levels in 2019, the overall level of State aid expenditure in relative terms also remained higher, accounting for 1.09% of EU GDP in 2023, compared to 0.92% in 2019. However, this increase was far less pronounced than the one observed in absolute terms. For non-crisis aid, while there was an increase in 2023 compared to 2022, it remained lower in relative terms, at 0.8% of EU GDP in 2023, compared to 0.92% in 2019. This indicates that non-crisis aid has not yet returned to pre-crisis levels.

Figure 5: Evolution of total State aid expenditure from 2013 to 2023 in the EU27, in EUR billion, in current prices

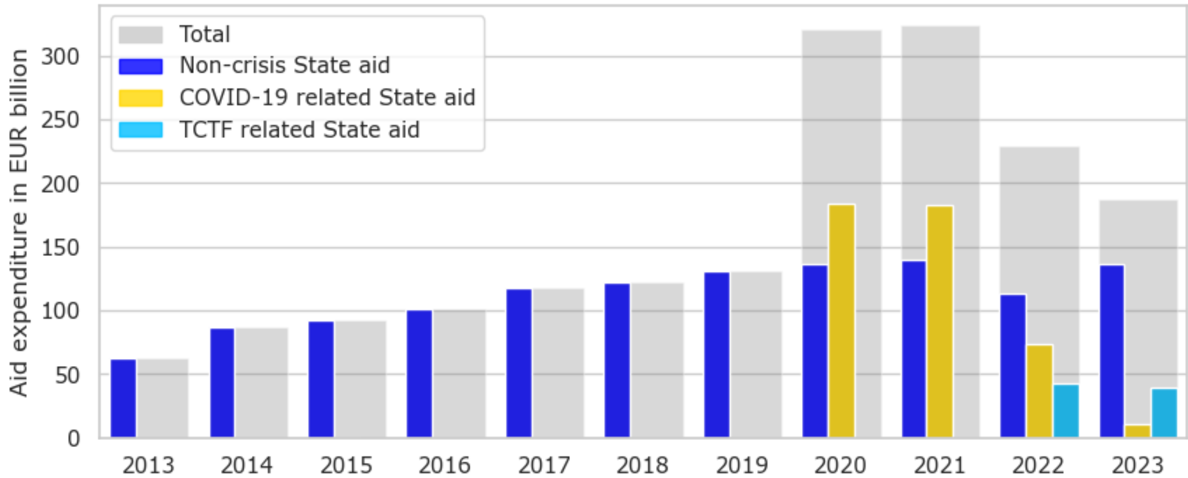


Figure 6: Evolution of total State aid expenditure from 2013 to 2023 in the EU27, as % of EU27 GDP

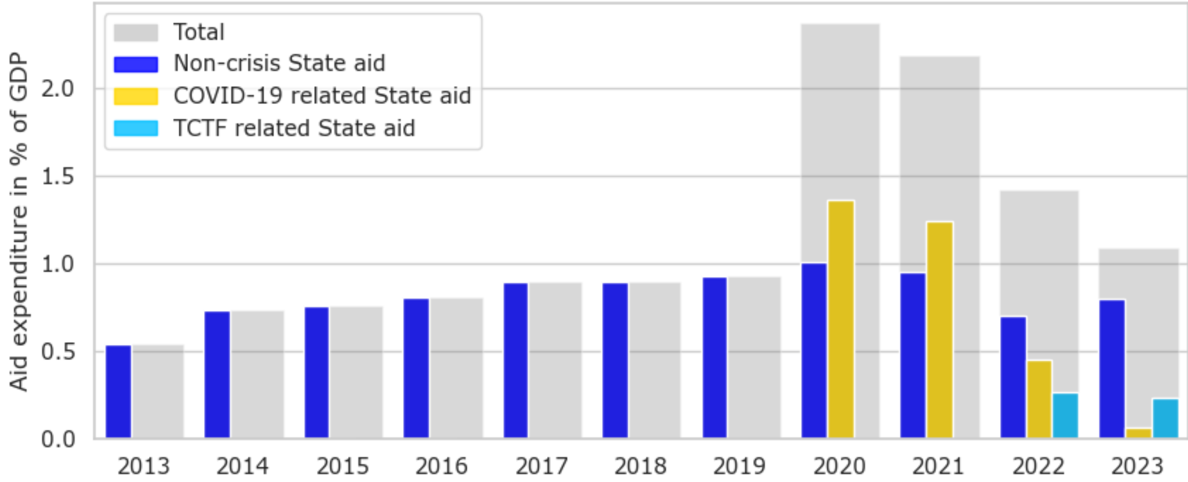


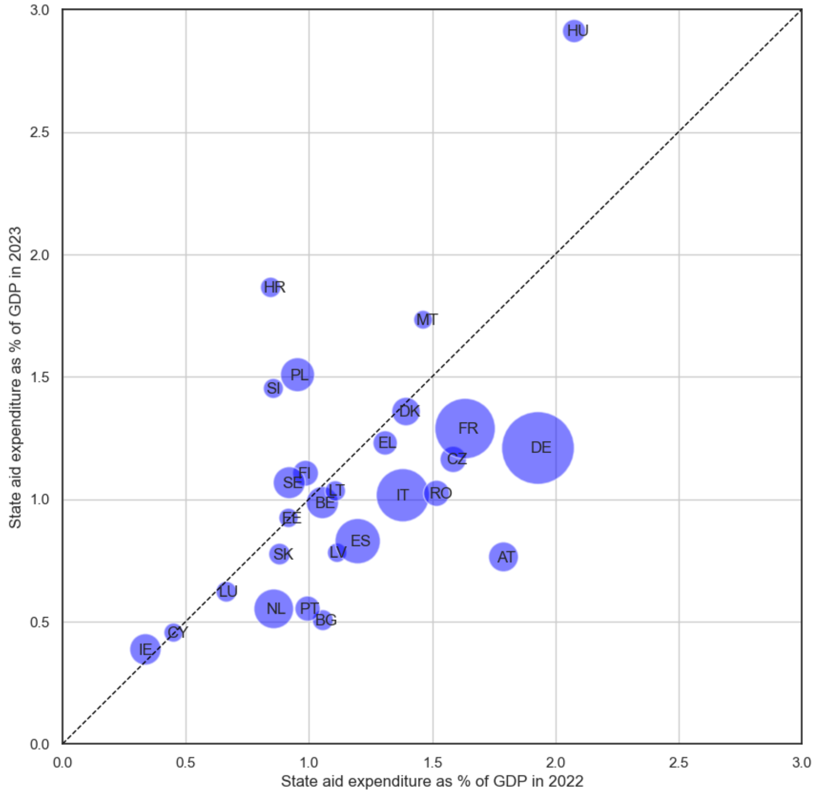
Figure 7 presents expenditures in 2022 (x-axis) and in 2023 (y-axis) as a percentage of yearly national GDP. Member States above the 45-degree line reported an increase in total State aid expenditure relative to their GDP in 2023 compared to 2022, while those below in the line saw a decrease.

When looking at total expenditure from 2022 to 2023, **Croatia** was the only Member State to **increase the level of expenditure by more than 1 percentage point** (+ 1.02 p.p.), and **seven other Member States increased their level of spending, although at different degrees**[31]. Estonia and Cyprus maintained stable spending levels constant between 2022 and 2023 (+0.01 and 0 p.p., respectively). On the other hand, the most consistent reductions are observed in Austria (-1.03 p.p.), Germany (-0.72 p.p.) and Bulgaria (-0.55 p.p.). Decreases were also recorded in fourteen other Member States[32].

[31] Hungary (+0.84 p.p.), Slovenia (+0.60 p.p.), Poland (+0.55 p.p.), Malta (+0.27 p.p.), Sweden (+0.15 p.p.), Finland (+0.12 p.p.), Ireland (+0.05 p.p.).

[32] Romania (-0.49 p.p.), Portugal (-0.44 p.p.), Czechia (-0.42 p.p.), Spain and Italy (-0.37 p.p.), Latvia (-0.33 p.p.), France and the Netherlands (-0.31 p.p.), Slovakia (-0.11 p.p.), Greece (-0.08 p.p.), Lithuania and Belgium (-0.07 p.p.), Luxembourg and Denmark (-0.04 p.p.).

Figure 7: Evolution of total State aid expenditure between 2022 and 2023, as % of GDP, by Member State



N.B. The size of the dots is proportional to the 2023 GDP of the Member State.

3.2 Total State aid expenditure by instrument

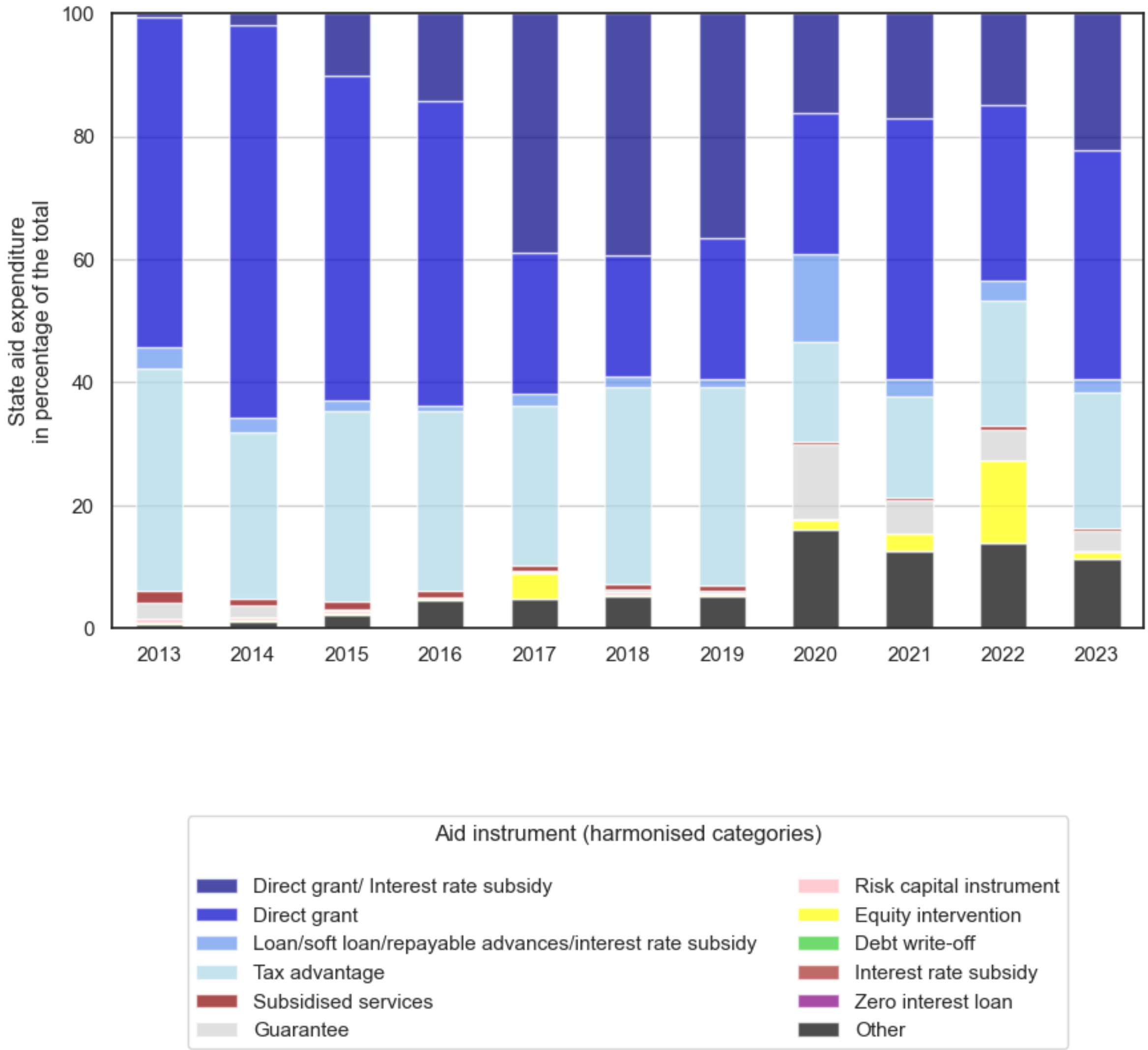
State aid can take numerous forms, *i.e.,* direct grants, tax advantages (exemptions, reductions, or deferrals), equity investments, soft loans/repayable advances, guarantees, *etc.* The choice of the most appropriate aid instrument is made based on the market failure that the aid seeks to address, to generate the lowest possible distortive effects on competition and trade.

Comparing the evolution of expenditure by aid instrument from 2013 to 2023 (see Figure 8), **direct grants** and direct grants/interest rate subsidies[33] together were by far the aid instruments for which Member States have spent the most over the whole period. Around 59% of the total expenditure in 2023 was disbursed through direct grants and direct grants/interest rate subsidies, making this the largest used instrument, an increase of 16 percentage point compared to the previous year in which, 43% of expenditure was channelled through direct grants and direct grants/interest rate subsidies. **Tax advantages** were the second most used aid instrument, around 22% of total in 2023. This represents a 2 percentage points increase compared to 2022, in which they represented around 20% of expenditure. While during the period 2013-2019 tax advantages were represented the second most used instrument, their relative use strongly decreased during the pandemic. Thus, despite representing one fifth of the total aid in 2023, their relative share was still below the 2019 level, in which they represented approximately one third of the total expenditure.

[33] Direct grants/interest rate subsidies are a mixed category that Member States have used in their official reporting to the Commission. Although it is not possible to fully disentangle the two components, we estimate that most of the amounts reported under this mixed category takes the form of direct grants.

Tax advantages were followed by the residual category "**Other**"[34] (11%), guarantees (3%), loans/soft loans/repayable advances/interest rate subsidies (2% of the total). In general, it is worth noticing that the lower amounts of spending reported for repayable instruments (such as guarantees and loans) also depend on the lower aid element associated with these instruments as compared to their nominal amounts and not only on an actual less frequent use of these forms of aid. Equity interventions represented 1% of total aid. While in 2021, equity interventions represented around 3% of the aid expenditure, in 2022 they increased by 10 percentage points, getting to represent 13% of the total aid. This also represents an increase of 9 percentage points compared to 2017, when they had reached the previous peak in relative share (around 4% of the total). The increase was driven by the widespread use of recapitalisation for crisis measures.

Figure 8: Share of total State aid expenditure from 2013 to 2023 by type of aid instrument (in % of total)



All Member States provided most of their support to undertakings via non-repayable instruments in 2023 (Figure 9). Direct grants and direct grants/interest rate subsidies together accounted for more than 90% in Austria, and for more than 50% in 19 other Member States

[34] This is strongly driven by a single German scheme (SA.102084 Erneuerbare Energien Gesetz - EEG 2023) under which around EUR 14.21 billion, were reported by the German authorities as "other" (67% of the total amount reported as other). As specified in the European Commission decision approving this State aid scheme, aid can take the form of feed-in tariff and sliding market premium.

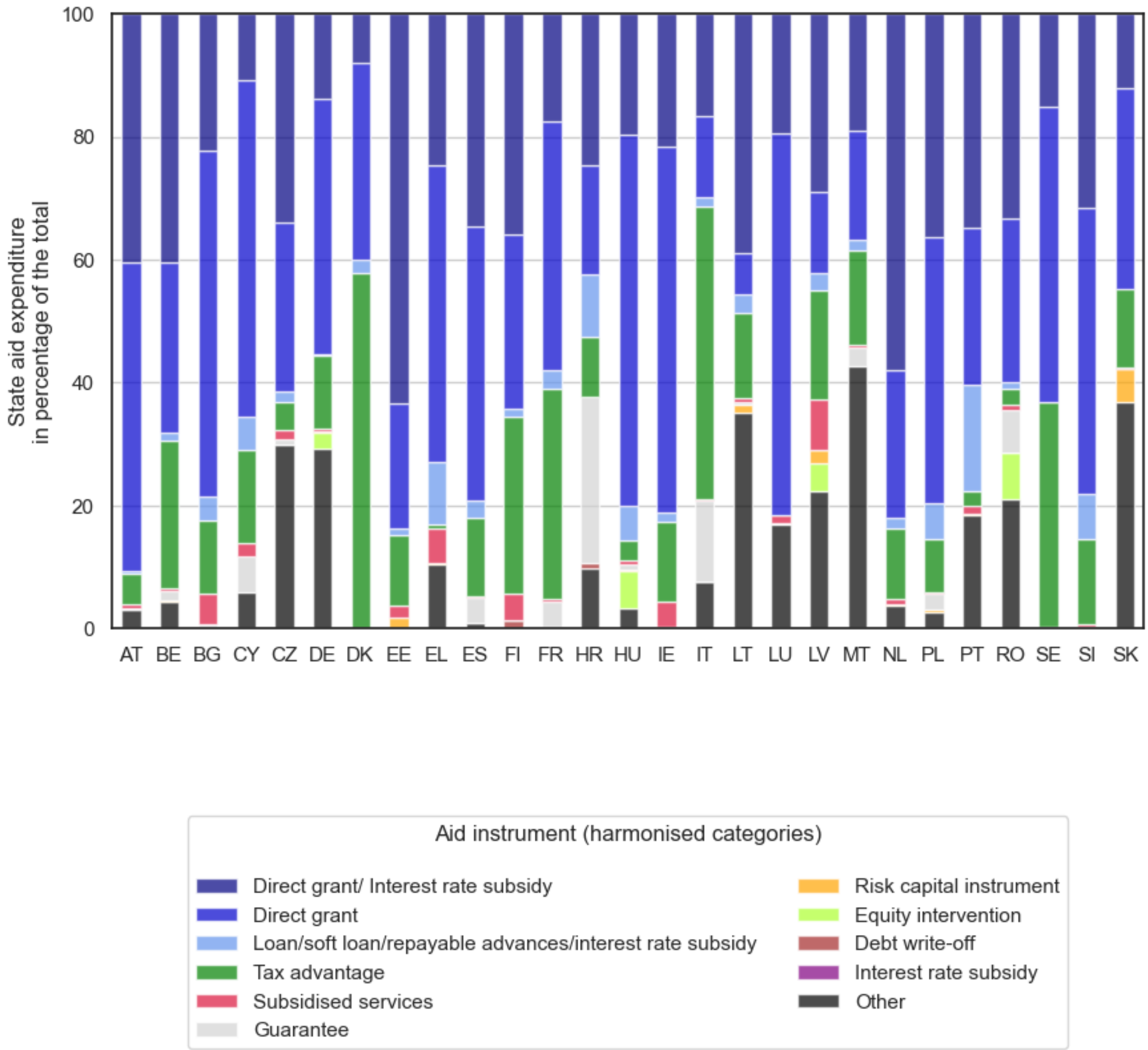
(Belgium, Bulgaria, Cyprus, Czechia, Germany, Estonia, Greece, Spain, Finland, France, Hungary, Ireland, Luxembourg, the Netherlands, Poland, Portugal, Romania, Sweden, Slovenia). The Member States that spent the least on direct grants (including the mixed category direct grants/interest rate subsidies) are Italy (30%), Malta (37%) and Denmark (40%).

Denmark and Italy implemented many tax advantage measures (around 58% and 48% of their total disbursement, respectively). Other Member States with a significant share of tax advantages were Sweden (37%) and France (34%).

Loans guarantees represented 27% of total expenditure in Croatia, signalling a reliance on this type of credit-based instrument, whose aid element is a small fraction of the underlying loan contracts. Other Member States with a significant share of guarantees were Italy (13%), Romania, (7%) and Cyprus (6%).

Malta, Slovakia, Lithuania, Czechia and Germany recorded under 'other' more than one fourth of their total expenditure.

Figure 9: Total State aid expenditure by Member State, by aid instrument, in percentage of the total



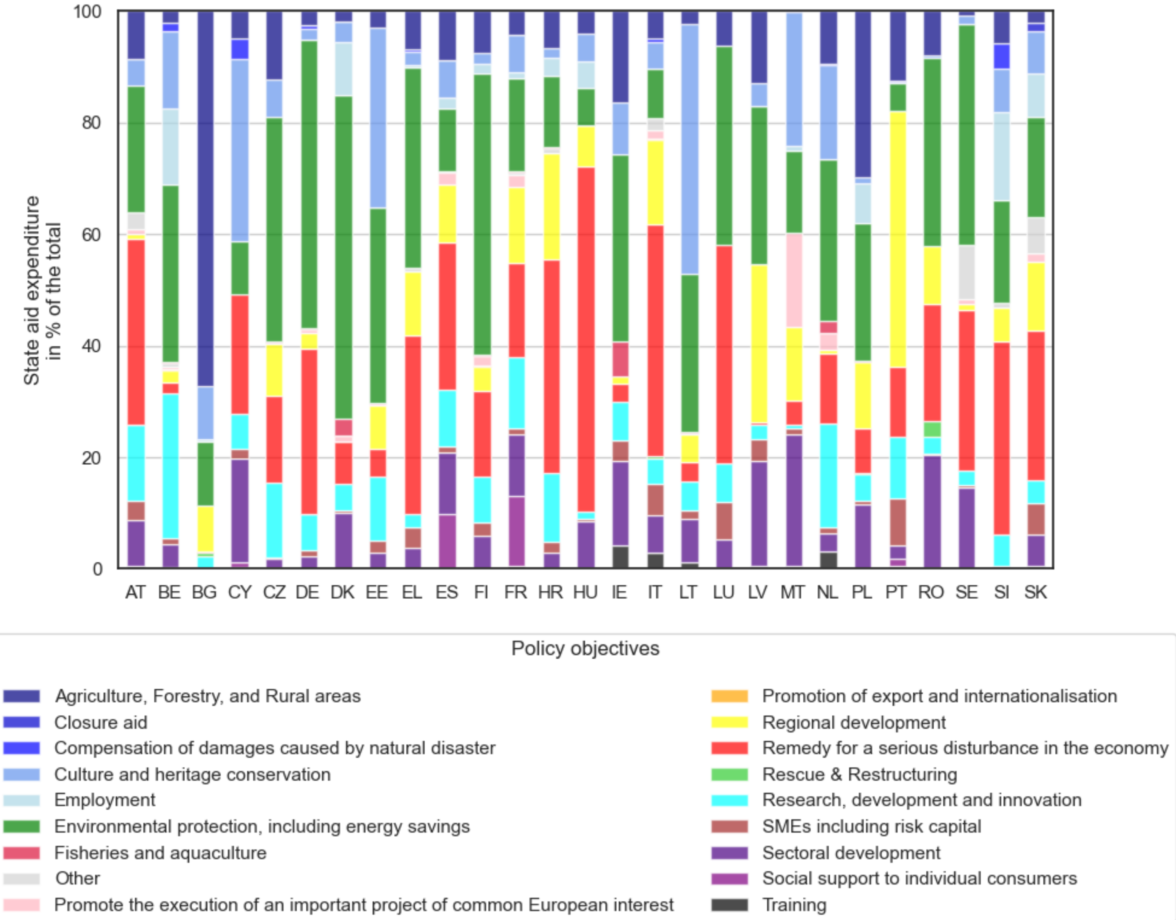
3.3 Total State aid expenditure by policy objective

To be compatible with the State aid rules, (i) the aid must facilitate the development of an economic activity (positive condition), and (ii) the aid must not adversely affect trading conditions to an extent contrary to the common interest (negative condition). Despite the general prohibition of State aid, in some circumstances, government interventions are necessary for a well-functioning and equitable economy. Therefore, the Treaty leaves room for a number of policy objectives for which State aid can be considered compatible. However, in practice, various State aid measures are often complementary, and some of them might contribute to several objectives[35].

The TFEU also explicitly provides that aid to **remedy a serious disturbance in the economy** of a Member State may be compatible with the internal market. This provision can only be invoked where the disturbance affects the whole or an important part of the economy of the Member State concerned, and not only some parts of its territory.

Member States have granted State aid for rather diverse objectives. Figure 10 shows the 2023 State aid expenditure by policy objectives by each Member State. In order to make them comparable across Member States, amounts are reported as percentages of total State aid spending in each Member State.

Figure 10: Total State aid expenditure by Member State, by policy objective, in percentage of the total.



As regards the four prime objectives at EU level in 2023:

- **Environmental protection, including energy savings,** is the primary objective in 12 Member States: Denmark (58% of Danish State aid expenditure in 2023), Germany (52%), Finland (51%), Czechia and Sweden (40% for both), Greece (36%), Estonia (35%), Romania and Ireland (34%), Belgium (32%), the Netherlands (29%), and Latvia (28%). It is the second most used policy objective in 9 Member States: Luxembourg,

[35] For example, a regional aid scheme might be targeted at the sole benefit of SMEs located in an assisted region.

where it accounted for 36% of the total State aid expenditure, Lithuania (28%), Poland (25%), Austria (23%), Slovenia (19%), Slovakia (18%), France (17%), Spain and Bulgaria (11%). It **accounts for 30% of overall expenditure at the EU level.**

- **Remedying a serious disturbance in the economy** (encompassing both COVID-19 and certain TCTF-related measures) is the prime objective in 9 Member States: Hungary (62% of the Hungarian State aid expenditure in 2023), Italy (42%), Luxembourg (39%), Croatia (38%), Slovenia (35%), Austria (33%), Slovakia (27%), Spain (26%) and France (17%). It is the second most used objective in Greece, where it accounted for 32% of the total State aid expenditure, Germany (30%), Sweden (29%), Cyprus and Romania (21%), Czechia (16%), and Finland (15%). It **accounts for 25% of overall expenditure at the EU level.**

- **Research, development, and innovation** is the second most used objective in Belgium (26% of the Belgian State aid expenditure in 2023) and the Netherlands (19%). It accounts for more than 10% of the yearly State aid expenditure in 7 other Member States (Austria, Czechia, France, Croatia, Estonia, Portugal and Spain). It **accounts for 9% of overall expenditure at the EU level**.

- **Regional development** is the primary objective in Portugal (46% of the Portuguese State aid expenditure in 2023). It constitutes the second most used objective in Latvia, where it accounted for 28% of the State aid expenditure, Croatia (19%), Italy (15%). It **accounts for 8% of overall expenditure at the EU level**.

3.4 Total State aid expenditure on co-financed projects

Figure 11 shows the evolution of total EU spending on co-financed projects from 2013 to 2023 in absolute terms at current prices, while in Figure 12, the expenditures are adjusted for inflation. Unlike in 2022, **total spending on co-financed projects increased in 2023** (grey bar). Expenditure rose from about EUR 16.01 billion in 2022 to about EUR 22.55 billion in 2023 at current prices, representing a notable 41% increase in nominal terms. When adjusting for inflation (Figure 12), the increase remains significant (+32%). Regarding co-financed State aid expenditure related to the pandemic (yellow bar), it remained substantially unchanged in 2023 (around EUR 635 million, 13% with respect to the previous year). Expenditure on co-financed State aid for measures related to the Russian invasion of Ukraine was minimal, amounting to approximately EUR 213 million, but still increased by 35% compared to 2022, when it was around EUR 6 million in constant prices.

Figure 11: State aid expenditure on co-financed projects from 2013 to 2023, in EUR billion, current prices

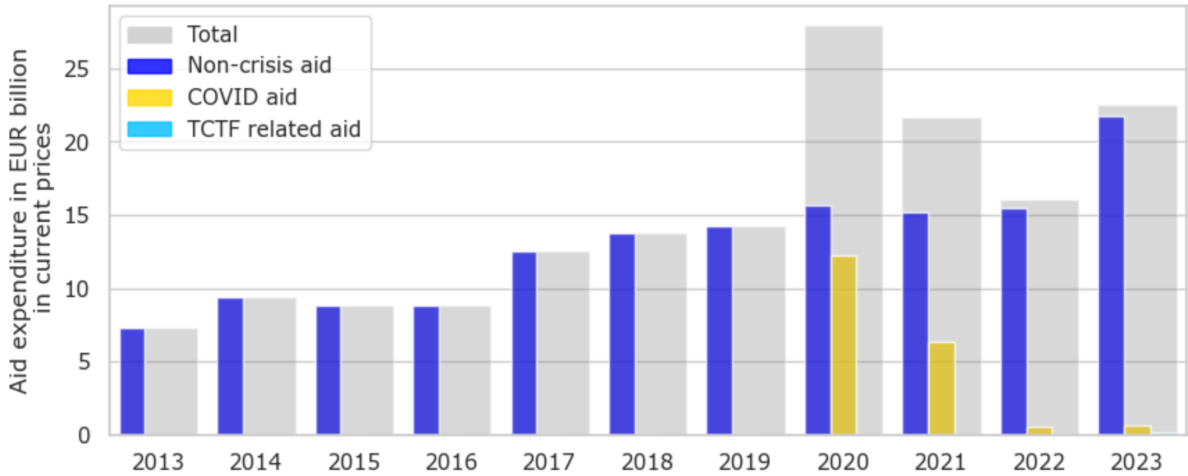
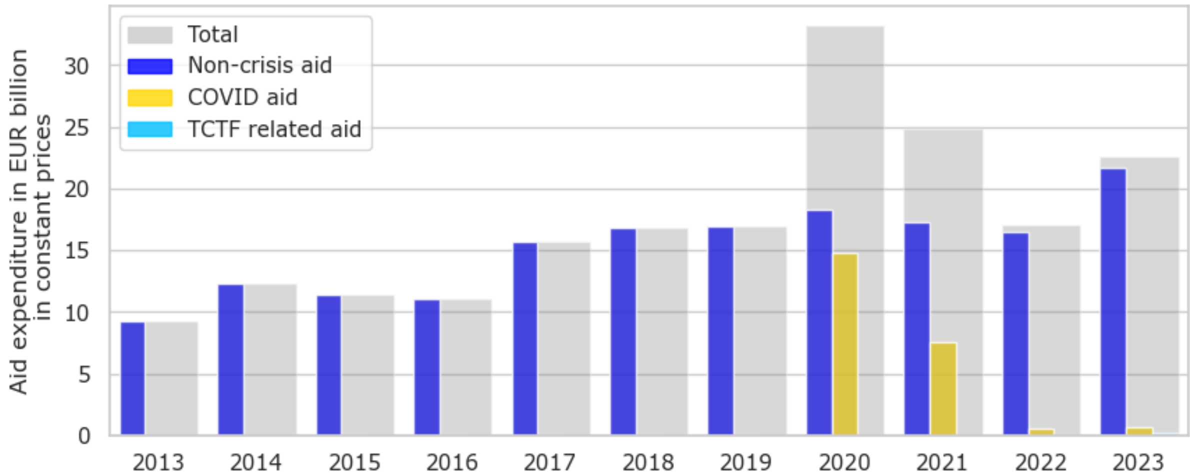


Figure 12: State aid expenditure on co-financed projects from 2013 to 2023, in EUR billion, constant prices



4 Total State aid expenditure for non-crisis measures

4.1 State aid expenditure for non-crisis objectives: a strong rebound with environmental and energy aid as the main policy focus of Member States

In 2023, the EU27 Member States spent EUR 136.78 billion on State aid for non-crisis measures. This corresponds to 0.8% of the EU27 GPD in 2023, covering around 73% of the total spending. After a strong decrease in 2022, State aid expenditure for non-crisis objectives bounced back in 2023 with a nominal increase of around 21% (Figure 13). However, the increase is less accentuated when adjusting for the effects of inflation, in which case State aid expenditure for non-crisis objectives **increased by 14% compared to 2022** (see Figure 14). It appears that **in 2023, due to the strong reduction in crisis aid, Member States diverted resources back to support companies for non-crisis-related objectives.**

Figure 13: Percentage change in total State aid expenditure for non-crisis objectives, 2018-2023, current prices

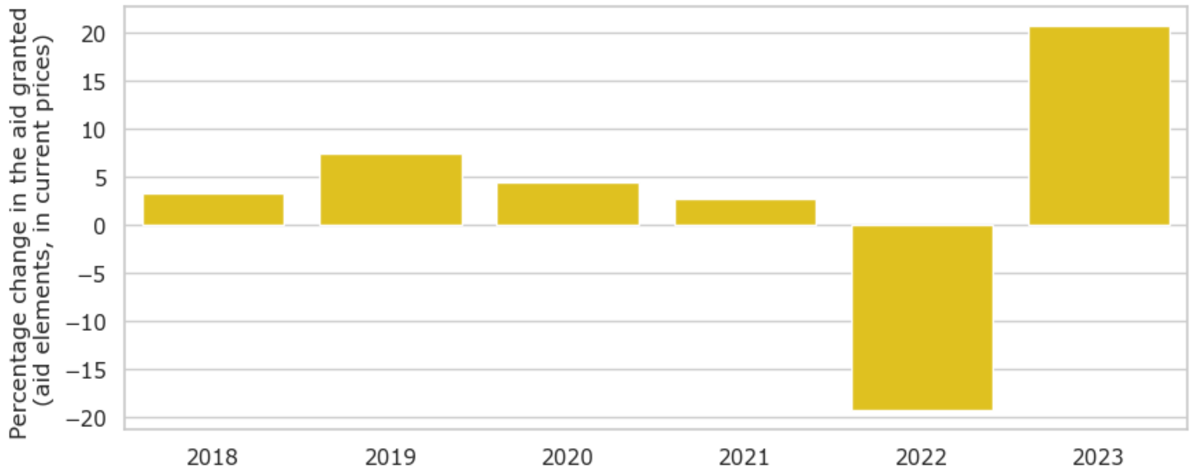


Figure 14: Percentage change in total State aid expenditure for non-crisis objectives, 2018-2023, constant prices

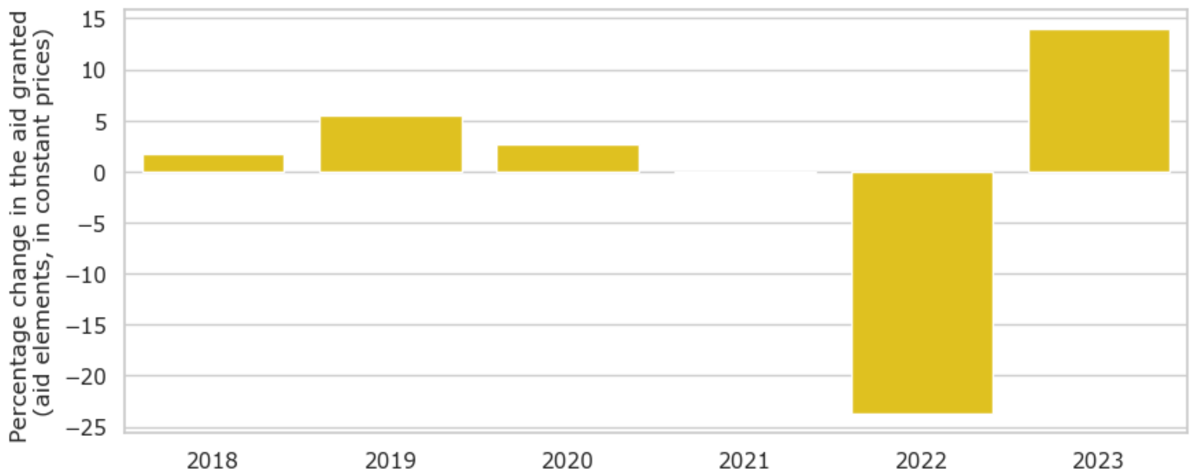
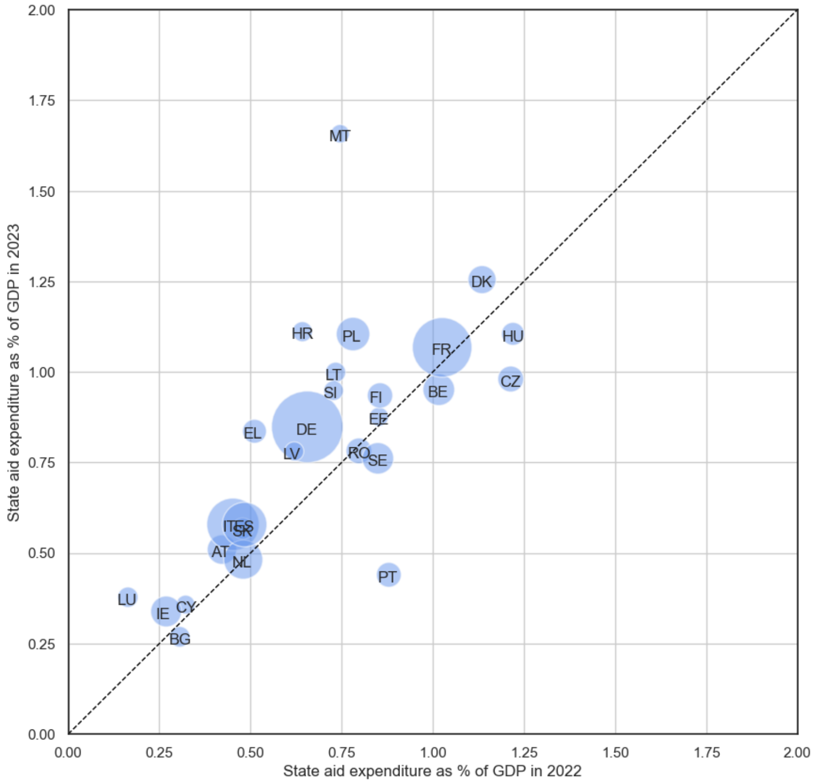


Figure 15 reports non-crisis State aid expenditures for individual Member States as a percentage of yearly national GDP, comparing values in 2022 (x axis) with those in 2023 (y axis). Member States above the 45 degrees line reported an increase in non-crisis State aid expenditure as a percentage of their GDP in 2023 compared to 2022, while those below the line experienced a decrease.

When looking at non-crisis expenditure from 2022 to 2023, **nineteen Member States increased their level of spending**[36]. The Netherlands kept their level of spending for non-crisis measures constant between 2022 and 2023. On the other hand, the most consistent reductions are observed in Portugal (-0.44 p.p.), Czechia (-0.23 p.p.) and Bulgaria (-0.11 p.p.). Decreases are also observed in four other Member States[37].

Figure 15: Evolution of State aid expenditure between 2022 and 2023 excluding crisis aid, as % of national GDP, by Member State



N.B. The size of the dots is proportional to the 2023 GDP of the Member States.

Looking at the evolution of State aid spending over the last six years, as depicted in Figure 16 with inflation-adjusted figures, **environmental protection and energy savings are by far the policy objectives for which Member States have spent the most**, with cumulative total expenditure of EUR 436.78 billion in constant prices. **The increasing trend observed until 2020** (from EUR 80.92 billion in 2018 to EUR 85.52 billion in 2020, an overall 6% increase over two years) **already reversed in 2021**, (EUR 83.61 billion in 2021, a 2% decrease compared to the previous year). A consistent decrease was then observed in 2022, when the aid for environmental protection and energy savings was reduced by 45%, also considering the effect of inflation, as the total expenditure for this objective was EUR 45.99 billion. In 2023, the **expenditure on environmental protection and energy savings rebounded strongly, with a 20% increase, to EUR 55.32 billion** (an increase of more than EUR 9.33 billion increase). Despite this notable rebound, expenditure levels remained significantly below those observed until 2021.

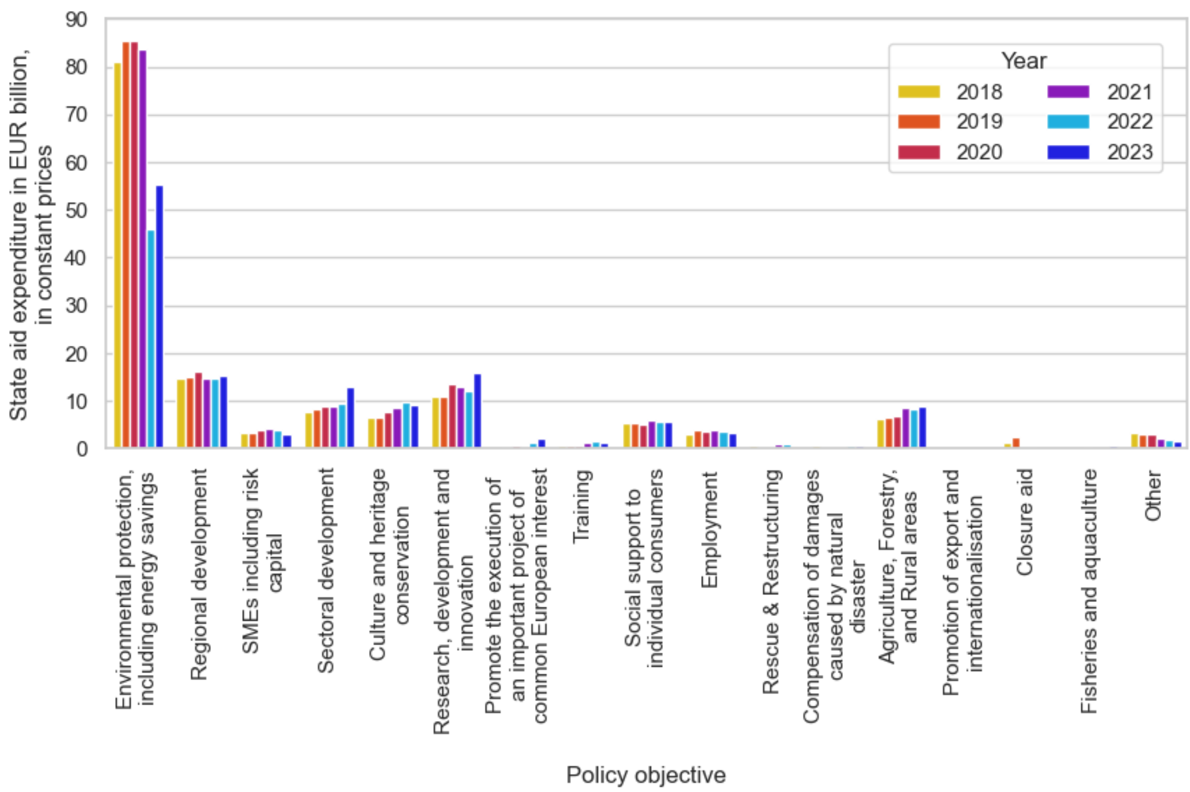
[36] Malta (+0.91 p.p.), Croatia (+0.47 p.p.), Greece (+0.33 p.p.), Poland (+0.32 p.p.), Lithuania (+0.27 p.p.), Slovenia (+0.22 p.p.), Luxembourg (+0.21 p.p.), Germany (+0.19 p.p.), Latvia (+0.16 p.p.), Italy (+0.13 p.p.), Denmark (+0.12 p.p.), Spain, Slovakia and Austria (+0.09 p.p.), Finland (+0.08 p.p.), Ireland (+0.07 p.p.), France and Cyprus (+0.04 p.p.), and Estonia (+0.02 p.p.).

[37] Sweden (-0.09 p.p.), Belgium (-0.07 p.p.), Bulgaria (-0.04 p.p.) and Romania (-0.02 p.p.).

Environmental protection and energy savings alone account for 50% of total expenditure for non-crisis objectives over the last six years, and 40% in 2023. Despite the strong decrease in expenditure in 2022, the total expenditure for environmental and energy aid over the last six years is nearly five times larger than the cumulative expenditure under the second most used objective: **regional development** (EUR 90.93 billion from 2018 to 2023, of which EUR 15.39 billion in 2023). Regional aid increased by 4% in 2023 compared to the previous year (from EUR 14.76 billion in 2022 to EUR 15.39 billion in 2023). A total of EUR 76.31 billion was spent on **research and development including innovation,** from 2018 to 2023, of which EUR 15.95 billion was spent in 2023. After an -8% decrease in 2022 compared to 2021 (from EUR 13.03 billion in 2021 to EUR 11.99 billion in 2022), aid for research and development increased by around 33% in real terms in 2023. These three primary non-crisis objectives cover 69% of overall expenditure at the EU level for non-crisis objectives during the period 2018-2023 and 63% in 2023.

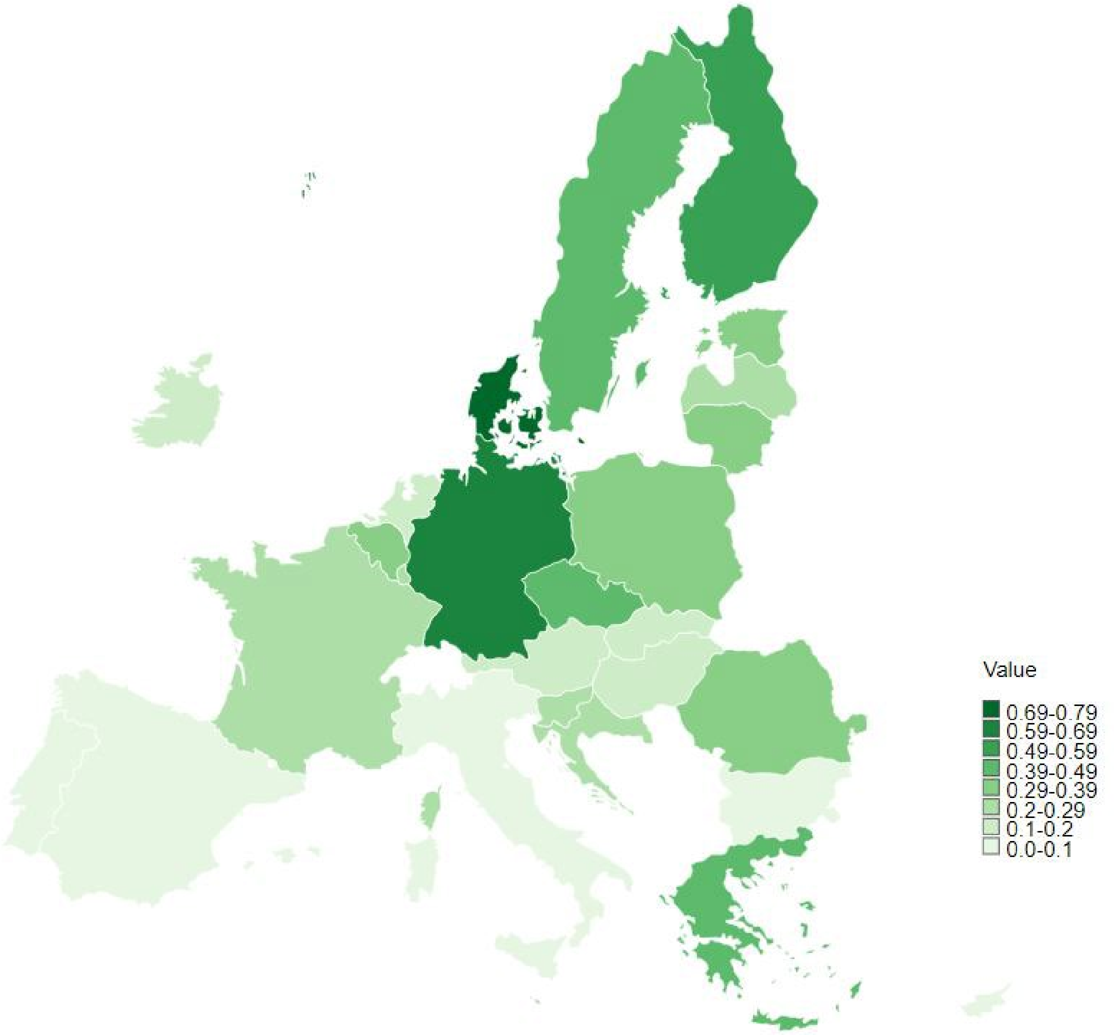
Moreover, EUR 55.83 billion has been spent for **sectoral development** over the 2018-2023 period (of which EUR 13.02 billion in 2023), EUR 48.27 billion on **culture and heritage conservation** (of which EUR 9.19 billion in 2023) and EUR 45.71 billion on **agriculture, forestry, and rural areas** (of which EUR 8.99 billion in 2023).

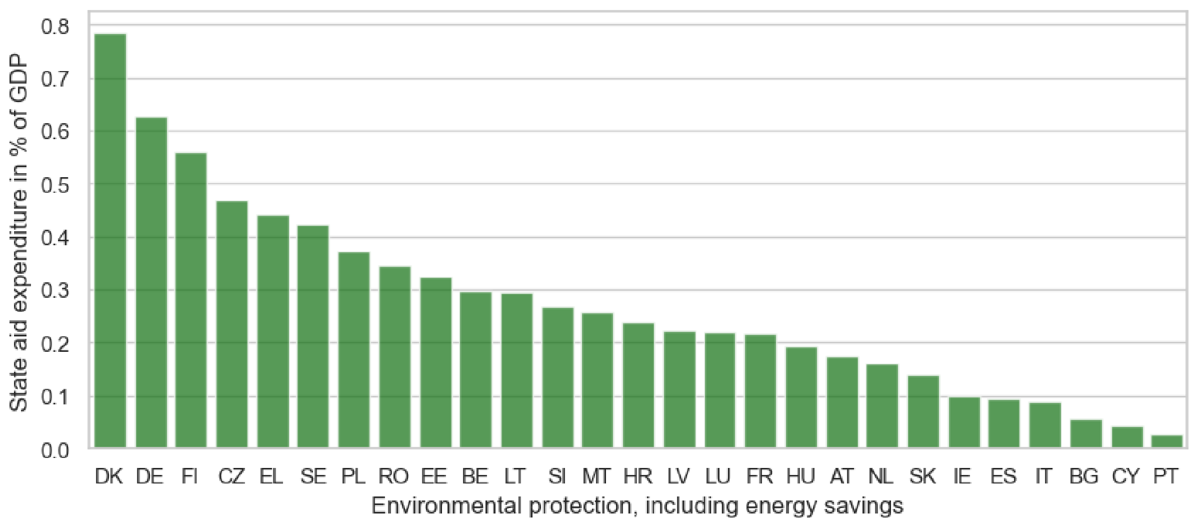
Figure 16: Total State aid expenditure for non-crisis objectives, by policy objective, 2018-2023, constant prices



The map and graph below (Figure 16 and Figure 17) display the State aid expenditure on environmental protection and energy savings by Member State as a share of national GDP in 2023. In 2023, **Denmark** was the Member State that has spent the most on **environmental protection and energy savings** in real terms, namely **0.79% of national GDP**. Denmark was followed by Germany (0.63 % of its own GDP), Finland (0.56%), Czechia (0.47%), Greece (0.44%), and Poland (0.37%). Portugal, Cyprus, and Bulgaria were the Member States spending the least on environmental and energy aid in 2023, with less than 0.06% of national GDP. Overall, **0.32% of the EU GDP** was spent on State aid for environmental protection and energy savings.

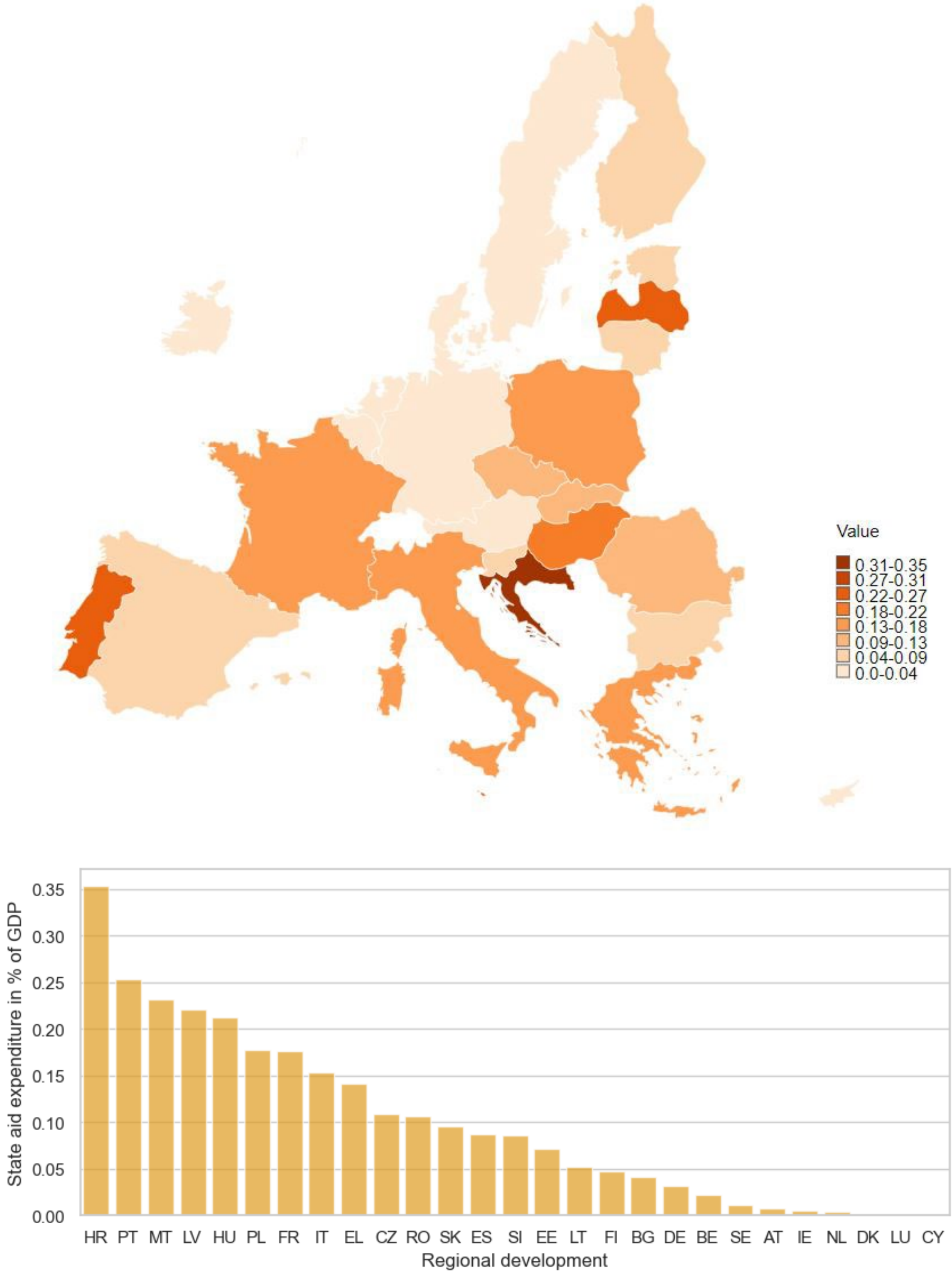
Figure 17: State aid expenditure for environmental protection and energy savings by Member State, as % of national GDP in 2023, as a map (above) and bar chart (below)





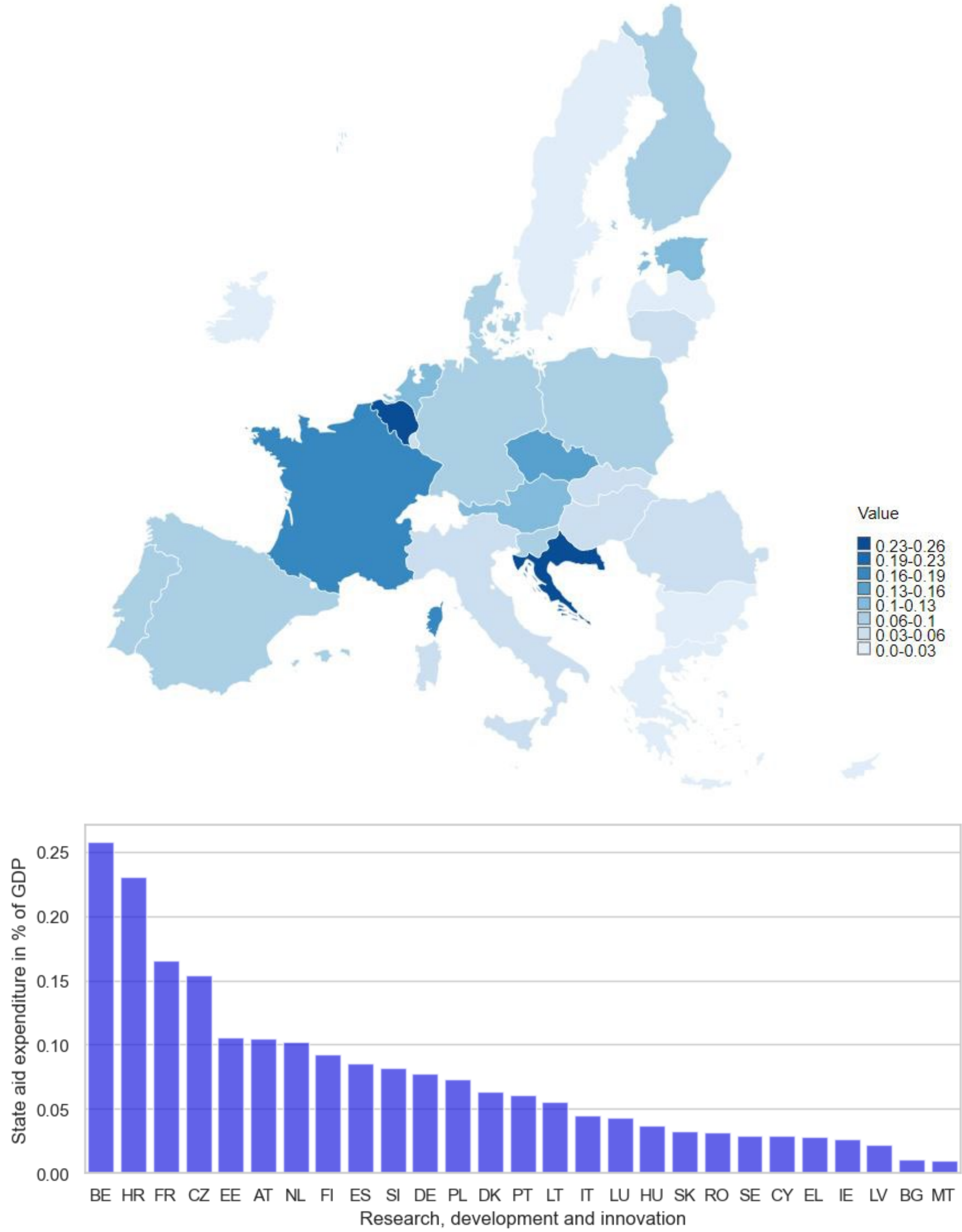
Regional development accounted for a significant share of State aid expenditure in **Croatia** (0.35% of national GDP), followed by **Portugal** and **Malta** with 0.25% and 0.23% of GDP respectively, as displayed in Figure 18. The next highest ranked Member States – Latvia and Hungary – had a share of GDP of around 0.22% and 0.21%, respectively. Poland and France both spent around 0.18% of their own GDP. Cyprus and Luxembourg did not implement any measure for this objective in 2023. Overall, **0.09% of the EU's GDP** was spent on State aid for regional development.

Figure 18: State aid expenditure for regional development by Member State, as % of national GDP in 2023 as a map (above) and bar chart (below)



Concerning **research, development and innovation** in Figure 19 measures, **Belgium** and **Croatia** were the Member States that spent the most in 2023, with around 0.26% and 0.23% of their GDP, respectively. Malta and Bulgaria were the Member States that spent less for these measures, having spent 0.01% of their own GDP or less. Overall, **0.09% of the EU's GDP** was spent on State aid for research, development and innovation.

Figure 19: State aid expenditure in R&D&I by Member State, as % of national GDP in 2023 as a map (above) and bar chart (below)



As regards the three prime non-crisis objectives at EU level in 2023 (Figure 20):

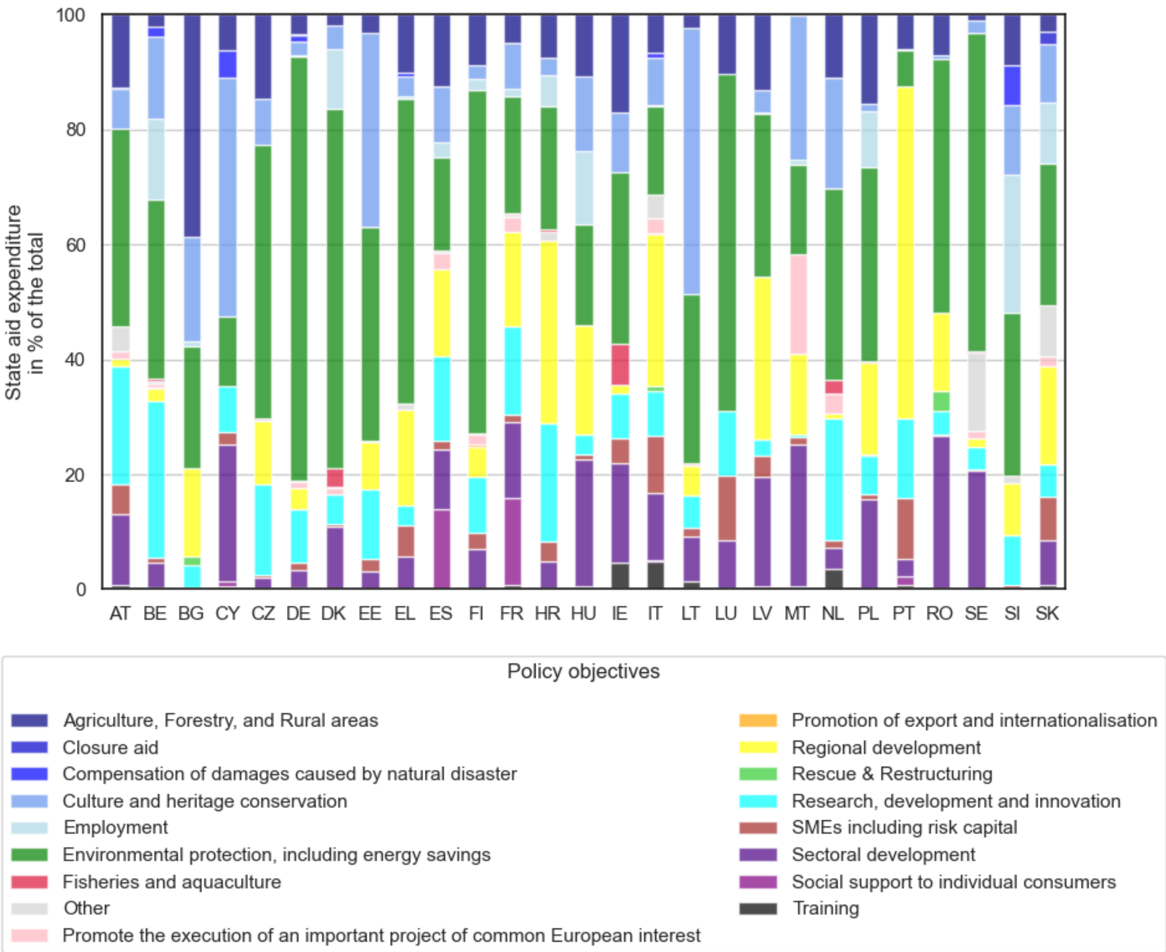
- **Environmental protection and energy savings** were the primary objective for non-crisis aid in 19 Member States[38]. They represented more than 50% of total spending for non-crisis measures in 6 Member States: Germany (74%), Denmark (63%), Finland (60%), Luxembourg (59%), Sweden (55%), and Greece (53%).

- **Regional development** was the prime objective in Portugal (58% of total non-crisis spending), Croatia (32%), and Italy (26%).

- **R&D&I** accounted for 27% of non-crisis spending in Belgium and for around 21% in the Netherlands, Croatia, and Austria.

In some Member States, the three largest objectives at the aggregate level represented a minor share of State aid spending at national level. This was particularly the case of Cyprus and Malta, where these objectives accounted for 20% and 30% of total spending for non-crisis measures, respectively, while culture and heritage conservation was the prime objective (42% and 25% of the non-crisis spending). Culture and heritage conservation is the prime objective also in Lithuania (46%). Moreover, in Hungary, a large share of national resources targeted sectoral development (prime objective, accounting for 22% of non-crisis spending). Agriculture, Forestry and Rural areas were the prime objective in Bulgaria (39%).

Figure 20: Share of State aid expenditure for non-crisis State aid measures, by Member State in 2023 (in % of total)

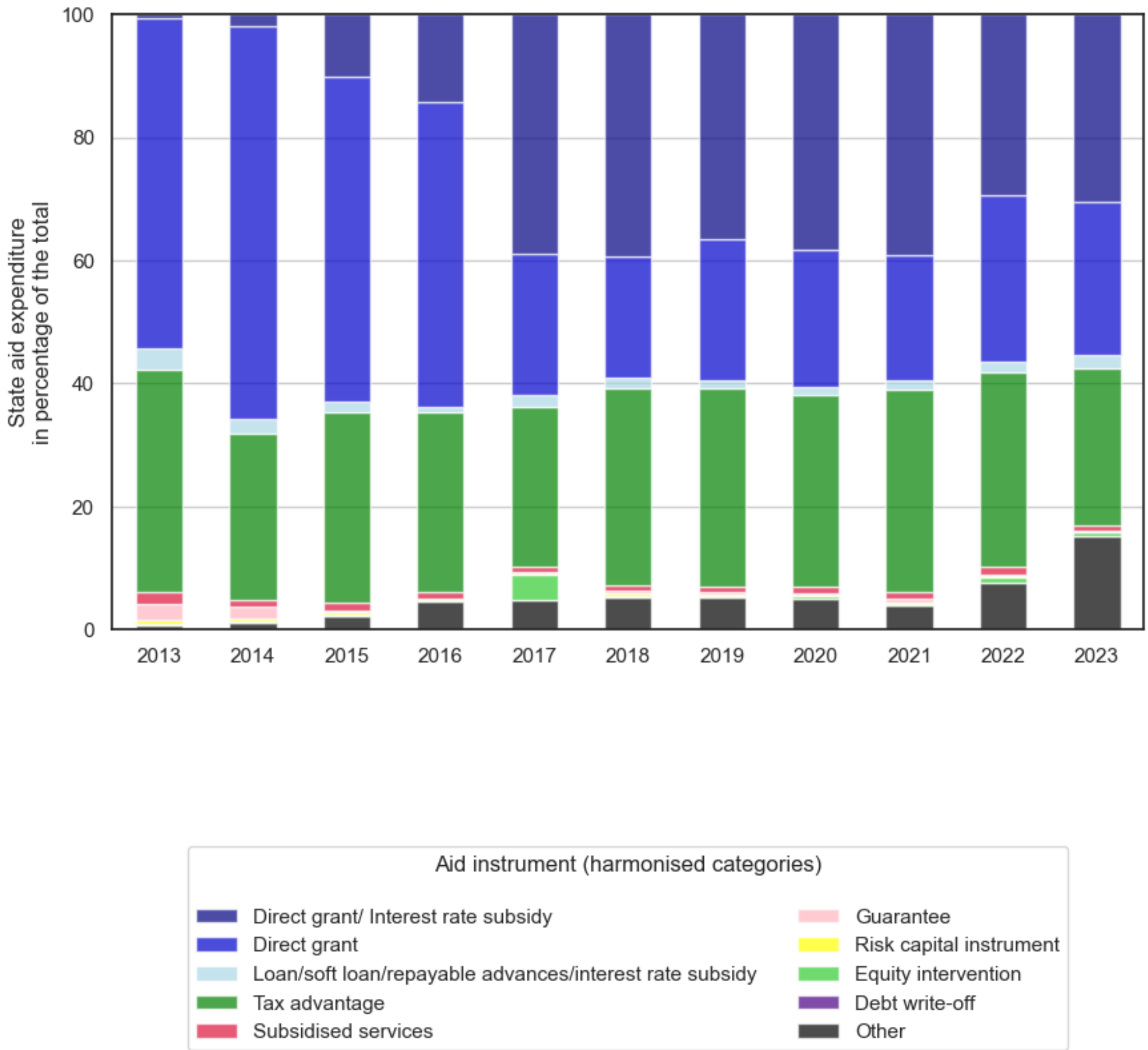


[38] Germany, Denmark, Finland, Luxembourg, Sweden, Greece, Czechia, Romania, Estonia, Austria, Poland, the Netherlands, Belgium, Ireland, Latvia, Slovenia, Slovakia, and France.

4.2 State aid expenditure for non-crisis measures by type of instrument: different practices across Member States

Comparing the evolution of expenditure for non-crisis objectives by type of aid instrument from 2013 to 2023 (see Figure 21), **direct grants**[39] have been by far the most popular aid instrument both over the last decade, and in 2023, representing **60% of total expenditure** during the period 2013-2023, and 55% in 2023. **Tax advantage measures** were the second most used instrument over the last decade with an average share of 30%, and a smaller share of 26% in 2023. The use of **other** State aid instruments has increased (the residual category 'other' accounted for 15% of total spending in 2023). The share of spending in the form of loans/repayable advances/interest rate subsidies decreased from 4% of the aid expenditure in 2013 to 2% in 2023. The share of spending in the form of **subsidised services** has slightly decreased (from 2% of the total in 2013 to around 1% in 2023), while the share of spending in the form of **guarantees** has more substantially decreased from 3% of the total in 2013 to around 0.1% in 2023. **Equity interventions** were used for large amounts exclusively in 2017 (4% of the expenditure).

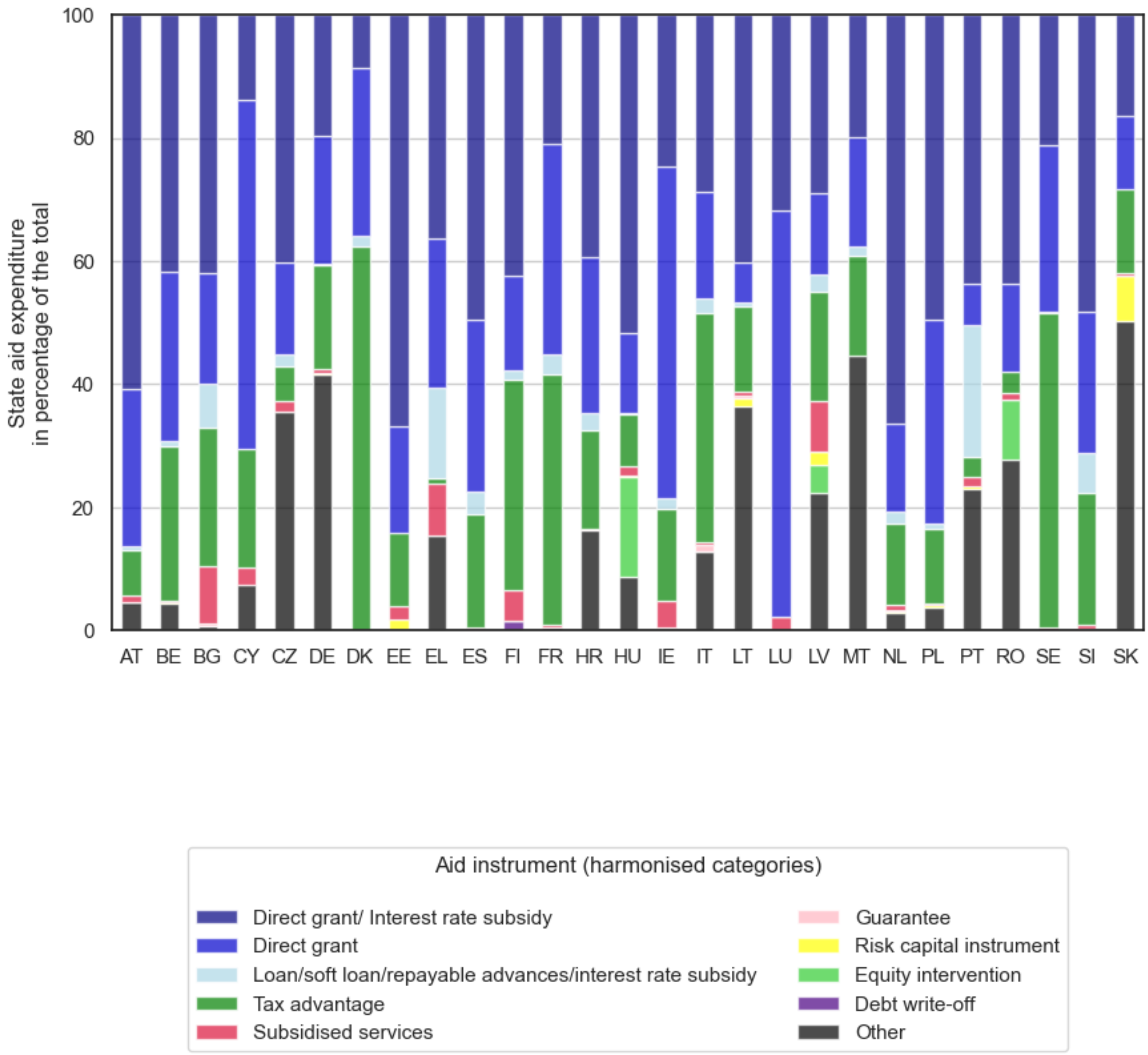
Figure 21: Share of total State aid for non-crisis State aid measures, by type of instrument, from 2013 to 2023 (in % of total)



[39] Including the mixed category direct grants/interest rate subsidies.

Looking at the different practices across Member States in 2023 (see Figure 22): direct grants[40] represented 98% of the expenditure in Luxembourg, and more than 80% in four other Member States (Austria, Estonia, Poland, and the Netherlands). In all the other Member States, they accounted for more than 50% of State aid expenditure, except in 8 Member States (Slovakia, Denmark, Malta, Germany, Latvia, Italy, Lithuania, and Sweden) where direct grants still represent more than 28%. Tax advantage measures accounted for 62% of Denmark's State aid expenditure for non-crisis objectives in 2023 and 51% in Sweden. France (41%), Italy (37%), and Finland (34%) allocated more than one-third of their spending in the form of tax measures. Portugal made a substantial use of loans and repayable advances (22%). Slovakia reported 50% of its spending in 2023 under the residual category "other", Malta 45% and Germany 42%. Hungary and Romania made a substantial use of equity intervention, which represented the 16% and 10% of their spending, respectively.

Figure 22: Share of total State aid expenditure for non-crisis State aid measures by Member State and by type of instruments in 2023 (in % of total)

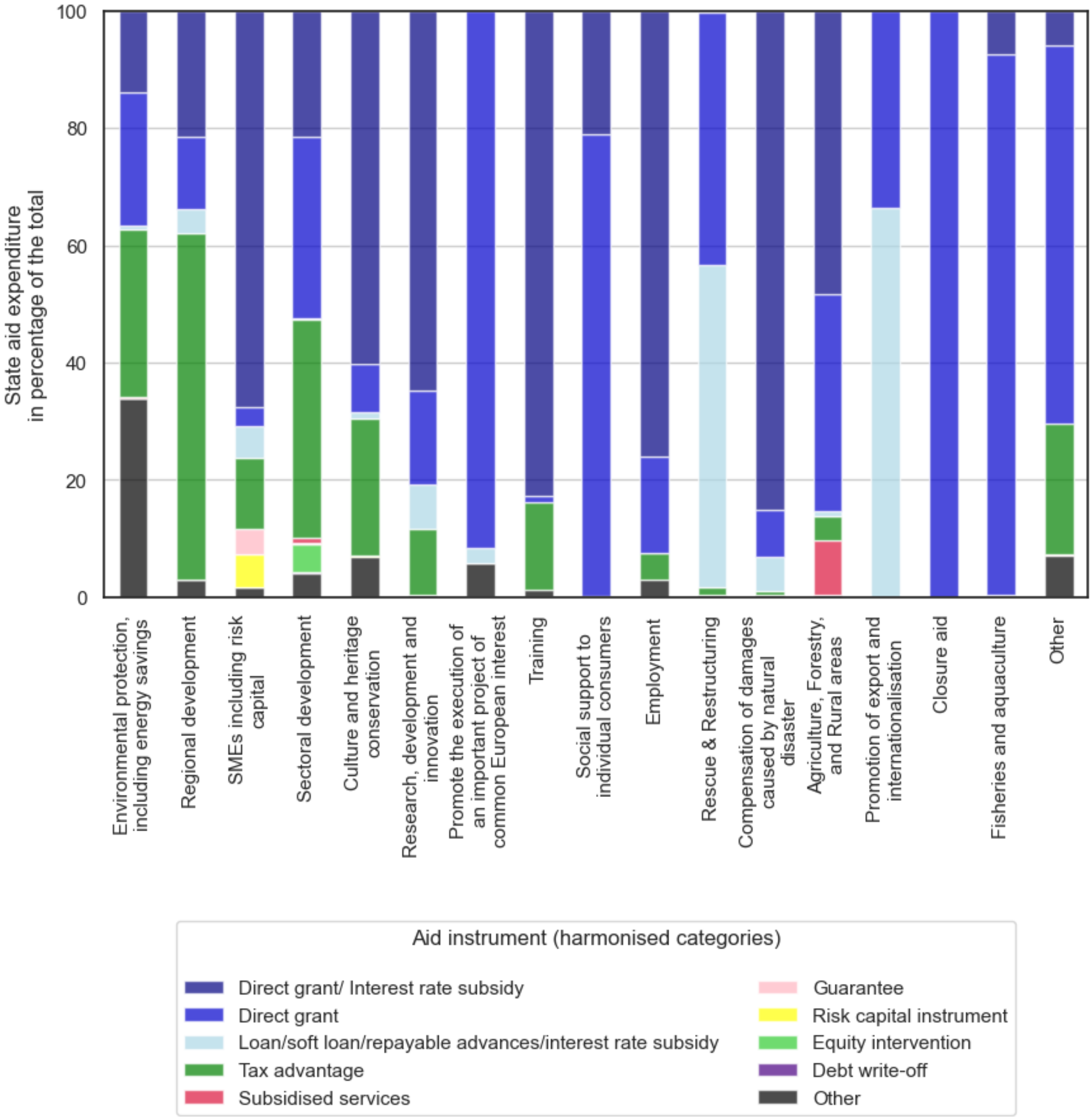


Looking at the use of aid instrument by policy objective (Figure 23), direct grants (including interest rate subsidies) have been the most widely used type of instrument across objectives, with the exception of the promotion of exports and internationalisation and regional development, for which they represented around 34%, environmental protection and energy savings (37% of the aid for such objectives was spent through direct grants in 2023), and rescue and restructuring (43%). Tax advantage measures were mainly used for regional development (59% of the aid for

[40] Ibid.

this objective) and were also substantially used for sectoral development (37%), environmental protection, including energy savings (28%), and culture and heritage conservation to a lesser extent (23%). Loans/repayable advances represented 66% of the total spending under the promotion of exports and internationalisation and 55% of Rescue and Restructuring aid.

Figure 23: Share of total State aid expenditure for non-crisis State aid measures, by main policy objectives and by type of instrument, in 2023 (in % of total)



4.3 State aid expenditure on co-financed projects

In line with the broader trend of State aid expenditure rebounding in 2023 compared to 2022, spending on non-crisis co-financed projects also saw a significant increase. As observed in Section 3.4, **total spending on non-crisis co-financed projects increased** (blue bar in Figure 11) from about EUR 15.48 billion in 2022 to about EUR 21.70 billion in 2023[41]. This corresponds to a 40.1% increase in nominal terms, a percentage that decreases to 31.4% when adjusting for inflation (Figure 12).

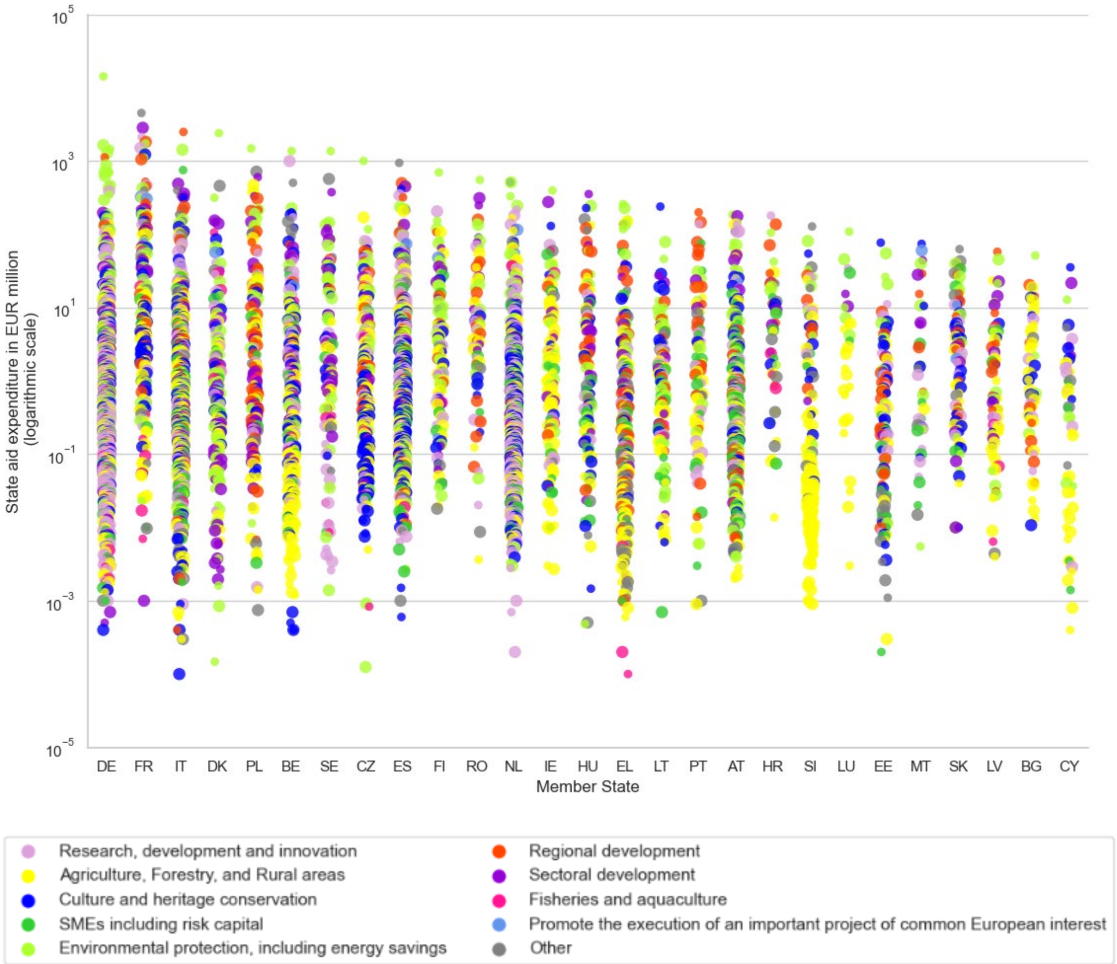
[41] These amounts include resources from national budgets and EU Funds.

4.4 State aid schemes are highly heterogeneous: focus on the largest State aid schemes for non-crisis objectives in 2023

The State aid measures currently in force are very heterogeneous in terms of expenditure size. For this reason, the 2024 Scoreboard pays particular attention to the largest State aid schemes in terms of expenditure and displays data at the level of individual measures[42].

Figure 24 presents expenditure under State aid schemes in 2023[43], sorted by Member State (on the x-axis) and policy objective (different colours associated with different policy objectives).

Figure 24: State aid schemes for non-crisis objectives, by Member State and policy objective, (in EUR million – logarithmic scale)



N.B. Each point represents a State aid scheme and appears at the intersection of its category on the x-axis (the Member State concerned) and its expenditure on the y-axis. The expenditure is displayed with a logarithmic scale[44]: the upper grey line represents 10 times more expenditure than the lower white line. In practice, aid measures can target several objectives, and therefore some objectives may overlap[45].

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[42] Data on State aid expenditure by measure can be exported via this link: [Scoreboard State Aid data - European Commission]

[43] Excluding aid to railways and to financial institutions.

[44] A logarithmic scale allows to compare the order of magnitudes when there is a large heterogeneity in a variable, in our case in the expenditure. Using a logarithmic scale is useful to compress the scale and make the data easier to comprehend.

[45] For instance, following the liberalization of a sectoral market, a measure compensating a privatized company for the high labour cost of its workforce still employed under civil servants' contracts can be classified either under the objective 'sectoral development' or 'Social support to individual consumers'.

4.5 State aid expenditure to agriculture and fisheries

In 2023, EU27 Member States provided a total of **EUR 9 billion for non-crisis State aid to agriculture, forestry, and rural areas, corresponding to 0.05% of EU GDP**.

In relative terms, the map and graph below (Figure 25 and Figure 26) display the State aid expenditure for agriculture, forestry, and rural areas by Member State. In 2023, Poland was the Member State that has spent the most on measures addressing the agriculture sector, namely 0.17% of national GDP. It is followed by Czechia (0.14%), Hungary (0.12%), Bulgaria and Latvia, both with around 0.10% of their own 2023 GDP.

Figure 25: State aid expenditure in agriculture, forestry, and rural areas by Member State, as % of national GDP in 2023

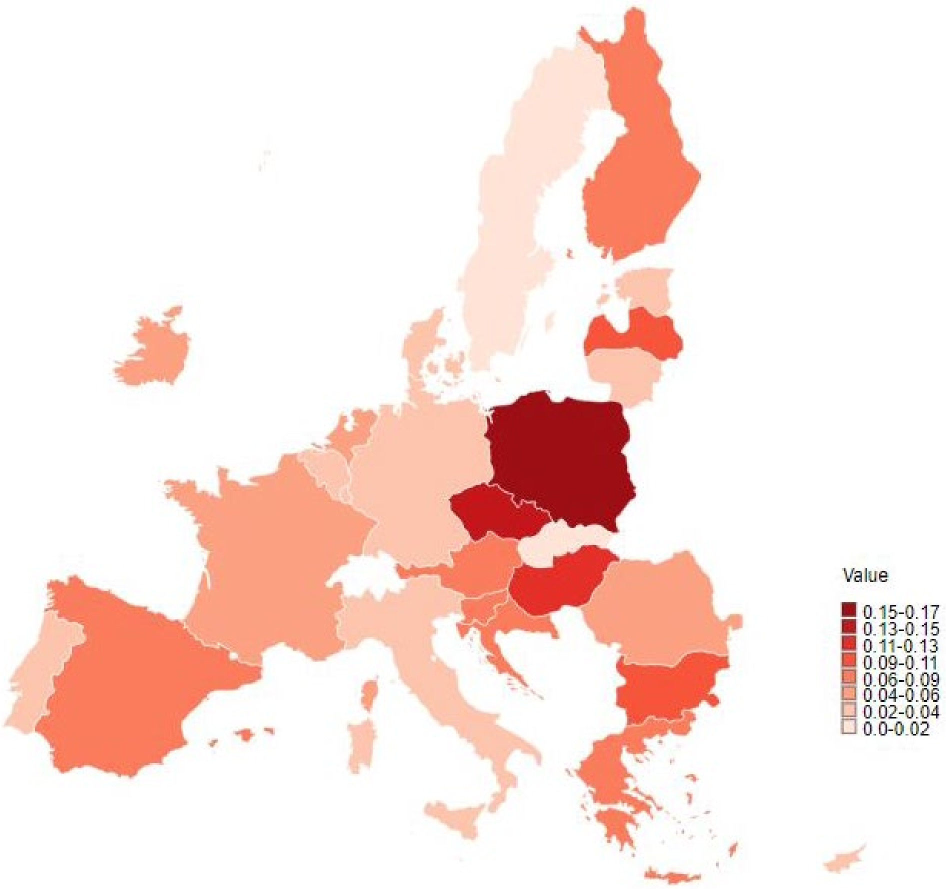


Figure 26: State aid expenditure in agriculture, forestry, and rural areas by Member State, as % of national GDP in 2023

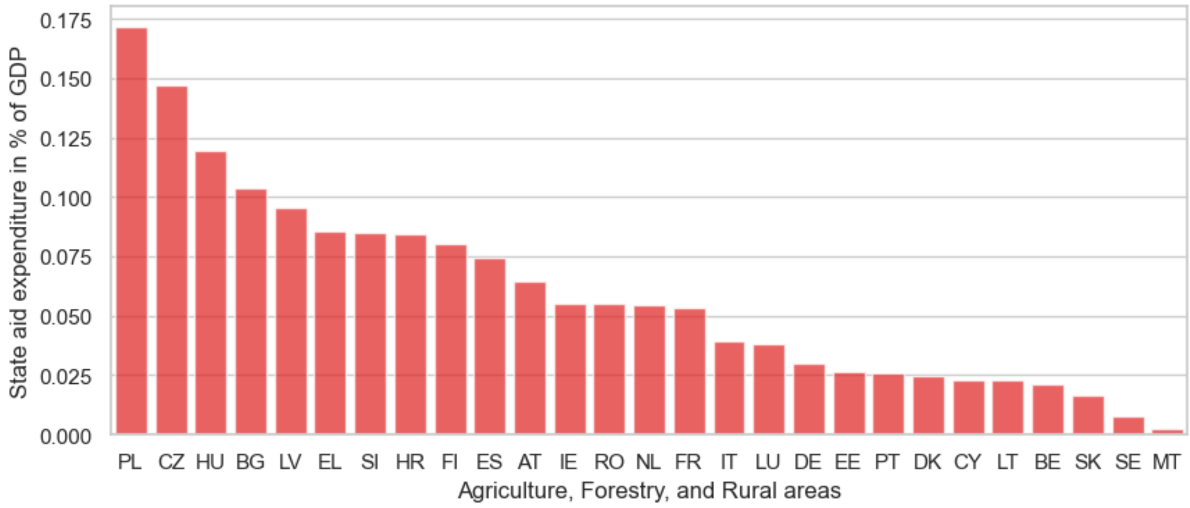


Figure 27 displays the overall State aid expenditure for agriculture, forestry, and rural areas, by type of aid instrument over the period 2013-2023, in constant prices. As shown in the figure, State aid to agriculture, forestry, and rural areas has almost halved in the period 2013-2016, from EUR 10.01 billion in 2013 to EUR 6.22 billion in 2016. After 2016, expenditure increased at a slow pace, reaching EUR 6.96 billion in 2020. In 2021, the expenditure increased by 23% (+EUR 1.57 billion) compared to the previous year, the largest increase observed in the last ten years. In 2022, non-crisis aids to agriculture, forestry, and rural areas decreased by around 4% to EUR 8.23 billion, and it increased again in 2023 by 9%. Concerning the instruments, the **most widely used aid tool** in State aid expenditure in the agricultural sector in 2023 is **direct grants and interest rate subsidies** (EUR 7.68 billion), followed by subsidised services (EUR 0.83 billion) and tax advantage measures (EUR 0.37 billion). Tax advantage measures have lost relevance over the last decade in the agricultural sector. Compared to 2013, this instrument has decreased more than seven-fold.

Figure 27: Total non-crisis State aid to agriculture, forestry, and rural areas by aid instrument (in EUR million), 2013 – 2023, constant prices

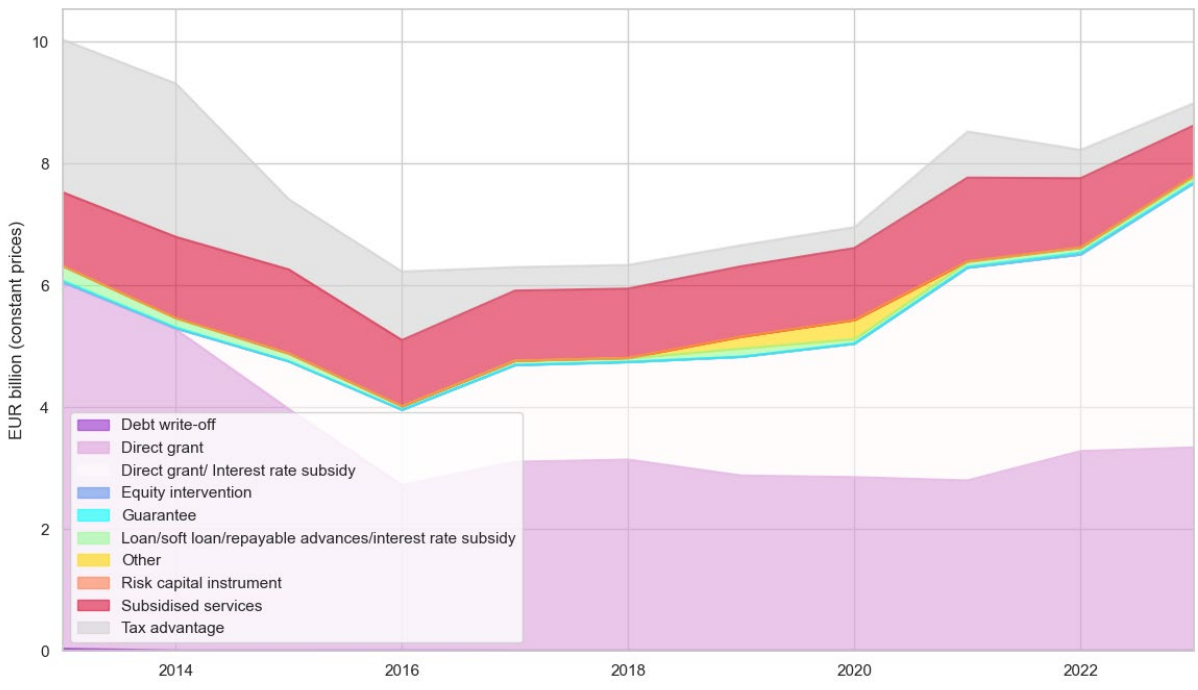
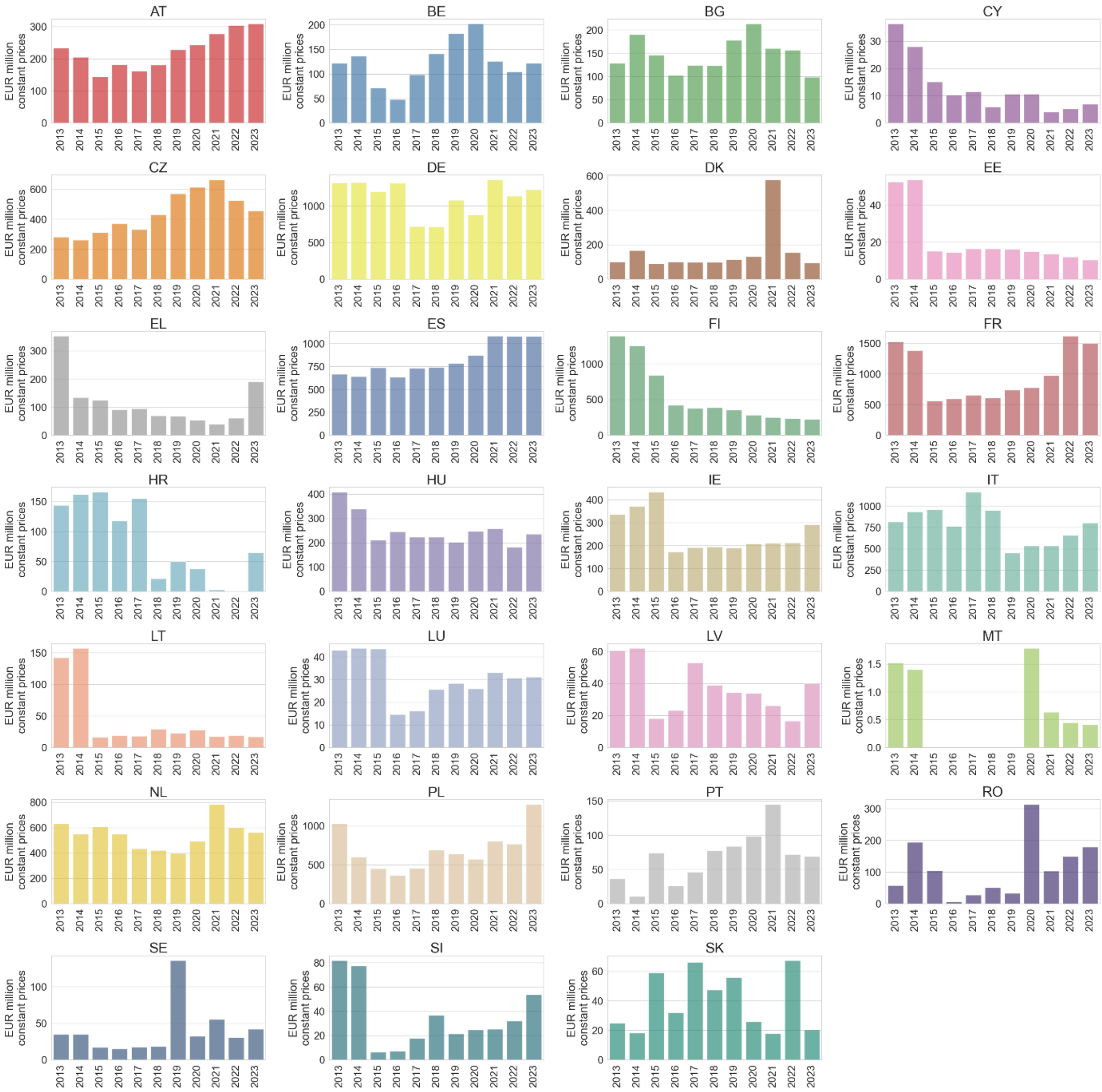


Figure 28: Total subsidies to agriculture, forestry and rural areas, EU27 Member States (in EUR million), 2013 – 2023, constant prices



Regarding **Member States' State aid expenditure in the agricultural sector** (Figure 28): in absolute values, the **largest spender** in the agricultural sector in **2023** was **France** with EUR 1.50 billion, followed by **Poland** (EUR 1.28 billion), **Germany** (EUR 1.22 billion), **Spain,** (EUR 1.08 billion) **and Italy** (EUR 805 million). The **biggest expenditure growth** in comparison to 2022 can be observed for **Croatia**, which reported a more than a fourteen-fold increase in its State aid to agriculture expenditure after adjusting for inflation, from EUR 442 thousand to EUR 64.6 million. Greece and Latvia have more than doubled their expenditure, while Slovenia and Poland have significantly increased it, although to a much lower extent (around +67% and +66% increase respectively). Slovakia experienced a -70% State aid expenditure reduction since 2022. Denmark and Bulgaria experienced a -40% and -37% reduction, respectively, while Estonia experienced a -15% reduction.

Member States' State aid expenditure in the **fishery and aquaculture sector** amounted to **EUR 589.74 million** in 2023 (Figure 29), a 191% increase compared to the previous year (EUR 202.73 million in 2022 in constant prices). This consistent increase is mainly due to the implementation of measures related to the Brexit Adjustment Reserve (BAR). The biggest spender,

Denmark accounted for approximately 26% of the total expenditure in 2023 and showed the largest increase from EUR 1.86 million to EUR 154.73 million.

Figure 29: Total State aid to fisheries and aquaculture by year for EU27 Member States (in EUR million), 2013-2023, in constant prices

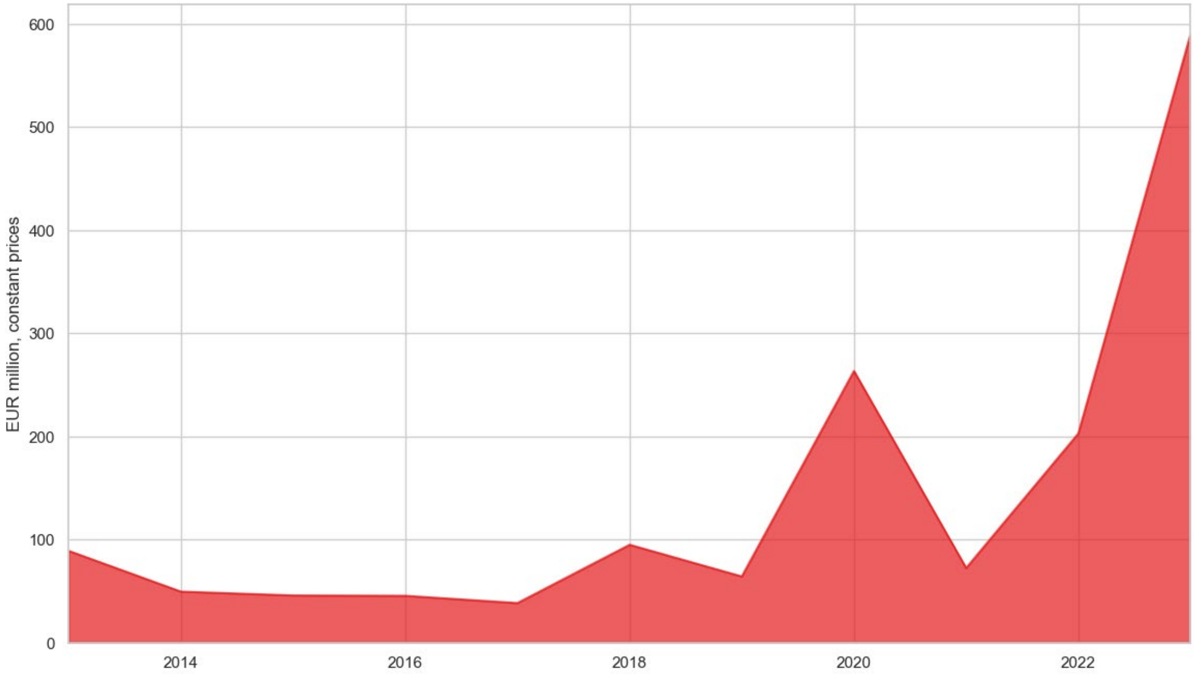
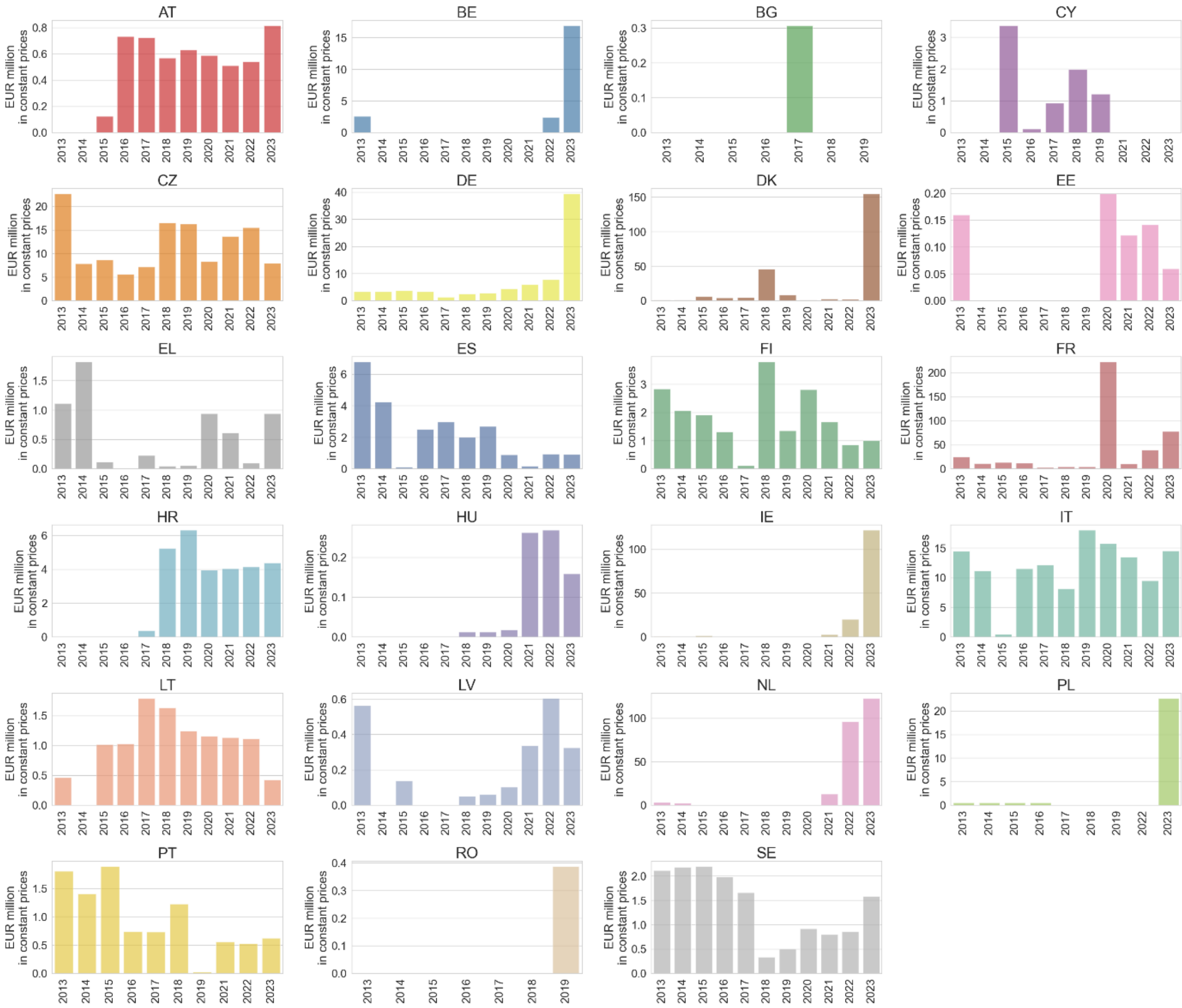


Figure 30 shows the evolution of the fishery and aquaculture sector spending over the last decade by Member State. Bulgaria, Cyprus, and Romania did not report any expenditure for 2023. Luxembourg, Malta, Slovenia, and Slovakia did not report any expenditure for fisheries over the last decade.

Figure 30: Total State aid to fisheries and aquaculture by year for EU27 Member States (in EUR million), 2013-2023, constant prices



N.B. The Member States who did not reporte any State aid expenditure to fisheries and aquaculture over the 2013-2023 period are excluded from this figure: Luxembourg, Malta, Slovenia, and Slovakia.

4.6 Compensation and aid granted to the rail sector

Subsidies to railways are excluded from total State aid amount in the Scoreboard, as they fall under Article 93 TFEU and corresponding regulations. This section reports figures regarding compensation and aid granted to the rail sector, as reported by Member States in accordance with Articles 5 to 7 of Commission Regulation (EC) No 794/2004[46], as amended by Commission Regulation (EU) 2015/2282[47], Regulation 1370/2007[48] of the European Parliament and of the

[46] Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty (OJ L 140, 10.4.2004, p. 1).
[47] Commission Regulation (EU) 2015/2282 of 27 November 2015 amending Regulation (EC) No 794/2004 as regards the notification forms and information sheets (OJ L 325,10.12.2015, p.1-180).
[48] Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road (OJ L 315, 3.12.2007, p. 1–13).

Council and Commission Directive 2006/111/EC[49]. These figures also include the amounts provided to the rail sector during the COVID-19 crisis.

Figure 31: Total subsidies to the railway sector, 2013 – 2023, in EUR billion current prices

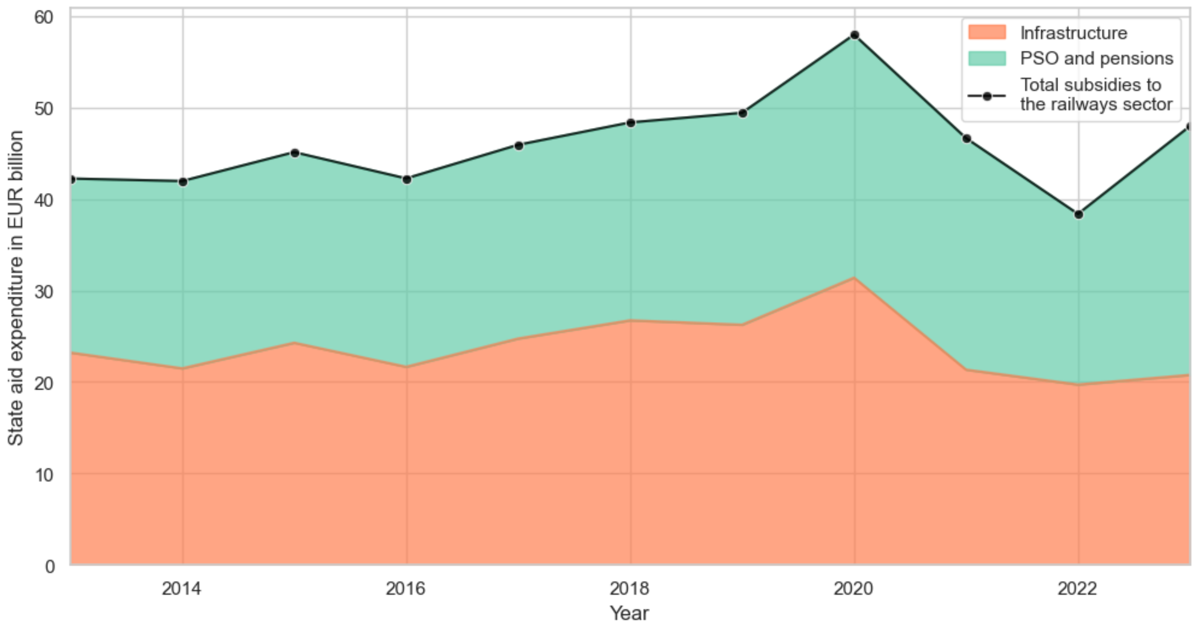


Figure 31 shows the evolution of the overall expenditure across the EU from 2013 to 2023 in absolute values. **The trend of subsidies to the rail sector shows a slight increase since 2016, with a steep increase in 2020 of +17.3% in nominal values** when the need to compensate providers of rail services for the damage suffered due to the COVID-19 outbreak and the ensuing containment measures was more acute. **Total rail sector subsidies declined significantly in 2021 (-19.8% compared to the previous year), followed by another steep reduction in 2022 (-17.5%)** that brought the total compensation and aid granted to the **rail sector** to **EUR 38.38 billion,** from EUR 46.53 billion in 2021. The observed decrease in 2021 corresponds to a time when containment measures on transport by rail were generally less tight and then in 2022, removed. In contrast to this tendency, **in 2023 we observe a very steep increase in the total aid granted to the rail sector (+25% compared to previous year)**, that brought the total amount of subsidies to **EUR 47.98 billion,** a value even higher than the one in 2021.

Figures are broken down into public passenger rail transport services (PSO) under Regulation 1370/2007 (green area) and infrastructure and other aid (orange area). While infrastructure and other aid represented slightly more than half of all subsidies to railways until 2020 (53.5% on average), in 2021 we observe an increase of the public passenger rail transport services (PSO) and pensions, with this category accounting for 54.2% of the total rail subsidies while aid to infrastructure and other aid decreased to 45.8%. In 2022, infrastructure and other aid represented again the majority of the aid expenditure with around 51.4% of the expenditure. However, the pattern reversed again in 2023, when the public passenger rail transport services (PSO) category accounted for 56.7% of the total rail subsidies, compared to the all-time low value equal to 43.3% for aid to infrastructure and other aid.

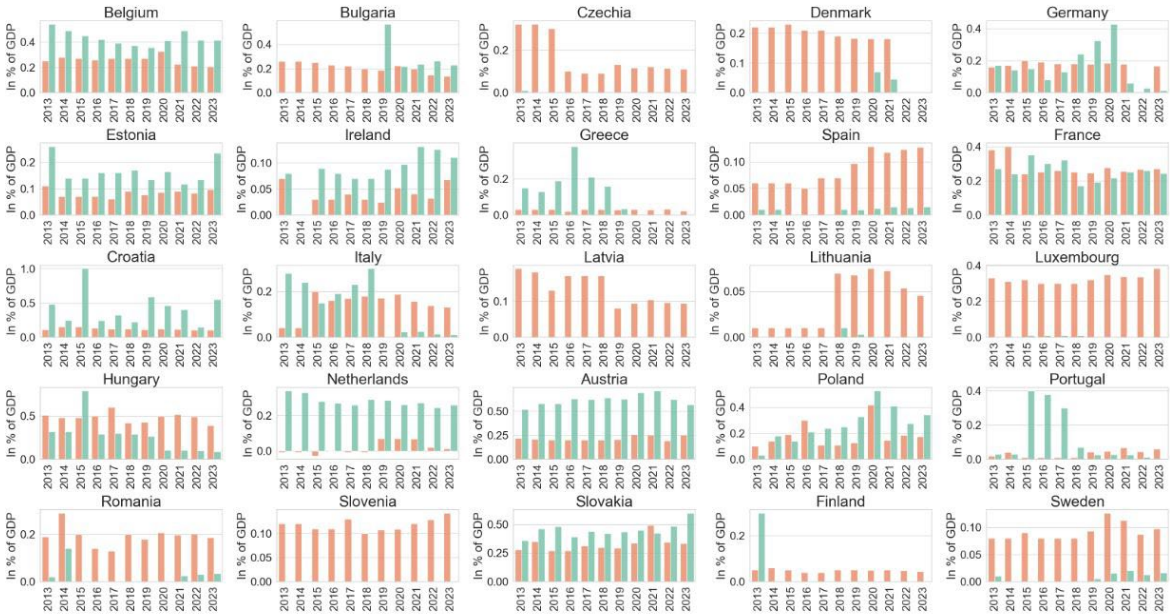
Looking at the distribution of rail sector subsidies as a share of national GDP across Member States (Figure 32),Slovakia, Austria, Croatia, Belgium and Poland are the Member States spending relatively most in 2023, followed by France, Hungary, Luxembourg, Bulgaria, and Estonia which

[49] Commission Directive 2006/111/EC of 16 November 2006 on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings (OJ L 318, 17.11.2006, p. 17–25).

have spent above the EU 27 average (0.28% of EU27 GDP). Greece is the Member State that spent relatively least. Denmark, Cyprus, and Malta have no reported expenditures.

Several Member States may not report spending on infrastructure and other aid, considering that the measures at stake do not constitute aid in case they benefit all operators of the railways network.

Figure 32: Total subsidies to the railway sector by Member State, 2013 – 2023, as % of national GDP



4.7 State aid to financial institutions

This section presents State aid to financial institutions from 2014 to 2023, categorised by aid instrument. The amounts of aid that the Commission authorised based on notifications by the Member States ("State aid approved") and the amounts of aid disbursed by the Member States ("State aid used") are summarised in Table 1.

Since the COVID-19 outbreak, the war of aggression against Ukraine, and the consequent adoption by the Commission of the corresponding Temporary Frameworks for State aid measures, Member States have targeted their State aid at undertakings that could not cover their liquidity needs due to the pandemic or due to economic effects of the war of aggression against Ukraine. The banking sector has indirectly benefitted from this support to the real economy, showing increased resilience so far. This is evident in the declining amounts of aid to the financial sector from 2020 to 2023 compared to previous years.

The level of State aid approved in the form of capital or capital-like instruments in 2023 has remained constant since 2021, mainly due to measures in Poland, and more concretely to the successive prolongations of a resolution scheme. Regarding approved liquidity aid, new aid in the form of guarantees was approved in 2023, after getting to zero in 2022. This results from the reintroduction of a Greek scheme and an amendment to the Polish bank resolution scheme launched in 2022, however, the total amount of guarantees approved remains at very low levels compared to the period before 2021. Liquidity support under the COVID-19 Temporary Framework and the TCTF is not reflected here, as the financial sector was excluded from these temporary State aid regimes.

The amount of State aid used by banks in 2023 has continued to decline compared to the previous years due to the reduction of guaranteed instruments and recapitalisation measures.

Table 1 State aid to financial institutions 2013-2023

Total amounts of State aid to banks approved and used in the EU over the period 2013-2023

Aid approved (EUR billion)										
Aid instrument	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1. Recapitalisations	20.3	18.8	8.5	25.7	9.2	8.6	8.7	11.6	13.1	11.2
2. Impaired asset measures	3.5	1.0	0.0	0.0	3.5	0.0	0.3	0.0	0.0	1.4
Total of capital-like aid instruments (1+2)	23.9	19.8	8.5	25.7	12.7	8.6	9.0	11.6	13.1	12.5
3. Guarantees	38.7	165.4	310.7	328.5	153.3	176.0	49.0	30.0	0.0	3.3
4. Other liquidity measures	1.7	0.0	0.0	14.2	0.0	0.0	0.0	0.0	2.4	0.0
Total of liquidity aid instruments (3+4)	40.4	165.4	310.7	342.7	153.3	176.0	49.0	30.0	2.4	3.3

Aid used (EUR billion)										
Aid instrument	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1. Recapitalisations	7,6	10,1	0,1	11,3	0,2	0,1	0,1	0,3	1,5	0,3
2. Impaired asset measures*	1,6	2,3	2,8	0,0	3,6	0,0	0,0	0,0	0,0	0,0
Total of capital-like aid instruments (1+2)	9,2	12,4	2,9	11,3	3,8	0,1	0,1	0,4	1,5	0,3
3. Guarantees**	268,9	169,0	118,2	107,4	87,8	85,3	63,0	54,5	45,1	38,3
4. Other liquidity measures***	37,5	22,0	12,4	10,9	6,7	4,4	4,2	3,8	3,8	1,0
Total of liquidity aid instruments (3+4)	306,4	191,1	130,6	118,3	94,5	89,7	67,3	58,3	48,9	39,2

* Bad banks initial assets transfers value

** Annual average outstanding amount of debt issued with State guarantee

*** Outstanding loans at end of year

***Disclaimer**: The information on aid used might be subject to future revisions depending on new information that the Member States may make available.*

***Source:** Commission services. For guarantees and other liquidity measures, the amounts represent outstanding aid in a given year (in nominal amount) and not only the new liquidity aid granted in that year.*

4.8 State aid in the United Kingdom

Figure 33 illustrates the trend in State aid expenditure in the United Kingdom over the last decade at current prices. The grey bar represents the amount of State aid spent for all kinds of policy objectives until 2020, the yellow bar represents the expenditure related to COVID-19 cases and the red bar the total expenditure for the types of measures that have to be reported to the Commission as of 1 January 2021, when the withdrawal agreement became fully operational. This concerns expenditure under measures:

i) affecting trade between Northern Ireland and the EU[50], and

ii) schemes involving EU funds[51].

The State aid expenditure in the United Kingdom, reached a peak in 2020 of EUR 18.89 billion (in current prices), when the United Kingdom disbursed also EUR 39.46 billion to remedy the serious disturbance in the economy provoked by the COVID-19 outbreak, leading to a total expenditure of EUR 58.35 billion.

The expenditures reported for the year 2021, 2022, and 2023 concern 66 not co-financed measures, of which 19 also relate to Northern Ireland, as well as 54 active measures where EU funds are involved, of which 13 also relate to Northern Ireland. Total expenditures amount to EUR 2.8 billion in 2021, followed by a decline in subsequent years, decreasing to EUR 354.3 million in 2022 and EUR 348.7 million in 2023. Of these amounts, EUR 352.9 million, EUR 116.4 million, and EUR 117.9 million was spent on co-financed projects in 2021, 2022 and 2023, respectively. (Figure 34)

[50] See Article 10 and Annex 5 of Protocol (No 15) On Certain Provisions Relating to The United Kingdom of Great Britain and Northern Ireland (OJ C 202, 7.6.2016, p. 284–286).
[51] See Article 138 of Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (OJ C 384I, 12.11.2019, p. 1–177).

Figure 33: Evolution of State aid expenditure reported by the UK from 2013 to 2023, in EUR billion, in current prices

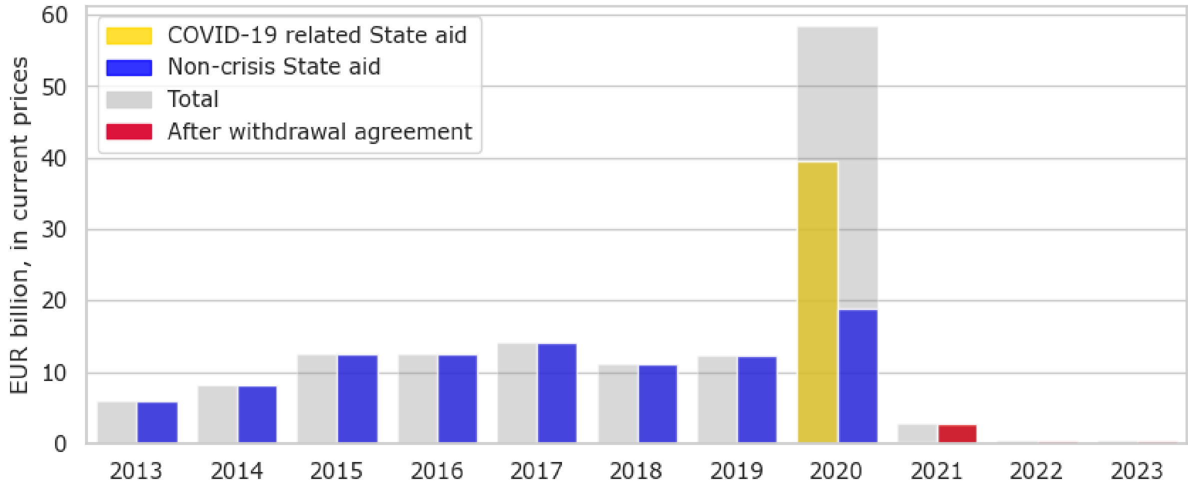
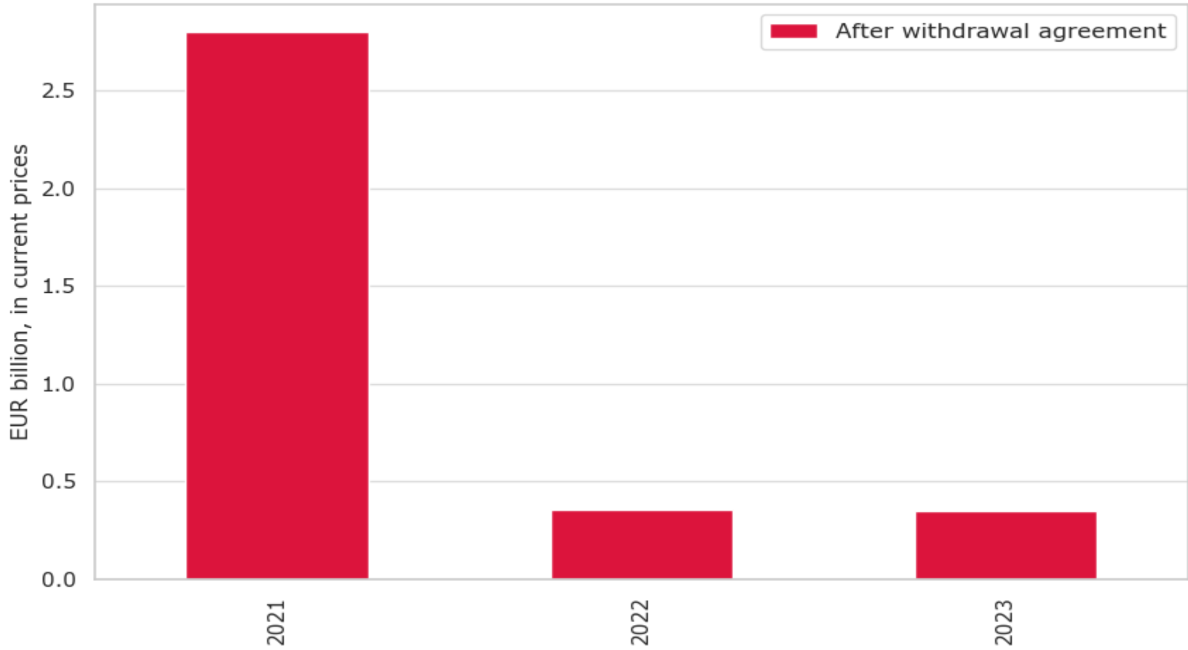


Figure 34: Evolution of State aid expenditure reported by the UK from 2021 to 2023, in EUR billion, in current prices



5 State aid measures supporting the economy in mitigating the impact of Russia's war of aggression against Ukraine and to foster the transition to a net zero economy

5.1 Overview

This section compares the **nominal amounts**[52] of aid spent to help mitigate the impact of Russia's war of aggression against Ukraine and to foster the transition to a net zero economy with the corresponding **aid elements**. These measures have been approved either directly under the TCTF or based on its principles.

In absolute terms, looking at the **nominal amounts** of the TCTF-related State aid measures provided to undertakings **in 2023** (Figure 35), **EU27 Member States provided EUR 85.25 billion**. Of those, Italy spent around 45% (EUR 38.32 billion), followed by Germany with 16% (EUR 13.91 billion), and Spain (10%, EUR 8.37 billion). Poland spent 8% of the TCTF-related State aid when considering the nominal amounts (EUR 6.58 billion), Hungary 7% (EUR 5.85 billion) and Romania 3% (EUR 2.66 billion).

In 2022, EU27 Member States had provided **EUR 78.83 billion in nominal amounts** (in constant prices). In 2022, Germany was the largest spender in terms of nominal amounts, having spent around 54% of the total (EUR 42.38 billion), followed by Italy, with around 15% of the total nominal amounts (EUR 12.13 billion), Spain with 11% (EUR 9.04 billion), Czechia spent 6% of the TCTF-related State aid when considering the nominal amounts (EUR 4.48 billion), Romania and Poland the 3% (EUR 2.54 billion and EUR 2.27 billion, respectively).

Thus, **since the adoption of the Temporary Crisis Framework in March 2022 by the end of 2023**, considering nominal amounts, **EU27 Member States provided a total of EUR 164.08 billion** (in constant prices). Overall, Germany was the Member State providing the most in terms of nominal amounts of the aid (EUR 56.30 billion, in 2023 prices), followed by Italy (EUR 50.45 billion) and Spain (EUR 17.40 billion).

In relative terms and considering the nominal values of the aid (Figure 36), in 2023 Hungary was the Member State that has provided to the economy the most as compared to its own GDP (2.97%), followed by Italy (1.80%), Poland (0.88%), Croatia (0.83%), Romania (0.82%) and Spain (0.56%). Germany provided a much lower relative amount of TCTF-related nominal aid, corresponding to around 0.33% of its national 2023 GDP. Overall, in 2023 the expenditure for TCTF measures, considering the nominal amounts of the aid, represented 0.50% of the EU27 GDP.

In 2022, considering the nominal amounts, Czechia was the Member State that provided the most relative to its 2022 GDP (1.41%), followed by Germany (1.01%), Romania (0.80%), Spain (0.62%), Italy (0.57%) and Austria (0.34%). Overall, in 2022 the expenditure for TCTF measures, considering the nominal amounts of the aid, represented 0.46% of the EU GDP.

[52] Information on the nominal amounts of the aid granted as of the end of June 2024 is available in the Competition policy briefs - European Commission.

Figure 35: Total State aid expenditure for TCTF-related measures by Member State in 2023 (nominal amounts, in EUR billion)

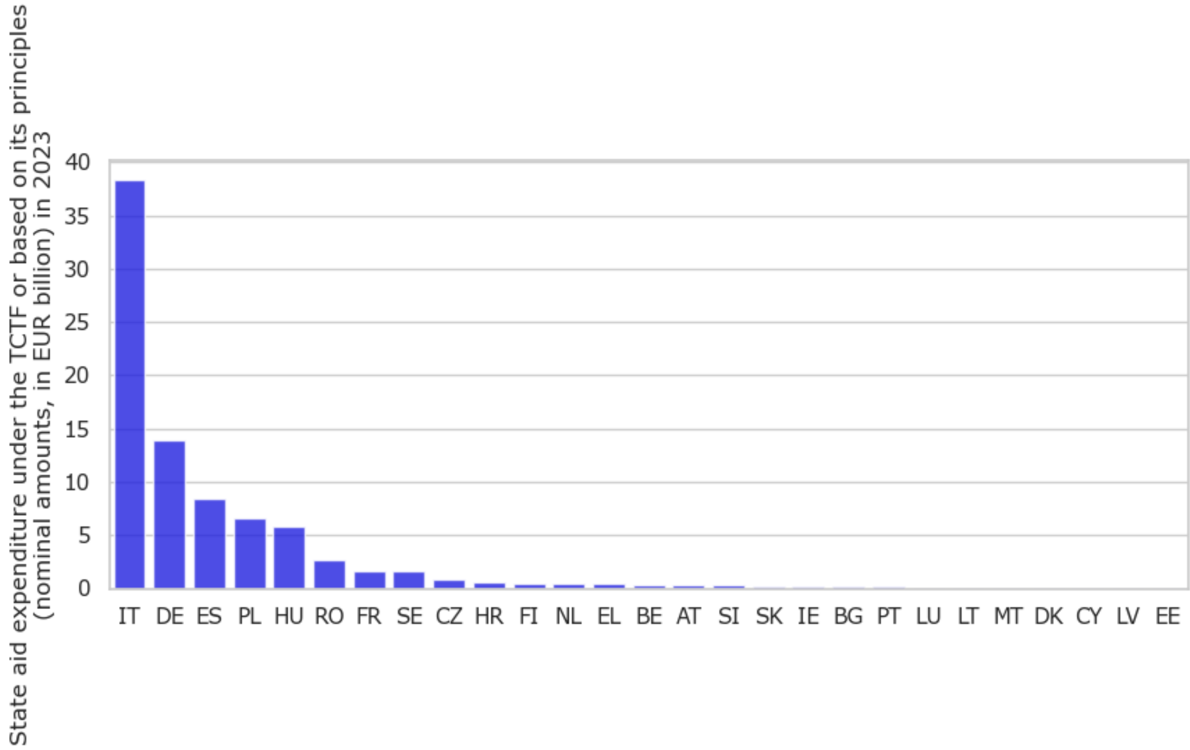


Figure 36: Total State aid expenditure for TCTF-related measures by Member State in 2023 (nominal amounts, as a percentage of national GDP)

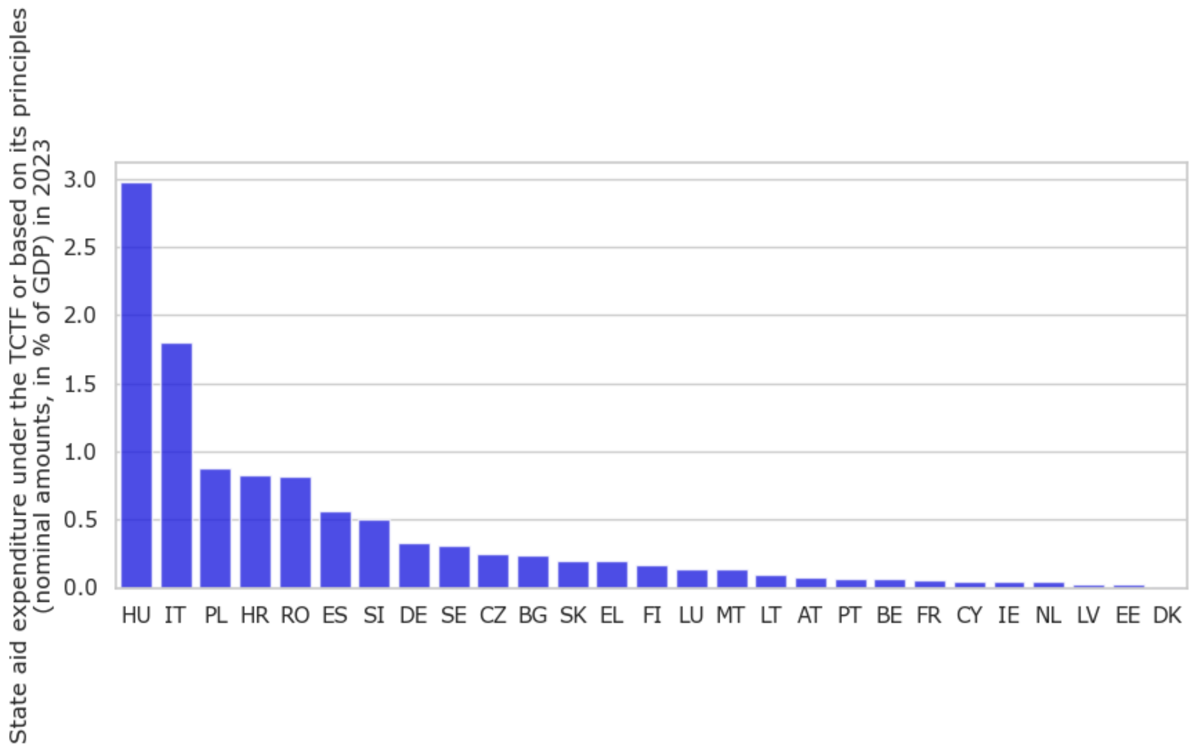
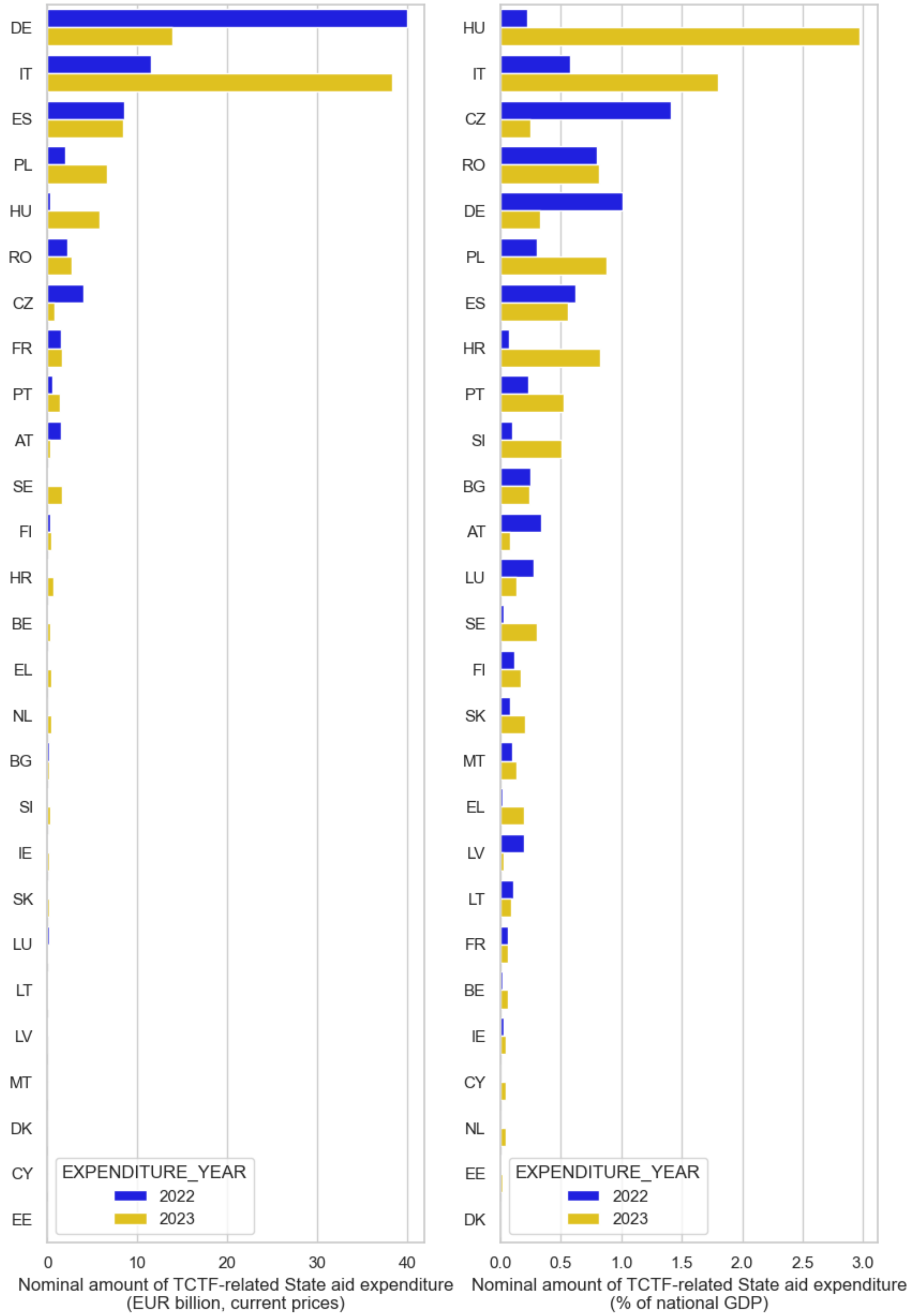


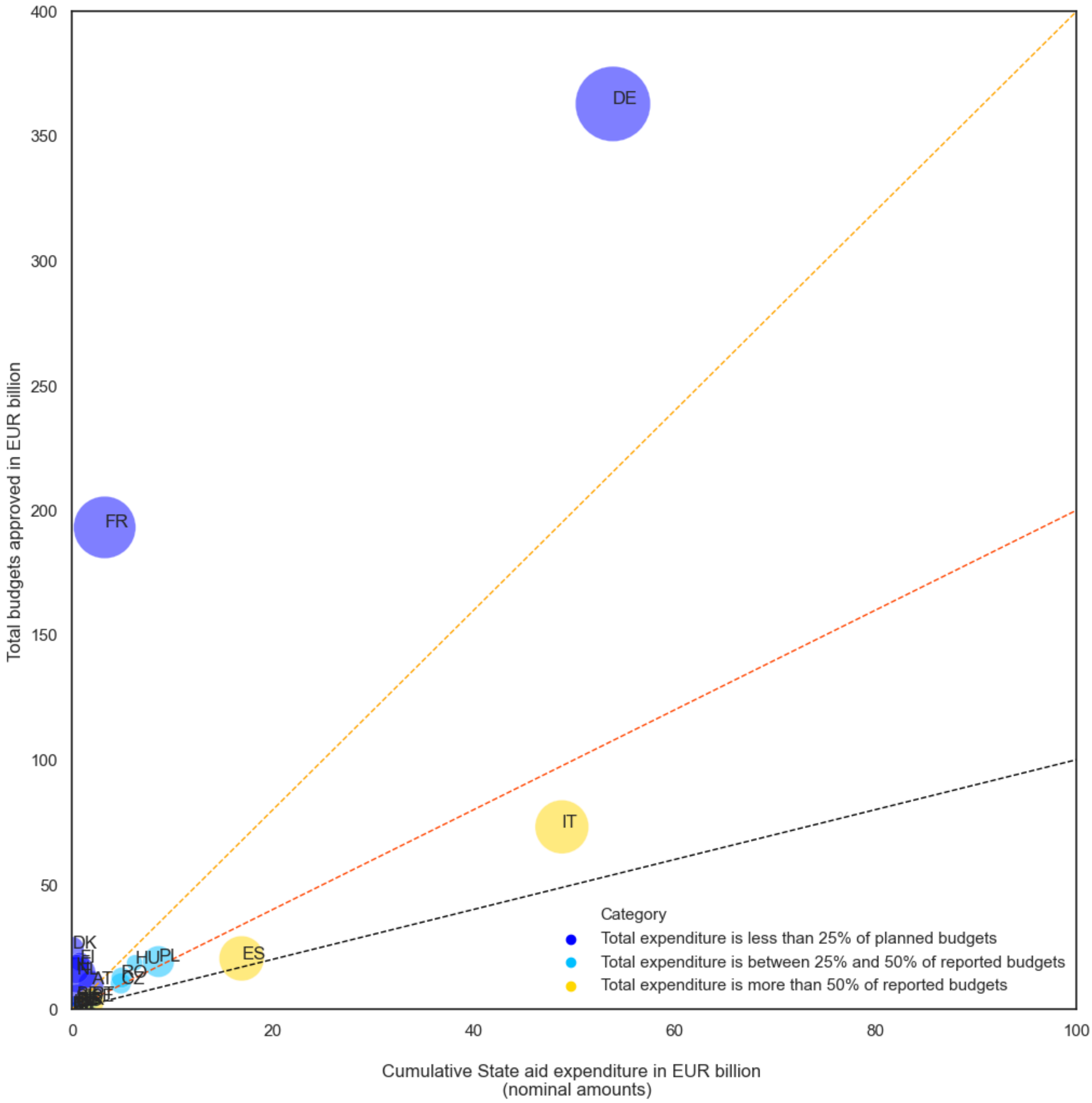
Figure 37: Total State aid expenditure for TCTF-related measures by Member State in 2022 and 2023 (nominal amounts, in absolute amounts on the left and as a percentage of GDP on the left)



In the period between the adoption of the TCTF on 23 March 2022 and December 2023, out of nearly EUR 762.40 billion in approved aid, EUR 159.09 billion in nominal amounts at current prices was actually spent, representing 21% of all the aid approved. Thus, Member States have provided to their companies with only a small percentage of the amounts approved by the Commission.

Only five Member States (Spain, Latvia, Cyprus, Italy, and Sweden) have spent more than 50% of the approved budgets. 10 Member States[53] have spent between 25% and 50% of their approved budgets. The remaining 12 Member States[54] have spent less than 25% of the budgets approved by the end of 2023.

Figure 38: Relation between cumulative State aid expenditure and the total budgets approved in by Member State (nominal amounts in EUR billion)



[53] Portugal, Czechia, Poland, Romania, Croatia, Hungary, Malta, Bulgaria, Slovenia, and Greece.

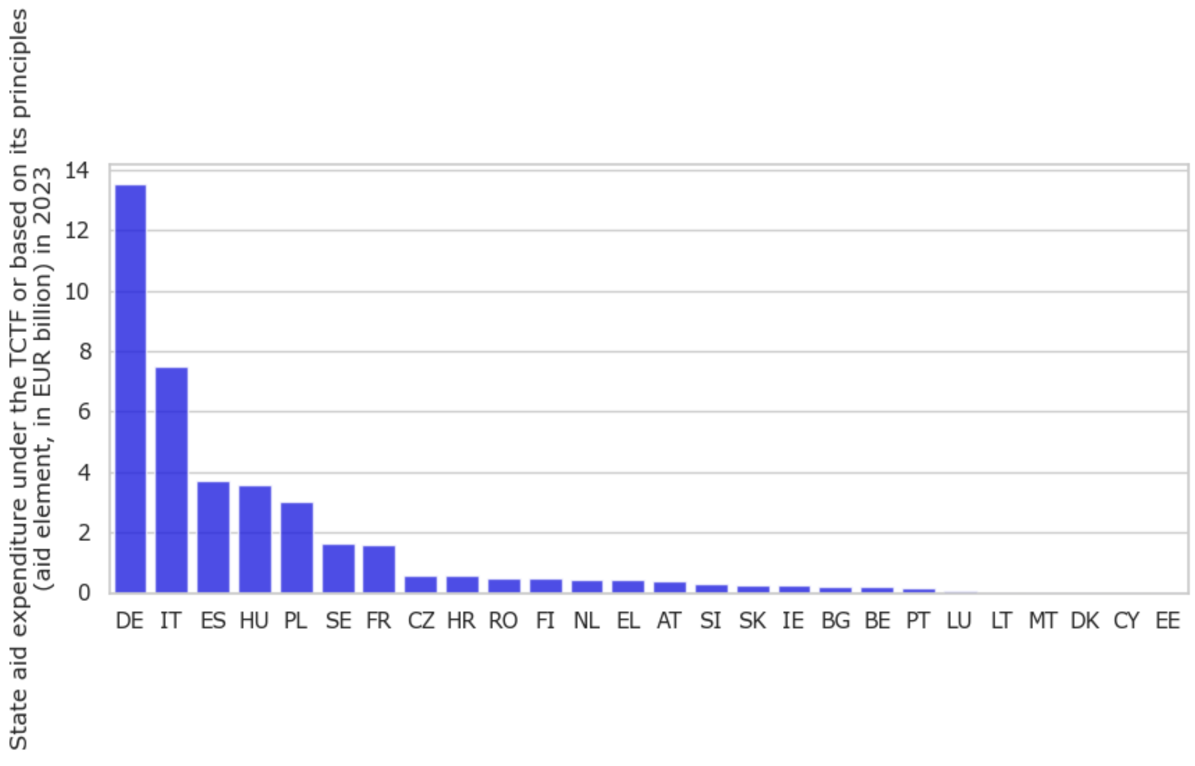
[54] Austria, Belgium, Germany, Denmark, Estonia, Finland, France, Ireland, Latvia, Luxembourg, the Netherlands, Slovakia.

When looking at the **aid element**, which is the correct metric use in order to compare the aid provided through different instruments, as is the case with the TCTF-related measures, **the aggregate aid element provided by all EU27 Member States in 2023 amounts to EUR 39.45 billion**. In absolute terms, **Germany** remains the country that has provided the most, with an amount of EUR 13.53 billion, 34% of the total expenditure for TCTF measures in 2023, slightly less than double the amount spent by **Italy,** which chose to channel a large share of TCTF-related aid through repayable instruments, thus showing a much lower amount in aid elements**,** with EUR 7.50 billion (19% of the EU expenditure for these measures). **Spain** follows, with an expenditure in 2023 of EUR 3.70 billion when considering the aid element, then **Hungary** (EUR 3.55 billion), both representing around 9% of the total, and **Poland** (EUR 3.02 billion, 8% of the total expenditure for these measures) and **Sweden** (EUR 1.65 billion, 4%).

In 2022, EU27 Member States provided **EUR 45.59 billion in aid element** (in constant prices). In 2022, Germany was also the largest spender in terms of aid element, having spent around 61% of the total (EUR 27.81 billion), followed by Spain, with around 18% of the total aid element (EUR 8.14 billion), Italy with 9% (EUR 4.04 billion). Austria spent around 4% of the amount spent when looking at aid elements, EUR 1.62 billion. Poland and Czechia spend respectively around EUR 756 million and EUR 727 million, both around 2% of the total EU expenditure for these measures in 2022.

Thus, **since the adoption of the Temporary Crisis Framework in March 2022 as of the end of 2023**, considering aid elements, **EU27 Member States provided a total of EUR 85.04 billion** (in constant prices). Overall, Germany was the Member State providing the most in terms of aid elements (EUR 41.34 billion, in 2023 prices), followed by Spain (EUR 11.84 billion) and Italy (EUR 11.54 billion).

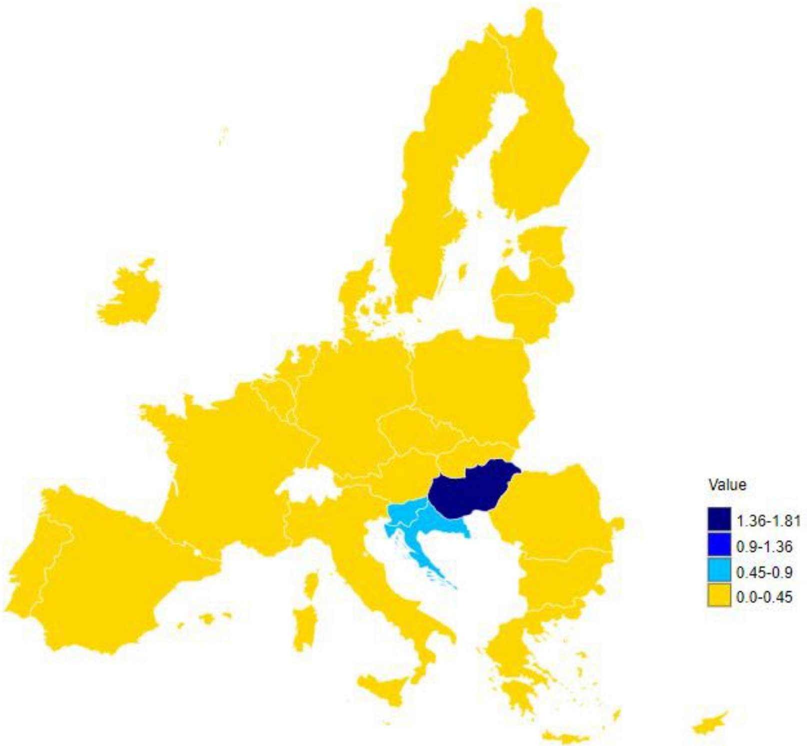
Figure 39: Total State aid expenditure for TCTF-related measures by Member State in 2023 (aid elements, in EUR billion)



In relative terms, when looking at the aid elements (Figure 40), **Hungary remained the Member State with the largest share of TCTF-related State aid expenditure relative to 2023 national GDP** (1.81%) although this amount was consistently lower than when nominal amounts were taken into account, reflecting a large use of repayable instruments, followed by Croatia (0.74%) and Slovenia (0.50%). Poland and Italy spent around 0.40% and 0.35% of their own GDP, respectively.

In 2022, considering aid elements, Germany was the Member State having provided the most compared to its 2022 GDP (0.66%), followed by Spain (0.56%), Austria (0.34%), Bulgaria and Luxembourg (0.25% of their own 2022 GDP).

Figure 40: Total State aid expenditure for TCTF-related measures by Member State in 2023 (aid elements, as a percentage of 2023 GDP), as a map (upper chart) and bar chart (below)



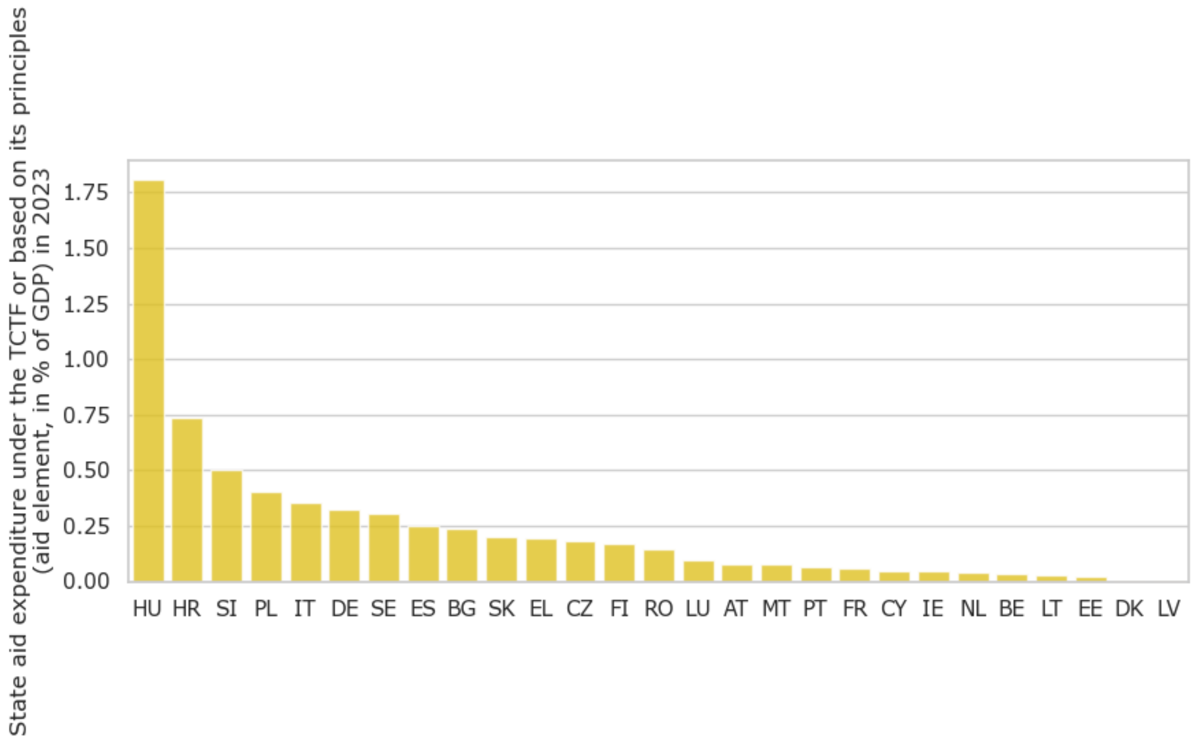
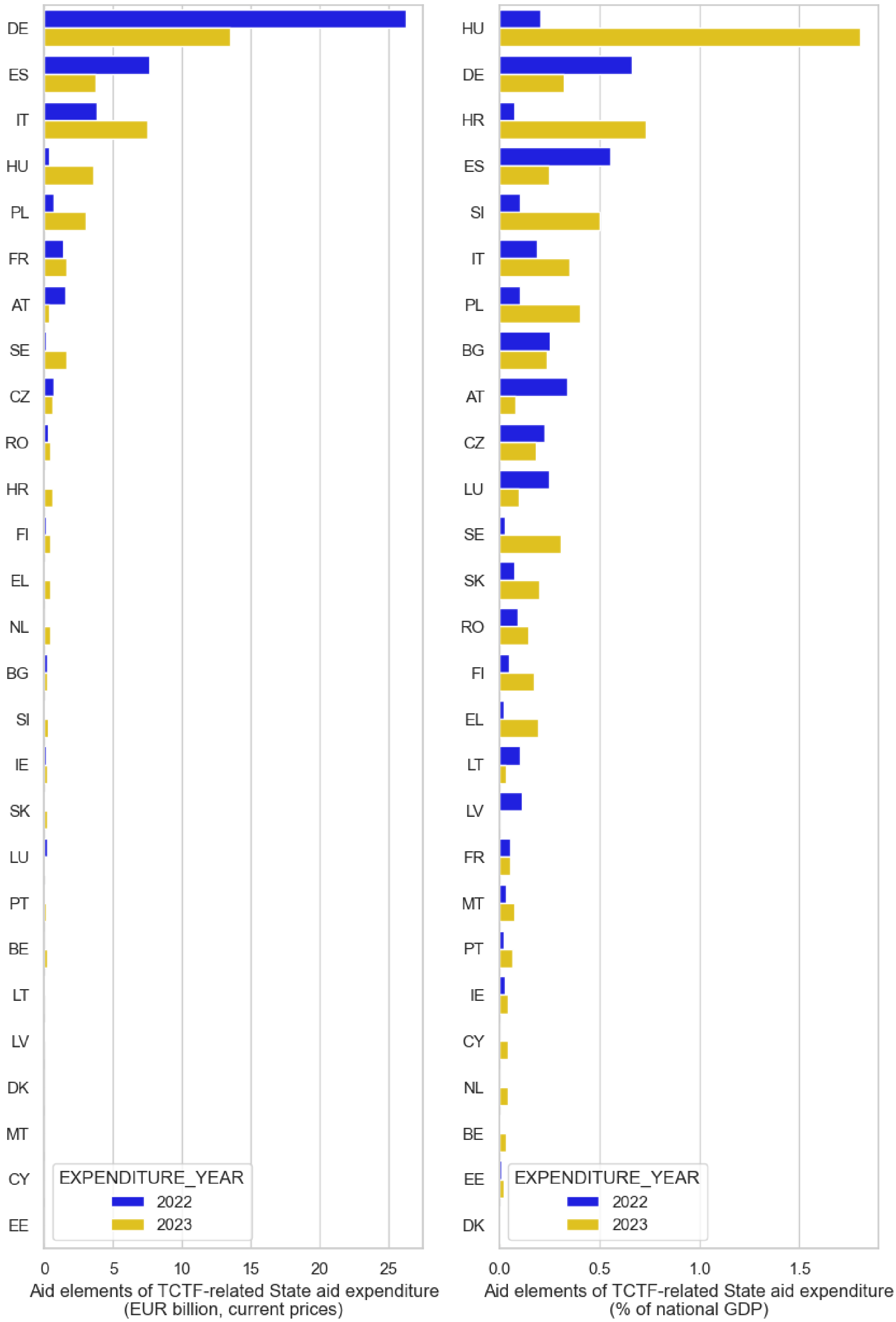
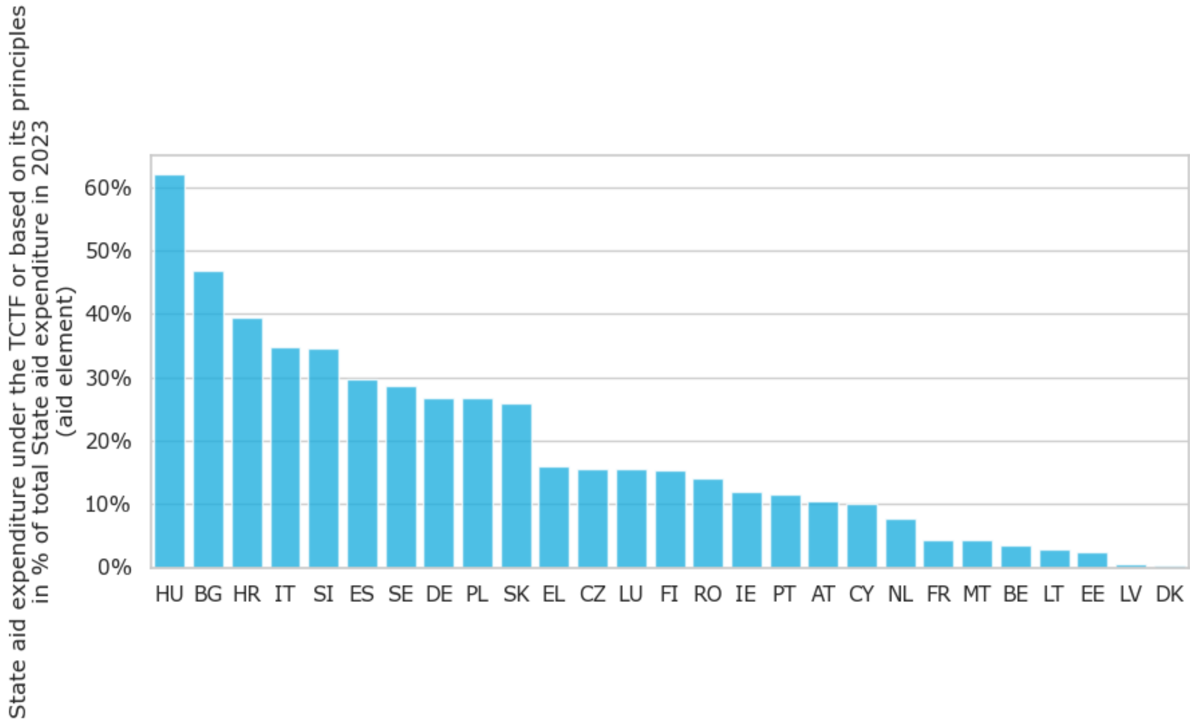


Figure 41: Total State aid expenditure for TCTF-related measures by Member State in 2022 and 2023 (aid elements, in absolute amounts on the left and as a percentage of GDP on the left)



Looking at the proportion of TCTF-related aid out of the total aid spent in 2023 in each Member State (Figure 42), Hungary provided more than 60% of its total State aid expenditure for TCTF-related measures, followed by Bulgaria, which spent more than 40% of its total yearly State aid on such measures. Croatia, Italy and Slovenia spent more one third of their total State aid expenditure for 2023 for TCTF-related measures. On the contrary, in Denmark and Latvia the expenditure for TCTF-related measures accounted for less than 0.5% of their total expenditure, and for less than 5% in Estonia, Lithuania, Belgium, Malta, and France.

Figure 42: Total State aid expenditure for TCTF-related measures, aid element, as a percentage of total State aid, by Member State in 2023



5.2 TCTF-related State aid expenditure by objective

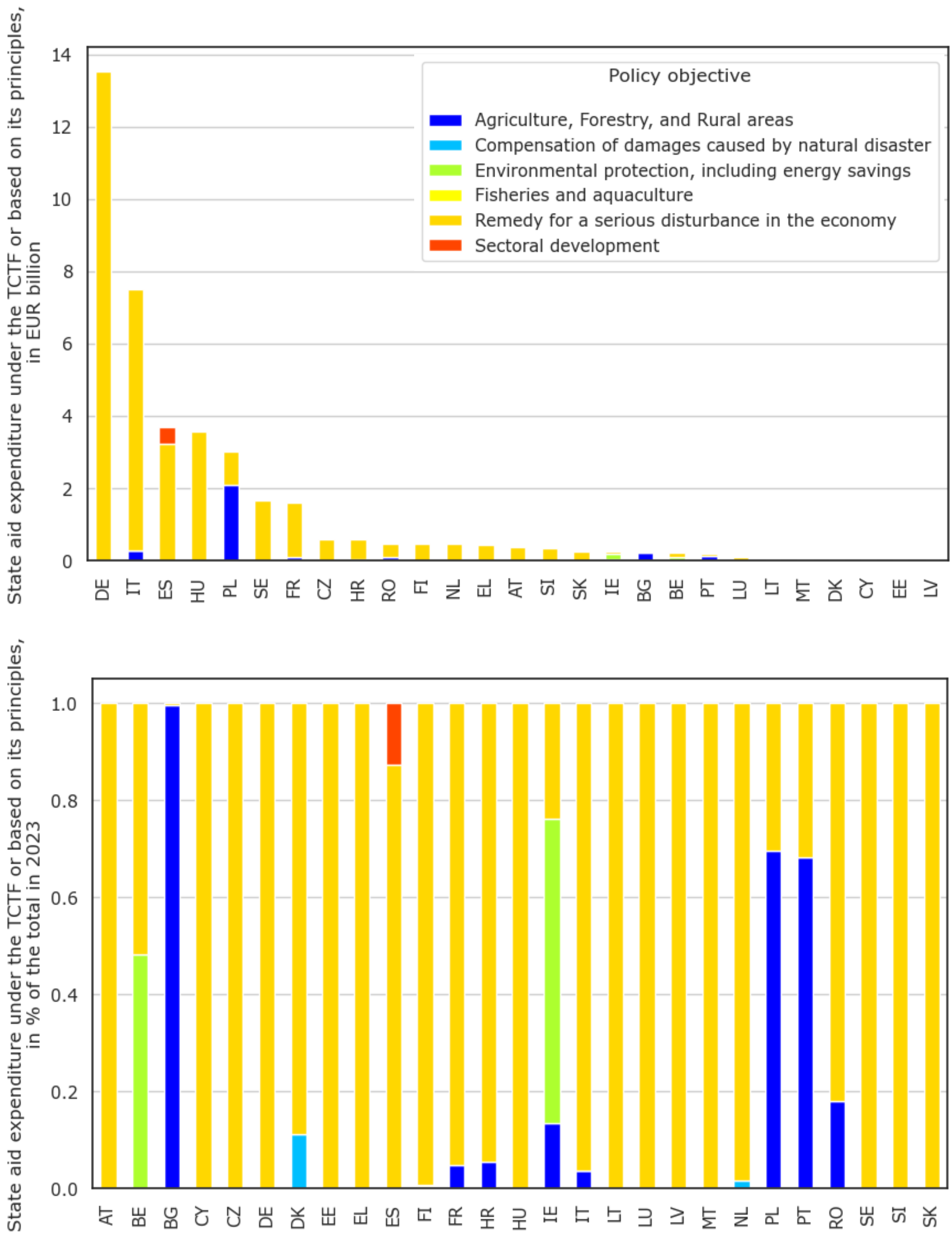
While in 2023, **remedy for a serious disturbance in the economy** accounted for around 91% of the total expenditure for crisis objectives under the TCTF or based on its principles (EUR 35.79 billion), the remaining 9% (EUR 3.67 billion) was allocated to other objectives.

Around EUR 2.94 billion was spent for **agriculture, forestry, and rural areas** and around EUR 2.43 million for **fisheries, and aquaculture.**

EUR 470.447 million was spent for **sectoral development** and EUR 248.30 million on **environmental protection, including energy savings.** Finally, EUR 9.42 million was spent as **compensation of damages caused by natural disaster.**

The breakdown by Member State in 2023 is presented in Figure 43.

Figure 43: Total State aid expenditure under the TCTF or based on its principles by Member State in 2023 by policy objective (aid elements in absolute amounts above, and as % of the total below)



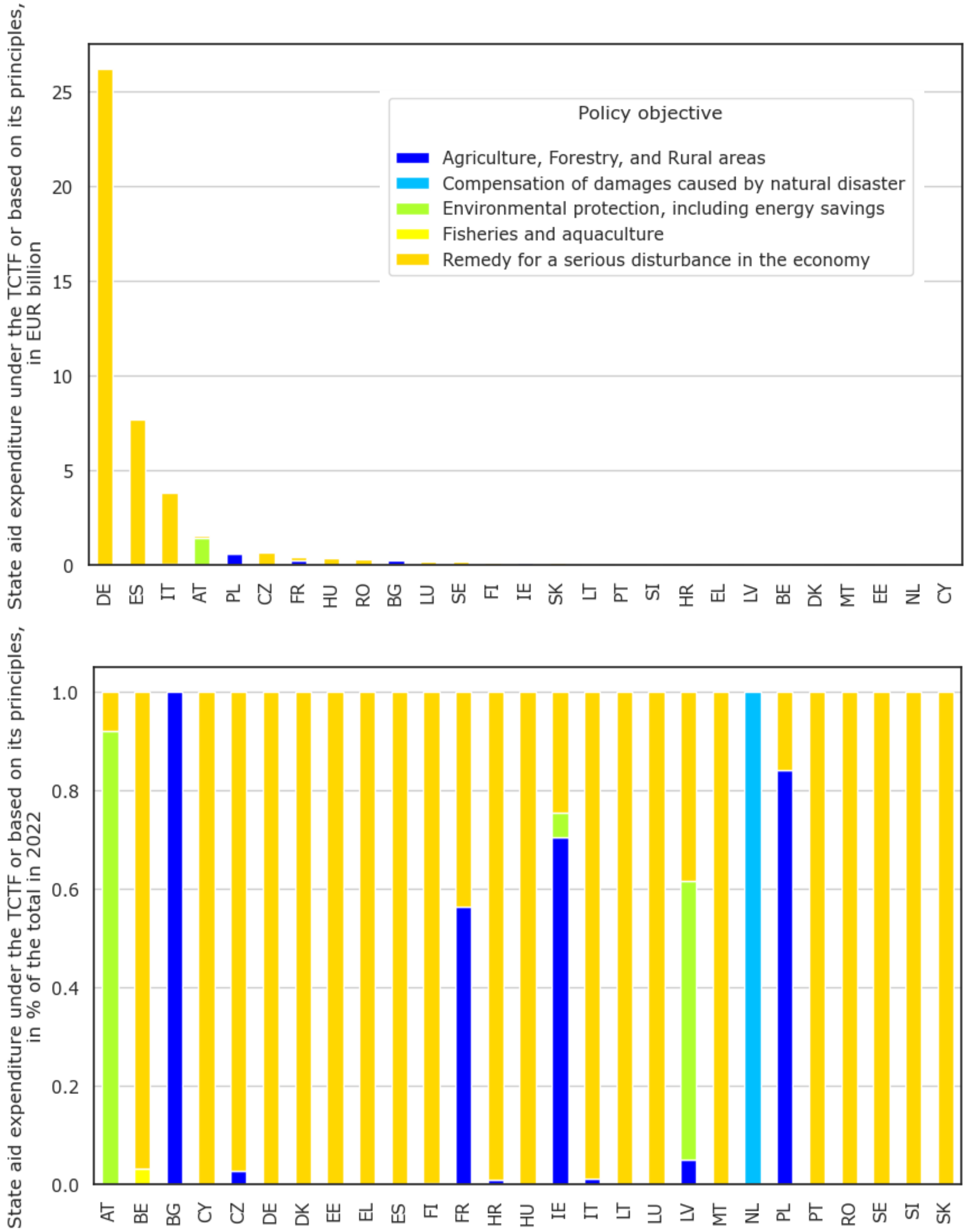
In 2022, **remedy for a serious disturbance in the economy** accounted for around 94% of the total expenditure for crisis objectives under the TCTF or based on its principles (EUR 42.77 billion), the remaining 6% (EUR 6.17 billion) was allocated to other objectives.

Around EUR 1.53 billion was spent for **environmental protection, including energy savings**, EUR 1.28 billion was spent for **agriculture, forestry, and rural areas** and around EUR 0.6 million was spent for **fisheries and aquaculture.**

Finally**,** EUR 3.75 million was spent as **compensation of damages caused by natural disasters.**

The breakdown by Member State in 2022 is presented in Figure 44.

Figure 44: Total State aid expenditure under the TCTF or based on its principles by Member State in 2022 by policy objective (aid elements in absolute amounts above, and as % of the total below)

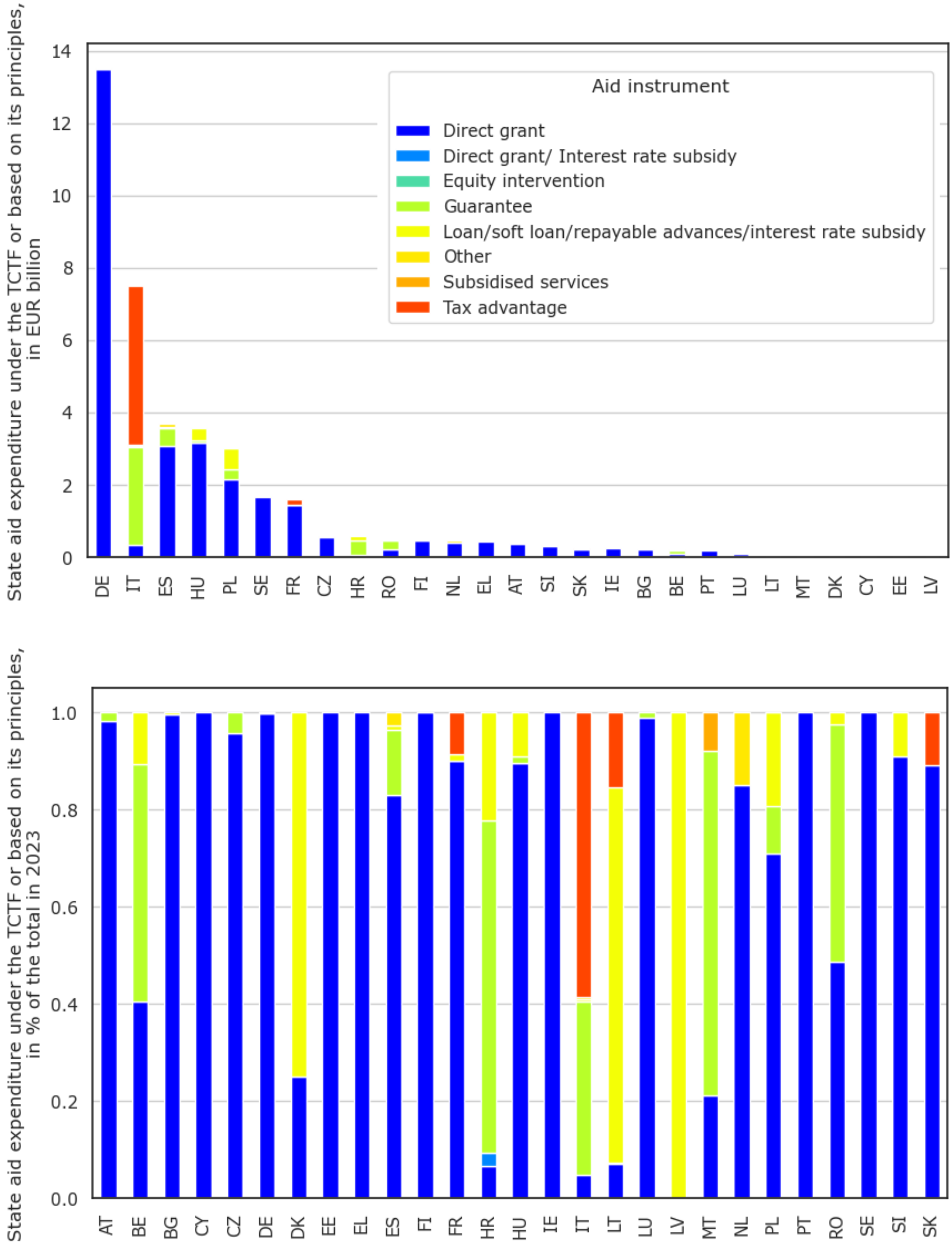


5.3 TCTF-related State aid expenditure by aid instrument

Figure 45 provides a breakdown of the total State aid expenditure for TCTF-related measures in 2023 by type of aid instrument in each Member State. Amounts refer to the aid element of each instrument. The largest spender, Germany, provided EUR 13.48 billion, corresponding to over 99% of its total spending under TCTF-related measures, in the form of direct grants. Italy provided 59% of its total aid elements for crisis aid related to the TCTF as tax advantages (EUR 4.39 billion) and

36% (EUR 2.69 billion) in the form of guarantees. Hungary provided 89% of its total TCTF-related spending (EUR 3.18 billion) in the form of direct grants, and Spain provided around 83% (EUR 3.07 billion) in the same form.

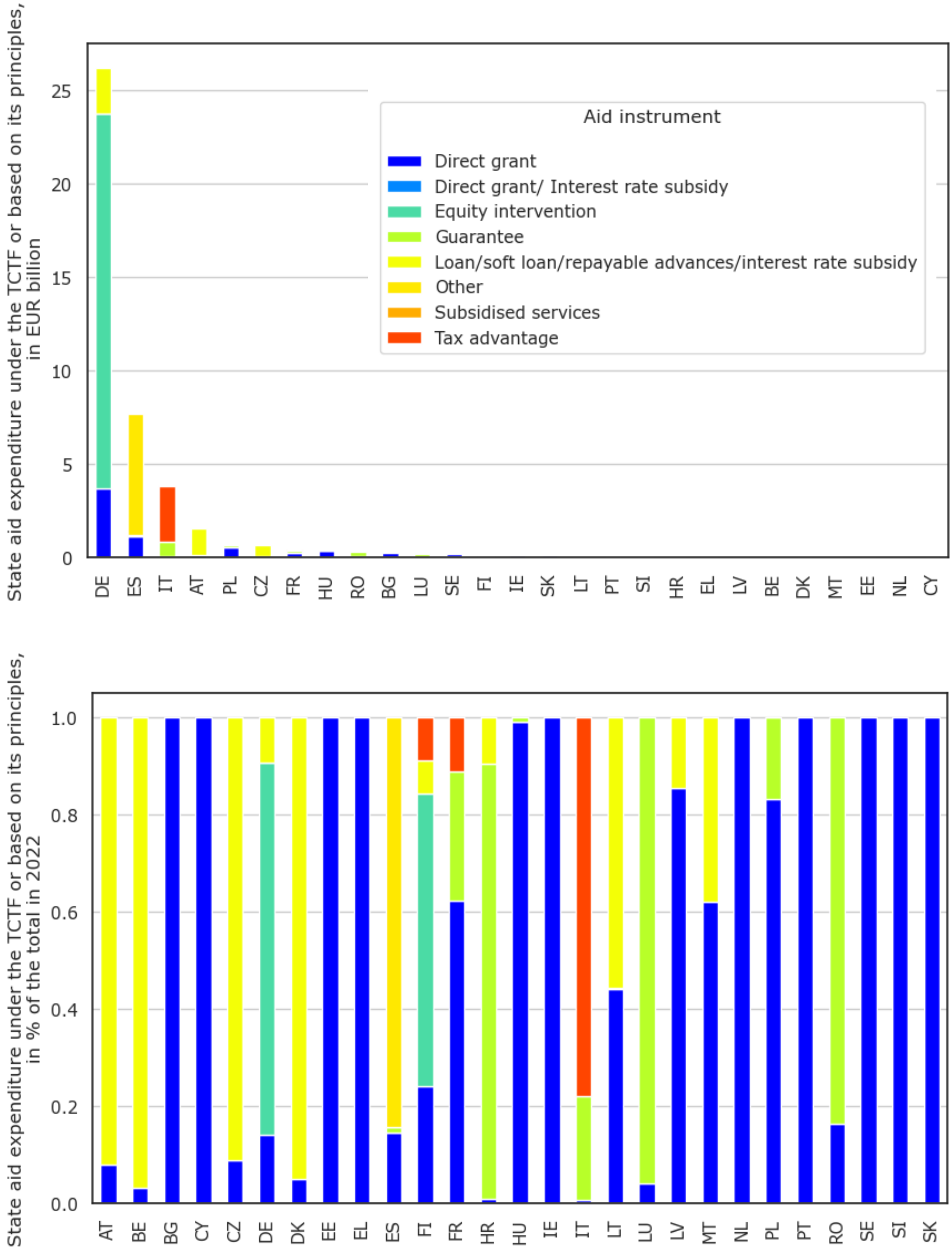
Figure 45: Total State aid expenditure for TCTF-related measures or based on its principles by Member State in 2023 by aid instrument (aid elements in absolute amounts above, and as % of the total below)



As shown in Figure 45, direct grants accounted for 100% of the total aid elements under TCTF-related measures in 6 Member States (Cyprus, Estonia, Greece, Ireland, Portugal, and Sweden). Latvia granted 100% of the aid in the form of loans/repayable advances. This type of repayable instrument was consistently used to channel TCTF-related aid also by Lithuania (77% of the aid expenditure) and Denmark (75%). Malta and Croatia respectively channelled 71% and 68% of the aid for TCTF-related measures in the form of guarantees.

The breakdown by Member State in 2022 is presented in Figure 46.

Figure 46: Total State aid expenditure for TCTF-related measures or based on its principles by Member State in 2022 by aid instrument (aid elements in absolute amounts above, and as % of the total below)

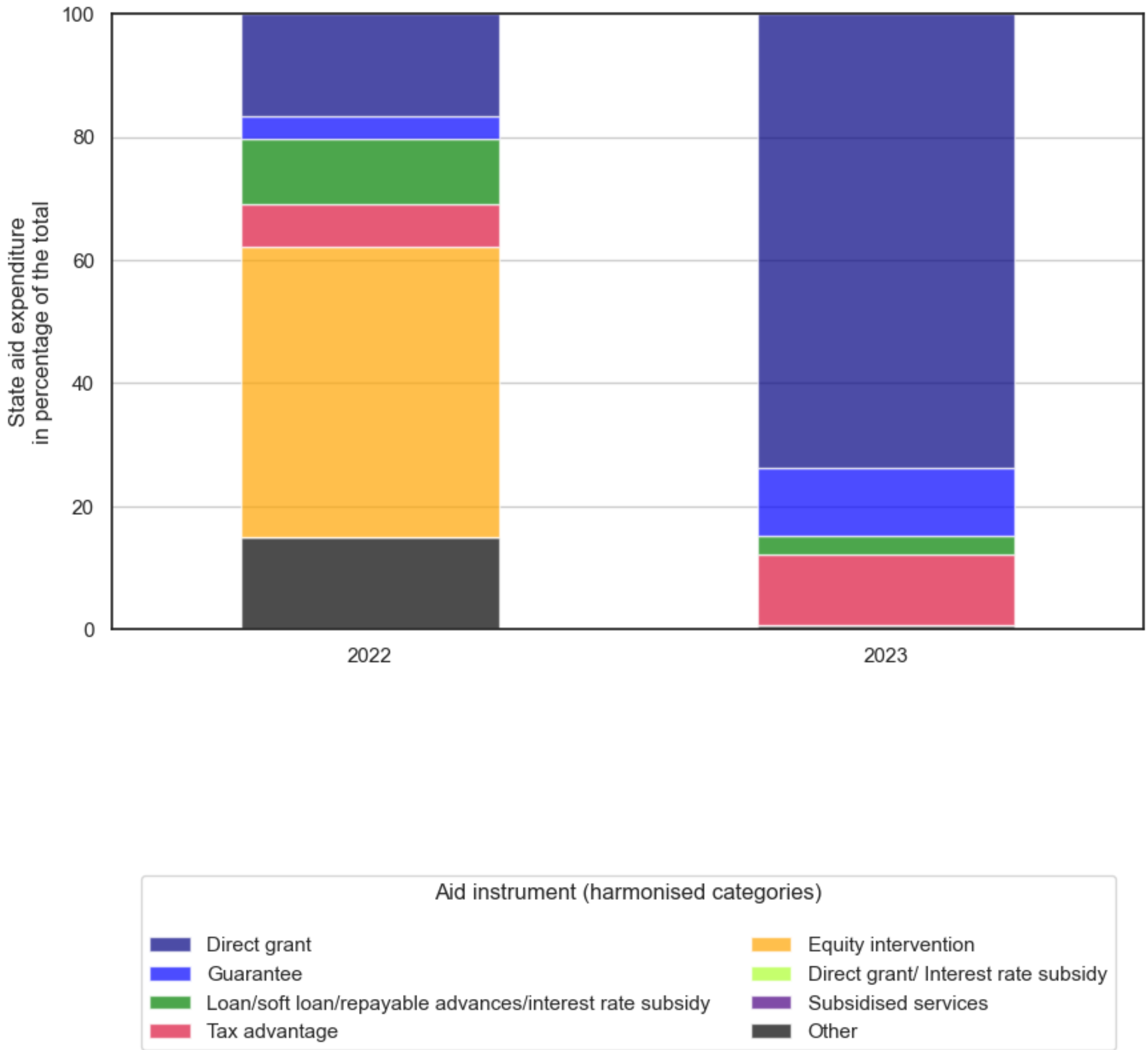


As shown in Figure 47, direct grants were the most common instrument among Member States in 2023, when having been chosen for 74% of the total State aid expenditure for TCTF-related measures in the same year. This represents a +57-percentage point increase compared to 2022, when direct grants accounted for only 17% of the total expenditure in the same year.

After direct grants, in 2023 the most common instruments were tax advantages and guarantees, representing 12% and 11% of the total State aid expenditure for TCTF-related measures. Finally, 3% of the expenditures were allocated in the form of loans and repayable advances.

In 2022, the majority of the expenditures were allocated in the form of equity intervention (47%), an instrument that almost disappeared in 2023. Loans and repayable advances were the instruments used for 11% of the expenditures, tax advantages for the 7%, and guarantees for the 4%. Finally, Other kinds of instruments were used to allocate the 15% of the expenditures.

Figure 47: Total State aid expenditure for TCTF-related measures, by instruments (aid elements in % of the total, in 2022 and in 2023)



6 State aid expenditure for COVID-19 related measures

6.1 Overview

This section focuses on State aid expenditure for COVID-19 related measures in 2023 and provides an overview aid expenditure for this type of aid since 2020.

This section compares the **nominal amounts** of aid granted to support undertakings in the COVID-19 crisis with the corresponding **aid elements**. As already specified in this note, while for some types of aid, such as direct grants, the nominal amount coincides with the aid element, for other instruments, notably repayable instruments, there is a large discrepancy between the two metrics as the nominal amount represents the nominal value of the underlying credit contract (*e.g.* loan, guarantee), while the aid element quantifies the advantage to the beneficiary and the cost to the government (*e.g.* the lower interest rate for a subsidised loan or the reduced guarantee fee). As such, unlike the nominal amounts, the aid element enabled a correct comparison of aid granted via different instruments.

In absolute terms, looking at the **nominal amounts** of the COVID-19 State aid measures provided to undertakings in 2023 (Figure 48), **EU27 Member States provided EUR 11.01 billion**. France granted around 42% of the total nominal amounts (EUR 4.61 billion), followed by Italy with 18% of the nominal amounts spent (EUR 1.96 billion), and Germany (14%, EUR 1.57 billion). Austria granted 8% of the total COVID-19 State aid (EUR 825 million) and Greece granted 4% (EUR 472 million). Four Member States (Slovenia, Czechia, Bulgaria, and Latvia) spent less than EUR 1 million in nominal amounts for measures approved under the COVID-19 Temporary Framework or based on its principles.

Three Member States (Finland, Hungary, and Malta) did not provide any COVID-19 related aid in 2023.

In relative terms and considering the nominal values of aid (Figure 49), Greece is the country that provided the most to the economy as compared to its own GDP in 2023 (0.21%), followed by Austria (0.17%), France (0.16%), Luxembourg (0.15%), Cyprus (0.12%), and Romania (0.11%).

Figure 48: Total State aid expenditure for COVID-19 measures by Member State in 2023 (nominal amounts, in EUR billion)

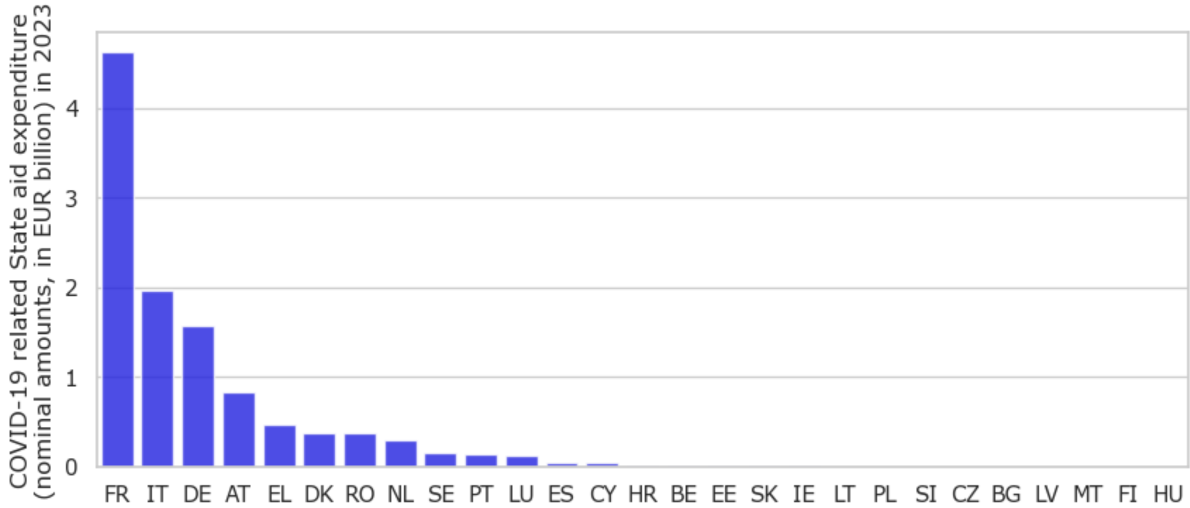
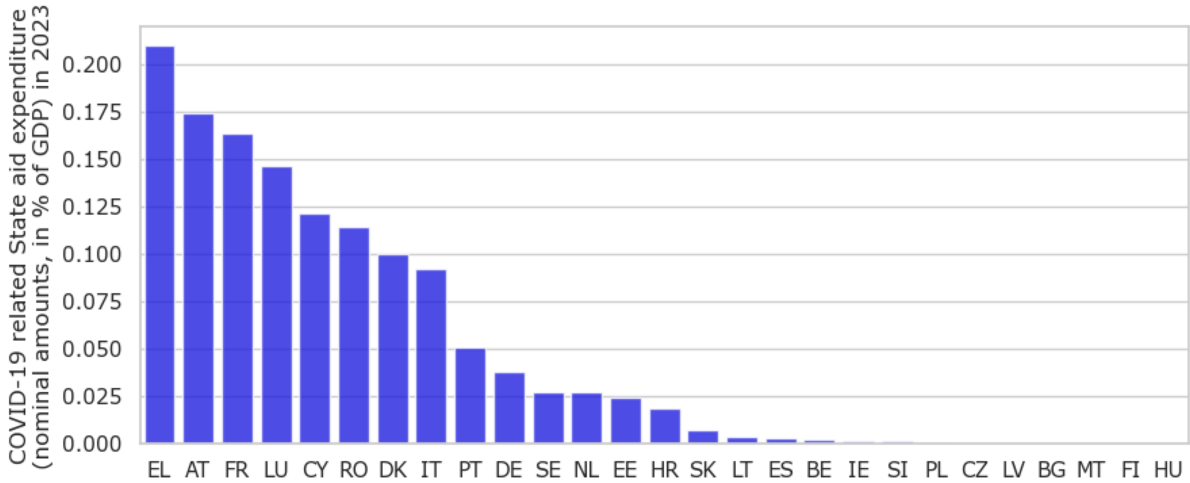


Figure 49: Total State aid expenditure for COVID-19 measures by Member State in 2023 (nominal amounts, as a percentage of 2023 GDP)



Since the COVID-19 outbreak in early 2020, looking at the nominal amounts of COVID-19 State aid measures provided to undertakings, the **EU27 Member States provided a total of EUR 1.164 trillion.**

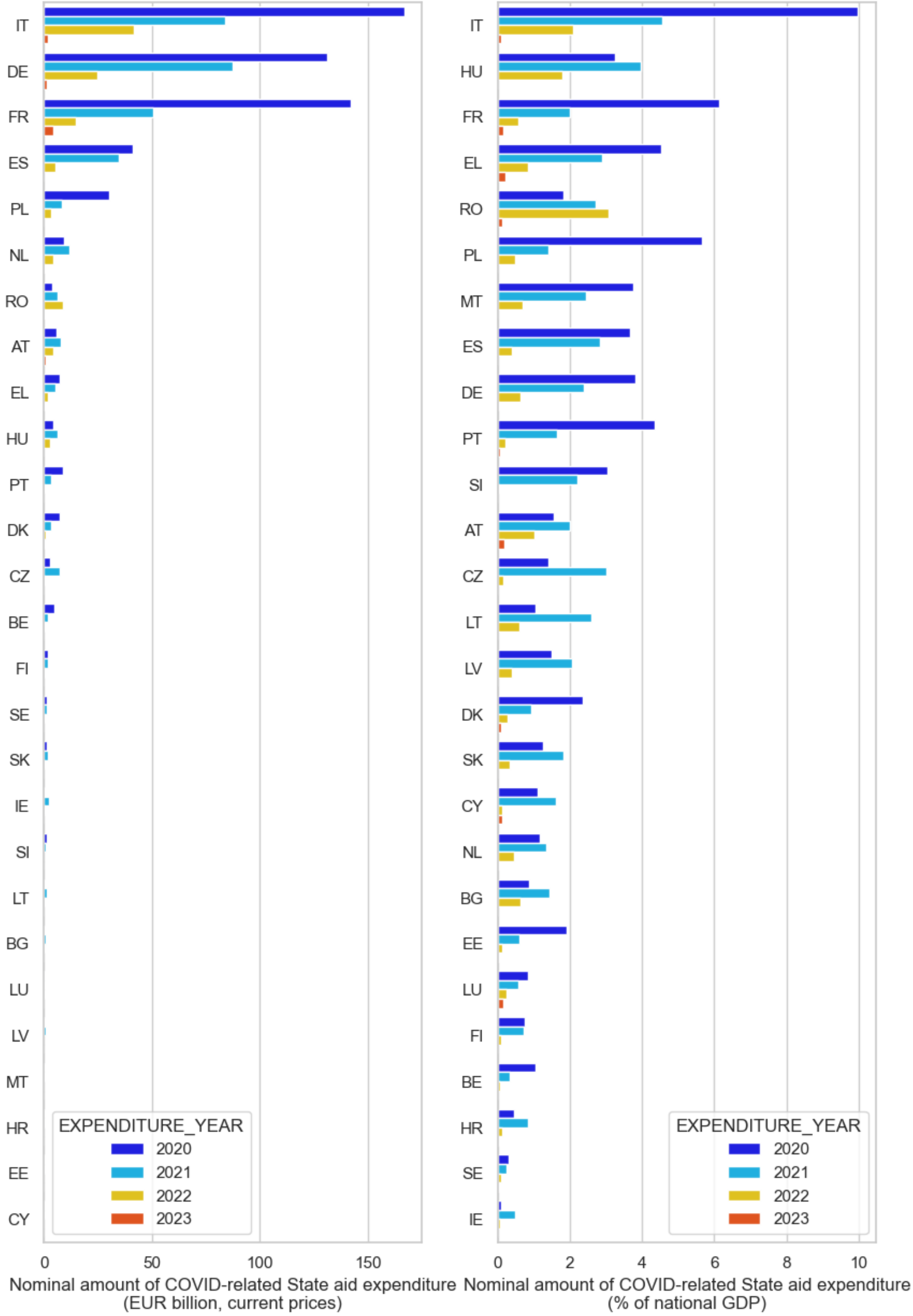
More than half (56%) of this amount, EUR 654.83 billion (in constant prices) were provided in the first year of the pandemic in 2020. In 2021, the support in nominal amount almost halved, getting to EUR 372.77 billion (32% of the total State aid for COVID-19 measures in nominal amounts). It reduced almost threefold in 2022 compared to 2021, when Member States provided EUR 125.44 billion in nominal amounts (11% of the total). In 2023, 1% of the total expenditure for COVID-measures was provided when considering nominal amounts (EUR 11.01 billion).

As shown in Figure 50, Italy is the Member State that has provided the largest support in nominal amounts (EUR 323.29 billion in constant prices, around 28% of the total). The largest part of this amount (EUR 185.14 billion, 57% of the total support provided by Italy) was provided in 2020, 29% (EUR 92.90 billion) were provided in 2021, and 14% (EUR 43.99 billion) in 2022. Less than 1% of the aid provided by Italy, in nominal amounts, was spent in 2023 (EUR 1.96 billion). Germany is the second largest provider in nominal amounts, having provided around 24% of the total State aid for COVID-19 measures (EUR 278.68 billion). Similarly to Italy, Germany provided the majority of the support in nominal amounts in 2020 (EUR 152.06 billion adjusted for inflation, 55% of the total), reducing the amount to EUR 98.66 billion in 2021 (35% of the total), to EUR 26.39 billion in 2022 (9% of the total) and finally to EUR 1.57 billion in 2023 (less than 1% of the total).

France follows, having provided one-fifth of the total State aid for COVID-19 measures in nominal amounts between 2020 and 2023 (EUR 231.02 billion of which 68% - EUR 156.13 billion – in 2020, 24% - EUR 54.78 billion – in 2021, 7% - EUR 15.51 billion – in 2022, and 2% - EUR 4.61 billion - in 2023).

Also, in relative terms and still considering the nominal values of aid (Figure 50), EU27 Member States provided around 4.25% of their GDP at the peak of the crisis in 2020, 2.25 % of their GDP in 2021, 0.73% of their GDP in 2022, and 0.06% in 2023. With an amount of aid corresponding to 9.99% of its GDP in 2020, 4.56% in 2021, around 2.08% in 2022 and 0.09% in 2023, Italy is the country that provided the most to the economy as compared to its own GDP in the last four years for measures to remedy the serious disturbance of the economy caused by the COVID-19 outbreak. It is followed by Hungary (3.24% of its GDP in 2020, 3.96% in 2021, 1.80% in 2022 and no aid provided in 2023), and France (6.13% in 2020, 2.01% in 2021, 0.55% in 2022, and 0.16% in 2023).

Figure 50: Total State aid expenditure for COVID-19 measures by Member State in 2020, 2021, 2022 and 2023 (nominal amounts, in EUR billion and as a percentage of GDP)



When looking at the **aid element,** which is the correct metric to look at in order to compare the aid provided through different instruments as it is the case with the COVID-19 related measures**, the total aid element provided by all the EU27 Member States in 2023 amounted to EUR 10.55 billion, approximately 0.06% of the EU GDP**. In absolute terms, **France** was the country that provided the most, with an amount of EUR 4.61 billion, corresponding to around 44% of the total aid expenditure for COVID-19 measures in 2023. **Italy** followed with EUR 1.79 billion (17% of the total), then **Germany**, with EUR 1.55 billion, 15% of the total at the EU27 level. Austria spent around 8% of the total COVID-related aid in 2023, EUR 825 million, Greece and Denmark around 4% (EUR 443 million and EUR 372 million). Four Member States (Slovenia, Czechia, Bulgaria and Latvia) spent less than EUR 1 million for COVID-19 related measures, and three Member States (Finland, Hungary and Malta) did not disburse any COVID-related aid in 2023.

In in terms of expenditure expressed in as a percentage of the national GDP, when looking at the aid elements (Figure 52), **Greece and Austria were the Member States with the largest share of COVID-19 State aid expenditure relative to their 2023 national GDP** (0.20% and 0.17% respectively), followed by France (0.16%), Luxembourg (0.15%) and Denmark (0.10%). Apart from the three Member States that did not incur any expenditure in 2023 for COVID-related measures, in 10 Member States[55] the COVID-related expenditures represented less than 0.01% of the national GDP in 2023.

[55] Latvia, Bulgaria, Czechia, Slovenia, Poland, Sweden, Belgium, Lithuania, Ireland, and Slovakia.

Figure 51: Total State aid expenditure for COVID-19 measures by Member State in 2023 (aid elements, in EUR billion)

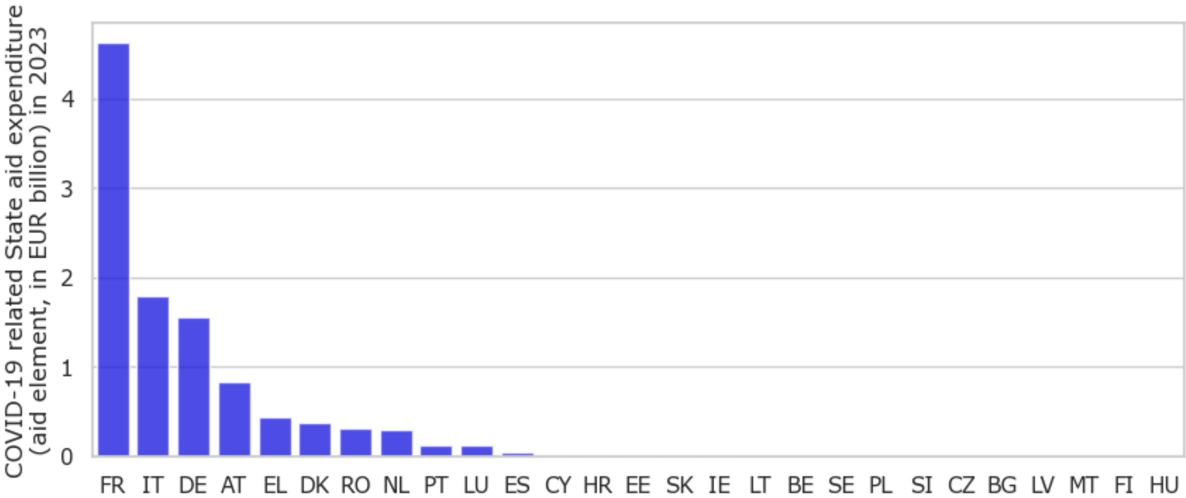
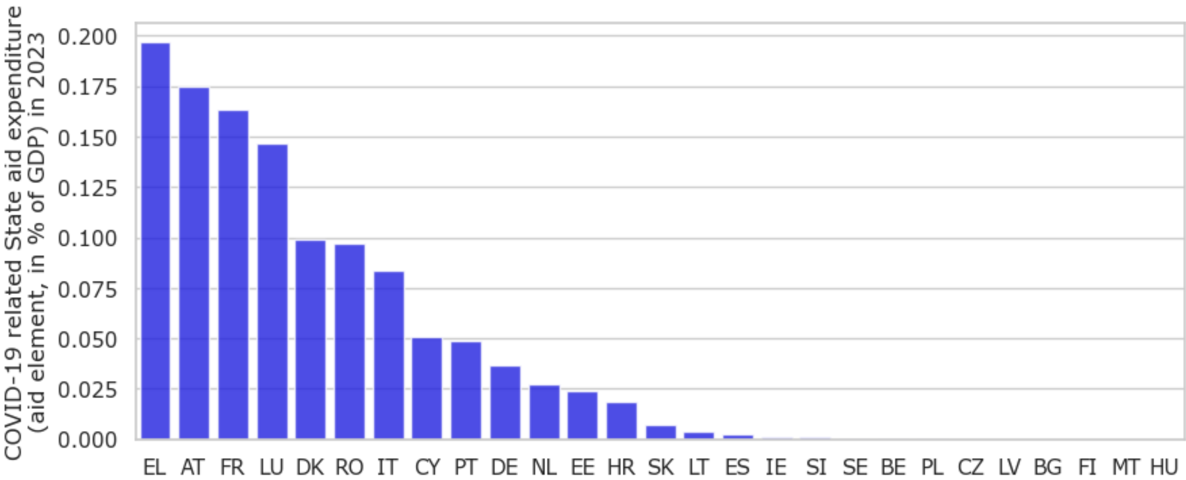


Figure 52: Total State aid expenditure for COVID-19 measures by Member State in 2023 (aid elements, as a percentage of 2023 GDP)



During the period 2020-2023, considering the aid elements of the COVID-19 State aid measures, **EU27 Member States spent a total of EUR 506.28 billion to remedy the serious disturbance of the economy caused by the COVID-19 outbreak.** The greatest part of the support was provided in the first two years, as 42% of the total amount, approximately EUR 212.97 billion (in constant prices) was provided in the first year of the pandemic, and 41% of the total aid expenditure was realised in 2021 (EUR 205.06 billion). In 2022, the COVID-19 related support more than halved, getting to EUR 77.70 billion (15% of the total State aid for COVID-19 measures in aid elements), and then reduced further to approximately EUR 10.55 billion in 2023 (2% of the expenditure for COVID-related measures in the past four years).

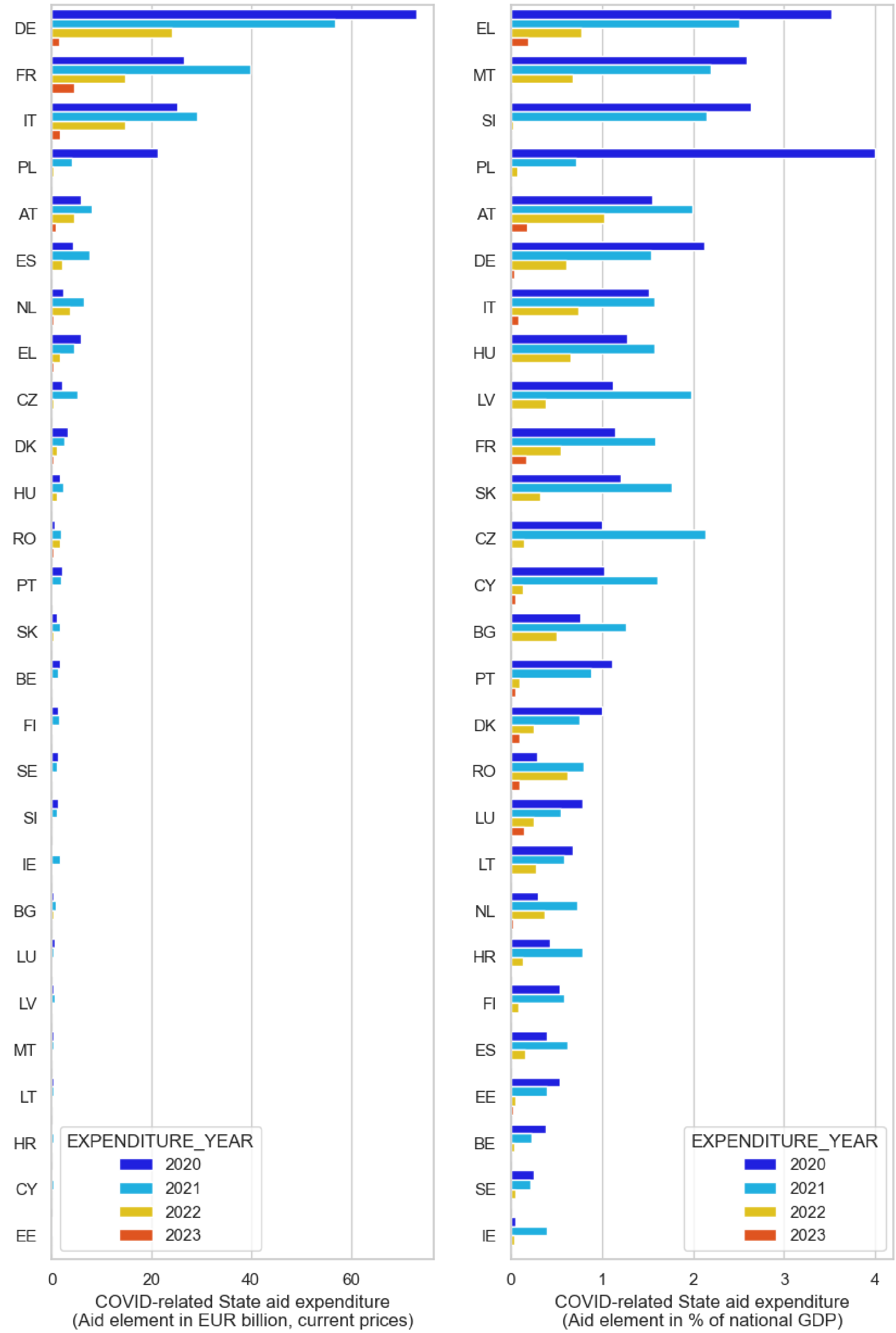
As shown in Figure 53 Germany is the Member State that has provided the largest support in aid elements (EUR 175.81 billion in constant prices, around 35% of the total State aid expenditure for COVID-19 measures between 2020 and 2023). Almost half (48%) of the support provided by Germany to remedy serious disturbance of the economy caused by the COVID-19 outbreak in the last four years, was spent in the first year of the pandemic (EUR 84.70 billion), 36% (EUR 63.91 billion) was provided in 2021, 15% (EUR 25.65 billion) in 2022 and 1% (EUR 1.55 billion) in 2023. France is the second largest provider in nominal terms when considering aid elements, having provided slightly less than one fifth (18%) of the total State aid for COVID-19 measures (EUR 92.60 billion in constant prices). Of this amount, 31% was spent in the first year of the pandemic (EUR 29.11 billion). The French expenditure for COVID-19 measures increased to EUR 43.36 billion in 2021 (47% of the total amount spent by France for these measures in three years), and then decreased to EUR 15.51 billion in 2022 (17% of the total) and to EUR 4.61 billion in 2023 (5% of the total).

Italy follows, providing 15% of the total State aid for COVID-19 measures in between 2020 and 2023 (EUR 77.41 billion, of which 36% - EUR 28.08 billion – in 2020, 41% - EUR 31.95 billion – in 2021, 20% - EUR 15.58 billion – in 2022, and 2% - EUR 1.79 billion - in 2023).

In relative terms (Figure 53), **EU27 Member States provided around 1.36% of their GDP** at the peak of the crisis **in 2020**, and **kept it at a similar level (1.24 % of their GDP) in 2021**, and then **reduced it to 0.45% of their GDP in 2022, and to 0.06% of the EU GDP in 2023**.

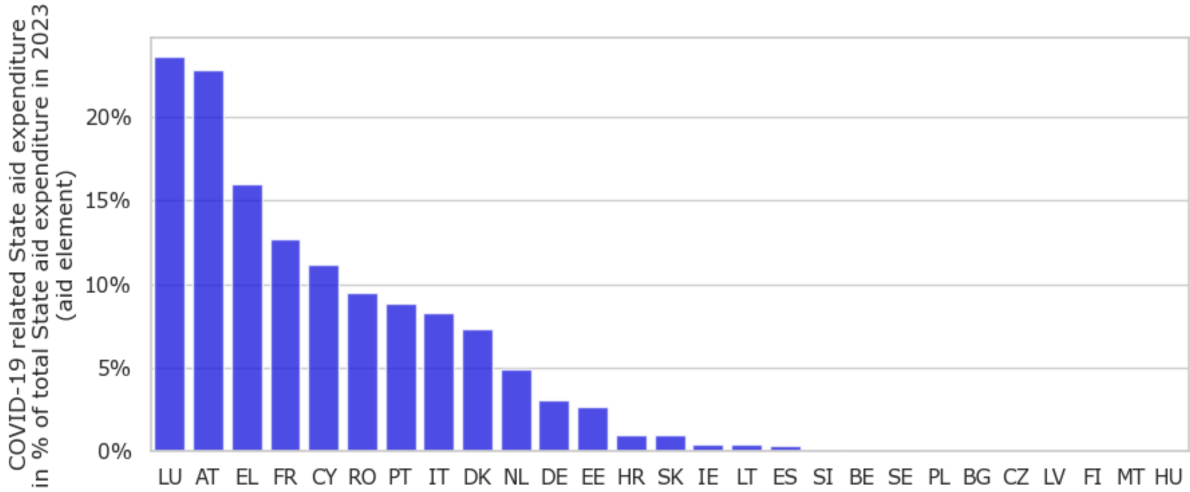
Compared to the absolute amounts, the picture changes when considering the aid expenditure in relative terms. Greece is the country that has provided the most to the economy as compared to its own GDP in the last four years for measures to remedy the serious disturbance of the economy caused by the COVID-19 outbreak, having provided 3.53% of its GDP in 2020, 2.50% in 2021, 0.77% in 2022 and 0.20% in 2023. It is followed by Malta (2.59% of its GDP in 2020, 2.19% in 2021, 0.68% in 2022 and no aid in 2023), and Slovenia (2.63% in 2020, 2.15% in 2021, 0.03% in 2022 and less than 0.01% in 2023).

Figure 53: Total State aid expenditure for COVID-19 measures by Member State in 2020, 2021, 2022 and 2023 (aid elements, in EUR billion and as a percentage of GDP)



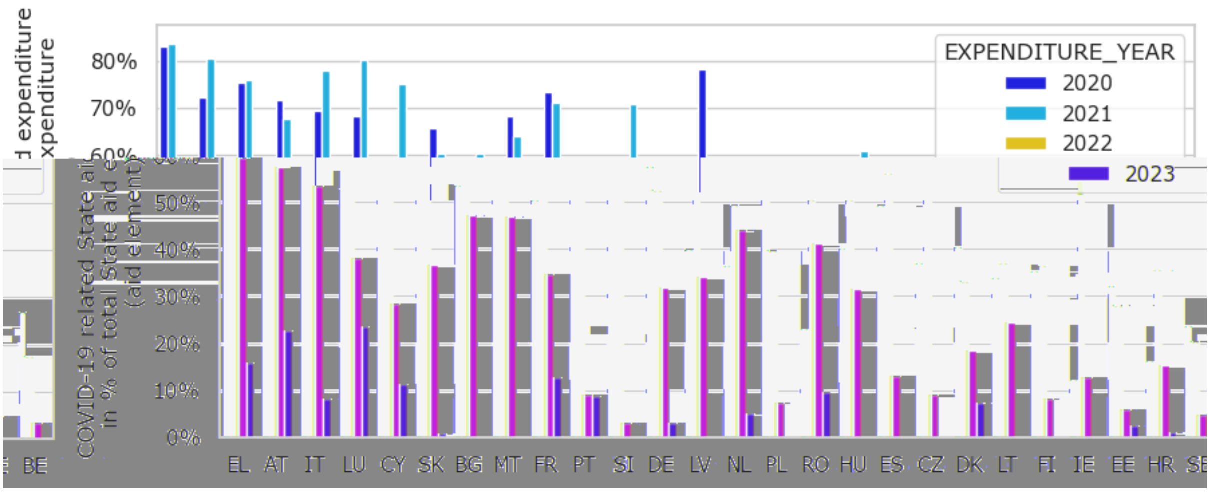
Looking at the proportion of COVID-19 aid out of the total aid granted in 2023 in each Member State (Figure 54), Luxembourg and Austria had, respectively, the 24% and 23% of their total State aid expenditure allocated to COVID-19 measures, followed by Greece (16%), France (13%), Cyprus (11%) and Romania (10%). Excluding the three Member States that did not disburse any COVID-related aid, for 12 additional Member States[56], COVID-related aid accounted for 1% or less of the total aid expenditure in 2023. Overall, COVID-related aid represented approximately 6% of the expenditure in 2023.

Figure 54: Total State aid expenditure for COVID-19 measures by Member State in 2023 (aid element, as a percentage of total State aid)



At the EU level, COVID-19 represented most of the aid expenditure in 2020 (57.5%) and in 2021 (56.6%), less than one third (32%) in 2022, and around 6% in 2023. Figure 55 below shows the total State aid expenditure for COVID-19 measures aid element, as a percentage of total State aid, by Member State, in 2020, 2021, 2022, and 2023.

Figure 55: Total State aid expenditure for COVID-19 measures by Member State in 2020, 2021, 2022 and 2023 (aid element, as a percentage of total State aid)



[56] Croatia, Slovakia, Ireland, Lithuania, Spain, Slovenia, Belgium, Sweden, Poland, Bulgaria, Czechia, and Latvia.

6.2 COVID-19 State aid expenditure by aid instrument

Figure 56 provides a breakdown of the total State aid expenditure for COVID-19 measures by type of aid instrument in each Member State in 2023. Amounts refer to the aid element of each instrument. The largest spender, France, provided EUR 2.97 billion, corresponding to 64% of its total spending under COVID-19 measures, in the form of direct grants. France provided 32% of its total aid elements of COVID-19 aid as guarantees (EUR 1.47 billion) and 4% (EUR 174.39 million) as loans and repayable advances. Instead, Italy preferred to provide COVID-19 aid in the form of tax advantages (EUR 1.31 billion, approximately 73% of its expenditure for these measures), but also made use of direct grants[57] (EUR 424.48 million, corresponding to 24% of its total COVID-19 spending) and, in minor part, of loans and repayable advances, guarantees, and 'other' aid instruments (for a total of EUR 55.38 million, approximately 3% of its total expenditures under COVID-19 measures). Germany, on the contrary, provided 87% of its total spending under COVID-19 measures in the form of equity interventions (EUR 1.35 billion) and the remaining 13% in the form of direct grants (EUR 197.7 million). Austria used exclusively direct grants, for an expenditure of EUR 825.15 million.

Direct grants account for the total aid elements under COVID-19-related measures in 7 Member States (Austria, Bulgaria, Czechia, Ireland, Lithuania, the Netherlands, Slovenia), for more than 90% in other 6 Member States (Denmark, Greece, Portugal, Romania, Slovakia, Spain), and for more than 50% in other 3 Member States (Estonia, France, Sweden).

Four Member States chose alternative instruments instead of direct grants for disbursing aid Among these, Belgium chose to use equity interventions (EUR 1.5 million, 56% of its total expenditure under COVID-19 measures) and loans and repayable advances (EUR 1.18 million, 44% of its total expenditure). Loans and repayable advances were also used by Cyprus, that allocated its total expenditure almost equally between that instrument (EUR 7.5 million, 47%) and guarantees (EUR 8.4 million, 53%). Instead, Croatia decided to use exclusively debt write-offs (EUR 14.32 million) and Latvia only tax advantages (less than EUR 1 million).

Loans, repayable advances, and interest rate subsidies represented a large share of total expenditure for COVID-19 measures also in Poland (78%) and in Estonia (44%), and, to a lesser extent, in Sweden (15%), Denmark and Romania (both 8%).

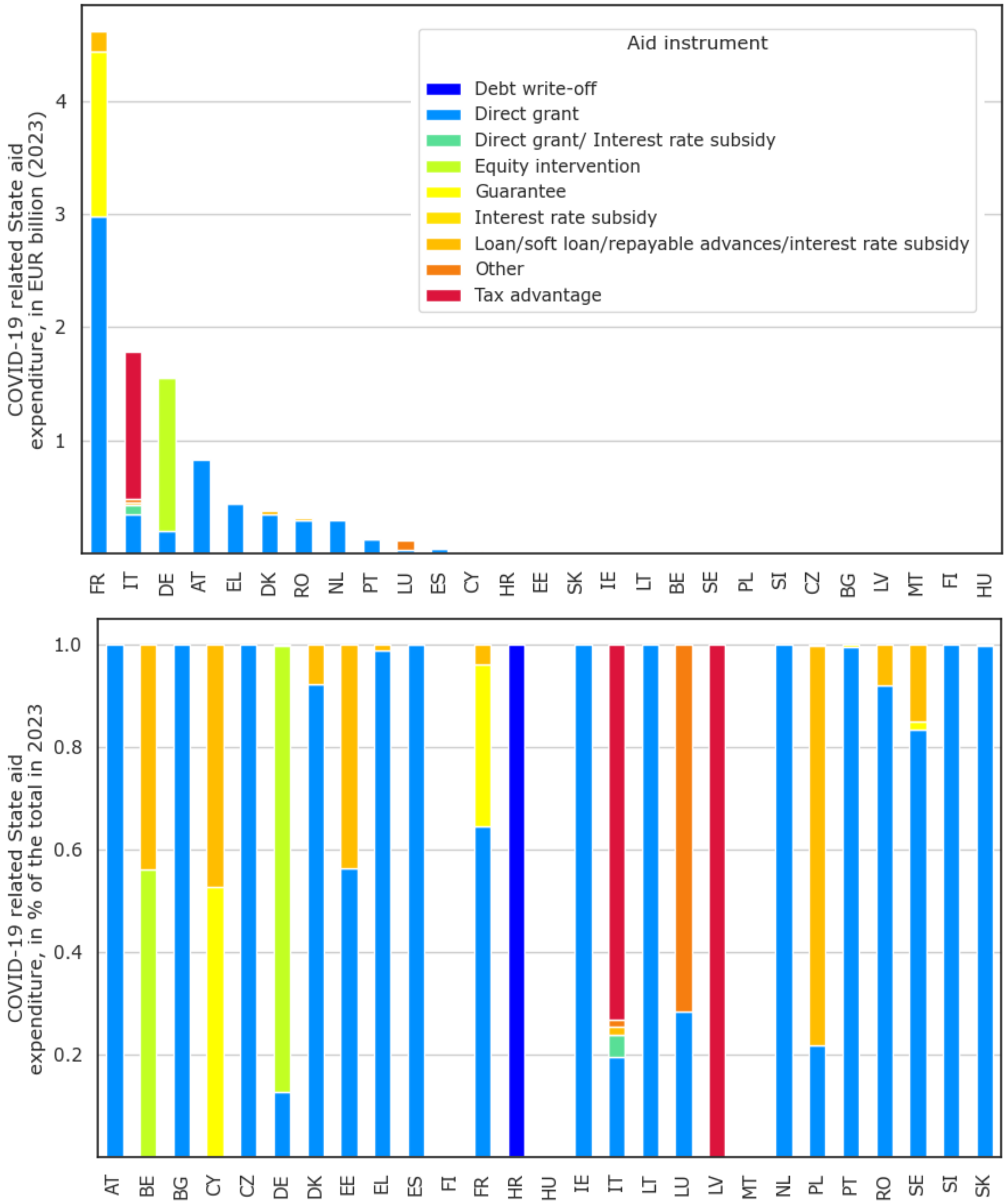
Debt write-offs were exclusively used by Croatia (100%) and are barely present in Italy (close to 0%).

Guarantees on loans have been extensively used in Cyprus (53%), but also in France (32%), while their use remains below 2% and is nearly negligible in the other Member States that implemented them (Germany, Italy, Portugal, Slovakia, Spain, Sweden).

Tax advantage measures represent the main instrument in Latvia and Italy, where 100% and 73% of the total COVID-19 support was provided in this way respectively.

[57] Including the mixed category direct grants/interest rate subsidies.

Figure 56: Total State aid expenditure for COVID-19 measures by Member State and instrument in 2023 (aid elements in EUR billion above, and in % of the total below)

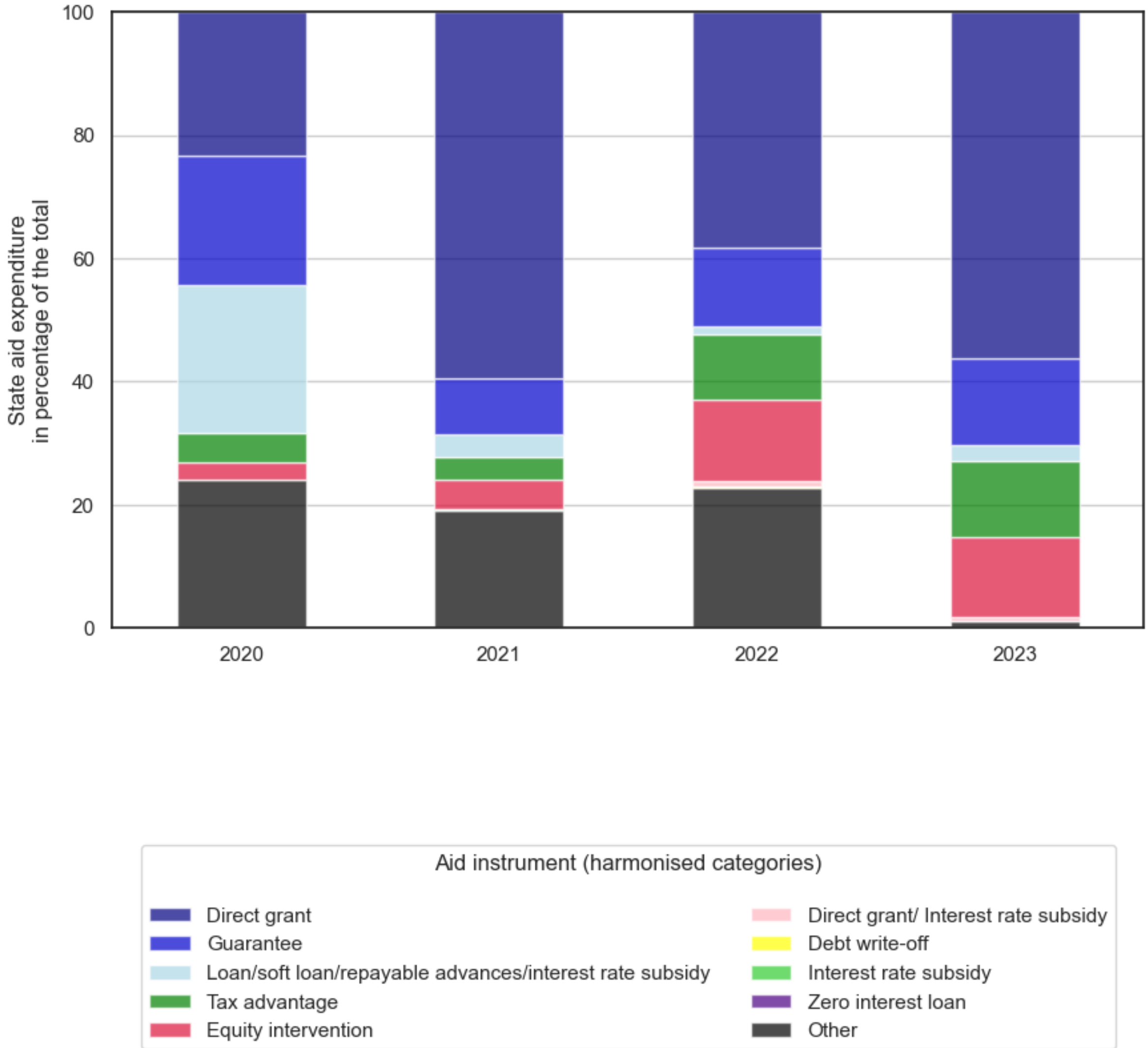


In **2020**, State aid for COVID-19 measures was **substantially channelled through repayable instruments** (Figure 57). 24% of the COVID-19 expenditure in 2020 was in the form of loans/soft loans/repayable advances/interest rate subsidies, that constituted the main instrument, and 21% in the form of guarantees. Direct grants represented 23% of the expenditure. The use of tax advantages (5%) and equity interventions (3%) was relatively limited.

In **2021**, **direct grants rose markedly** (from 23% of the total in 2020 to 59% of the total in 2021), while credit-based instruments decreased significantly (loans fell from 24% to 4% of the total and guarantees from 21% to 9%). Tax advantages and equity interventions showed a modest variation, of -1 percentage point and +2 percentage points respectively.

In **2022**, the share of **equity interventions** grew to 13% of the yearly COVID-19 expenditure and the relative weight of **tax advantages** more than doubled from 2020 (11%). 38% of the aid was provided in the form of direct grants[58] (although this decreased from 2020 by -21 percentage point), while 14% was in the one of repayable instruments (13% guarantees and 1% in the mixed category loan/soft loan/repayable advances/interest rate subsidy).

Figure 57: Total State aid expenditure for COVID-19 measures by Member State and instruments (aid elements in % of the total, by year)



6.3 COVID-19 State aid expenditure on co-financed projects

Financing granted under EU funds qualifies as State aid, given that EU funds are integrated into the national budget and Member States are free to select beneficiaries (Art 107 TFEU). Therefore, since 2014 Member States must report the total amount of co-financed aid, including both national and EU Funds expenditure[59]. With the pandemic crisis, EU Funds have been directed to finance the implementation of several COVID-19 State aid measures in different Member States. In 2023, total spending on co-financed measures related to the COVID-19 crisis amounted to EUR 634.63 million.

-As outlined in section 3.4, co-financed State aid expenditure in the context of the pandemic (yellow bar), has halved from EUR 14.83 billion in 2020 to around EUR 7.57 billion in 2021 (adjusted for inflation), and then it drastically decreased to around EUR 561 million in 2022. It then remained substantially stable from 2022 to 2023. (Figure 11)

[58] Including the mixed category direct grants/interest rate subsidies.
[59] The corresponding projects are funded under the sole responsibility of the Member States.

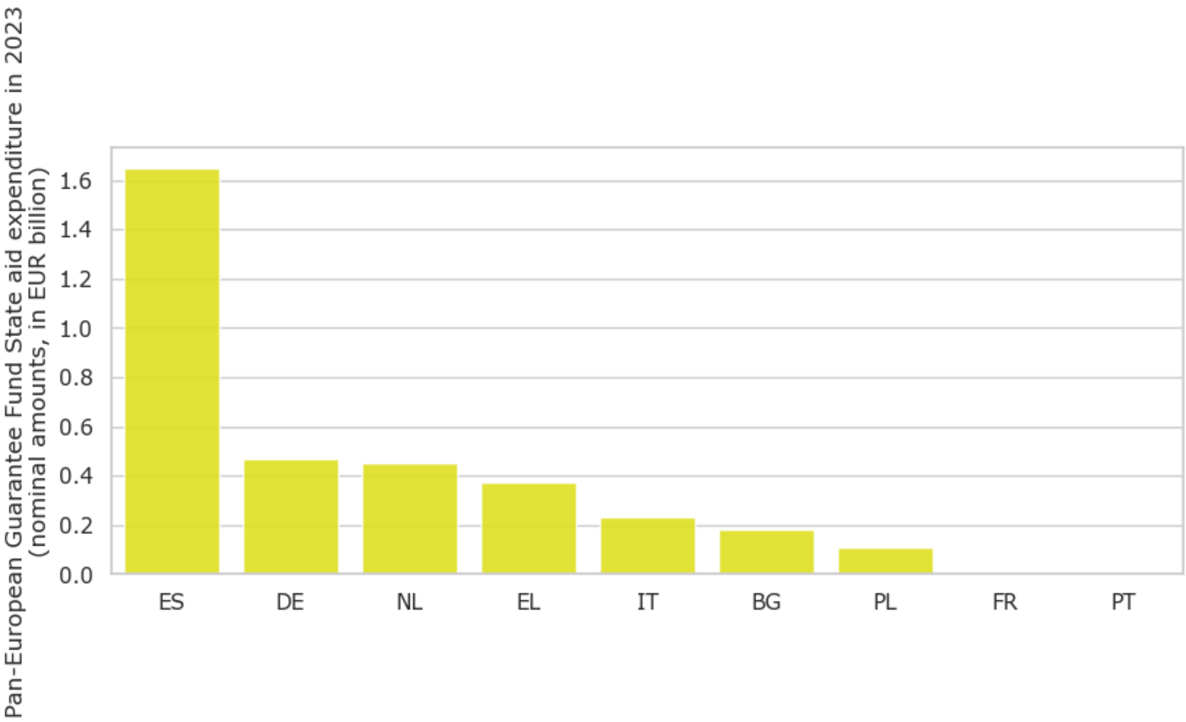
6.4 Pan-European guarantee fund in response to COVID-19

The Pan-European Guarantee Fund (PEGF) was established in 2020, as part of the EU's COVID-19 response to mitigate the impact of the pandemic. It has been a temporary measure aimed to provide additional support to Member States in need of financing to deal with the pandemic. The PEGF is subject to the State aid rules of the European Union, including reporting requirements.

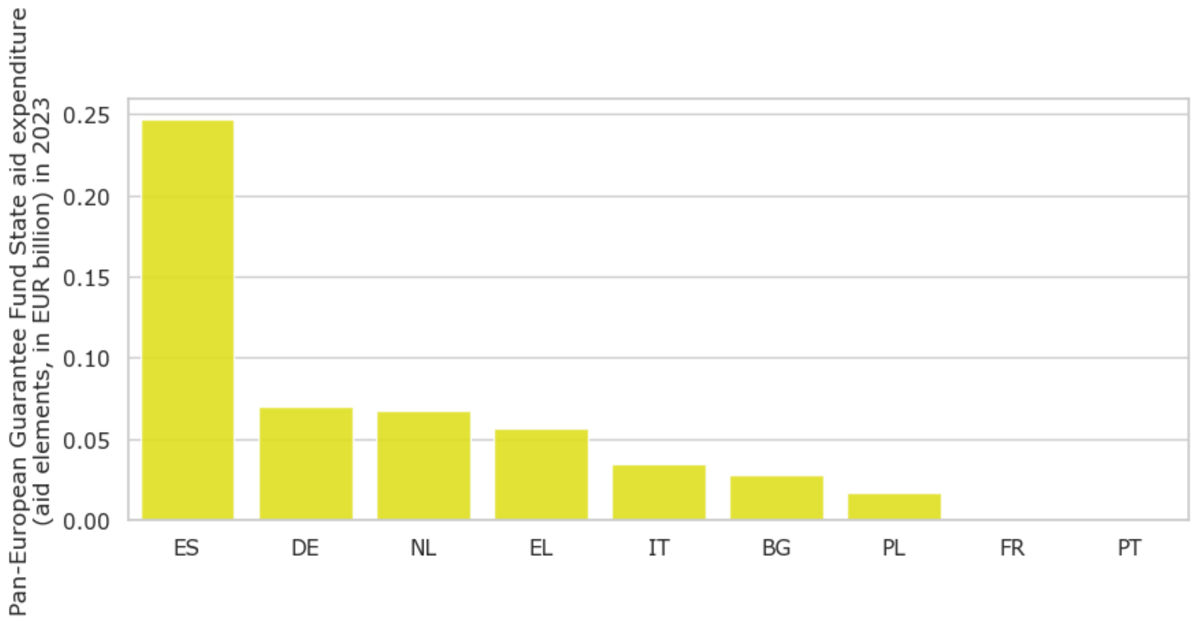
The PEGF is a guaranteed scheme that is managed by the European Investment Bank (EIB) Group. The participating Member States are Belgium, Bulgaria, Denmark, Germany, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Poland, Portugal, Slovakia, Slovenia, Finland, and Sweden. Each participating Member State contributed to the PEGF's common budget through a contribution agreement. This pool of resources that constitutes the budget of the fund has been used to guarantee the issuance of debt instruments by eligible entities established in all EU participating Member States that were facing difficulties in accessing financing during the pandemic crisis. More specifically, the measures in the scope of the PEGF provide aid in the form of guarantees or counter-guarantees on senior and subordinated debt instruments, including guarantees on synthetic securitisation tranches. The PEGF is also designed to encourage contributions from the private sector by sharing the risk of investment with private investors. The signature period for PEGF-supported projects ended on 31 December 2022.

This section provides an overview of the guarantees that have actually been issued in 2023 in the participating Member States[60].

Figure 58: State aid expenditure under the Pan-European Guarantee Fund by Member State in 2023 (nominal amounts -upper chart- and aid elements -lower chart-, EUR billion)



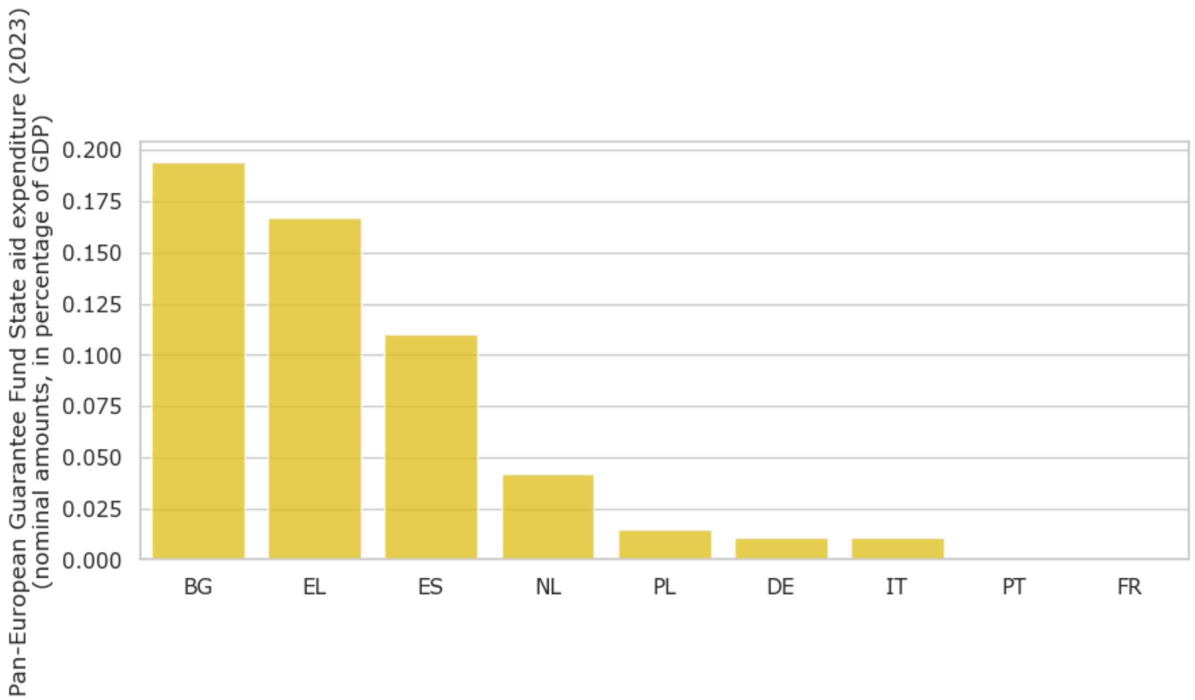
[60] In the Member States that do not appear in the chart, no PEGF measures have been implemented in 2022.



In 2023 the PEGF issued guarantees to undertakings in the participating Member States for total nominal value of EUR 3.47 billion. The corresponding **aid element was estimated as EUR 520 million.** As shown in Figure 58, **Spain** is the Member State where the largest volume of measures under the PEGF was still implemented in 2023, corresponding to a total nominal amount of EUR 1.65 billion (EUR 247 million in aid element). Germany, the Netherlands, and Greece follow, with a total nominal amount and aid element that are less than a third that of Spain. All the other Member States reported total nominal amounts below EUR 230 million (around EUR 35 million of aid elements).

In percentage of national GDP (Figure 59 and Figure 60), Bulgaria and Greece are the Member States with the largest use of the PEGF, with more than 0.02% of domestic GDP in 2023 when considering aid elements.

Figure 59: State aid expenditure under the Pan-European Guarantee Fund by Member State in 2023 (nominal amounts -upper chart- and aid elements -lower chart-, percentage of national GDP)



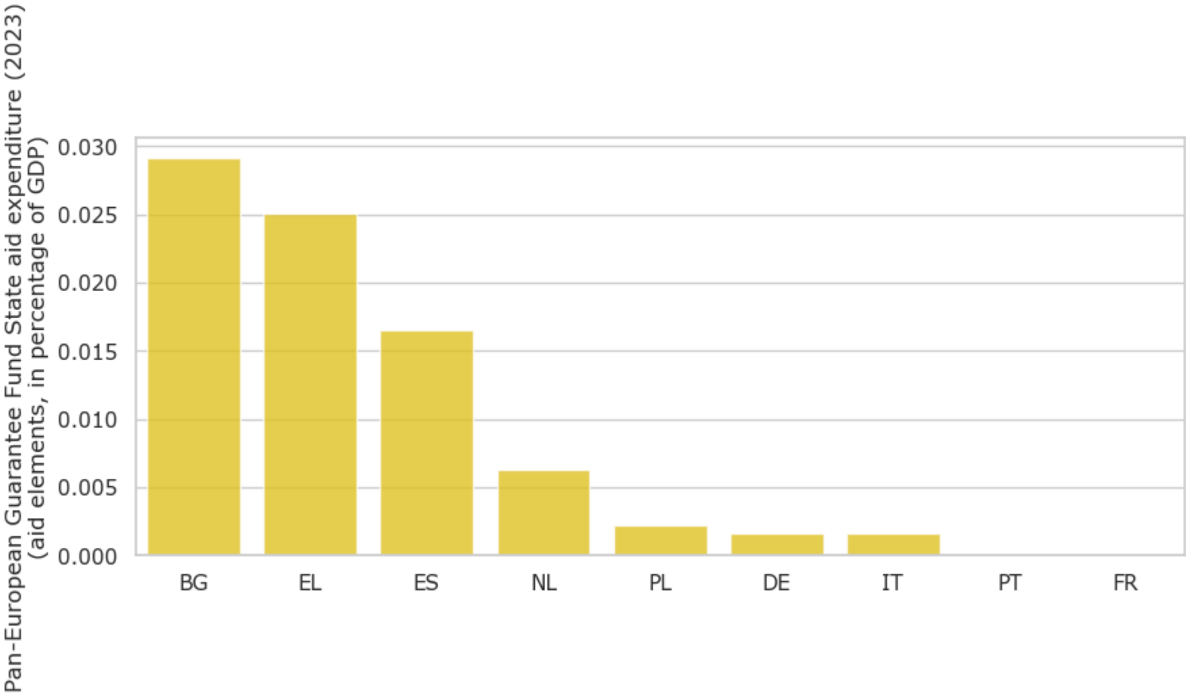
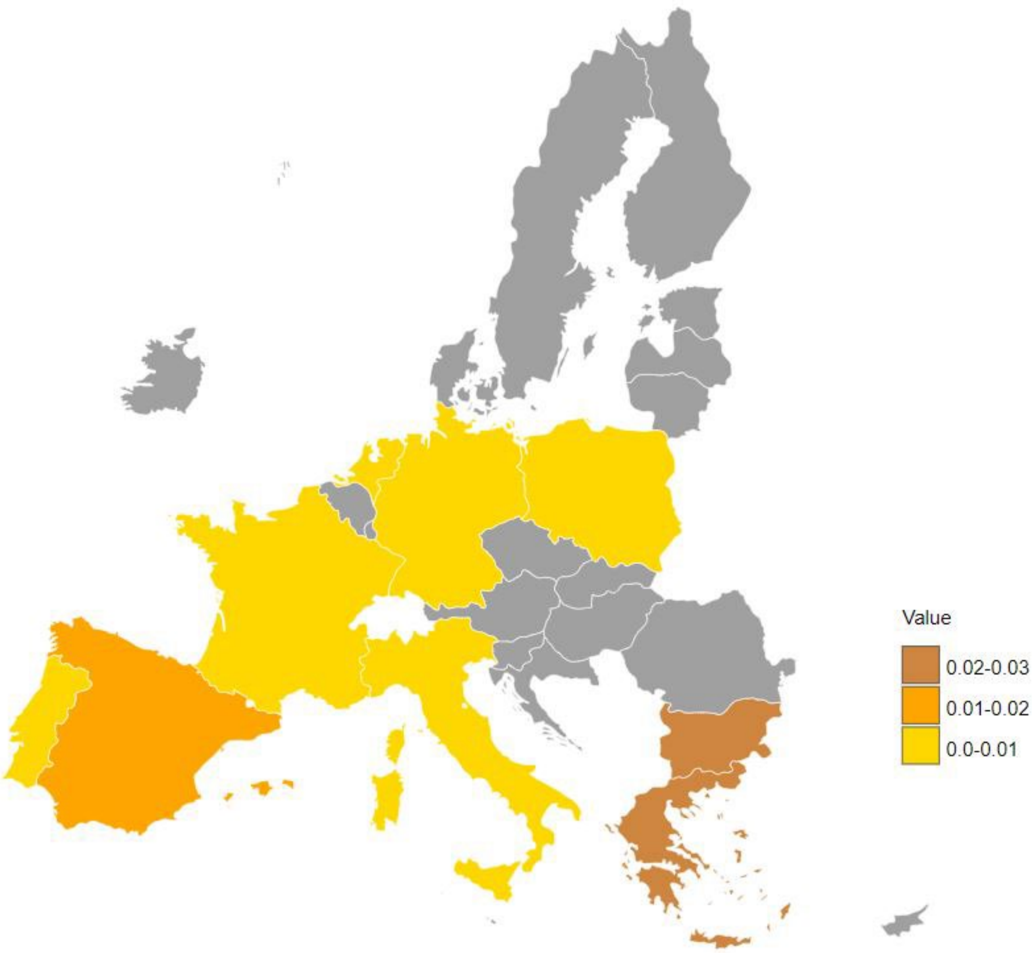


Figure 60: Map of State aid expenditure under the Pan-European Guarantee Fund by Member State (aid elements, as percentage of national GDP)



7 A closer look at block-exempted measures

The State aid Modernisation is a major reform package implemented by the Commission in 2014 and aimed at simplifying and modernizing the State aid rules. One of the cornerstones of this reform was the revision of the General Block Exemption Regulation (GBER), which simplifies aid-granting procedures for Member States by empowering Member States to authorise aid without prior notification. This is possible for a wide range of measures fulfilling horizontal common interest objectives. Similar block-exemption regulations have been adopted in the agricultural sector (ABER) and for fisheries (FIBER). The SAM reform also modernised several State aid regulations and sectoral guidelines.

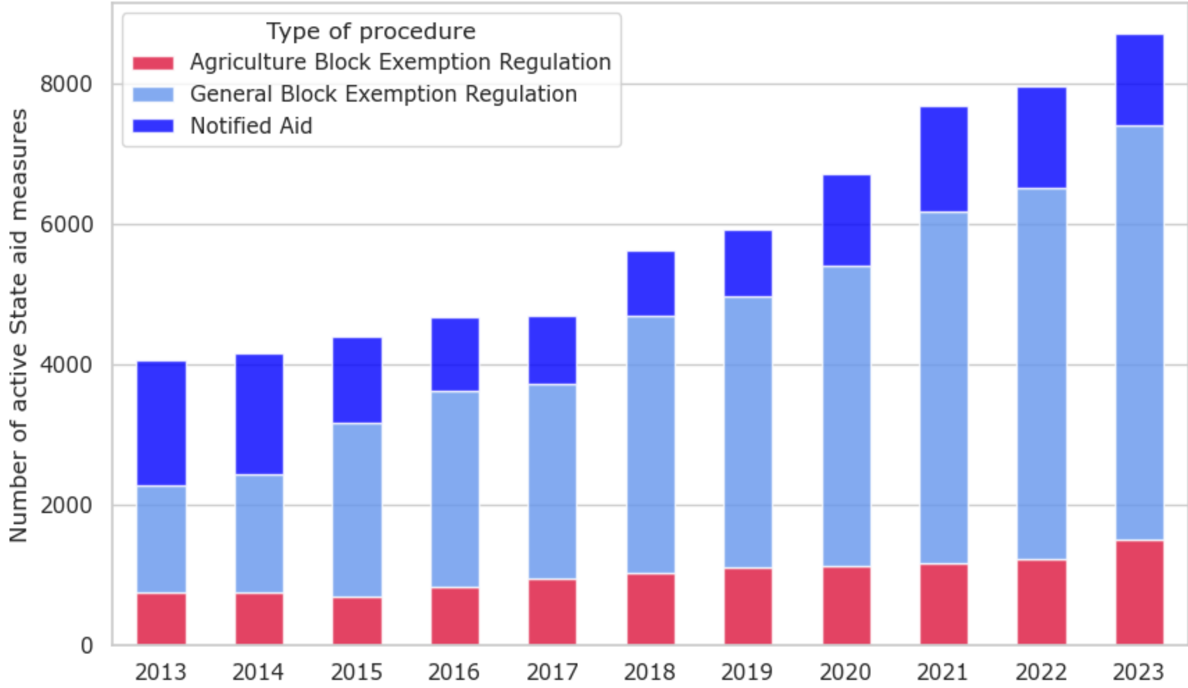
Due to the implementation of the new set of State aid rules, and in particular of the block-exempted ones, granting authorities in Member States have been given a much wider scope to design and implement aid measures. At the same time, the Commission still plays its role as guardian of fair competition within the single market. The post-SAM rules have been designed to strike a balance between wider scope for the Member States and proper compliance and smarter State aid control.

7.1 GBER uptake is steady

As observed in previous Scoreboards, the Member States are increasingly using block-exempted measures since the SAM. **Member States reported to have provided aid under 5 903 GBER measures in 2023, representing 67% of all the active measures against 41% in 2014 when the SAM came into place.** Moreover, there are 1 493 active ABER measures in 2023, and 52 FIBER active measures. Therefore, **GBER, ABER and FIBER measures together represent 85% of all the active measures in 2023.** Since the SAM, Member States reported expenditure under an additional 3 460 GBER measures, an additional 476 ABER measures and 89 FIBER measures. On the contrary, notified measures show a remarkable decreasing trend between 2014 and 2019 (from 1 716 active measures in 2014 to 945 in 2019), with a surge in 2020 (1 295 active notified measures) and in 2021 (1 503 active notified measures) due to the implementation of the crisis measures to support the economy during the pandemic, but also to address the energy crisis that resulted from Russia's aggression against Ukraine. The increasing pattern of notified measures reverted again in 2022, when they started decreasing compared to 2021 (1 453 active notified measures), while the GBER measures kept increasing steadily (5 281 active GBER measures).

Both these trends continued consistently in 2023. Looking at the new block-exempted measures implemented in 2023, Member States reported expenditures for the first time for 2 105 new GBER, 690 ABER and 30 FIBER measures, corresponding altogether to **88% of the new State aid measures**. Excluding the crisis measures, related to both, the COVID-19 outbreak and the Russian invasion of Ukraine, the **new block exempted** measures account for **93% of total new non-crisis measures**. After peaking in 2021, when a total of 3 332 new measures were implemented, and decreasing in 2022, when a total of 2 741 new measures were implemented, the absolute number of new measures started to increase again in 2023 (+18% with respect to 2022).

Figure 61: Number of cases for which expenditure has been reported by Member States, breakdown by type of procedure, 2013-2023 (excluding fisheries block-exempted aid)[61,62]



As observed from Figure 62 and Table 2, State aid spending under the GBER has been increasing since SAM, with an annual rate of approximately +15% over the period 2014-2018 which slowed down to an average growth rate of around 3% in 2019 and 2020. The growth rate of expenditure under GBER measures increased again in 2021 with respect to the previous year (+11%). Together with the general reduction in expenditure, the actual expenditure of GBER schemes also very slightly decreased in 2022 (-2%) to then increase again in 2023 (+6% with respect to the previous year). In 2020 and 2021, notified aid procedures largely prevailed due to the unprecedented aid mobilised in the context of the COVID-19 crisis, accounting for more than 80% of total Member States' aid expenditure each year. In both 2022 and 2023, along with a reduction in absolute amounts (of around -40% and -34% in each year with respect to the previous year), also the relative share of notified aid reduced to around 73% and 66% of the aid expenditure in each year respectively.

[61] 41 active FIBER measures in 2020, 52 in 2021, 50 in 2022 and 52 in 2023.
[62] As Member States may report expenditures for a given scheme over more than a decade, some measures have been authorised under a now repealed legal basis, such as Council Regulation No 994/98 of 7 May 1998, 'BER' (OJ L 142, 14.5.1998).

Figure 62: Breakdown of State aid spending by type of procedure (excluding fisheries block-exempted aid), in EUR billion in constant prices, 2013-2023

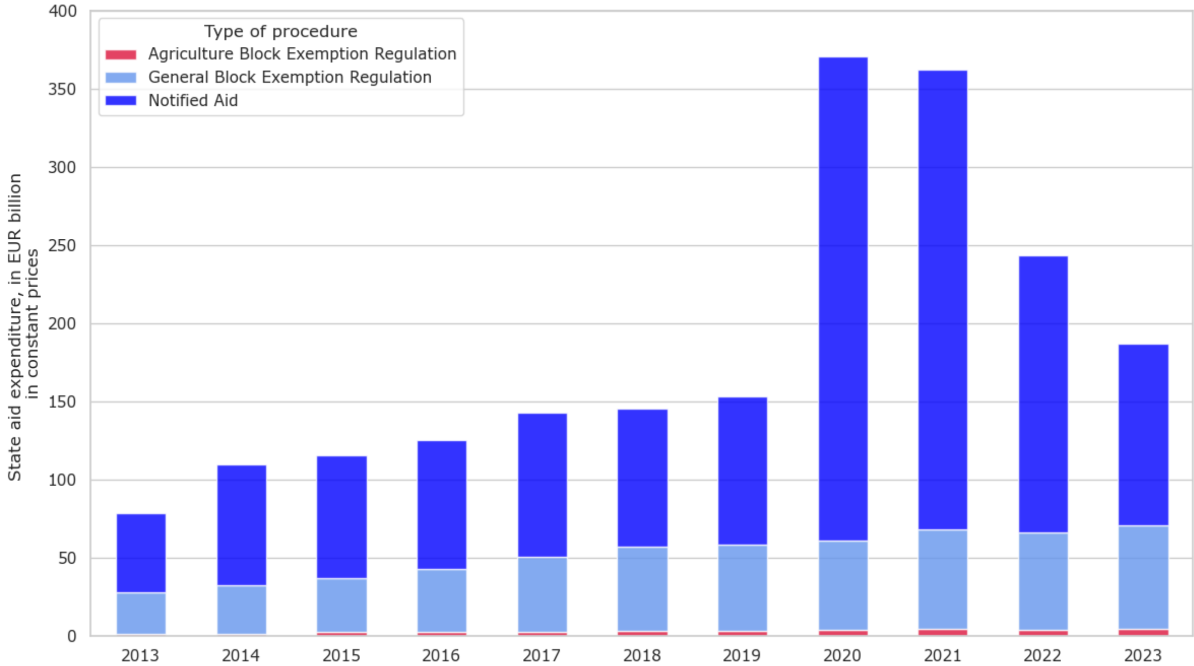


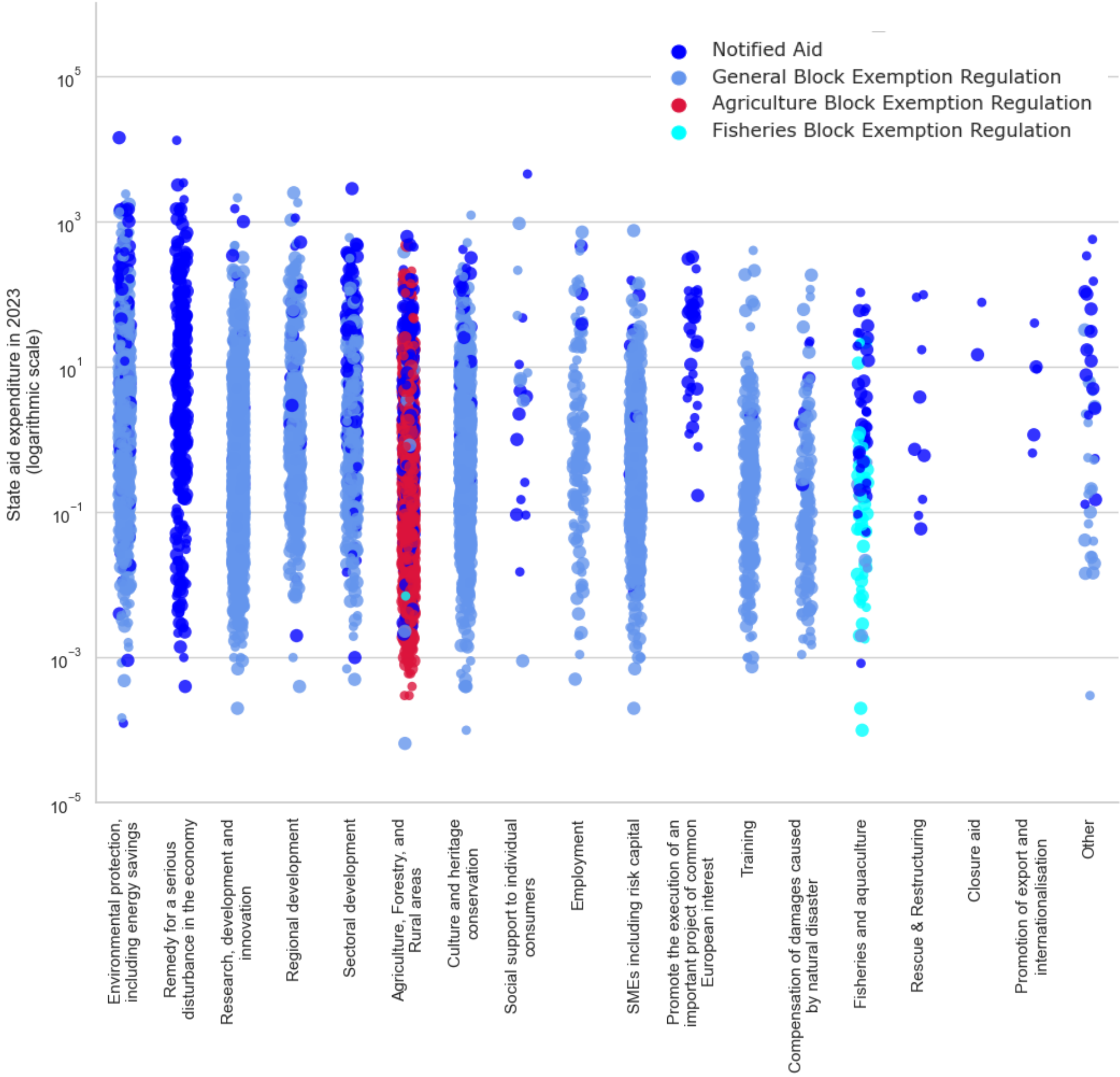
Table 2: Breakdown of State aid spending by type of procedure, in EUR billion in constant prices

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Agriculture Block Exemption Regulation	1.25	1.47	2.31	2.32	2.58	2.86	3.21	3.46	4.33	3.95	4.69
Fisheries Block Exemption Regulation	-	-	-	-	-	-	-	0.03	0.03	0.02	0.07
General Block Exemption Regulation	26.31	31.11	34.58	40.39	47.77	53.88	55.40	57.34	63.69	62.26	65.78
Notified Aid	50.87	76.87	78.32	82.70	92.66	88.68	94.73	309.60	294.25	177.03	116.24

Figure 63 illustrates the allocation of the largest measures by policy objective and procedure type. **GBER measures can be large.** GBER is also widespread across many policy objectives, excluding the crisis cases which are all notified, promotion of export and internationalisation, promote the execution of a project of common European interest, rescue and restructuring, and closure aid.

The three main objectives of GBER measures in the last six years are environmental protection and energy savings, research, development and innovation, and regional development (Figure 64). In 2023, while environmental protection, including energy savings, remains relatively stable with respect to the previous year (+0.25%), both regional development and research, development and innovation increased noticeably by 8% and 23%, respectively, in constant prices, reaching their peak. In 2023, expenditures peaked also under the objective sectoral development, when significantly increased by 66%.

Figure 63: Largest State aid schemes in term of expenditure in 2023, breakdown by type of procedure and policy objective (in EUR million)



N.B. Each point represents a State aid measure, and appears at the intersection of its category on the x-axis (in this figure, its main policy objective) and its expenditure on the y-axis. The expenditure is displayed with a logarithmic scale.

Figure 64: GBER State aid expenditure by policy objective in the EU, 2018-2023 in constant prices

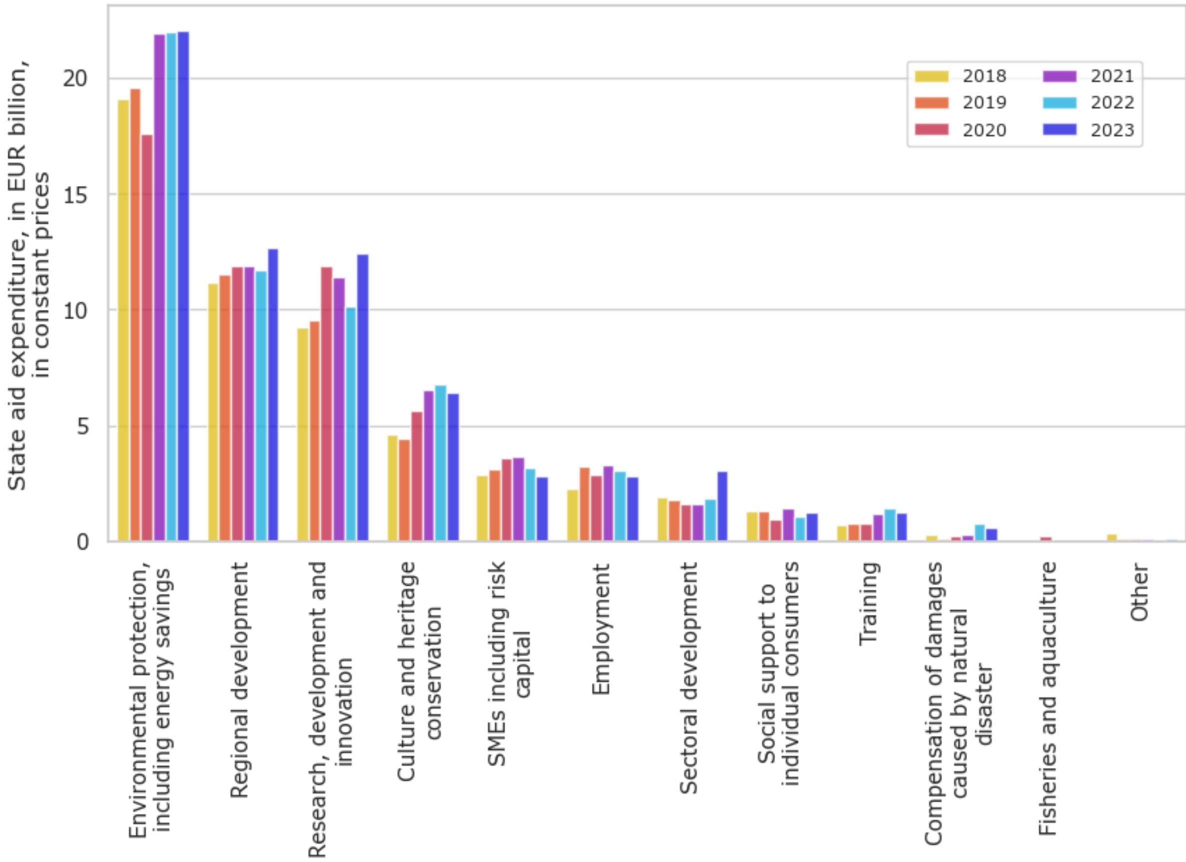
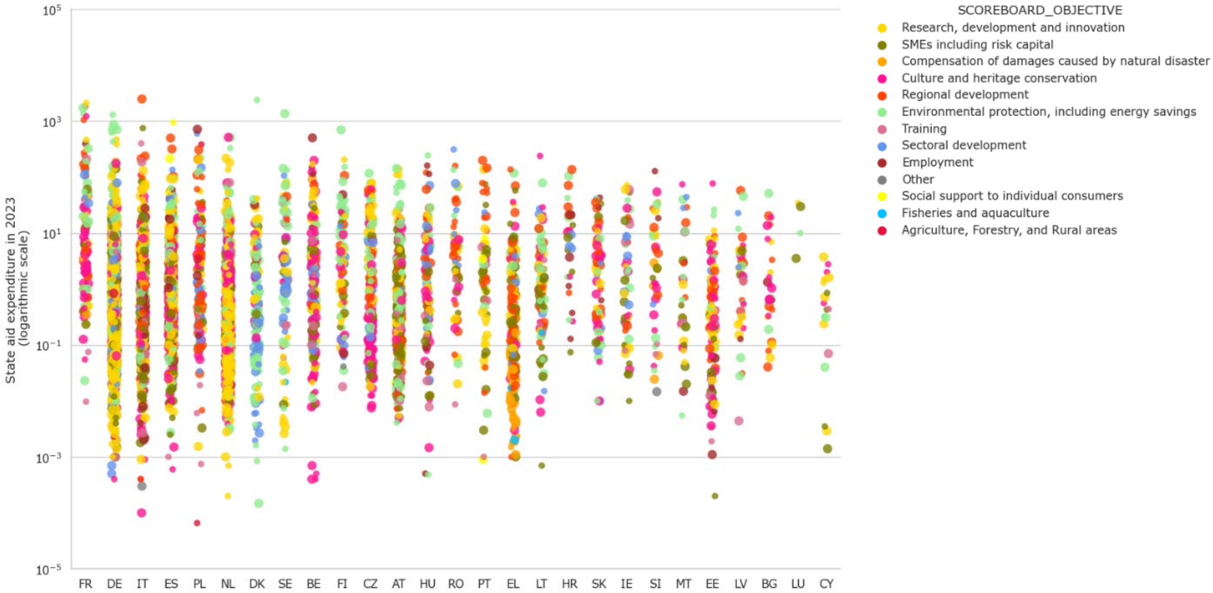


Figure 65 sheds some light on the **use of GBER measures made by Member States.** In general, Member States use the GBER for a large variety of policy objectives and for a great number of measures of varying sizes, as shown by the number of dots and the variety of colours. Some Member States have **one GBER measure whose order of magnitude is much larger than their other GBER measures**: the largest GBER scheme in France, the largest GBER scheme is a research, development, and innovation measure; in Italy, it is a regional development measure; while in Spain, it is a scheme aimed at providing social support to individual consumers. In Germany, Denmark, Sweden, Finland, Czechia, Austria, Hungary and Bulgaria the largest GBER measure focuses on of environmental protection (including energy savings).

Figure 65: GBER schemes by expenditure in 2023, breakdown by Member State and policy objective



N.B. Each point represents a GBER scheme and appears at the intersection of its category on the x-axis (in this figure, the Member State concerned) and its expenditure on the y-axis. The expenditure is displayed with a logarithmic scale. The size of the points slightly differs, for layout reasons only.

As regards different policy objectives, some political priorities for GBER spending can be identified.

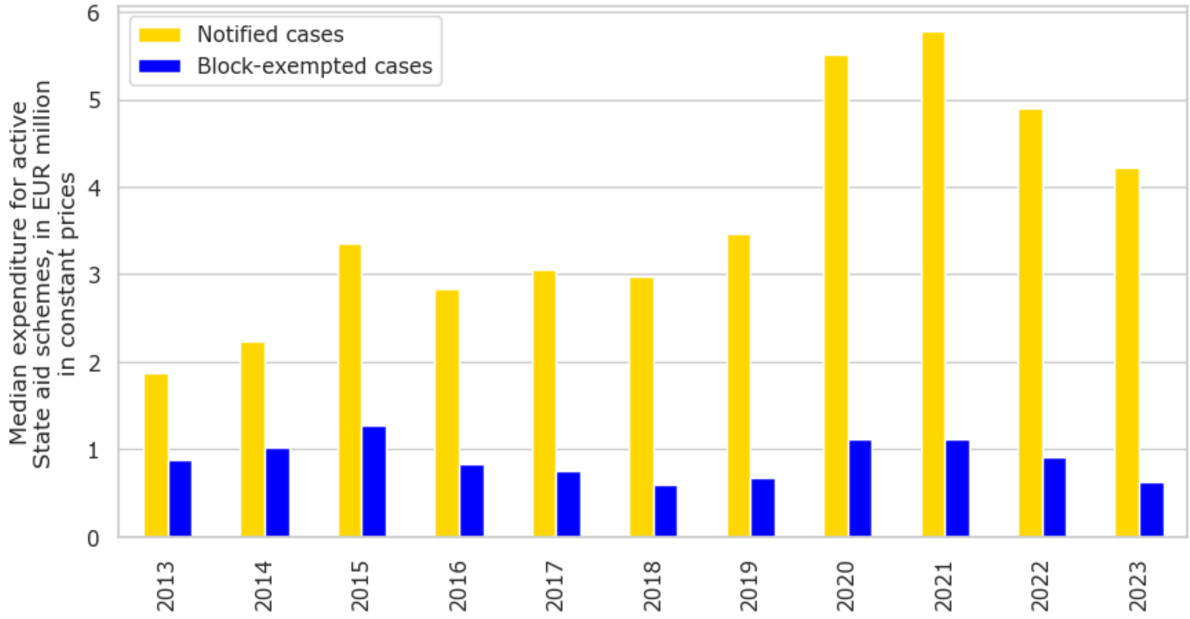
- **Environmental protection including energy saving** GBER schemes are applied by most of the Member States, via medium size to large ones, with also some of the largest measures. The main Member States making use of GBER measures for this policy objective in terms of spending in 2023 are Germany, France, Denmark, Sweden, and the Netherlands.
- **Research and development including innovation** GBER schemes (represented in yellow in the Figure 65) are mainly used, in terms of State aid spending, by the most advanced Member States in terms of research and innovation: Germany, France, the Netherlands, Spain and Italy. Most of these schemes are medium-sized.
- **Regional development** GBER measures are mainly implemented via large schemes in some of the largest Member States, in terms of both size and population: France, Italy, Spain but Poland and Portugal.

More generally, the above classification of largest schemes illustrates the fact that Member States have adopted the GBER beyond expectations and are currently implementing large GBER schemes for a wide variety of objectives.

7.2 State aid control: "Big on big, small on small"

Figure 66 displays the median inflation-adjusted annual expenditure of notified and block-exempted measures between 2013 and 2023. Comparing the averages over time would not allow any conclusion about the impact of the State aid modernisation on the size of State aid schemes, while the medians remove the impact of particularly large measures that would otherwise artificially inflate the averages and thereby distort the overall picture.

Figure 66: Median expenditures of active State aid schemes from 2013 to 2023, in EUR million in constant prices



The **median annual expenditure for notified measures** is much higher than for block-exempted measures. Since 2014, the notified cases' median expenditure has increased from around EUR 2.23 million to EUR 3.46 million in 2019, with a jump to around EUR 5.51 million in 2020 and EUR 5.78 million in 2021 in the COVID-19 crisis years. In 2022, the median spending for notified schemes decreased to EUR 4.90 million, and then to **EUR 4.22 million in 2023**, still well above the 2019 level. **Median spending for active State aid measures under the GBER** has been more stable, ranging between EUR 0.60 (the lowest value in 2018) and EUR 1.28 million (highest value in 2015). **In 2023, the median value for GBER schemes was around EUR 0.62 million.** Therefore, Figure 66 indicates that DG Competition's State aid assessment increasingly focuses on the largest State aid measures.

8 Clean transition: State aid for environmental protection, renewables and energy savings

8.1 Policy context

The Commission has made the clean, just, and competitive transition a top political priority, with the aim of transforming the Union into a fair and prosperous society with a modern, resource-efficient and competitive economy, where there are no net emissions of greenhouse gases by 2050, and where economic growth is decoupled from resource use, while leaving no one behind. The climate ambitions of the Commission were reinforced in 2019 with the European Green Deal Communication[63], setting an objective of no net emissions of greenhouse gases by 2050, with a reduction of at least 55% by 2030 compared to 1990 levels[64]. Those ambitious targets have been enshrined in the European Climate Law. The 'Fit for 55' package of legislative proposals supports the achievement of these targets and puts the Union on track to climate neutrality by 2050. Moreover, REPowerEU is an EU plan aimed at reducing Europe's dependence on fossil fuels and accelerating the transition to clean energy.

Delivering on the ambitious objectives of the clean transition brings significant investment needs, which requires mobilising both the private sector and public funds in a cost-effective manner. Competition policy, and State aid rules in particular, have an important role to play in enabling and supporting the Union in fulfilling its Green Deal policy objectives. The European Green Deal Communication specifically states that the State aid rules will be revised to take into account those policy objectives, to support a cost-effective and just transition to climate neutrality, and to facilitate the phasing out of fossil fuels, while at the same time ensuring a level-playing field in the internal market. The new Guidelines on State aid for climate, environmental protection and energy (CEEAG), applicable as of January 2022, reflect that vision.

This section takes stock of the implementation of the Guidelines on State aid for environmental protection and energy (2022 CEEAG[65], 2014 EEAG[66], and the 2008 EEAG[67]), the Temporary Crisis and Transition Framework (TCTF), as well as the expenditure under the GBER articles related to objectives of environmental protection and energy savings.

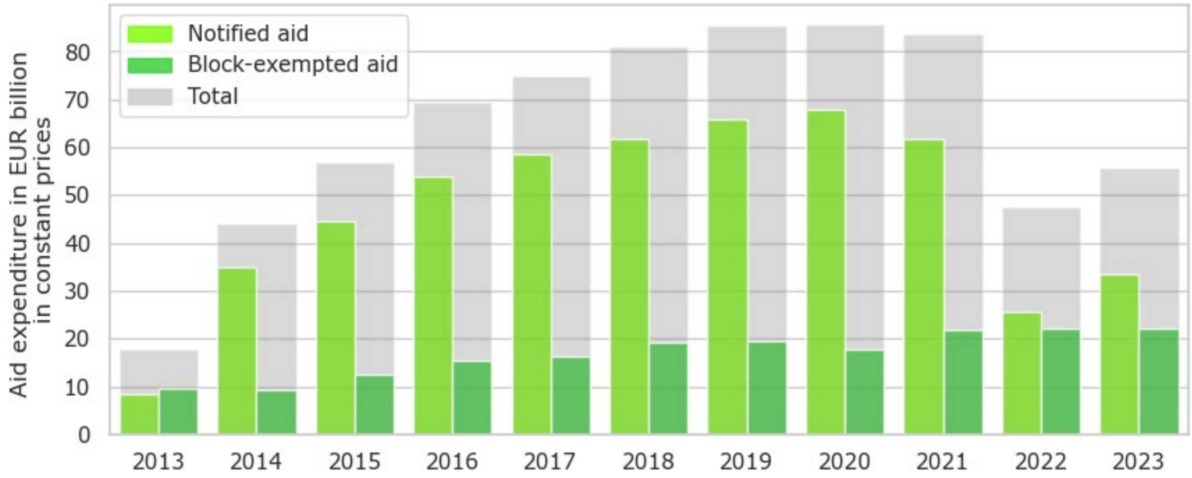
8.2 A closer look at aid for environmental protection, renewables and energy savings

State aid targeting objectives of environmental protection and energy savings more than doubled in 2014, when the 2014 EEAG came into force and the SAM took place, with the revised GBER rules for block-exempted measures (Figure 67) This large increase in overall expenditure (from EUR 17.71 billion in 2013 to EUR 44.09 billion in 2014) is almost entirely due to the notified measures (from EUR 8.26 billion in 2013 to EUR 34.91 billion in 2014).

The total State aid expenditure for this objective grew at a decreasing pace between 2015 (+29%) and 2019 (+6%), until 2020, when the expenditures for this type of aid (including crisis and non-crisis measures) remained stable (EUR 85.52 billion, +0.1% adjusting for inflation compared to the previous year). It showed a slight decrease in 2021 (EUR 83.61 billion, -2%), and then plummeted in 2022, despite the Union's increasingly ambitious environmental protection objectives, to EUR 47.51 billion (-43% compared to the previous year). In 2023, State aid to support environmental protection and energy savings grew by 17%, as EUR 55.57 billion was spent on this objective. Again, this consistent increase is mainly due to the notified measures (from EUR 25.52 billion in 2022 to EUR 33.52 billion in 2023), while the expenditure under GBER measures remained constant (from EUR 21.99 billion in 2022 to EUR 22.05 billion in 2023).

[63] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'The European Green Deal', COM (2019) 640 final.
[64] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people', COM (2020) 562 final.
[65] Guidelines on State aid for climate, environmental protection and energy 2022 (2022/C 80/01).
[66] Guidelines on State aid for environmental protection and energy 2014-2020 (2014/C 200/01).
[67] Community guidelines on State aid for environmental protection 2008-2014 (2008/C 82/01).

Figure 67: Total State aid expenditure for environmental protection including energy savings, in EUR billion in constant prices, 2013-2023

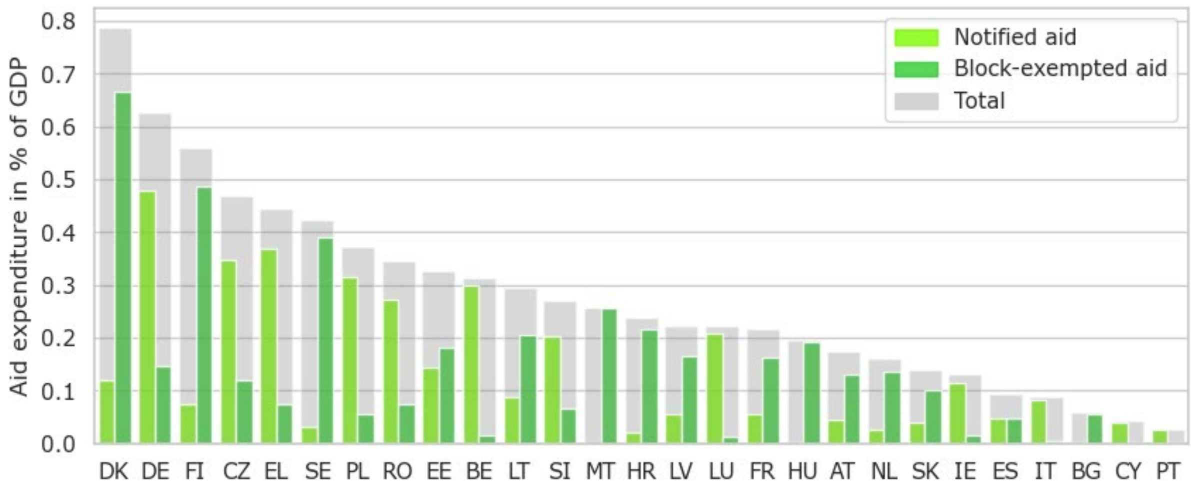


Among the largest spenders in relative terms for environmental and energy projects (as compared to the size of national GDP) in 2023, are Denmark (0.79% of its own GDP) and Germany (0.63%). However, while Denmark predominantly made use of block-exempted aid (0.67% of GDP and 85% of the Danish aid expenditure for this objective), Germany mainly relied on notified measures (0.48% of national GDP and 76% of the total aid expenditure for this objective).

Belgium, Cyprus, Italy, Portugal, and Luxembourg spent more than 90% of environmental and energy aid under notified measures, and eight other Member States (Czechia, Germany, Greece, Ireland, Poland, Romania, Spain and Slovenia) spent more than half. On the contrary, Malta granted 'green aid' exclusively under block-exempted measures.

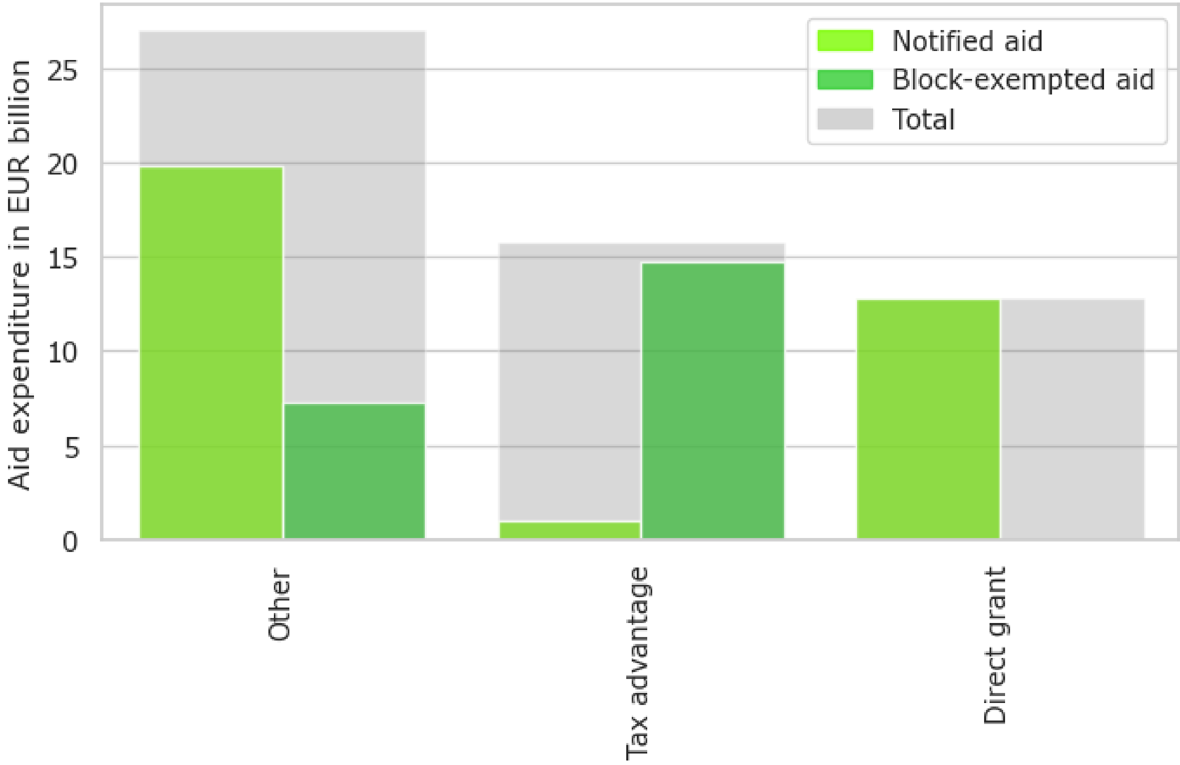
Portugal, Cyprus, and Bulgaria are the Member States that spend the least on environmental and energy objectives in proportion to their GDP, with a total expenditure ranging between 0.03% and 0.06% of 2023 national GDP. This means that the Member State spending the least, Portugal, spends 0.76 percentage points of GDP less than the Member State spending the most, Denmark.

Figure 68: Total State aid expenditure for environmental protection including energy savings in 2023, as % of national GDP, by Member State



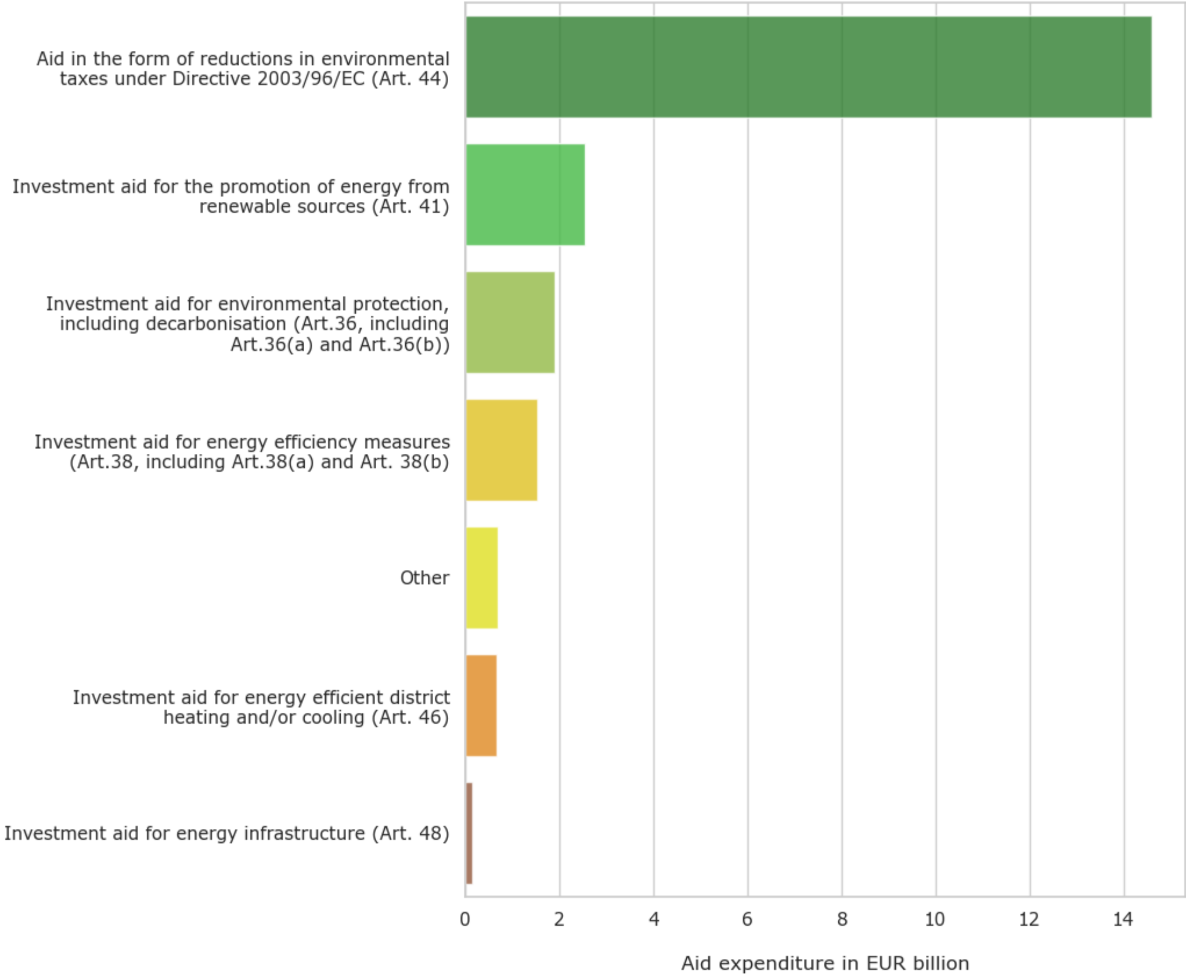
In terms of aid instruments applied to grant subsidies for environmental protection and energy savings, notified aid mostly takes the form of feed-in tariffs (classified, among other instruments, as "other") or direct grants, while block-exempted aid takes mostly the form of tax advantages (Figure 69).

Figure 69: Total State aid expenditure for environmental protection including energy savings in 2023, in EUR billion, by aid instrument



Focusing solely on the GBER measures, as shown in Figure 70, State aid expenditure for environmental protection projects in 2023 is highly concentrated under one GBER article entailing tax reductions or exemptions for "energy intensive users", Article 44 – Aid in the form of reductions in environmental taxes under "Directive 2003/96/EC". This article absorbs around EUR 14.59 billion in 2023 out of a total EUR 22.05 billion spent on environmental and energy aid measures approved under the GBER.

Figure 70: Total State aid expenditure for environmental protection including energy savings under the General Block-Exemption Regulation (GBER) in 2023, in EUR billion, by GBER article



9 Digital Europe: State aid to deploy broadband networks

9.1 Policy context

Developing a modern internet infrastructure has been at the core of the European agenda since 2010. In its first "Digital Agenda for Europe,"[68] the European Commission identified the 10-year 2020 strategy, which was further expanded in the 2016 "Connectivity for a European Gigabit Society measures", which identified the connectivity needs to be achieved by 2025 to build a European Gigabit society, namely: (i) all European households should have internet connectivity of at least 100 Mbps download speed, upgradable to 1 Gbps, (ii) socio-economic drivers such as schools, hospitals and public administration as well as digitally intensive enterprises should benefit from Gigabit connectivity; (iii) all urban areas and all major terrestrial transport paths should be covered by an uninterrupted 5G network. In February 2020, the Commission published the EU digital priorities, among which is the Communication on Shaping Europe's Digital Future and recalled that connectivity to achieve the EU 2025 objectives remains the most fundamental building block of the digital transformation of Europe. In 2021, the strategy was complemented by the 10-year 2030 Digital Compass Communication, which envisages that by 2030, all households in the EU should be covered by a Gigabit network, and all populated areas should be covered by 5G.

High-quality electronic communications infrastructure is crucial for social cohesion and a competitive and sustainable economy, therefore State aid control in the electronic communications sector, including for broadband rollouts, plays an important role in supporting a coherent investment strategy and reaching the digital transition goals. In 2013, the Commission adopted the "EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks"[69] (the 2013 Broadband Guidelines) ensure Member States use public financing to finance broadband deployment in line with EU competition and State aid rules. In December 2022, the Commission adopted revised Broadband Guidelines[70] which entered into force on 1 February 2023 (2023 Broadband Guidelines). The 2023 Broadband Guidelines set out the rules under which the Commission will assess State aid measures notified by Member States to support the deployment and take-up of broadband networks in the EU. The 2023 Broadband Guidelines update the rules for public support to fixed networks to reflect the latest technological and market developments and introduce a new assessment framework for the deployment of mobile (including 5G) networks. They also explain how public support can be used to incentivise the take-up of broadband services. By simplifying, clarifying and updating certain conditions, the 2023 Broadband Guidelines facilitate their practical application and aim to help Member States meet the ambitious EU connectivity targets, at the least possible cost for taxpayers and without undue distortions of competition in the Single Market, to the benefit of consumers, businesses and the public sector.

The provisions of the 2023 Broadband Guidelines are complemented by the GBER, which was amended in March 2023 to further facilitate and speed up the digital transition. The revised provisions concerning broadband networks align the GBER with the 2023 Broadband Guidelines, and facilitate, among others, State aid measures that support the digital transition, notably aid for fixed and mobile broadband networks, aid for backhaul networks, aid granted through connectivity vouchers, and aid for certain projects of common interest in the area of trans-European digital connectivity infrastructure financed under Regulation (EU) 2021/1153, or awarded a Seal of Excellence quality label under that Regulation.

In addition, support for the digital transition is also central to the Recovery and Resilience Facility (RRF). The RRF provides both loans and grants for a total of EUR 672.5 billion, with at least 20% earmarked for digital. In particular, EUR 16.5 billion relate to connectivity.

[68] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM (2010) 245 final, A Digital Agenda for Europe.
[69] Communication from the Commission: EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, OJ C 25, 26.1.2013, p. 1-25.
[70] Communication from the Commission: Guidelines on State aid for broadband networks 2023/C 36/01 C/2022/9343 OJ C 36, 31.1.2023, p. 1–42.

9.2 A closer look at aid for broadband

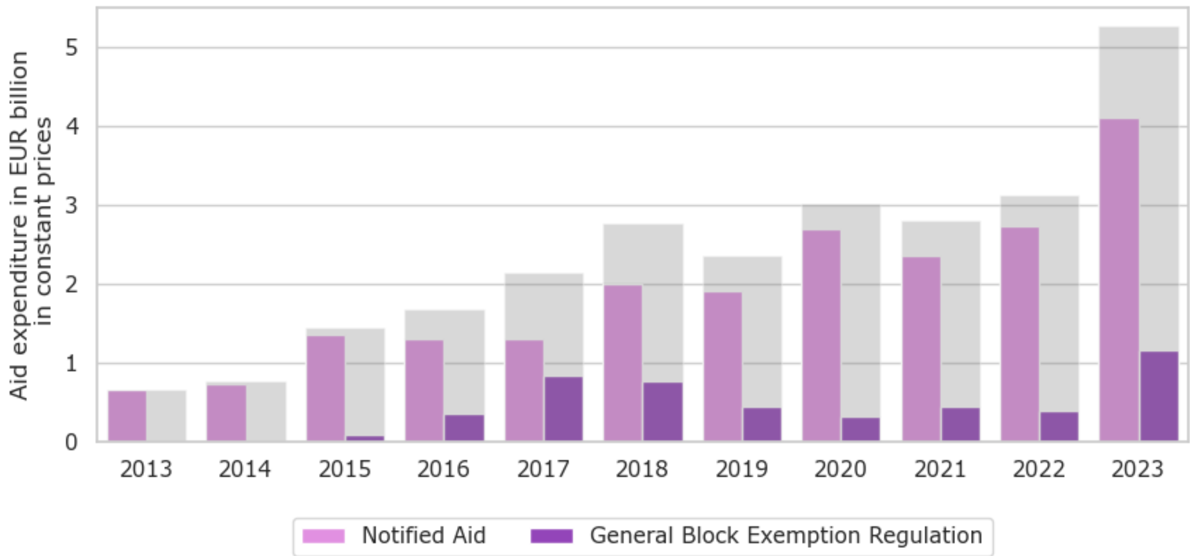
Between 2014 and 2023, the Commission approved under State aid decisions a total aid amount of EUR 61.97 billion for broadband, while the total aid amount communicated by Member States under the GBER for the same period was an overall budget of EUR 28.84 billion, bringing the full amount of aid approved to EUR 90.70 billion. Out of this full amount, in the same period (2014 – 2023), Member States spent EUR 22.78 billion (in current prices).

Only in 2023, the expenditures reported amount to **EUR 5.26 billion on 71 broadband measures**, a 69% increase compared to the expenditure in 2022 (EUR 3.12 billion, in constant prices). 22% of the 2023 expenditure (corresponding to EUR 1.16 billion) was reported by Member States as spent under the main relevant provision in GBER, i.e. Article 52, and 78% (EUR 4.11 billion) under Commission decisions. However, when looking at the number of active measures for which spending was reported in 2023, block-exempted measures are around 56% of the total broadband active cases (40 active GBER measures against 31 notified measures).

Figure 71 shows the evolution of State aid expenditure from 2013 to 2023 for all the EU27 Member States, distinguishing between notified measures adopted under the Broadband Guidelines and the GBER measures. The provision of subsidies under the GBER grew since its introduction in 2014, reaching EUR 839 million, in constant prices, in 2017 and EUR 771 million in 2018. The 2017-2018 spike is mostly due to the implementation of broadband measures co-funded by European funds over the period 2014-2020. State aid for broadband under the GBER peaked in 2023 (EUR 1.16 billion, almost three times the amount spent under these provisions in 2022, EUR 386 million in 2023 prices).

In 2023, the expenditure under notified measures reached a peak (EUR 4.11 billion), a 50% increase compared to the expenditure in 2022 (EUR 2.73 billion in 2023 prices).

Figure 71: Total State aid expenditures on Broadband measures, 2013-2023, EU27 Member States, EUR billion, constant prices



Looking at the number of broadband cases for which expenditure was reported (Figure 72), the data show a steady growth of active block-exempted measures since their introduction in 2014 (6 active measures) until 2019 (38 active measures). In the same time frame, the number of notified cases temporarily decreased after 2014 (reaching a minimum in 2019 at 19 measures). In 2020, the number of active block-exempted measures decreased to 34, while the number of notified measures increased to 27. In 2021, the number of active block-exempted measures (42) was almost double the number of notified cases (22). In 2022, the number of active broadband measures under GBER decreased to 32 to then increase again to 40 in 2023, and the number of notified measures increased to 25 in 2022 and then to 31 in 2023.

Overall, trends in terms of number of cases and broadband expenditure, while showing some variations, seem to be reasonably constant over time until 2022, In 2023, we observed a moderate increase in the number of active measures accompanied by a steep increase in the total expenditure for broadband aid, in part accompanying RRF measures.

Figure 72: Number of broadband measures for which expenditure was reported, 2013-2023, EU27 Member States

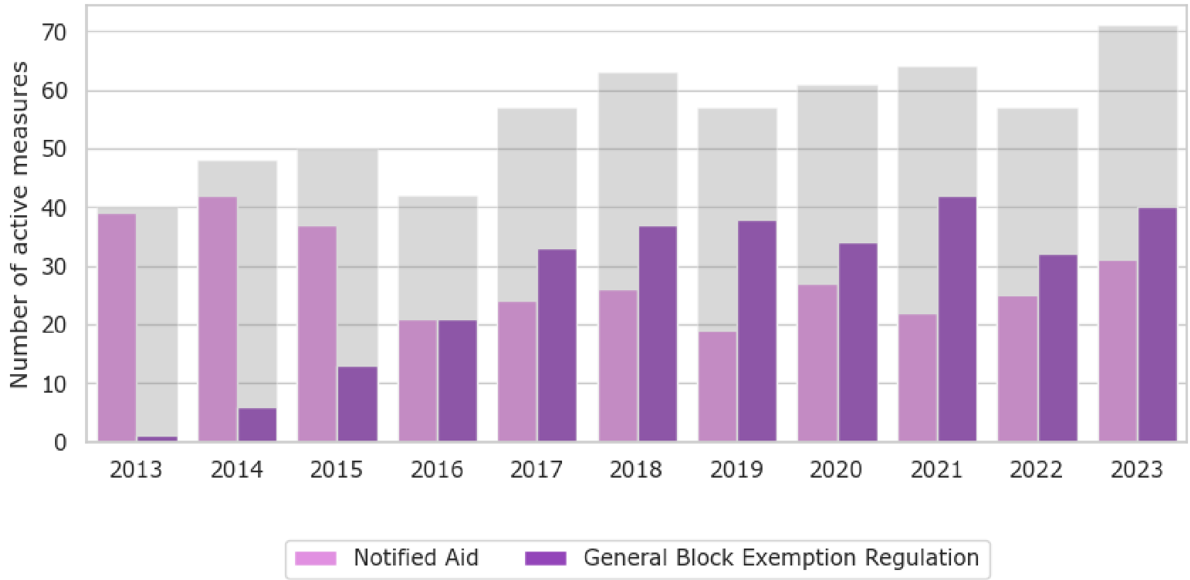
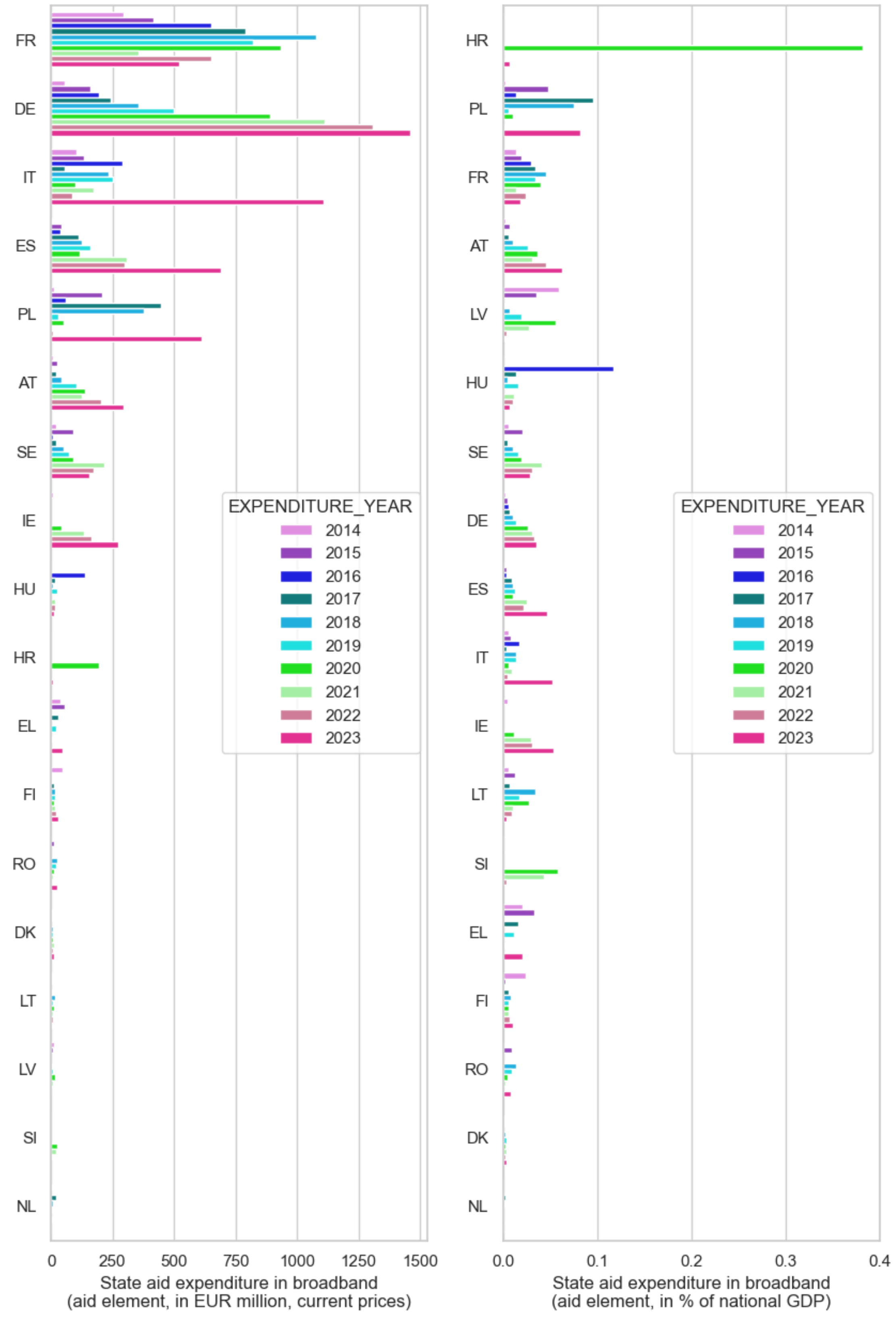


Figure 73: State aid expenditure for broadband, 2014-2023, EU27 Member States[71]



[71] Reported broadband expenditure for Belgium, Bulgaria, Cyprus, Czechia, Estonia, Portugal and Slovakia is below EUR 20 million (aid element) over the period 2014-2023.

In absolute values, **France** and **Germany** have been the largest spenders across the years 2014-2023. **Germany** is the Member State spending the most on broadband in 2023 (EUR 1.46 billion), followed by **Italy** (EUR 1.11 billion) and **Spain** (EUR 693 million).

In relative terms, **Poland** is the Member State that has spent the most compared to its GDP in 2023 (0.08%), followed by **Austria** (0.06%), and **Ireland** (0.05%).

Over the cumulative 2014-2023, **Croatia** is the largest spender in relative terms, with all its expenditure concentrated in 2020 (0.3% of national GDP). It is followed by **Poland**, which reached 0.1% of GDP in 2017 and **France** follows, with a peak of 0.05% of its national GDP in 2018.

10 State aid to boost industrial innovation and manufacturing of clean tech

10.1 Policy context

The European industrial strategy, a cornerstone initiative aimed at navigating the twin transitions towards a green and digital economy, was introduced by the Commission first in March 2020, then updated one year after as the initial unveiling coincided with the declaration of the COVID-19 pandemic, presenting an unforeseen challenge. The review was aimed at ensuring that its industrial ambition would take full account of the new circumstances following the COVID-19 crisis and helped to drive the transformation to a more sustainable, digital, resilient and globally competitive economy.

The strategy focuses on strengthening the resilience of the Single Market, reducing dependencies to bolster the EU's open strategic autonomy, fostering resilience in the european production, and promote open strategic autonomy of the EU.

A key component is the mobilization of both private investment and public finance to address market failures that hinder the deployment of innovative technologies.

The State aid framework provides Member States with opportunitities to support industries in boosting innovation and achieving global technological leadership.

Additionally, the strategy emphasises the importance of small and medium-sized enterprises (SMEs) in driving economic growth. It includes measures dedicated to SMEs, such as increasing resilience, addressing delayed payments and supporting solvency, recognizing their crucial role in the EU's industrial ecosystem.

For example, State aid rules, under the revised 2022 RDI Framework and the General Block Exemption Regulation (GBER), following its most recent amendment in June 2023, support high-risk research and innovation projects that would not occur in the absence of public support.

The Commission has also issued in 2022 new Guidelines on State aid for Climate, Environmental Protection and Energy (CEEAG), which facilitate investments by Member States to accelerate the achievement of the EU Green Deal objectives in a cost-effective way. The revised GBER also provides even more flexibility for Member States to implement support measures in sectors that are key for the transition to climate neutrality and to a net-zero industry.

Another State aid tool that has been deployed for the purpose of mobilising public contribution and stimulating private crowd-in, is Important Projects of Common European Interest (IPCEIs). IPCEIs enable Member States to pool financial resources, catalyse investments, and facilitate cross-border collaborations, addressing market failures in the process.

Additionally, the European Chips Act thas taken prominence in response to the global semiconductor shortages. This legislative initiative aims to fortify Europe's competitiveness and resilience in semiconductor technologies, aligning with the broader goals of the digital and green transitions.

Furthermore, the Regional State Aid Guidelines (RAG), by addressing regional disparities and challenges, contributes to the cohesion objectives of the Union, ensuring a level playing field across Member States, and also provides increased possibilities for Member States to support regions facing transition or structural challenges.

Finally, another instrument boosting the twin transition and investments in strategic sectors is the Temporary Crisis and Transition Framework (TCTF), specifically its “transition sections”. Applicable until 31 December 2025, the framework allows Member States to grant aid to foster the transition to a net-zero economy. Thus, aid may be granted to (i) accelerate the roll-out of renewable energy, storage and renewable heat relevant for REPowerEU (measures under Section 2.5) and (ii) decarbonise industrial production processes (measures under Section 2.6). In addition, Member States may also grant aid to accelerate investments in key sectors for the transition towards a net-zero economy, enabling investment support for the manufacturing of strategic equipment, namely batteries, solar panels, wind turbines, heat pumps, electrolysers and carbon capture usage, and storage as well as for production of key components and for production and recycling of related critical raw materials (measures under Section 2.8). The following sections examine the main trends in State aid budgets and spending, focusing on their use since 2019 to support industrial innovation. The analysis covers the various legal basis mentioned above and examines key dimensions, such as the Member States involved and the types of aid instruments used.

10.2 A closer look at aid to support industrial innovation and manufacturing of clean tech

10.2.1 Aid for R&D&I

Most State aid for research, development, and innovation is granted by Member States currently under the GBER. The notification threshold for aid to R&D&I was significantly increased following the most recent amendment to the GBER, adopted in June 2023.

When aid exceeds the GBER thresholds, it is notified to the Commission for assessment under the RDI Framework. The Commission approved several such measures for technologies that are of direct relevance for the European industrial innovation and global technological leadership.

In April 2024, the Commission approved EUR 300 million from France[72] to support Electricité de France's (EDF) subsidiary Nuward in researching and developing small modular nuclear reactors.

In August 2023 the Commission approved EUR 1.5 billion aid from France[73] to company ProLogium for developing new generations of batteries for electric vehicles using the 'solid-state' technology, which uses solid instead of liquid electrolyte for batteries that have a higher energy density and are safer for consumers than conventional lithium-ion batteries. In October 2023, approximately EUR 650 million aid[74] from France to company Verkor was approved, also to support an R&D project in the area of batteries for electric vehicles.

The Commission approved under the R&D State aid rules a EUR 179.5 million Croatian aid measure[75] to support the development of an urban mobility service based on a fully autonomous electric vehicle ("so-called: 'robo-taxi'") in May 2023; and a EUR 52.3 million Italian aid measure[76] to support the development of a fully digitalised factory model for the production and life cycle management of complex aerostructure components.

Looking at the number of cases having an objective related to R&D&I for which expenditure was reported (Figure 74), the data shows a steady growth of active block-exempted measures from 2013 (392 active measures) to 2023 (2012 active measures). In the same time frame, the number of notified cases decreased from 181 in 2013 to 29 in 2023, with a minimum in 2021 at 25 measures.

Figure 75 shows the evolution of State aid expenditure from 2013 to 2023 for cases having an objective related to R&D&I for all the EU27 Member States, distinguishing between notified measures and the GBER measures. While the number of measures under the GBER has grown by 413% between 2013 and 2023, the growth in the expenditure less pronounced, although very consistent, from around EUR 3.62 billion to EUR 12.43 billion (+243%). The provision of State aid for R&D&I objectives under notified measures declined from 2013 (EUR 7.30 billion) to a minimum of EUR 1.36 billion in 2019. In 2023, the expenditure under notified measures increased consistently to EUR 3.53 billion, a 90% increase compared to expenditure in 2022 (EUR 1.86 billion in 2023 prices).

[72] SA.106964 - Soutien à la phase APD du projet Nuward.
[73] SA.106740 - Aid to ProLogium for the project "Prometheus".
[74] SA.106361 - Aid to Verkor for the Veymont project.
[75] SA.101759 - Development and implementation of a completely new urban mobility system based on new autonomous electric vehicle technology.
[76] SA.104370 - Aid to Leonardo S.p.A. for the implementation of the research and development project 'NEMESI'.

Figure 74: Number of measures with RDI objective for which expenditure was reported, 2013-2023, EU27 Member States, by case type

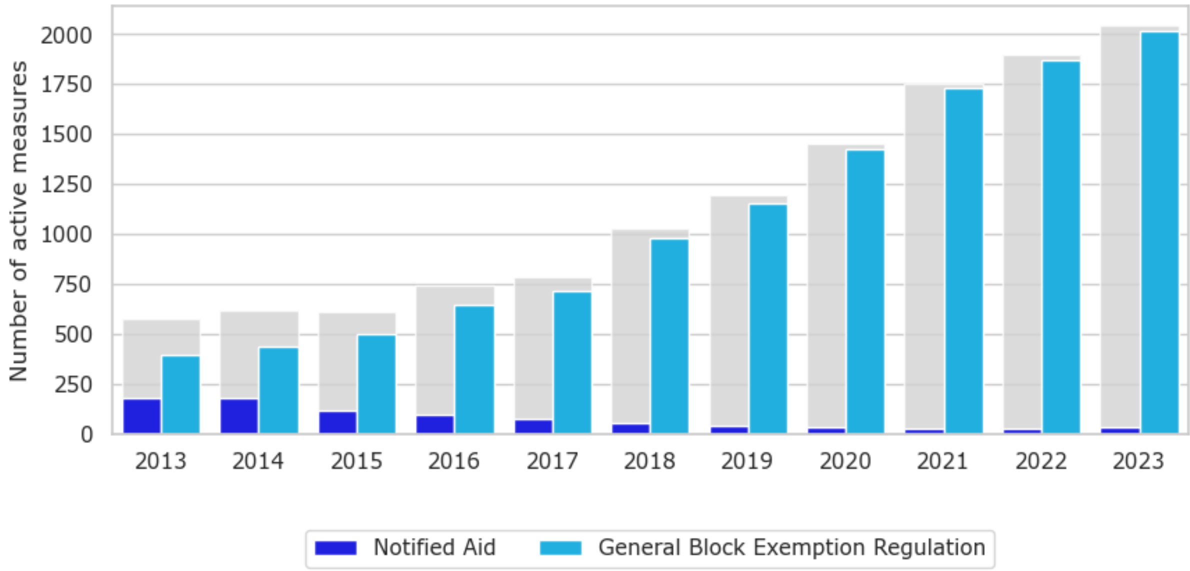
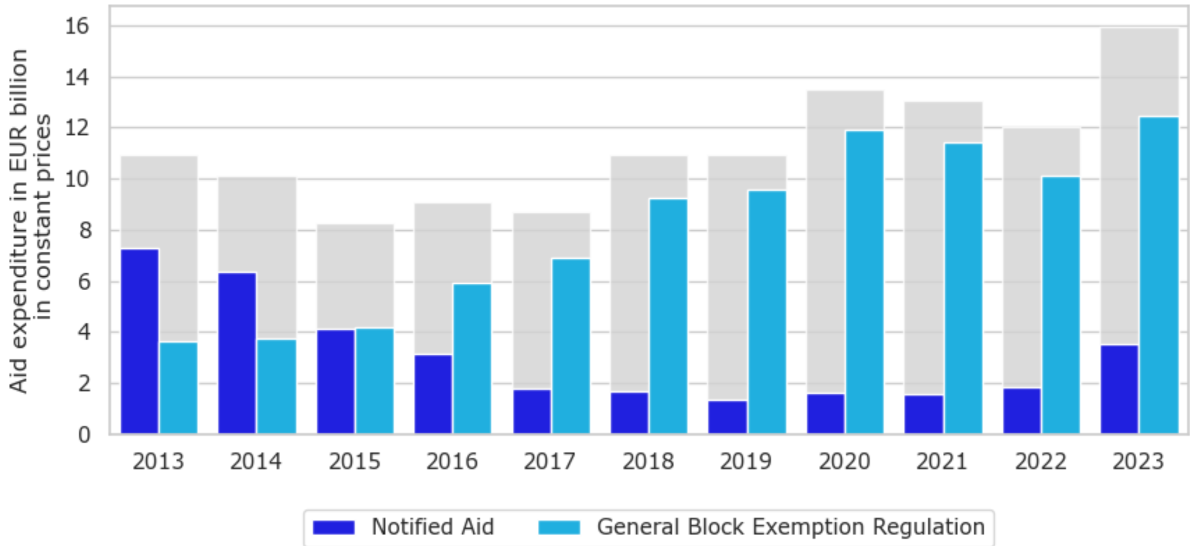


Figure 75: Total State aid expenditures for measures with RDI objective, 2013-2023, EU27 Member States, EUR billion, constant prices, by case type



10.2.2 Aid for industrial decarbonisation

The CEEAG, adopted by the Commission at the beginning of 2022, creates a flexible enabling framework to help Member States provide the necessary support to reach the Green Deal objectives in a targeted and cost-effective manner. These rules cover many different categories of aid, including to renewable energy and clean mobility.

Industrial decarbonisation is key to reach the Green Deal objectives while boosting competitiveness. Since 2022, the Commission approved under the CEEAG several State aid measures aiming at the decarbonisation of industry, including some measures supporting the decarbonisation of large steel and chemical plants through the uptake, at unprecedented large scales, of clean hydrogen-based technologies replacing the traditional ones based on fossil fuels. For example, the Commission approved several aid measures to promote such investments by the companies:

- ArcelorMittal, in Belgium[77], France[78], Germany[79] and Spain[80];

[77] SA.104897 - Project ArcelorMittal (Ghent).
[78] SA.104903 - ArcelorMittal France.

- BASF[81], Salzgitter[82],ThyssenKrupp[83], Saarstahl[84] and Concrete Chemicals[85], in Germany;
- Cobra Instalaciones y Servicios, in Spain[86];
- LOTOS, in Poland[87];
- Achema, in Lithuania[88];
- SSAB[89] and H2GS[90], in Sweden.

Besides individual measures, the Commission also approved large aid schemes, notably for EUR 1 billion in Slovakia[91],EUR 4 billion in Germany[92], EUR 2.7 billion in Austria[93] and EUR 3 billion in France[94] that aim at accelerating the decarbonisation of energy-intensive sectors, including through the use of novel aid instruments like Carbon Contracts for Difference (CCfD), while keeping aid and competition distortions limited to the minimum necessary. The Commission also approved under the CEEAG schemes notified by Denmark[95] and Sweden[96], with a total budget of around EUR 4.1 billion, specifically aiming at promoting the roll-out of Carbon Capture and Storage (CCS) technologies used to reduce CO_2 emissions that are released in the atmosphere and achieve deeper decarbonisation of industrial processes.

In section 8 "Clean transition", the expenditures for the objective of environmental protection, renewables and energy savings are presented and a part of the EUR 55.57 billion spent in 2023 on this objective was addressed specifically to industrial decarbonisation.

10.2.3 Aid for IPCEIs

As of the end of 2024, the Commission has approved aid in the context of ten Important Projects of Common European Interest (IPCEIs): two in microelectronics, two in batteries, four in hydrogen, one in the cloud computing value chains, and one in the health value chain.

All ten IPCEIs are large EU-wide cross-border projects. The Member States participating in these projects are expected to provide up to approximately EUR 37.2 billion in funding, which, in turn is expected to unlock an additional EUR 66 billion in private investments.

Two IPCEIs are aimed at supporting the microelectronics value chain. The first IPCEI, approved in 2018, envisages aid by 5 Member States of up to EUR 1.9 billion, as well as another EUR 6.5 billion of private investments. As a result of the innovations achieved in the sector in the first 2018 IPCEI, new advanced chip technologies are now reaching the market.

The second IPCEI on Microelectronics/Communication Technologies was approved in June 2023. It was jointly prepared and notified by fourteen Member States, and will provide up to EUR 8.1 billion in funding. This public funding is expected to unlock an additional EUR 13.7 billion in private investments.

The first IPCEI on batteries, approved in 2019, was jointly prepared and notified by seven Member States, and will provide up to EUR 3.2 billion in funding. This public funding is expected to unlock

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[79] SA.104898 - RRF - ArcelorMittal (Bremen & Eisenhuttenstadt); and SA.63733 - Aid to ArcelorMittalHamburg for a decarbonisation project.
[80] SA.104904 Aid to ArcelorMittal (Gijon).
[81] SA.103774 - BASF - Project Hy4Chem-El.
[82] SA.104276 - Aid to Salzgitter for project SALCOS stage I.
[83] SA.105244 - Aid to ThyssenKrupp for project tkH2Steel.
[84] SA.105337 - Aid to AG der Dillinger Hüttenwerke, Saarstahl AG and ROGESA Roheisengesellschaft Saar mbH for project Power4Steel – Phase 1 in Völklingen and Dillingen.
[85] SA.106395 - Project: Concrete Chemicals.
[86] SA.104361 - RRF - Project Green Cobra.
[87] SA.105006 - RRF - Aid to LOTOS Green H2 Sp. z o.o.
[88] SA.108431 - Aid to Achema for the integration of electrolysis into ammonia production – JTF.
[89] SA.109640 - Support to SSAB Luleå for the transition to carbon-neutral production of slabs.
[90] SA.110031 - RRF - H2GS – decarbonisation of steel production.
[91] SA.102385 – RRF - State aid scheme for the decarbonisation of industry financed by the RRF; and SA.102388 - State aid scheme for the decarbonisation of industry financed from the Modernisation Fund.
[92] SA.104880 - RRF - Climate Protection Contracts support scheme.
[93] SA.109730 - Transformation der Industrie : transformation and investment grants under the CEEAG.
[94] SA.112361 - Régime d'aides en faveur de la décarbonation des industries les plus émettrices.
[95] SA.102777 - State aid scheme for Carbon Capture and Storage in Denmark.
[96] SA.107009 - Reversed auction for state aid for biogenic CCS.

an additional EUR 5 billion in private investments. The second IPCEI on batteries (‘EuBatIn’), approved in 2021, was jointly prepared and notified by twelve Member States, and will provide up to EUR 2.9 billion in funding. This public funding is expected to unlock an additional EUR 9 billion in private investments, i.e., more than three times the public support.

Two IPCEIs supporting the hydrogen value chain were approved by the Commission in 2022, two IPCEIs in the same field were approved in 2024.

The first IPCEI, approved in July, envisages aid by 15 Member States[97] of up to EUR 5.4 billion of aid, as well as another EUR 8.8 billion of private investments. It will boost the development of hydrogen technologies (especially electrolysers).

The second IPCEI, approved in September, covers EUR 5.2 billion in public funding from 13 Member States[98], which is expected to unlock an additional EUR 7 billion in private investments. It will aim at the construction of 3.5 GW hydrogen-generation capacity.

The third IPCEI, approved in February 2024, was jointly prepared and notified by seven Member States[99] , and will cover a wide part of the hydrogen value chain by supporting (i) the deployment of 3.2 GW of large-scale electrolysers to produce renewable hydrogen; (ii) the deployment of new and repurposed hydrogen transmission and distribution pipelines of approximately 2.700 km; (iii) the development of large-scale hydrogen storage facilities with capacity of at least 370 GWh; and (iv) the construction of handling terminals and related port infrastructure for liquid organic hydrogen carriers (‘LOHC’) to handle 6.000 tonnes of hydrogen a year. The seven Member States will provide up to EUR 6.9 billion in public funding in the coming years, which is expected to unlock an additional EUR 5.4 billion in private investments.

The fourth IPCEI, approved in May, also will cover a wide part of the hydrogen technology value chain, by supporting the development of a whole set of new technological innovations, including (i) the development of mobility and transport applications to integrate hydrogen technologies in transport means (road, maritime and aviation) including, for example, fuel cell vehicle platforms for use in buses and trucks; (ii) the development of high-performance fuel cell technologies, which use hydrogen to generate electricity with sufficient power to move ships and locomotives; (iii) the development of next generation on-board storage solutions for hydrogen (for the use in aircraft, lightweight, yet robust hydrogen tanks are necessary ensuring safety and efficiency in flight conditions); and (iv) the development of technologies to produce hydrogen for mobility and transport applications, in particular, for supplying hydrogen refuelling stations on-site with pressurised, 99.99% pure fuel-cell-grade hydrogen. The seven participating Member States[100] will provide up to EUR 1.4 billion in public funding, which is expected to unlock additional EUR 3.3 billion in private investments.

In December 2023, the Commission approved an IPCEI on Next Generation Cloud Infrastructure and Services, jointly notified by 7 Member States[101] and the first IPCEI in the cloud and edge computing domain. It concerns the development of the first interoperable and openly accessible European data processing ecosystem, the multi-provider cloud to edge continuum. It will develop data processing capabilities, and software and data sharing tools that enable federated, energy-efficient and trustworthy cloud and edge distributed data processing technologies and related services. The Member States will provide a total of EUR 1.2 billion in aid. The public funding is expected to unlock further EUR 1.4 billion in private investment.

In May 2024, the Commission approved the first IPCEI to support research, innovation and the first industrial deployment of healthcare products, as well as innovative production processes of pharmaceuticals. IPCEI Med4Cure was jointly notified by six Member States[102]. The six Member States will provide up toEUR 1 billion in public funding in the coming years, which is expected to unlock an additional EUR 5.9 billion in private investments.

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[97] Austria, Belgium, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Netherlands, Poland, Portugal, Slovakia and Spain.
[98] Austria, Belgium, Denmark, Finland, France, Greece, Italy, Netherlands, Poland, Portugal, Slovakia, Spain and Sweden.
[99] France, Germany, Italy, Netherlands, Poland, Portugal and Slovakia.
[100] Estonia, France, Germany, Italy, Netherlands, Slovakia and Spain.
[101] France, Germany, Hungary, Italy, the Netherlands, Poland, and Spain.
[102] Belgium, France, Hungary, Italy, Slovakia and Spain.

It is also worth noting that in October 2023, the Commission established the Joint European Forum for Important Projects of Common European Interest (JEF-IPCEI). It is an initiative to gather the Commission and Member States' representatives to substantially enhance the effectiveness and efficiency of the IPCEI process and identify areas of strategic interest for potential future IPCEIs in alignment with Union strategies, such as the green and digital transitions.

Focusing on expenditures, as shown in Figure 77, between 2019 and 2023, the overall aid element reported for the IPCEI measures amounted to EUR 5.13 billion in constant prices. In 2023 alone, reported expenditures reached EUR 2.22 billion (see grey bar).

Focusing on the specific measures (see coloured bars), in 2019, around EUR 423.84 million (in constant prices) was spent on the IPCEI on Microelectronics. This measure continues to represent the vast majority of expenditure in 2020. Of the total EUR 696.70 million spent for IPCEI measures, around 63% (EUR 437.41 million) was spent for IPCEI on Microelectronics, while 32% (EUR 223.25 million) was spent for the first IPCEI on batteries and 5% (36.03 million) was spent for other IPCEIs related to infrastructure.
The expenditure for the IPCEI on Microelectronics followed a decreasing pattern in 2021 and 2022 (EUR 369.23 million and EUR 317.05 million, respectively). This still accounted for 73% of the expenditure on IPCEIs in 2021, but only the 25% in 2022.

In 2021, alongside the implementation of the first IPCEI on batteries (EUR 69.32 million, in constant prices) the implementation of the IPCEI 'EuBatIn' also began (EUR 30.66 million).
In 2022, the implementation started the implementation of the two hydrogen value chains: IPCEI Hy2Tech and IPCEI Hy2Use. They accounted for 27% (EUR 342.16 million) and around 5% (EUR 67.89 million) of expenditure for IPCEI, respectively, while the biggest expenditure in the same year, accounting for 33% (EUR 417.41 million), was for the first IPCEI on batteries.

Figure 76: Total State aid expenditures on IPCEI measures, 2019-2023, by measure, EUR billion, constant prices

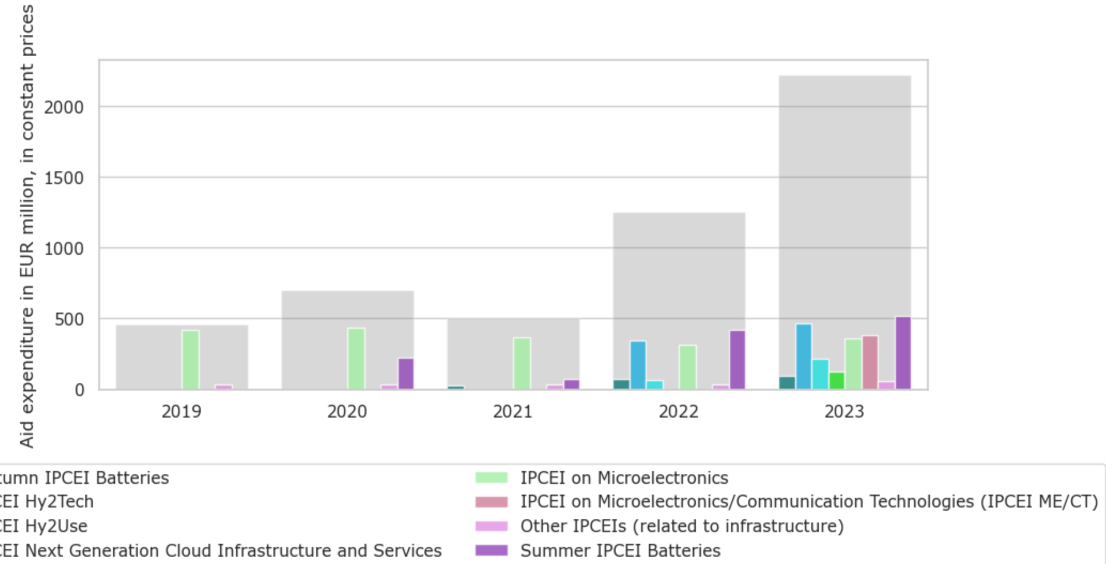
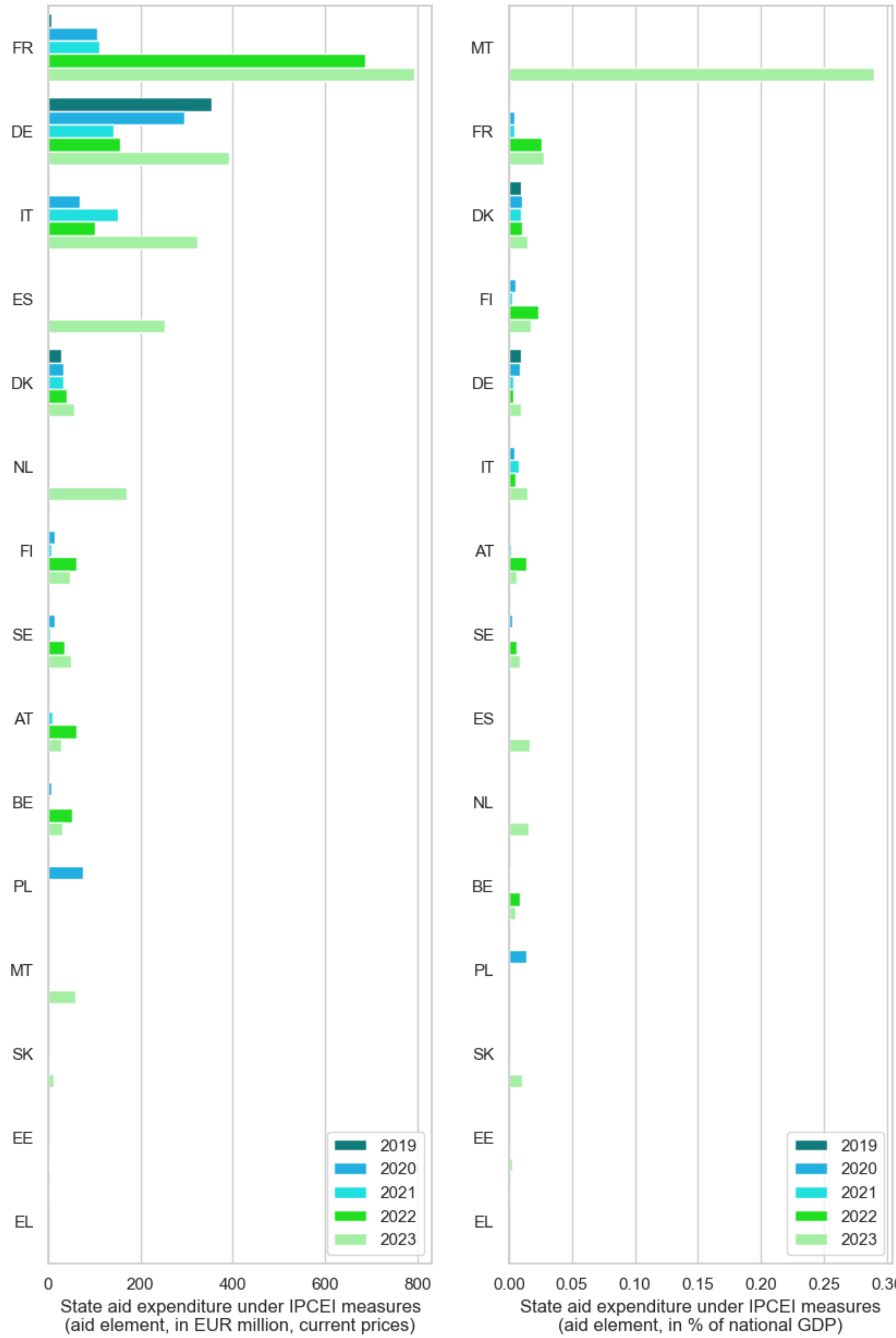


Figure 77 shows the evolution of State aid expenditure from 2019 to 2023 for the participating Member States that reported expenditures, both in absolute values and as a percentage of national GDP.

Figure 77: State aid expenditure for IPCEIs, 2019-2023, participating EU Member States



10.2.4 Regional aid Guidelines

As regards supporting greenfield productive investments or expanding existing manufacturing capacities in sectors strategic to the transition towards climate neutrality, Member States can also

rely on State aid rules to support manufacturing in assisted regions (the Regional aid Guidelines or the regional aid section of GBER).
The assessment of aid should reflect the counterfactual scenario, which can be an investment in an alternative location where a foreign subsidy would be granted. The assessment will compare the net present value of the investment in the target area with the net present value in the alternative location, and can include other factors of cost divergence such as higher energy prices in the EU. The amount of aid that can be granted is capped by maximum regional aid intensities.
Since 2019, 10 measures have been approved under the Regional Aid Guidelines to support the manufacturing of batteries or battery components, solar panels and electric vehicles, mobilizing a total of more than EUR 1200 million in public funds:

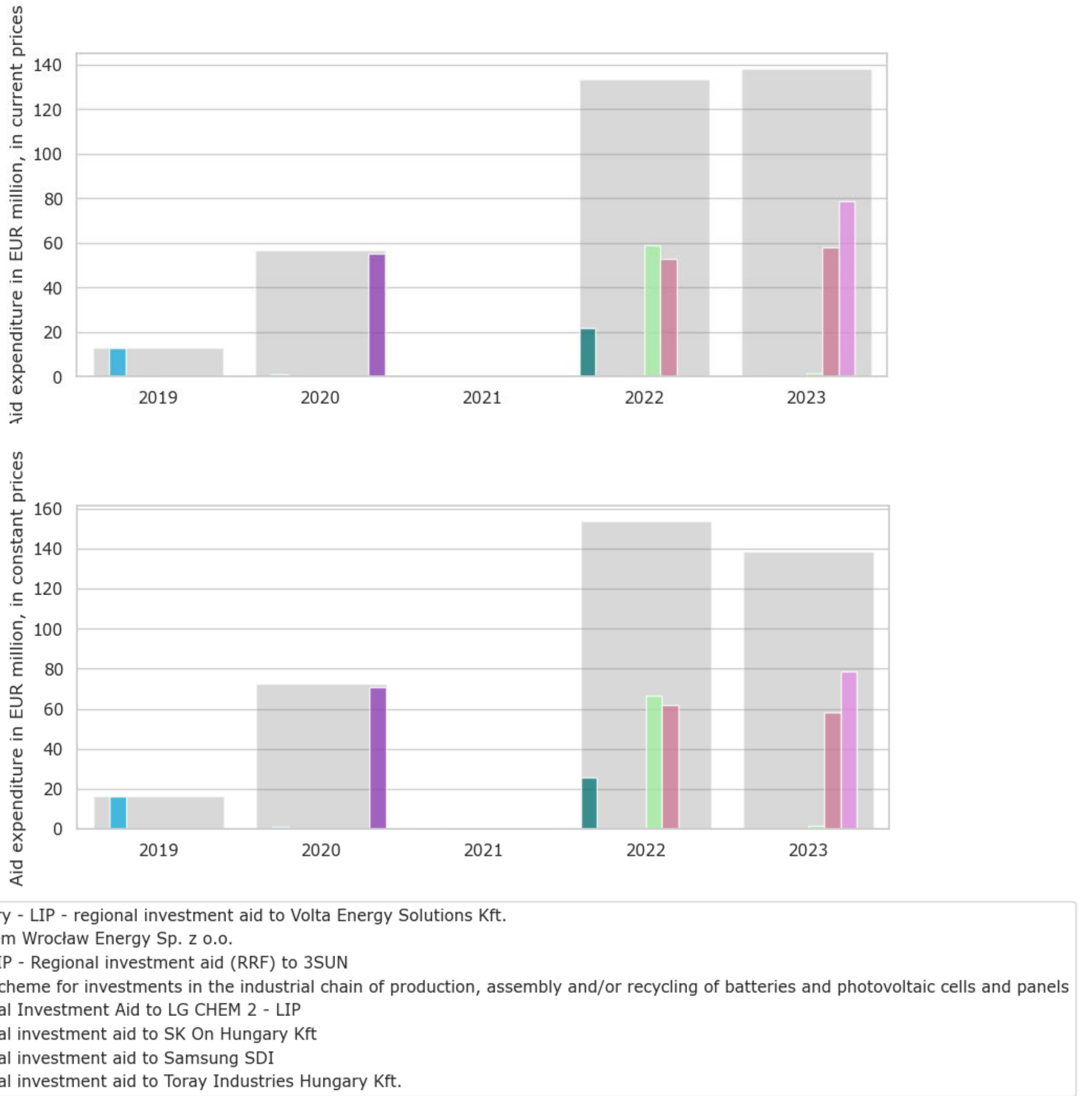
1. EUR 267 million Slovak aid measure[103] in favour of Volvo Cars, approved in April 2024. The investment aid will support the establishment of a new electric passenger vehicles production plant in Valaliky near Košice in Eastern Slovakia. Volvo Cars will invest EUR 1.2 billion in the project. The plant is expected to have an initial capacity of approximately 250,000 electric vehicles per year. The project will create at least 3,300 direct jobs, as well as further indirect jobs.
2. EUR 87.1 million in favour of 3Sun S.r.l., a large enterprise active in the production and sale of PV panels, approved in July 2023[104]. 3Sun S.r.l. is owned by Enel Green Power Italia S.r.l. and Enel Green Power S.p.a. The Investment Project concerns the extension of 3Sun's existing production site of PV panels in Catania, in Sicily. The measure seeks to enable Enel to extend the production capacity of the existing factory to more than 3GW of PV panels per year, thereby creating the largest PV panels manufacturing site in Europe. The Investment Project is intended to create 646 new direct jobs, as well as further indirect jobs.
3. In February 2023, the Commission approved a Romanian scheme[105] for investments, made available in part through the Recovery and Resilience Facility ('RRF'), in the industrial chain of production, assembly and/or recycling of batteries and photovoltaic cells and panels. The estimated total budget of the scheme is EUR 258.7 million, with EUR 194.025 million allocated to batteries and EUR 64.675 million allocated to photovoltaic cells and panels.
4. In February 2023, EUR 89.6 million regional investment aid measure[106] in Hungary for an investment in an electric vehicle battery manufacturing facility by Samsung in an Art 107(3)(a) area. The overall investment was EUR 1.2 billion to produce 6 million battery cells per month, and was expected to create 1200 direct jobs.
5. EUR 209 million for a Hungarian measure[107] to support the construction of a new battery cell manufacturing plant by SK On Hungary, approved in March 2022. The plant will have an annual capacity of 30 GWh and is expected to create at least 1.900 direct jobs. SK On Hungary's total investment into the project, which started in early 2021, will be of EUR 1.623 million.
6. EUR 95 million for a Polish measure[108] to expand LG Chem's battery cell production facility for electric vehicles approved in March 2022 (taking into account Chinese subsidies in the counterfactual). In 2017, LG Chem decided to invest EUR 1 billion to expand its production capacity of lithium-ion cells, battery modules and battery packs for electric vehicles ('EV') in its existing plant in the Polish Dolnośląskie region. The new plant is expected to supply batteries for more than 295.000 EV each year in the European Economic Area.
7. EUR 24 million in regional investment aid[109] in Hungary for the expansion of battery foil production, approved in January 2022.
8. EUR 90 million was approved[110] in 2021 for SKBM (a subsidiary of the SK group) for an investment in a new battery manufacturing plant.

[103] SA.103740 LIP - Regional investment aid to Volvo Car Slovakia s. r. o.
[104] SA. RRF: LIP – Regional investment aid to 3Sun Srl
[105] SA.102924 RRF: Scheme for investments in the industrial chain of production, assembly and/or recycling of batteries and photovoltaic cells and panels, amended by SA.110458 RRF: Scheme for investments in the industrial chain of production, assembly and/or recycling of batteries and photovoltaic cells and panels (amendments to SA.102924)
[106] SA.48556 – Hungary – LIP - Regional investment aid to Samsung SDI
[107] SA.63328 LIP – regional investment aid to SK On Hungary Kft.
[108] SA.53903 Regional Investment Aid to LG CHEM 2 - LIP
[109] SA.59516 LIP - regional investment aid to Volta Energy Solutions Kft.
[110] SA.58633 LIP – regional investment aid to SKBM Hungary

9. EUR 52.7 million in regional investment aid[111] in Hungary was already approved in 2020 for a large investment project of Toray Industries, concerning the establishment of a new plant for Battery Separator Films (BSF), to be used in batteries for Electric Vehicles.
10. EUR 36 million investment aid for a Polish measure to the chemical company LG CHEM to set up a new electric vehicle battery plant in the Polish Dolnośląskie region (an area eligible for regional aid under Article 107(3)(a) of the Treaty on the Functioning of the European Union). The aid[112], approved in January 2019, supported an initial investment of EUR 325 million, creating 700 direct jobs.

Between 2019 and 2023, the overall expenditures on the selected RAG measures to support battery manufacturing or of battery components, solar panels and electric vehicles, amounted to EUR 340.85 million in constant prices. When considering the amounts spent in current prices, the aid spent on those selected measures seems to slightly increase between 2022 and 2023. However, after adjusting for the effect of inflation, the expenditure on those measures has slightly decreased in the last year, 2023, in which EUR 138 million was spent. The breakdown by year and measure is presented in Figure 78.

Figure 78: Total State aid expenditures on selected RAG measures by measure, 2019-2023, EUR million, current prices (above) and constant prices (below)



[111] SA.54226 Regional investment aid to Toray Industries Kft.
[112] SA.47662 - Poland - LIP – Aid to LG Chem Wrocław Energy Sp. z o.o.

10.2.5 Chips Act Communication

The first case in line with the criteria set out in the Chips Act Communication was approved during 2022[113]. The aid takes the form of a EUR 292.5 million direct grant to support STMicroelectronics' EUR 730 million investment in the construction of a Silicon Carbide ('SiC') wafer plant in Catania. SiC is a compound material used to manufacture wafers that serve as a base for specific microchips used in high-performance power devices, such as in electric vehicles, fast-charging stations, renewable energies and other industrial applications.

In the course of 2023, aid for a new semiconductor manufacturing plant by STMicroelectronics and GlobalFoundries was approved[114]. The aid takes the form of direct grants, disbursed in several instalments until 2027 to STMicroelectronics and to GlobalFoundries, for a total value of EUR 2.9 billion, to support their investments in the project worth totaling EUR 7.4 billion.

In 2024, three additional decisions were adopted. The first one was a EUR 2 billion Italian measure[115] to support STMicroelectronics ('ST') in the construction and operation of an integrated chip manufacturing plant for Silicon Carbide ('SiC') power devices in Catania, Sicily. The aid will support ST's investment worth EUR 5 billion in total. The project will enable the development of a large-scale manufacturing facility for high-performance SiC chips, based on 200 mm diameter wafers, covering the full value chain from silicon powder to modules and other devices used, for instance, by the automotive industry, in Europe and globally. The facility is planned to be operating at full capacity in 2032.

The second case in 2024 consisted of a EUR 5 billion German measure[116] to support European Semiconductor Manufacturing Company ('ESMC') in the construction and operation of a microchip manufacturing plant in Dresden. ESMC is a joint venture between Taiwan Semiconductor Manufacturing Company ('TSMC'), Bosch, Infineon, and NXP. The measure is aimed at supporting ESMC's project to build and operate a new semiconductor production facility in Dresden, Germany, to serve the demand for automotive and industrial applications. The new large-scale manufacturing facility supported under the measure will deliver high-performance chips, based on 300mm silicon wafers with node sizes covering 28/22nm and 16/12nm, using field-effect transistor ('FinFET') technology and allowing the integration of several additional features in one chip. The produced chips will offer better performance while at the same time reducing total power consumption beyond what is currently present in Europe. The plant, which is planned to be operating at full capacity by 2029, is expected to produce 480,000 silicon wafers per year.

With the third decision adopted in 2024[117], the Commission approved EUR 1.3 billion in State aid to be provided by Italy to Silicon Box for the construction of a semiconductor advanced packaging and testing facility. Advanced packaging allows multiple chips, often with different functions, to be integrated into one package, creating a multi-chip module, or a "chiplet". This approach enables the chiplet to function like a single chip, offering improved performance and power efficiency. To date there is no comparable facility in the EU.

As of the end of 2023, EUR 218.81 million has been paid out under the measure SA.102430 FR - Project Liberty- New semiconductor manufacturing plant by STMicroelectronics and GlobalFoundries.

10.2.6 Measures under the "transition sections" of the Temporary Crisis and Transition Framework

Between the end of 2022 and 2024, the Commission took 29 decisions approving 25 State aid measures notified by 16 Member States (Belgium, Bulgaria, Estonia, Finland, France, Germany, Hungary, Italy, Ireland, Lithuania, Poland, Portugal, Romania, Slovakia, Slovenia, Spain) under

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[113] SA.103083 RRF: STMicroelectronics – New Silicon Carbide Substrates Plant in Catania

[114] SA.102430 FR - Project Liberty - New semiconductor manufacturing plant by STMicroelectronics and GlobalFoundries

[115] SA.107594 Catania Campus – STMicroelectronics S.r.l.

[116] SA.107553 European Semiconductor Manufacturing Company (ESMC) New Fab Investment [BMWK IVA2 Microelectronics]

[117] SA.113264 Aid to Silicon Box for project 'Vulcan'.

section 2.5 of the Temporary Crisis and Transition Framework – Aid for accelerating the rollout of renewable energy and energy storage relevant for REPowerEU.

The total amount of aid approved is estimated to be around EUR 52.61 billion.

Between 2023 and 2024, the Commission took 6 decisions approving 6 State aid measures notified by 5 Member States (Czechia, Germany, France, Netherlands, and Italy) under section 2.6 of the TCTF - Aid for the decarbonisation of industrial production processes through electrification and/or the use of renewable and electricity-based hydrogen fulfilling certain conditions and for energy efficiency measures. The budget approved for these measures is around EUR 10.35 billion.

Moreover, in the same period, 19 decisions approving 20 measures notified by 12 Member States (Austria, Belgium, Germany, Denmark, France, Hungary, Italy, Netherlands, Poland, Portugal, Spain, and Slovakia) were taken under section 2.8 of the TCTF - Aid for accelerated investments in sectors strategic for the transition towards a net-zero economy, for a total amount of aid approved of EUR 17.08 billion.

In 2024, 2 decisions approving 4 measures notified by Finland and Luxembourg were approved under both section 2.6 and section 2.8 of the TCTF, for a total budget approved of EUR 920 million.
Regarding expenditures, in 2023 approximately EUR 447.5 million was spent under the Transition sections of the TCTF[118].

[118] The expenditure regards a single Spanish scheme, SA.107094 RRF - TCTF: Integrated action line on the industrial value chain – Batteries.

11 Methodological remarks

Scope – The State Aid Scoreboard comprises aid expenditure made by Member States before 31.12.2023, which falls under the scope of Article 107(1) TFEU. The data is based on the annual reporting by Member States pursuant to Article 6(1) of Commission Regulation (EC) 794/2004. Expenditure refers to all existing aid measures for industries, services, agriculture, fisheries and transport for which the Commission adopted a formal decision or received an information sheet from the Member States in relation to measures qualifying for exemption under the General Block Exemption Regulation (GBER), Agricultural Block Exemption Regulation (ABER) or the Fishery and Aquaculture Block Exemption Regulation (FIBER).

Cases under examination are excluded. Annex III of Regulation 794/2004 specifies the scope and format of the information to be reported. The annual reports submitted by Member States in 2024 cover aid paid out by Member States between 1 January 2023 and 31 December 2023 and include, where appropriate, revised versions of provisional information that Member States provided in previous years. The accuracy of the data remains a responsibility of Member States.

Corrections on the historical data – Historical data was also updated to include the reimbursement of incompatible aid and to include figures on public support that, after investigation by the Commission, have been deemed as constituting "non-notified" aid. Moreover, when the Commission adopts a decision on a non-notified aid measure, the aid amount in question is attributed to the year(s) in which it was awarded. Where such expenditure has been made for a number of years, the total aid amount is generally allocated equally over the corresponding years.

Constant prices – State aid expenditures in constant prices have been calculated to adjust for the effects of inflation. Constant series have been calculated in constant 2023 prices by using the GDP price deflator[119]. Unless otherwise specified, historical State aid expenditures are expressed in constant prices.

Aid element – Generally, Member States are required to report State aid expenditure in terms of actual expenditure expressed in the form of the aid element calculated for the aid measure. Where such data was not available by the deadline for submitting the annual report (i.e. 30 June), Member States were requested to provide either the corresponding commitment information or an estimate of the aid component. In the absence of that information, Member States were asked to estimate the aid element in line with the standard method applied and on the basis of information provided in their past reporting.

The aid element can be estimated in different ways depending on the type of instrument: for grants, the advantage passed on to the beneficiary normally corresponds to the budgetary expenditure. For other aid instruments, the advantage to the beneficiary and the cost to the government may differ. In the case of guarantees, for example, the beneficiary avoids the risk associated with the guarantee, since it is carried by the State. Such risk-carrying by the State should normally be remunerated by an appropriate premium. Where the State forgoes all or part of such a premium, there is both a benefit for the undertaking and a drain on the resources of the State. Thus, even if no payment was ever made by the State under a guarantee, there may nevertheless be State aid within the meaning of Article 107(1) TFEU. The aid is granted at the time when the guarantee is given, not when the guarantee is called nor when payments are made under the terms of the guarantee.

Aid instruments – State aid represents a cost or a loss of revenue to the public authorities and a benefit to recipients. However, the aid element, i.e., the ultimate financial benefit contained in the nominal amount transferred to the beneficiary, depends to a large extent on the form in which the aid is provided. Below is a list of the most frequently used aid instruments.

Grants and tax exemptions – Grants and tax exemptions are types of aid transferred in full to the recipient. They represent the majority of aid granted in most Member States. They may be subdivided depending on whether the aid was granted through the budget or through the tax or social security system.

[119] Source AMECO online. Series GDP price deflator (PVGD), 2024 Autumn forecast.

Equity participation – In line with established Commission policy, such interventions constitute aid when a private investor operating under normal market conditions would not have undertaken such an investment. See Commission Communication "Application of Articles 87 and 88 of the EEC Treaty and of Article 5 of Commission Directive 80/723/EEC to public undertakings in the manufacturing sector", OJ No C 307 of 13.11.1993, p3. This method is based on calculating the benefit of the intervention to the recipient.

Soft loans – The aid element is lower than the capital value of the aid. Where a Member State fails to provide the aid element, a proxy of 15% of the total amount lent by the government is estimated (compared with 33% before 1995). This downward adjustment is explained by the lower level of the aid element that results from generally lower interest rates in Member States when compared to previous periods.

Repayable advances - Where a Member State does not indicate the reimbursement ratio in the case of a reimbursable advance, the aid element is estimated to be 90% of all advances, as the repayment ratio has been shown to be very low on average.

Guarantees - The aid element is much lower than the capital value guaranteed. Where the exact amount of the aid element is not available, the losses to the government are estimated. Where only the capital value guaranteed is available, the aid element is estimated to be 10% of that value.

Annex I. Historical figures on COVID aid

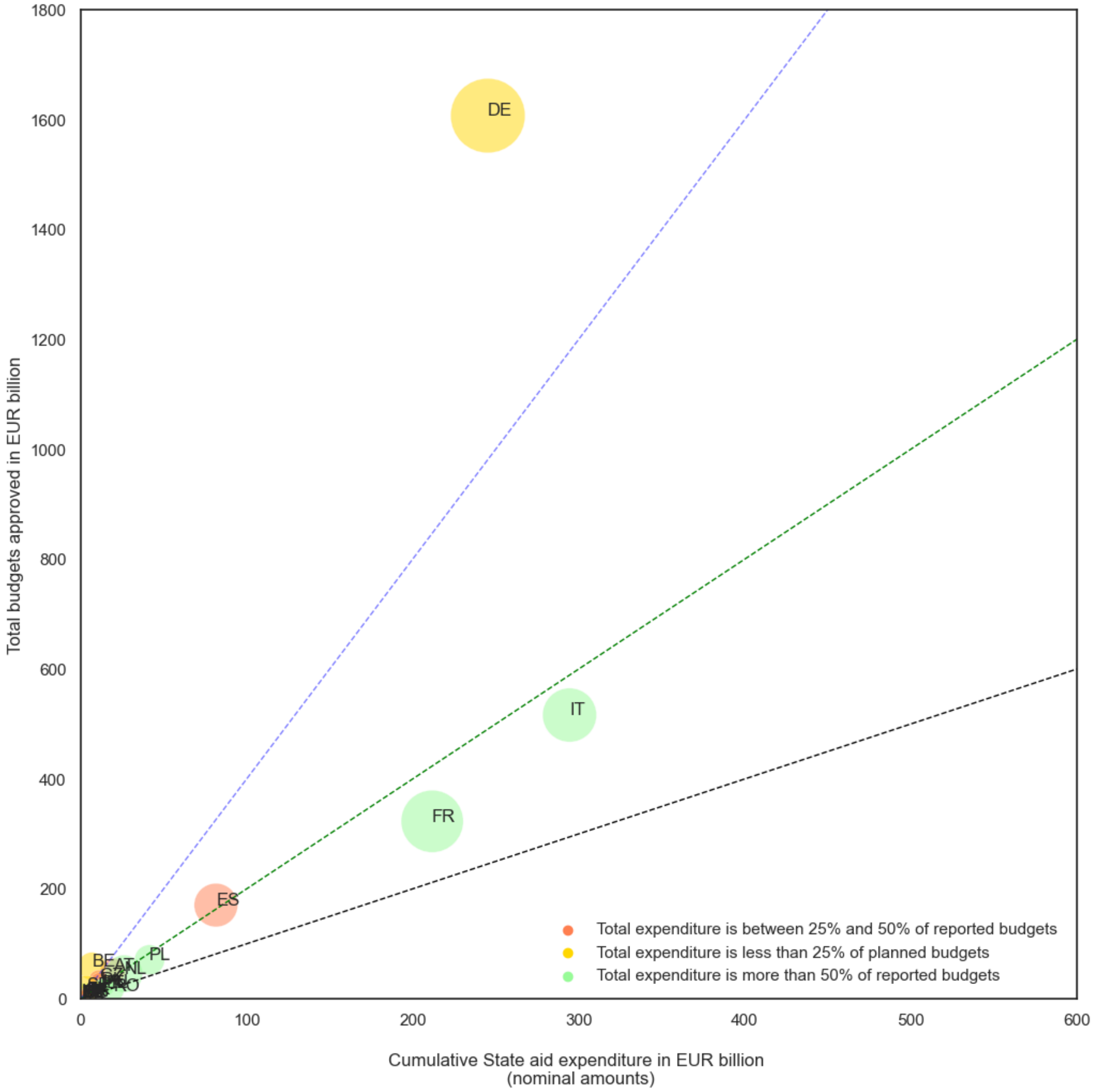
1 Use of budget approved for COVID measures

In the period between the adoption of the COVID-19 Temporary Framework on 19 March 2020 and December 2023, out of nearly EUR 3.05 trillion of aid approved under the Framework or based on its principles, around one third (34%) (EUR 1.04 trillion in nominal amounts, in current prices) was actually spent. Thus, Member States have provided to their companies a relatively small percentage of the amounts approved by the Commission.

Only four Member States (Belgium, Croatia, Germany, and Sweden) have spent less than 25% of the approved budgets. 10 Member States[120] have spent between 25% and 50% of the approved budget.
The remaining 13 Member States[121] have spent more than 50% of the budgets approved by the end of 2023.

[120] Austria, Cyprus, Czechia, Denmark, Estonia, Finland, Spain Luxembourg, Slovakia, Slovenia.
[121] Belgium, France, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Malta, the Netherlands, Poland, Portugal, Romania.

Figure 79: Relation between cumulative State aid expenditure and the total budgets approved by Member State (nominal amounts in EUR billion)



2 Figures on COVID aid (2020-2022)

Figure 80: Total State aid expenditure for COVID-19 measures by Member State, nominal amounts in EUR billion, in 2020, 2021 and 2022

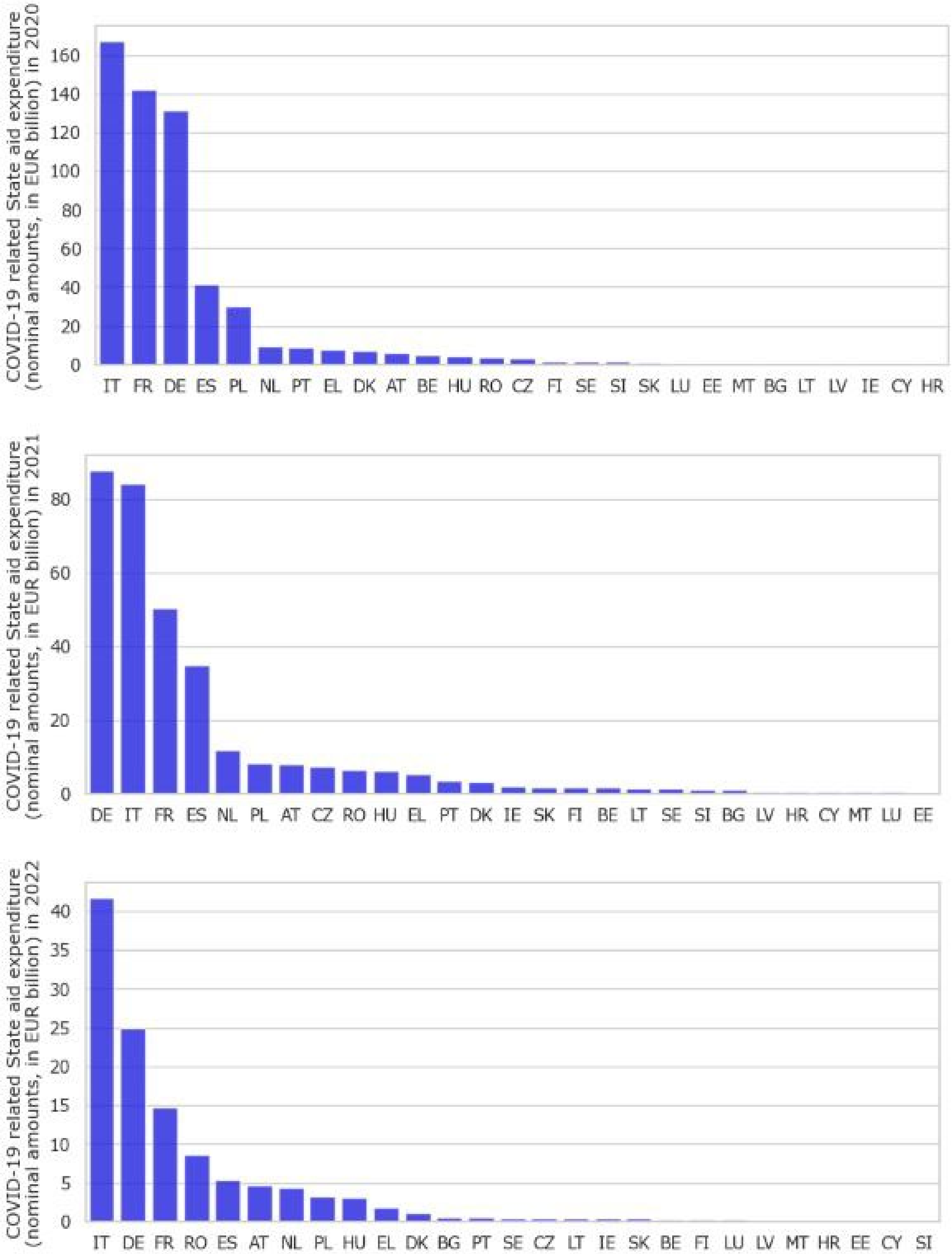


Figure 81: Total State aid expenditure for COVID-19 measures by Member State, nominal amounts as a percentage of yearly GDP, in 2020, 2021 and 2022

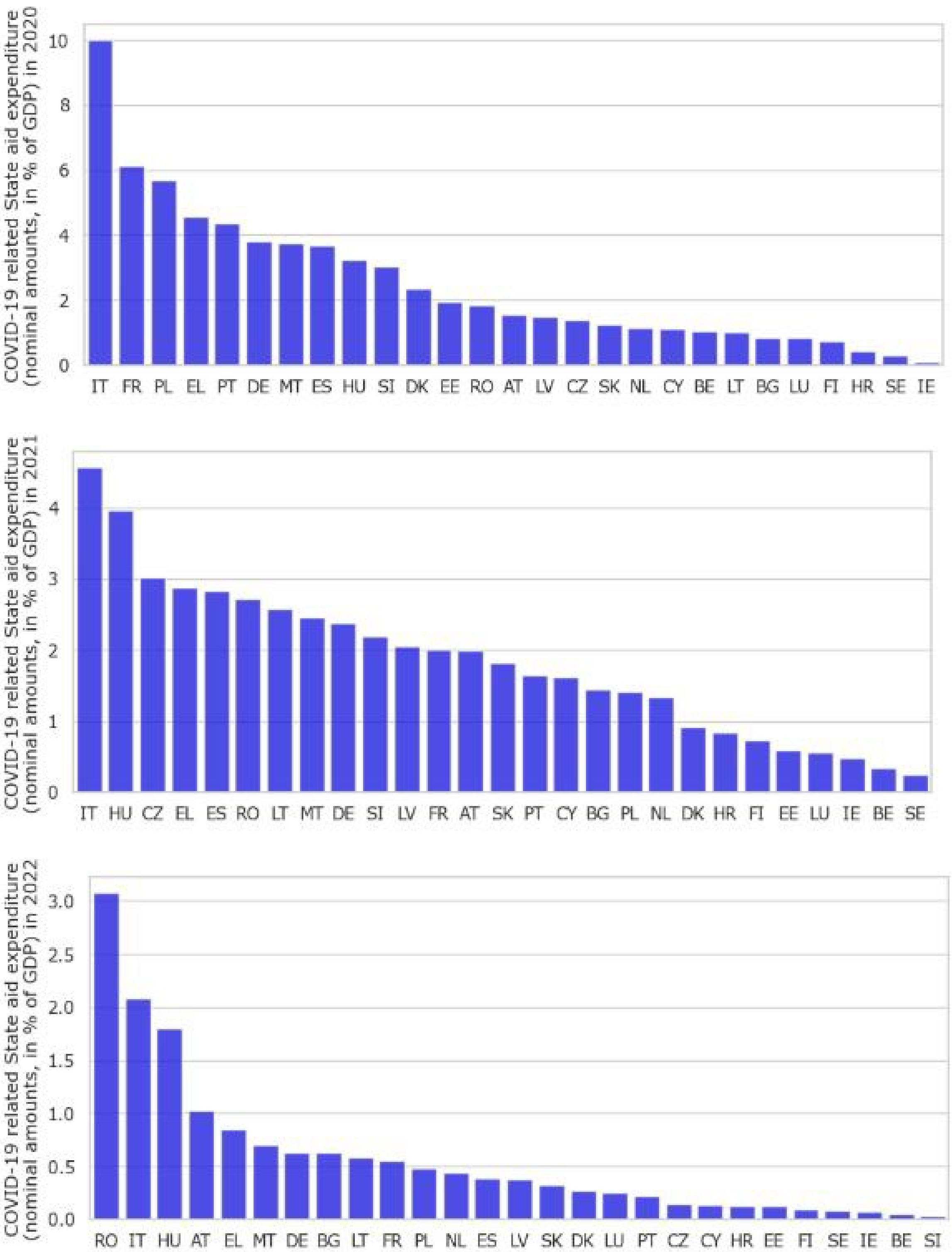


Figure 82: Total State aid expenditure for COVID-19 measures by Member State, aid elements in EUR billion, in 2020, 2021 and 2022.

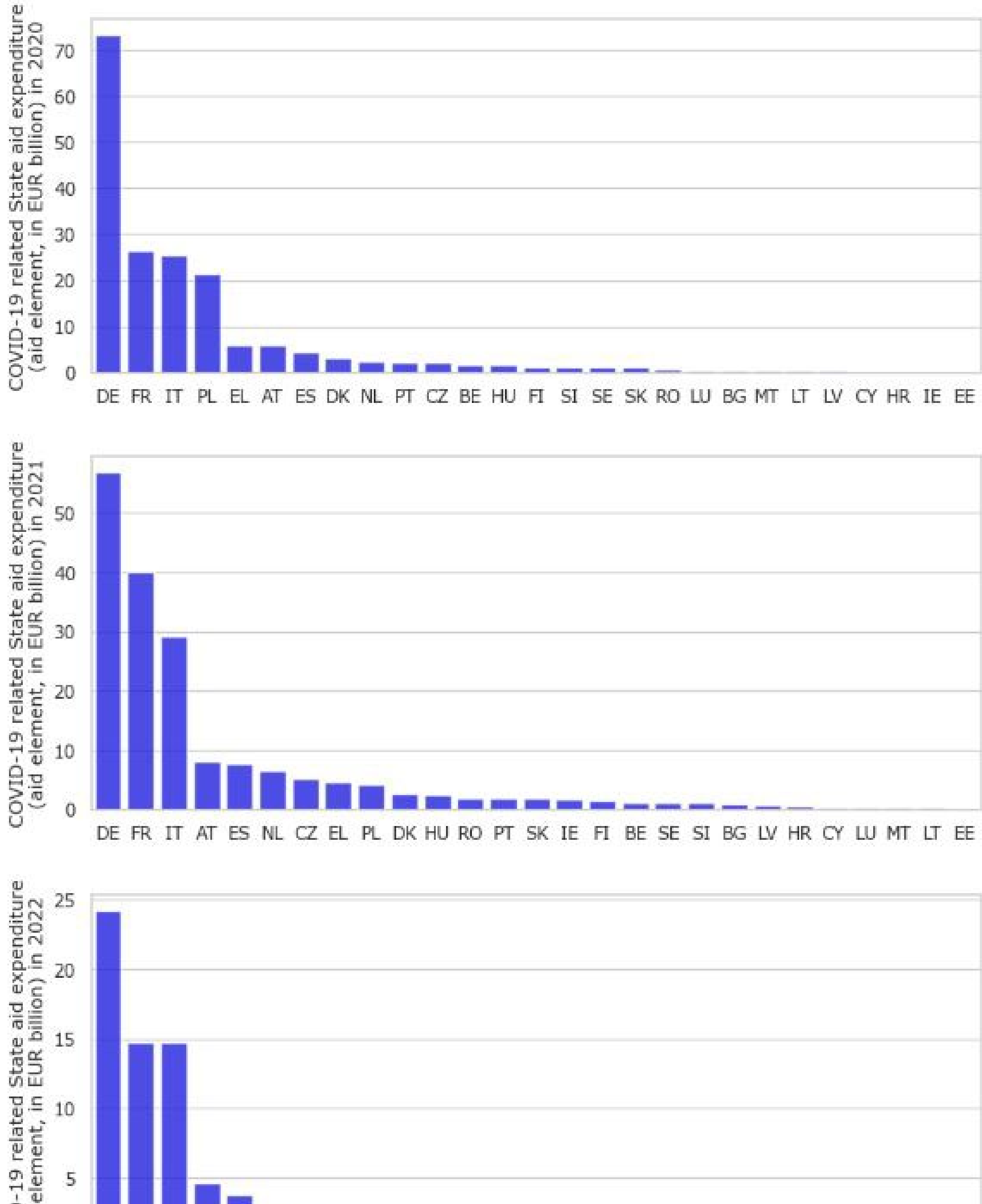


Figure 83: Total State aid expenditure for COVID-19 measures by Member State, aid elements as a percentage of yearly GDP, in 2020, 2021 and 2022

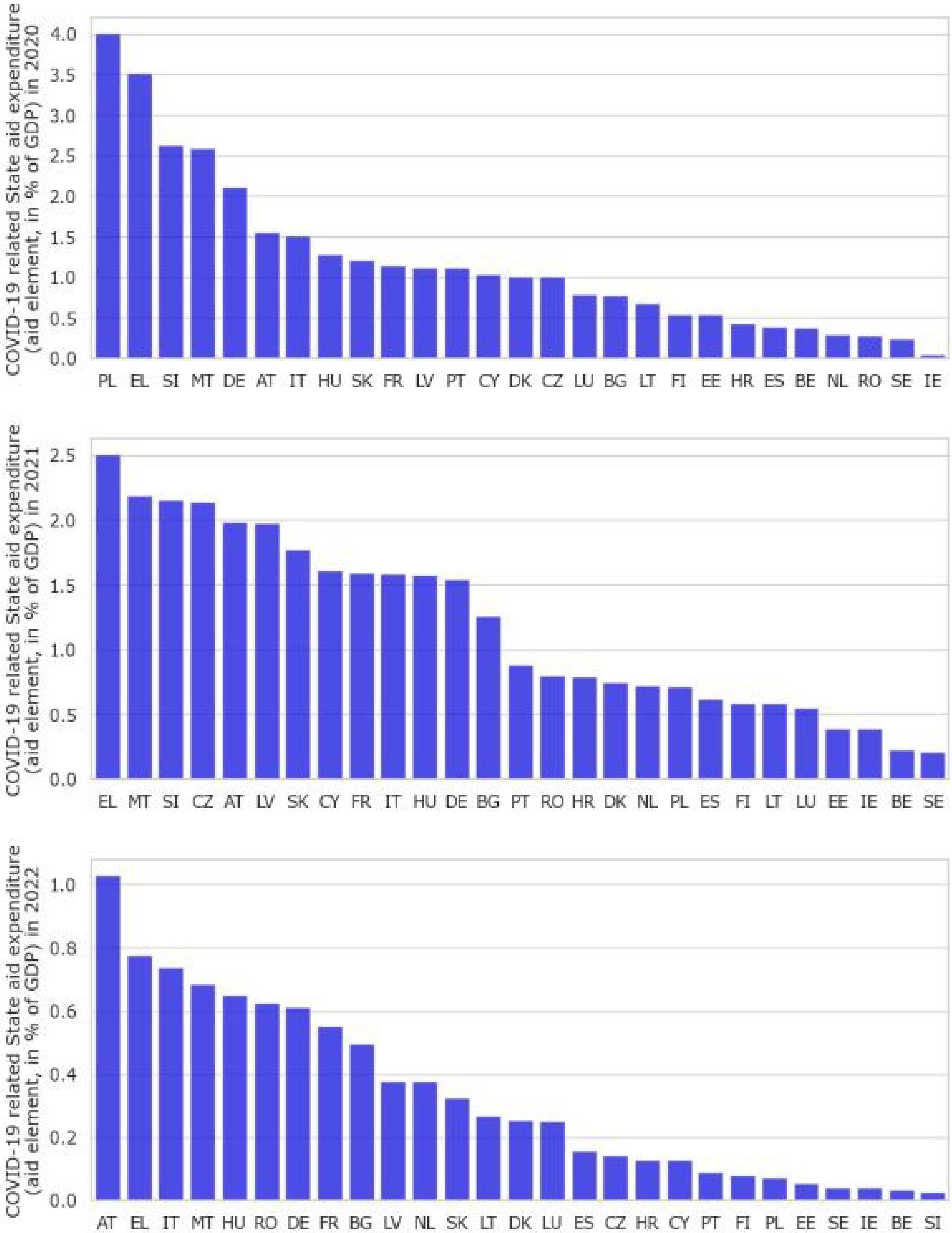


Figure 84: Total State aid expenditure for COVID-19 measures, aid element, as a percentage of total State aid, by Member State in 2020, 2021 and 2022

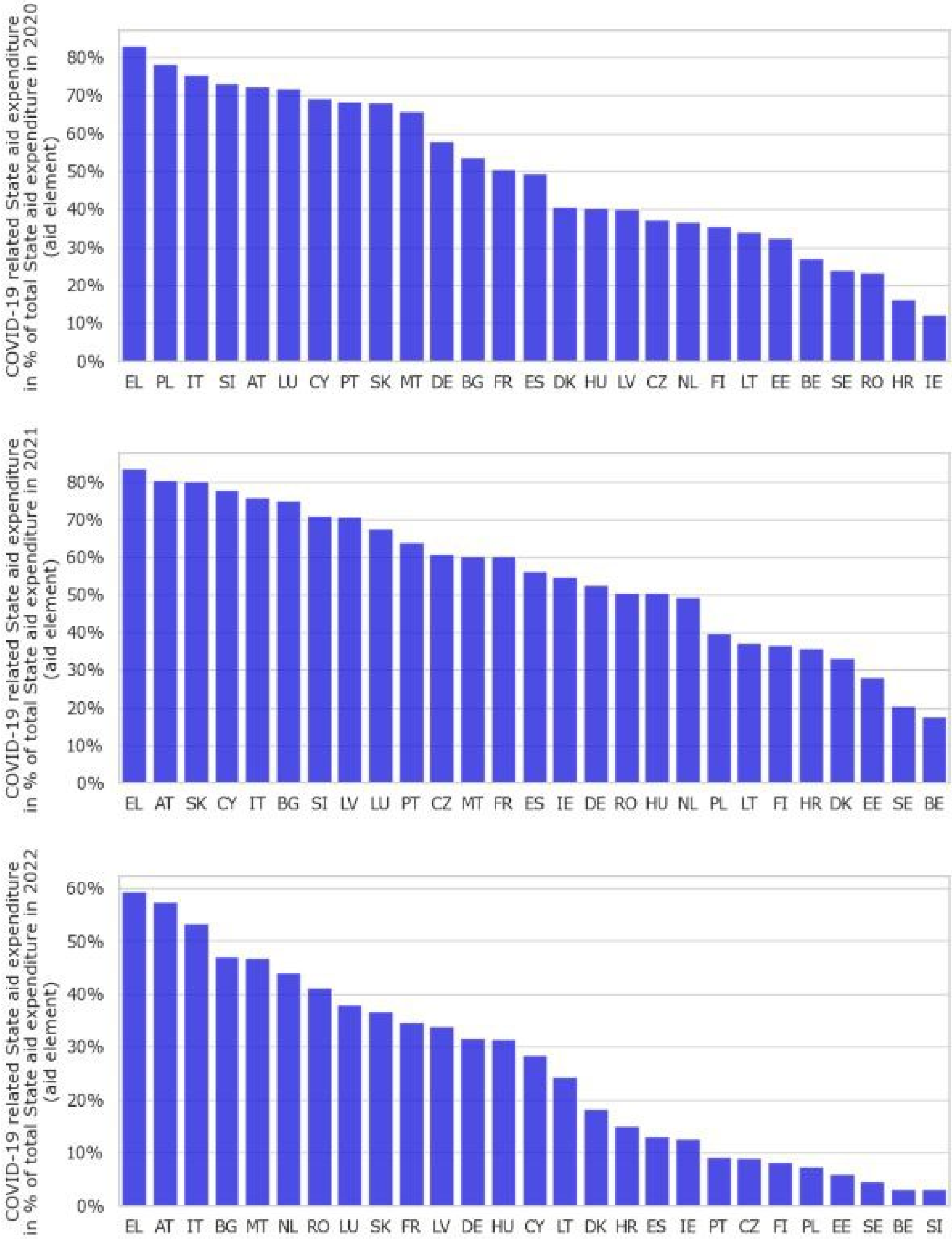


Figure 85: Total State aid expenditure for COVID-19 measures in 2020, by instruments, aid elements in EUR billion and aid elements in % of the total, by Member State

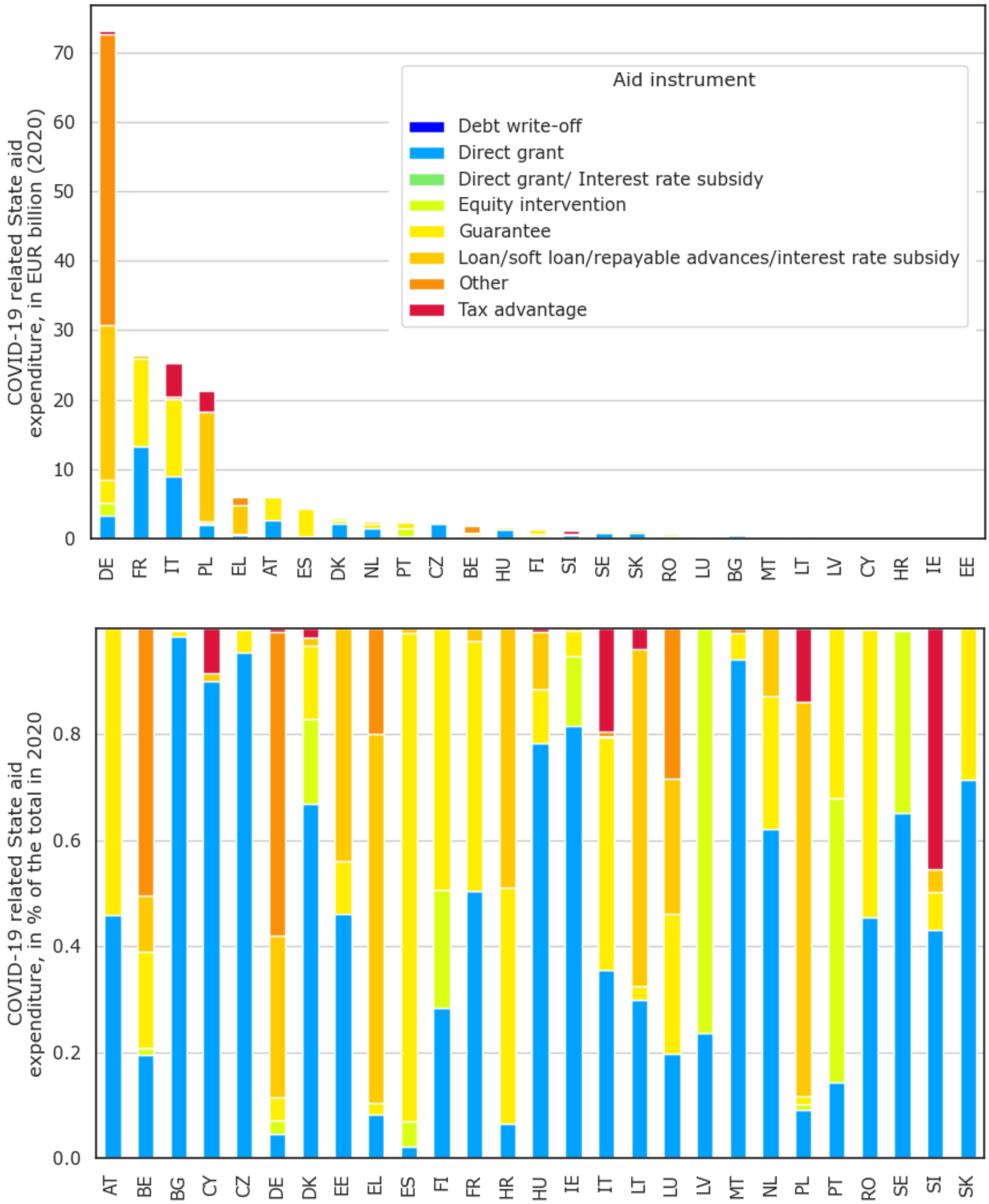


Figure 86: Total State aid expenditure for COVID-19 measures in 2021, by instruments, aid elements in EUR billion and aid elements in % of the total, by Member State

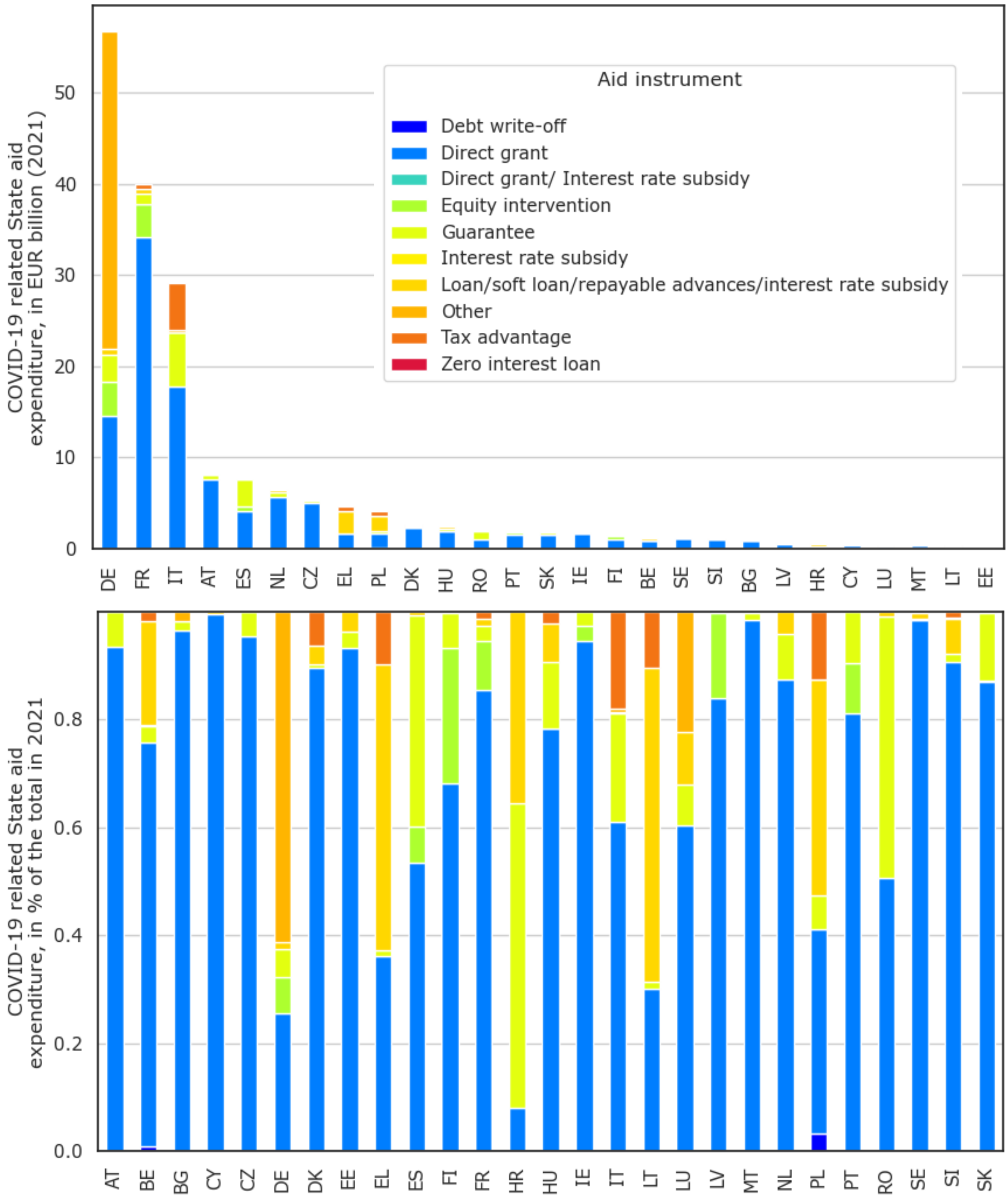


Figure 87: Total State aid expenditure for COVID-19 measures in 2022, by instruments, aid elements in EUR billion and aid elements in % of the total, by Member State

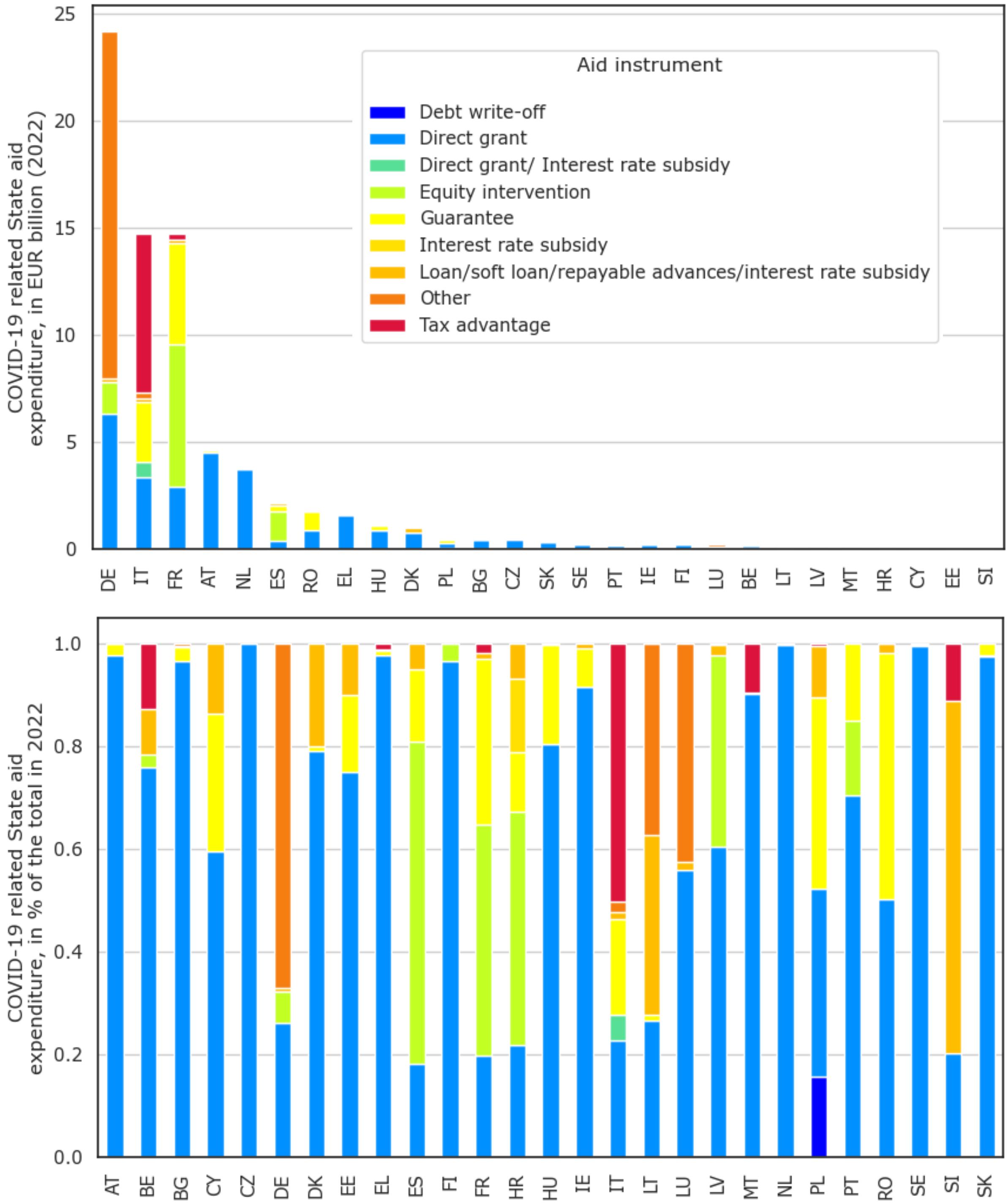
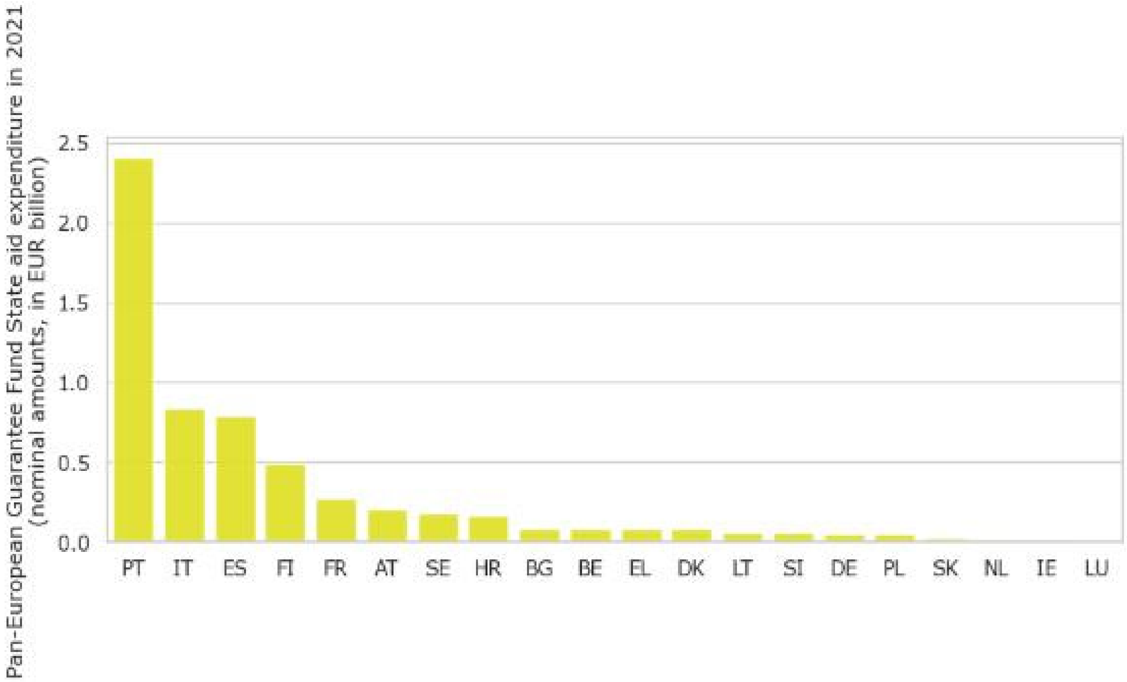


Figure 88: Total State aid expenditure for measures under the Pan-European Guarantee Fund in 2021 in percentage of GDP, in nominal amounts (above) and aid elements (below).



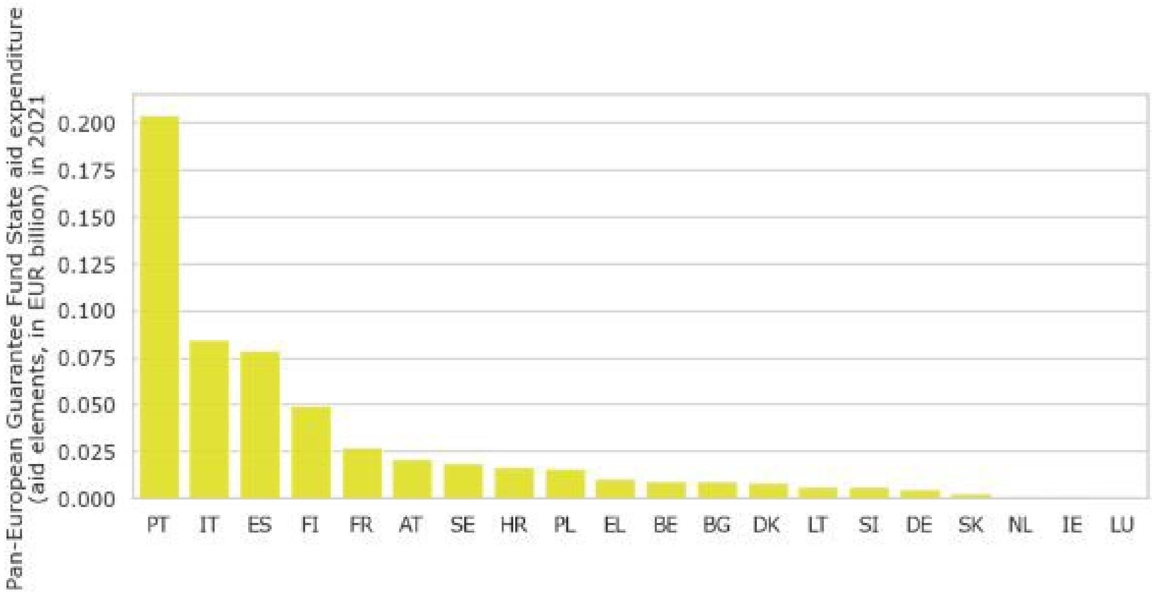
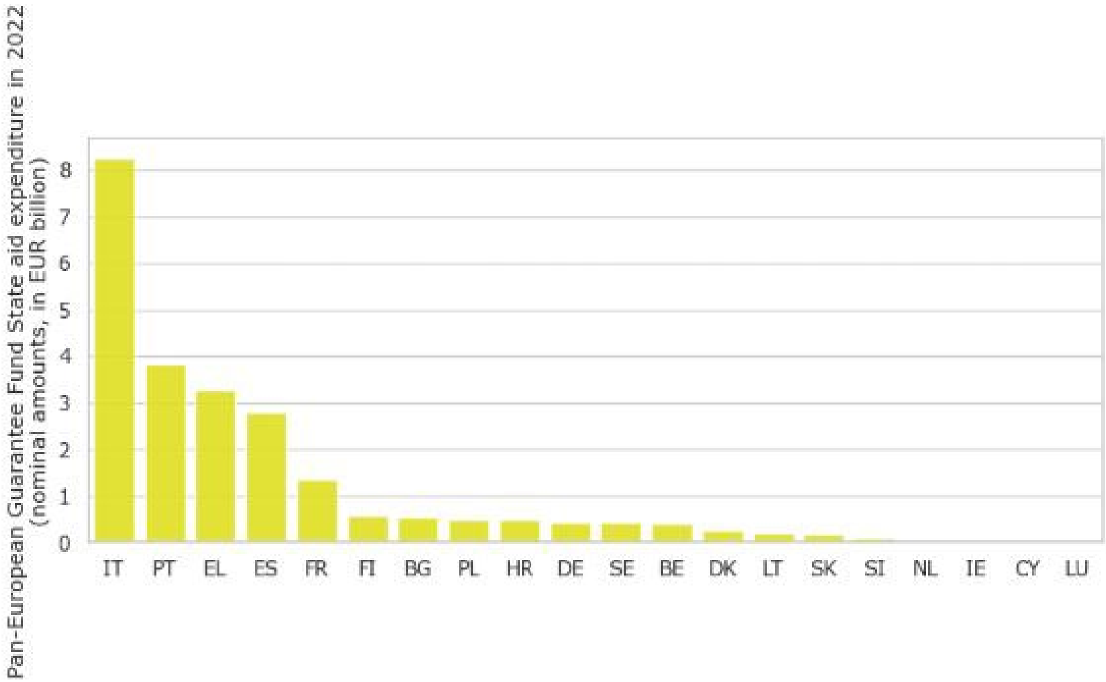
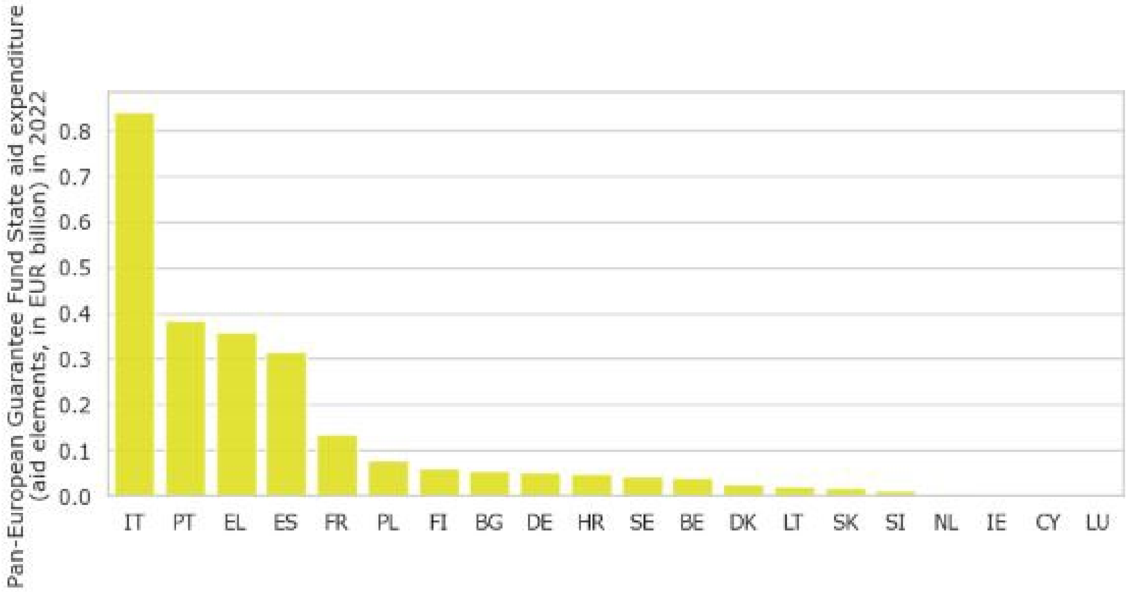


Figure 89: Total State aid expenditure for measures under the Pan-European Guarantee Fund in 2022 in percentage of GDP, in nominal amounts (above) and aid elements (below) as bar chart and as map





3 Relation between COVID-19 State aid and economic damage to GDP

Since the onset of the pandemic, the State aid COVID Temporary Framework has enabled Member States to use the full flexibility foreseen under State aid rules to support businesses in need in a timely, targeted and proportionate way, while preserving the level playing field in the Single Market and maintaining horizontal conditions applicable to everyone. This section examines how proportionate the State aid responses implemented by Member States were to the suffered economic shock. This is done by comparing each Member State's total State aid expenditure for

COVID-19 measures in 2020 and 2021 (in percentage points of 2020 and 2021 GDP) against the cumulated real GDP loss rate in 2020 and in 2021[122].

Figure 90 takes into account the nominal amounts of the COVID-19 measures implemented in 2020 and 2021. The relation between the expenditure for COVID-19 State aid measures and the real economic damage to GDP is largely heterogeneous across Member States. Most of the Member States[123] spent more than the cumulated real GDP loss in 2020 and 2021 (in red in the chart). This category includes both some of the wealthiest and largest Member States in the EU as well as less wealthy and large countries. Estonia, Lithuania, Luxembourg and Ireland are exceptional cases as they experienced a cumulated real growth of GDP in 2020 and 2021. Member States in blue show a total nominal amount of State aid spent under COVID-19 measures that is lower than the GDP loss: Greece, the Netherlands, Portugal, Cyprus, Spain and Austria provided to their economies an overall amount ranging between 50% and 100% of the cumulated real GDP loss in the two years considered, while Bulgaria between 25% and 50%. The total nominal amount of the COVID-19 measures implemented by Belgium and Croatia corresponds to less than 25% of the cumulated real GDP loss experienced in 2020 and 2021. This shows that even the Member States that spent relatively less compared to their economic damage are very heterogeneous in terms of wealth and size.

However, a fair comparison of State aid measures channelled through different instruments should take into account the aid elements instead of the nominal amounts to adequately reflect the different distortive impacts of the various instruments on competition. Figure 91 shows the relation between the cumulated COVID-19 State aid expenditure in aid elements and the cumulated real GDP loss rate in 2020 and 2021. In terms of aid element, among the largest spenders in nominal amounts, Spain and the Netherlands appear to have spent less than 25% of their own total GDP loss, while France and Italy between 25% and 50% of their own GDP loss, having awarded a large share of their aid in the form of guarantees. Also, Germany, despite still appearing among the Member States that have spent more than 100% of the cumulated real GDP loss in 2020 and 2021, has awarded relatively less compared to the nominal amount[124].

The picture that emerges shows that the temporary State aid measures adopted in the COVID-19 crisis were proportionate and necessary, matching the economic damage suffered during the crisis. Moreover, there is no evidence of Member States that would have granted an excessively larger amount compared to the others.

[122] The loss rate is the gap between the actual GDP and the trend GDP in percentage of trend GDP. The cumulated loss rate is the sum of the loss rate in 2020 and the loss rate in 2021. Source: Ameco, 2024 Autumn Forecast.

[123] Hungary, Slovenia, Slovakia, Romania, Poland, Malta, Latvia, Italy, Sweden, Germany, France, Finland, Denmark, and Czechia.

[124] This is partially due to the fact that Germany reported a large share of its State aid spending for COVID-19 measures under the unspecified instrument category 'other', for which the aid element cannot be determined.

Figure 90: Relation between COVID-19 State aid expenditure (nominal amounts) and economic damage to GDP

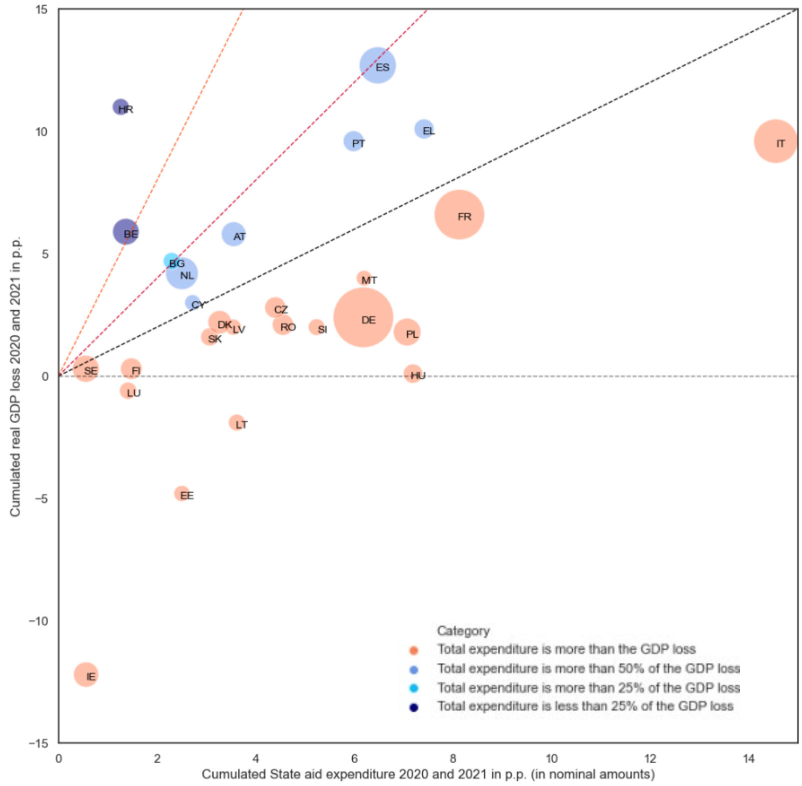


Figure 91: Relation between COVID-19 State aid expenditure (aid element) and economic damage to GDP