

ARE THE SPENDING PRIORITIES OF EURO-AREA COUNTRIES CONVERGING?

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SUMMARY

Government expenditure amounts to between 30 and 60% of GDP in the euro area. Which countries spend the most? To what extent do countries differ in their spending priorities? Has there been any convergence since the introduction of the common currency?

This Policy Paper analyses data on general government spending in the euro area and presents it in seven charts. Its findings can be summarised as follows:

- Public spending ratios in the euro area vary widely and have shown no sign of lasting convergence since the inception of EMU. Belgium, Finland and France are countries with especially large public sectors, while the opposite applies to Ireland and the Baltics.
- The differences are especially pronounced when it comes to social protection. Large economies like France, Italy and Spain have seen relative spending levels increase in the last fifteen years, while they have fallen in Germany.
- Concerning potentially growth-enhancing expenditure on education, public investment, and R&D, no uniform trend is discernible. However, several countries that were hit hard by the European debt crisis have decreased their productive spending.
- Generally, spending levels and priorities seem to reflect first and foremost domestic preferences and path dependency.

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INTRODUCTION

Should Eurozone member states reduce the size of their government to achieve the debt and deficit objectives set out by the Maastricht criteria? Or should they increase public spending in targeted areas to foster growth and sustain the recovery? Since the 2008-2009 global financial crisis and the sovereign debt crisis in the Eurozone, European debates on economic policy have had a strong focus on the ideal size of government. Whereas the public debate stressed an ideological divide between “stimulus” and “austerity politics” in the recovery phase, the European Commission tried to find a middle way by calling on euro-area member states to pursue “growth-friendly consolidation”. In practice, this recommendation advocated for government spending to have a stronger focus on growth-enhancing measures.

The controversy connects to a long-running debate on how public finances can influence growth. Broadly speaking, the existing literature boils down to four lessons¹: First, some government spending is needed to keep the economy running but spending too much may lead to lower growth rates. Second, the institutional environment and administrative efficiency of a country plays an important role in this relationship because these factors can help foster more growth with fewer resources. Third, the way a government raises revenue, for example through taxation or debt issuance, has an impact on growth. Finally, the composition of public expenditure matters. In this regard, spending on education, R&D and physical infrastructure is often identified as being conducive to economic growth.

However, promoting economic growth is not the only objective of public spending. Richard Musgrave’s well-known classification differentiates between three main government functions: macroeconomic stabilisation, income redistribution and resource allocation². Arguably, lower levels of spending may give a government more room for manoeuvre to play its role as macroeconomic stabiliser in times of crisis. Yet, a collective preference for more redistribution (for example, via health prevention programmes or unemployment benefits) and for goods benefiting the society as a whole (such as transport infrastructure or national defence) may require a larger public sector.

“HAVE SPENDING LEVELS CONVERGED SINCE 1999?”

There is a debate about the extent to which globalisation may erode countries’ ability to set spending levels and priorities according to domestic preferences. The “convergence” hypothesis contends that increased capital mobility puts pressure on tax rates and shapes the composition of public spending according to investors’ preferences³. The “compensation” hypothesis states that, to the contrary, spending levels will rise as citizens demand higher levels of protection to insure them against the increased risks that arise from economic integration⁴. While the controversy is far from resolved, empirical evidence suggests that globalisation indeed favours convergence in spending levels, but that its effects vary according to countries’ domestic institutions⁵.

1. E.g., Afonso, António, and João Tovar Jalles. “Fiscal Composition and Long-Term Growth.” *Applied Economics* 46, no. 3 (2013): 349–58. Deroose, Servaas, and Christian Kastrop. *The Quality of Public Finances: Findings of the Economic Policy Committee-Working Group (2004-2007)*. European Commission, Economic and Financial Affairs Economic Papers, 2008. Fournier, Jean-Marc, and Åsa Johansson. *The Effect of the Size and the Mix of Public Spending on Growth and Inequality*. OECD Economics Department Working Paper No. 1344, November 2016. Hauptmeier, Sebastian, Jesús Sánchez-Fuentes, and Ludger Schuknecht. “Spending Dynamics in Euro Area Countries: Composition and Determinants.” *Hacienda Pública Española / Review of Public Economics*, 2015, 119–38.
2. Musgrave, Richard. “The Voluntary Exchange Theory of Public Economy.” *The Quarterly Journal of Economics* 53, no. 2 (February 1939): 213–37.
3. E.g., Strange, Susan. *The Retreat of the State: The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press, 1996.
4. E.g., Garrett, Geoffrey. “Global markets and national politics: Collision Course or virtuous circle?” *International Organization* 52, no. 4 (1998): 787–824. Katzenstein, Peter. *Small states in world markets: Industrial policy in Europe*. Ithaca, NY: Cornell University Press, 1985.
5. E.g., Busemeyer, Markus. “From Myth to Reality: Globalisation and Public Spending in OECD Countries Revisited.” *European Journal of Political Research* 48(4): 455–482, 2009. Garrett, Geoffrey, and Deborah Mitchell. “Globalization, Government Spending and Taxation in the OECD.” *European Journal of Political Research* 39, no. 2 (2001): 145–178. Mostley, Layna. “Globalisation and the State: Still Room to Move?” *New Political Economy* 10, no. 3 (September 2005): 355–62. Rudra, Nita. “Globalization and the Decline of the Welfare State in Less-Developed Countries.” *International Organization* 56, no. 2 (2002): 411–445.

The preconditions for convergence seem ideal in the euro area. Capital can move without any restrictions within the EU's Economic and Monetary Union (EMU), and achieving a more growth-friendly composition of public spending is an explicit policy objective⁶. Against this backdrop, we assess in this paper to what extent the euro area has seen changes in the level and composition of public spending of its member states:

- Have spending levels converged since 1999?
- To what extent do countries' preferences on the role of the government differ across the euro area?
- Do governments use their money to support more growth-enhancing policies than fifteen years ago?

In line with other results⁷, we find that the spending priorities of euro area countries have not converged significantly since the adoption of the euro. The results connect to a growing body of studies documenting that monetary integration in the euro area has not led to broad convergence in other economic indicators, e.g., business cycles, inflation, and GDP⁸.

6. The EU's Europe 2020 agenda names "improving the sustainability and growth-friendliness of public finances" as one out of four top priorities.

7. E.g., Ferreiro, Jesús, M. Teresa García del Valle, Carmen Gómez. "Is the composition of public expenditures converging in EMU countries?" *Journal of Post Keynesian Economics* 31, no. 3 (Spring 2009): 459-84.

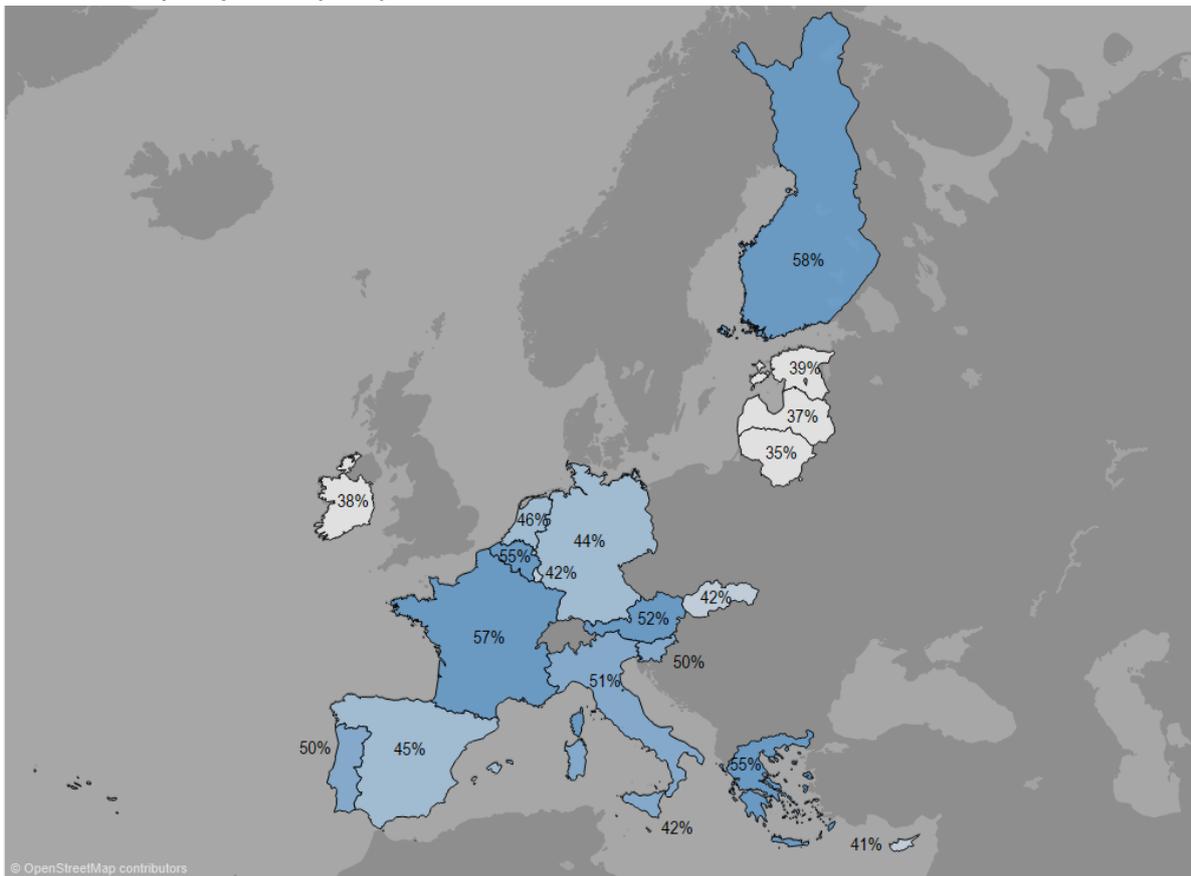
8. E.g., auf dem Brinke, Anna, Henrik Enderlein, Joachim Fritz-Vannahme. *What kind of convergence does the euro area need?* Gütersloh: Bertelsmann Stiftung and Jacques Delors Institut—Berlin, 2015. European Central Bank. "Real convergence in the euro area: evidence, theory and policy implications", *ECB Economic Bulletin* 5/2015 (July 2015): 30-45.

1. How much do euro-area governments spend?

To get a first picture of the state of play in terms of public spending, we consider the level of general government expenditure in the euro area. This indicator includes central, state and local governments, and social security funds. Even this cursory look at public expenditure levels shows enormous differences between euro-area members (see figure 1). Public expenditure is below 40% of GDP in Ireland and the Baltics, but close to 60% in Finland and France.

Interestingly, differences in public expenditure levels do not seem to follow a North-South or West-East geographical divides. Furthermore, there is no obvious correlation between higher public spending ratios and higher public debt levels. Finland, which has the highest level of public expenditure in the euro area, managed to keep its debt to GDP ratio close to 60% over the observed period. The example illustrates how important it is to take into account the revenue side of the equation, such as tax income or the borrowing costs a government faces, when assessing the sustainability of public finances. Accordingly, this paper should not be understood to suggest an optimal level of public spending.

FIGURE 1 ▶ Public spending levels vary widely in the euro area

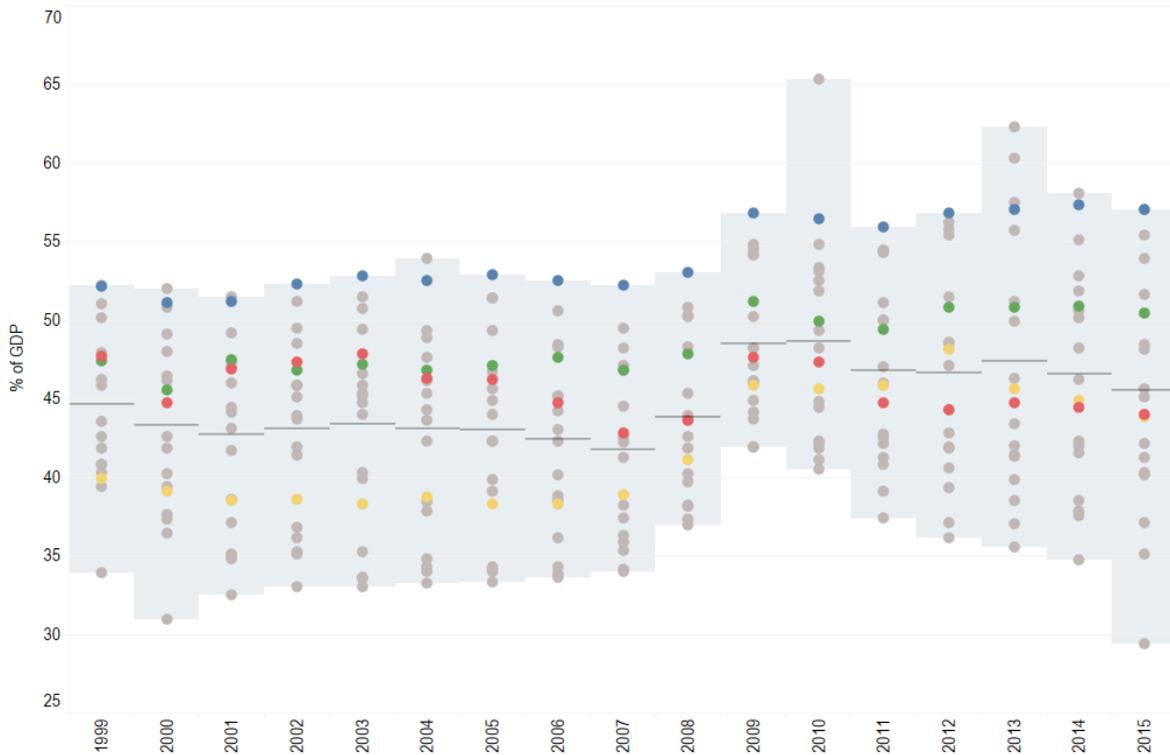


Government expenditure as % of GDP, 2013-15 average. Source: Own representation based on Eurostat data.

Tracing the evolution of public spending since the inception of EMU also reveals interesting findings. Not only do euro-area members differ in their spending levels, but there is also little evidence that they have become more similar over time (see figure 2). The (unweighted) average of spending ratios was 44.6% of GDP in 1999. By 2015, it had slightly increased to 45.5%. The standard deviation, i.e. the distance by which euro-area members differed from the mean value, increased over the period, suggesting a divergent trend. The euro area saw a brief period of convergence after 2005 that peaked when the global financial crisis struck in 2009. As GDP

shrank and banks were bailed out, spending ratios went up. But in the following years, divergence set in as some countries maintained the new spending ratios even as others reduced them.

FIGURE 2 ▶ Public spending levels have not converged over time



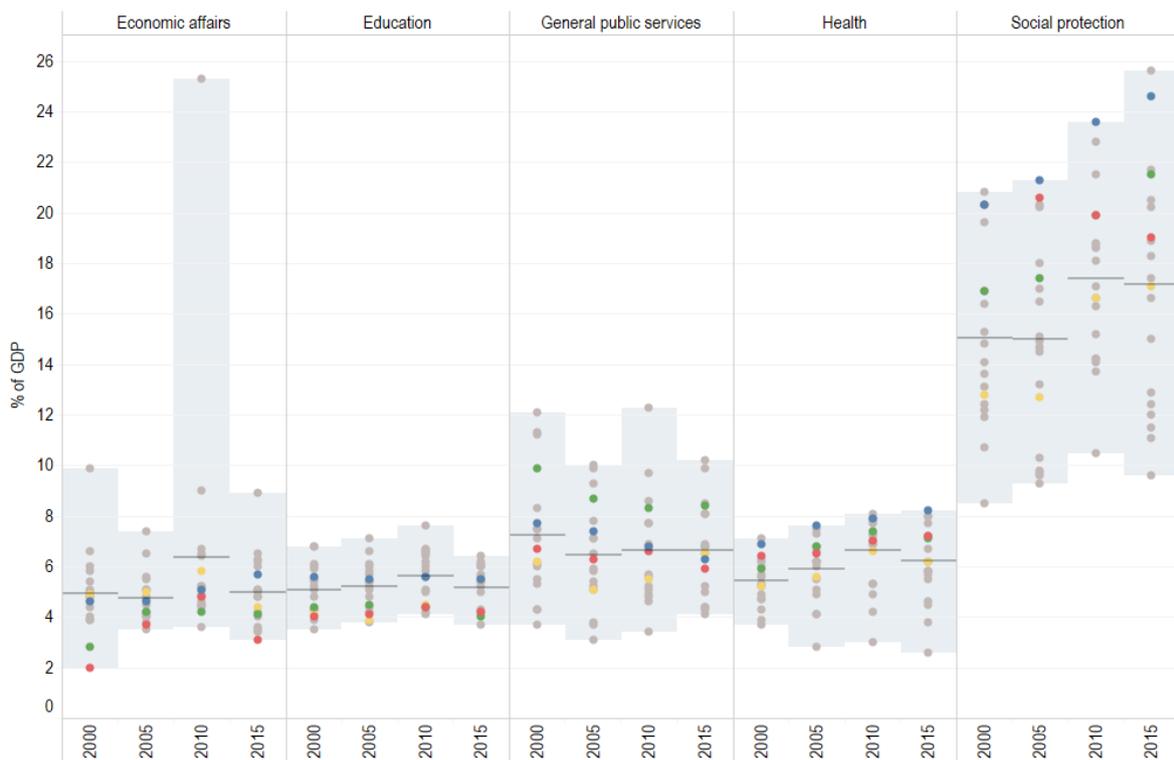
Public spending in the euro area in % of GDP, 1999-2015. The euro area's four largest economies are marked in colours. France = Blue; Germany = Red; Italy = Green; Spain = Yellow. Source: Own representation based on Eurostat data.

Turning to individual countries, France has been among the largest spenders in almost every year and the ratio has increased in recent times. Italy is following the same trend from a lower starting point. Germany and Spain have converged as the German ratio is on a slow downward trajectory and the Spanish ratio increased between 2007 and 2012. It is also worth mentioning Ireland as an extreme outlier. While the country had one of the lowest ratios until 2008, it saw a jump to 65.3% in 2010 resulting from high costs for bailouts during the banking crisis. Subsequently, the ratio fell again and reached 28.3% in 2015, mostly due to exceptional GDP growth rates.

2. What do governments spend their money on?

In order to understand where the differences in the size of the government come from, we analyse the composition of general government expenditure. The components of public spending can be viewed through two different conceptual lenses. One option is to look at the *nature* of public spending by breaking it down into categories such as compensation of state employees, intermediate consumption, transfer payments (including social benefits and pension), interest payments to creditors, and investment. However, as one of the objectives of this paper is to understand the evolution of spending *priorities*, we focus on public spending *by function*. For this purpose, we use the ten categories provided by the Classification of the Functions of Government (COFOG) to break down public spending data according to policy areas.

FIGURE 3 ▶ Spending priorities remain relatively stable overtime, except for spending on social protection



Spending on COFOG policy areas by euro-area countries over time, 2000-2015. The euro area's four largest economies are marked in colours. France = Blue; Germany = Red; Italy = Green; Spain = Yellow. Source: Own representation based on Eurostat data.

” DIVERGENCE IN
GOVERNMENT SPENDING
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Does the overall lack of convergence in spending levels mask increasing similarities in specific policy areas? Figure 4 shows the dynamics since the start of EMU for the five functions of government that receive the most funds. It suggests that euro-area governments tend to have relatively constant spending priorities. However, divergence in government spending on social protection has increased since the beginning of the crisis. This can partly be explained by the differences in growth performance but other factors, such as policy choices, may also be involved. Large countries like France, Italy, and Spain show a trend towards increased spending in this area while spending in Germany is moving in the opposite direction. Other smaller euro-area members, such as the Baltic countries and Ireland, saw only temporarily increased spending relative to GDP during the crisis and have mostly returned to the *status quo ante* since then.

We now take a closer look at the current spending levels (see figure 4). This chart confirms that euro-area countries display divergent spending priorities across the board. The most notable differences can be observed in the areas of social protection, health and general public services. This can partly be explained by the fact that they are the three biggest spending areas. However, the large difference observed in social protection spending indicates that broader dynamics may be involved.

Existing literature indicates that public expenditure (and social protection spending in particular) increases with a higher level of economic development but that this relationship tends to weaken once countries reach an advanced stage of development.⁹ This pattern cannot be observed in the four biggest euro-zone members, as the composition of public spending in France, Italy, Spain, and Germany seems to have taken different trajectories prior to and after the crisis. In fact, looking at different collective preferences in countries with stronger social democratic (e.g., Finland), corporatist (e.g., Germany), or liberal (e.g., Ireland) traditions may help better understand the differences¹⁰. A classification along these lines also helps take better account of the role played by semi-private organisations or charities in the provision of public goods in corporatist economies¹¹.

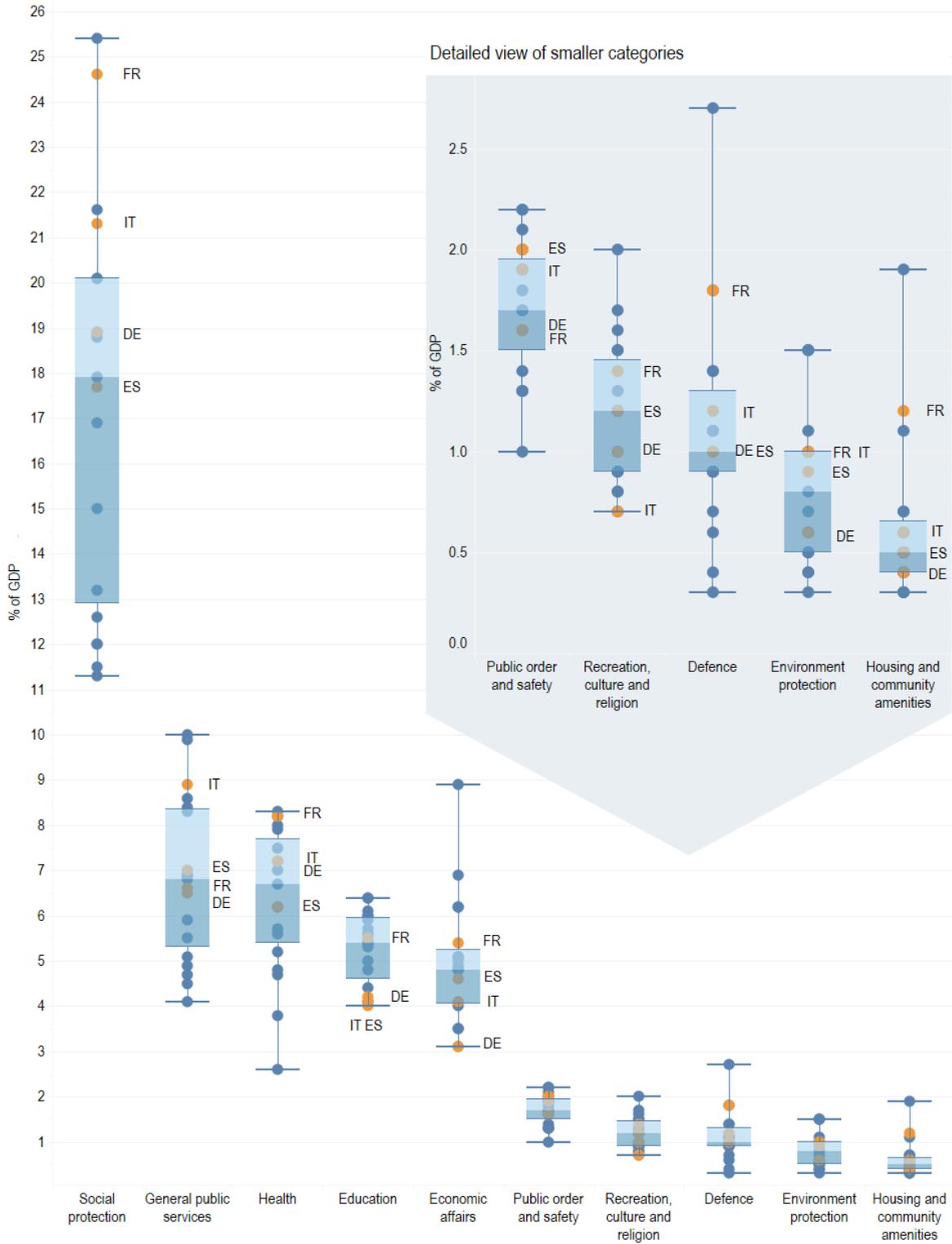
9. A useful review of the existing literature on this topic is provided in Kuckuck, Jan. *Testing Wagner's Law at Different Stages of Economic Development—A Historical Analysis of Five Western European Countries*. Working Paper no. 91, Institute of Empirical Economic Research, Osnabrueck University, August 2012.

10. Esping-Andersen, Gøsta. *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press, 1990.

11. Examples include Caritas and Diakonie in Germany.

ARE THE SPENDING PRIORITIES OF EURO-AREA COUNTRIES CONVERGING?

FIGURE 4 ▶ Euro-area countries display divergent spending priorities, especially concerning social protection



Average spending on COFOG policy areas by euro-area countries, 2013-15. The “Big Four” France, Germany, Italy and Spain are highlighted in orange. Source: Own representation based on Eurostat data.

3. How do euro-area countries compare on growth-enhancing spending?

The above comparisons suggest that spending priorities widely differ across member states. We push the analysis one step further to see if similar differences can be found in spending areas considered to be growth-enhancing. In line with the literature referred to in the introduction, this section compares spending levels in the areas of education, public investment, and R&D. For practical reasons, we limit the analysis to the Big Four (Germany, France, Spain, Italy) and the euro area median.

Focusing our analysis on “growth-enhancing” indicators includes a number of caveats. The effectiveness of growth-enhancing spending measures depends on a large set of variables including the quality of the business environment or the efficiency of public spending. Moreover, the spending categories are rather broad and include numerous policies, not all of which enhance growth. Against this backdrop, the below findings should be interpreted with caution.

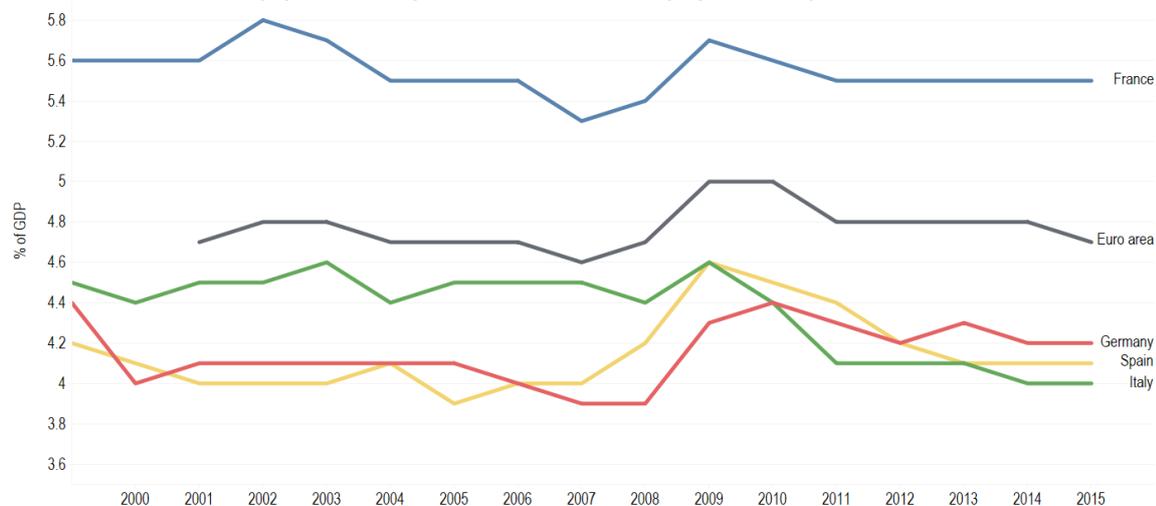
3.1. Education

General government expenditure on education refers to all types of public spending on educational institutions, across all levels of education, and from all levels of administration, i.e., including the German Länder. It does not, however, include private education, vocational training, or R&D spending¹². The evolution of government spending between 2000 and 2015 indicates that all large euro area countries, with the exception of France, spend a relatively small part of their budget on education (see figure 5). However, this does not include private education.

The evolution of the indicator between 2007 and 2010, including the peak observed in the Big Four countries in 2009, shows a similar pattern as the one observed in most other OECD countries during the crisis period¹³. As public expenditure is measured as a percentage of GDP, these fluctuations reveal in fact that governments maintained relatively stable levels of spending on education despite the negative impact of the crisis on economic output. If we consider expenditure in absolute terms, it is striking that Italy is the only country among the four that has reduced nominal spending on education between 2005 and 2015 (-3%) while the others increased it by between 20% and 36%.

Eurostat statistics suggest that higher education spending in France is partly explained by a higher level of public expenditure on secondary education and on “subsidiary services to education”¹⁴. However, higher levels of spending are not always reflected in educational outcomes. OECD’s global education survey, known as the PISA study, shows that Germany has done better than France on all “performance” indicators since 2005 despite spending significantly less over the course of the entire period studied¹⁵.

FIGURE 5 ▶ France consistently spends more on public education than Germany, Spain, and Italy



Spending on education in selected euro-area countries, 2001-2015. Source: Own representation based on Eurostat data.

12. Unless the R&D is related to education. See http://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_on_education

13. OECD. *Education at a Glance*, November 2015.

14. According to the Eurostat definition, this includes, for example, the cost of providing school buses.

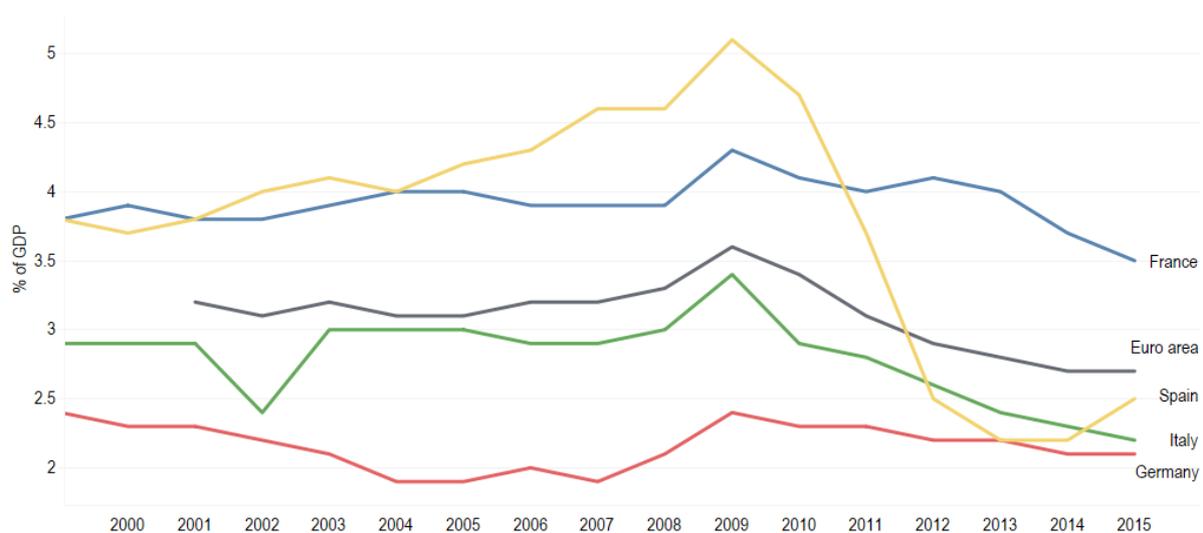
15. PISA 2015 results.

3.2. Public investment

A complex causal relationship exists between public and private investment. Public investment can incentivise private investment (“crowding-in” effect) by creating more favourable conditions for businesses¹⁶. However, as the increase of public investment needs to be financed, it may also imply an increase in taxes or impose a higher demand for funds from the government in the capital markets, thereby causing interest rates to rise. This sequence can lead government expenditure to have a “crowding-out” effect, reducing private investment.

The general level of public investment as a percentage of GDP widely differs across the euro area with France and Spain consistently reaching higher levels than Italy and Germany in almost every year since the start of EMU. The evolution of this indicator over recent years shows convergence towards a lower level of public investment (figure 6). Public investment has decreased in the years following the financial and sovereign debt crisis. The decline is especially pronounced in Spain and Italy, countries that faced strong pressure to consolidate their finances. This trend may have reversed in Spain but seems to persist in Italy.

FIGURE 6 ▶ Public investment spending is converging towards a lower level



Investment (gross fixed capital formation) in selected euro-area countries. Source: Own representation based on Eurostat data.

However, the low level of public investment in Germany suggests that other country-specific factors may also be involved. Some research highlights the long-term decline in investment by municipalities—which traditionally accounts for a large portion of infrastructure investment¹⁷. Others point to the role of inter-country differences in classifying investments as public or private, and argue that low ratios are in part a result of strong GDP growth¹⁸.

3.3. Public R&D

Administrations and business are currently facing an unprecedented wave of technological disruptions linked to the digitalisation and the decarbonisation of Europe’s economy. Consequently, public spending on Research and Development (R&D) can be seen as an essential tool for governments to keep up with the pace

16. For example, the Investment Plan for Europe (the ‘Juncker Plan’) launched by the European Commission in 2015 relies on a set of incentives, such as EU guarantees, single market reforms, and the introduction of new institutions aimed at achieving precisely that objective. See https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan_en

17. Kreditanstalt für Wiederaufbau (KfW). *Public investment in Germany continues long-term downward trend*. October 2015. Marcel Fratzscher, Ronny Freier und Martin Gornig. „Kommunale Investitionsschwäche überwinden.“ *DIW Wochenbericht*, no. 43 (2015): 1019-21.

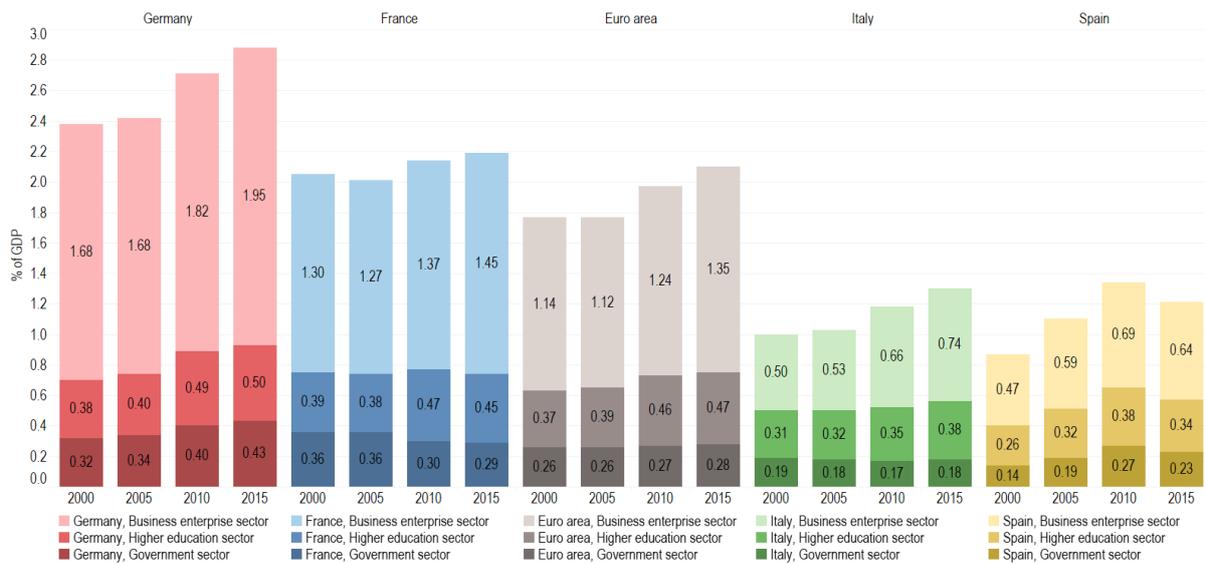
18. German Federal Ministry of Finance. *Is German public investment heading for a sustained upswing?* June 2017.

of technological change. Europe 2020, the EU’s growth strategy, considers R&D to be one key component of “smart, sustainable and inclusive growth” and aims to raise it to 3% of EU GDP¹⁹.

Recent figures indicate that the EU is currently well below its original target with R&D expenditure representing just over 2% of the EU’s GDP in 2015. The business sector makes up for almost two thirds of this figure²⁰. The situation in the Big Four and the euro area is similar (see figure 7). Governmental R&D plays a minor role compared to R&D in the (public and private) higher education and both are dwarfed by the business sector. The role of the latter is especially important in Germany, the only large economy that comes close to the 3% target. Spain and Italy spend markedly less on R&D than the euro area average.

Between 2000 and 2015, the share of governmental R&D spending stalled while business enterprise spending displayed an upward trend. France is an interesting case study in this regard: while R&D investment from the business enterprise sector rose in line with other euro area economies, R&D spending by government sector decreased after 2005. This trend towards a higher privatisation of R&D matches developments observed in other OECD countries. Yet, low leverage effects of its public investment could threaten the country’s ability to meet its EU objectives²¹. The comparison between total spending on R&D in Germany and Spain suggest that the European debt crisis may have fuelled divergence. This should be reason for concern as it may impact the readiness of former crisis countries to face the challenges brought about by ongoing industrial transformations²².

FIGURE 7 ► Governmental R&D spending has stalled in most countries, but R&D in other sectors is growing



Spending on research and development by sector. Source: Own representation based on Eurostat data.

19. European Commission, *Europe 2020 strategy*.

20. Eurostat, *R&D expenditure in the EU remained nearly stable in 2015 at just over 2% of GDP*, November 2016.

21. French Senate. *Recherche et innovation en France: surmonter nos handicaps au service de la croissance*, Sénat, June 2017.

22. One example is the EU’s ‘multi-faceted digital divide’ regarding the Fourth Industrial Revolution. See Dittrich, Paul Jasper, *Reskilling for the Fourth Industrial Revolution. Formulating a European Strategy*, Policy Paper 175, Jacques Delors Institut—Berlin, November 2016

CONCLUSION

Our analysis has illustrated that public spending ratios in the euro area vary widely and have shown no signs of lasting convergence since the inception of EMU. Euro-area countries became slightly more similar in the years leading up to the global financial crisis, but they quickly diverged again after 2009.

A look at the composition of public expenditure revealed that spending on social protection accounts for a large share of the difference. Notably, its share of GDP has increased in Italy and France, while it has decreased in Germany.

Concerning potentially growth-enhancing “productive” spending, our analysis of the euro-area’s largest four economies yields a very diverse picture. France spends a comparatively large share of its GDP on public investment and education, while Germany spends more on R&D. Spain saw a very large drop in public investment during the crisis, but spending on education remained stable. In Italy, spending on all three policy areas seems to be on a declining path. It is still too soon to evaluate the effects of these differences on growth. However, an impact assessment in due time would be important to understand the long-term consequences of the crisis.

We find some evidence for the notion that fiscal constraints during the European debt crisis have led to lower productive spending in Italy and Spain. Budget cuts seem to have had a disproportionate impact on education, investment and R&D²³. This could leave the countries ill-prepared for future industrial transformations. The differences observed in spending areas today could lead to further divergence between euro-area economies tomorrow.

” SPENDING LEVELS
AND PRIORITIES REFLECT
DOMESTIC PREFERENCES
AND PATH DEPENDENCY”

On a more general level, our analysis supports previous findings that spending levels and priorities reflect first and foremost domestic preferences and path dependency. Even when faced with pressure from globalisation and efforts to coordinate fiscal policies (two factors that should favour convergence) euro-area countries chose very different paths. This diversity is a legitimate expression of different values and interests and it may even be a source of economic resilience²⁴. However, it also suggests that it will not become any easier for euro-area institutions to find policies that fit all its members equally well.

23. See also Lorenzano, Dimitri, and Vito Ernesto Reitano, *Italy's Spending Maze Runner. An analysis of the structure and evolution of public expenditure in Italy*, European Commission Discussion Papers 23. December 2015.

24. Schelkle, Waltraud. “The insurance potential of a non-optimal currency area.” Olaf Cramme and Sara Hobolt (eds). *Democratic politics in a European union under stress*. Oxford: Oxford University Press, pp.137-154.

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