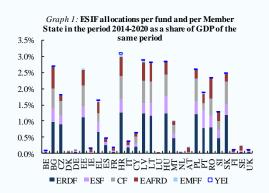
## Box 1.3: The impact of European Structural and Investment Funds on near-term forecasting

This box discusses the implications of the European Structural and Investment Funds (ESIF) (1) for nearterm forecasting and assesses whether they are part of the explanation for higher growth over the forecast horizon in the main beneficiaries of these funds. ESIF are the major investment instruments in the EU budget and provide support to projects in a broad range of policy areas (2) to reduce the disparities between regions and to achieve 'economic, social and territorial cohesion' in the EU. (3) ESIF allocations are decided at EU level ahead of every seven-year programming period, the so-called Multiannual Financial Framework (MFF). For the current period (2014-2020), they amount to EUR 461 billion, accounting for 42% of the total MFF.

The ESIF are organised in national envelopes broken down by year and allocated mainly according to the relative regional and national GDP per capita. As a result, less developed Member States and regions receive more than 80% of the funding, giving rise to important differences in aid intensity as presented in Graph 1. On average, ESIF account for a substantial percentage of national GDP in many Member States, and over 2.5% in eight Member States, mainly Central and Eastern European countries. (4)



Note: The total ESIF allocation for the period 2014-2020 is divided by the total cumulative GDP over the same period (including (forecasts for 2019 and 2020) to provide an indicative annual average.

ESIF are an important determinant of economic activity in the main beneficiary states. From a shortterm macroeconomic forecasting perspective, it is of special interest to assess the likely impact of ESIF implementation on real GDP growth over the forecast horizon. This is often difficult to forecast due to the profile of disbursements over time, which is determined by various factors, such as the phase of implementation of the funds, administrative capacity issues, etc. Yet, looking at historical data and past developments (including during and after the late 2007-2009 crisis), one can identify broad patterns of disbursements related to the MFF cycle and, in turn, estimate range-estimates of their impact on GDP. While not constituting an actual forecast, these patterns could be used as a central scenario for near-term forecasting.

<sup>(1)</sup> ESIF operate under a common legal framework across the EU and include the following funds: European Regional Development Funds (ERDF), European Social Fund (ESF), Cohesion (CF), European Agriculture and Rural Development Fund (EARDF), European Maritime and Fisheries Fund (EMFF) and Youth Employment Initiative.

<sup>(2)</sup> These are inter alia Research, technological development and innovation, Information and Communication Technologies, support to Small and Medium Enterprises (SME), low-carbon economy, climate change and environment, transport education, employment and social inclusion, rural development, fisheries and maritime development and the strengthening of institutional capacity, contributing to the delivery of the Europe 2020 targets.

This objective is enshrined in Article 174 of the Treaty on the Functioning of the European Union (TFEU). ESIF are also closely linked to the European Semester of economic policy coordination. In particular, operational programmes agreed between the Commission and the Member States had to take into account of relevant country-specific recommendations (CSRs). Likewise, the Commission may request the Member State to review these programmes to take into account new challenges identified in the CSRs. There is also a link with the Excessive Deficit and the Macroeconomic Imbalances Procedures through the possible suspension of funding in case of non-effective action by the Member State concerned. Finally, the ESIF operate under a common legal framework across the EU

<sup>(4)</sup> This comparison and further analysis in this box does not net out Member States' contributions to the EU budget, and focuses only on the impact of payments for projects, which are finally captured in the expenditure side of national accounts.

Box (continued)

### Measurement in national accounts

In order to estimate the impact of ESIF on short-term GDP growth, it is useful to briefly explain the process of ESIF implementation. The seven-year investment strategy agreed between the Member States and the European Commission comprises the yearly amounts allocated to Member States in 'envelopes' known as 'commitment appropriations'. They are the basis for the actual payments, which can take the form of limited 'advance' payments (pre-financing) or much larger ex-post 'interim payments' that reimburse actual expenditure certified by Member States under the principle of cofinancing. (5) ESIF hence operates mostly through reimbursements that co-finance (ex-post) certified national expenditure. (6) Commitments and payments do not need to correspond to the same year. In fact, Member States may declare expenditure until the third financial year following that of the budget commitment: payments corresponding to the current programming period 2014-2020 could thus extend until 2023 (so-called "N+3 rule"). (7)

Although the data on ESIF payments collected by Commission Services for accounting purposes are 'cash basis', the recording of ESIF payments in National Accounts follows the 'accrual basis' of accounting. According to the Eurostat manual on government debt and deficit, Member States compute ESIF revenues when the actual spending on the selected project occurs, rather than the 'cash basis' accounting that would register revenue when the actual EU reimbursement happens. (8) This ensures that the impact of ESIF on GDP is measured when actual ESIF-related investment takes place, whether by the private or public sector, and not when the Commission reimburses the Member States. Given that the most up-to-date statistics on ESIF payment profiles are available only in cash terms, one should allow for a degree of adjustment over a

central scenario built with the available data. This central scenario should be considered as a broadly indicative starting point for forecasting and adjusted on the basis of more detailed country-specific information on their intended ESIF implementation per year.

# Principle of additionality and the profile of the absorption rate

The proper accounting of ESIF payments allows the identification of the short-term demand effect derived purely from ESIF-financed projects. As already mentioned, patterns of disbursement are based on a medium-term strategy set ex-ante for a seven-year period. Thus, from a macroeconomic forecasting perspective, these funds are not timed according to the cyclical position of the country, and are to be seen over a medium-term growth perspective. At the same time, there could be a risk for some ESIF-related projects to substitute or crowd-out some (national) investment rather than leverage it. This is why according to the agreed principle of 'additionality', which is enshrined in the ESIF regulation, Member States shall not use EU funding to replace national expenditure. (9) In practice, however, the risk of 'crowding out' particularly increases during periods of budgetary stress and may in certain cases stall the efficient implementation of projects.

<sup>(5)</sup> Interim payments constitute the bulk of these payments, whereas advance payments are usually disbursed to provide some limited up-front liquidity at the beginning of a programme.

<sup>6)</sup> The co-financing rates differ across Member States, funds and, in some cases, policy areas.

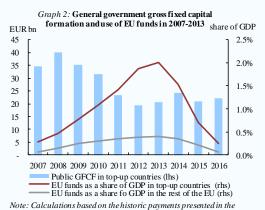
<sup>(7)</sup> In some cases, final payments could extend after the closure of the programme.

<sup>(8)</sup> This delay is due to the time it takes for receipts to be submitted by the national authorities and vetted by the European Commission. Accrual basis accounting therefore ensures that the possible misalignment between the recording of investment (accrual, just-intime) and the timing of EU payments (cash, largely expost) does not have an impact on national accounts, since the investment is recorded when it takes place. For more details, please refer to Eurostat. Manual on Government Deficit and Debt. 2016.

When using EU funds, Member States shall comply with the principle of additionality. According to this principle, EU funding should not replace the national or equivalent expenditure by a Member State. In the programming period 2007-2013 all Member States except Greece complied with this principle, while six of them (Czechia, Germany, Italy, Hungary, Lithuania and Portugal) observed it because of the downward revision of the baseline at the mid-term verification in 2010. The downward deviations in these Member States resulted in an actual estimated loss of public investment of at least EUR 10.7 billion in 2007-2013. In contrast, countries like Poland, Slovakia or Bulgaria were able to mobilise more national investment than expected. COM (2016) 414 final.

#### Box (continued)

For instance, after the difficulties caused by the late 2007-2009 economic crisis, the EU introduced a topup clause (10) that allows Member States, upon request, to receive a temporary reduction in national matching funds (e.g. lower national co-financing), meaning temporary budgetary relief for national treasuries, the advancement of EU payments in the financial plan, and a reduction of the risk of losing ESIF. (11) Although the clause was extremely useful as a liquidity buffer, it could not prevent a procyclical drop in public investment (Graph 2). One could in fact observe an increase in ESIF payments and a contraction in total public investment in the countries benefiting from the top-up between 2011 and 2015, partly explained by the reduction in the national matching funds for ESIF-related investment. This is relevant not only for policy reasons, but also for short-term forecasting. In the countries that used the top-up facility, the absorption rate during the previous MFF was very uneven and idiosyncratic and the absorption profile in the current MFF may be smoother and closer to an average profile. Looking forward, taking an EU average absorption rate is thus considered as more appropriate for the likely absorption for 2019 and 2020. (12)



Cohesion Data Portal and AMECO

In this section, certain assumptions are adopted to try to estimate the likely use of ESIF in 2019 and 2020 and then to arrive at an approximate contribution to GDP levels and growth rates. The results partially explain why growth in large recipients is projected to be higher than in the other EU Member States.

With the knowledge of the overall ESIF allocation and the absorption to-date, the key assumption is the profile of absorption rates for the next two years. So far, the implementation rate of the ESIF in the MFF programming period 2014-2020 has decelerated in comparison to the 2007-2013 period (see Graph 3). This is especially evident when measuring the utilisation of funds during the first five years of both programming periods (2007-2011 versus 2014-2018). Different factors contributed to this initial low uptake of ESIF, mainly the late adoption of programmes, overlaps with the previous MFF and the delay in the approval of the management and control systems of certain Member States.

On the basis of the profile of yearly payments from the previous MFF (see Graph 3), one can see that they tend to increase towards the end of the MFF period and to diminish after the eighth year when the new seven-year MFF would be already in operation. For the purposes of this analysis, it is assumed that in 2019 and 2020, each country will follow a similar EU average absorption profile as in the corresponding years (2013 and 2014) of the previous MFF, adjusted and apportioned proportionally by each country's remaining

Estimating the likely short-term impact on growth
In this section, certain assumptions are adopted to

<sup>(10)</sup> European Commission (2016). Report from the Commission to the European Parliament and the Council containing the assessment required under Articles 24(3) and 120(3) third sub-paragraph of Regulation (EU) N° 1303/2013. COM (2016) 414 final 2016

<sup>(11)</sup> In concrete terms, eligible countries are those under an economic adjustment programme. They could receive payments up to 10 percentage points above their maximum EU co-financing rate on all their declared expenditure. The Commission frontloaded over EUR 3 billion of 'top-up' for the ERDF, ESF and Cohesion Fund in Cyprus, Greece, Hungary, Ireland, Portugal and Romania from 2011 to 2015. Greece benefited mostly from this top-up facility with a total amount of 1.3 billion. Other countries only requested a partial reduction to certain programmes (i.e. Cyprus, Ireland, Portugal, Hungary and Romania) or even declined this possibility (i.e. Latvia).

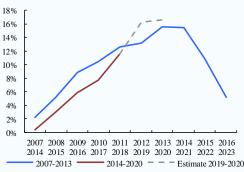
<sup>(12)</sup> The average absorption profile of the EU is not very different from the average for the Member States that joined the EU in 2004 and later.

#### Box (continued)

funds. (13) It is further assumed that all funds will be used by 2023, that is the end of the MFF period plus the additional three years permitted. National cofinancing is not included in our simulations since we are interested in providing a central scenario for the impact of ESIF payments from the EU budget to be adjusted over time with country-specific information, including national co-financing rates. The profiles calculated in these simulations respect the official figures presented in the EU Budget 2019 and the Draft Budget 2020. (14)

Given that the overall implementation rate up to 2018 is actually lower compared to the previous MFF for the same period (2007-2011) and that the sixth and seventh year usually show increasing payments, the assumed payments for 2019 and 2020 are quite strong and in line with the amounts in the EU budget. These assumptions are quite simple but useful to provide a reasonable central scenario for the main beneficiaries of ESIF. It is important to clarify that a full economic assessment per country would need to be adjusted on the basis of country-specific information (e.g. higher or lower multipliers due to the cyclical position, import-intensity of expenditure, overall contributions to the EU budget, etc.).

Graph 3: EU ES IF absorption average profile for the period 2007-2013 and estimate for 2014-2020

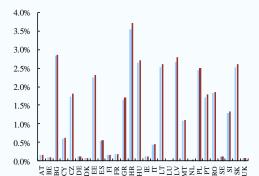


 $Note: Estimations\ based\ on\ the\ data\ of\ the\ Cohesion\ Data\ Portal$ 

Using this profile of expected ESIF payments, the results show that ESIF-related payments could represent a substantial and increasing proportion of national GDP levels. For example, in a number of countries ESIF payments could represent more than

2.5% of GDP in 2019 and 2020 (see Graph 4). Furthermore, considering that an acceleration in payments can be expected in the last two years of an MFF, the impulse to growth (in nominal terms) over the forecast horizon is set to be quite significant in some Member States. (15) This could reach more than 1 pps. in some countries and more than 0.5 pps. in many Central and Eastern European Member States (Graph 5). This impact is more pronounced for those countries which lag behind in absorption since it is assumed that this is fully compensated by an acceleration in payments towards the end of the MFF. Should this not materialise, or happen more gradually than expected, the impulse to GDP growth would be postponed.

Indeed, while certainly useful and indicative, these estimates have to be used with caution. As mentioned earlier, they are based on cash data on payments that may not fully reflect the actual timing of expenditure used to estimate GDP on an accrual basis. They do provide, however, a clear indication of the direction of the impulse coming from ESIF in the coming two years, which is likely to be quite positive due to an expected acceleration of the implementation of ESIF projects.



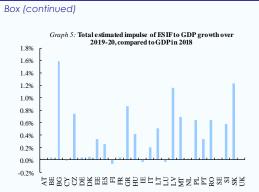
2019 ■ 2020

<sup>(13)</sup> If the forecast is performed in the first three years of a MFF, then payments should take into account receipts from two overlapping MFFs (the current and the previous one). Since we forecast payments for the last two years of the MFF 2014-20, there is no overlapping between MFF cycles.

Graph 4: ESIF payments as a share of GDP in 2019-20

<sup>(14)</sup> See working documents of the general budget 2019 https://ec.europa.eu/info/publications/workingdocuments-services-commission-2019 en and the Draft Budget 2020

<sup>(15)</sup> The impulse to growth is calculated as the change in total ESIF payments over 2019 and 2020 as a percentage of the base GDP level in 2018. In the case of Croatia (not shown in Graph 5), this is its first MFF and these assumptions would show a stronger impact.



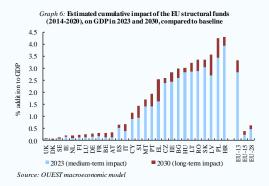
#### The medium-term impact

The ultimate objective of the ESIF is to achieve significant economic growth in the less developed Member States and regions to reduce their gap with the EU average. As seen in the previous section, the macroeconomic impact of ESIF is first visible over the short-term through the demand channel. Supplyside effects start to materialise over the medium term as potential output is increased due to the productivity-enhancing effects of investment in infrastructure, R&D and human capital. The impact of these investments strengthens gradually and generates large output effects in the long run. The EC's QUEST model estimates that EU investment through the Cohesion Policy funds, which account for more than 75% of ESIF, should increase GDP by more than 2.5% on average in the major recipient countries, by 2023. For example, GDP in Croatia is estimated to be around 4% higher by 2023 than in the baseline scenario of an absence of this policy. In the long-run (2030), the increase in GDP is largest in Croatia and Poland (more than 4% in each case) and over 3% in the largest beneficiaries. (16)

## Conclusion

The European Structural and Investment Funds are not only a major instrument for supporting long-term economic, social and territorial cohesion but also an important determinant of short-term economic activity over this forecast horizon, explaining part of the high growth rates especially in Central and Eastern European Member States. Whereas simulations of their medium-term impact have been extensively analysed, the short-term impact is often difficult to measure due to the variations in the pattern of disbursements over time. Yet, looking at past developments, patterns of absorption rates and the remaining funds to be utilised in the current MFF that ends in 2020, allows to estimate the likely magnitude of their impact on

GDP in 2019 and 2020. These are expected to be positive both in terms of GDP levels and first differences (contribution to GDP growth) for the major beneficiaries of ESIF. The former effect is due to the magnitude of support provided, which has traditionally been substantial and broadly stable for the EU as a whole. The latter effect is due to an expected acceleration in ESIF payments and implementation at the end of the current MFF and, according to assumptions, especially in 2019. While not constituting a fully-fledged forecast (that would require further assumptions on the accrual timing of investment, multipliers by project envelope, importcontent of ESIF-related investment, assumptions about national co-financing rates and 'additionality' of EU support) the estimates are useful to provide a horizontally consistent central scenario to be adjusted on the basis of country-specific information.



Moreover, in the context of the broader EU outlook in 2019 and 2020, ESIF can explain part of the decoupling in real GDP growth rates of the main beneficiaries from the rest of the EU. However, due to the mean-reversing property of ESIF payments over MFF cycles, other factors are likely to play a role, especially after 2019. Indeed, although yearly changes in ESIF payments do affect GDP growth, their economic impact is mostly relevant in terms of GDP levels. The central scenario estimates show that 2-4 pps. of GDP levels in several of the main beneficiaries in both 2019 and 2020 can be explained by ESIF payments. Followed with the right policies, these countries are likely to benefit from further positive effects in the long-term, as productivity-enhancing supply-side effects also materialise.

<sup>(16)</sup> European Commission (2017). '7th Report on Economic, Social and Territorial Cohesion'.