

THE EU BUDGET IN TIMES OF CRISIS: THE IMPORTANCE OF THE SHORT-TERM STABILISATION EFFECT OF THE ESIF

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Abstract

Against the backdrop of recurring crises, the limited flexibility and capacity of the EU budget to respond to economic shocks has been highlighted. This article examines whether transfers from the European Structural and Investment Funds fulfil a short-term macroeconomic stabilisation function within the EU budget. The aim is to empirically verify the countercyclical effect of the ESIF in relation to the stabilisation of gross national income. The analysis uses a VAR model and an impulse response function based on data for the period 1986–2026. The results show that the ESIF do not exhibit a statistically significant short-term stabilising effect in the classical sense of automatic fiscal stabilisers. Impulse responses indicate only a weak and delayed, time-limited, countercyclical effect. In conclusion, the article states that the ESIF contribute primarily to indirect and delayed stabilisation, with their effect being conditioned by institutional arrangements and being more pronounced in times of crisis.

JEL classification: E62, E32

Keywords: EU budget, ESIF, cohesion policy, countercyclical fiscal policy, stabilisation function of the EU budget, short-term fiscal stabilisation through ESIF

Introduction

The global financial and economic crisis after 2008, the subsequent euro area sovereign debt crisis and the COVID-19 pandemic have highlighted the limited capacity of the EU budget in its traditional form to perform a macroeconomic stabilisation function. The relatively small size of the budget, its multiannual programming framework and the predetermined allocation of resources constrain its ability to react quickly to unexpected economic shocks. Nevertheless, for many Member States, particularly those with lower levels of economic development, cohesion policy represents an important source of public investment financing and contributes to economic, social and territorial cohesion.

Recent crises have also altered the practical role of cohesion policy. Although originally designed as a long-term investment instrument supporting convergence and structural development, cohesion policy has increasingly been used to address crisis situations through greater flexibility in implementation, higher co-financing rates and accelerated absorption of funds (European Court of Auditors, 2023, pp. 40–42). This development has renewed interest in the ques-

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tion of whether the EU budget, and particularly the European Structural and Investment Funds (ESIF), can contribute not only to long-term growth but also to short-term macroeconomic stabilisation. As highlighted by Bisciari et al. (2021, p. 2), the EU allocates a substantially larger share of its budget to investment expenditure than national governments, making the EU budget an important source of public investment financing for several Member States. This characteristic distinguishes the EU budget from national fiscal systems and raises the question of whether investment-oriented instruments such as the ESIF may generate not only developmental and convergence effects, but also a stabilising effect during periods of economic distress.

The growing frequency of economic shocks has revived the broader debate on the stabilisation function of the EU budget. While a substantial body of literature examines the effects of cohesion policy on economic growth, convergence and public investment, considerably less attention has been devoted to its potential role as a stabilisation instrument. Existing research on fiscal stabilisation in the European Union has primarily focused on the EU budget, fiscal federalism arrangements or proposals for dedicated stabilisation mechanisms. By contrast, the stabilising properties of the ESIF themselves remain insufficiently understood. Moreover, empirical evidence remains inconclusive. Some studies identify a limited stabilising effect of EU expenditure, while others conclude that the EU budget is largely unable to respond to cyclical fluctuations because of its predetermined multiannual structure and the absence of automatic fiscal triggers. An additional limitation is that much of the existing empirical literature predates recent crises and the increasing use of cohesion policy as a crisis-response instrument. Consequently, there is limited evidence on whether ESIF transfers exhibit countercyclical behaviour and contribute to short-term income stabilisation under contemporary institutional conditions. By examining actual ESIF disbursements rather than budget allocations or aggregate fiscal transfers, this article contributes to the literature on the stabilisation function of the EU budget from the perspective of cohesion policy implementation.

This article seeks to address this gap by examining the short-term stabilising effect of ESIF transfers under cohesion policy, specifically the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund (CF). Unlike studies focusing on the aggregate EU budget, the analysis concentrates on actual ESIF disbursements and their relationship with gross national income (GNI). Using a vector autoregressive (VAR) model and impulse response analysis (IRF) covering the period 1986–2026, the article investigates whether ESIF transfers behave countercyclically and contribute to the stabilisation of economic activity following macroeconomic shocks. More specifically, the article contributes by distinguishing between the classical concept of short-term fiscal stabilisation and the investment-based resilience provided by cohesion policy, thereby offering a different perspective on the stabilisation role of the traditional EU budget.

Although the broader debate on the stabilisation function of the EU budget has recently expanded to include instruments such as NextGenerationEU (NGEU) and Support to mitigate Unemployment Risks in an Emergency (SURE), these instruments lie outside the scope

of the present analysis. NGEU is widely recognised as an exceptional crisis-response instrument with an explicit macroeconomic stabilisation objective, financed through common EU borrowing and designed as a temporary recovery mechanism rather than as part of the traditional expenditure framework of the EU budget. Accordingly, this article focuses on the ESIF, which represent the largest and most established investment instruments within the Multiannual Financial Framework and have formed the core of the EU budget's expenditure side over several programming periods.

The objective is therefore to assess whether the traditional expenditure side of the EU budget itself exhibits short-term stabilisation properties, independently of the extraordinary crisis instruments introduced in response to the COVID-19 pandemic. Furthermore, the empirical analysis covers the period 1986–2026, allowing the stabilisation properties of ESIF to be examined consistently over four decades. By comparison, the implementation of NGEU began in 2021, and only a limited post-launch time series is currently available. Including NGEU would therefore require a substantially different analytical framework and research design.

The concept of fiscal stabilisation is examined here exclusively through the expenditure side of the EU budget. Consequently, the stabilisation function is understood not in the classical sense of a complete fiscal system incorporating both revenues and expenditures, but as the ability of ESIF transfers to dampen economic fluctuations and support the stabilisation of GNI in response to economic shocks. The article therefore examines whether ESIF transfers exhibit characteristics consistent with a short-term stabilisation mechanism within the current institutional framework of the European Union.

1. The stabilisation function of the EU budget through ESIF

Various authors have examined the existence of the stabilising function of the EU budget (very often in the context of the redistribution function), with varying results. Bayoumi and Masson (1995) examined the separate effects of the redistribution and stabilisation functions in the US and Canada in comparison with the EU. The conclusion is that the stabilising effect of individual Member States within the EU is comparable to that of the two federations studied, therefore there is no compelling reason to create a single stabilisation policy at EU level. The resulting effect of the stabilising function depends on the institutional structure. In their subsequent article, Bayoumi and Masson (1998) highlight the importance of fiscal stabilisers within the EMU in the context of their existence in other monetary unions or federations. The recommendation is to create a common fiscal policy rather than relying solely on the fiscal policies of individual EU Member States, where the resulting fiscal stabilisation effect would be smaller. The problem, however, is the political aspect, namely the relinquishment of national states' competences in fiscal policy.

Asdrubali and Kim (2008) assess the relationship between all three functions of the budget, allocation, redistribution and stabilisation, using categories of expenditure groups classified by

EU funds. The findings show that whilst the stabilising role is negligible on the revenue side, the expenditure side of the EU budget stabilises 2.6% of the GNP of EU Member States within two years of a short-term shock. However, different results are obtained when the period under review is divided into three sub-periods. In the period 1976–1985 the two-year effect resulting from countercyclical expenditure stabilisation was 7.5%, in the period 1984–1993 there was even a destabilising effect of -2.5% due to the simultaneous growth in expenditure and GNP, and in the period 1992–2001 a stabilising effect of 9.1%. The study is significant in that it provides evidence of the measurability, albeit relatively insignificant in value, of a stabilisation function which earlier studies had assessed as zero.

Pasimeni and Riso (2019) also examined the redistribution and stabilisation functions of the EU budget. According to the authors, the EU budget, particularly its expenditure side, does not respond in any way to changing economic conditions. Rousek (2020) mentions the ineffective stabilisation function of the EU budget. In his view, greater effectiveness would be achieved by targeting budget expenditure primarily at countries with a high macroeconomic multiplier (high marginal propensity to consume).

Dullien and Schwarzer (2009) highlight the inadequacy of fiscal stabilisation arrangements in the EU (particularly within the EMU). In their view, incorporating a stabilisation function into the expenditure side of the EU budget should be accompanied by increased sensitivity of EU expenditure to the economic situation in the recipient country. The issue of allocating pre-allocated expenditure within the financial perspectives, without regard to cyclical economic developments, can lead to pro-cyclical behaviour in connection with the diminishing effect of financial support when the economy enters a recession. A solution might appear to be making the pace of disbursement conditional on the economic cycle, in the context of extending or shortening the disbursement period, rather than immediately ceasing funding.

Although there are macroeconomic models demonstrating the positive impacts of ESIF, it depends primarily on the sector in which the investments are made, but also on how effectively these investments are managed. Whilst some results confirm the positive impacts of cohesion policy, whether short-term or long-term, others point to negative or even no impacts (Darvas, Mazza and Midoes, 2019). Vita (2017, p. 6) emphasises that despite their modest volume, funds provided from the EU budget represent a significant long-term capital investment instrument with a positive impact on individual Member States. Although most studies confirm the positive impact of cohesion policy on economic growth and employment, the effects vary greatly across individual Member States (Crescenzi and Giua, 2019).

Ciani and de Blasio (2015) highlight the ineffective impact of ESIF on employment, the population and property prices in the labour market of southern Italy during the post-crisis period between 2007 and 2013. The results suggest that even the faster disbursement of funds from the ERDF or ESF did not have a significant positive impact in the post-crisis period, without the influence of other similar national funds. On the other hand, the authors themselves note that although there is no evidence of a significant impact on the average values examined,

the funds provided from the ESIF may still have mitigated the impact of the recession on the most affected local labour markets. Similar research examining the impact of structural funds on regional performance was conducted by Becker et al. (2010), concluding that within the examined cohesion policy objective there is a clear impact on GDP per capita in each programming period but no impact on employment. Countries such as Greece, Spain, Portugal and Italy can be counted among those with significant economic growth attributable to funding from the EU budget (Ferrer and Katarivas, 2014, pp. 2–6). Although the importance of the EU budget for recipient countries is clear, available surveys and studies on the stabilisation function of the EU budget and the impact of ESIF vary; however, the view that they are ineffective generally prevails over the view that they are effective.

Staehr and Urke (2022) examine the impact of ESIF on public investment in Member States. The panel data analysed suggest that the Cohesion Fund is the only fund contributing to an increase in investment and fulfilling the principle of additionality. There is also an impact of the ERDF on public investment, although its effect cannot be estimated and is relatively weak. According to some authors, cohesion policy or research instruments fulfil a kind of stabilisation function aimed at strengthening competitiveness and economic resilience. Ferrer and Alcidi (2018) point out that the aim of these instruments is to provide financial compensation, through the EU budget, to those Member States that lag behind the average economic development at the European Union level. Although the EU budget was not and still is not designed to offset economic fluctuations, thanks to its medium-term outlook it provides Member States with a form of indirect stabilisation due to the relatively constant volume of investment that can be implemented even during periods of economic downturn, that is at a time when individual Member States may be applying restrictive fiscal policies (European Commission, 2017, p. 14).

Although the proportion of funding from the EU budget is relatively small, the significance of the funds concentrated in specific areas and regions, where they contribute to stabilisation, appears to be considerable. Ferrer and Rinaldi (2017, pp. 7–22) state that whilst seven-year medium-term financial frameworks represent a rigid funding structure, on the other hand, thanks to so-called ex-ante payments and national strategies and operational programmes, the flow of funds is ensured even during periods of economic downturn. ESIF can thus contribute to macroeconomic stabilisation, as was evident in some EU Member States² during the financial crisis. The authors identify two problematic areas hindering the development of the stabilisation function of the EU budget. The first is the problematic nature of budget financing from the perspective of net contributors and beneficiaries, the second is the historical nature of cohesion policy, reflected in the budget's slow response to unexpected situations. In conclusion, Ferrer and Rinaldi (2017, pp. 7–22) state that although elements of the stabilisation function are present in the EU budget, this does not mean that the stabilisation function in the EU budget is effective and sufficient.

2 In Slovakia, Hungary and Bulgaria funds provided from the EU budget between 2010 and 2012 accounted for up to 80% of public investment, including national co-financing.

The European Commission itself drew attention to the existing stabilisation function of ESIF in its proposal for the financial framework for 2021–2027, in which, in the context of addressing macroeconomic stabilisation, it acknowledges that *“however, to date macroeconomic crisis support has been a limited but useful competence of the EU budget, including for instance the European Financial Stability Mechanism and the Balance of Payments instrument, while the practice of the European Structural and Investment Funds for Member States with difficulties in itself has offered a stabilising effect”* (European Commission, 2018, p. 36). The Commission points out that during the crisis EU funds played a countercyclical role with a stabilisation effect, thanks to an increase in the EU co-financing rate and a reduced national contribution (Bachtler, Mendez and Wishlade, 2019, p. 23). On the other hand, it is clear that ESIF cannot function as fully-fledged stabilisation instruments due to the absence of automatic triggering or disbursement (Ferrer and Alcidi, 2018, p. 2).

2. The significance of the short-term stabilisation effect of the ESIF

The data model used to verify the potential stabilisation function of the EU budget through ESIF is based on the aforementioned article by Asdrubali and Kim (2008). The article examines the extent to which fiscal transfers can fulfil a stabilisation function by absorbing macroeconomic shocks and dampening economic fluctuations. The focus is on the short-term stabilising effect of transfers in terms of their ability to respond to economic shocks and mitigate their impacts, rather than on the long-term growth or convergence effects of transfers. In this article, the stabilising effect is understood as the extent to which the transfer system absorbs part of a negative shock through transfers. The authors do not examine whether transfers in themselves increase economic growth, but whether they behave countercyclically and act as a mechanism for smoothing the economic cycle.

2.1 Methodology, data model and data used specification

Asdrubali and Kim (2008) use a dynamic vector autoregressive model (VAR)³, which captures the interplay between changes in income and transfers over time. The model allows us to analyse not only the immediate response of the transfer system to a shock, but also its timing and persistence in subsequent periods. Its basic logic is that each variable in the system is explained not only by its own lagged values, but also by the lagged values of all other variables in the model. The model thus captures the dynamic links, interdependence and possible transmission mechanisms between the analysed variables. In the context of this article, the VAR model allows us to analyse how a shock to one variable, such as GNI, affects the development of ESIF transfers over time, or conversely, how a shock in transfers affects economic activity. An advantage of the model is that it does not impose an a priori distinction between strictly ex-

³ See for example Greene (2003).

ogenous and endogenous variables but allows their joint dynamics to be analysed within a single system. Its disadvantages include the difficulty of analysing short time series, sensitivity arising from data aggregation, variable scaling and lag specifications, or its rather descriptive nature without a strong link to causality.

A key tool in empirical analysis is the impulse response function (IRF) which tracks how an unexpected shock to one variable affects the behaviour of other variables over the following few periods. It is this tool that is used to assess the stabilising effect of the funds. Whilst VAR captures the dynamic links between variables, the IRF allows these links to be interpreted by simulating the system's response to a one-off impulse. The principle involves introducing an exogenous shock into one variable, such as an unexpected change in GNI, and then observing how this shock affects the development of other variables over the following few periods. Impulse responses thus show the direction, magnitude and duration of the system's reaction to a given shock. IRF makes it possible to analyse whether and how ESIF transfers respond to economic shocks, or how a shock in transfers affects economic activity or investment. This tool is therefore key to assessing the short-term stabilising effect of the funds.

The following data model builds methodologically on the article by Asdrubali and Kim (2008), whilst also modifying and extending it. Whilst the original article analyses the stabilisation function of the transfer system within the logic of classical fiscal stabilisation, this paper focuses specifically on the partial stabilisation effect of selected expenditure instruments of the EU budget, specifically the ESIF. The revenue side of the budget is not the subject of the analysis. A further change involves the use of GNI instead of GNI per capita, which reduces the risk of mechanically capturing the transfer channel in the explained variable and allows for a clearer identification of the stabilising effect of the ESIF funds.

The subject of empirical investigation itself varies. The original article analyses the general transfer mechanism as part of the fiscal framework, whereas this paper examines specific cohesion policy transfers, which are not automatic stabilisers but rather an instrument contingent on programming, co-financing and institutional absorption capacity. The article does not interpret the funds as an analogue of federal automatic stabilisers but rather tests whether they exhibit a stabilising effect or similar characteristics.

In the data model, the analysed variables are transformed as first differences of natural logarithms, denoted $\Delta \ln(X_t)$, which can be interpreted as an approximation of the year-on-year growth rate of the given variable. This transformation is applied to both GNI and ESIF transfers, so that the model does not work with their absolute levels, but with their dynamics, i.e. changes over time. There are several reasons for using logarithmic differences. Firstly, it allows the original level series, which often exhibit trends and non-stationarity, to be converted into a more stationary form, which is a fundamental prerequisite for estimating VAR models. Working with non-stationary time series could lead to so-called spurious regressions and a distorted interpretation of dynamic relationships.

Secondly, this transformation corresponds to the economic logic of the problem under analysis. The aim is not to examine the relationship between the level of income and the volume of funds as such, but the response of economic dynamics to shocks and changes in transfers, i.e. the stabilising effect in the sense of growth responding to changes in transfer flows. Furthermore, logarithmic differences allow for an economically intuitive interpretation of the coefficients. The variable $\Delta \ln(GNI_t)$ captures the growth rate of GNI and $\Delta \ln(ESIF_t)$ the growth rate of ESIF transfers. The estimated coefficients thus express the dynamic relationships between the growth rates of the analysed variables.

On this basis, a VAR model is specified in which each variable is explained by its own lagged values and the lagged values of the other variables in the system, according to the following equation:

$$\Delta \ln(GNI_t) = \alpha + \beta_1 \Delta \ln(GNI_{t-1}) + \beta_2 \Delta \ln(ESIF_{t-1}) + \varepsilon_t$$

where α is a constant, β_1 is the coefficient of the autoregressive term, β_2 is the ESIF influence coefficient, and ε_t is a random error.

The equation expresses that the current rate of GNI growth depends both on its own dynamics from the previous period and on the lagged dynamics of ESIF transfers. The first term captures the inertia of economic development, the second the potential stabilising effect of transfers, and the random component represents unexpected economic shocks. It is precisely these unexpected shocks that are subsequently utilised in the IRF analysis, which simulates how a shock to one variable is reflected in the development of other variables in subsequent periods. The combination of logarithmic differences, the VAR model and the IRF thus makes it possible to capture the stabilising effect of the funds not statically but as a dynamic process.

The specification of the data used in the VAR model with IRF is as follows. The data model modifies the period under review in the original article 1976–2001 to the period 1986–2026, covering six financial perspectives⁴. Data relating to the ESIF are drawn from the EU Cohesion Open Data database (European Union, 2025, 2026b, 2026a)⁵. The key figure is the total payments from the EU budget in euros, disbursed to a given Member State in a specific year, with payments extending into the years following the end of the relevant financial perspective. Monitoring of total payments takes place within the framework of the three funds: the ERDF, the ESF (ESF+) and the CF. In the financial perspective for the period 2014–2020, the Fund for European Aid to the Most Deprived (FEAD) and the Youth Employment Initiative (YEI) were also incorporated into the ESF due to their integration into the current programming period, thereby ensuring consistent continuity of the data examined.

4 1989–1993, 1994–1999, 2000–2006, 2007–2013, 2014–2020, 2021–2027.

5 Last updated on 27 April 2026. Unlike the first dataset, the second and third datasets present payments on a cumulative basis. It was therefore necessary to adjust the data to reflect the actual annual number of payments made from the EU budget to individual Member States.

The GNI indicator (at current prices in billions of euros) is derived from the European Commission’s annual macroeconomic database AMECO (European Commission, 2025b), covering the entire period under review corresponding to ESIF payments. Unlike the original GNP, the model uses the GNI indicator, which largely replaces it in current national accounts and ensures compatibility with modern databases such as AMECO or Eurostat whilst preserving the economic significance of the variable. The gross fixed capital formation indicator (at current prices) is derived also from macroeconomic database AMECO (European Commission, 2025a).

2.2 Results of the data model

The conclusions of three VAR models are presented below, based on different specifications of the data examined.

Model 1: Stabilisation response of ESIF transfers to a shock to GNI

Model 1 (see Table 1) analyses whether aggregate ESIF transfers exhibit a short-term stabilising effect in terms of their response to a shock to GNI. The VAR model estimate finds no statistically significant direct effect of lagged ESIF transfers on GNI growth. The coefficient for lagged ESIF transfers is -0.000014 ($p = 0.940$), indicating a practically zero and statistically insignificant short-term effect of transfers on GNI growth. The autoregressive coefficient for GNI growth at 0.290 suggests a certain degree of inertia in economic dynamics, albeit only at the 10% significance level ($p = 0.080$). The results do not provide evidence that the draw-down of funds alone systematically stimulates GNI growth in the short term.

Table 1: VAR model results – Model 1

Explained variable: change in GNI

Variable	Estimate	Standard error	t-value	p-value
Lagged change in GNI	0.290	0.161	1.803	0.080.
Lagged change in ESIF disbursement	<0.001	<0.001	-0.076	0.940
Constant	0.039	0.010	3.706	0.001***

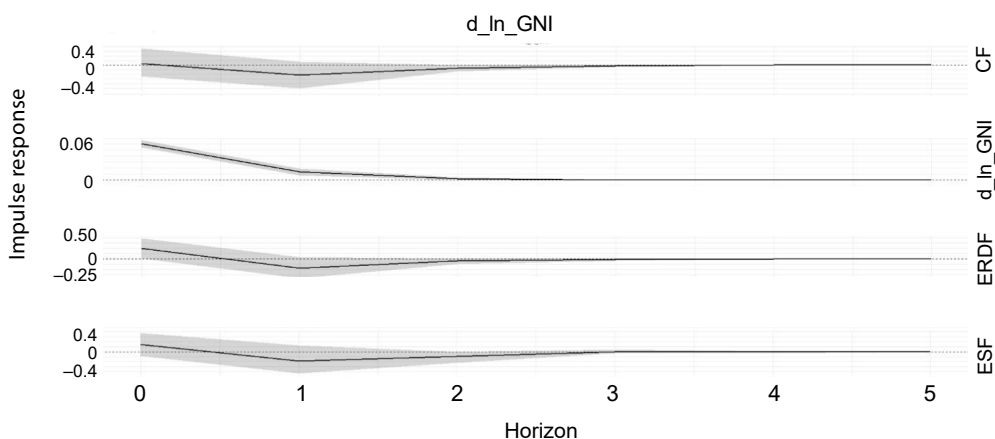
Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, · $p < 0.1$

Indicator	Value
Residual standard error	0.034
Number of degrees of freedom	35
R^2	0.087
Adjusted R^2	0.035
F-statistic	1.661
p-value (F-test)	0.205

Source: own analysis based on the results of the data model

A more meaningful interpretation is provided by the impulse response (see Figure 1). Following a positive shock to GNI, the ERDF responds positively in the first year with an impulse response of 0.244, the ESF with a response of 0.141 and the CF with a response of 0.035. This initial positive response suggests pro-cyclical dynamics in transfers. In the second year, however, the response reverses, with the ERDF showing a response of -0.222, the ESF -0.183 and the CF -0.220, suggesting a delayed countercyclical stabilising effect. At the same time, the impulse responses fade rapidly and approach zero after the third to fourth periods, indicating that any stabilising effect is relatively weak and short-lived. Moreover, the confidence intervals include zero in most time horizons, so this is more an indication of dynamics than a robust, statistically confirmed effect. The results therefore suggest that ESIF funds do not act as strong automatic stabilisers in the short term but may exhibit a limited delayed stabilising effect.

Figure 1: Impulse response results in Model 1



Source: own analysis based on the results of the data model

Model 2: Relationship between ESIF and GNI in the period 2007–2016

Model 2 yields an interesting result (see Table 2) providing the strongest evidence of a stabilising effect in this model, specifically for the period 2007–2016. The coefficient for lagged ESIF transfers is -0.096 and is statistically significant at the 5% level ($p = 0.030$). This means that higher transfers are associated with periods of weaker economic growth, which can be interpreted as the countercyclical effect of the funds. Furthermore, the model exhibits relatively high explanatory power ($R^2 = 0,735$) which is significant compared to other models.

The result suggests that the stabilising effect of the funds may be time-dependent and stronger during crisis or post-crisis periods, which is consistent with the logic of Asdrubali and Kim (2008) whereby the stabilising capacity of the transfer system varies over time.

Table 2: VAR model results – Model 2

Explained variable: change in GNI

Variable	Estimate	Standard error	t-value	p-value
Lagged change in GNI	-0.170	0.224	-0.760	0.482
Lagged change in ESIF disbursement	-0.096	0.032	-2.994	0.030*
Constant	0.035	0.009	3.792	0.013*

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, · $p < 0.1$

Indicator	Value
Residual standard error	0.022
Number of degrees of freedom	5
R^2	0.735
Adjusted R^2	0.629
F-statistic	6.923
p-value (F-test)	0.036

Source: own analysis based on the results of the data model

Model 3: Investment transmission channel

The third model tests whether any stabilising effect of the ESIF operates through investment. Here, the estimates do not find a statistically significant impact of delayed ESIF transfers on investment growth. The results provide no evidence that investment constitutes a strong short-term transmission channel for the stabilising effect of the funds (see Table 3). The co-efficient for delayed ESIF transfers in the investment equation is -0.000250 ($p = 0.428$), i.e. a statistically insignificant effect. This suggests that any stabilising effect of ESIFs is likely to occur through the absorption of cyclical shocks rather than through the direct stimulation of investment activity.

Table 3: VAR model results – Model 3
Explained variable: change in investment

Variable	Estimate	Standard error	t-value	p-value
Lagged change in investment	0.315	0.162	1.947	0.060.
Lagged change in ESIF disbursement	<0.001	<0.001	-0.802	0.428
Constant	0.036	0.012	2.903	0.007**

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, · $p < 0.1$

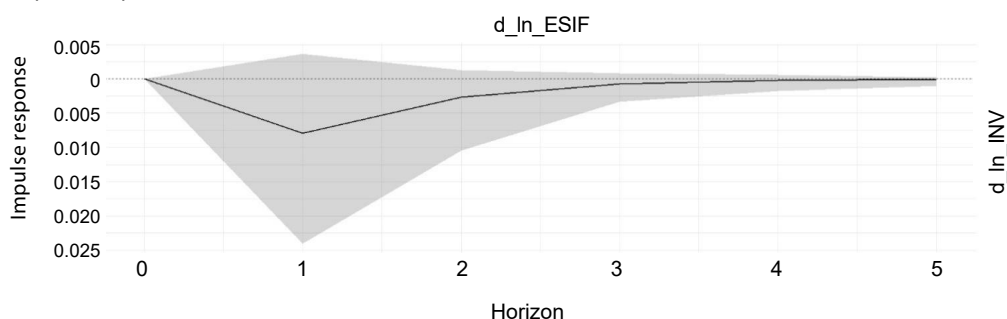
Indicator	Value
Residual standard error	0.056
Number of degrees of freedom	34
R^2	0.107
Adjusted R^2	0.054
F-statistic	2.032
p-value (F-test)	0.147

Source: own analysis based on the results of the data model

Impulse responses (see Figure 2) show a slightly negative reaction in investment following a shock in ESIF, -0.0076 in the second period, -0.0024 in the third period, with a subsequent rapid convergence to zero. However, as the 95% confidence intervals in all periods include zero and are relatively wide, it cannot be claimed that there is a relationship between ESIF and investment.

Figure 2: Impulse response results in Model 3

Impulse response Functions



Source: own analysis based on the results of the data model

2.3 Limitations of the model

It is worth emphasising that the results must be interpreted with several limitations in both the data and the methods used. One limitation is the very structure of the data from cohesion policy funds. ESIF disbursements capture actual financial flows, but not necessarily the economic impulse generated by these funds. There may be a significant time lag between the absorption of funds, the implementation of projects and the associated macroeconomic effect, which annual data cannot reliably capture. Furthermore, aggregation at the level of Member States and subsequently the EU masks heterogeneity across countries, funds and types of investment. Stabilising effects may be more pronounced at the regional or sectoral level, without being apparent in the aggregated macro data.

As the ESIF are primarily multi-annual investment instruments, their countercyclical impact may be slower and more difficult to capture in time series; therefore, the VAR model used captures dynamics rather than purely causal effects. Conversely, a strength of the data used lies in the specific disbursements made, which are more suitable for the question of fiscal stabilisation than allocations or commitments. The identification of a potential stabilising effect of the ESIF is based on the relationship between ESIF transfers and GNI, which captures the dynamics of the stabilising effect but with limited scope for precisely separating the stabilising effect of the funds from other concurrent macroeconomic factors, such as broader economic trends or accompanying policies.

This is also linked to the potential endogeneity of fund drawdown, whereby regions and countries with greater economic problems simultaneously draw down more funds from the ESIF; thus, transfers may react to shocks that themselves explain income developments and lead to reverse causality, which presents a potential methodological problem. This problem is mitigated in the present analysis in several ways. The VAR model used works with lagged

variables, thereby limiting the simultaneity between the explained and explanatory variables (the current value of GNI is explained by past values of ESIF drawdown). ESIF allocation is also institutionally determined by the Multiannual Financial Framework and pre-established rules, particularly the economic maturity criteria, which limits its short-term response to current economic developments.

Nevertheless, endogeneity cannot be entirely ruled out, particularly due to possible reverse causality or time-lagged responses of cohesion policy to economic conditions. The results are therefore not interpreted as strictly causal effects, but rather as dynamic relationships between the uptake of funds and macroeconomic developments. In this context, a weaker or statistically insignificant short-term response is interpreted not as evidence of the absence of any economic significance of the funds, but as a consequence of their programmatic, investment-oriented and delayed nature.

3. Discussion of results

The results of the VAR models show a consistent pattern across all models, manifesting itself primarily in the intensity of the effect, rather than in its time structure. In the short term (within one year), there is a positive response of economic activity to shocks to ESIF funds, with the strongest effect observed for the ERDF, which may be due to the characteristics of the types of projects under that fund, where it is precisely investments in infrastructure that support economic growth the most (Barca, 2009). This result is consistent with the expectation that public investment financed from cohesion policy funds acts as a stimulus to aggregate demand (Casas et al., 2025).

In the medium term (within two years), this effect reverses and impulse responses turn negative. This development can be interpreted as the fading of the initial fiscal impulse, or because of a time lag between the allocation and the effective use of funds. In the long run (more than three years), the effects then converge to zero, suggesting the absence of a lasting impact in terms of fiscal stabilisation. ESIF funds thus do not systematically contribute to smoothing the economic cycle, but function as fiscal policy instruments with a temporary effect. Returning to the research question of whether ESIF transfers contribute to a short-term stabilising effect and exhibit countercyclical behaviour, the empirical results do not support this claim.

Attention should be paid to the time lag in the stabilising effect and the limited impact on investment activity. Although the results of the VAR model show a short-term positive impact of ESIF on economic activity, this effect is not immediate in the manner of classical countercyclical instruments. Any stabilising effect of the funds is influenced by implementation delays arising from the nature of cohesion policy, which is planned ex-ante and involves multiannual planning, as well as administrative processes, resulting in an inability to respond flexibly to sudden changes in the economic cycle. As a result of these factors, the funds re-

spond to economic fluctuations with a delay, which may limit their ability to act as an effective countercyclical tool. On the other hand, they ensure that investment activity continues uninterrupted even during periods of crisis, which has proven to be strategically important (Ferrer and Rinaldi, 2017).

These findings also need to be interpreted in the context of the evolving architecture of EU fiscal instruments. Unlike the ESIF, more recent instruments such as SURE and NGEU were explicitly designed as crisis-response mechanisms with macroeconomic stabilisation objectives. Their institutional design differs substantially from cohesion policy, as they allow for a more rapid mobilisation of financial resources and are directly linked to exceptional economic circumstances. By contrast, ESIF remain primarily long-term investment instruments embedded in the Multiannual Financial Framework, where programming, allocation and implementation are determined *ex ante*. The present findings therefore do not question the stabilisation capacity of more recent EU crisis instruments but rather demonstrate that the traditional expenditure side of the EU budget, represented by ESIF, has only a limited capacity to perform short-term macroeconomic stabilisation within its existing institutional framework.

These institutional differences also help explain why the findings should not be interpreted through the lens of classical automatic stabilisers. Rather than providing an immediate countercyclical response to economic shocks, ESIF appear to contribute to macroeconomic resilience by preserving public investment during periods when national fiscal capacities are constrained. Their stabilisation effect is therefore indirect, institutionally conditioned and investment-based, reflecting the original objectives of cohesion policy rather than those of short-term demand management. This distinction helps explain why the empirical evidence points to only a weak short-term stabilisation effect while at the same time supporting the broader role of cohesion policy in strengthening economic resilience.

Taking time lags into account shifts the interpretation of the stabilisation function of the ESIF from a potentially non-functional mechanism to one whose effectiveness is contingent on institutional arrangements and implementation constraints. In this sense, the results can be interpreted as partially confirmed, namely that the stabilising function of the ESIF may be rather indirect and time-delayed (Ferrer and Rinaldi, 2017). The results are consistent with economic theories that ESIF do not operate in the sense of classical automatic stabilisers, but their ultimate effect is determined by a high-quality institutional framework and political priorities (Ferrer and Katarivas, 2014; Becker, Egger and Von Ehrlich, 2017; OECD, 2020; Spilioti and Anastasiou, 2024).

Based on the model results, the expected significance of the investment channel as a mechanism for transmitting the stabilising effect is not confirmed. The model focusing on investment activity does not suggest a significant or long-term impact. This may reflect the fact that investments financed from EU funds are often implemented with a time lag and their economic benefits tend to manifest themselves over the long term or in qualitative changes that are dif-

difficult to capture using the macroeconomic indicators employed. Alternatively, this may also be a consequence of inefficient allocation or low absorption capacity in some Member States. These facts further support the interpretation of EU funds as instruments with limited capacity for short-term macroeconomic stabilisation and, at the same time, point to a weak link between the stabilisation and investment functions of the EU budget (Staehr and Urke, 2022).

Conclusion

The stabilising effects of the EU budget may arise indirectly, through the expenditure side of the budget, particularly in the form of investment transfers, support for public investment or targeted programmes focused on structurally weaker regions and sectors. As instruments for supporting economic convergence and structural development, the European Structural and Investment Funds provide a significant stimulus for some Member States to maintain investment activity during economic downturns, thereby helping to mitigate the negative impacts of crises. The question of possible fiscal stabilisation through the EU budget is by no means new and has been addressed by some authors in the past, albeit with rather contradictory, and at times even markedly divergent, research findings. The common basis of the research remains that the EU budget does not respond to changing economic conditions due to the pre-allocated funds within individual financial perspectives, owing to its rigidity and limited flexibility.

The empirical part of the study focuses on the countercyclical behaviour of the ESIFs, and thus their contribution to a short-term stabilising effect. The results of the VAR model do not confirm such behaviour, which can be explained in several ways. The implementation and absorption of ESIF are governed by institutional and administrative conditions that inherently generate delayed responses. The effects of fiscal impulses from ESIF fade relatively quickly, which may reflect a mismatch between the allocation and subsequent implementation; in the long term, these effects are then zero. Another interesting finding is the weak link between the stabilisation and investment functions of the budget. These results are consistent with the existing literature, which emphasise that the ESIF are not designed as automatic stabilisers, although they may exhibit a weak, delayed stabilising effect that is contingent on institutional arrangements and political priorities and is stronger during periods of crisis. These findings reinforce the view that ESIF strengthen macroeconomic resilience primarily through maintaining public investment rather than through automatic countercyclical stabilisation.

The findings also have broader implications for the future design of the EU budget. If the traditional expenditure instruments of the EU budget exhibit only a limited short-term stabilisation capacity, they should not be expected to fulfil the role of a macroeconomic stabilisation mechanism during major economic shocks. This distinction has become increasingly relevant in recent debates on the future Multiannual Financial Framework, where greater emphasis has been placed on complementing traditional investment instruments with dedicated crisis-response mechanisms capable of providing timely macroeconomic stabilisation. The re-

sults of this study therefore support the view that the investment and stabilisation functions of the EU budget should be regarded as complementary rather than interchangeable, with traditional cohesion policy primarily strengthening long-term resilience and dedicated crisis instruments addressing short-term macroeconomic stabilisation.

Future research could extend the present analysis by comparing the stabilisation properties of ESIF with more recent EU-level instruments, such as NGEU and SURE, once sufficiently long post-implementation time series become available. It could also examine whether different institutional designs generate different stabilisation dynamics and whether the stabilisation effects of ESIF vary across Member States according to their level of economic development, institutional quality or absorption capacity.

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