

Monetary and fiscal policies in the EU. Is there a difference between EMU and non-EMU members?

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ABSTRACT

The COVID-19 crisis has put the European Union's (EU) ability to respond to external challenges to test. It is not a new issue that has arisen due to the current crisis. The global economic crisis of 2008, and, in particular, the sovereign debt crisis of 2010, highlighted the need for institutional, policy and political reform to ensure the stability and long-term sustainability of the EU project. The EU's asymmetric degrees of integration, in terms of Economic and Monetary Union (EMU) and non-EMU members, resulted in a diverse response to the crisis and, more importantly, mixed-effects from monetary and fiscal policies. This study aims to research the impact of monetary and fiscal policies between 2007 and 2015 on economic growth and employment. The findings show that loose monetary policies at the EU, EMU and non-EMU levels boosted economic growth and development. On the other hand, restrictive fiscal policy had favourably influenced GDP and employment by reducing inflationary pressures produced by expansive monetary policy. However, fiscal policy had a greater impact in the non-EMU countries, demonstrating that this policy can act as a stabilizing force in the face of an overly expansive and common monetary policy. In order to respond effectively to the current and future crises, the EU government should overhaul the way monetary and fiscal policy is conducted and coordinated.

KEYWORDS

European union, European monetary union, ECB, monetary policy, fiscal policy

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1. INTRODUCTION

Although some EU member states have yet to recover from earlier crises, the COVID-19 epidemic has resulted in a substantial budget deficit and public debt. [Despotović – Durkalić \(2017\)](#) and [Janković et al. \(2022\)](#) even propose the concept of a dual deficit. The pandemic has resulted in a huge surge in government spending and a reduction in tax revenue due to border closures, quarantine and other pandemic-fighting efforts. The non-implementation or inadequate implementation of reforms in conducting economic policy after the global economic crisis in 2008 and the sovereign debt crisis in 2010 undoubtedly contributed to the worsening of the position in public finances. It is apparent that new crises emerge with varying transmission and intensity throughout the time but that the EU members are confronted with them in an institutional, legislative and political context has not sufficiently changed ([Čavrak 2020](#)). The EU countries must achieve a consensus on how to conduct economic policy in the event of unanticipated shocks to prepare an adequate response to the current crisis, as well as possible future crises. Although the causes of the global economic and financial crisis in 2008 and the debt crisis in 2010 differ a lot, the analysis of economic policy implementation in the EU during the previous period can lead to useful conclusions for defining economic policy measures and coordinating their implementation in the current crisis.

The global economic and financial crisis, which began in the mid-2007 and spread rapidly worldwide, had a considerable negative impact on the EU countries, particularly on the new members. They were not prepared to meet the new challenges. As a result, each EU member state has attempted to address the situation in its own manner. Because of the diversity in characteristics of the EU economies, aims and financial environments, different solutions have been chosen to support the member states in overcoming the crisis in the shortest possible time. The southern periphery of EMU has yet to fully recover from losses in production, employment and fiscal sustainability due to the austerity measures that followed. In contrast, most non-EMU countries have long struggled to return to a path of growth and development ([Celi et al. 2020](#)).

The issue of which economic policy instruments could restart growth and convergence after the crisis has been frequently asked in the literature during the previous decade. Those who believe monetary policy should have done much more in times of crisis ([Sandbu 2017](#)), as well as those who believe monetary policy (specifically that pursued by the ECB) has done too much for too long, have both criticized the implementation of monetary policy in times of crisis ([German Council of Economic Experts 2017](#)).

The COVID-19 crisis appears to be setting the way for the same mistakes that occurred in the aftermath of the 2008 financial crisis. The EU's existence hinges not just on dealing with the pandemic's major financial problems but also on overcoming the long-term structural problems that have led to widening inequalities among its members. Convergence is a necessary requirement for the EU's long-term sustainability. Among other things, achieving this essential goal requires the deployment of proper economic policy measures. Although economic policy cannot end the crisis, it can help to mitigate its consequences ([Marjanović – Domazet 2018](#)). As a result, proper economic policy implementation is critical in ensuring the EU's long-term sustainable and balanced growth and development in the future.

In this regard, this article aims to examine the effects of monetary and fiscal policy on economic growth and employment in the EU member states from 2007 to 2015. Given the major disparities in how the EMU and non-EMU members conduct monetary and fiscal policy,



the article examines the impact of these segments of economic policy on economic growth and employment for these two groups of countries separately, as well as at the EU level. It should highlight which aspects of economic policy had the greatest impact on boosting growth and employment during the observed period and allow for the identification of differences in the effects of implemented measures in the mentioned countries' groups. It should further ensure the development of appropriate recommendations and guidelines for policymakers to leverage differences among the EU countries and accelerate recovery from the actual crisis. The impact of the implemented measures was investigated using the Partial Least Squares Structural Equation Modelling (PLS-SEM), which is widely used in economics and management to investigate causal correlations between variables.

2. LITERATURE REVIEW

2.1. EMU countries

A considerable number of articles examine the impact of monetary policy implementation in the EMU member states (Foresti 2018; Corsetti et al. 2019). The ECB founding act guarantees independence in monetary policymaking, which means that in the event of an economic crisis, it can use that autonomy to do what is best for the EMU as a whole, even if it goes against the interests of the individual members and their macroeconomic circumstances (Schadler 2004; Škare et al. 2016). The ECB opted to adopt an extraordinarily expansive monetary policy to boost economic activity in the face of the crisis. The ECB interest rate channel was proved inefficient during a period of extremely low, even zero interest rates (as was the case during the crisis). Therefore, it began to use more unconventional monetary policy methods and instruments, such as central bank announcements (Petrović 2018). On the other hand, Claeys et al. (2018) argue that some external factors outside the ECB control have reduced the effectiveness of low interest rates and unconventional monetary policy tools in boosting economic growth and employment. In order to successfully manage uncertainty in the future, the ECB should alter the monetary policy framework by clearly articulating policy guidelines and preserving an acceptable level of flexibility.

According to Papaspyrou (2017), more evidence has arisen over time that monetary policy cannot be used instead of other economic policy tools since certain monetary policy instruments, such as negative interest rates, might have side effects. As a result, he believes that fiscal and structural policies should play a larger role in supporting the EU economy's recovery and increasing its productive capacity. Given the lack of political support for developing a fiscal union, at the very least, adequate fiscal oversight and control are required. As a result, following the debt crisis, attention has switched to investigating the effects of fiscal policy implementation in the EMU members to some extent (Belke – Osowski 2019; de Jong – Gilbert 2020). According to Białek (2015), certain member states oversaved, while others (particularly those from the so-called southern periphery) went the other way. Greece, Portugal, Ireland and Cyprus have failed to meet the Maastricht Criteria, forcing the EMU to help them. The European Stability Mechanism and the Fiscal Pact on Stability and Growth were developed with the intent of bridging the gap between monetary policy (conducted by the ECB) and fiscal policy (conducted by the governments of the EMU countries). Białek (2015) said that leaving these two policy areas in the hands of two different centres of power seems impossible in the long-run and that further progress should be made in the future toward the development of a fiscal and banking union.



Such a proposal has been criticized since it lacks a comprehensive and in-depth analysis of such a project. However, it is frequently argued that because other mature federations have such a centralized fiscal institution, it should also be applied to EMU (Feld – Osterloh 2013). According to Schnabl (2017), the efficiency of the common monetary policy has been harmed by the formulation of fiscal policy at the national level. Fiscal policy, in other words, failed to counteract asymmetric shocks and instead resulted in uneven economic development. Fiscal policy that is rather tight, along with the ECB policies aimed at preventing bankruptcy in the countries on the EMU periphery, has resulted in capital outflow and impeded EMU's economic development. As a result, according to Socol – Feraru (2017), establishing and sustaining individual budgetary discipline within the monetary union is a moral hazard. Conventional monetary policy (supported by fiscal automatic stabilizers) can only stabilize economic activity and prices in moderate business cycle shocks, while it is unable to stabilize the economy in large shocks (Corsetti et al. (2019).

On the other hand, Eichengreen – Wyplosz (2016) argue that fiscal union is not required for economic and monetary union to function normally. Furthermore, Dabić (2016) stated that, despite the serious challenges EMU faced during the crisis and its unfavourable prospects, it continues to exist without being transformed into an economic union with a supranational fiscal authority and all the usual functions that such a government is expected to have, such as a significant joint budget, fiscal transfers, a joint tax, and so on. Each EMU country's government is individually responsible for the debt, defined by the so-called “no bail-out” clause.

2.2. Non-EMU countries

The literature on analysing the effects of economic policy in the countries that are not members of the EMU is not as substantial as it is for the Eurozone members. Economic policy is evaluated on the level of individual countries or relevant groups of countries, primarily the Central Eastern European (CEE) and Southern Eastern European (SEE) countries because a relatively diversified set of countries is in question. A variety of papers was aimed at analysing the effects of ECB policies spillovers on the non-EMU countries. Benecká et al. (2020) found that the ECB's monetary policy had considerable negative effects on growth and prices in the CEE countries, with the effect on prices being greater than the effect on economic activity. According to Potjagailo (2017), policymakers in countries outside the Eurozone should respond to the ECB's expansionary monetary policy spillover during a crisis. Asymmetric spillovers of monetary expansion from the EMU may lead to a faster convergence of these economies to the degree that these economies have similar economic conditions to those of the Eurozone. If, on the other hand, economies outside the Eurozone have already reached the stage in the business cycle where the additional monetary stimulus is no longer required, a large influx of capital could cause an overheating of the economy and an increase in inflation. Nonetheless, this author claims that the ECB's expansive policy promotes industrial production in most countries outside the EMU.

According to El-Shagi – Tochkov (2022), tighter integration with the European Common Market has made it easier for economic and financial shocks to be transmitted from the core EU economies to the eastern and south-eastern periphery. Although this process is essential for forming a single economic and monetary union, it makes the relatively small CEE economies more vulnerable to external shocks, making domestic economic policies more difficult to



implement. They claim that the CEE countries will have no choice but to integrate even more closely with the EMU, believing that future convergence and business cycle synchronization will mitigate the negative consequences of the EMU shocks.

Authors who emphasize the importance and effectiveness of fiscal policy in the non-EMU SEE and CEE countries are particularly numerous. Following the global financial crisis of 2008, the CEE countries attempted to implement fiscal policy to boost economic growth (Ilzetzi et al. 2013). The EMU member states have less pro-cyclical policies than the non-EMU countries, according to Gootjes – de Haan (2022). Because of the incentives used by governments, the budget balance of the CEE countries has become worse than it was before the crisis (Staehr 2008; Darvas – Kostyleva 2011). As a result, fiscal flexibility was greatly constrained in the next years, forcing them to implement the austerity measures. Vujičić (2015) found that fiscal policy in the CEE countries was largely pro-cyclical (expansionary) before the crisis and restrictive (counter-cyclical) during the crisis due to a lack of funds for public consumption.

A large number of the non-EMU countries implemented budget consolidation plans. Ianc – Turcu (2020) showed Romania and Hungary as examples, indicating that Romania increased its value-added tax while Hungary raised its income tax. Both countries implemented salary cut-backs in the public sector. According to the authors, the restrictive fiscal policy resulted in a short-term decline in economic activity in both historical and new EMU members. Fiscal multipliers are positive and high only in the long run in the EMU candidate countries, showing a lag between fiscal policy implementation and its impacts on the economy. The economy's characteristics determine the consequences of fiscal policy in these countries. Asandului et al. (2021) found empirical evidence of the inflationary effects of fiscal policy in the non-EMU states, arguing that in cases where a large inflationary effect is found, policymakers should avoid using fiscal instruments to stimulate economic activity because growth effects are outstripped by inflation and no longer have positive impact on the economy.

3. DEFINING HYPOTHESES

As far as we know, the comparative analysis of the monetary and fiscal policy effects between the EMU and the non-EMU countries is lacking. In this sense, the contribution of this paper is reflected in the parallel analysis of monetary and fiscal policy, the efficiency on the level of the EU, EMU, and non-EMU countries, using the PLS-SEM methodology, which had not been frequently used for this purpose. The following six research hypotheses were tested:

- H1: Expansionary monetary policy has positively impacted the economic growth and employment in EU.
- H2: Restrictive fiscal policy has positively impacted the economic growth and employment in EU.
- H3: Expansionary monetary policy has positively impacted the economic growth and employment in EMU.
- H4: Restrictive fiscal policy has positively impacted the economic growth and employment in EMU.
- H5: Expansionary monetary policy has positively impacted the economic growth and employment in the non-EMU countries.



H6: Restrictive fiscal policy has positively impacted the economic growth and employment in the non-EMU countries.

Based on hypotheses defined this way, an appropriate structural model was created, shown on Figure 1.

In the case of hypotheses H1, H3 and H5, the sign is negative, considering that lower monetary indicators lead to higher economic growth and employment. On the other hand, H2, H4 and H6 are represented with positive signs, indicating that higher values of fiscal indicators lead to increase of growth and employment. We tested these hypotheses to indicate if a restrictive fiscal policy had some positive impact on economic growth and employment in conditions of strong inflationary pressures caused by an expansive monetary policy (Adam – Iacob 2012). Also, it should be apparent that the Eurozone countries, but also the majority of other EU member states that strive to become members of EMU, established fiscal rule that the restrictive fiscal measures should be implemented if budget deficit exceeds the limit of 3%, regardless the phase of business cycle. This rule is developed to constrict inflationist tensions in “normal time” (Serrano 2010), but it is implemented in the crisis time. So, the point is to analyse impact of expansive monetary and restrictive policies on economic growth and employment in the context of policy-mix coordination. This is particularly important for the EMU countries, where common monetary policies for all members of the EMU are different/autonomous national fiscal policies (Stawska – Mourao 2021). By applying the PLS-SEM methodology on the appropriate set of data, and in accordance with the defined structural model, the aforementioned hypotheses will be examined as follows. This technique takes into account multiple independent and dependent constructs simultaneously. It represents these complex constructs interactions in a causal model using hierarchical or non-hierarchical structural equations that are recursive or non-recursive (Bullock et al. 1994). These characteristics enable efficient usage of PLS-SEM methodology in macroeconomic analysis.

4. DATA AND METHODOLOGY

To examine the impact of monetary and fiscal policies on economic growth and employment, we employed the PLS-SEM method using the SmartPLS v.3 software. The analysis was conducted at the EU level, as well as at the EMU and non-EMU member states.

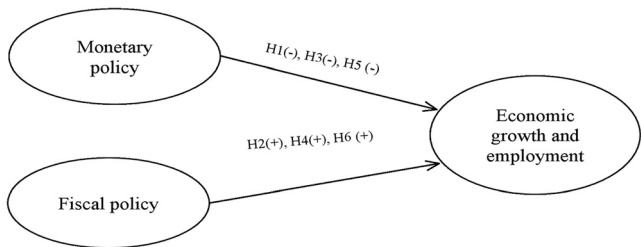


Fig. 1. Theoretical model



4.1. Data

Our dataset contains yearly data for 28 EU member states¹ through a period from 2007 to 2015 for 18 variables (indicators). This period was selected in order to take into account the whole crisis period or period from the beginning of the global economic crisis until the recovery in all EU member states, as similarly as majority of the authors that analysed economic trends in the EU countries during crisis period. The data was gathered from secondary data sources, which is shown in Table 1.

4.2. Methodology

Using PLS-SEM methodology allows for the efficient elaboration of the variance, which predicts the relationship between latent variables and maximizes the elaboration of variance. Additionally, the advantages of this method, which are frequently emphasized in the literature (and

Table 1. Latent variables, codes, labels, and data sources

Latent variables	Codes	Labels	Full name of the indicator	Source
Monetary policy indicators	No_ir	MP1	Nominal short-term interest rate	I
	Re_ir	MP2	Real short-term interest rate	I
	M_mr	MP3	Money market rate	II
	Tre_%bdp	MP4	Total reserves (% of GDP)	III
Fiscal policy indicators	li_tax	FP1	Individual income tax rate	IV
	C_tax	FP2	Corporate tax rate	IV
	To_rec_tax	FP3	Total receipts from taxes and social contributions (% of GDP)	V
	Pe_%bdp	FP4	Total general government expenditure (% of GDP)	V
	Gg_co% bdp	FP5	General government final consumption expenditure (% of GDP)	III
Economic growth and employment	gdp_pc	EGE1	GDP per capita PPP index, EU28 = 100	V
	gdp_pwi	EGE2	GDP per worker index, 2010 = 100	V
	e_rate	EGE3	Employment rate, percentage of total population, from 20 to 64 years	V

Source: I – AMECO database, II – European Central Bank – Statistical Data Warehouse, III – World Bank database, IV – KPMG data, V – EUROSTAT database, VI – OECD database.

¹Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.



which have served as arguments for the usage of precisely this methodology), are that the model develops by including a new variable, indicator, or new path relation or by deleting one of them (an evolution-based principle is applied in which modifications and model improvement are made based on results), that it can handle complex research situations better than other statistical methods. This methodology enables quite a real presentation of latent variables (as they represent a linear combination of indicators assigned to latent variables), it represents a very robust method, it can be used in situations where sample size is relatively small, data does not follow a normal distribution.

This methodology is most frequently used in the literature related to marketing when researching consumer behaviour, opinions and motives but is also often applied in the area of macroeconomics. The goal of this paper is to contribute to the literature on the influence of monetary and fiscal policies on the real economy sector, bearing in mind that this methodology was seldom applied within this area.

5. ANALYSIS OF MEASUREMENT MODEL QUALITY

In the first step, the evaluation of constructs’ reliability and validity is performed. It is usually evaluated by using composite reliability indicator, Rho_A (Hair et al. 2021) and Cronbach’s Alpha (Castro – Roldán 2013). The construct validity refers to the extent to which a scale consists of representative sample of items or whether the items accurately represent the construct’s content domain (Nannally 1978; Chin 1998). For estimation of internal consistency Cronbach’s alpha was used (Cronbach 1951). Nannally (1978) points out that values which are higher than 0.7 are considered satisfactory, which indicates that the prerequisite for internal consistency of the observed model is fulfilled in this case. The average variance extracted (AVE) reveals how much of a construct’s variance can be attributed to its indicators vs how much can be attributed to error. The suggested value of this indicator is $AVE \geq 0.5$ (Fornell – Larcker 1981). Also, composite reliability statistics higher than 0.6 (Bagozzi – Yi 1988) is considered as acceptable. All constructs’ reliability and validity indicators’ values per group are shown in Table 2.

Table 2 shows that the composite reliability statistics for all of the constructs in this study are higher than 0.6 and Cronbach’s Alpha factor exceeds the suggested value of 0.7, indicating existence of construct reliability and validity. Table 3 further demonstrates that all AVE values are higher than the threshold of 0.5. Specifically, the AVE values are greater than 0.613, indicating that the corresponding construct accounts for at least 61.3% of the variation in the selected indicators (Hair et al. 2021).

Table 2. Construct reliability and validity

Latent variables	Cronbach’s alpha	Rho_A	Composite reliability	Average variance extracted (AVE)
Monetary policy	0.810	0.944	0.888	0.732
Fiscal policy	0.894	0.936	0.921	0.702
Economic growth and employment	0.797	0.855	0.862	0.613



Table 3. Discriminant validity

Constructs	Economic growth and employment	Fiscal policy	Monetary policy
Economic growth and employment	<i>0.856</i>		
Fiscal policy	<i>0.605</i>	<i>0.838</i>	
Monetary policy	<i>−0.497</i>	<i>−0.370</i>	<i>0.783</i>

In the final step of measurement of model assessment quality, the discriminant validity is evaluated. The discriminant validity of a certain construct indicates that at what extent that construct is different in comparison to other constructs. In order to access discriminant validity in this case, the Fornell-Larcker criterion (Table 3) is used. According to this criterion, the square root of the AVE levels for each construct should be greater than the correlation between the constructs (off-diagonal values).

As shown in Table 3, all off-diagonal values are lower than the AVE's square roots (italic values). Considering all measurement model quality indicators, it can be concluded that the it is highly acceptable.

6. RESULTS AND DISCUSSION

Once the build measurements have been verified as reliable and valid, the structural model findings are analysed. To ensure the robustness of the link between the latent variables, many approaches are utilized to estimate the path coefficient of the measurement model. This reliable technique, according to Kock (2015), is based on the direct application of exponential smoothing equations and produces real standard error estimates that are consistent with those generated using bootstrapping. In order to test the first two hypotheses, PLS-SEM methodology was applied to the bootstrapping results at the level of the EU as a whole and results are presented in Figure 2.

Firstly, the outer loadings form Figure 2 should be accessed. It is suggested that their values should be higher than 0.7 (Hulland 1999). Figure 2 shows that the majority of the loadings exceed the 0.7 threshold, with the exception of two items (MP2 and EGE3). They are, however, kept in order to confirm the scale's content validity. As long as the construct validity and reliability criteria are met, slightly lower values are not a concern (Benitez et al. 2020). In such cases, some authors believe that loadings greater than 0.5 are acceptable (Duarte – Raposo 2010; Gadzo et al. 2019). Furthermore, when scales are used to different contexts (Barclay et al. 1995), such as in this case, the threshold should not be so rigid. It should be also noted that all items are statistically significant at the level of $P < 0.01$.

Figure 2 also shows that the path coefficient indicating the impact of monetary policy on economic growth and employment is negative (-0.317) and statistically significant at the level of $P < 0.01$, suggesting that expansive monetary policy increased economic growth and employment. The path coefficient for the relationship between fiscal policy and economic growth and employment is positive (0.488) and statistically significant at the level of $P < 0.01$, indicating that



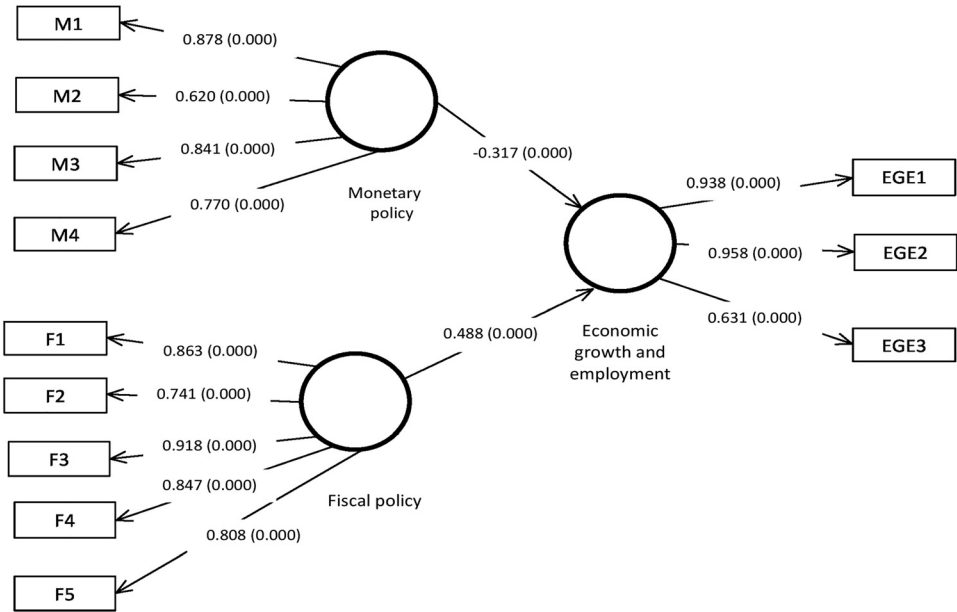


Fig. 2. PLS-SEM results for EU

restrictive policy had positively impacted economic growth and employment when monetary policy was excessively loose. So, it can be concluded that H1 and H2 are supported. These results are in line with the previous studies indicating that monetary policies have done enough during the crisis period (Sandbu 2017) and fiscal policy is an effective and desirable instrument to support economic recovery when there is room for implementation of this policy (Bergman et al. 2016; Attinasi – Klemm 2016).

The same analysis was carried for the EMU countries and the obtained results are shown in Figure 3. Figure 3 indicates that the path coefficient representing the link between monetary policy and economic growth and employment is negative (-0.285) and statistically significant at the level of $P < 0.01$. The value of path coefficient is relatively low, which can be explained by its maladjustment to interests and economic conditions of each country individually (Schadler 2004) and effects of some external factors, suggesting the necessity to increase ECB's flexibility in conducting monetary policy (Claeys et al. 2018). Although the path coefficient is lower than in the case of the EU as a whole, it still means that loose monetary policy in the EMU states resulted in increased economic growth and employment. The path coefficient indicating the impact of fiscal policy on economic growth and development is positive (0.397) and statistically significant at the level of $P < 0.01$. Considering the values of path coefficient and fact that both of them are statistically significant, it can be concluded that hypotheses H3 and H4 are supported. Comparing to the EU results, this coefficient is also lower in the case of the EMU countries. The low values of path coefficients confirm the assertions of Białek (2015) and Schnabl (2017) that the formulation of fiscal policy at the national level has diminished the effectiveness of the



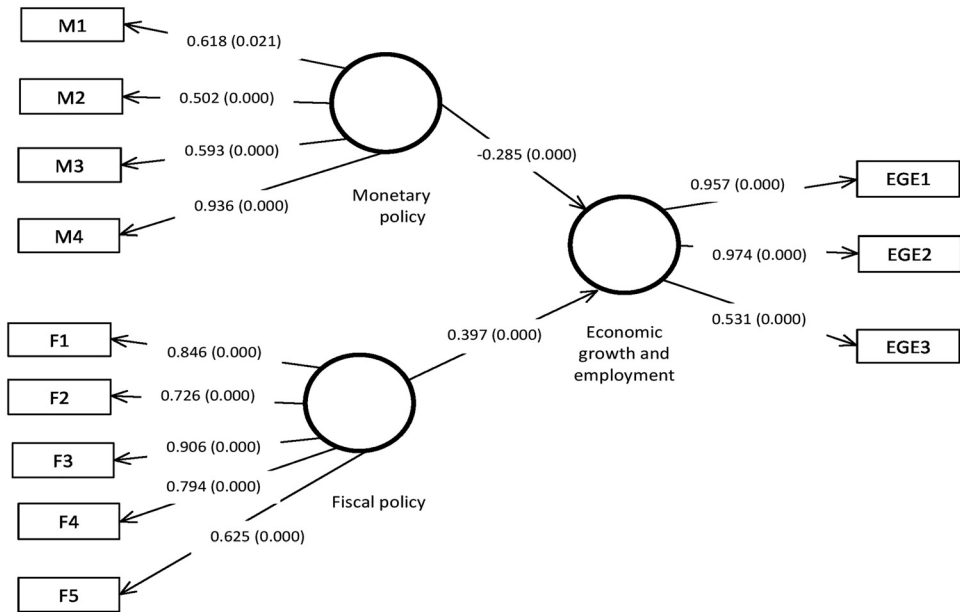


Fig. 3. PLS-SEM results for EMU countries

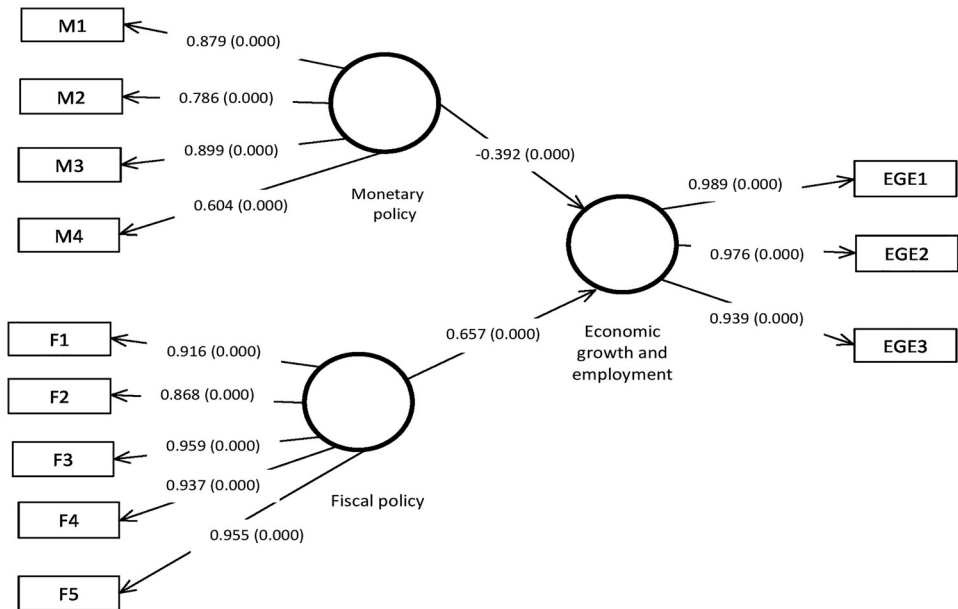


Fig. 4. PLS-SEM results for non-EMU countries



common monetary policy, but it is also in line with the claim of [Corsetti et al. \(2019\)](#) that monetary policy is not sufficient in stabilizing economy in conditions of such great shocks.

Finally, identical analysis was carried out for the non-EMU countries as well, with the results being shown in [Figure 4](#).

It can be concluded from [Figure 3](#) that the path coefficient representing the link between monetary policy and economic growth and development is negative (-0.392) and statistically significant at the level of $P < 0.01$. Although the ECB policy’ spillovers to the non-EMU economies were asymmetric, it certainly had a positive impact on economic growth and employment in the countries outside the Euro area ([Potjagailo 2017](#); [El-Shagi – Tochkov 2022](#)). The path coefficient for link between fiscal policy and economic growth and employment is positive

Table 4. Results of hypotheses testing

Links	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistics (O/STDEV)	P values	Results
EU level						
Fiscal policy → Economic development and employment	0.488	0.496	0.047	10,452	0.000	H1: Supported
Monetary policy → Economic development and employment	−0.317	−0.320	0.040	7,918	0.000	H2: Supported
EMU level						
Fiscal policy → Economic development and employment	0.397	0.411	0.043	9,135	0.000	H3: Supported
Monetary policy → Economic development and employment	−0.285	−0.284	0.060	4,754	0.000	H4: Supported
Non-EMU level						
Fiscal policy → Economic development and employment	0.657	0.653	0.042	15,492	0.000	H5: Supported
Monetary policy → Economic development and employment	−0.392	−0.396	0.048	8,079	0.000	H6: Supported



(0.657) and statistically significant at the level of $P < 0.01$. This means that countercyclical fiscal policy had positive impact on economic growth and employment. Such results supported hypotheses H5 and H6. It should be taken into account that both coefficients are higher than in the case of the EU and the EMU countries, and it is especially true for fiscal policy.

In order to summarize our research, [Table 4](#) presents results of the hypotheses testing.

7. CONCLUSION

This study indicates that expansive monetary policy together with the restrictive fiscal policy (which restrained inflationary pressures caused by expansionary monetary policy) had a positive impact on economic growth and employment from 2007 to 2015 in both observed groups of countries and the EU as a whole. However, the impact of monetary and fiscal policy was the highest in the non-EMU countries, indicating that relatively flexible implementation of economic policies favourably influenced economic growth and employment. On the other hand, the impact of monetary and fiscal policy was lowest in the EMU countries. The results at the EU level represent the differences in results obtained for the EMU and non-EMU countries.

According to the results, it can be said that the ECB still does not have an adequate role within the EU, the coordination between monetary and fiscal policy is still insufficient, so the EU itself is not sufficiently prepared to face economic shocks, as evidenced by the current COVID-19 pandemic crisis. The ECB is still pursuing an expansionary monetary policy, leading to a liquidity trap, reducing the efficiency of monetary policy. This further highlights the importance of pursuing an active fiscal policy, bearing in mind that it is more efficient in a situation where interest rates are closer to zero, because then the multipliers are higher. At the same time, a flexible fiscal policy can support the implementation of monetary policy measures and lead to much faster and better results in stabilizing the economy.

The major conclusion is that fiscal policy is still an underutilized tool for macroeconomic stabilization. In order to accelerate the implementation of fiscal stabilization measures, the European Commission should modify current fiscal rules to some extent, not only because it is questionable to keep the public debt limit at 60% of GDP at such low interest rates but also to ease demands on the member states that exceed this limit, giving them enough room to manoeuvre to implement incentive measures. The Commission's action would be appropriate only if the debt of a certain economy became unsustainable.

One of the most frequently cited shortcomings in fiscal policy implementation is that the member states are not encouraged to produce a budget surplus and are not penalized if they exceed the 3% GDP limit. Typically, the countries that exceed a predetermined level of budget deficit put pressure on the European Commission, and after a while, it ceases to impose penalties, which should be changed in the future. More arguments have emerged over time as solutions to the spillover problem, which is caused by irresponsible fiscal behaviour from one member to the rest of the monetary union, as well as the trading of certificates for permitted debt issuance. In that case, the market mechanism would allow the economies most impacted by the crisis to purchase certificates for the EMU countries with a stronger fiscal position to implement expansionary policies. In order for the entire mechanism to work, an independent authority at the EMU level must be established, which will set a fixed debt emission quota for the Eurozone, and the prices of certificates will rise in accordance with the increase in buyer debt. In



such circumstances, the task for the EU members would be to convince investors to manage public finances responsibly, while the Commission's role would be to offer accurate and comprehensive information on the "health" of the member states' economies.

Finally, if necessary, adjustments in economic policy conduct are not undertaken, the current crisis will deepen the divergence between the EU member states. Given that interest rates were already at a very low level (on average less than 1%), the level of public debt was above the limit set by the Maastricht Criteria, and the credit rating had significantly worsened, most member states met the crisis with a little room for manoeuvring in terms of economic policy implementation. Although many economists and policymakers have emphasized the significance of forming a fiscal union, political support for the initiative remains insufficient. Because of the difference in business cycles among the EU member states, our study demonstrate that fiscal union is still an overly ambitious and inefficient solution.

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