ROMANIAN ACADEMY
NATIONAL INSTITUTE FOR ECONOMIC RESEARCH

WORKING PAPERS

THE IMPOSSIBLE TRINITY IN ECONOMIC AND MONETARY UNION. HOW TO SOLVE IT

AUREL IANCU

Bucharest
December 2025

ISSN: 2285 - 7036 © NIER - CEID,
Bucharest, 13 Calea 13 Septembrie, Sector 5

CONTENTS

THE IMPOSSIBLE TRINITY IN ECONOMIC AND MONETARY UNION. HOW TO SOLVE IT[1]

AUREL IANCU[2]

Abstract: *This article is focusing on the economic literature attempting to solve the problem of the impossible trilemmas of the euro area, by reconciling the relations between the three essential pillars - supranational monetary independence, national fiscal independence and the no bail-out clause applied in the union of states with single currency.*

The analyses carried out show that the first countries to fall victim to the economic and financial crisis where the least developed with high levels of public debt and which did not respect the nominal convergence criteria. The wide range of measures taken following the crises aimed not only at economic recovery, but also at significant changes in the architecture of the essential pillars and the relations between them by applying a mix of policies to relax these restrictive relations and accompanied by measures to respect financial and fiscal discipline. On the other hand, in order to resolve critical moments of financial balances, including insolvency, special intervention fund and financial facilities were created. It was the transition from the no bail-out clause to the explicit bail-out regime. The last section also reveals the existence of a significant upward trend in measures and reforms which support increasing efficiency of actions and fiscal competences at the EU and member state levels. The text emphasizes the EU's contribution to simplify and modernize the fiscal system of the member states. In the new conditions, fiscal policy should no longer be seen as a state of opposition between the common fiscal policy and the sovereign fiscal policy, but rather as a state of cooperation and support given to the member states under the conditions of the wide application of the principles of subsidiarity and proportionality.

Key words: impossible trilemma, essential pillars, single currency independence, national fiscal independence, no bail-out clause, explicit bail-out regime, insolvency, compatibility, crisis, mix policies, quantitative easing, financial funds and facilities, principle of subsidiarity.

JEL: A12; B41; E32; E42; E63; E52; E58; F02; F6; H2.

1. Introduction

Under the circumstances of debating the transition of the EU countries to the single currency and the functioning of the euro area, an important role is given to the way in which the interactions between the key elements of the triad (1) monetary policies, (2) fiscal policies and (3) the no bail-out clause/explicit bail-out mechanism are manifested. These elements of the triad, made up of basic regulations, are the essential pillars on which the trilemma of the European economic and monetary system rests. The trinity becomes impossible when incompatibilities arise in the relationships between these pillars of the triad. Although each of these pillars, taken separately, are logical and true, nevertheless, when analyzed together/simultaneously, they can be incompatible. They can also be incompatible when taken in pairs. In all these cases, the trinity becomes impossible, and forcing its implementation has negative repercussions on the functioning of the economic system as a whole.

In order for the system to become fully functional and efficient, it is first of all necessary that the essential pillars of the trinity become compatible. If this quality of the pillars is lacking, it is possible that some degree of compatibility and relaxation of the interrelationships between the pillars can still be achieved through the application/operation of certain adjustments or additions to them through economic, monetary and fiscal reforms.

---

[1] This is an English version of paper *Trinitatea imposibilă în Uniunea Economică și Monetară. Moduri de soluționare*, Studii Economice 250821, Institutul Național de Cercetări Economice, http://www.studii-economice.ro/2025/seince250821.pdf.

[2] Center for Complex Research, National Institute for Economic Research of the Romanian Academy.

In the economies of the euro area countries, compatibility measures have varied according to the stages or phases of integration and the specific nature and virulence of the crises that these countries have experienced. Using the simple technique of analysis of the impossible trinity in the cases offered by monetary union, various types of impossible trinity have been identified, on which proposals have been made and compatibility operations (solutions) implemented over time, either in the field of monetary and fiscal policies or in the field of the no bail-out clause in the event of sovereign debt payment difficulties.

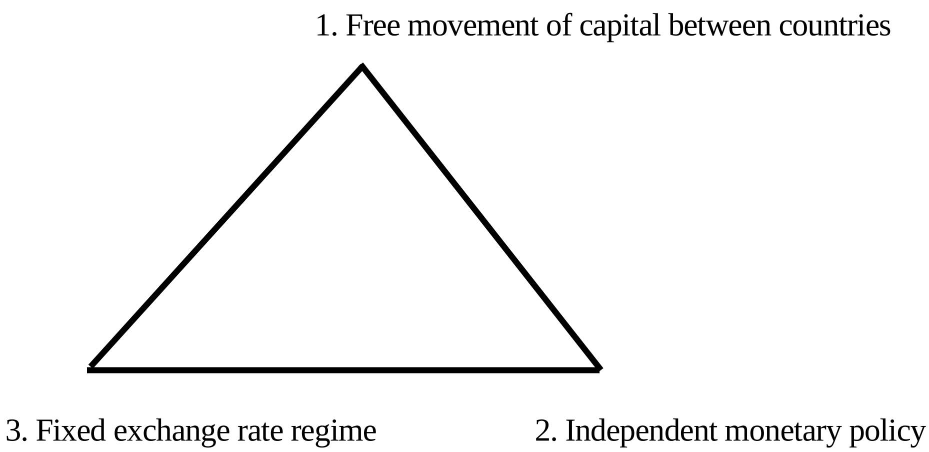
In what follows, first, we analyze the types of impossible trilemmas arising from incompatibilities in the relations between the essential pillars, with specific features of the different stages of European integration, which have been hit by economic and financial crises. We then aim to transform these impossible trilemmas into possible trilemmas through the implementation of compatibilization policies. The text is structured in the following sections: the classical impossible macroeconomic trilemma (2); the Maastricht impossible trilemma (3); a new trilemma based on a policy mix (4); the fiscal policy problem and the solution to the impossible trilemma (5); brief conclusions (6).

2. The classical impossible macroeconomic trilemma

Among the earliest impossible trilemmas addressed in the economic literature and used as a starting point and benchmark of comparison is the one derived from the Mundell (1963) and Fleming (1962) model and known as the classical impossible macroeconomic impossible trilemma (Fig. 1). It is defined by its essential elements or supporting pillars: 1. free movement of capital between countries; 2. independent monetary policy; 3. fixed exchange rate regime.

Fig. 1

Classical impossible macroeconomic trilemma



Source: Aizenman, 2010; Klein, Shambaugh, 2015, Villeroy de Galhau, 2017.

In connection with these pillars, the question arises whether or not, in terms of their mutual relations, are they compatible? To arrive at the answer, we will use two working hypotheses: (i) if a country adopts free capital movements and practices an independent monetary policy interest rate, the fixed exchange rate becomes inappropriate. The exchange rate should be allowed to fluctuate according to supply and demand; (ii) if a country sticks to a fixed exchange rate regime and an independent monetary policy interest rate, the country, for various reasons, switches to a policy of capital controls. This becomes unthinkable given the basic principles of a competitive market economy. According to the above analysis, it is impossible to reconcile the fixed exchange rate with capital mobility and autonomous monetary policy. Switching to a floating exchange rate policy solves this problem. This type of model has also been applied by central and eastern European countries from the pre-accession period up to ERM2 entry, to the extent that their central banks' statutes allowed for financing of last resort for the public sector in the event of debt payment difficulties. However, the transition to the single currency, based on primary legislation that was initially too restrictive and far-reaching, has generated a great deal of controversy around a number of cardinal issues related to the critical state of the economy and finance and the behavior of government decision-makers and the monetary / financial markets.

As mentioned above, different types of policies applied at different stages/phases of European integration correspond to different types of trilemmas specific to EU economies. The preparation for and actual transition to the single currency meant the transition to a new stage of integration based on new objectives and essential pillars of support, regulated by the Maastricht Treaty.

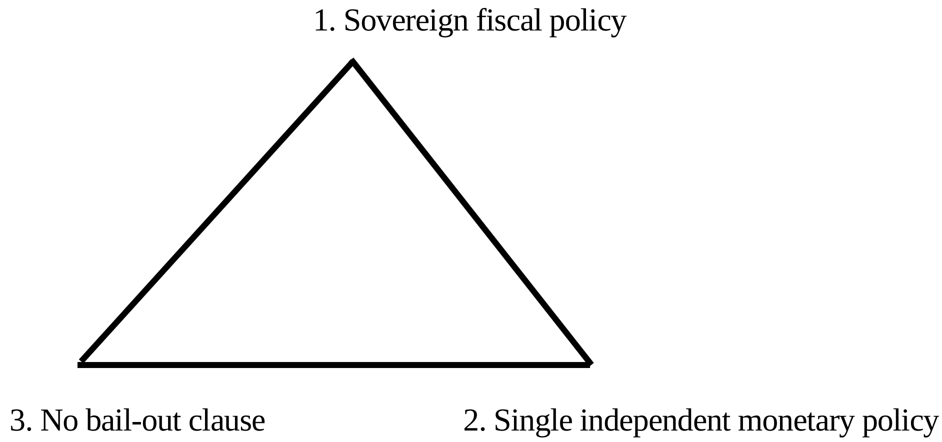
3. The Maastricht impossible triangle

3.1. Main features

With the extension of European monetary integration and the creation of the euro area, a new trilemma emerged. This trilemma is specific to the first stage of monetary union (1999-2010) and is centered on the following three main pillars: 1. sovereign fiscal policy; 2. a single (supranational) independent monetary policy; 3. the no bail-out clause for sovereign debt distress. These policies, in their pure expression[3] , form a triangle with vertices 1, 2, 3 (Fig. 2).

Fig. 2

The impossible triangle of monetary union under the Maastricht Treaty



Source: Beck & Prinz, 2012; Klein & Shambaugh, 2015.

The newly created economic and monetary model, based on the three essential pillars of the impossible trilemma[4] , is characterized by tasks defined[5] by the Maastricht Treaty. Aware of the weaknesses of any beginning, the authors of the project took into account that, in the new stage, countries must continue the convergence process by strengthening financial and fiscal discipline. This involves, on the one hand, the obligation for Member States that have entered the euro area to continue to meet the convergence criteria and, on the other hand, in the new context, the introduction of the no bail-out clause

[3] No compromises or political interference.

[4] Padoua Schioppa added trade as an essential fourth pillar, making the triangle square.

[5] The Maastricht Treaty provides the legal basis for these pillars, with the following necessary delimitations:

(a) National fiscal sovereignty - an attribute of Member State responsibility for the sound management of public finances on both the revenue side of taxes and duties and on the expenditure side and the achievement of financial discipline;

b) The independent supranational monetary policy, coordinated by the ECB, is common to all the member countries of EEA, does not have to be adapted to fiscal policy and is forbidden to finance public debt by printing money;

c) The no bail-out clause with the main tasks of, on the one hand, preventing excessive public indebtedness and the risk of a country's insolvency and avoiding any attempt to practice moral hazard to the detriment of countries with correct fiscal behavior and, on the other hand, reinforcing the responsibility of national governments to promote sound fiscal policies without excessive deficits and debt.

- as an essential pillar of the trinity - which, according to the Maastricht Treaty, means prohibiting the ECB from acting as lender of last resort to finance Member States in a critical financial situation (default on their debts). The introduction of the no bail-out clause strongly tightens the relations with the other pillars of the impossible trilemma, becomes an obstacle to compatibilization, although, according to some opinions (Peychev, 2022), such a clause would rather serve the purpose of prevention and intimidation, both for governments to borrow irresponsibly and for creditors to lend also irresponsibly.

When subjected to rigorous analysis, as we shall see, these pillars are contradictory and, at the limit, incompatible. This, on the one hand, makes it difficult, if not impossible, to accept this trinity and, on the other hand, it urges economic governance to seek solutions to break out this vicious circle by making serious improvements or changes to the pillars and their interrelationships in order to make them compatible and to bring the system functional as a whole and as close as possible to a state of equilibrium as possible.

3.2. The relationships between the essential pillars of the Maastricht trinity

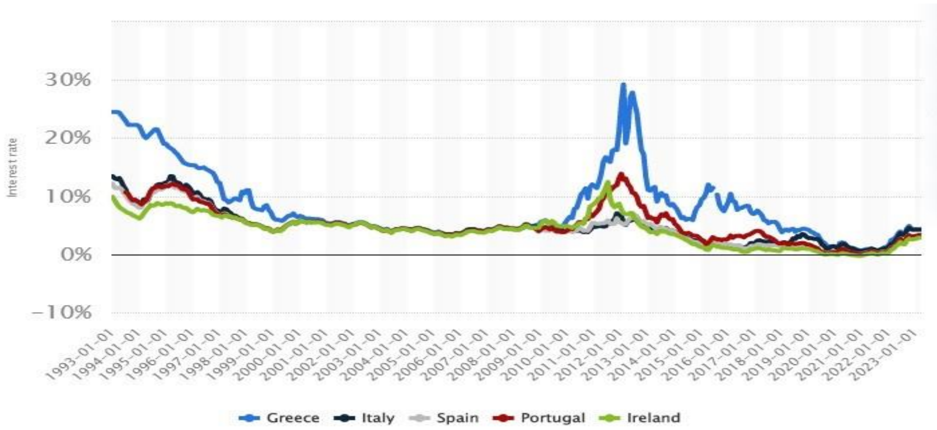
In the following lines, the main incompatibilities of the essential pillars taken in pairs are presented and negative concepts, methodologies and factual illustrations from the Maastricht impossible trilemma crises are used.[6]

1. Sovereign fiscal versus independent single monetary policy. The incompatibility between these two key pillars has manifested itself during the sovereign debt crisis of 2010-2012, when some euro area countries defaulted (or were about to default) on their public debt. Under the law, the ECB's monetary policy is independent of fiscal policy. Since the Treaty prohibited the adaptation of monetary policy to fiscal policies, the ECB, on the one hand, could not buy countries' sovereign debt by printing money, but on the other hand, it could raise the monetary policy interest rate, which led to an even higher increase in debt.

The graph in Fig. 3 shows the dynamics of the magnitude of risk premium-charged interest rates on long-term government debt during crises for five euro area countries with deficits and excessive debt: Greece, Italy, Spain, Portugal, and Ireland, over the period 1993-2022. While during 2000-2009 the interest rate differentials between these countries were insignificant, during recessions risk premium penalties led to extremely high interest rates, peaking in February 2012 at 29.2% in Greece and 12.8% in Portugal[7].

Fig. 3.

Long-term interest rate dynamics of some euro area countries with higher levels of government debt, 1993-2023



Source: European Central Bank; Buti & Corsetti, 2024.

[6] On this, see: Beck & Prinz, 2012; Buti & Messori, 2021; Buti & Corsetti, 2024.

[7] Statista Research Department Sept. 2024, *Public debt in the EU: interest rates on debt of selected euro area members, 1993-2023*.

In the good times of the business cycle, small shocks, which occur in the course of economic and financial processes, are absorbed by the automatic stabilizers, so that they do not influence the incompatibilities between the essential pillars of the trinity. In the bad times of the cycle, these incompatibilities become visible and threatening. In such conditions, the impossible trinity asserts its presence forcefully and causes considerable losses. This is what happened when, after the ten prosperous years of the single currency (1999-2008), the crisis years were followed by years of severe crises when some eurozone countries (Greece, Ireland, Portugal, Spain, etc.), over-indebted on the basis of cheap loans in the good times, ended up in insolvency or on the brink of insolvency accompanied by rising debts with high interest rates. In this way the monetary union as a whole, through contagion, saw its very existence threatened.

2. National fiscal sovereignty versus no bail-out clause. The application of the no bail-out clause may preserve the fiscal sovereignty of member countries but without any guarantee that these countries, being over-indebted, will not risk losing their fiscal sovereignty by declaring them insolvent (for defaulting on sovereign debts). As things unfolded in the euro area during the existential crisis, in order to avoid the danger of the dissolution of the monetary union, the ECB, forced to violate its independence, was the institution that finally saved the monetary union. Applying the bail-out clause to save an over-indebted country from insolvency imposes a number of fiscal policy conditionalities. This means a diminution of the country's fiscal sovereignty at the price of rescuing it from insolvency.

3. No bail-out clause versus single and independent monetary policy. Here the incompatibility of the two types of policies becomes dangerous. It causes bottlenecks in the economy with explosive effects in the critical phases of the business cycle when financial imbalances and over-indebtedness emerge and fiscal space is already exhausted. The bottleneck created by the rigidity of this regulation has led to huge losses and jeopardized the very existence of the monetary union. According to the general conception underlying the drafting and implementation of the Treaty was the belief that fiscal indiscipline would be the main (if not the only) major risk to the viability of the euro currency and the euro area. Reality has shown, however, that fiscal indiscipline is often compounded, to some extent and in good phases of the economic cycle, by financial market indiscipline caused by cheap credit and carried out through the banking system, finalized in the disproportionate accumulation of cross-border public debt (Moghadam, 2014).

In order to avoid bottlenecks and emerge from the debt crisis and to recover the financial situation of the countries, a broad reconciliation and adaptation of the essential pillars of the trinity to a new paradigm has been undertaken, including a shift from strictly restrictive and negative isolation and coordination to cooperative and stimulative coordination in the Padoa-Schioppa spirit (Buti & Corsetti, 2024).[8]

3.3. Sovereign fiscal policies and a single and independent monetary policy

Euro area Member States, which are characterized by a high degree of EMU integration, continue to preserve their national sovereignty in the area of fiscal policies, while the ECB seeks to strengthen both the independence of its single monetary policy and its public credibility. These policies are in line with the rules governing the functioning of the euro area. However, it is not difficult to see, even from these simple formulations, that there is an incongruence between the two categories of policies: national sovereignty in the area of fiscal policy and independent supranational policy in the area of monetary policy.

The terms fiscal sovereignty and monetary independence are used to characterize the two fundamental pillars in terms of their role and the way they interact, and do not imply the absence of links or the existence of boundaries between the two policy categories. The discussions that have taken place, as well as the analysis of practical activities in the euro area, show not only the need for communication links and close cooperation between the ECB and the fiscal authorities, but also the need to avoid dominant links between them. Contrary to the view of Otmar Issing (member of the first Governing Council of the ECB), who called for the consistent maintenance of the monetary policy dominance over fiscal policies to ensure financial and price stability, Tommaso Padoa-Schioppa interpreted this view as a matter of letting the monetary authority (ECB) become the victim of public discontent when it had to

[8] Issing considered it is necessary to completely insulate the ECB from national fiscal authorities. This isolation, together with the diversity of interests and policies among the EEA member states, are key factors in guaranteeing the ECB's independence, Issing says.

take unpopular decisions or, we add, to become the scapegoat for the mistakes or populist fiscal policies of some governments in the countries concerned. Restoring and strengthening the role of the ECB in ensuring financial stability using a broader set of monetary instruments confirms not only the role of the ECB, but also the lessons learned from the recent crises regarding the active role of the ECB and the need to replace dominance relations with horizontal and vertical coordination relations and the cooperation of monetary policies with fiscal policies (Buti & Corsetti, 2024).

Within the interrelations between the two types of policies, both monetary dominance[9] and fiscal dominance[10] are included, as an object of analysis and resolution of the Maastricht Treaty trilemma, which express, respectively, either the priority and power of the monetary authority over the fiscal authority, or the priority and power that the fiscal authority has over the monetary authority when it comes to the fulfillment of its regulatory duties. These policies show not only their presence, but also their often divergent courses of action when they become active and target specific objectives. For example, in the most common cases, the dominance of fiscal policy manifests itself where and when monetary policy to control inflation is undermined or constrained by government fiscal policy with excessive and unsustainable deficits and excessive and unsustainable deficits and indebtedness.

Based on empirical research on the interplay between monetary and fiscal policies, and also on the direction and strength with which each of the two types of policies act against inflation and deficits at the euro area level, Buti & Messori (2021) reach the following findings in line with the resolution of the trilemmas presented in Fig. 2 and Fig. 4. *Out of more than two decades of the euro area, in the first period, the decade 1999-2007*, the single monetary policy, exercised by the ECB with price stability as its main objective, was characterized by a weak (soft) dominance over government sovereign fiscal policies. At the same time, fiscal policies have adapted, aiming at reducing fiscal deficits and public debt, thus pursuing a cooperative policy.

In the 2008-2024 periods, marked by global crises (financial, COVID-19, energy), the recovery measures and economic and institutional reforms were fully activated. As a result, each of the two types of policies asserted itself as dominant according to the real situation and practical requirements, while accepting political compromises when the serious question of the continued existence of the euro area was raised.

In resolving the trilemma of the relationship between monetary and fiscal policies, as shown above, neither monetary nor fiscal dominance has its place. To resolve the trilemma, the necessary compatibilities between these policies need to be sought and promoted, and relations of dominance need to be replaced by relations of horizontal and vertical coordination.

4. The post-Maastricht trilemma

During and after the economic and financial crisis and in the phase of economic recovery, wide-ranging debates and multiple and far-reaching measures were undertaken at EU and Member State level to address the incompatibilities in the relationships between the essential pillars of EMU in their original form. The interests of developing EMU on a sustainable and effective basis have required new interpretations, positions and changes in the architecture and construction of the three essential pillars and in the relationships between them. It is a question of moving from an architecture and functioning in rigid, restrictive, negative and reactive forms to an approach to them in an architecture and form that ensures

---

[9] **Monetary dominance.** According to the connotations adopted by Sargent & Wallace as early as 1981, monetary dominance arises when the monetary authority focuses on inflation control and confidence building and takes precedence over fiscal policy. Jeanne (2012) distinguishes two forms of monetary dominance according to the degree of exigency (severity) accepted: i) the soft form, pre-emptive, when the monetary authority adjusts its fiscal policy to avoid having to choose between a default and a debt monetization situation; ii) the hard form, in the extreme situation where this choice has to be made, i.e. letting the government default rather than monetizing the debt.

[10] **Fiscal dominance.** This phenomenon, as defined in the textbook, occurs when fiscal authority takes precedence over monetary policy. In such a situation, the central bank's power to control inflation and maintain financial stability is undermined by the government's fiscal decisions when faced with excessive deficits and a large and growing debt burden, which exhausts the economy's practical ability to borrow and make new payments.

dynamic, elastic, positive and preventive functioning.

4.1. From the no bail-out clause to the explicit bail-out regime

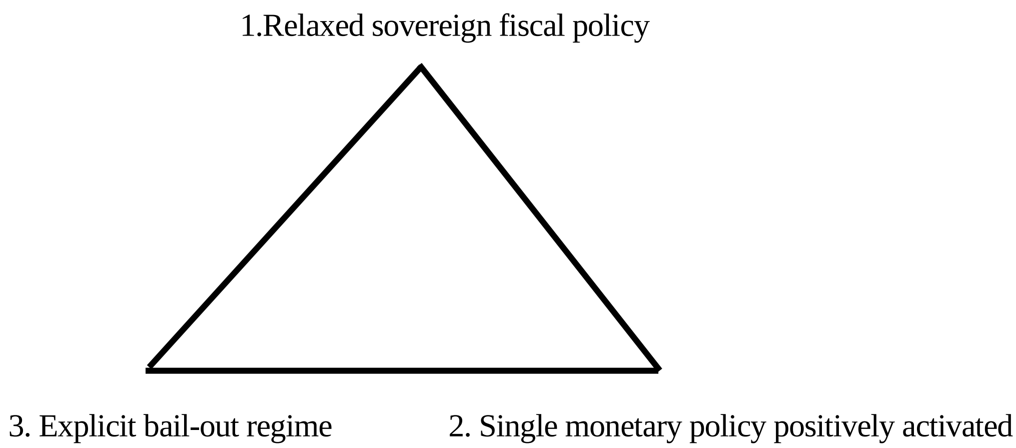
In order to address the Maastricht Treaty-type trilemma outlined above (fig. 2), numerous ways, methods and tools have been invented and applied to adapt and make the essential pillars and the relationships between them compatible, in parallel with both the strengthening of each Member State's responsibility to respect the convergence criteria and macroeconomic balances, and practical measures to counter imbalances caused by financial markets. In this section, we briefly present one of the most important and far-reaching packages of new regulations and reforms to this end.

Following the strong pressures of the Great Recession and Financial Crisis of 2008-2012 and the COVID-19 crisis, the architecture of the Maastricht Treaty trinity had to undergo a fundamental change by adopting a policy mix based on accepting policy trade-offs and implementing reforms to address critical situations and remove the causes and obstacles to the euro area's negative economic governance.

The solutions that have been pursued, aiming at changes in the architecture of the key pillars and the relationships between them, lead to a new scheme called the post-Maastricht trilemma, loaded with a policy mix adapted to the new phase of integration and redefining the structure and functioning of the euro area.

Fig. 4

Post-Maastricht trilemma based on a diversified combination of functional policies for the euro area



Hereinafter, we briefly analyze the most important and significant regulations and programs used, in the last decade, to revise the content and the relationships between the three essential pillars that led, on the one hand, to the resolution of the Maastricht-type trilemma and, on the other hand, to the redefinition and development of a new trilemma, called post-Maastricht. As we shall see, this time, the trilemma is based on ensuring the greatest possible degree of compatibility between its essential pillars, which gives it the status of 'possible trilemma'.

. **4.2. The activated single monetary policy and the explicit bail-out regime**

The need to combat and prevent fiscal- budgetary excessive deficits was behind the introduction of the no bail-out clause in the Maastricht Treaty. If it is borne in mind that deficits are caused not only by fiscal and budgetary indiscipline but also by factors such as disorderly markets outside the control of government authorities, the no bail-out clause does not achieve its purpose, or even becomes a brake. Taking these realities into account, as well as the pressure created by the triggering of the economic and financial crisis and the risk that some countries with unsustainable large debts would be declared insolvent and the very existence of the euro area threatened, the responsible EMU institutions were faced with the challenge of finding a solution to replace the no bail-out clause with "an explicit bail-out regime" (Moghadam, 2014). This replacement takes into account the responsibilities of both countries, on the fiscal side, and markets, on the financial side. In addition, moral hazard had to be avoided by using conditionality and co-financing.

Among the important measures that have led to the removal of the financial bottleneck caused by the crisis and the no bail-out clause, the ECB's launch of the unconventional monetary policy program "quantitative easing" should be mentioned first. Under this program, the ECB switched to buying government and other securities to increase market liquidity and lower interest rates (Beck & Prinz, 2012).

Secondly, it is worth mentioning the creation of the following two institutions with a crucial role to play in the transition to the new bail-out regime and preserving the integrity of the euro area: a) the *European Financial Stability Facility (EFSF),* an institution created in 2010[11] specifically for the emergency financing of states that have lost access to financial markets to refinance their debt; b) the *European Stability Mechanism (ESM),* created in 2012[12] permanently in the form of a joint stock financial company (shareholders being the euro area member states) for the emergency financing of these states. The granting of bail-out financing is based on the fulfillment of conditionality consisting in the implementation of reforms and ensuring the sustainability of the financing. The implementation phase of the program and the post-implementation phase are monitored by the European Commission in cooperation with the ECB and the IMF, where the latter has provided financial and/or technical assistance.

Most of these changes to emergency financing (including those related to state aid) have been included in the *Stability and Growth Pact* in the form of revisions and/or additions as general forms of waivers in cases of major imbalances that cannot be controlled or absorbed by the ordinary course of business (Buti and Corsetti, 2024).

These regulations have proved to be auspicious as they have served to adopt and utilize the COVID-19 short-term financing scheme *Support to mitigate Unemployment Risks in an Emergency (SURE*) for the exit from the health and economic crisis COVID-19 in 2020-2021. This funding scheme was applied to the *Next Generation-EU (NGEU)* program, followed by its key component, the *Recovery and Resilience Mechanism (RRM)* established in February 2021, for direct funding to Member States to exit the recession. The RRM became operational through the development and implementation of *National Recovery and Resilience Plans (NRRPs)* in the period 2022-2026[13] for the transition to the green and digital economy.

4.3. The problem of relaxed sovereign fiscal policy and the new trilemma

For all the advocacy in favor of a shift from sovereign to unitary fiscal policy, as a superior system of integration and symmetry with monetary union, fiscal policy remains, however, still in sovereign terms. As such, fiscal policy in the euro area must continue to be viewed and analyzed in the light of the objectives and interests of each Member State to practice and use taxation for providing national budget

[11] EFSF, an institution set up for the emergency financing of the Republic of Cyprus, Greece, Ireland and Portugal.

[12] The ESM, the successor to the EFSF, with permanent operation, for the emergency financing of over-indebted countries. The ESM is organized as a joint-stock company with the EEA states as shareholders. The instruments used by the ESM are: lending to Member States, preventive financial assistance, purchase of Member States' bonds on the capital markets (primary and secondary), recapitalization of financial institutions by lending to governments, recapitalization of banks, etc. Financial assistance is based on an agreement to implement policy measures within a certain period of time. The conditions for receiving financial assistance are set out in a reform program. The negotiation of the conditions takes place between the Member State and the European Commission in cooperation with the ECB and with the participation of the IMF.

[13] Through the *National Recovery and Resilience Plan (NRRP)*, a total of EUR 723.8 billion is allocated at EU level for the whole budget year in grants and loans. Of the total amount, Romania receives €28.5 billion, of which €13.6 billion in grants and €14.91 billion in loans. The financing program ends in 2026. These funds are intended to help Member States to recover and implement reforms and investments. The NRRP focuses on the following pillars: green transition, digital transformation, smart and inclusive growth, health, social and territorial cohesion, next generation policies

revenues to support public spending. However, the EU has an important and growing role to play in helping countries to achieve an efficient and fair tax policy, by regulating and assisting in broadening the tax base of income and profits, including multinational corporations and trans-national companies, combating tax avoidance, regulating the taxation of digitization activities, sharing the countries' VAT entitlement for cross-border multinational corporations, etc.

In the debate on the relationship between sovereign fiscal policy and union monetary policy, the idea of creating a certain symmetry and compatibility between these policies has been advocated. These symmetries and compatibilities would be accomplished by decreasing the sovereign fiscal policy share and increasing the EU/supranational fiscal policy share. This would mean shifting the policy decision on taxation, including taxation policy, with its attendant implications, from the level of individual countries to the level of the European Union. Such an idea has generated much controversy. If at the beginning, at the heart of the debate on the impossible trilemma issue was the concern to demonstrate the impossibility of reconciling disparate national fiscal policies with union monetary policies, now at least support had to be found to seek and achieve a rapprochement between the two levels - state and union - of fiscal and monetary policies.

The first solutions resulting from the debate correspond to the coherence required by the real situation needed, given that the interests of most states to use tax policies as their own economic levers are still proving strong to make the transition from a national to a unitary/federal EU tax system. The Treaty on the Functioning of the EU states that taxation is the prerogative of the Member States, the EU having only limited powers in this area. The EU does not impose taxes on citizens or businesses. Responsibility for these activities lies solely with the Member States. Also, in the section on general tax policy in the European Parliament's fact sheet, it is stated: *"The power to introduce, abolish or adjust taxes remains at the discretion of the Member States. Each Member State is free to choose the taxation system it considers most appropriate, provided it complies with EU rules*" (Angerer, 2024).

However, it is well known that the emergence of new communication technologies, as well as the increasing integration and globalization of the economy and social life, the growing role of large multinational corporations, the spread of digitalization radically change the facts of the problem of sovereign fiscal policy in relation to the monetary policy of the Union. For example, while in the EU it is possible to determine the structure of the tax system, tax rates, tax collection networks and techniques at Member State level, there are many other operations and activities which, although necessary, are methodologically and technically beyond the scope of individual Member States. From this point of view, without detracting from the Member States' competences in the field of tax policy as laid down in the Treaties, the role and competences of the European Union authorities in tax matters are being extended by applying Article 5 TFEU on the principles of subsidiarity and proportionality. According to the **principle of subsidiarity**, where objectives cannot be achieved by Member States acting separately, only a common approach - Member State plus EU - is most likely to contribute to the achievement of the legal objectives pursued for all Member States. The introduction of this principle in the Treaty has led to an extension of the share of EU competence in tax matters in relation to that of the national State, to the benefit and support of the interests of the national State and the Community.

The same Article 5 TFEU requires the application of the **principle of proportionality**. Complying with the principle of proportionality means that the measures and reforms applied do not go beyond what is necessary to achieve the objectives set out in the primary legislation.

These principles underlie the vertical distribution of the different components and activities of fiscal policies (decisions, competences, obligations, etc.) exercised by public authorities at local, state and union levels. The application of the principles of subsidiarity and proportionality over the last decade and a half has enabled the EU institutions to take important steps towards involving in resolving, at EU level, important tax policy issues in the interests and for the benefit of the Member States, such as fairness, simplification and modernization of the tax system, and their conceptual and methodological unification at EU level. These solutions, in the legal form of directives approved by the Council by unanimous vote, concern, for example, the avoidance of double taxation of cross-border investments, combating tax evasion, and money laundering, harmonization of transfer pricing rules within multinational groups, creation of a common set of rules for calculating the tax base of multinational companies' profits. The rapid development of digitization and artificial intelligence is exerting strong and increasing pressure on traditional tax rules to move effectively towards VAT modernization and the extension of income taxation in areas of digitization. This requires the European institutions to provide Member States with support that is closely linked to their objectives and efforts.

The unification of the tax base of income and profits of multinational and national companies and groups of companies at EU level, which is in the process of enlargement, is one of the significant examples of the contribution of the EU institutions to achieving a fair and equitable tax policy. Here we refer briefly and by way of example to the determination of the taxable income and profits base of multinational and national companies / groups of companies operating and generating income and profits in EU states. The Annex to this study presents the growth of the EU's contribution to the realization of a modern trans-national tax policy, giving as an example the common tax base for the income and profits of multinational and national groups of companies.

5. Conclusions

This study has analyzed the preoccupations of the European Union and its Member States over the last decade and a half to solve the impossible trilemmas in the euro area by making the three essential pillars compatible, in order to ensure the smooth functioning of the economies that are part of the monetary union.

The starting point of our approach is the case of the classical impossible macroeconomic trilemma, taken as a benchmark. A summary analysis of the relationships between the three essential pillars of this trilemma shows that the fixed exchange rate regime is incompatible with the other two essential pillars. The trilemma can be solved if the necessary compatibility is ensured, i.e. if a floating exchange rate regime is promoted in addition to the free movement of capital and an independent monetary policy interest rate. This is currently the case for EU Member States outside the euro area that meet these conditions.

With the transition of countries to the single currency, with the Maastricht Treaty as the legal underpinning, there has been a leap in the transition of EU Member States to a new stage of European integration which generates a new impossible trilemma (Fig. 2) composed of the following essential pillars: 1. sovereign national fiscal policy; 2. single and independent monetary policy; 3. the no bail-out clause.

During the first decade of the euro area's existence (1999-2008), the highly restrictive nature of the various criteria agreed at the time of the democratic approval of the Maastricht Treaty - under which the euro area, the Member States and the EU / national authorities operate in the area of monetary, fiscal and bail-out policy - was maintained. Analyses of the economies of the euro area countries show that the adoption of such pillars with restrictive and rigid relationships has paved the way for economies to move from growth and balanced budgets to imbalances, excessive deficits and rising indebtedness, which has happened especially in countries with lower competitiveness, where the effects of economic and financial crises have been particularly strong, even manifesting themselves in the default on public debt (the case of Greece).

In response to the pressures exerted by the effects of the existential crises on the new phase of integration, a wide range of measures were triggered at EU, ECB and Member State level. In addition to economic recovery, these aimed at significant changes in the architecture of the Maastricht trinity by adopting a policy mix and implementing reforms for removing bottlenecks and obstacles to resolve the impossible crises and trilemmas. In the text, the main economic policy mixes and reforms applied to modify or change the essential pillars, as well as their compatibility and joint action in line with the single market and single currency system were mentioned. The key roles in addressing the overstretching situations were played by the programs on: Quantitative Easing initiated and implemented by the ECB, the European Stability Fund, the Recovery and Resilience Mechanism, followed by the development and implementation of *National Recovery and Resilience Plans (NRRP)* for financing the transition to the green and digital economy.

It should be noted that a decade ago, the fiscal policy approach was considered in order to solve the impossible Maastricht trilemma. The approach consisted of an effort to regulate and take systematic action to ensure the minimum necessary symmetries and compatibilities in achieving the objectives of individual states and those of the EU community in tax matters.

The Annex to this study points to a significant increase in EU level actions in support of raising the efficiency and modernization of tax policy at the Member State level. The impact of these practices undertaken by the EU authorities in support of Member States, in terms of simplification, efficiency, equity and fairness of tax policy, leads to the conclusion that all of them, in fact, pave the way for making the tax policy pillar compatible with the other two pillars: the common monetary policies and the explicit bail-out package. The text emphasized the EU's massive contribution to simplifying and modernizing the whole tax system, entirely focused on helping Member States to achieve their national fiscal objectives, in line with the principles of subsidiarity and proportionality. As shown, an increasing share of tax policy activities and decisions, in line with the principle of subsidiarity, falls to the EU as a unitary authority. It is intended to support Member States in their efforts to simplify and broaden the tax base in the cases of multinational corporations, to extend taxation of digitization and digitized activities, to modernize VAT etc. in the interest of both Member States and the EEA.

As a result of these developments and trends, as well as the new regulations, **relaxed fiscal sovereignty**, according to its new status, should no longer be seen as a pillar in opposition or incompatibility with the pillars of the **active single monetary policy and the new explicit bail-out regime.** On the contrary, it should be seen and considered as a pillar in a state of cooperation and with functions that are complementary and relatively compatible with the other two pillars.

ANNEX

Common tax base for the taxation of the income and profits of multinational and national groups of companies with trans-national activities in the EU. An example of extending the involvement of the EU institutions in tax matters in the Member States

The establishment of a common framework for the taxation of profits of multinational and national companies carrying out transnational economic activities in the Single Market has become a major concern, with the main aim of:

- on the one hand, to find and implement measures to respect countries' right to corporate taxation and to ensure fairness;
- on the other hand, to prevent corporate tax avoidance through the adoption of transfer price manipulation practices between companies in the same group, expense deductions, etc.

The European Union has supported the Member States, first and foremost, by taking measures to eliminate factors that undermine competitiveness and fairness in relations within the internal market by adopting solutions against actions and trends that erode the tax bases and the transfer of profits outside the internal market. These actions have taken legal forms, such as the Directive on Combating Tax Avoidance and Profit Shifting outside the Single Market (2016).

Second, EU authorities and Member States' representatives have shown interest in developing and applying common rules and methodologies for establishing the corporate tax base that would stimulate the expansion of transnational economic activities of national and multinational companies, ensure the smooth functioning of the Single Market and reduce compliance costs for companies. In 2011 and on the way forward, the European Commission has offered options for draft directives on the determination of the *Common Consolidated Corporate Tax Base (CCCTB)* consisting of a single set of rules that companies and the groups to which they belong can use to calculate taxable profits in the EU. Not sufficiently connected to the advances in digitalization, financial accounting and global conditions, in place of these versions of drafts, there has been interest in new, simpler and modern versions. Thus, in 2023, at the proposal of the European Commission and with the approval of the Council, a package of legislation was adopted: *Business in Europe: Framework for Income Taxation (BEFIT) Directive*, and the Directive setting common rules on ensuring transfer pricing accuracy within multinational enterprise groups to prevent the manipulation of prices and expenses for the purpose of lowering the income tax base. The BEFIT Directive, including the *Transfer Pricing Directive*, is mandatory for a group of companies operating in the EU (even if based in a third country) that has combined income of at least €750 million realized in the last two tax years out of the last four years and is taxable on its profits. BEFIT becomes optional for groups of small and medium-sized enterprises, which are attracted by the simplified tax rules and reduced compliance costs when engaging in cross-national activities.

The BEFIT common methodology will enter into force in 2028 and become permanent from 2035. The timeframe, 2028-2035, is the transitional period during which adjustments and monitoring of the accounting system and the results of the new uniform methodology for calculating taxable income and profit will take place. To derive the BEFIT tax base for the whole group, the annual income of the component companies for the last three tax years is aggregated after eliminating profits and losses resulting from intra-group transactions[14] . If either some members of the group or the whole group show losses in some years, these losses are offset against the profits of the other members and the net profit of the group respectively. Having determined the taxable profit at group level, according

[14] Three-year moving averages are used.

to the above methodology, the share of taxable income/profit[15] is to be allocated to each company as a member of the group. Under EU law, it is the Member State which has the right to set the tax rate and collect the tax.

Based on the principles agreed in the international tax reform discussions, the European Commission published in May 2019 the *Communication on Business Taxation for the 21st Century*. This Communication set out a long-term vision for building the legal basis and implementing measures and reforms to achieve efficient and fair taxation. A decisive step towards the implementation of necessary and highly relevant solutions at global, European and national level has been the two-stage take-up, in a form adapted to EU realities, of the OECD/G20 Global Agreement, which regulates, in a simple and comprehensive form, the rights and obligations of states/jurisdictions and companies in tax relations, with special reference to multinational groups of companies to cease transferring profits to (or even excluding) very low taxing jurisdictions. [16]

The fight against tax avoidance cannot be successful at the level of individual countries, nor even at EU level. The momentum and consistency of efforts to put an end to these harmful practices through inequities between countries is reflected in the action taken by the OECD/G20 at global level, involving 140 countries. The joint efforts pave the way to promote international tax rules that create a level playing field in all jurisdictions and for all companies worldwide.

The overall corporate tax reform focused on the following two key cases generated by the subject matter, the objectives pursued and the procedures established[17]:

Case 1 concerns large multinational companies with an annual turnover of over €20 billion and a profit rate of over 10%. The main objective of this case is to redistribute part of the excess profits of multinational companies to the jurisdictions/states where the consumers of the products and users of the services are located. The jurisdictions/states receive a share of these reallocations provided that the multinational companies involved have revenues of at least €1 million in that state;

The second case concerns large multinational and national groups of companies with a combined annual financial revenue of more than EUR 750 million without conditioning the setting of a threshold for their profit rate. These groups are subject to overall minimum corporate tax rates of at least 15% and a mechanism to reallocate additional profit.

The rules of the second case have been adapted and transposed in Council Directive (EU) 2022/2523 of December 14, 2022 on ensuring an overall minimum level of taxation for multinational groups of companies and large domestic groups in the Union. The preamble to the Directive states that in recent years, the European Union has adopted landmark measures to combat tax avoidance by establishing rules against the erosion of tax bases in the internal market and the shifting of profits outside the internal market. In order to curb such tax practices by multinational companies and to shift profits to jurisdictions where they (the profits) are not taxed or are subject to extremely low taxation, the OECD has established global tax rules to make multinational companies bear their share of the tax on profits where these have been generated, by imposing a global minimum tax rate. From global research, this rate has been set at a minimum of 15%. The adoption of the minimum rate reform will level the global playing field for all companies (Euro Lex, 2022).

In its December 2021 report, the Council declared its support for the minimum tax and the coherent and orderly implementation of the reform of the global minimum tax by approving and implementing the Directive. With the adoption of this Directive, it becomes possible that where multinational companies avoid paying corporate income tax in the jurisdiction in which it was created, it can be retrieved at the effective rate practiced by that jurisdiction in accordance with its sovereign tax policy.

---

[15] Expressed as a percentage, the tax base share of income, (b) is the ratio between the average taxable income of the member over the previous three years ($\overline{v}$) to the average taxable income of the group over the previous three years ($\bar{V}$), i.e. $b = \overline{v}/\bar{V}*100$.

[16] These are tax havens.

[17] Since in the previous pages of the study the term "pillar" has a different connotation, in order to avoid confusion, here we adopt the term "essential case" instead of "pillar" as used in the OECD and EU official documents mentioned.

It is becoming clear that these legal acts lay down the important part concerning the common rules for determining the tax bases of income and profits of companies with trans-state activities. However, they do not provide for full harmonization of the corporate tax system. Member States have the right and the obligation to determine the structure of the tax system, the tax rates appropriate to national and local requirements, and the enforcement policies.

BIBLIOGRAPHY

1. Ad van Riet, 2017, *Addressing the Safety Trilemma: A Safe Sovereign Asset for the Eurozone*, ESRB: Working Paper Series No. 2017/35, 57 Pages Posted: 5 Nov 2020;
2. Aizenman Joshua, 2010, *The Impossible Trinity (aka The Policy Trilemma)*, the Enciclopedia of financial globalization, The University of California, Santa Cruz, Department of Economics, Working Paper Series;
3. Angerer Jost, 2024, *European Parliament, Documents contributing to the creation of new EU legislation*, General fiscal policy;
4. Antohi Leonard, 2016, *The modern concept of the principle of subsidiarity in public international law*, Journal of the National Institute of Justice, Issue 1(36) / 2016 / ISSN 1857-2405, pages 33-39;
5. Beck Hanno, Aloys Prinz, 2012, *The trilemma of a monetary union: Another impossible trinity*, ZBW – Leibniz Information Centre for Economics; Centre for European Policy Studies (CEPS), vol. 47(1), pages 39-43, January;
6. Bibow Jörg, 2012, *IMF Provides Cover for Europe's Dysfunctional Currency Union*, Levy Economics Institute of Bard College;
7. Buti Marco, Giancarlo Corsetti, 2024, *The first 25 years of the euro*, Centre for Economic Policy Research;
8. Buti Marco, Messori Marcello, 2021, *The Euro Policy Mix: From Horizontal to Vertical Coordination*, Centre for Economic Policy Research;
9. Chilarez Dănuț , George-Sebastian Ene, 2014, *Harmonization and Tax Competition at the Level of the European Union*, Management Strategies Journal, Constantin Brancoveanu University, vol. 23(1), pages 83-93;
10. Comisia Europeană, 2021, European Commission: Q&A document on the global agreement on corporate taxation (comments by the Editorial Board), QANDA/21/3564;
11. European Commission, 2023, *Proposal for a Council Directive on Business in Europe: Framework for Income Taxation (BEFIT) and Proposal for a Council Directive on Transfer Pricing* {COM(2023) 532 final};
12. European Commission, 2023, *Commission Welcomes Overall Approach to VAT in the Digital Age*, Accountancy Europe
13. European Council, 2024, *Regulation (EU) 2024/1263 of the European Parliament and of the Council of 29 April 2024 on effective economic policy coordination and multilateral budgetary surveillance and repealing Council Regulation* (EC) No 1466/97;
14. European Council, Council of the European Union, 2024, *Taxing the Digital Economy*;
15. Della Posta Pompeo , Roberto Tamborini, 2021, *The existential trilemma of the EMU in a fiscal target-zone model*, Working Paper 13/2021, Luiss, School of European Political Economy;
16. Dymski A. Gary, 2013, *The Eurozone Crisis as a Trilemma Forcefield: Fleming, Mundell, and Power of Finance*, USR Political Economy Seminar Paper, 2013 – depfe.unam.mx
17. European Council, 2022, *Council Directive (EU) 2022/2523 of 14 December 2022 on ensuring a global minimum level of taxation for multinational enterprise groups and large-scale domestic groups in the Union*;
18. De Grauwe, 2015, *Design failures of the eurozone*, in Richard b Baldwin and Francesco Giavazzi (eds.), *The Eurozone Crisis. Consensus view of the Causes an a Few possible solutions*, CEPR, 2015;
19. Fleming J. M., 1962, *Domestic Financial Policies Under Fixed and Under Floating Exchange Rates*, International Monetary Fund, 9, 369-379;
20. Iancu Aurel, 2025, *Trinitatea imposibilă în Uniunea Economică și Monetară. Moduri de soluționare*, Studii Economice 250821, Institutul Național de Cercetări Economice;
21. Iancu Aurel, Dan Constantin Olteanu, 2023, *Instabilitate financiară, cicluri, politici de stabilizare*, Editura Economică, 2023;
22. Jeanne Olivier, 2012, *Fiscal challenges to monetary dominance in the euro area: a theoretical perspective*, în:

Banque de France, *Public debt, monetary policy and financial stability*, FSR, Financial Stability Review, April;

23. Klein Michael W., Jay C. Shambaugh, 2015, *Rounding the Corner of the Policy Trilemma: Sources of Monetary Policy Autonomy*, American Economic Journal vol. 7(4), p 33-66;
24. Keskin N., 2023, *Debates over the Trilemma ahd Dilemma within the Framework of Monetary Policy Independence Following the 2008 Crisis*, Eskişehir Osmangazi Universtesi Iktisadi Ve Idari Bilimler Dergisi, 18(2), 549-572
25. Lang Sebastian, Wolfgang Schadner, 2021, *The trilemma of expansionary monetary policy in the euro area during the COVID-19 crisis*, Finance Research Letters Elsevier, vol. 42(C);
26. Messori Marcello, Marco Buti, 2021, *The search for a congruent euro policy mix: Vertical coordination matters*, în Policy Insight 113, October 2021, Centre for Economic Policy Research (CEPR.ORG);
27. Moghadam Reza, , 2014, *Maastricht et la crise en Europe: le point sur la situation et les lecon apprises*, Conference BCE/BNB: Progresser málgre la crise?, Bruxelles;
28. Mundel R., 1963, *Capital Mobility and Stabilization Policy under Fixed and Fixed and Flexible Exchange Rates*, published by Mundell R. in 1963 in the Canadian Journal of Economics and Political Science, volume 29, pages 475-485;
29. Negrescu Dragoș, Comănescu Anton, 2007, *Tendințe de armonizare fiscală la nivelul Uniunii Europene. Provocări pentru România*, Institutul European din România, SPOS 2007 ;
30. Obstfeld Maurice, 2013, *Finance at Center Stage: Some Lessons of the Euro Crisis*, European Economy, Economic Papers 493/April 2o13;
31. Panayi HJI Christiana, 2023, *Corporate tax reform in the European Union: are the stars finally aligned?*, Yearbook of European Law, 2023, 42;
32. Peychev Anna, 2022, *Désordre et discipline: l'instrument de protection de la transmission de la BCE*, în European Papers, 2022;
33. Sargent J. Thomas, Neil Wallas, 1981, *Some unpleasant monetarist arihmetic*, Quarterly Review , Federal Reserve Bank of Minneapolis, vol. 5 (Fall)
34. Schoenmaker Dirk, 2011, *The Financial Trilemma*, Economics Letters, Vol. 111, 2011, p. 57-59; Duisenberg School of Finance - Tinbergen Institute Discussion Papers No. TI 11-019 / DSF 7;
    Tabellini Guido, 2015, *The main lessons to be drawn from the European financial crisis*, în Baldwin Richard și Francesco Giavazzi (Edit.), *The Eurozone Crisis A Consensus View of the Causes and a Few Possible Solutions*, (pag. 170 – 176), https://cepr.org/system/files/publication-files/126112-the_eurozone_crisis_a_consensus_view_of_the_causes_and_a_few_possible_solutions.pdf;
35. Villeroy François de Galhau, 2017, *The future of the euro area - from the "impossible trinity" to the "growth triangle"* Text of the 6th Annual Tommaso Padoa-Schioppa Governor of the Bank of France, at the 6th Annual Tommaso Padoa-Schioppa Brussels Economic Forum 2017.