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EUROPEAN MONETARY UNION: HISTORY, FEATURES, AND EXPANSION TOWARDS EASTERN EUROPE

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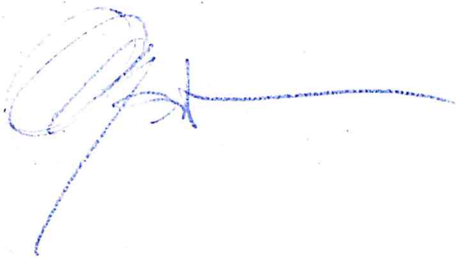

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Ai miei genitori, Pierluigi e Dorina,

i veri artefici di questo meraviglioso traguardo.

A Pier Giorgio, senza di te non ce l'avrei fatta!

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INTRODUCTION

Today, the European Union is composed of 27 States: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden; but only some of them are part of the Euro area so use the Euro as their currency: nowadays, the Euro area, also known as "Eurozone" (EZ), is composed of 20 States, in fact, on 1st January 2023, Croatia became the 20th member together with Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

Admission to the Eurozone is contingent upon meeting and adhering to specific criteria known as the "Convergence Criteria", as outlined by the "Maastricht Treaty". In fact, some EU members are currently working towards fulfilling these criteria to be eligible for Eurozone membership. This European complex machinery, criticized by some, praised by others, is the outcome of a long process, brimful of economic and politic obstacles, started by the "European Monetary System" (ESM) in 1979 and implemented during Jacques Delors's European Commission presidentship; however, the underlying idea of a union of different States under the same currency, was born some years beforehand thanks to the Nobel Prize Robert Mundell and his theory on "Optimum currency areas" (OCA).

CHAPTER 1

The early 1960s were distinguished by the Bretton Wood exchange rate regimes, the beginning of the future process of European integration, and the debate on both sides of the Atlantic about the establishment of a fixed exchange rate regime among the West European Countries. The concept of optimum currency areas originated from the long-standing and controversial discussion surrounding the optimal exchange rate regime: the OCA theory came into being from the juxtaposition of those favourable to the fixed exchange rate regime and those favourable to the flexible one. During the 1950s, authors like Friedman (1953), Meade (1957), Sohmen (1969a), and others studied the choice of the best exchange rate regime. Much of the debate centred on the positive and negative effects of a flexible exchange rate.

Milton Friedman considered the founder of the flexible exchange rate regime monetarism thought, with "The Case for Flexible Exchange Rates" (1953), laid the foundations to the future debate about the OCAs. In his work, Friedman identified some conditions that, a few years later, Mundell would deem fundamental for the functioning of a monetary area. According to the author, not only in a real context characterized by rigidity of prices and wages, but also flexible exchange rates would have ensured a balanced system in which market forces would have acted autonomously to restore balance. The flexibility of rates could have guaranteed the independence of the monetary policies of individual states and could have encouraged the removal of controls on the movement of goods and capital between states. Later, in the 1970s, amid increasing instability following the Great Depression, the collapse of the Bretton Woods system, and the presentation of the Werner Plan, the literature on optimal currency areas and the establishment of their boundaries was enriched by new theoretical contributions.

1.1 The theory of optimum currency areas: from Robert Mundell to the new theories.

The economist Robert Alexander Mundell, professor at Columbia University, Stanford University, and many other prestigious institutions worldwide, often regarded as the father of the Euro, was awarded the Nobel Prize in Economics in 1999 for his analysis of international macroeconomic policy. He demonstrated the significance of the exchange rate regime and how barriers to migration and capital movements stimulate commodity trade. In 1961, Mundell initiated his analysis of "optimum currency areas", laying the foundation for a new theory that gained widespread appreciation among academics. Although some insights were already present in the works of Friedman (1953) and Meade (1957), Mundell's "A Theory of Optimum Currency Areas", published in the "American Economic Review", marked the beginning of a groundbreaking theory. Several other authors, including Ronald Ian McKinnon and Peter Bain Kenen, made valuable contributions.

To fully grasp the theory, let's begin with a brief explanation of the notion of a "currency area". Mundell himself emphasized the need to clarify the distinction between a "currency area" and a "monetary union", two terms often mistakenly used interchangeably.

According to economic literature, a "currency area" is an aggregation of two or more countries that decide to peg their exchange rates. Sometimes, these exchange rates are strictly pegged, while in other cases, they are free to float within a restrained range. It's crucial to highlight the difference between a "currency area" and a "monetary union". In a currency area, countries, while limited in their national monetary policy, can maintain their own central banks. In contrast, countries in a monetary union relinquish their individual currencies for a common one, along with their central banks in favour of a shared authority, a so-called "central bank" that dictates the monetary policy for all member states. Membership in a monetary union implies not only giving up one's monetary policy but also involves a higher level of political integration among all members. Additionally, once a monetary union is established, member countries are not authorized to leave it. On the contrary, belonging to a currency area does not prevent individual members from temporarily detaching themselves from the rigidity of exchange rates. This is why many scholars, such as Eichengreen and Bayoumi (1993) and De Grauwe (1993), believe that a group of states, before uniting under a common currency area, should experiment with joining the same optimal currency area.

Finally, let's define the main concept of this chapter: the "optimum currency area", also known by the acronym "OCA". According to the definition provided by the European Central Bank, an OCA is the geographical area that proves optimal for a single currency or for several currencies whose exchange rates are irrevocably pegged. However, what are the elements that define the optimality of the aforementioned area? Mundell was the first economist to outline the fundamental characteristics of an optimal currency area.

To identify the characteristics of an optimal area, I want to start from a model developed by Mundell in *"A Theory of Optimum Currency Areas"* regarding demand shifting. The author developed his analysis considering two countries, for greater clarity I indicate them as A and B, which are part of a monetary union. Starting from an initial situation of equilibrium in the supply and demand of the two states, figure 1, Mundell hypothesized a change in consumer preferences that shifts the demand from the products of A to those of B. The initial situation illustrated in figure 1 represents the classic curves of aggregated demand (D) and supply (S) in an open economy. The downward sloping demand curve indicates that, ceteris paribus, as domestic prices (P) increase, demand decreases, conversely, the upward sloping supply curve indicates that, in a competitive regime, as prices increase, production

increases. The shift in consumer preferences from A to B is represented in figure 1 by an upward shift in the demand curve of state B and a corresponding downward shift in the demand curve of state A.

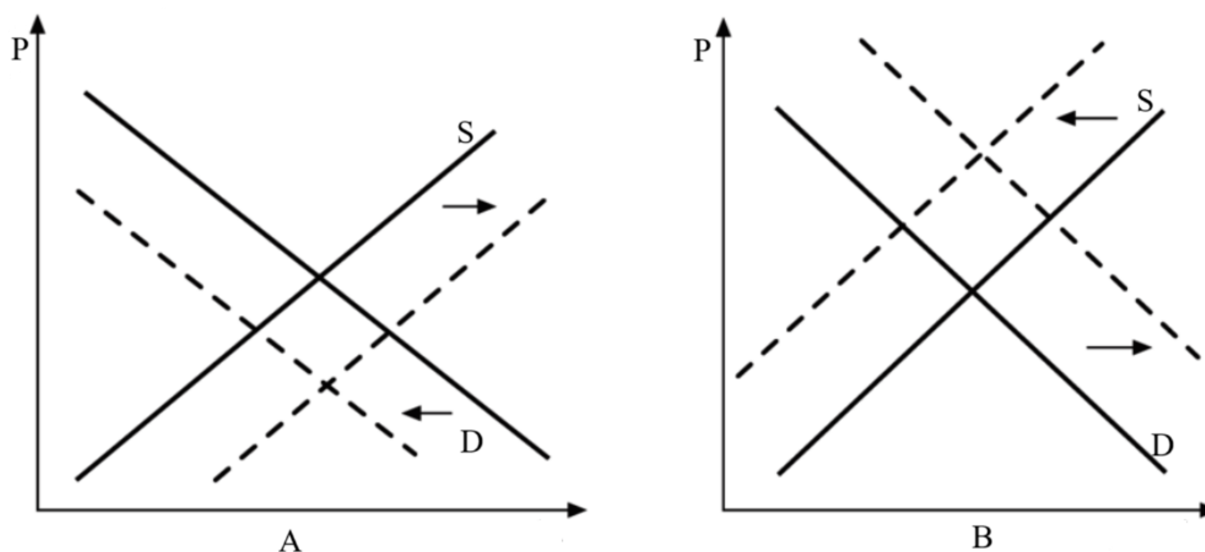

Figure 1

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

As a result of these changes, production decreases in state A, while it increases in state B. Moreover, there will be an increase in unemployment in A and a decrease in unemployment in B. Both countries face an adjustment problem stemming from an asymmetric shock: A experiences growing unemployment due to the decrease in demand and production, while B manages an expansionary phase leading to upward pressure on the price level. However, despite the problems listed above, according to Mundell there are two mechanisms that automatically restore the balance in the two entities: wage flexibility and labour mobility. As far as wage flexibility is concerned, unemployed workers in A will reduce wage demands while in B, due to the expansionary drive, will happen exactly the opposite. The effect of this adjustment mechanism is represented in figure 1 in which the reduction of wages in A shifts the aggregate supply curve downwards, in fact, at the same price the quantity produced is greater, while the supply curve of B, due to the wage increase, moves upwards, in fact, for the same quantity produced the price increases. The mechanism just described in turn affects the demand of the two entities: higher wages and prices in B make the products of A more competitive thus causing an upward shift in the aggregate demand curve of A and, at the same time, an downward shift of the aggregate demand curve of B, however, the wage decrease in A should generate a decrease in the demand for goods by the population A, a factor that could totally or partially compensate for the increase in demand due to the lower prices.

The second mechanism that comes into play in restoring the balance is labour mobility. In the scenario where A and B are part of a monetary union, forming a single economy, the transfer of workers from A to B can alleviate unemployment in A. This movement not only addresses the issue of unemployment in A but also eliminates the excess demand for labour in B. Consequently, this ensures that there is no reduction in wages in A and, simultaneously, an increase in wages in B, eliminating both the problem of unemployment in A and inflationary pressure in B. It can therefore be concluded that if wages are flexible or labour mobility is high enough, the adjustment between the two states hit by asymmetric shocks will happen automatically. Clearly, if none of the conditions described above materialize, the issues in A and B will persist. Additionally, the entry of the two states into the monetary union will limit their ability to resort to the traditional tools of national monetary policy. In conclusion, it can be stated that if wages are rigid and there is no labour mobility, the countries participating in a monetary union will find it more difficult to manage and resolve any asymmetric shock. In this case, any changes in demand can be better managed by countries that have kept their own currency and therefore control over monetary policies. I would also like to highlight the fact that the reasoning advanced up to now is suitable in the case of an asymmetric shock, in fact, if instead the shock is the same for all the states under examination, a monetary union would be a better regime as it would avoid the triggering a spiral of devaluations and counter valuations that could compromise the economies of all the participating states.

The main feature highlighted by the traditional theory of optimal currency areas, as developed by Mundell, is the fact that, when a state joins a monetary union, it loses its monetary independence and therefore the ability to manage asymmetric shocks. However, Mundell's theory is incomplete because the loss of monetary independence has another fundamental consequence: it radically alters the ability of governments to finance their budget deficits. When states give up their own currency to adopt the common currency in a monetary union, they give up the possibility of issuing their own debt securities in a currency that they control. For example, Italy until 2002 issued its debt securities in Liras, a currency under the total control of the Bank of Italy. From 2002 onwards, with the adoption of the Euro, Italian debt securities are issued in Euros, a currency over which our state has no control. All the other states belonging to the Eurozone find themselves in the same situation. The importance of the newly introduced issue cannot be underestimated since the lack of control over the currency means that governments cannot guarantee with absolute certainty that they will have sufficient liquidity to repay the holders of the debt securities at maturity. This happens due to the lack of a national central bank capable of providing the government with liquidity in case the latter should run out of liquidity. For example, in a time of crisis, a state may find itself in difficulty and not have sufficient liquidity in circulation to repay its debt securities. Obviously, if the state in question has its own currency and

its own central bank, it can intervene by issuing new liquidity to cover the securities collected, on the contrary, if the state is part of a monetary union it would no longer have control over the currency and therefore would no longer be able to guarantee its ability to repay the debt. The fact that governments are unable to guarantee the holders of their public debt securities repayment at maturity has the consequence that the financial markets will be able to drive those countries into forced insolvency. This will hardly happen to countries that are not part of a monetary union in fact, the financial markets will not be able to reduce them to forced insolvency given that they, in the event of a lack of liquidity, will be able to ask their central bank for the issue of new money.

A further aspect to consider is the effect that any asymmetric shock has on public debt dynamics. Returning to Mundell's model with the two countries A and B, the consequences of a possible asymmetric demand shock and possible solutions were analysed, however, it must be considered that the shock will also have consequences on the state budget. How will this affect the adjustment process? As previously specified, starting from a situation of equilibrium of the balance of payments and full employment, a negative demand shock occurs in A. This fact causes in A a contraction of both demand and, consequently, occupation. This, in turn, will lead to a decline in GDP which will lead to a decline in tax revenues, which will probably be more than proportional to that in GDP given that tax systems are generally progressive. Concurrently, as state revenues decline due to the reduction in GDP, the rise in unemployment contributes to an increase in public spending. By adding these two factors, one can immediately deduce that there will be an increase in the budget deficit. The severity of this situation will depend on the extent of the decline in demand: if it is severe, the relative increase in the state budget deficit of A may be considered by the financial markets to be so severe as to render the state insolvent. This would lead investors to sell the A securities in their portfolios and this fact would generate an increase in the interest rate of the A debt securities and even a liquidity crisis. As a result, A’s demand curve will shift further to the left.

From what has just been analysed, it is evident that the theory proposed by Mundell has some significant gaps. Other authors have therefore revised the theory, enriching it with important contributions. In his 1963 article titled *"Optimum Currency Areas"*, Ian McKinnon builds on Mundell's ideas but introduces a new perspective by developing a concept of an optimal currency area based on three factors. These three factors are: the degree of openness of an economy, determined by the ratio of tradable goods to non-tradable goods; the need to reconcile external and internal balance; and the internal stability of the price level. While Mundell sees an optimal currency area as one that maintains balance through the mobility of production factors and flexible wages, McKinnon's conception of an optimal currency area is characterized by full employment, price stability, and the

maintenance of a balanced balance of payments. According to McKinnon, the mentioned characteristics can be achieved through specific monetary and fiscal policies. McKinnon's contribution to the Optimum Currency Area (OCAs) theory, as previously mentioned, involved introducing new elements to enhance the theory initiated by Mundell. Specifically, McKinnon introduces a distinction between goods produced within an economy, categorizing them into tradable goods and non-tradable goods. Following in the footsteps of R. F. Harrod[1], McKinnon highlights the main difference between these two types of goods, emphasizing that non-tradable goods cannot be transported. More specifically, tradable goods are divided into two categories: exportable and importable goods. The former are goods produced domestically and, to some extent, exported, while the latter are goods produced domestically but also imported from abroad. This distinction, crucial in McKinnon's theory, forms the foundation for the model developed by the author.

Starting with the ratio of tradable goods to non-tradable goods, McKinnon asserts that the excess of exportable goods produced compared to those exported depends on the quantity of goods consumed domestically. This ratio will be lower if the production of exportable goods is highly specialized in the production of a few goods. Similarly, the excess of importable goods consumed domestically compared to those imported depends on the specialized nature of imports. The value of exportable goods produced must not be equal to the value of importable goods consumed. McKinnon highlights the main differences between the two types of goods, focusing on the possible effects of a shock on the level of their prices. McKinnon made a significant contribution to the theory of Optimal Currency Areas (OCAs), introducing two key criteria to assess the suitability of an area for an optimal currency zone. These criteria are:

1. Degree of Openness of the Economy: This is defined as the ratio of tradable goods to non-tradable goods produced by an economy. McKinnon explains that fixed exchange rates favour more open economies, while flexible exchange rates favour more closed economies. If an economy experiences a negative shock to the terms of trade, the depreciation of the exchange rate would lead to an increase in the prices of tradable goods, necessitating a contraction of domestic demand to lower the prices of non-tradable goods. In summary, more open economies require a more significant contraction of demand in response to shocks.
2. Size of the Economy: McKinnon emphasizes that more open economies are often smaller in terms of GDP. Consequently, smaller economies are considered more favourable candidates

[1] Sir Roy Harrod, born John Richard Nicholas Harrod (1900–1978), was a British economist. He is best known for his contributions to economic theory and policy, particularly for his work on economic growth and the theory of investment. Harrod's most influential work is probably his development of the Harrod-Domar model, which he introduced in the 1939 book "An Essay in Dynamic Theory."

for a monetary union. He also suggests that changes in nominal exchange rates are less efficient in relatively open economies in altering terms of trade and less useful as adjustment mechanisms. This could lead to rapid and destabilizing changes in domestic wages and prices.

McKinnon concludes that, in the presence of trade balance problems, smaller economies should consider alternative tools such as fiscal policies rather than changes in nominal exchange rates.

The third influential contributor to the Optimal Currency Area (OCA) theory is P. Kenen, whose 1969 publication, *“The theory of optimum currency areas: an eclectic view”*, delves into the impact of shocks on exported goods, introducing three additional criteria to the OCA theory. The first criterion, fiscal integration, is pivotal for evaluating the suitability of a currency area. Kenen emphasizes that stronger fiscal integration between two regions enhances their ability to handle asymmetric shocks. This is achieved through fiscal transfers from regions with lower unemployment to those with higher unemployment. The second criterion suggests that two regions with similar production structures and high labour mobility are ideal candidates for a monetary union formed by these regions. If both regions share comparable production structures and labour mobility is high, shocks to terms of trade (such as those affecting specific sectors) are likely to affect the regions symmetrically. The third criterion arises from Kenen's observation that perfect labour mobility is rare. Instead, he favours the "product diversification" criterion. Consider a less diversified country with a single exported product. If this country faces a negative demand shock reducing exports significantly, a flexible exchange rate can mitigate the decline by depreciating the currency. Under a fixed exchange rate regime, adjustments would require reductions in wages and prices or an increase in unemployment. Conversely, in a well-diversified economy with a broad range of export sectors, shocks in various sectors automatically offset each other due to diversification. This reduces the need for frequent adjustments to terms of trade through changes in the exchange rate. It becomes evident that diversified economies are better suited to be part of a monetary union.

The authors just mentioned, laid the foundations of the Optimal Currency Area (OCA) theory by introducing the criteria discussed earlier. However, over time, literature on this topic has continued to evolve, leading to new developments and criteria. Below is a comprehensive list of the key criteria of the OCA theory:

1. Price and wage flexibility: refers to the ability of prices and wages to adjust freely in response to economic changes. Flexible prices and wages facilitate adjustments to shocks.

2. Labor mobility: involves the ease with which labour can move between regions or countries. High labour mobility allows workers to relocate in response to economic disparities.
3. Integration of financial markets: describes the level of interconnectedness and integration among financial markets. A high degree of financial market integration implies easier capital flow and risk-sharing.
4. Degree of openness of economies: relates to how open an economy is to international trade. More open economies have a higher ratio of tradable goods to non-tradable goods.
5. Product diversification: involves the variety of products an economy produces. Diversified economies are less vulnerable to shocks in specific industries.
6. Similar inflation rates: implies that regions or countries within a currency area should experience similar rates of inflation to avoid imbalances and distortions.
7. Degree of synchronization of economic cycles and shocks: refers to the alignment of economic cycles and the occurrence of economic shocks among regions. Higher synchronization reduces the risk of asymmetric shocks.
8. Level of trade integration: indicates the extent to which regions or countries are interconnected through trade. Higher trade integration fosters economic ties and interdependence.
9. Fiscal and political integration: involves the extent to which fiscal and political policies are coordinated or integrated across regions. Greater integration allows for coordinated responses to economic challenges.

The criteria just listed are essential to understand the reasons that drive countries to adopt the Euro and abandon their own currency. In the upcoming chapters, I will delve deeper into the structure of the "Eurozone" system and examine the situation regarding the extension of the Eurozone to some countries in Eastern Europe.

1.2 Monetary unions around the World.

Previously, it has been seen how a group of states can benefit from belonging to a monetary union: greater ease in trade relations, lower costs, increased market security, and greater economic and financial stability. Of course, these benefits are also accompanied by costs; however, in most cases, the benefits outweigh the costs. Currently, on a global scale, there are several monetary unions, each of which involves the use of a single currency across multiple states. Except our monetary union, some of the most notable ones are the following.

In *"Economics of Monetary Union"*, Paul De Grauwe analyses the monetary unions in Africa. In fact, the continent boasts three of them: the Southern African Monetary Union and the two francophone

unions in West and Central Africa. Additionally, there are ongoing initiatives in the region aimed at expanding them.

One of them is represented by the Economic Community of West African States (ECOWAS), an organization born in Lagos, Nigeria, on 28th May 1975, from the union of 15 states (Benin, Burkina Faso, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sierra Leone, Senegal, and Togo) with the aim of promoting a single trade bloc capable of integrating its member states to achieve economic self-sufficiency. The union focuses not only on the purely economic aspect but also on comprehensive integration with the gradual elimination of border controls and the visa system, as well as other elements and activities such as infrastructure, social, and cultural issues. The organization describes its activity goal as follow: *"The aim of the Community is to promote cooperation and integration, leading to the establishment of an economic union in West Africa in order to raise the living standards of its peoples, and to maintain and enhance economic stability, foster relations among Member States and contribute to the progress and development of the African continent."*.

In addition to the aforementioned objectives, the organization has repeatedly expressed the desire to create a single currency: the Eco. It represents an old project that has been announced several times and postponed just as many times. In fact, the original idea envisaged the adoption of the Eco as far back as 2003. The adoption was then postponed to 2005, 2010, 2014, and 2020, still the Eco has not yet been put into circulation. Nonetheless, the countries involved have planned all the criteria that individual countries would have to meet to join the single currency:

1. An annual deficit of 3%.
2. A limit on central banks deficit financing of less than 10% of the revenues of the previous year.
3. An annual inflation rate lower than 10%.
4. A specific level of foreign currency reserves to be held in the state's coffers.

Many have criticized these parameters, considering them difficult to achieve and, above all, to maintain. Furthermore, some member states, such as Nigeria, could represent both a strength and a weakness for the monetary union: on one hand, it could drive the development of the union, but on the other hand, there is also the risk that something could go wrong, and Nigeria could potentially disrupt the economies of the other, economically weaker members. Currently, the adoption of the Eco is planned for 2027, all that remains is to wait.

It's also worth mentioning The Eastern Caribbean Currency Union (ECCU), the organization formed by Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. This group of countries uses, under the control of the Eastern Caribbean Central Bank, a common currency: the Eastern Caribbean Dollar.

Lastly, it can be mentioned the Economic and Monetary Community of Central Africa (CEMAC), which includes Cameroon, Chad, Gabon, Equatorial Guinea, the Central African Republic, and the Republic of the Congo. These countries use the Central African CFA Franc as their common currency.

CHAPTER 2

After considering the theoretical contributions to the origin of the European Monetary Union, it is now opportune to briefly examine the historical framework. This examination will help us understand the most important milestones that have marked the more than seventy years of the European institutions' existence, from the Treaty of Paris on 12th April 1951 to the Lisbon Treaty signed on 13th December 2007, and up to the economic governance reform adopted to address the economic and financial crises of recent years. These results represent a complex and challenging evolution that has guided the European Union to the present day and continues to influence it.

2.1 A brief history: from "the snake in the tunnel" to the Euro.

The idea of a European continent no longer divided into many states perpetually in conflict with each other has been affirmed since the nineteenth century, providing food for reflection and discussion to philosophers, political thinkers, and statesmen. Even the concept of economic integration between states was nothing new among early 20th century scholars and political figures. Already in 1800 there were attempts, albeit embryonic, to initiate economic integration between European states. Think about the *"Deutscher Zollverein"*, a customs union implemented in 1834 in the wake of the ideas of the German economist Friedrich List and the Prussian customs union of 1818. It represented a customs union between some states of the German area whose main objective was to improve the conditions of the circulation of goods between states through the demolition of the many duties that stood between their exchange. This structure, implemented over the years, led in 1876 to the establishment of the "*Reichsbank"* and the introduction of a common currency, the gold Mark, among some states.

I can also recall the Latin monetary union, an institution born on 23rd December 1865, in Paris. Initially, France, Belgium, Italy, and Switzerland joined it and, a year later, Greece also joined. At its origin it can be identified the turbulence on the precious metals market in the mid-1800s due to the discovery of large quantities of gold in Australia and America, a fact that increased the prices of silver and gold, causing imbalances between the values of the coins which at that time were produced with the just-mentioned metals. A third historical example of a European monetary union is that of the Scandinavian monetary union established between Denmark, which then also included Iceland, Sweden and Norway. It allowed the three states to use common currencies that were freely in circulation and had legal value in the three nations, furthermore, since the basis of the three currencies was a gold Crown, the gold parity also entailed a regime of fixed exchange rates with the states adopting the gold standard as the British and German Empires. Since then, many events that have marked our history have occurred in Europe, however, the event that most changed the continent was the Second World War.

At the end of World War II, the continent of Europe and its people, affected by the devastation of years of war, which brought unspeakable destruction and enormous loss of human lives, especially among the civilian populations, realize that peace was the word. By now it was clear that military actions would only bring death and sufferings and that the common goal was the achievement of peace among the European people and the attempt to create an ever-closer union between them. That was how European politicians brought to light a series of initiatives which gave way to the process of European integration which is still in execution. Initially, this movement of ideas did not concern the entire European continent but only took hold among the states of Western Europe, a situation further emphasized by the nascent opposition between the pro-American and pro-Soviet blocs. As already underlined above, in modern times, it was clear to everyone that the pacification of the European states that had participated in the war had to arise from some form of collaboration. This collaborative spirit was embodied by various politicians of the time, the so-called "Fathers of Europe", among whom stand out: Konrad Adenauer, a German politician and statesman; Robert Schuman, a French politician; Jean Monnet, a French politician; and Alcide De Gasperi, a politician and Italian patriot. The conviction of having to follow the path of collaboration and cooperation on the continent was further strengthened by the feeling of being between two fires, namely the rivals of the subsequent Cold War, the USA, and the USSR. Although in the immediate post-war period the first attempts aimed at the unitary goal were unsuccessful, above all due to the very tense relations between the various states, starting from 1947, France, Italy, the Netherlands, Belgium, and Luxembourg, hypothesized the creation of a "customs union" capable of facilitating trade and reviving the European economy. This very first attempt at collaboration soon collided with reality and therefore with the aftermath left on the continent by the war: Germany, the main antagonist of the states protagonists in the project, represented a fundamental element of European trade, and in the creation of such a structure, the projected customs union would not have held up with the exclusion of Germany. Soon, the other European powers realized that the immediate recovery of Germany was of vital importance to the well-being of all economies.

A first step towards the recovery of the continent was the so called “Marshall Plan”. The "European Recovery Program", better known as the "Marshall Plan", was a plan conceived by George Marshall, the then US Secretary of State. Its aim was to create an environment of cooperation and collaboration in Europe through economic aid provided to the Old Continent by the United States of America. The Plan, consisting of a loan of approximately 17 billion US Dollars, had a duration of four years, from the spring of 1948 to the summer of 1952. Its main objectives were as follows: preventing the collapse of international trade, promoting European economic stability threatened by communism, safeguarding American strategic interests in Europe, encouraging economic and military integration

in Europe and reintegrating Germany into the European economic and social environment. Thus, the first post-war supranational body was born in Europe: the "Organization for European Economic Cooperation" (OEEC), created to manage, coordinate, and distribute the resources received from the United States through the “Marshall Plan”.

The common goal of all forces that participated in the war was the transition of European states toward peace and cooperation. The United States itself, with the "Marshall Plan", had as its primary objective the creation of a collaborative European area to prevent future conflicts. Europe, as we know it today, owes its existence to the collective efforts of many. The economic and monetary union is the outcome of gradual economic integration aimed at promoting increasing economic prosperity among European states. Despite the challenges faced over the years, today, the European Union comprises 27 member States, with 20 of them having already adopted the single currency.

The slow and complex process initiated by European states in the post-war period was far from smooth and linear. It was influenced significantly by the system established in 1944 at Bretton Woods. The first steps towards a united future involved attempts to create a customs union between states, but the initial project failed. However, despite the difficulties and uncertainties, the idea of forming a customs union persisted. Negotiations continued and various organizations were established, including "Fritalux", named after the initials of the member countries (France, Italy, Belgium, and Luxembourg), and the "Finibel", which included France, Italy, the Netherlands, Belgium and Luxembourg. Although these initiatives also faced setbacks, they prompted a reaction from the United States. Given the substantial resources invested through the Marshall Plan, the United States insisted on fostering cooperation and collaboration among European states. This stance taken by the victorious overseas nations provided momentum to the union project. As a result, in the early 1950s, three customs and economic union projects were introduced:

1. The Stikker Plan, also known as the "Action Plan for European Economic Integration", derives its name from the then Dutch foreign minister who presented it to the OECD. The plan, in addition to advocating for the removal of customs barriers and trade obstacles in each industrial sector with precise rules, also envisioned the establishment of a European integration fund. This fund aimed to bring all sectors to a uniform level, facilitating the achievement of the plan's objectives.
2. The Pella plan, also known as the "Italian Memorandum for European Economic Integration”, served as Italy's response to the aforementioned Stikker Plan. The Italian delegation found the Dutch proposal of proceeding with sectoral liberalization to be challenging to implement in practice. Moreover, they believed that the abolition of duties would exacerbate the existing

economic disparities among the various countries. According to the vision of the Pella Plan, an alternative solution to the Stikker Plan was the establishment of a "Preferential Zone" where transactions would be fully liberalized, quantitative restrictions eliminated, tariffs gradually reduced and there would be increased labour mobility within the borders of Europe.

3. The Petsche Plan, which can be seen as a continuation of negotiations previously initiated between Italy, France, and the members of the Benelux, had its main objective as the establishment of a European Bank to assist individual States.

Despite the efforts of various countries, none of the three plans proved viable and all the projects were abandoned. However, despite their clear failure, they laid the foundations for the future European history. The description provided thus far reflects not only the US attempt to encourage European states towards greater cooperation and collaboration but also France’s desire to limit Germany's potential to regain continental power. It is from these very circumstances that the great European project will emerge.

The European project took shape on 9th May 1950, the day on which Europe Day occurs every year, with Robert Schuman’s declaration. In his speech, held in Paris at the Foreign Ministry headquarters in Quai d'Orsay, Schuman underlined the need for all European States to make efforts to counter the obstacles that have always led to hostilities between them, particularly between France and Germany, and announced the proposal by the French Government to undertake a collaboration, with Germany and the other States that wished to participate, capable of uniting, under a "High Authority", the production of coal and steel, an industry that was not only fundamental, above all, for the Franco-German region, but which has always been exploited for the production of armaments. According to Schuman, the establishment of this organization, would not only have guaranteed the maintenance of peace within the nascent European Federation but would have laid the common foundations for economic development. Thus, almost a year later, in Paris, on 18th April 1951, West Germany, France, Italy, the Netherlands, Belgium and Luxembourg signed the treaty for the management of their heavy industries: the Treaty of Paris, formally the Treaty establishing the European Coal and Steel Community (ECSC), entered into force on 23rd July 1952. The ECSC was founded on the Stikker Plan and was the result of European, but above all French, awareness that a commercial union from which Germany was excluded would have failed. Meanwhile, European politicians were pursuing new projects aimed at broadening the integration process. In the same years of the Schuman Plan, Jean Monet, already a protagonist of the aforementioned Plan, presented a project for the establishment of a common European defence body. Its objective was mainly to avoid the reconstitution of a German army that could jeopardize European peace; thus, it was that the

consultations between France, Germany, Italy, and Benelux took off for the constitution of a "European Defence Community" (EDC). However, despite the efforts, it was immediately clear to everyone that the project could not have come to life without the existence of a single political entity to defend. It was for this reason that an article, which subordinated the birth of the common European army to the creation of a single political entity, the "European Political Community" (EPC), was inserted in the treaty establishing the EDC. Thus, it was that in the spring of 1952, the countries belonging to the ECSC signed the EDC Treaty and entrusted the creation of the EPC to the ECSC. However, due to the different views, the European countries did not reach an agreement on the establishment of a single European political entity, in fact, despite the "Beyes Plan" proposed by the Netherlands to eliminate customs duties between the participating states and at the same time to set up common external customs barriers, the creation of the EPC and, consequently, of the EDC failed. Despite the failure, the efforts put in place for the creation of the EDC and the EPC mitigated the points of discord between the various states. Thus, in the consultations held in Messina on 1st and 2nd June 1955, an intergovernmental committee was created with the aim of starting the process of creating the European Economic Community through the creation of a common market for the six states belonging to the ECSC, the abolition of customs tariff barriers and the creation of an atomic energy community. In the wake of the Messina consultations, on 25th March 1957, two treaties were signed: the treaty which established the European Economic Community (EEC) and the Treaty establishing the European Atomic Energy Community (EAEC or Euratom). In the aftermath of the treaties signed in Rome, the framework of European community integration begins to present a certain complexity but a good functioning.

I have repeatedly highlighted the desire that the European people had for the idea of creating an economic, political, and monetary union after the Second World War. However, when can the integration process between states be considered complete? An economic and monetary union (EMU) is part of the process of economic integration, it can be said to represent almost the highest point of the process. This does not mean that all processes of economic integration necessarily lead to monetary union. In fact, independent states can decide on a various degree of integration in their economies. The economic literature categorizes the degree of economic integration into six phases, each of which offers member states increasing advantages in terms of greater efficiency and internal stability:

1. Preferential trading area: it implies reduced customs duties between certain countries.
2. Free trade area: between the countries belonging to, the customs duties are abolished for specific types of goods or for all types of goods.

3. Customs union: the member countries share a common commercial policy and apply the same duties to third countries.
4. Single market: the States within it have common standards on products and participate in the free movement of goods, capitals, and people.
5. Economic and monetary union: the States belonging to it participate in a single market with a single currency and a common monetary policy.
6. Complete economic integration: the States that reach this stage possess all the characteristics belonging to the five previous categories, moreover, there is harmonization between their budgetary policies and all the economic policies adopted.

The degree of economic integration within the European Union is not uniform. Taking into consideration the six phases defined above, the current situation appears to be a hybrid between phases 4 and 5. All member States of the European Union are part of the Economic and Monetary Union (EMU) and constitute a common market in which goods, services, capital and people can circulate freely. Furthermore, all 27 states coordinate their economic policies to meet the "economic convergence criteria" for admission to the Euro zone. This involves sharing not only the currency but also adopting a common monetary policy under the direction of the European Central Bank (ECB). The process that started after the Second World War has as its objectives the implementation of a common policy aimed at maintaining price stability, avoiding macroeconomic imbalances of the member States by coordinating their economic policies, avoiding crisis situations due to unsustainable public finances, and ensuring the guarantee of good internal market financing. Considering the different stages that led to the Monetary Union as we know it today, I define five distinct phases:

1. 1957-1970: from the Treaty of Rome to the Werner Plan.
2. 1970-1979: from the Werner Plan to the European Monetary System (EMS).
3. 1979-1991: from the beginning of the European Monetary System to the Maastricht Treaty.
4. 1991-1999: from the Maastricht Treaty to the Euro.
5. 1999-today: from the original Euro area of the eleven to the actual Euro area of the twenty.

The European Union bases its structure on a series of treaties that regulate its functioning. I will now review the defined periods and the treaties that characterized them. With the Treaty of Rome, which entered into force in January 1958 and, over the years, has been modified several times to its current version known as the "Treaty on the functioning of the European Union", the European Economic Community was established. Six countries (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands) adhered to it. The primary goals included improving cooperation between states, promoting economic growth, and creating a common market based on the free movement of goods,

people, services, and capital. This common market aimed to advance European political unification. In this sense, the Treaty of Rome also gave rise to the first European political institutions:

1. The Council of Ministers is a body composed of representatives from individual member states. They directly represent their respective member states and primarily serve a legislative function. The Council safeguards the interests and needs of individual states, as regulations require unanimous approval.
2. The Commission is composed of individuals who are not bound by a representation obligation to any member state. They bring their professional experience and independent judgment to the institution. The Commission is appointed through mutual agreement between the Member States and is tasked with representing common interests. Its primary function is regulatory, as it is responsible for drafting proposals and submitting them for approval by the Council. The Commission is duty-bound to uphold the Treaties and ensure their implementation, along with the legal principles that arise from them. It possesses executive authority in the execution of common policies.
3. The Parliamentary Assembly is an embryonic organ of the future Parliament and serves primarily for coordination and supervision functions.
4. The Court of Justice is composed of one judge for each Member State, assisted by advocates. The primary functions of the Court of Justice are judicial in nature.

In addition to the institutions mentioned previously, the Treaty of Rome also established three bodies to assist member states in the integration process:

1. The European Development Fund (EDF) was introduced in the Treaty through articles 131 and 136, with the goal of providing technical and financial aid for the development of states that had historical relations with some European countries as colonizers.
2. The European Investment Bank (EIB) was established with the role of providing financing to Member States, enabling them to enhance their job and growth potential, support climate initiatives, and promote EU policies beyond its borders.
3. The European Social Fund (ESF) is a European fund that finances initiatives designed to promote and support employment in the Member States.

The Treaty of Rome was the first step toward the creation of what we now know as the European Union. However, it paid no attention to the monetary policy that member states would adopt. This oversight was due in part to the context of the Bretton Woods era, during which the founding fathers of the European project assumed that monetary stability would continue to be the norm. Nevertheless,

this assumption did not hold true. So, I will take a step back and briefly analyse the monetary system established at Bretton Woods.

The process of integration among European states after the Second World War initiated within the framework established by the Bretton Woods agreements. Economist John Maynard Keynes and senior US Treasury official Harry Dexter White were the architects of the Bretton Woods project. The system, resulting from negotiations among major industrialized countries, was established in 1944 and lasted until 1971 when it was replaced by the Smithsonian Agreement due to its malfunctioning. The Bretton Woods accords represented a shared commitments to construct a new a new global monetary order. They were the outcome of Anglo-American planning for post-World War II international policies aimed at building an international economic order that would prevent economic stagnation, trade disputes among nations, bilateralism in international trade, and the aggressive use of devaluation policies. For the market economies of Europe, the United States, Japan, and the 44 countries participating in the conference, Bretton Woods provided the international framework for monetary stability. In brief, it was an asymmetric system in which the United States, the sole country able to exchange dollars for gold, bought and sold gold to maintain the value of $35 per ounce of fine gold. Other signatory states fixed their currency parities with respect to the dollar instead of gold. As a result, the dollar, as the intervention currency, became the dominant currency in the Bretton Woods world. Within this framework of monetary stability, the process of European integration was born and developed during its early years. It was in this context of apparent currency stability that the architects of the Treaty of Rome envisioned the possibility of creating a customs union and a common market, enabling the free movement of goods, services, people and capital.

The first step towards the new goal set by European politicians came in 1962 with the Common Agricultural Policy (CAP). It represented the initial attempt at understanding between the category of European farmers and the emerging European society. The primary objectives of the CAP were to support farmers in improving productivity, raising their standard of living, addressing environmental and climate changes, and ensuring a common price regime for all European farmers. However, a new wave of turbulence was on the horizon for the European project. By the late 1950s, the Bretton Woods system was showing signs of strain. The situation took a decisive turn between 1968 and 1969 when market turbulence forced a revaluation of the German Mark and a devaluation of the French Franc. Consequently, on 15th August 1971, then US president Richard Nixon declared the inconvertibility of the dollar into gold, marking the end of the Bretton Woods monetary system. A new era of monetary instability cast its shadow over the entire world. With the demise of Bretton Woods, fixed exchange rates between currencies ended, giving way to flexible exchange rates and increased risks

for long-term investments in the real economy. Dollars, no longer tied to gold reserves held by the USA, began to be printed "as needed". The situation was further compounded by the 1973 oil shock, as the price increases imposed by OPEC may not have posed a problem for the USA, given that the increase was merely nominal. However, for the rest of the world still reliant on the dollar as a reserve currency, a series of economic crises began to unfold. In this context, the common price regime established within the framework of the Common Agricultural Policy, which was the most crucial goal of the European community at the time, began to falter.

Despite the present and future difficulties, European politicians did not lose heart. In 1969, the project known as "Plan Barre", also called the Barre Report or Commission Memorandum to the Council on the Co-ordination of Economic Policies and Monetary Co-operation within the Community, prepared by the then Vice President of the European Commission, Raymond Barre, was accepted. The report proposed greater economic coordination of short-term economic policies, convergence of national economic policy objectives in the medium term, and the establishment of a community mechanism for monetary cooperation involving short-term interventions, monetary support, and the possibility of medium-term financial assistance. This brought new impetus, and at the Hague summit of the same year, EMU was formalized as an objective.

A high-level group was formed, chaired by the then Prime Minister of Luxembourg, Pierre Werner, tasked with drafting a report on the means to achieve EMU by 1980. In October 1970, the Werner group presented its final report, known as the "Report to the Council and the Commission on the Phased Implementation of Economic and Monetary Union in the Community" or simply the "Werner Report". The project was ambitious, aiming for the completion of the Economic and Monetary Union by 31st December 1980. The report suggested strategies for currencies with irrevocable compatibility, free movement of capital, and permanently fixed exchange rates. Inspired by the growing economic and commercial integration within the EEC member countries, the Werner Plan aimed to overcome challenges associated with different monetary policies and exchange rates. It proposed a progressive harmonization of economic, fiscal and monetary policies with the ultimate goal of establishing a single European currency. The plan outlined three stages of implementation:

1. Convergence Phase: Member countries were expected to adopt policies aimed at achieving greater economic stability and convergence of their monetary and fiscal policies.
2. Coordination Phase: This phase involved coordinating the monetary policies of member countries, establishing fixed exchange rates, and easing restrictions on the movement of capital.

3. Monetary union phase: The plan’s ultimate goal was the introduction of a single European currency, expected to be realized by the end of the 1980s.

Although Werner's plan was welcomed by many EEC member states, it was never fully implemented as originally planned. Various political and economic challenges, along with differences of opinion among member countries, made reaching a complete consensus on the plan’s implementation difficult. Werner's strategy assumed fixed exchange rates pegged to the US dollar; however, as mentioned earlier, in 1971, the USA decided to decouple its national currency from gold, allowing it to float freely. This decision caused significant instability in world markets. In Europe, the German Mark faced upward pressure, while other currencies like the British Pound or the French Franc suffered due to strong devaluation. Despite these challenges, the leaders of the European Economic Community persevered.

The first attempt to address the damage caused by the dissolution of the Bretton Woods system was the introduction of the Smithsonian Agreement in 1971, signed by the G10 members. The agreement included a 7.9% devaluation of the US dollar, setting an exchange rate of $38 per ounce of gold but without restoring its convertibility. For European countries, the agreement resulted in a system of joint currency fluctuations. New parities were fixed based on the results of fluctuations during those months, and the margins of fluctuation of exchange rates were widened to 2.25%. Adherence to the Smithsonian Accords marked the beginning of the process leading to the creation of the "European Snake in the tunnel".

Despite the failure to fully implement the Werner Plan, its underlying ideas and principles significantly influenced the process of European integration. The European Monetary Union (EMU) and the subsequent introduction of the Euro as a single currency in 1999 can be seen as a later realization of some of the original objectives of the Werner Plan.

In the early seventies, the integration process slowed down, influenced by the internal political situation of European states. Germany, driven by social democratic party’s rise to power, was focused on the project of reunification with the German Democratic Republic. Meanwhile, Italy was grappling with the issue of internal terrorism. During this period, France, historically resistant, extended an invitation to Great Britain to join the European Economic Community. However, this stalemate was disrupted by the collapse of the Bretton Woods Agreement, compelling the nascent "European Union" to consider intervention in the monetary field. In 1972, an agreement was thus established among the EEC members at the time - Italy, France, Germany, Belgium, the Netherlands, and Luxembourg – known as “The monetary snake in the tunnel”.

The agreement was named "Snake in the tunnel" due to its structure: a mechanism for managing the fluctuation margin designed to keep it stable and narrow between the currencies of different European states and between these currencies and the dollar. European currencies, therefore, symbolize the snake navigating within the narrow margins (the tunnel) against the Dollar. This agreement can be considered the first attempt to create a currency area at the community level following the collapse of Bretton Woods and the failure of the Smithsonian Agreement. In addition to the original six members of the EEC, the United Kingdom, Ireland, Sweden, Norway, and Denmark also participated in the agreement. Stepping back, let's take a more detailed look at how the "Snake in the tunnel" operated.

The program outlined in the Werner Report never materialized. From the start, the upward fluctuation of the German Mark and the Dutch Guilder in the spring of 1971 disrupted the closely related parity system. Consequently, in the winter of the same year, the decision was made to widen the limits of official intervention to 2.25% on both sides of the parities with the US Dollar. However, this choice allowed substantial potential variations between each pair of EEC currencies, even up to 9%, posing challenges in managing the Community agricultural policy and eliminating the possibility of mercantile rivalries in fixing exchange rates. Thus, the EEC gave rise to the "snake".

The objective of the "currency snake" was to halve the permitted parity variations between each pair of EEC currencies or to keep bilateral variations within 4.5%. The system operated through state interventions when the appreciation or depreciation of European currencies reached the 2.25% limit. Governments had the authority to intervene by selling (in the case of the stronger currency) or buying (in the case of the weaker currency) to restore the balance between the two target currencies. Both the state with the hard currency and the one with the weak currency had this intervention power. The latter, in particular, had to borrow the appreciated currency to buy its own depreciated currency on the market.

Meanwhile, the US faced inflation, and the Dollar began to depreciate, reaching a peak of 10% in the spring of 1973. Due to recurring currency problems, economies abandoned the fixed exchange rate regime, and all currencies were left free to float. In Europe, despite the difficulties, EEC member states decided to continue the policy implemented with the "snake in the tunnel", abandoning the constraints imposed by the oscillation band against the Dollar, maintaining a minimum spread between the European currencies and assuming a joint with the Dollar. They maintained a minimum spread between European currencies and maintained a joint position with the Dollar.

In this context, the European Monetary Cooperation Fund (FECOM) was established in 1973, dissolved on 1st January 1994, with the task of intensifying cooperation between member states

committed to achieving economic and monetary union. In the same year, the EEC expanded to include Great Britain, Denmark and Ireland, states that were already members of the "Snake".

The system faced a crisis when European states became victims of external shocks. In addition to the challenges associated with managing the US dollar, the first major crisis in the oil sector occurred, causing the price of crude oil to skyrocket. This development put European states, heavily dependent on Arab supplies, in serious difficulty. Members of the "Snake" experienced substantial deficits in their balance of payments, jeopardizing the convergence and maintenance of exchange rates among European states. Consequently, some states decided to deviate from the objective imposed by the common strategy. Italy, Britain, Ireland, and France had to abandon the "Snake" as they opted for a position other than price stability to address the aforementioned obstacles. On the other hand, Denmark, Germany, Belgium, the Netherlands, and Luxembourg continued their commitment within the "Snake".

The description above illustrates the limitations of the European integration process. When faced with major economic shocks, each member of the then EEC opted to address the crisis resulting from the oil price increase in its own way. Some states implemented anti-inflationary policies to stay within the parameters established by the "Snake in the tunnel", while others, including Italy, allowed inflation to rise without injecting money into the market. This led to an expansion in current accounts, countered by devaluations that accelerated inflationary pressures. European states found themselves trapped in a vicious circle where increasing inflation affected aggregate production, lowering it, and consequently, increasing unemployment. Stagflation, a scenario of inflation and recession concurrently fuelling unemployment, had infiltrated the EEC.

It became evident that the recommendations of the Werner Plan were ineffective, as each member of the EEC chose its own path during the crisis, regardless of the consequences for other members and the community structure. In the circumstances described, the integration process experienced a significant slowdown, and the "Snake in the tunnel" itself struggled to persist, surviving only until 1977.

By the late 1970s, the international economic scenario was challenging, marked by rampant inflation driven by energy crises and challenges associated with balancing stability and growth. The unfavourable international situation during the second half of the 1970s strongly influenced European integration policies. Highly volatile exchange rates significantly impacted the "monetary snake", leading to several realignments in the permitted oscillation region and causing countries to exit the system. The "Snake" shrank to a monetary area closely tied to the German Mark, with only a few of its original founding states remaining. Other countries that abandoned the system adopted a regime

of flexible exchange rates, undermining the Werner Plan's goal of creating a European economic and monetary union.

Amid the multitude of problems faced by European states, the vision of political, economic, and monetary union began to fade. This realization prompted the newly appointed president of the European Commission, Roy Jenkin, in early 1977 to urge the EEC members to strive for a significant leap forward in European unification. The Jenkins Commission recognized that achieving economic and monetary union required more than member states implementing individual policies to align with others. It necessitated the creation of a central sovereign authority capable of managing the monetary and economic policies of the entire area. It was during this speech that Jenkins referred to a new European currency capable of countering the dollar:

"The second argument is based on the advantages of creating a major new international currency backed by the economic spread and strength of the Community, which would be comparable to that of the United States, were it not for our monetary divisions and differences. The benefits of a European currency, as a joint and alternative pillar of the world monetary system, would be great, and made still more necessary by the current problems of the dollar, with its possible de-stabilizing effects."[2]

Jenkins' speech reignited the attention of European states toward the process of political and monetary unification. In these circumstances, the then German Chancellor, Helmut Schmidt, proposed the idea of using consultations for the creation of a monetary system. His plan garnered support from all members states of the EEC, as they found themselves in challenging economic conditions following the failure of the Bretton Woods agreements and the "Money Snake" system. Subsequent consultations between the bodies of the EEC led to the establishment of a system to implement and manage mechanisms for the creation of a single monetary system. During the European Council held on 6th and 7th July 1978 in Bremen, Germany, the "European monetary system" (EMS) was officially defined. A few months later, in December 1978, during the Brussels summit, the characteristics, objectives, and mechanisms for the new EMS were further detailed. Notably, the new monetary unit, the "European Currency Unit" (ECU), was introduced. The ECU was positioned at the centre of the system and served as a means of regulation between states, based on the concept of fixed but adjustable exchange rates.

[2] : JENKINS, Roy. Europe's present challenge and future opportunity. Florence: 27.10.1977. Archives familiales Pierre Werner, Luxembourg.

The EMS officially entered into force on 1st March 1979, with a key feature being the obligation for each currency of the member states to adhere to a maximum variation of 2.25% with respect to a fixed central parity against the ECU. The ECU, a scriptural currency composed of a basket of European currencies, became the standard monetary unit of measurement for the market value of goods, services, or assets in the European Communities. Despite being a virtual currency, its stability made it widely used on European and international financial markets for issuing securities in a currency deemed stable and reliable. Each national currency contributed proportionally to the importance of the issuing country within the EEC. Every five years, or in conjunction with the entry of new members into the EMS, the assigned weights were recalculated. This arrangement lasted until the entry into force of the Maastricht Treaty when it was suspended to ensure conditions of monetary stability and certainty in preparation for the transition to the single currency, the Euro.

The EMS operated based on the European Exchange Rate Agreements (AEC), which constituted a system involving the establishment of a central parity (parity with the ECU) for the bilateral exchange rates of the member states. Within this framework, exchange rates fluctuated around the central parity with a margin of ± 2.25%. In contrast to its predecessor, the "Currency Snake", participants in the new system collectively had the obligation to maintain parity with the ECU, fostering European currency stability. Both states with weaker currencies and those with stronger currencies were obligated to intervene in response to related devaluations or revaluations. In the initial phase, the system underwent testing with the central rates of participating currencies relative to the ECU being established. Germany, Belgium, the Netherlands, Luxembourg, and Denmark - nations still part of the "Snake" - adopted the exchange rates defined by the latter. Meanwhile, Italy, France, and Ireland - nations that had abandoned the previous monetary system - adopted exchange rates determined by the market.

Shortly after the entry into force of the EMS, it faced its first two realignments in the autumn of the same year, prompted by the second oil crisis, which had dynamics reminiscent of the crisis of 1973-74. The surge in oil prices led to a new wave of inflation. However, the EMS successfully maintained monetary stability throughout 1980, a year in which realignments were not necessary. This stability resulted in a situation where the currencies of EMS member states were on par in terms of their strength.

Despite the strong performance of the EMS, challenges emerged in 1981. The European Council's annual economic report for 1980-1981 identified critical points within the system and proposed potential solutions. However, the EMS faced significant problems that year due to the substantial volatility in the value of currencies from international powers outside the system. Additionally,

inefficiencies in the economies of some member states contributed to the challenges. During this period, the Italian Lira experienced its first devaluation by 6%, leading to Italy's obligation to accept an increase in the discount rate and an augmentation of monetary reserves in banking institutions. A few months later, there was a simultaneous appreciation of 5.5% for the German Franc and the Dutch Guilder, coupled with devaluations of the French Franc and the Italian Lira against the currencies of Denmark, Belgium, Luxembourg, and Ireland. Despite these difficulties, these manoeuvres underscored the great resilience and flexibility of the EMS. The interventions carried out in response to these challenges proved effective, demonstrating the system's ability to adapt and respond to changing economic conditions.

During the initial years of the European Monetary System's existence, despite facing several challenges, stability was maintained, largely attributed to timely interventions on exchange rates. However, it became evident that the EMS had exacerbated the economic and monetary situations of many member states. Dissatisfaction grew, particularly following the realignment of the spring of 1983, as it became clear that convergence had not been achieved. Despite these concerns, a period of stability ensued, preventing further adjustments. Moreover, in June 1985, during the European Council in Milan, a significant step towards greater European integration was taken with the Commission's presentation of the "White Paper on the Conduct of the Internal Market". This document outlined guidelines aimed at strengthening European economic integration by establishing a single internal market, encompassing around 320 million consumers. It laid the groundwork for the adoption of the Single European Act (SEA) on 28th February 1986. The SEA, effective from 1st July 1987 introduced changes to the treaties establishing the European Community. Notably, the term "assembly" was officially designated as the "European Parliament", a formal definition of the " common market" was provided, and the goal of its creation by 31st December 1992 was established. The SEA, coupled with the White Paper, served as the operational basis for implementing European unification policies.

In the same year the SEA came into effect, another crucial agreement for the establishment of the future European Economic and Monetary Union was ratified: the Basel Nyborg agreement. This agreement, concluded among the finance ministers and central bank governors of the EEC member states, obligated each member to provide unlimited mutual assistance to counter any external speculative attacks that might undermine the fixed exchange rate system, periodically adjustable, implemented through the EMS. To achieve this, surveillance procedures on the foreign exchange markets were enhanced, making more extensive use of the range of fluctuations in interest rates and intervening in the foreign exchange market. Additionally, the flexibility of both the conditions and

terms of payments between central banks was increased. These measures aimed to distribute the costs associated with the interventions more equally among the members while reducing asymmetries.

The white paper and the SEA specified the tools and timelines that member states should have adopted to achieve common objectives. However, the real turning point came with the so-called "Delors Report". In June 1988, during the European Council in Hanover, the "Committee for the Study of Economic and Monetary Union" was established, chaired by the then President of the Commission, Jacques Delors. The committee, attended by the governors of all the central banks of the Community and some external experts, was tasked with preparing a report on the concrete steps needed to achieve the European Economic and Monetary Union. The report, known as the "Delors Report", chronologically outlined the path of economic and monetary unification in three phases, following in the footsteps of the 1970 "Werner Report". Presented in April 1989 and unanimously adopted, the report defined the objective of monetary union in terms of total liberalization of capital movements, irreversible convertibility of currencies, complete integration of financial markets, irrevocability of exchange rates, and the possibility of replacing individual national currencies with a single currency. These objectives were to be achieved through three stages:

1. First stage, 1990 – 1994: This stage aimed to complete the internal market, reduce disparities between economic policies of member states, remove obstacles to financial integration, and intensify monetary cooperation.
2. Second stage, 1994 – 1999: The objective of this phase was to implement a strategy facilitating the transition to the final phase. Key tasks included establishing essential bodies like the European Monetary Institute to enhance cooperation among central banks, laying the foundations for the European System of Central Banks (ESCB), planning the transition to the single currency, achieving economic convergence between member states, and defining the future governance of the euro area.
3. Third stage, from 1999 onwards: This final phase involved irrevocably fixing exchange rates, assigning powers to various monetary institutions, introducing binding budget rules in member states, and ultimately transitioning to the Euro.

The Delors Report played a crucial role in shaping the path toward European economic and monetary union. It laid the groundwork for key elements that would later be incorporated into the Maastricht Treaty. The emphasis on subjecting budget policies to strict rules, as proposed in the Delors Report, reflected a commitment to establishing a solid framework for economic governance within the evolving European Union. The Maastricht Treaty, signed in 1992, formally outlined the criteria and

conditions for countries to adopt the euro and participate in the Economic and Monetary Union (EMU).

2.2 The Maastricht Treaty.

Building on the Delors report, the European Council, convened in Madrid in June 1989, resolved to implement the first phase, commencing in July of the following year, by introducing the free movement of capital. Concerning the subsequent two phases, their progression was more precisely defined in 1992 with the "Treaty on European Union" (TEU), commonly known as the "Maastricht Treaty", signed in the Dutch city of Maastricht. The "Treaty on European Union" signifies a new and pivotal stage in the integration process among states. It untangled many complexities that hindered the attainment of post-war European objectives. Although not exclusively focused on monetary matters, it is primarily recognized for laying the foundations of the monetary unification process in Europe. The Treaty rested on three main pillars and two sectors of cooperation: foreign policy and common security policy, justice, and internal affairs.

The approach adopted by the Maastricht Treaty is grounded in the principles of gradualism and convergence. As the founding treaty of the European Union, signed on 7th February 1992 by twelve countries, it actualized the Economic and Monetary Union (EMU) after a period of gradual transition. The Maastricht Treaty signifies a new stage in European integration; it goes beyond the goal of creating a common European market and asserts a political vocation. In this context, the treaty outlined five essential objectives to be achieved:

1. Strengthen the democratic legitimacy of institutions.
2. Enhance the effectiveness of institutions.
3. Establish an economic and monetary union.
4. Develop the social dimension of the community.
5. Establish a common foreign and security policy.

To describe the system of the Maastricht Treaty, reference is often made to a structure, similar to an ancient Greek temple, made up of three columns resting on a base and surmounted by a pediment. This similarity helps to understand the idea behind the European structure, analysing it in more detail, the following can be said:

1. The first pillar metaphorically represents the European Community, encompassing the European Coal and Steel Community (ECSC) and Euratom, along with provisions governing the Community dimension. The function involves proposals from the European Commission

that are adopted by the Council and the European Parliament, with possible verification by the Court of Justice.

2. The second pillar represents the Common Foreign and Security Policy (CFSP) outlined in Title V of the Treaty on European Union. It enables member states to engage in joint actions in the realm of foreign policy, supplanting the provisions in the Single European Act (SEA) signed in 1986. This pillar entails an intergovernmental decision-making process that heavily relies on unanimity. Additionally, for matters regulated by it, the Commission and the Parliament play marginal roles, and the Court of Justice lacks jurisdictional power.
3. The third and final pillar pertains to cooperation in the fields of justice and home affairs. In accordance with Title IV of the Treaty on the European Union, it mandates the undertaking of joint action to provide citizens with a high level of protection in an area of freedom, security, and justice. Once more, the decision-making process is intergovernmental.

I mentioned earlier the pillars resting on a base and supporting a pediment, both serving as connecting elements between the individual pillars. They represent the elements common to all the subjects of the pillars: the institutional structure. Regarding the latter, it can be said that the Maastricht Treaty further strengthened the role of the European Parliament. The scope of application of the cooperation procedure and the assent procedure was extended to new sectors, introducing a new co-decision allowing the European Parliament to adopt acts together with the Council, creating a closer relationship between the two institutions. The Parliament was associated with the Commission's investiture procedure, the role played in European integration by the European political parties was recognised, and the duration of the mandate of the Commission was extended from four to five years, aligning with the duration of the Parliament. The Treaty also increased the use of qualified majority voting in the Council and established the Committee of the Regions, a consultative body composed of local and regional representatives of the EU.

The Maastricht Treaty introduced other novelties, such as the inclusion of Community policies in new sectors like culture, youth, education and vocational training, trans-European networks, industrial policy, consumer protection, and social policies. Additionally, European citizenship was established alongside national citizenship, and the principle of subsidiarity, which dictates that the Community intervenes only in sectors not within its exclusive competence if the objectives can be better achieved at a community rather than a national level, was adopted as a general rule.

Regarding monetary union and the advent of the single currency, the Maastricht Treaty played a crucial role by establishing the “European Central Bank” (ECB) and the “European System of Central Banks” (ESCB), specifying their respective purposes: the stabilization of prices to safeguard the value

of the single currency, the Euro. Reiterating the phases indicated in the Delors Report, the Treaty on the European Union formally defined these phases:

1. First stage, 1990-1994: Focused on completing the internal market, reducing disparities between economic policies of member states, removing obstacles to financial integration, and enhancing monetary cooperation.
2. Second stage, 1994-1999: Aimed at implementing a strategy for transitioning to the final phase. It included establishing fundamental bodies, such as the European Monetary Institute, strengthening cooperation between central banks, laying the foundations of the European System of Central Banks (ESCB), planning the transition to the single currency, achieving economic convergence between member states, and defining the future governance of the euro area.
3. Third stage, from 1999 onwards: Involved irrevocably fixing exchange rates, assigning powers to various monetary institutions, introducing binding budget rules in member states, and transitioning to the Euro.

The Maastricht Treaty, in addition to outlining the steps to achieve the final objective, introduced a set of criteria to ensure the effective functioning of the single currency. These rules, established by the Protocol annexed to the Treaty and known as the "Maastricht criteria" or "convergence criteria", are designed to maintain stability in the Eurozone. Candidate countries aspiring to become members of the Euro area are obligated to subject their economies to a convergence process outlined in detail in the treaty. This process is based on a series of criteria that countries must adhere to. There are four convergence criteria to be respected, and they are as follows:

1. The first criterion concerns pertain to inflation and its containment: the average inflation rate of a country, observed over a year, must not exceed the inflation rate of the three EU member states with the best results by more than 1.5%.
2. The second criterion relates to the levels of public debt. According to it, the annual budget deficit of a country must not exceed the threshold of 3% of gross domestic product (GDP), and simultaneously, the total public debt must not exceed 60% of GDP.
3. The third criterion concerns interest rates. The long-term interest rate of a country, observed over the course of a year, must not exceed by more than 2 percentage points that of the three most virtuous member states.
4. Finally, according to the fourth criterion, the country must keep its exchange rate stable. Indeed, the latter must remain stable within the fluctuation band envisaged by the new European Exchange Rate Mechanism (ERM II) for at least the two previous years.

One might wonder about the motivations that pushed the creators of the Treaty to include the clauses just described since nothing similar is contemplated by the theory of optimal currency areas (OCA). As already seen in the previous chapter, the OCA theory makes no reference to convergence criteria of the Maastricht type but emphasizes the importance of the flexibility of labour markets and worker mobility and the need to create a budgetary union for strengthening the monetary union. It can be said that the fathers of the Maastricht Treaty, before the EMU, paid more attention to the elements of macroeconomic convergence than to the microeconomic and political ones. The motivations for including the clauses described in the Maastricht Treaty can be attributed to various factors, each relevant to the specific convergence criterion.

Considering the first convergence criterion, the one concerning the inflation rate, it was included due to the fear that the future monetary union could lead to inflationary tensions. To explain this concern, resuming De Grauwe (2022), I refer to the Barro-Gordon model applied to two states adopting the single currency. To use a single graph, I assume that there are two countries, Germany, and Spain, identical in everything except their preferences in economic policy. For Germany, the reduction of inflation is fundamental, on the contrary, it is not for Spain. Therefore, in the figure 2, the indifference curves of the German authorities are flat while those of the Spanish authorities are steep. The natural unemployment rate, U_N, and the government's target rate, U*, are the same for the two countries. The equilibrium inflation level (E) is reached in E_G in Germany and in E_S in Spain. This means that, in Spain, inflation would be higher on average than in Germany without, however, providing any benefit in terms of reducing the unemployment rate.

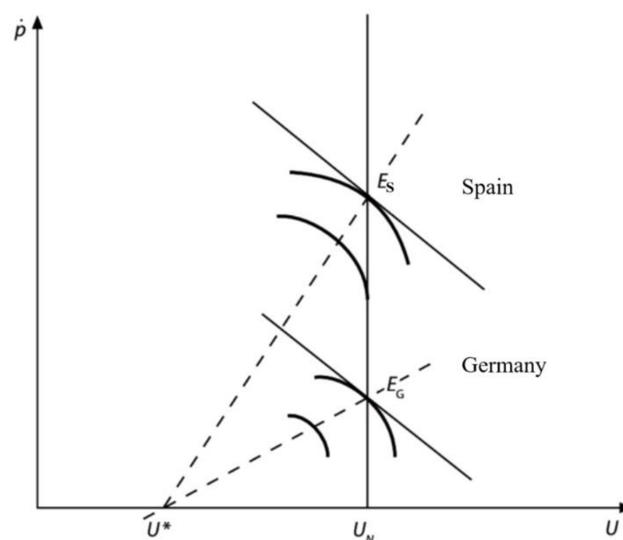

Figure 2

(Source: De Grauwe P., *"Economia dell'Unione Monetaria"*, Bologna, Il Mulino, 2022)

As previously specified, joining a common currency implies giving up one's freedoms in monetary policy. In this specific case, this would lead Germany, a country with low inflation, to decrease its well-being since the ECB could adopt monetary policies based on the average preferences of the participating countries. The inflation rate of the Union will therefore be positioned at an intermediate level between the German and Spanish ones (between E_G and E_S), therefore improving the situation of Spain but worsening that of Germany. It is obvious that the Union will also bring benefits that will offset the increase in inflation; however, since the country with low inflation suffers some losses from participating in the union with Spain, to join it, it will pose some of its own conditions. It is therefore very likely that Germany, in order to accept participation in the monetary union, will require the ECB to adopt policies similar to those that the German central bank would have adopted. To achieve this, Germany can take two different paths: the first implies that it insists that the ECB adopt the same behaviour as the Bundesbank. However, this could also be problematic since the other member states, through their votes, could bring decisions in other directions. This is why Germany may want to control entries into the EMU and avoid excessive worsening of its inflation. The inflation conditions envisaged by the Maastricht Treaty for joining the EMU can, therefore, be interpreted as a mechanism that guarantees Germany that all members maintain a certain limit on inflation. Behaviour like the one just described allowed Germany to ensure that all eurozone aspirants were ready to fight inflation.

Now, considering the convergence criteria of the public budget, it can be stated that the rationale for their introduction is in line with that linked to inflation. Looking again at two Eurozone states, Italy and Germany, the former has a high debt/GDP ratio. A high debt value could lead the Italian state towards unexpected inflation. Since part of the stock of government bonds is long-term and their interest rate has been set in previous periods, a high value of debt creates an incentive for the Italian government to engineer unexpected inflation. This would lead to an erosion of the real value of public debt securities, whose interest rate paid is not indexed, generating a gain for the Italian state and a loss for the holders of the securities. It is, therefore, clear how a monetary union between two states with very different public debts could create problems for the state with the lowest public debt. A country with a high debt/GDP ratio has an incentive to resort to unexpected inflation, exposing its low-inflation partner to losses. For this reason, the low-debt country must ensure that, before joining the monetary union, there are rules that lead countries with a higher debt/GDP ratio to reduce the latter. To achieve this, the highly indebted country must reduce its budget deficit. Once the objective has been reached, the country in question will no longer have any motivation to produce unexpected inflation and will be able to join the monetary union without damaging the more virtuous partners. Having a high debt and deficit does not imply the lack of possibility of taking part in a monetary union, their reduction before entering the EMU is necessary to protect the EMU itself from

inflationary pressures. Another reason why it is believed that the rules on budget convergence were introduced is the fact that states with high debts are exposed to a greater risk of insolvency. As they become part of a monetary union, pressure will grow for these states to be bailed out in the event of insolvency. This also explains the no-bailout clause in the Maastricht Treaty, a clause according to which no national government nor the ECB can be forced to intervene if a member state defaults. The no-bailout clause is not a prohibition on states intervening in case of difficulty, it merely aims to clarify that no EMU actor can be forced to intervene in favour of another. The reasons just presented clarify the rationale for the introduction of clauses on the convergence of the budgets of the states belonging to a monetary union. However, the second criterion of the Treaty provides precise and specific numerical indications which are not easily explainable. Why were the percentages of 3 and 60 included in the Maastricht Treaty? Some economists hypothesized that the 3 and 60 percent rules were deduced from the formula for determining the budget deficit needed to stabilize public debt.

$$d = gb$$

In the just specified formula, b represents the level at which public debt must stabilize, expressed as a percentage of GDP. Here, g denotes the growth rate of nominal GDP, and d represents the budget deficit expressed as a percentage of GDP. According to the formula, to stabilize public debt (b) at 60% of GDP, the budget deficit (d) must be 3% of GDP, assuming the nominal growth rate of GDP (g) is 5%. However, this does not elucidate why the specific percentages were chosen. Why should public debt be maintained at 60% of GDP and not at 55%, 65%, 70% and so forth? Additionally, considering that some EMU countries could have growth rates higher or lower than 5%, this could result in variations in the level of public debt. It appears that the primary reason for selecting these percentages is rooted in the fact that, during the years when the Treaty was drafted, the average European deficit/GDP ratio stood at 3%.

Examining the third convergence criterion, related to interest rates, its rational lies in the potential for excessive differentials in interest rates between member states and aspiring states, leading to significant capital gains or losses upon entry into the EMU. Consider Romania’s decision to join the Euro. Suppose on the date of entry into the monetary union, its long-term bonds denominated in Leu have an interest rate of 5%. If the interest rate on long-term Euro denominated bonds is 3%, this creates an arbitrage opportunity. The irrevocable fixing of the Euro/Leu exchange rate upon joining the common currency incentivizes investors to engage in arbitrage by purchasing higher-yielding Leu securities with no exchange rate risk. This process continues until returns are equal, resulting in losses for Euro securities holders and gains for Leu securities holders. Given that losses predominantly affect financial institutions of the Eurosystem while profits go to Romanian financial institutions, such gains

and losses could generate significant disturbances in national capital markets. To prevent such situations, interest rate differentials need to be minimized before joining the EMU. Interestingly, this criterion may be somewhat self-fulfilling. Taking Romania again as an example and assuming it is expected to join the Euro by 2025, interest rate on long-term bonds might begin converging toward the average European rates even before the actual entry date. Favourable market expectations about Romania's ability to meet Maastricht Treaty criteria could trigger forces ensuring rapid convergence of long-term interest rates. Inevitable capital gains and losses would still occur but well before joining the EMU, and their impact would be more modest.

The fourth convergence criterion focuses on the convergence of exchange rates and prohibits aspiring EMU members from devaluing their currency in the two years before accession. This criterion aims to prevent manipulation of exchange rates by aspiring Eurosystem members for profit. However, the application of this rule became less stringent after the adoption of the Maastricht Treaty. At the time of signing the Treaty, the range within which exchange rates could fluctuate was 2x2.25%. Since August 1993, this range has been expanded to 2x15%.

The exchange rate agreements for potential newcomers to the Eurozone are similar but not identical. The guidelines governing the exchange rate relationships between aspiring Eurozone members and actual members were defined in 1996 by Ecofin. These guidelines highlight several principles to consider:

1. "ERM II", a new exchange rate mechanism, would, starting from 1st January 1999, replace the then in force "ERM".
2. Although aspiring Eurozone members are required to join "ERM II" in the two years prior to the adoption of the single currency, their participation in "ERM II" is voluntary.
3. The procedures, from an operational point of view, are determined by the ECB in consultation with the central banks of non-member countries.
4. The system is closely linked to the Euro.
5. The mechanism revolves around central rates that serve as references for fluctuation margins; however, each country is free to choose its own fluctuation margins.
6. In the event that a country's exchange rates reach the limits imposed by the margins, there is an obligation for currency intervention, unless this conflicts with the objective of price stability.
7. The ECB has the power to initiate parity review procedures.

In conclusion, the strategy implemented by the Maastricht Treaty proved to be efficient in creating the Economic and Monetary Union (EMU) despite the scepticism expressed by many observers in

the 1990s. The watchwords of gradualism and convergence, as outlined in the Treaty's objectives, played a fundamental role in the transition to EMU. As of today, twenty have already adopted the Euro, and the Maastricht criteria will continue to guide the remaining members towards the single currency.

2.3 Costs and benefits of the adhesion to the Euro Area.

So far, I have analysed the process that led European states, destroyed by war, and covered in deep wounds, to the process of European integration and the adoption of a single currency. However, why should a state agree to give up its currency in favour of the Euro? Let me now consider the reasons that prompted European politicians to opt for the adoption of a single currency. It is obvious that the creation of the Economic and Monetary Union (EMU) has caused, and continues to do so, both micro and macro effects from an economic point of view, on the national economies of the participating countries and on the single economy as a whole. For simplicity, these effects could be grouped into two categories: the category of direct or indirect effects and that of static or dynamic effects:

1. The first category of effects can be identified based on their transmission channels: direct or indirect effects. Direct effects are those generated immediately following the introduction of the single currency, such as the reduction in transaction costs. Indirect effects, on the other hand, result from the common monetary policy and economy, as seen in the reduction in interest rates that currency stability allows.
2. The second category of effects that can be identified is related to static or dynamic effects, categorized based on the moment in which they occur. Static effects generally manifest at the beginning of the monetary integration process, such as the reduction of transaction costs on exchange rates. Dynamic effects, conversely, occur gradually over time, leading towards greater potential for economic growth. An example is the possibility of increased competition driven by the transparency of prices expressed in the same currency.

The effects mentioned above entail both benefits and costs, distributed differently among various stakeholders, regions, and countries. Importantly, what may represent a benefit for some could, in turn, become a cost for others, and vice versa.

Firstly, when analysing the benefits of a common currency, as per De Grauwe's theory (1998), these can be categorized into four groups: the advantages of increased efficiency, the benefits of enhanced stability, the gains in regional equity, and the external benefits.

1. The benefits of increased efficiency stem from the use of a single currency, facilitating a more transparent market with greater competition. This results in more efficient resource utilization, enhancing the overall system efficiency. The elimination of transaction costs is noteworthy; in 1990, the EEC Commission estimated these costs in currency conversion at 15 billion Euros per year (approximately 0.4% of the then Community GDP). Additionally, the disappearance of exchange rate variability reduces operators' uncertainty, encouraging more transactions and investments abroad. Moreover, greater price transparency boosts competition among producers.
2. The benefits of increased stability arise from the use of a single currency, compelling countries to attain greater economic stability not only by meeting the convergence criteria but also through enhanced coordination of economic policies mandated by the stability and growth pact, the current fiscal compact. Macroeconomic stability is characterized by low inflation and low interest rates, offering alternative economic policy instruments to devaluation and facilitating consistent and sustainable growth over time. This implies that symmetric shocks, those affecting all member states uniformly, can be easily addressed through a common monetary policy, while asymmetric shocks must be individually managed by each country through adjustments in the quantities and prices of inputs used. To achieve price stability, each country incurs a cost determined by the chosen forms of economic policy implemented by the government to curb inflation.
3. The benefits of regional convergence are evident as the single currency allows companies to move their business to any Community territory, favouring the less developed regions. The lower production costs in these regions become an attractive factor for Community enterprises, encouraging them to invest capital in new activities. This, in turn, helps the least developed states reduce the original development differences over time. Another significant advantage of the single currency for less wealthy regions is the increased importance of reducing transaction costs, which are proportionally higher in countries with less developed financial markets.
4. External benefits, referring to the positive effects generated by the Euro as an exchange currency in non-EU relations and as a portfolio currency for international investments, play a crucial role. The use of a currency that gains increasing importance and becomes a reserve currency due to its stability and value allows the ECB to obtain seigniorage profits. Moreover, the European Union as a whole gains greater influence in international negotiating tables, thanks to its enhanced economic and financial power.

Analysing the points just listed in deeper, among the benefits brought by the single currency certainly the most evident and best quantifiable is the elimination of commissions applied for currency exchange. As mentioned earlier, in 1990, the European Commission estimated the gains from the elimination of transaction costs to be between 13 and 20 million Euros per year. While this undoubtedly brought significant benefits, it also entailed a corresponding loss for banking institutions. With the adoption of the Euro, a loss of revenue for banks, approximately 5%, has been estimated. However, it is important to note that this loss is considered a deadweight loss, as consumers received nothing in exchange for the commissions paid. These commissions could be seen as a kind of tax with no tangible benefit to the consumer. Another noteworthy benefit closely linked to the elimination of transaction costs and the use of a common currency is the establishment of an integrated payment system among all member states of the monetary union. Although not implemented simultaneously with the adoption of the Euro, this system developed over the years. Currently, the payments system in the Eurozone is managed through "TARGET2", an updated and improved version of its predecessor "TARGET - Trans European Automated Real-Time Gross Settlement Express Transfer". The main features of the TARGET2 system are as follow:

1. In this system, transactions occur in real-time, enabling instantaneous interbank payments.
2. The settlement in this system is gross, implying that payments, guaranteed by banks, pass through the system.
3. The system provides transaction guarantees, mitigating the risk of a domino effect resulting from the potential default of any of the involved institutions.

While the TARGET2 system faced challenges during the 2010 crisis, particularly affecting the southern countries of the Eurozone and leading to imbalances, it has proven to be effective in ensuring the efficiency of payments within the Eurozone."

The elimination of transaction costs, as a result of adopting a common currency, also brings about an indirect and somewhat less quantifiable benefit. This is the improved price transparency that empowers consumers to compare prices more effectively. Moreover, enhanced transparency fosters increased competition, ultimately benefiting consumers. While it is unlikely that the use of the same currency will completely eliminate observed price differentials across countries in Europe, the Euro can contribute to improved price convergence within the Eurozone. This is facilitated by the ongoing push for integration in political, legislative, and regulatory domains. Another significant but sometimes underestimated benefit is the reduction of uncertainty. Uncertainty, a factor detrimental to economic and financial stability, particularly in terms of future exchange rates, can be alleviated by

the adoption of a common currency like the Euro. The prestige and stability associated with the Euro make the markets of adopting countries safer and more predictable.

The inception of a new currency arising from a monetary union is poised to wield greater influence in the international monetary system than the combined weight of individual currencies within the states participating in the monetary union. Consequently, this currency is likely to be more widely utilized beyond the union and will emerge as a sought-after asset in global markets. This presents an additional advantage for member states adopting the single currency, offering distinct benefits from three key sources:

1. While the additional revenues from the international use of the target currency may be relatively modest, their significance should not be underestimated. This phenomenon was exemplified by the U.S. Dollar, which, in 1999, was employed outside the USA for over half of the quantity issued by the Federal Reserve, resulting in a larger balance sheet for the US central bank. As the profits generated by the US Central Bank contribute to the federal government's coffers, American citizens, for a given level of public spending, pay fewer taxes, thereby deriving a substantial benefit from the Dollar's status as a global currency. It is evident, therefore, that the Euro has the potential to yield similar advantages.
2. An international currency is often held as a reserve by foreign central banks, typically in the form of Treasury securities, enabling issuing states to fund themselves. Historically, the Dollar has been the quintessential reserve currency, but the Euro, although trailing behind, has steadily gained ground over the years. As of 2022, the Euro constituted 20.5% of global official foreign exchange reserves (calculated at constant exchange rates), compared to the US dollar's dominance at 58.4%.
3. Lastly, though challenging to quantify precisely, the impact of a currency being utilized as a global medium for payments and reserves in stimulating domestic financial markets remains one of its most significant advantages. Foreign residents invest in assets and issue debt securities denominated in the target currency, leading domestic banks to handle a continually growing volume of business, thereby generating substantial benefits for the domestic economy.

Now, considering the degree of openness of a state, we can establish a relationship between it and the benefits brought by the adoption of a single currency. Take, for instance, the elimination of transaction costs; the more economic operators of the country in question interact with foreign countries, the more significant the benefit acquired will be due to the elimination of transaction costs. It is also necessary to consider the fact that operators in these countries are more exposed to

forecasting errors since they operate in different markets. Small and open economies, capable of eliminating the possibility of forecast errors, will reap greater welfare gains, in per capita terms, than relatively large and closed ones. Figure 3 summarizes the relationship between the benefits of a monetary union and the level of openness of aspiring member countries of the union. The horizontal axis represents the degree of openness of the target country in relation to its potential partners in the monetary union. The vertical axis, instead, represents the benefits acquired with entry. As the level of openness increases, so do the benefits generated by joining a monetary union increase.

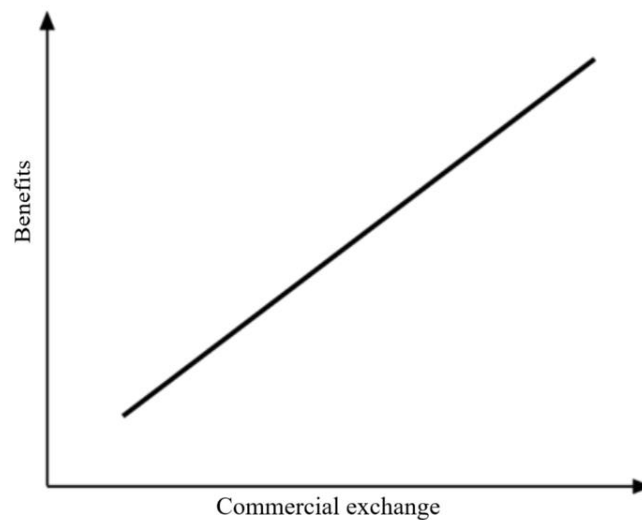

Figure.3

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

Analysing the costs of a monetary union, it is crucial to consider that the most impactful element is the relinquishment of the national currency, leading to the inability to implement a national monetary policy. This entails the loss of authority for the central bank and, consequently, a state loses the ability to modify the price of its currency, influence the quantity of money in circulation, and adjust short-term interest rate through valuations or devaluations. This loss of national sovereignty in monetary policy has varying costs for different countries. Some countries place a high "political value" on parameters like inflation levels, currency exchange rates, and interest rates, while others may attribute lower importance. Additionally, entering a monetary union involves committing to fiscal rules to ensure the stability of the common currency, exemplified by the European Fiscal compact. These rules can limit a country's capacity to run significant budget deficits or pursue independent fiscal policies during economic downturns.

Another noteworthy cost of adopting a common currency is the loss of income derived from the issuance of new currency by the central bank, known as "seigniorage". The ability to print new money allows a country to finance its budget deficit and avert the possibility of defaulting on its creditors.

Returning to the previous chapter, it’s important to address the problems that arise for states with a common currency in the case of external shocks. As previously discussed, shocks affecting demand can be more or less manageable depending on their symmetry or asymmetry. An asymmetric shock, which impacts different members differently, results in adjustment costs within a monetary union characterized by poor flexibility in labour markets. The existence of a single central bank prevents the adoption of policies tailored to individual situations, disadvantaging some states more than others. Conversely, the occurrence of a symmetric shock throughout the monetary union allows the central bank to adopt common monetary policies that can stimulate all affected economies.

It is evident that profound differences have always existed among various European states, raising the question: are these differences relevant in the process of monetary unification, and to what extent? In his analysis, Mundell examined the scenario where there was a shift in demand from one state to another. Could this phenomenon occur among states adhering to a monetary union? If the answer is yes, how frequently might such a shock occur?

Certainly, a shift in demand from one country to another is a plausible scenario. Regarding the frequency with which this situation could occur, two opposing theories emerge: one from the European Commission and the other from Paul Krugman, a Keynesian economist and Nobel Prize winner for Economics in 2008, recognized for his analysis of trade trends and the positioning of economic activity in terms of economic geography.

According to the European Commission’s perspective, in a future monetary union, shocks generated by shifts in demand between states would be less likely. The theory is based on the belief that trade between industrialized European nations would be of an intra-sectoral type. This is grounded on the existence of economies of scale capable of lowering unit costs, imperfect competition between states, and a trade structure where countries exchange the same product categories. According to the Commission, shocks would, therefore, impact the aggregate demand of various European states in an almost identical manner. Furthermore, the completion of the single market and the removal of barriers would reinforce this trend.

Krugman, consistently opposed to the Euro’s adoption by European states, argues that Mundell's analysis should not be underestimated. According to Krugman, the reduction in trade barriers generates two opposing effects on the localization of industrial activities: it allows bringing

production closer to final markets, but it also enables the concentration of production leverage economies of scale. Integration could, therefore, lead to an increase in the concentration of regional activities.

To illustrate this point, we can turn to the United States, a country where the majority of automotive production plants are concentrated in the Mid-West. In the US, the integration between different states is at much higher levels than within the EU. This observation suggests that if the EU moves towards a more integrated market, there could be cases of regional concentration of economic activities, similar to those observed in the US. Furthermore, shocks affecting a specific sector could transform into country-specific shocks.

The European Commission's position suggests that the cost of a monetary union decreases as the degree of economic openness of a state increase since this decreases the probability of asymmetric shocks. As seen previously, greater trade integration will allow better synchronization between the economic cycles of the different economies that the shocks will hit in a similar way. The position of the commission can be represented by figure 4: as in the case of figure 3, the horizontal axis represents the degree of openness of the target country in relation to its potential partners in the monetary union while, the vertical axis represents the costs of the adhesion to the monetary union.

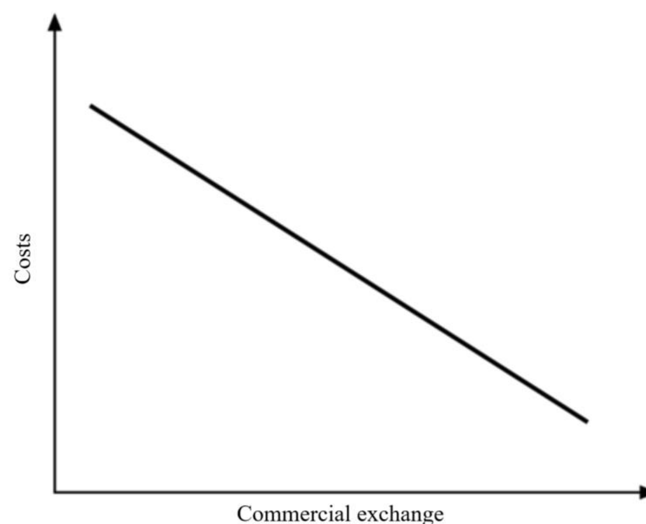

Figure 4

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

On the contrary, according to Krugman, the cost of a monetary union increases with the degree of economic openness of the country, figure 5.

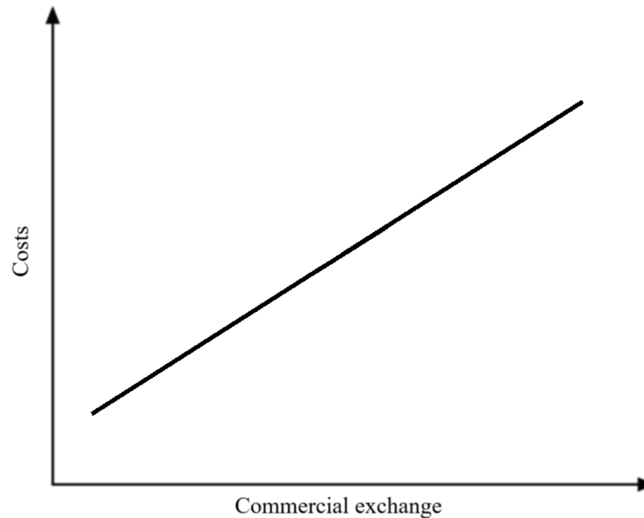

Figure 5

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

The question that arises spontaneously is: who is right, the European Commission or Krugman? As we have seen, Krugman argued that economic integration generates concentration and agglomeration effects and certainly, this is quite possible. However, we must also consider the fact that, as market integration proceeds, the national borders of the countries involved in the process lose more and more importance as determining factors for the location of economic activities. They will operate in regions no longer confined within political borders: think of the automotive sector, situations could arise in which car production is not concentrated in Germany but in the region formed by eastern Germany and western Poland. In this context, any shock that could hit the automotive sector would not only affect Germany but, simultaneously, also Poland and, even without belonging to a monetary union, it would be impossible to rely on an intervention on the Deutsche Mark – Polish Zloty exchange rate in order to neutralize the shock. The above does not deny that integration can generate situations of concentration, such a situation is indeed plausible, but it affirms the increasingly diminishing importance of political borders between states, in fact the shocks will tend to hit regions of the area. The economic forces of integration are likely to nullify the ability of exchange rates between national currencies to handle shocks. It is therefore possible to state that there is a theoretical presumption in favour of the hypothesis that economic integration reduces the probability of asymmetric shocks between nations and therefore of the position of the European Commission.

Once the costs and benefits of joining a monetary union have been identified, they can be compared to fully understand the risks and opportunities that EMU countries and potential future members have assumed. In this regard, it is interesting to combine the curves previously seen in order to identify the

optimal level of openness of the target economies. Figure 6, by taking the lines of costs and benefits in relation to the level of commercial exchange, identifies the critical level of openness (T*) that makes it convenient for a state to join a monetary union. To the left of point T*, for the target country the benefits are lower than the costs so it will not have any gains from joining the single currency. In these circumstances, the country is better off maintaining its own currency. To the right of point T* however, the benefits are greater than the costs and the target country will benefit from joining the single currency, the country is better off abandoning its own currency in favour of the single currency. However, in economic theory, figure 6 has undergone some changes based on the position adopted regarding the way in which national monetary policies are judged: on the one hand we have the monetarist vision while on the other the Keynesian one. In figure 7, on the left, the monetarist position implies a cost curve very shifted towards the origin, since changes in the exchange rate as a tool to combat asymmetric shocks, temporary or permanent, are considered ineffective, moreover, even if they were effective, according to the monetarist vision, policies of that type would systematically reduce the well-being of states. In this case therefore, the point T* is very close to the origin, consequently, even with a rather low level of trade openness, there would be convenience in the participation of a state in a monetary union. According to the monetarist vision, many countries in the world should abandon their own currencies and participate in a monetary union.

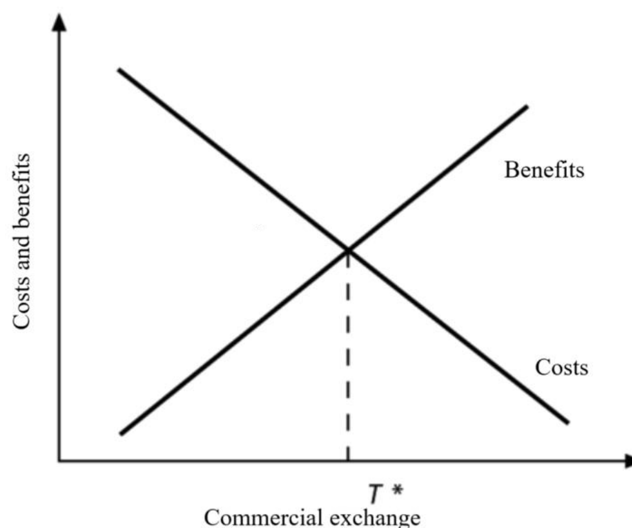

Figure 6

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

In the same figure 7, on the right, the Keynesian vision of the balance between costs and benefits relating to the adoption of a single currency is represented. On the contrary, compared to the

monetarist vision, the cost curve is significantly shifted to the right, away from the origin. This is due to the fact that, according to those who support this position, wages and prices in the world are rather rigid, the mobility of production factors is minimal, and this means that monetary and exchange rate policies are fundamental for overcoming of asymmetric shocks.

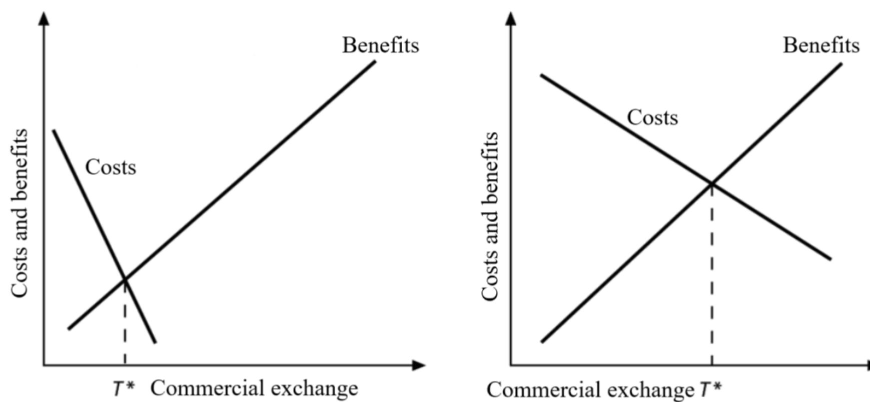

Figure 7

(Source: De Grauwe P., *Economia dell'Unione Monetaria*, Bologna, Il Mulino, 2022)

According to this view, the cost curve lies far from the origin and the number of countries that would benefit from adopting a common currency would be rather low. This vision is in line with Mundell's original model, the best solution would be the creation of different monetary areas. In the 1980s, monetarist doctrine began to attract the attention of the economic world and managed to overcome decades of Keynesian dominance. It is no coincidence that the idea of creating a European monetary union began to emerge more clearly with the arrival of the 1990s. Since then, many events have occurred that have marked the history of Europe and the entire world and have called into question monetarist theory, leading adherents of the European project to meditate on the opportunities and inadequacies of monetary union and the Euro.

2.4 The first eleven States of the Eurozone.

On 3rd May 1998, the European Council determined that eleven of the then fifteen member states of the European Union, namely Austria, Belgium, Germany, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain, met the economic and legal convergence criteria required for entry into the Economic and Monetary Union (EMU). Subsequently, on 31st December 1998, irrevocable conversion rates with the euro were established for the respective currencies of these member states. A few weeks later, on 25th May 1998, the governments of these eleven member states, set to adopt the Euro, nominated the President, the Vice-President and the other four members of the Executive Board of the European Central Bank (ECB), who officially assumed office on 1st

June 1998, date coinciding with the establishment of the ECB. This marked the end of the European Monetary Institute (EMI) and the inception of the Eurosystem, comprising the ECB and the national central banks of the member states adopting the Euro.

On 1st January 1999, the eleven member states officially adopted the Euro as their single currency, signalling the commencement of the third stage of the EMU. However, during the initial three years of the EMU, the Euro functioned as a scriptural currency. The introduction of the Euro as a fiat currency took place on 1st January 2002.

The "convergence criteria" represent the economic and legal conditions that each member state of the European Union must satisfy to adopt the Euro. The Treaty of Maastricht does not prescribe a specific path for joining the single currency but leaves it to the member states to devise their strategies to meet the criteria. On 1st January 1999, eleven out of fifteen countries adopted the Euro. while Denmark, Greece, the United Kingdom, and Sweden chose to remain outside the single currency. Greece, after meeting the convergence criteria, joined the euro on 1st January 2001. In contrast, Denmark, the United Kingdom, and Sweden, although meeting the Maastricht Treaty criteria, deliberately opted to stay out. Since 1993, Denmark has benefited from a series of opt-outs, including exemptions from the single currency and Common Security and Defence Policy (CSDP), Justice and Home Affairs (JHA), and European citizenship.

These opt-outs reflect Danish scepticism about the integration process, as demonstrated in the 1992 referendum where Danes rejected the Euro in favour of the Krone, maintaining monetary policy under the Danish National Bank. The United Kingdom secured a derogation, allowing it to avoid adopting the Euro. The Labor government of Tony Blair outlined criteria in 1997 for Euro adoption, to be decided after a confirmatory referendum. However, the UK never chose to adopt the single currency due to perceived failure to meet criteria or political reasons. With the exit from the European Union (Brexit), the issue is no longer under discussion.

Sweden, despite meeting economic and legal conditions and lacking opt-outs, has not adopted the Euro due to a lack of political will. In a 2003 referendum, the majority (57.09%) voted against adopting the single currency, and this stance remains unchanged. Nevertheless, the country's commitment to the European Union to eventually join the Euro persists.

From the outset, the introduction of the single currency sparked discontent and scepticism among the citizens of the member states, primarily due to the perceived increase in prices associated with currency exchange. Notably in Italy, Germany, and Greece, the Euro’s introduction is linked to substantial price hikes. Analysing the situation in our country, the graph below illustrates that, until

the introduction of the Euro, the perception of inflation closely mirrored the actual development of measured inflation. However, a shift occurred in 1999 when exchange rates were fixed, with the most significant change transpiring in 2002, the year of the actual introduction of the new currency. A noticeable gap emerged between measured inflation and the perception held by consumers post-changeover. Italian consumers continued to perceive a continuous rise in prices, raising the question of whether this perception aligns with reality.

Figure 8 – Measured inflation Vs. Perceived inflation in EU

(Source: European Commission)

ISTAT, through its official data, has refused claims of a doubling of prices at an aggregate level between 2001 and 2003. Throughout these years, Italian inflation remained stable, fluctuating between 2.5% and 2.7% according to ISTAT data. Furthermore, the change in consumer prices from 1999 to 2002 slightly exceeded 10%, with an average annual change of 2.3%. Despite this, when examining specific product prices, the data reveals a significantly higher increase in the period immediately following the introduction of the Euro. In the 2003 report, Eurispes documented notable increases in the prices of various food products in Italy, considering the period from November 2001 to November 2002. Specifically, breakfast products (tea, coffee, biscuits, etc.) experienced a price increase of 23%, while pasta, bread, and rice saw an increase of 20.1%. Drinks witnessed a substantial increase of 32.9%, meat, fish, and eggs increased by 22 .1%, frozen meats surged by 27.5%, canned foods rose by 30.9%, and fruits and vegetables recorded a remarkable increase of 50.8%. Frozen foods also saw a notable rise of 23.6%. Taking an average of these values, the overall price increase during this period was approximately 30%. Following the adoption of the Euro, significant price increases were observed for high-frequency purchasing goods, those items families buy daily to satisfy primary needs. The rising prices of these products contributed to a heightened perception

among consumers that prices had increased more than they actually had. Several factors exacerbated this perception. Firstly, many consumers engaged in a mental calculation to compare Euro prices to the old Lira, with the exchange rate set at 1 Euro = 1936.27 Liras. However, a common simplified calculation considered 1 Euro equivalent to 2000 Liras, resulting in an underestimated exchange rate of 3.3%. This miscalculation added a "virtual" inflation of 3.3%. Additionally, consumers' inability to recall accurate prices in Liras, measured through questionnaires, revealed a distortion in their memories. The discrepancy, where consumers significantly underestimated prices in the era of the Lira, contributed to the perception of a doubling of prices following the Euro's introduction. In conclusion, the claim of prices doubling due to the Euro's entry is unfounded in both Italy and the wider Eurozone. Psychological mechanisms, including miscalculations and memory distortion, played a role in shaping consumer perceptions and contributing to a distorted reality.

Since the entry into the euro system, more than two decades have passed, and despite many doubts and criticisms from some, the system continues to exist and expand. As seen, the system has its strengths and weaknesses; however, what would the European economy be like if national currencies had been maintained?!

CHAPTER 3

As seen earlier, a state's acceptance to join the European Union implies, except in some specific cases, the commitment to pursue the objectives set by the Maastricht Treaty in order to join the Eurozone. The process of adopting the Euro can be divided into three steps: firstly, the target state must become a member of the European Union and formulate its own convergence program, a three-year budget plan outlining the policies the country intends to adopt to comply with EU rules. Subsequently, the state must achieve a level of nominal and real convergence as close as possible to that of other Eurosystem states and participate in the European Exchange Rate Mechanism II (ERM II). Only after meeting the full convergence criteria, the candidate state can adopt the Euro and become a member of the Eurozone. In the next paragraphs, I will examine four states belonging to the "Eastern European Union": Greece, Slovenia, and Croatia, which have already joined the single currency, Romania and Bulgaria, the former a country still quite far from meeting the criteria set by the Maastricht Treaty while the second one on a good track.

3.1 The Hellenic Republic

The first Eastern European country to join the single currency was Greece. As seen earlier, the Hellenic Republic joined the EU on 1st January 1981, thus becoming the tenth member state. About twenty years later, in 2001, Greece was among the first states to adopt the Euro. In more recent times, Greece has been at the centre of a profound economic crisis that undermined not only its credibility as a sovereign state but also the credibility of Europe and its single currency. To better understand the causes that led to the deep Greek and consequently European crisis, I will consider a series of economic data that can provide a clearer picture.

In *"Economics of Monetary Union"*, Paul De Grauwe analyses the evolution of the Greek economy, starting from its entry into the Euro, through a series of graphs. The author first considers the trend of Greece's real GDP compared to the rest of the Eurozone. Figure 9 shows a much stronger growth in the parameter considered compared to the Eurozone. Between 2000 and 2008, Greece's real GDP - red line - consistently remained at much higher levels than that of the Eurozone – orange line. Certainly, this was the result of the long journey undertaken by the country since the post-World War II period, during which Greece initiated a process of industrialization. Through the abandonment of traditional production processes and the introduction of a greater technological component, production more than quadrupled over five decades.

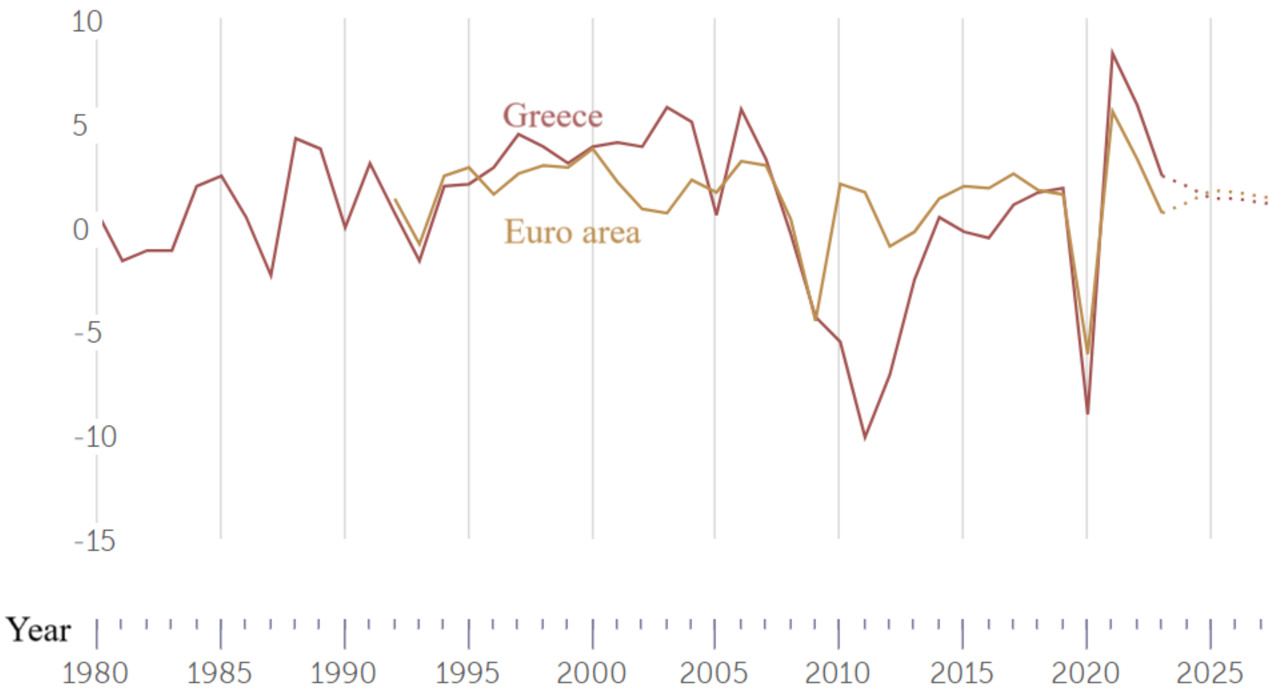

Figure 9 – Real GDP

(Source: https://www.imf.org/en/Data)

This increase in productivity, logically speaking, should have been accompanied by higher Greek employment and a reduction in debt. However, the years with exceptionally high GDP growth rates were, on the contrary, characterized by continuously growing public (figure 10) and private debt and an unemployment rate (figure 11) consistently higher than that of the Eurozone. As De Grauwe P. (2022) points out, this occurred not only because Greek governments deactivated economic stabilizers but also due to an increase in public spending. Furthermore, private debt also experienced an exponential increase in Greece, which depicts a much higher trend compared to private debt in the Eurozone. The situation just described was accompanied by a sharp increase in unit labour costs[3] due to expansion. In the first decade of the 21st century, unit labour costs in Greece increased by about 20%, making the country less competitive and leading to significant disparities between imports, which continued to rise, and exports, which declined due to the high cost of goods produced in Greece.

[3] The "unit labour cost" (ULC), expressed by the formula ULC = W*L/Q, where W is the wage, Q is the value of the product, and L is the quantity of labour used in production, represents the cost of labour considering labour productivity (Q/L represents the average labour productivity).

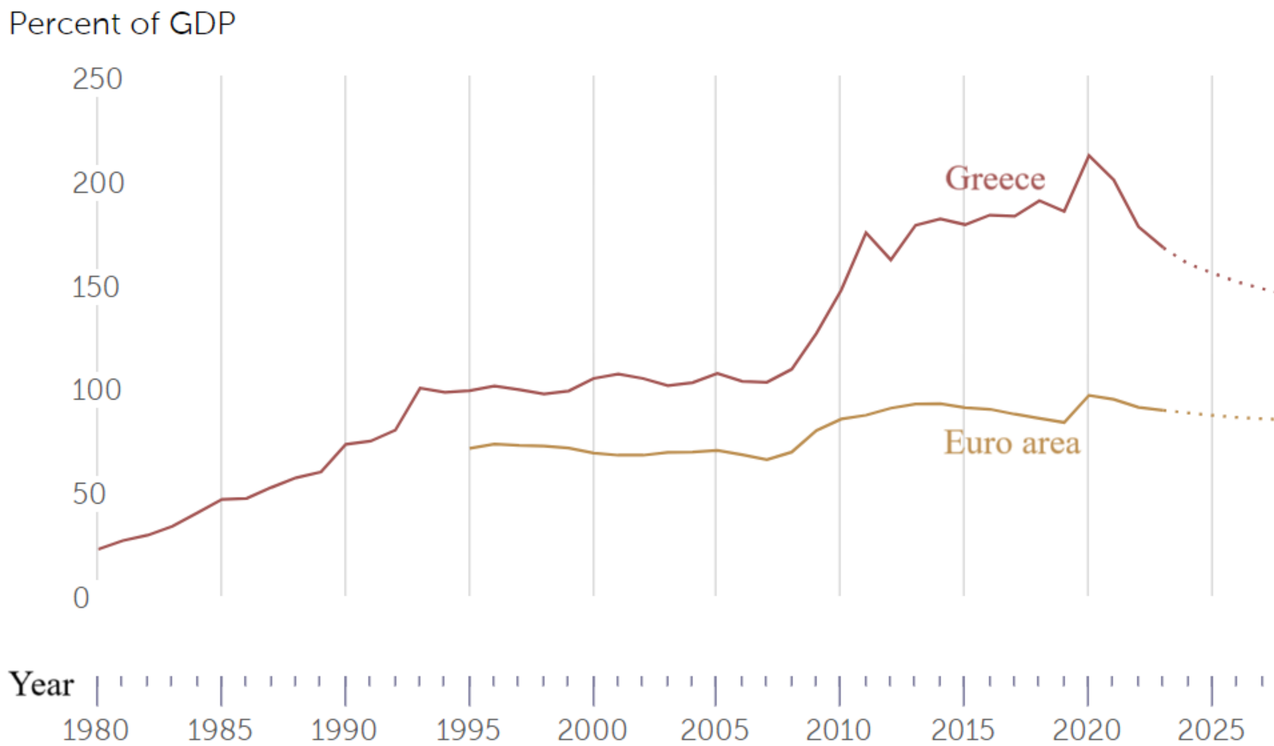

Figure 10 – Public debt

(Source: https://www.imf.org/en/Data)

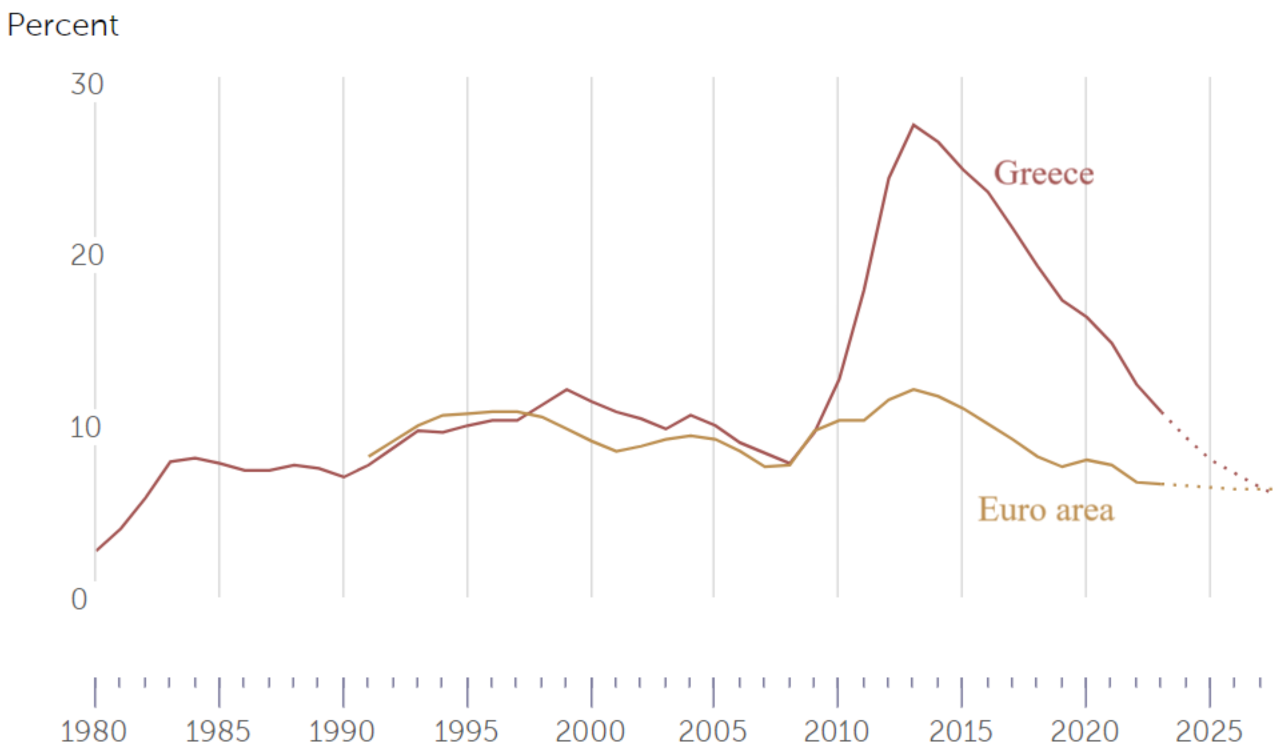

Figure 11 – Unemployment

(Source: https://www.imf.org/en/Data)

What has just been analysed is crucial for understanding the performance of the Greek economy within the Eurozone. Many have attributed the causes of the Greek disaster to the single currency, however, the framework just described highlights how, before the crisis, the country experienced significant expansion. Starting from the 1990s, the private sector began borrowing from abroad, mainly from Northern European states, increasing amounts of money. This money was later distributed among Greek consumers and entrepreneurs, contributing to the economic expansion described earlier. The inflow of money into the country contributed to economic expansion, which not only led to an increase in production but also raised wage levels. However, these higher wages, in turn, lowered the competitiveness of the Greek economy. As the new millennium began, Greece represented 2.5% of the Eurozone's GDP, and from the introduction of the single currency until 2008, Greece recorded growth levels not only in line with those of other Eurozone states but even higher. The issue was that Greek consumers and businesses were heavily exposed due to the significant sums of money borrowed in the previous years, sums that, in the event of a crisis, would have been unsustainable. Thus, 2008 arrived, an annus horribilis not only for Europe but for the whole world. The subprime mortgage crisis that developed in the USA infected banks worldwide and brought Europe to financial collapse. The crisis forced the entire Europe, including Greece, to cut back on spending. This resulted in reduced wages, production volumes, and consequently GDP, along with an increase in unemployment. Greek GDP collapsed, unemployment reached levels around 30% of the active population, and public debt exploded. Additionally, holders of Greek government bonds quickly disposed of them, causing interest rates on them to soar, and forcing the cash-strapped Greek government to impose severe austerity measures. The recession persisted in Greece for several years, diverging drastically from the path of the rest of the Eurozone. The Greek situation became dramatic. In his analysis of the Greek situation, Paul De Grauwe emphasizes how in a monetary union, the adjustment costs generated by an asymmetric shock can be very high. Additionally, the lack of control over monetary policy can exacerbate them. The author argues that, in the specific case of Greece, if it had not adopted the Euro, it could have resorted to devaluing its currency to mitigate the damage caused by the crisis. Furthermore, the adoption of the Euro did not allow Greece to issue debt securities capable of partially resolving the liquidity problem, forcing it to resort to borrowed money on terms imposed by creditors.

What happened to Greece represented a significant example of how adjustment costs can be remarkably high for a state that relinquishes its monetary sovereignty. The adjustment mechanism in a monetary union can entail long periods of recession accompanied by unemployment and misery for millions of people. This demonstrates the strong relationship between economics and politics: the serious consequences of adopting the Euro on people's lives can lead to political upheavals,

highlighting the extreme fragility of the Eurozone. From the Greek crisis to the present day, we have seen many situations where political parties have convinced sovereign nations to believe that their position would be better outside the monetary union. The absence of a full European political union has over the years highlighted how one or more creditor nations can impose their hegemony on the economic policy measures of others, depriving them of their sovereignty. Situations like these are certainly damaging to the Euro system and the European system, undermining its credibility.

3.2 The Republic of Slovenia.

Slovenia joined the European Union in 2004, and exactly three years later, on 1st January 2007, it became the second country in the Balkan area to adopt the Euro. The Euro replaced the old currency, the Slovenian Tolar, at the irrevocable exchange rate of 1 Euro for 239.640 Tolars.

Slovenia is one of the smallest and youngest countries in Europe, as its independence dates to 1991 when the country declared independence from the Socialist Federal Republic of Yugoslavia. At the end of the Second World War, Slovenia was part of the group of countries that constituted Yugoslavia, a region characterized by profound ethnic, linguistic, religious, and cultural diversity under the leadership of Marshal Josip Broz Tito. The years that followed were marked by strong tensions and internal conflicts until, on 25th June 1991, Slovenia declared its independence.

Slovenia inherited an economy shaped by its membership in a socialist regime. However, socialist Yugoslavia opted for a different economic and social model from that of the USSR, relying on "self-managed socialism." There were profound differences within the region: Slovenia was the most industrialized and economically advanced country, while Kosovo was the least developed; the difference between the two regions in the 1980s was represented by a ratio of 8 to 1. Throughout the life of the Socialist Federal Republic of Yugoslavia, Slovenia remained the main economic power: its GDP per capita was twice that of the Union. This prompted the political class to adopt measures that forced the wealthier states to provide economic resources for the poorer ones, fuelling growing discontent. With the succession of nationalist uprisings and the problems caused by Tito's death, Slovenia's independence was drawing closer and closer.

Following the fall of the Soviet regimes, the International Monetary Fund (IMF) stepped in as the financial reference for the new democracies attempting to cope with the economic disaster generated by years of regime. In the former Yugoslavia, the situation was even more tragic due to the wars that ravaged the region. Slovenia quickly emerged from the war, and the new political class implemented structural reforms aimed at guiding the country towards the international market. In 1992, the IMF

granted Slovenia a loan of 25 million SDRs[4], which was fully repaid by 1997, and the country experienced an average per capita growth of 2.5% over the decade.

As mentioned earlier, Slovenia was the most economically successful region of the former Yugoslavia. Despite comprising only 8% of the population of the Socialist Federal Republic of Yugoslavia, Slovenia represented around 20% of the total Yugoslav GDP and around 30% of its exports. After gaining independence, Slovenia's economy faced two main challenges: on the one hand, the country had lost part of the market with which it had previously traded, namely the region of Yugoslavia, on the other hand, it needed to adapt to the transition to a market economy and the mechanisms of profit generation.

After gaining independence, Slovenia initiated the process of economic transition, albeit slowly. There were indeed some challenges within the transitioning economy: drops in production, inflation, unemployment, restrictions on private property and capital use, overreliance on heavy industry and large enterprises. Despite the initial difficulties, Slovenia's fortune lay in its proximity to western markets, which allowed it to quickly shift the distribution of its production. However, the good level of economic growth concealed internal deficiencies, including significant wage increases and delays in structural reforms. Consequently, the slowdown of economic growth in Europe in 1995 hindered economic growth and exacerbated unemployment in Slovenia, coinciding with the appreciation of the Tolar. The situation improved again around mid-1996, with an expansion of domestic demand, improved competitiveness, and the first signs of economic recovery in Slovenia's export markets, which, in the second semester, reignited growth. While GDP increased in 1996 (3.5%), slightly lower than in 1995 (4.8%), in the following years, it experienced a steady but not spectacular upward trend, reaching 4.9% in 1999 and 4.8% in 2000.

Slovenia entered the world of sovereign states with a reasonably performing economy; however, the process of independence created some difficulties for the country. Indeed, GDP per capita dropped from $8,656 in 1991 to $6,052 a year later. Nevertheless, the Slovenian economy gradually recovered, and by 2000, GDP per capita reached €9,120. Internal tensions also affected production, leading to a drastic decline along with tourism and trade. However, from the mid-1990s onwards, the country began to grow again. Thanks to exports and construction, the Slovenian economy experienced steady and solid growth until 2008, the year of the Great Recession.

[4] Special Drawing Rights (SDRs) are the unit of account of the International Monetary Fund. They represent a special type of currency whose value is based on a basket of major currencies that are highly liquid in international markets. SDRs can be used by the IMF to finance operations in support of countries in crisis and cannot be used in transactions between private parties.

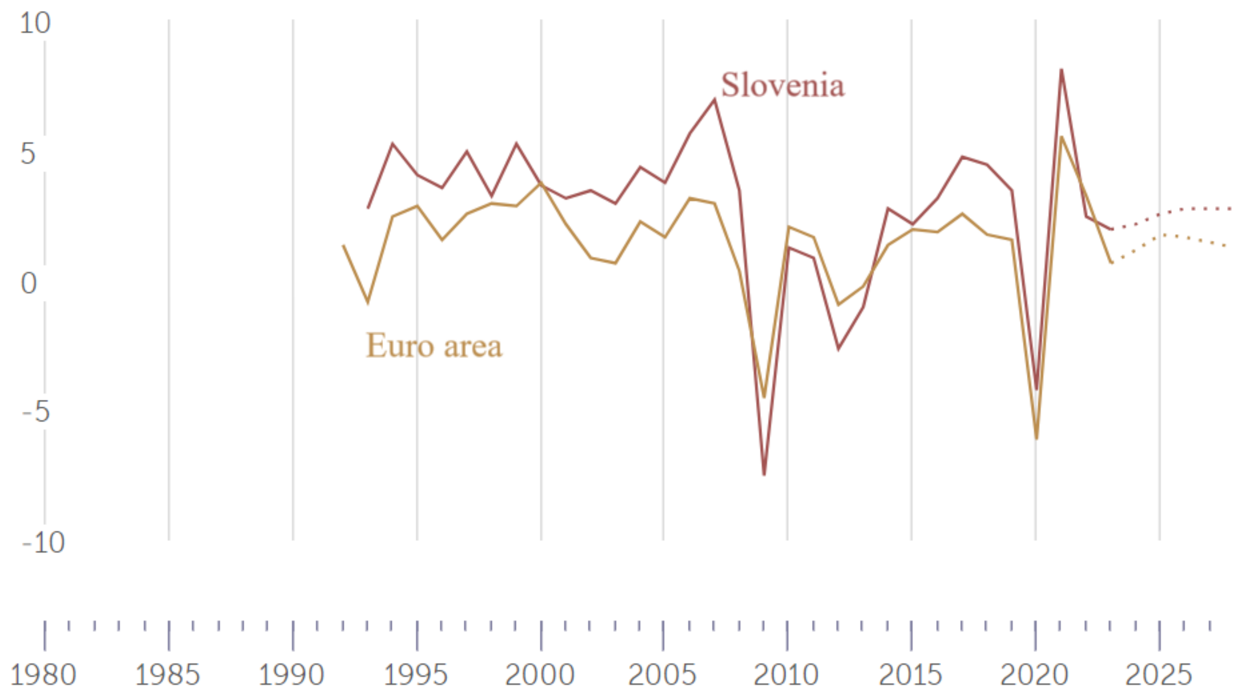

Figure 12 – Real GDP

(Source: https://www.imf.org/en/Data)

Following the political vicissitudes that characterized Slovenia's history in the second half of the 20th century, the population immediately took a favourable stance towards possible accession to the European Union; all major political parties were in favour. Slovenians saw accession as an advantageous choice that would allow the country to gain political prestige and geopolitical security, improve its economic development, and make progress in cultural, scientific, and academic fields. In 1997, representatives of all parliamentary parties, except one, signed the "Cooperation Agreement for Slovenia's Accession to the EU", a shared document committing all actors in the Slovenian political class to collaborate and cooperate to expedite the accession process. Thus, official negotiations for accession began in 1998, and four years later, in 2002, they concluded, with Slovenia officially joining the EU on 1st May 2004. Just three years after joining the EU, on 1st January 2007, Slovenia abandoned the Tolar and joined the Eurozone. Slovenia became the thirteenth EU member state to adopt the Euro.

3.3 The Republic of Croatia.

Croatia, like Slovenia, entered the new millennium marked by the bloody disintegration of Yugoslavia, which deeply affected both the history of the Balkans and that of Europe as a whole. With a population of about 3.9 million and a GDP of around 60 billion euros, the country submitted its application for EU membership on 21st February 2003, and two years later, accession negotiations began. Thus, after Slovenia, Croatia became the second state from the former Yugoslavia to join the European Union on 1st July 2013. Just like neighbouring Slovenia, Croatia was aided in overcoming nationalism and internal tensions thanks to its geographical position, its predominant religion, Catholicism, which aligns it more with the West, and above all, its ability to capitalize on its distinctive environment, allowing it to focus on tourism, an industry that accounts for 20% of GDP. This sector has enabled the country to achieve a steady improvement in living standards, although there are still issues related to corruption and excessive bureaucracy, remnants of a state that was involved in a war less than thirty years ago.

Over the years, Croatia has made significant efforts to address internal shortcomings. It has dedicated resources to infrastructure reconstruction, reformed its pension system by including thousands of war veterans, consistently fought corruption, improved political stability, and above all, invested in the tourism sector. After joining NATO in 2009 and the EU in 2013, Croatia became the twentieth member of the Eurozone as of 1st January 2023, and was accepted into the Schengen area.

3.4 Two prospective candidates: The Republic of Romania and the Republic of Bulgaria.

According to the accession treaty, all states becoming EU members must adopt the euro after a certain period, albeit varied. Therefore, a country's entry into the EU automatically entails its entry into the Economic and Monetary Union (EMU). Romania was admitted to the European Union on 1st January 2007, which means the next step for the country is to prepare its national economy for the adoption of the single currency. As a candidate state, Romania is currently considered a country with a derogation from adopting the euro. As seen in previous chapters, the process of adopting the euro consists of three phases:

1. The first phase involves the acceptance of candidate countries into the EU. Upon joining the EU, member states must develop "National Convergence Programs" and coordinate their economic policies with other countries based on coordination guidelines with the EC and other member states.
2. The second phase involves reaching a level of nominal convergence and the highest possible level of real convergence with eurozone countries, as well as participating in the Exchange Rate Mechanism II (ERM II).

3. Finally, in the third and last phase, after meeting nominal and real convergence criteria, member states will participate in the EMU by introducing the single currency, the euro. From the moment of accession to the Eurozone, the independence of monetary policy, implicitly of the exchange rate instrument, is realized as a means to correct economic imbalances. After joining the final stage of the EMU, states must comply with the rules of operation and coordination in the Eurozone through "National Stability Programs”.

Romania, to adopt the single currency, is therefore obliged to pursue the criteria of nominal, legal, and real convergence. Although the latter two are not explicitly addressed in the Treaty, reports by the ECB and the Commission increasingly emphasize their importance. Internally, preparations for Romania's accession to the Eurozone are coordinated by an inter-ministerial committee, which includes, in addition to the Romanian Minister of Finance, the Governor of the National Bank of Romania and some of his collaborators. This institution, established in 2011, forms the basis of a governmental structure, which also includes a National Commission, with the aim of meeting the criteria set out in the Maastricht Treaty as soon as possible and joining the Eurozone.

The economic situation of Romania began to be analysed by European institutions for the first time in the convergence report of May 2008. At this stage, Romania is far from meeting the requirements, and the conclusion of the report is that *"The Law does not comply with all the requirements for central bank independence and legal integration into the Eurosystem. Romania is a Member State with a derogation and must therefore comply with all adaptation requirements under Article 109 of the Treaty"*. The country was subsequently analysed in the following reports: in 2010, 2012, 2014, 2016, 2018, 2020, and 2022.

In the 2010 report, the conclusions are that Romanian legislation does not meet all the requirements regarding the independence of the central bank, the prohibition of monetary financing, and the legal integration of the Romanian central bank into the Eurosystem. The same was established in the reports of 2012, 2014, 2016, 2018, and 2020. The latest report on the Romanian economy dates to 2022. I will now proceed to analyse this report in more detail.

In April 2022, the annual inflation rate measured based on the Harmonized Index of Consumer Prices (HICP) was around 6.4%, well above the reference value of 4.9% set as a benchmark for price stability. Over the last 10 years, Romania's inflation rate has fluctuated within a fairly wide range of values, ranging from -1.7% to 6.4%. This trend in the inflation rate over time raises serious concerns about the country's ability to maintain an adequate level of inflation in the long run.

Romania's debt has been consistent with the parameter stipulated by the Maastricht Treaty; however, the public deficit exceeded the reference value of 3% in 2021. Due to the excessive deficit, a procedure for excessive deficit was initiated a few years ago. Through this procedure, the country was asked to correct the excessive deficit by 2022, however, that did not happen; in fact, in 2021, the Council deemed it appropriate to extend the deadline by which Romania must correct its public deficit to avoid compromising the country's economic recovery after the crisis caused by the pandemic. The Council adopted a recommendation stating that Romania should exit the excessive deficit situation by 2024. According to the recommendation, Romania should achieve a public deficit target of 6.2% of GDP in 2022, 4.4% of GDP in 2023, and 2.9% of GDP in 2024. These recommendations aligned with the objectives of the Romanian government. During the reference period of the convergence report from 2020 to 2022, Romania had not yet joined the Exchange Rate Mechanism (ERM II) but adopted a flexible exchange rate regime with controlled fluctuations. During the period under review, the leu's exchange rate against the euro showed, on average, a contained level of volatility. Over the past ten years, Romania's current and capital account balance has improved; however, net liabilities abroad have decreased but remain quite high. Long-term interest rates have been around 4.7%, a rather high level compared to the reference value of 2.6% set for this convergence criterion. However, over the past ten years, Romania has recorded a significant decline in long-term interest rates, hovering around 10%. To create a context conducive to sustainable convergence, Romania must implement stability-oriented economic policies and significant structural reforms. Romania should implement measures aimed at improving the institutional and economic environment, encouraging investment and competition in goods and services markets, reducing skill mismatches and deficiencies, increasing employment to alleviate tensions in the labour market, and improving the quality and efficiency of public administration and the judicial system. To promote confidence in the financial market, relevant national authorities should continue to improve the supervisory system by following recommendations from international and European bodies and collaborating with supervisory authorities of other member states within supervisory authorities' colleges. The conclusion of the European bodies was also in the last report that Romanian legislation does not meet all the requirements regarding central bank independence, the prohibition of monetary financing, and legal integration into the Eurosystem.

As of today, despite seventeen years having passed since Romania's accession to the European Union, Bucharest does not meet the criteria set by the Maastricht Treaty. In March of last year, the then Minister of Finance Adrian Câciu announced that the Romanian Government wishes to accelerate the timing of entry into the Eurosystem and anticipate it by three years compared to what is foreseen in the current plan for adopting the single currency: currently, the expected entry date is 2029. The

Bucharest Government believes that by fully implementing the objectives of the Recovery and Resilience Facility (RRF)[5], there is a chance to put the public finances in order to meet the Maastricht criteria for Eurozone accession by 2026.

However, the National Bank of Romania is not equally optimistic; indeed, the institution foresees that convergence will not occur before 2029, a forecast also confirmed by the European Commission. In fact, in its 2022 report, the Commission found that many of the expected parameters had not been met. According to Adrian Vasilescu, advisor to the governor of the Romanian central bank, while there is political will in Romania, the economic effort to anticipate the adoption of the Euro is practically impossible to achieve within the timeframe set by Câciu. Romania needs significant interventions on its public accounts, and the deadline of 2026 is considered highly unlikely by many; in fact, it could even be postponed, as has happened several times before: initially, Romania's adoption of the Euro was scheduled for 2014, then postponed to 2019, and subsequently to 2024.

Like Romania, Bulgaria was also admitted to the European Union on 1st January 2007 therefore, Bulgaria is also currently considered a country with a derogation from adopting the single currency. Bulgaria continues to use its national currency, the Lev, which was previously pegged to the German Mark and currently to the Euro at a fixed exchange rate. As can be inferred from Table 3.3.1, Bulgaria has a better economic situation compared to Romania: as early as 2009, two years after joining the EU, the country was ready to join the ERM II; however, due to political decisions and consequences related to the 2008 economic crisis, the date was postponed. Initially, entry into the ERM II was postponed to 2013 however, due to Bulgaria's deficit increasing from 1.9% to 3.7% in 2010, entry was further delayed. It was in 2017 that the Bulgarian government announced its intention to formally apply for ERM II accession, and three years later, on 30th April 2020, it was announced that Bulgaria had officially submitted the request for ERM II accession. On 10th July 2020, Bulgaria was included in the second phase of European exchange rate agreements, and the central exchange rate was set at 1 euro = 1.95583 lev. One year later, the government announced its intention to join the Eurozone starting from 1st January 2024; however, this date was postponed by one year due to issues related to meeting European parameters.

Currently, there is no definite date for Bulgaria's adoption of the euro. In any case, the prospects are positive and confirmed by the fact that Standard & Poor's upgraded the country's outlook from "stable" to "positive" in November 2023 and confirmed Bulgaria's expected entry into the Eurozone

[5] The Recovery and Resilience Facility (RRF) is a financial instrument devised by the European Union as part of the Next Generation EU framework to support the recovery of member states following the difficulties generated by the pandemic crisis and the consequent slowdown in European economies. The plan has a budget of 773.8 billion euros, of which 338 billion are grants and 385 billion are loans. (Source: https://temi.camera.it/leg19/pnrr.html)

no later than 2026. Essential for predicting how the Bulgarian situation will develop will be the ECB report expected in June of this year.

COUNTRY	Year	Price stability	Government budgetary developments and projections			Exchange rate		Long-term interest rate[6]
		HICP inflation[7]	Country in excessive deficit[8]	General government surplus (+)/ deficit (-)[9]	General government debt[10]	Currency participating in ERM II[11]	Exchange rate vis-à-vis the euro[12]	
Bulgaria	2020	1.2	NO	-0.4	24.7	YES	0.0	0.3
	2021	2.8	NO	-4.1	25.1	YES	0.0	0.2
	2022	5.9	NO	-3.7	25.3	YES	0.0	0.5
Romania	2020	2.3	YES	-9.3	47.2	NO	-2.0	3.9
	2021	4.1	YES	-7.1	48.8	NO	-1.7	3.6
	2022	6.4	YES	-7.5	50.9	NO	-0.5	4.7
Target		4.9		-3	60.00			

Table 1 - Overview table of economic indicators of convergence

(Source: Convergence Report June 2022)

[6] Average annual interest rate. Data for 2022 refer to the period from May 2021 to April 2022.
[7] Average annual percentage change. Data for 2022 refer to the period from May 2021 to April 2022.
[8] Refers to whether a country was subject to an EU Council decision on the existence of an excessive deficit for at least part of the year.
[9] As a percentage of GDP. Data for 2022 are taken from the European Commission's Spring 2022 Economic Forecast.
[10] As a percentage of GDP.
[11] The information for 2022 refers to the period up to the cut-off date for statistics (25 May 2022).
[12] Annual percentage change. A positive (negative) number denotes appreciation (depreciation) vis-à-vis the euro. Data for 2022 refer to the period from 1 January 2022 to 25 May 2022.

CONCLUSION

Since the birth of the theory of optimal currency areas, many years have passed, and the European and global economic system has completely changed. The analysis above aims first to provide a general framework of the theory initiated by Mundell and then to focus on the economic and political organization of the area in which we live. Our society's foundations were laid at a particular moment in European history, a period marked by the memory of the atrocities of the two world wars, which left its mark on the decisions made thereafter. The objective of the founding fathers of the European Union was to create a zone of peace in which states, until then bitter enemies, could cooperate and generate prosperity. The analysis has highlighted the complexity of the EU's political-monetary system, and certainly, a complex system also hides significant flaws. Deciding to join the EU and the single currency brings with it many benefits but, in some cases, also significant costs; as seen, an unexpected shock can harm a stable economy. Many economists have criticized the European Union and the single currency, with Joseph Stiglitz (2017), Nobel laureate in economics, even dedicating a book, *"The Euro: How a Common Currency Threatens the Future of Europe"*, to denounce the danger faced by our continent due to the single currency. The European Union consists of twenty-seven states, each with its own history, political system, and economy. This makes the management of the system quite challenging, and in recent years, with the profound crises that have occurred, the difficulties generated by membership in the EU, and, above all, the Eurozone have been even more pronounced. In the coming years, further changes are expected due to the entry of states, currently in the EU, into the Eurozone, such as Romania, and the accession of new members to the European Union, such as the latest arrivals: Ukraine and Moldova. Moreover, especially in recent years, history has accustomed us to sudden and unexpected changes and upheavals, such as the COVID-19 pandemic and the war between Russia and Ukraine. No one can predict the future of Europe and the Eurozone, but, in my opinion, it is important to remember that unity means strength.

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