

Chapter Eight

Monetary Policy in the European Union

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Introduction

In a famous speech in London in the summer of 2012, Mario Draghi, then President of the European Central Bank (ECB) declared that 'ECB is ready to do whatever it takes to preserve the euro' (Draghi, 2012). These words by the highest representative of the European monetary authorities had a powerful impact on financial markets, as they restored the confidence in the single European currency. In this chapter, we will explain that central banks change monetary variables to influence economic fluctuations. The general objective is to smooth the economic fluctuations and ensure price stability, often together with financial stability. Over the last three decades, central bank communication has also become an increasingly important aspect of monetary policy. As illustrated by Mr. Draghi's statement, a credible central bank communication with the public can enhance the predictability of monetary policy decisions and potentially help achieve central bank's macroeconomic objectives.

The process of European integration also includes a monetary unification. When most of the European countries decided to have only one money, they also agreed to have only one monetary policy. The so-called European monetary integration brings a lot of benefits, but also implies a loss of monetary sovereignty. If the economies face similar economic fluctuations, then having a common monetary policy makes sense. However, if some economies are on the brink of recession and other economies are experiencing an over-heating, most likely there will be a disagreement about the course of the monetary policy. It should not be surprising therefore that there are heated debates among

economists about whether the adoption of the single European currency is a good decision.

In the next section we explain how the central bank conducts its monetary policy. We also refer to the monetary unions and the difficult road to European monetary integration. The second section outlines the main objectives of the monetary policy, whereas the next section elaborates the most widely used instruments of the monetary policy by ECB. The requirements for an optimum currency area (OCA) are a subject of investigation of the fourth section, whereas the fifth section elaborates the EU convergence criteria (also known as the Maastricht criteria). The concluding remarks explore the relevance of EU monetary policy for the countries from Western Balkans.

Monetary Policy and Monetary Union

Monetary Policy

Getting the monetary policy right is crucial to the health of the economy (Mishkin, 2013). The monetary policy is the setting of monetary variables (either a change in the money supply or a change in the interest rate target) by policymakers in the central bank. By smoothing the fluctuations in economic activity, the monetary authorities aim to bring the actual output closer to the potential output. If the actual output is below the potential output (the long-term tendency or trend of the actual output), then the economy is experiencing a recessionary gap. This period is characterized by a significant reduction in consumer expenditure or investment. When the actual output is above the potential output, the economy is experiencing an over-heating. The inflationary gap is also an unfavorable macroeconomic outcome, as the relative rise in real GDP causes an economy to increase its consumption, leading prices to climb in the long run. Based on the intentions of the monetary policies, we hereby introduce the important distinction between the expansionary and the contractionary monetary policy.

Expansionary monetary policy is monetary policy that increases aggregate demand for goods and services. In this case, the monetary policy expands the money supply, reduces the interest rates, and thereby encourages higher investment and consumer spending. When these two components of the aggregate demand are higher, the aggregate demand will also be higher in the short run ($\uparrow C + \uparrow I + G + X - M = \uparrow AD$). Of course, the impact of monetary policy in practice will also depend on the behavior of public consumption (G) and net exports or net for-

eign demand ($X - M$). In contrast, contractionary monetary policy is monetary policy that decreases aggregate demand for goods and services. This type of monetary policy works by decreased money supply, increased interest rates, and lower investment and consumer spending. In the short run, the monetary transmission mechanism will likely lead to a lower aggregate demand ($\downarrow C + \downarrow I + G + X - M = \downarrow AD$).

If the monetary policy is too tight for too long, the economy may fall into recession and the price level may decrease (deflation). If the monetary policy is too relaxed, the central bank will most likely induce high inflation and impede economic growth. Therefore, price stability, commonly defined as low and stable inflation, is increasingly viewed as the most important goal of monetary policy. Let us recall that the inflation rate is the percentage change in the overall level of prices.

Economists argue about the impact of a change in the money supply on the aggregate price level in the long run. Much of the profession maintains that money is neutral in the long run, implying that changes in the money supply have no real effects on the economy. The concept of money neutrality suggests that a change in the money supply would result in equal proportional change in the aggregate price level in the long run.

More recent literature on central bank communication and central bank transparency also underscores the importance of managing expectations of economic agents in conducting the monetary policy. A high degree of central bank transparency and a clarity in central bank communication, both when it comes to announcing new policy tools and when using forward guidance, can reduce market uncertainty and increase the effectiveness of monetary policy.

Monetary Union

While the conduct of monetary policy in a national economy seems to be rather straightforward, it becomes more complex in a monetary union, such as the euro area. A monetary union is an agreement between two or more countries creating a single currency area. One of the most obvious benefits is that having a common currency facilitates international trade. A common currency would easily reveal price differentials, let us say, between the price of a Volkswagen car in Germany and Italy. Influential empirical studies find a large positive effect of a monetary union on international trade, i.e. countries sharing the same currency trade more than they would with different currencies. On av-

erage, the empirical literature estimates that the single European currency increased the international trade by between 10 and 20% during the first four years (Frankel, 2010). As we will explain later, being a member of a monetary union also implies some economic costs.

According to the theory of economic integration, there are several stages of economic integration: (1) preferential trade area; (2) free trade area; (3) customs union; (4) common market; (5) monetary union; (6) fiscal union, and (7) political union. Based on this categorization, the process of European Union integration is now at the fifth stage with certain achievements towards the sixth stage (see the chapter on EU fiscal policy). As El-Agraa (2011, p. 149) underscores, the monetary union 'should specifically include three elements if it is to qualify under this definition: (1) a common monetary policy; (2) a common pool of foreign exchange reserves and a common exchange rate policy, and (3) a single central bank or monetary authority to operate these policies.'

One of the most notable monetary unions is the euro area, presently being comprised of 19 EU member states. This form of currency union involves a creation of a new currency and a new common central bank. It implies that – for instance – the monetary policy decisions for Greece are no longer taken in Athens only, but in Frankfurt am Main, where the headquarters of the European Central Bank is. It would be a mistake to conclude that Greece does not have a say in formulating the monetary policy decisions. A fairer statement would be that monetary policy decisions are now jointly determined by the 19 EU member states which employ the euro. But what if some countries are on the brink of recession, while others experience overheating of their economies? The former may need expansionary monetary policy and the latter contractionary monetary policy to smooth the fluctuations in economic activity. The monetary policy decisions obviously require detailed analyses and difficult trade-offs to decide which country can join the monetary union and how to accommodate the needs of most of its members. Before examining this issue, we will provide an overview of the euro area and its institutional architecture.

The Euro Area and Its Institutional Architecture

The idea of a European Monetary System (EMS) was initially introduced by the German chancellor, Helmut Schmidt, and the French president, Valéry Giscard d'Estaing. Based on their views, the European Commission set up a committee, led by Pierre Werner, then prime min-

TABLE 8.1 The Three Stages to Economic and Monetary Union (EMU)

Stage One 1 July 1990	Complete freedom for capital transactions Increased cooperation between central banks Free use of the ECU (the forerunner of the Euro) Improvement of the economic convergence
Stage Two 1 January 1994	Establishment of the European Monetary Institute Ban on the granting of central bank credit to the public sector Increased coordination of monetary policies Process leading to the independence of the national central banks to be completed at the latest by the date of establishment of ESCB Strengthening of the economic convergence Preparatory work for stage three
Stage Three 1 January 1999	Irrevocable fixing of conversion rates Introduction of the Euro as physical banknotes and coins Conduct of the single monetary policy by the European system of central Banks Entry into effect of the intra EU exchange rate mechanism (ERM II) Entry into force of the Stability and Growth Pact

ister of Luxembourg, to operationalize the idea. The Werner Committee presented a report, which is an important milestone in the process of European monetary unification. Fast forward through numerous attempts and upheavals, in June 1988, the European Council appointed a committee chaired by Jacques Delors, then President of the European Commission to propose an action plan for an Economic and Monetary Union (EMU). As presented in Table 8.1, it envisaged three stages: (1) all EU members to join the European Monetary System's Exchange Rate Mechanism (ERM); (2) exchange rate margins to be narrowed and certain macroeconomic policy decisions placed under more centralized EU control, and (3) national currencies to be replaced by a single European currency and all monetary policy decisions to be vested in a European System of Central Banks (ESCB).

A unified monetary policy and a single currency have been seen as important steps towards deepening European integration. The single European currency was named the euro in December 1995 and launched on January 1, 1999.

The institutional system behind the single monetary policy is somewhat complex because some EU member states are not part of the euro area. As presented in Figure 8.1, the European System of Central Banks (ESCB) is comprised of the European Central Bank (ECB) together with

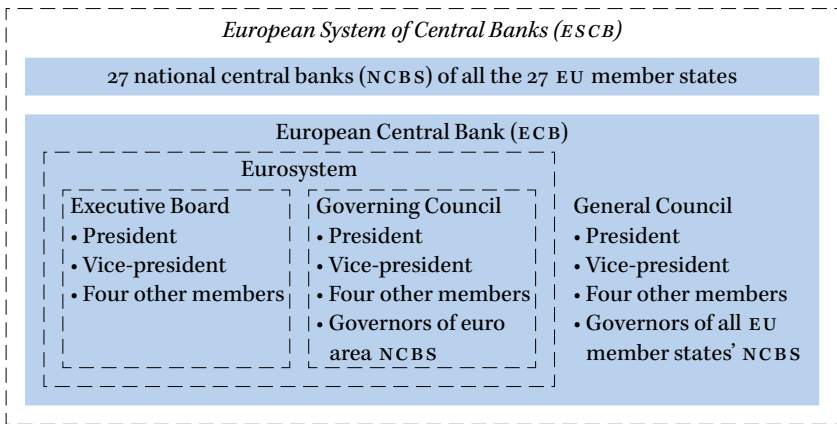


FIGURE 8.1 Structure of the European System of Central Banks

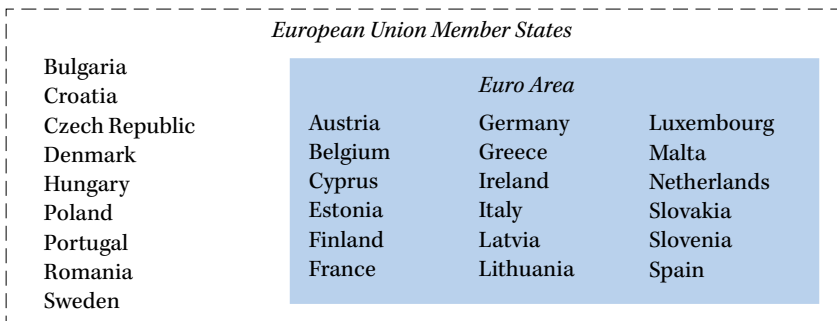


FIGURE 8.2 The Euro Area and the European Union

the national central banks of presently 27 EU member states. The Eurosystem is the central banking system of the euro area. It comprises ECB and the national central banks of 19 EU member states whose currency is the euro. Figure 8.2 provides visualization of the present scope of the euro area.¹ Although some EU member states have not (yet) adopted the euro, ESCB is governed by the decision-making bodies of the European Central Bank. Therefore, the ECB lies at the core of the conduct of the monetary policy of the Union.

The ECB neither encourages nor deters third countries from using the euro. Some European countries – such as Montenegro and Kosovo – have unilaterally adopted the euro as a legal tender. This operation is

¹ Euro-area member states are Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, and Spain.

also known as a unilateral euroization. Despite having the euro as a legal tender, these countries are not formal members of the euro area, as they neither have a seat nor a say on the table at the European Central Bank premises.

Main Objectives of the Monetary Policy

The primary objective of the ECB's monetary policy is to maintain price stability. In practical terms, price stability is achieved by maintaining inflation rates below, but close to, 2% over the medium term. Without prejudice to the objective of price stability, ECB is also aiming to support economic growth and job creation. Moreover, it is responsible for prudential supervision of credit institutions located in the euro area and participating non-euro area member states to maintain financial stability. It is important to note that central banks may pursue more than one macroeconomic objective. For instance, the USA's Federal Reserve System has a 'dual mandate,' as it pursues two goals: price stability and maximum sustainable employment. The two main objectives of the Bank of England are monetary stability and financial stability.

To achieve its primary objective, ECB bases its decisions on a two-pillar monetary policy strategy. The first pillar is economic analysis of the short- and medium-term determinants of price developments. The second pillar is monetary analysis, which focuses on monetary and credit developments with a view to assessing their impact on future inflation and economic growth.

Main Instruments of Monetary Policy

Supra-national monetary policy (monetary policy for a union of countries) is not fundamentally different from the 'national' monetary policy. Monetary policy decisions affect price levels (and the economy in general) through a long chain of cause-and-effect events without a guaranteed success. The process usually starts with a change in some of the main standard instruments of the monetary policy:

- Open market operations (OMOS);
- Standing facilities;
- Minimum reserve requirements for credit institutions.

In the aftermath of the Global Financial Crisis in 2008/2009, the ECB has implemented few non-standard monetary policy measures to complement the regular operations of the Eurosystem.

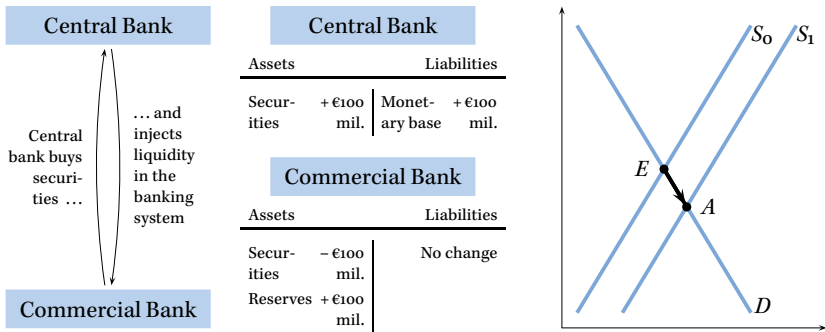


FIGURE 8.3 Open Market Operations to Conduct Expansionary Monetary Policy

Open Market Operations. These operations involve purchase and sale of securities that affect both interest rates and the amount of reserves in the banking system. For instance, ECB could inject money into the economy by buying some securities in open market operations. As presented in Figure 8.3, this will inject liquidity in the banking system, i.e. increase the quantity of bank reserves.

There are four types of open market operations: main refinancing operations; longer-term refinancing operations, fine-tuning operations, and structural operations. The Eurosystem’s regular Open Market Operations (OMOS) consist of one-week liquidity-providing operations in euro (*main refinancing operations*, or MROS) and three-month liquidity-providing operations in euro (longer-term refinancing operations, or LTROS). MROS serve to influence short-term interest rates, to manage the liquidity situation and to signal the monetary policy stance in the euro area, while LTROS provide additional, longer-term refinancing to the financial sector.

Less regular open market operations are *fine-tuning operations* and *structural operations*. The aim of the former is to deal with unexpected liquidity fluctuations in the market, in particular with a view to smoothing the effects on interest rates, while the latter are mainly aimed at adjusting the structural position of the Eurosystem vis-à-vis the financial sector on a permanent basis.

Standing Facilities. The Eurosystem offers credit institutions two standing facilities: (1) marginal lending facility in order to obtain overnight liquidity from the central bank, and (2) deposit facility in order to make overnight deposits with the central bank.

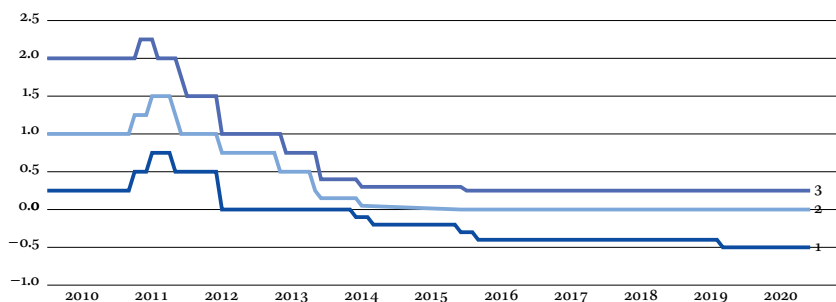


FIGURE 8.4 Key ECB Interest Rates (Percentages per Annum), 2010–2020 (1 – interest rate on the deposit facility, 2 – interest rate on the main refinancing operations, 3 – interest rate on the marginal lending facility; adapted from European Central Bank, 2021)

Minimum Reserve Requirements. Reserve requirements are commonly defined as the amount of funds that a bank holds in reserve to ensure that it is able to meet liabilities in case of sudden withdrawals.

The main instruments of the monetary policy are implemented at appropriate interest rates. It is the Governing Council of the ECB that sets the key interest rates for the euro area. As presented in Figure 8.4, these interest rates were in the range between 0 and 2.25% in the past decade. In June 2014, the ECB was the first major central bank to lower one of its key interest rates into negative territory. The risk of deflation in the euro area intensified and ECB decided to push the interest rates below zero. At the time, this was widely considered as a controversial move, but today, negative interest rates are a standard instrument in the ECB's toolkit.

The change of the official interest rates is only the start of a long chain of cause-and-effects events. A change in the monetary variables would affect not only the money market interest rates, but also the expectations of the economic agents. By impacting credit activity, asset prices, bank rates, and the exchange rate, this monetary transmission mechanism also influences the wages, the supply and demand in goods and labor markets (Figure 8.5). The ultimate policy variable of interest is price developments, which is associated with the central objective of the monetary policy.

Optimum Currency Area

The Nobel laureate in economics, the Canadian Professor Robert Mundell, the Stanford Professor Ronald McKinnon and the Princeton Uni-

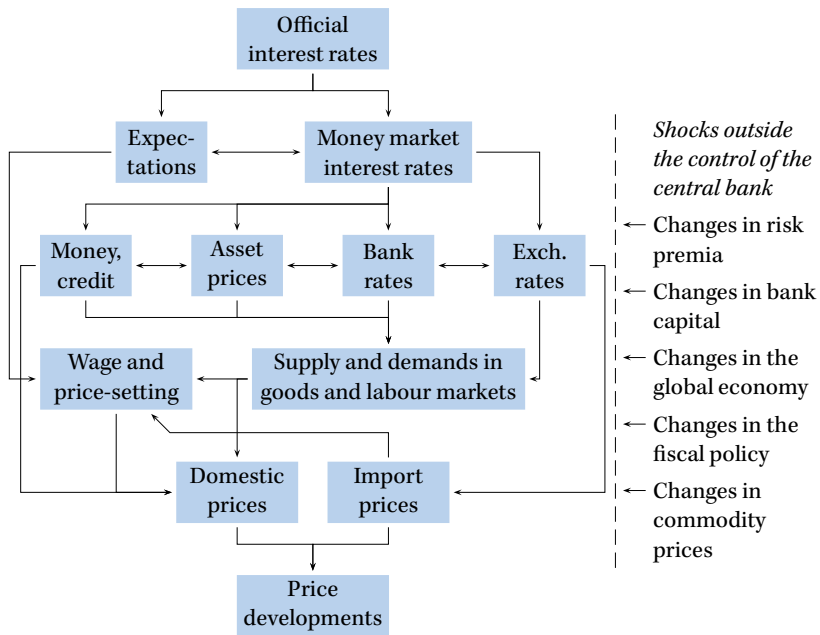


FIGURE 8.5 The Monetary Transmission Mechanism
(adapted from European Central Bank, 2021)

versity Professor Peter Kenen are considered to be the founders of the Optimum Currency Area (OCA) theory. Their pioneering work in the field of optimum currency areas has examined the *pros* and *cons* of a monetary unification. What is an Optimum Currency Area (OCA)? OCA is a geographical region in which it would maximize economic efficiency to have the entire region share a single currency. It is a theoretical construct, as no country conforms to the ideal. Nevertheless, the United States of America with its high labor and capital mobility comes much closer to the ideal than Europe. In principle, as the currency area grows larger, it becomes more difficult to satisfy and accommodate the needs of the diverse group. The marginal costs are rising with the size of the currency area, and at one point, exceed the marginal benefits (see Figure 8.6). The marginal benefits also grow with the size of the currency area, but they tend to decline over time. The optimal size of the currency area is at their point of intersection.

To satisfy the conditions of the optimum currency area, the OCA theory underscores the need for: (1) labor mobility, so that people can move easily from depressed to prosperous regions; (2) the production

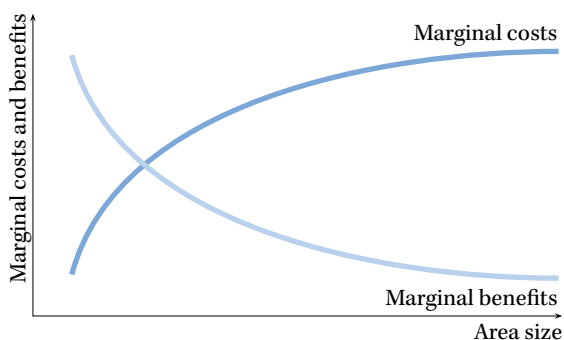


FIGURE 8.6

Marginal Benefits and Costs According to the Optimum Currency Theory (adapted from Burda and Wyplosz, 2016, p. 350)

and exports are widely diversified and countries produce similar goods; (3) countries should be open to trade and trade heavily; (4) there has to be a common insurance and system of transfers, so that countries facing unfavorable shocks are compensated for; (5) a high degree of homogeneity of national preferences; and (6) a sense of solidarity.² However, as Frankel and Rose (1998) highlight, even countries that do not satisfy *ex ante* this criteria, could still enjoy benefits from the monetary unification, once they become members of the currency area. Becoming a member of a broader currency area would later facilitate trade and investment flows, enhance labor mobility, strategic gains from the integration, etc. This is the essence of the so-called endogenous Optimum Currency Area theory, which postulates that belonging to the common currency area can speed up economic convergence, expand trade and increase foreign direct investment (Warin et al., 2009).

Expected Economic Benefits

A famous remark by Alesina and Barro (2002) is that a currency is like a language. As a common language facilitates effective communication among people, a common currency can promote trade and investment among its members. There are several benefits from the participation in a currency area.

Reduced Exchange Rate Uncertainty. There is a strong empirical evidence that increased exchange rate variability negatively affects foreign trade. If you were an exporter, it would not be the same if the euro fluctuates a lot. Financial markets provide 'hedging' (protection) from exchange rate risk, but it is expensive and not universally available.

² The interested reader can find a more extensive explanation of the Optimum Currency Area conditions in Burda and Wyplosz (2016).

Reduced Transactions Costs. The expected reduction of transactions costs is an estimated saving of 2–3% of EU's GDP. Large bank resources (personnel and equipment) were used for conducting FOREX operations and there were significant transaction costs when switching currencies. Even as a tourist it is very convenient to move from one to another EMU member states with the same currency in the pocket. The citizens of Kosovo and Montenegro also enjoy this privilege.

Price Transparency. A single European currency enables an effective comparison of prices across EU. In case an Italian citizen finds that the same model of Volkswagen is 2,000 euros more expensive in Italy than in Germany, it may be worthwhile to buy it from Germany.

The Benefits of Commitment. Over time, economies with traditionally weak currencies have realized that they need the euro as an anchor. Without the euro, they would have experienced a spiral similar to that of developing countries: a speculative attack, a balance-of-payments crisis, jumping interest rates, and so forth (Alesina & Giavazzi, 2010). The euro initially imposed a monetary discipline on the peripheral euro area countries (e.g., Italy, Spain, Portugal, and Greece) with previously poor inflation records. The EMU membership also reduced country risk premia, led to a reduction of both nominal and real interest rates, and contributed to low and stable inflation.

Expected Economic Costs

There are also economic costs associated with the loss of monetary sovereignty. These costs occur because the country may not fully satisfy all the requirements to become part of the OCA. Let us review some of the main economic costs from the participation in a currency area.

Loss of Monetary Autonomy. We already explained that joining a monetary union – such as the euro area – implies a loss of the monetary sovereignty. The national central bank cannot set the interest rates by itself and cannot pursue an independent monetary policy.

Limited Possibilities for Real Exchange Adjustment. Had Greece not abandoned the Greek drachma, many economists point out, the Greek central bank could have devalued its currency and boosted the exports of goods and services. A devaluation of the Greek drachma would make the Greek products and services more price competitive. However, an

exchange rate correction to help a single country is no longer a possibility in the monetary union. Only if many members of the monetary union are having the same problem, that could be a viable policy option. To improve country's price competitiveness, the Greek authorities were left with the option to reduce the wages and/or the prices. This so-called internal devaluation can create an unbearable hardship for ordinary citizens and many firms. It is particularly challenging to undergo an internal devaluation, when the labor unions are very strong and vocal and the prices and wages are sticky.³

Synchronisation of the Business Cycles. The degree of synchronization of the business cycles or co-movement of economic activities strongly depends on the degree of trade integration.⁴ If the countries have similar macroeconomic developments and trade heavily, then their business cycles could be similar (Figure 8.7, left).⁵ Sometimes countries are being hit by asymmetric or country-specific shocks. Let us assume there were widespread floods in Spain. This weather-related natural disaster could easily decouple the business cycle in Spain from that in the other members of the currency area and produce desynchronised business cycles (Figure 8.7, right). It would be a problem for the common central bank to decide which country to favor.

EU Convergence (Maastricht) Criteria

To ensure greater compatibility of the members of the euro area and measure the progress in countries' preparedness to adopt the euro, the Treaty of Maastricht, concluded in 1992, introduced five convergence criteria that the EU member states are required to satisfy before joining the EMU:

- *Price developments:* the inflation rate not to exceed by more than 1.5 percentage points the average inflation rate of the three best-performing member states in terms of price stability for a period

³ Price stickiness (or sticky prices) are prices that adjust sluggishly and, therefore, do not always equilibrate supply and demand (Mankiw, 2019).

⁴ For instance, see Frankel and Rose (1998), Bordo and Helbling (2004), and Artis and Cleays (2005).

⁵ It is not surprising therefore that countries with significant share of exports to Germany have similar cycles as the German economy. De Grauwe and Yuemei (2016) argue that business cycles also reflect waves of optimism and pessimism that become correlated internationally.

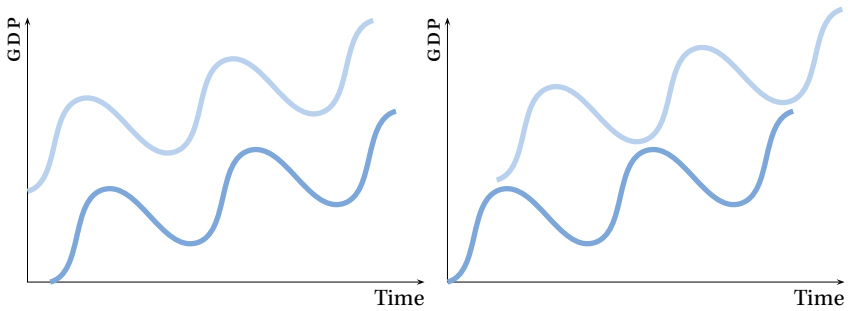


FIGURE 8.7 Synchronised vs. Desynchronised Business Cycles

of one year before the examination. If the average inflation rate of the three best-performing countries is 1%, the inflation rate should not exceed 2.5%.

- *Long-term interest rate developments:* country's average long-term interest rate over one year must not exceed – by more than 2 percentage points – the average interest rate observed in the three best-performing member states.
- *Exchange rate developments:* membership in the Exchange Rate Mechanism⁶ (at least two years in the ERM without a devaluation).
- *Fiscal developments:* budget deficit must not exceed than 3% of the Gross Domestic Product (GDP), and public debt must not exceed 60% of GDP. If this is not the case, the planned debt level should be sufficiently diminishing and approaching the reference value of 60% of GDP at a satisfactory pace.

What if an EU member state – after satisfying these criteria and joining EMU – pursues a fiscal indiscipline? Safeguarding sound public finances is a particularly important requirement for EMU to function properly. The EU adopted a Stability and Growth Pact (SGP) legislation as a rule-based framework for coordination of national fiscal policies among EMU members. SGP opens the way for the European Council to penalize any euro area member state that fails to take corrective measures to end an excessive deficit. The central objective of this so-called

⁶ The European Exchange Rate Mechanism (ERM) was established to stabilize exchange rates and enhance monetary stability before the introduction of the euro. After the introduction of the euro on 1 January 1999, the original ERM was replaced by ERM II (Exchange rate mechanism II) at the start of Stage Three of Economic and Monetary Union (EMU).

Box 1 Can the Euro Survive?

The different macroeconomic conditions among EMU members led to excessive lending by the advanced EMU economies (Germany and France) to Southern countries (such as Greece, Ireland, Italy, Portugal, and Spain). This contributed to imbalanced capital flows within the euro area, high government budget deficits, elevated public and private debts, and real estate bubbles (most notably, Spain) in the Southern member states. Once the financial markets expressed concerns about their debt sustainability, investors rapidly increased the interest rate spreads for their government bonds. Huge rescue packages by the Troika (the European Commission, ECB, and the International Monetary Fund), also accompanied by a painful reform agenda or 'austerity measures', were prepared to avoid a sovereign default. Critics pointed out that these emergency packages were essentially rescuing the private European banks – mainly from France and Germany (Ardagna & Caselli, 2012).

Prominent economists, such as the Nobel Prize laureates in Economics, Joseph Stiglitz and George Akerlof, the Princeton University Professor and IMF economist Ashoka Mody and many others have expressed serious concerns about the future of the euro. Their main argument is that Europe is attempting to build a political union around a new currency (Stiglitz, 2016; Mody, 2018). In other words, Europe is still very far from an optimum currency area, as some of the EMU members do not fulfil the criteria for joining the monetary union. Another conclusion is that the 'one-size-fits-all' monetary policy is causing a divergence among economies, with some 'peripheral' economies experiencing serious economic problems (high unemployment rates, high levels of public debt, competitiveness problems, etc.). In a nutshell, they underscore that the euro was flawed even its birth and that the current structure of the euro area promotes divergence rather than convergence. Other influential economists (e.g., Helge Berger, Giovanni Dell'Ariccia, and Maurice Obstfeld) are more supportive. They argue that 'the institutional architecture supporting Europe's currency union remains incomplete and leaves the region vulnerable to future financial crises.' They highlight that Europe needs more fiscal discipline, a common fiscal policy, a full banking union, and a full capital market union.

Excessive Deficit Procedure is to encourage a member state to get its budget deficit under control.

It is difficult to estimate EMU's degree of success in economic terms. On one hand, the common European currency – which is now 22-year-old – is the second important currency in the world, after the United States dollar. Moreover, the ECB has been rather successful in maintaining the price stability (Whelan, 2019). The euro area also contributed to enhanced trade and investment flows among the EMU members.

However, the European debt crisis – or the euro area crisis – in 2009–2012 revealed that there are significant structural problems in the euro area (see Box 1).

EU Monetary Policy and the Western Balkans

The six countries from Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia), also known as WB-6, have a high degree of trade and financial integration with the European Union and the euro area member states. The geographical proximity facilitates significant international trade flows and sizeable inflows of Foreign Direct Investment from the EU/EMU to WB-6.

The ability to conduct an independent monetary policy of WB-6 countries is strongly dependent on the choice of the exchange rate arrangements.⁷ In that context, WB-6 can be divided into two groups of countries with: (1) fixed exchange rate regimes (unilateral use of euro in Kosovo and Montenegro, a currency board arrangement in Bosnia and Herzegovina, and *de facto* fixed exchange rate regime in North Macedonia); and (2) flexible exchange rate regimes (inflation targeting and floating exchange rate regime in Albania and Serbia).

Unilateral Use of the Euro. Kosovo and Montenegro have already adopted the euro as a legal tender and a *de facto* currency. These two Western Balkans countries have no independent monetary policy. They are unilaterally euroized and fully rely on the credibility of the ECB and the euro as a global reserve currency. In a sense, these WB countries are passive members of the euro area. Their central banks are focused on strengthening the soundness, solvency, and efficient functioning of their financial systems as well smooth functioning of the payment systems.

Currency Board Arrangement. Bosnia and Herzegovina has tied its currency (the convertible mark, KM) to the euro through a currency board arrangement. The central bank maintains monetary stability by issuing domestic currency with full coverage in freely convertible foreign exchange funds under fixed exchange rate (1 KM: 0.51129 euro). The intention is to reduce exchange rate volatility and promote monetary sta-

⁷ The interested reader would find a vast literature on the so-called Mundellian Trilemma. The Mundellian trilemma – also referred to as the Mundell-Fleming trilemma – has been a popular concept in international macroeconomics to explain important policy trade-offs among monetary independence, degree of exchange rate flexibility, and financial openness. Given that the trilemma allows for co-existence of maximum two policy goals, it has also come to be known as the ‘inconsistent trinity.’ One of its main implications is that it is not feasible to attain at the same time exchange rate stability, full capital mobility, and monetary policy independence.

bility by fixing the domestic currency against the euro as chosen anchor currency. The adoption of the currency board arrangement has given Bosnia and Herzegovina a stable and trusted currency as well as a low inflation rate. Such a macroeconomic environment promotes significant bilateral trade and investment relations with the EU member states.

De facto fixed exchange rate regime. The monetary policy of North Macedonia is based on exchange rate targeting. Even though officially classified as a managed exchange rate arrangement, the country has a *de facto* fixed exchange rate regime linked to the euro, thereby preserving the ability to change the exchange rate in case of large shocks. With a fixed exchange rate regime, the ability to set monetary policy is very limited and dependent on the country's degree of financial openness. Since the country uses the euro as an anchor currency, the exchange rate against the other major currencies reflects the performance of the euro in international markets. To illustrate this, imagine hugging a dolphin, placing your full trust in its good intentions, and letting the dolphin decide how to swim or float.

Managed Floating Regime. The National Bank of Serbia chose inflation targeting and a managed floating exchange rate regime to ensure price stability. After the pandemic outbreak in 2020, the central bank of Serbia signaled a public commitment to a stable exchange rate relative to the euro. Although Albania has a flexible exchange rate regime, it has remained broadly stable. In sum, Albania and Serbia have a significant space for pursuing an accommodative (independent) monetary policy, because of their flexible exchange rate regimes.

If we exclude Montenegro and Kosovo, the other four Western Balkans countries have historically had a high degree of currency substitution (euroization). Put differently, a large portion of the deposits and loans in the financial systems are either in euros or are linked to the value of the euro (euro-indexed deposits or loans). The currency and assets substitution (in the case of Western Balkans known as 'euroization') are features of the countries in transition, which in the past faced with financial and monetary crisis in the system, and hence diminished credibility of the domestic currency (Besimi and Pugh, 2007). The substantial presence of foreign-owned banks in the financial system can also be an important euroisation factor.

The central banks of WB-6 countries closely follow the monetary

policy decisions made by ECB and the daily movements of the key interest rates. The ECB and the national banks of the EMU member states also provide substantial technical cooperation for the national central banks of the EU candidate and potential candidate countries from Western Balkans. The areas vary from central bank statistics, payment systems, money laundering, bank supervision, financial stability, internal audit, information technology, to implementation of other central banking standards. After all, the ECB and the national supervisory authorities of the euro area countries are also home supervisors of many multinational banks that have a presence in the Western Balkans. Therefore, the monetary policy coordination and technical cooperation are mutually beneficial. The ultimate goal of these programmes is to prepare the central banks of the WB-6 region for membership of the ESCB, once the respective countries join the EU. Their success depends on many factors, but as the British statesman, Sir Winston Churchill, put it, 'Success is not final; failure is not fatal: It is the courage to continue that counts.'

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