



MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Analysing diverging economic development within the
Economic and Monetary Union (EMU) since the
introduction of the common currency “

verfasst von / submitted by

Ignacio Höller

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of European Studies (M.E.S.)

Wien, 2022 / Vienna 2022

Studienkennzahl lt. Studienblatt / UA 992 959

Postgraduate programme code as it
appears on
the student record sheet:

Universitätslehrgang lt. Studienblatt / Europäische Studien

Postgraduate programme as it
appears on
the student record sheet:

Betreut von / Supervisor:

Mag.^a Dr.ⁱⁿ Bettina Haidinger

Page intentionally left blank

Table of contents

1	Introduction	1
2	Economic and theoretical rationale behind the EMU.....	4
2.1	The Werner Plan – initiating European monetary and economic integration	4
2.2	From EMS to EMU – paving the way for today’s Eurozone	6
2.3	The Maastricht criteria – defining economic convergence in the EMU	9
2.4	Economic Governance – the fiscal and economic policy ruleset of the EMU	13
2.5	Conclusion - Bringing together history and theory	15
3	Analysing diverging economic development.....	19
3.1	Economic growth.....	20
3.2	Public and private finances.....	25
3.3	Consumer- and asset-price development	31
3.4	Labour markets	37
3.5	Trade relations	43
3.6	Summary of empirical findings	48
4	Conclusion.....	51
	Bibliography	55
	Abstract (English)	59
	Abstract (German).....	61

Table of figures

Figure 1: Development of nominal GDP of Germany in million EUR since 2000 (Source OECD)	20
Figure 2: Development of nominal GDP of Spain in million EUR since 2000 (Source OECD)	20
Figure 3: Real GDP growth of Spain, Germany, and the Eurozone in % since 2000 (Source OECD)	22
Figure 4: GDP per capita in PPS of Spain and Germany relative to EU-27 average for selected years since 2000 (Source Eurostat)	24
Figure 5: Development of public debt-to-GDP ratio of Spain and Germany since 2000 (Source Eurostat)	25
Figure 6: Development of long-term government bond yields for selected EMU members since 2007 (Source OeNB)	26
Figure 7: Development of financial sector debt of Spain and Germany relative to 2000 (Source Eurostat based on own calculations)	27
Figure 8: Development of private debt of Spain and Germany relative to 2000 (Source Eurostat based on own calculations)	30
Figure 9: Yearly change of HICP for Spain, Germany, and the Eurozone in % since 2000 (Source Eurostat)	32
Figure 10: Yearly change of housing prices for Spain and Germany in % since 2001 (Source Eurostat)	35
Figure 11: Development of the unemployment rate of Spain and Germany since 2000 (Source Eurostat)	37
Figure 12: Development of the youth unemployment rate for people aged between 15 and 24 of Spain and Germany since 2000 (Source Eurostat)	40
Figure 13: Development of the rate of young people not working or in education aged between 15 and 24 for Spain and Germany since 2000 (Source Eurostat)	41
Figure 14: Development of the current account net balance relative to GDP of Spain and Germany since 2000 (Source Eurostat)	44
Figure 15: 3-Year change of nominal Unit Labour Costs for Spain and Germany in % since 2000 (Source: Eurostat)	46

1 Introduction

The European integration process was long assumed to follow a self-sustaining dynamic. The transfer of selected competencies from the national to the supranational level would tend to spill over into other areas eventually leading to a full political unification. An important precondition for this process to function as expected, however, was related to the expectation of converging economic conditions for all member states. The neoclassical theoretical foundation behind this expectation of economic convergence, which became predominant from the 1970ies on, predicted that by eliminating trade barriers and other restrictions to the free movement of capital, the mobility of productive factors (especially capital) would increase, thus allowing for higher production and welfare for all members. (Celi, et al. 2018, 54)

While the elimination of trade restrictions was achieved by implementing the four freedoms (people, goods, services, and capital) as part of the Single European Market (SEM) in 1986 as well as the initiation of the Economic and Monetary Union (EMU) in 1999, the empirical assessment of economic convergence between its member states raises doubts whether this important presumed precondition of the political unification process has been met over the last two decades. Naturally, the integration at EU-level cannot be understood as the sole factor for the development of an economy, therefore this master thesis aims at analysing to what extent changes and imbalances in the economic landscape of the Eurozone (in detail the strengthening of core countries at the expense of peripheral areas) can be explained by the structural design of the EMU. Based on this thesis' empirical findings, potential future scenarios, and ongoing academic and political debates for achieving better economic convergence in the EMU will be discussed and evaluated.

In detail, the following research questions and thematic areas will be addressed:

1. What was the theoretical and economic rationale behind the establishment of the EMU?

To better understand the connection between convergence in economic conditions and living standards of EMU member states as well as the overall process of economic integration, the historical development of EMU and underlying theoretical debates behind its foundation will be explored.

2. Which economic indicators display diverging economic development between the core and the periphery of the EMU since the introduction of the common currency in 1999?

The second research question represents an empirical analysis of selected economic parameters in one representative country of the core and one in the periphery. The selection of indicators aims at covering the different areas of economic policy to the fullest extent possible (i.e., economic growth, public and private finances, price level development, labour markets and trade relations).

For this thesis' empirical analysis Germany will serve as representative of the core area while Spain has been selected for the periphery. Both countries strongly reflect the above-mentioned imbalances of the Eurozone. While the significant impact of past crises on the Spanish economy can still be observed up until today, the German economy recovered comparatively fast and well during the same time span, which points at differences both in the economic policies pursued as well as in the underlying economic and industrial capabilities. These discrepancies can be observed especially well in the context of labour markets, which have been selected as one of the deep dives of this thesis. Noticeable variations in wage development and the high relevance of labour markets liberalisation in the recent Spanish economic recovery process, will be discussed in depth. Finally, for analysing different macroeconomic growth models, Germany's strong reliance on exports for generating economic growth and Spain's comparatively higher debt quotas are of special interest.

Following the logic of the above stated research questions, this thesis is structured in two parts. The first part is a chronological overview of the most important evolutionary steps up to the creation of the EMU, starting from the late 1960ies until the introduction of the common currency in 1999. Moreover, against the background of more recent developments in European economic policies, important reforms in the economic governance framework of the EU will be discussed. The theoretical foundations matching the corresponding evolutionary steps are outlined within the literature-based historical review.

The second part will focus on analysing selected economic indicators in the timespan between 2000 and 2019, with the aim of identifying diverging developments within the above stated areas of economic policy. In the case of identified divergences corresponding explanatory models behind these developments will be discussed in further depth. An important component of this empirical analysis will lie in understanding how and why the two major crises experienced by the EMU (global financial crisis of 2007/2008 and sovereign debt crisis of 2012) affected differently the core and peripheral regions. The empirical part of this thesis will use Eurostat and OECD databases as main sources.

As a result, this thesis will describe how political consensus grew around the assumption that the optimum monetary and economic policy mix of the EMU to establish a sustainable process of converging economic conditions for all its members, should consist in reaching price stability, fiscal prudence, and liberalisation. The empirical analysis, however, will show that these presumed key levers insufficiently reflected actual factors potentially putting at risk economic and monetary integration of the EU.

The gradual liberalisation of European financial markets in combination with relatively low common interest rates fuelled a strong but unsustainable debt-based economic boom in the periphery during the early years of the EMU. The required net borrowing practice of the peripheral areas could only be sustained by corresponding unrestricted capital flows from the surplus countries in the core. While the resulting above average GDP growth rates of the periphery and observable price level differentials were interpreted as the functioning of the expected catching-up process, significant risks of economic distress were overlooked. Once the global real estate bubble burst in 2007, economic conditions in the periphery were completely overturned.

While the core of the EMU strongly benefited from this borrowing practice, the consequential costs of the resulting economic crisis have been unequally distributed. This is reflected in the far-reaching economic deviances between the core and the periphery, which can be observed up until today in almost all areas of the economy, which have been selected for this thesis. Since 2000 the analysis shows that in comparison to the core of the EMU, the peripheral economic conditions have been characterized by on average lower economic growth, higher public, private, and financial sector debt levels, higher unemployment as well as weaker export performance.

2 Economic and theoretical rationale behind the EMU

Just like the European Union itself, the structural design of today's European Monetary Union (EMU) resulted from a lengthy political process which was heavily influenced by the historical conditions and economic necessities of the second half of the 20th century. Since a detailed historical analysis of the emergence of the EMU would exceed the scope of this thesis, this chapter will only give a broad overview on the foundation process of the EMU from its initiation in the late 1960ies until its formal implementation through the introduction of the common currency in 1999. It will focus on historical milestones of European policies towards a monetary union and will explain theoretical approaches underlying this political process. Both aspects will be of importance for a better understanding of the empirical findings laid down in chapter 3.

2.1 The Werner Plan – initiating European monetary and economic integration

First advances in monetary integration in Europe such as the Latin European Monetary Union can be traced back to the second half of the 19th century. However, these precedents lacked any coordination of economic and monetary policies or corresponding common institutions and thus only showed limited resemblance to modern monetary unions such as the EMU. In addition, at that time, the need for facilitating international trade relations through the stabilisation of exchange rates was already met by the emergence of “world monetary unions” such as the Gold Standard before the First World War and the Bretton Woods System after the Second World War. Like the Gold Standard, the latter system kept gold as the ultimate source of value, but additionally defined the US dollar as anchor currency for the system. All currencies of the participating countries fixed their exchange rates towards the US dollar, while the US government guaranteed its value in terms of gold. By the late 1960s inflationary pressure on the US dollar put the Bretton Woods System under such strain that the US government was no longer able to guarantee the dollar's gold value. After temporary suspensions of the dollar's convertibility into gold in 1971 the system officially ended in 1973 and was replaced by a floating exchange rate regime. (Baldwin and Wyplosz 2019, 327 - 332)

The early signs of the breakdown of the Bretton Woods System and the resulting turbulences in international currency markets together with recent advances in European integration (both the customs union as well as the Common Agriculture Policy [CAP] had been established successfully) brought the coordination of monetary and economic policy on the political agenda of the EU in the 1960ies. Progress in integration should not only allow to weaken the US hegemony in the existing international monetary system but, in addition, should counteract raising fears of exchange rate instability and its potential adverse effects on the CAP or any other future integration project. (Celi, et al. 2018, 17 - 18)

In its initial the CAP aimed at keeping the prices for many agricultural products high and stable through the introduction of price floors for selected agricultural products. The CAP ensured market prices could not be lower than these floors by actively intervening in markets and promising to buy unlimited amounts of these agricultural products at the given price floor. (Baldwin and Wyplosz 2019, 207 - 208) These prices were set in terms of a common currency unit and subsequently converted into the corresponding national currencies. Changes in exchange rates between members of the CAP, such as those experienced at the beginning of the breakdown of the Bretton Woods System between France (devaluation) and Germany (revaluation), would thus lead to opposing price development for the same product in terms of national currencies. Corresponding policy responses such as imposing border taxes or the introduction of subsidies on intra-European trade were thus required to avoid price undercutting of agriculture products covered by the CAP. On the long run, frequent changes in exchange rates would require constant adjustments of these common prices and subsequently counteract the targeted goal of price stability. (Ackrill 2000, 37 - 38)

As a result, at the Council of December 1969 in the Hague the Heads of State defined the Economic and Monetary Union as one of the new key objectives of European integration. An expert group headed by the president of the European Commission Pierre Werner was instructed to draft a report outlining how a full economic and monetary union should be reached within 10 years. The resulting Werner Plan aimed at achieving full liberalisation of capital movements, total convertibility of the member states' currencies as well as the irrevocable fixing of exchange rates. (Rakic and Scheinert 2020, 2) While all member states recognized that monetary integration could only be maintained successfully if economic policies were harmonized and convergence in economic development was reached, deep differences in terms of economic philosophies could already be observed between the two main actors, Germany and France, in these early stages.

The German understanding was to reach convergence in policy towards the common goal of price stability, which would allow for higher growth and employment. French policy makers, however, argued in favour of setting up common institutional arrangements, which subsequently would lead to economic convergence. Two theoretical positions regarding the approach for establishing the EMU emerged, resulting in the so-called "economists" vs. "monetarists"¹ debate.

On the one side, the strong-currency countries Germany and Netherlands took a stand for the "economist" position proposing to reach extensive coordination of economic policy (i.e., the

¹ In this context the term "economist" must be treated with caution. By denying any long-term effect of (European integration in) monetary policy on real economic development, the theoretical foundations of the "economists" rather correspond to what is known as monetarism in economic theory.

alignment of national budgetary policies and public transfers as well as employment and industrial policies) as an initial step, which would lead to a harmonized economic development and could subsequently be followed by the introduction of a common monetary policy and a single European currency. The single currency would thus only represent the “finishing touch” to a lasting economic harmonization process. (Celi, et al. 2018, 18 - 20) By following the so-called coronation theory, low-inflation countries wanted to avoid a scenario where inflation would be imported from non-converged (high-inflation) countries. In addition, the introduction of a common nominal interest rate for the whole EMU (most probably at a lower level since it would consider the economic realities of all EMU members) as part of the monetary integration process would represent a sudden decline in nominal interest rates. This in turn would potentially lead to very low or even negative real interest rates, further fostering demand and thus increasing inflation even more in the non-converged countries. From a political point of view, the lacking commitment to the price stability culture by some of the non-converged countries raised doubts regarding the enforceability of a common monetary policy following the German ideals. (Wyplosz 2006, 216)

On the other side, weak-currency countries such as France, Belgium and Luxembourg followed the “monetarist” approach arguing in favour of setting up common monetary institutional arrangements (i.e., the narrowing of exchange rate margins, pooling of reserves and building mutual financial support systems) in a first step. Following this argumentation, the coordination of economic policy and convergence in economic development were not prerequisites for monetary policy integration but rather the result of it.

The final version of the Werner report tried to find the right balance between these two lines of argumentation by proposing to pursue economic convergence and monetary cooperation in parallel². However, insufficient political goodwill for the aspired transfer of power to the community level as well as strong currency fluctuations in Europe caused by the breakdown of the Bretton Woods System impeded any attempts to transform the Werner Plan into reality. (Celi, et al. 2018, 19 - 22)

2.2 From EMS to EMU – paving the way for today’s Eurozone

Regardless of these initial failures, efforts for reaching stability in European monetary relations were further pursued in the subsequent years. First an exchange rate mechanism called the “snake in the tunnel” was initiated in the early 1970ies. This mechanism allowed for limited floating of European currencies (snake) within a narrow fluctuation margin towards the US

² Detailed measures were only defined for the first stage and consisted of the stepwise adoption of common views in international monetary relations and the narrowing of currency fluctuations between European currencies. The introduction of a “Centre of Decision for Economic Policy” responsible for the supervision of national fiscal and economic policies was envisaged for the second stage, which never came into being.

dollar (tunnel) but only persisted for a short period of time and was soon replaced by the European Monetary System (EMS) which proved to be much more stable. (Rakic and Scheinert 2020, 2) This system became effective in 1978 and represented a joint currency float of all member states of the European Economic Community (EEC) except the UK³. The currencies of the EMS members were pegged to each other and any margins for fluctuations towards non-participating countries (i.e., the rest of the world) were lifted. While the exchange rates within the EMS remained fixed, the possibility for occasional realignments of these par values (for instance in the case of diverging price and wage development) remained. In addition, the Exchange Rate Mechanism (ERM) of the EMS allowed for a band of minor fluctuations of up to $\pm 2,25\%$ ⁴ around the fixed bilateral rates. However, as soon as these fluctuation bands were violated, both concerned countries were obliged to intervene in currency markets by buying up the weak currency until the bilateral rate was brought back to its par value.

As another key component of the EMS, the European Monetary Cooperation Fund (EMCF) was introduced, to help stabilize exchange rates through direct market interventions or corresponding financing facilities. The EMCF was funded by compulsory gold and foreign reserves contributions of each Member State and made its funds accessible to the national central banks through short- and mid-term facilities. (Zestos and Benedict 2018, 136 - 139) Based in Basel, the EMCF was provided with technical and administrative support by the Bank for International Settlements (BIS) and remained under the control of the governors of the member central banks as well as a representative of the European Commission. In 1994 the role of the EMCF was taken over by the newly created European Monetary Institute (EMI) and the fund was therefore dissolved. (European Central Bank 2021) While the overall degree of integration in monetary and economic policy of the EMS was not comparable to the Werner Plan, it still succeeded in establishing price and exchange rate stability for its members. This progress paired with the initiation of the Single European Market (SEM) in 1986 were the basis for the rising political will and commitment to increase integration and coordination even further. (Zestos and Benedict 2018, 136 - 139)

Thus, a committee under the lead of the then Commission President Jacques Delors was appointed in 1989 to develop a detailed path for establishing the EMU as originally foreseen by the Werner Plan. The resulting report can be understood as the blueprint for the institutional arrangement and corresponding governance framework of the Eurozone today. It called for stronger coordination of economic policies (i.e., the European Semester), fiscal rules and

³ While being an EEC Member State, the United Kingdom only joined the EMS for a brief period between 1990 and 1992. (James 2006, 1)

⁴ Following numerous speculative attacks on several EMS member currencies, these margins had to be elevated significantly reaching up to $\pm 15\%$ after the EMS crisis of 1992.

deficit constraints for national budgets (i.e., the Stability and Growth Pact) and the establishment of an independent institution responsible for all monetary policy questions (i.e., the European Central Bank) following a three-staged approach. In accordance with the SEM Programme the first stage (1990 to 1993) aimed at eliminating any restrictions of the free movement of capital. Stage two (1994 to 1998) introduced the predecessor of today's ECB, the EMI and should additionally serve for reaching convergence in economic policies.⁵ The final stage (starting from 1999) foresaw the implementation of a common monetary policy under the sole responsibility of the ECB and the introduction of a common currency. The required adaptations of EU law were implemented in the Maastricht Treaty, which was adopted by the Heads of State in 1991. (Rakic and Scheinert 2020, 2 - 3)

One key argument for the approach proposed by the Delors Report followed Mundell's impossible trinity principle.⁶ According to this principle a state must decide between three desired objectives in international monetary relations, since only two of them can be achieved together at the same time. These three objectives are the stabilization of exchange rates, free movement of capital and sovereignty in monetary policy. Fixing exchange rates and fully liberalising any movement of capital while allowing for different interest rate levels based on the domestic needs of each Member State (i.e., sovereign monetary policy) would cause arbitrage opportunities exploiting these differences in interest rates to the point where the desired exchange rate could no longer be maintained.

European policymakers, thus, needed to decide on which of the three objectives should be given up in the context of the EMU. The restriction of international capital mobility would directly contradict with the integration of financial markets, which was an essential part of the SEM initiative. Therefore, giving up the objective of free capital movement was no viable policy choice for the EU. The second alternative consisted in the introduction of fluctuating exchange rates for the sake of maintaining sovereignty in monetary policy. While being considered as a feasible option in academia, troubling past experiences with turbulent currency markets and their potential adverse effects (as described above in the context of the CAP) led policymakers to rule out this alternative due to political considerations. Consequently, the only remaining policy choice was to reach exchange rate stability and free capital mobility through the establishment of a monetary union (hence eliminating exchange rates altogether) with a corresponding common monetary policy led by a supranational central bank.

⁵ The surveillance and coordination of economic policies of all EMU candidate countries was under the responsibility of the EMI. In cooperation with the EC economic country reports were prepared for each Member State to evaluate the adherence to a set of pre-defined convergence criteria (Maastricht criteria). (Zestos and Benedict 2018, 146)

⁶ In academic literature this principle is also referred to as "Mundell-Fleming" model. For details on its origins or the underlying publications refer to Boughton's paper on the origins of this model. (Boughton 2003) For an overview on analyses regarding the empirical support or historical evidence of this trinity principle refer to Issing. (Issing 2006, 7 - 9)

The EMS crisis of 1992 serves as empirical evidence for the workings of this principle. During the first stage of the EMU capital controls were lifted and the decision to avoid exchange rate realignments in the EMS was taken. Problems arose when the German unification process forced the German Bundesbank to raise its interest rates to a level, which could not be sustained by its partner countries suffering from economic weakness. As policy makers were faced with the dilemma of either keeping the exchange rate stable or following a monetary policy in line with domestic needs a wave of speculative attacks on European currencies arose. These events not only resulted in the devaluation of several currencies but also led the UK to permanently withdraw from any future monetary agreement. (Issing 2006, 7 - 11)

2.3 The Maastricht criteria – defining economic convergence in the EMU

In coherence with Germany's positioning during the "economists" vs. "monetarists" debate, its affinity to reach economic convergence before the establishment of a monetary union remained intact. By defining preconditions which had to be met in advance, while at the same time setting a fixed date for entering the third and last stage of the EMU both "economist" as well as "monetarist" principles were reflected in the chosen approach. The process of adjusting to the required economic conditions of all member states was to be encouraged by setting a precise deadline. The closer this transformation process was to completion, the more the establishment of the EMU would be in accordance with the "economist" understanding and correspond Germany's interest. (Issing 2008, 12)

Thus, membership in the EMU came along with adherence to certain predefined convergence criteria stated in the Maastricht treaty, which were particularly focused around price stability and fiscal discipline. Inflation and long-term interest rates were to be kept below a certain maximum level compared to the average of the three members with the lowest inflation rates. Additionally, the budget deficit-to-GDP and debt-to-GDP ratios were not allowed to exceed 3% and 60% respectively. The final criterion referred to the already existing narrowing of exchange rate fluctuation margins which were fixed at $\pm 2,25\%$. Also, two years prior to the examination of adherence no currency devaluations were to take place.

The selection of these economic parameters reflected the strong position of Germany during the negotiations of the EMU agreement. Influenced by its experience with hyperinflation during and after the First World War, the German government had equipped the Bundesbank with the single mandate of price stability and by that succeeded in stabilizing both prices and exchange rates. In addition to the parameters aiming at fiscal discipline, Germany insisted on including the so-called "No Bailout Clause" in the treaties to make sure the public debt of a defaulting member states would not be transferred to other EMU members. (Zestos and Benedict 2018, 144 - 145) The German School of thought worked on the assumption that weak political and legal institutions would make it difficult to maintain fiscal discipline. The resulting large

government deficits and increased public debt in turn would lead to macroeconomic and monetary instability (i.e., high and variable inflation). By putting monetary and public debt at the heart of the Maastricht criteria, potential EMU members were to be incentivized to adjust their existing institutions towards a stronger governance following the German example. (De Grauwe and Ji 2018, 3)

Germany's perception as role model was additionally supported by changes in the prevalent paradigms in economic theory after the first oil crisis in the 1970ies and the subsequent period of stagflation⁷. Keynesian principles, which had been shaping the demand-driven economic policy agenda of industrial countries during the three decades after the Second World War, predicted a negative correlation between the rate of unemployment and inflation (described as the so-called Phillips curve) and thus could not be applied in the aftermath of the oil crisis. By defining inflation purely as the result of monetary policy (i.e., expansive monetary policy is unable to affect real economic activity in the long run and will only increase the level of prices) and thus denying any long-term interrelations between unemployment and inflation, monetarist theories served both an explanatory model for the experienced stagflation as well as economic policy blueprints.

Applying monetarist theories in practice and following a restrictive monetary policy agenda, Germany had experienced the post-oil crises period with relatively low rates of unemployment and inflation and was thereby perceived as the example to follow. The adoption of the German policy approach by other member states was also reflected in the above-mentioned phase of relatively stable exchange rates within the EMS up to its crisis in 1992. (Celi, et al. 2018, 25 - 27, 196 - 197, 208 - 209)

The decision on whether the final stage of establishing the EMU was to be initiated according to plan was taken based on a final evaluation of the Maastricht criteria in 1997. Of the then 15 EU members, 11 candidates complied with at least four of the criteria. While the reduction of inflation and long-term interest rates was accomplished, even by those member states with historically high rates, the indicators addressing government spending proved to be more challenging. Since the required contractionary fiscal policy for reducing debt ratios would put additional pressure on the economic development of those member states, who were already suffering from economic recession during the early 1990ies, the group of candidates meeting the reference value of 60% debt-to-GDP ratio was a clear minority. Waiving the debt-criterion the European Council thus officially decided in 1998 to launch the EMU as planned on January 1st, 1999. The four EU members not joining were UK, Denmark, Sweden, and Greece. UK and

⁷ A strong increase in oil prices as well as the prohibition of oil exports to the US, Japan, and western Europe by Arab members of the Organization of the Petroleum Exporting Countries (OPEC) led to a period of stagnating economic growth, high unemployment, and high inflation. These measures represented a political response to Western intervention during the Yom Kippur War in 1973. (Kettell n.d.)

Denmark had opted out of joining the EMU, Sweden did not qualify due to non-participation in the ERM and Greece's economic performance proved insufficient for an initial participation (yet after revaluation Greece became the 12th member in 2001). (Zestos and Benedict 2018, 146 - 150) In connection with the EU eastward expansion the amount of EMU members has increased to 19 since its creation, with Latvia and Lithuania being the latest countries to join in 2014 and 2015. (European Commission 2022e)

	Inflation	Long-term interest rates	Deficit (% of GDP)	Debt (% of GDP)	ERM Member
Austria	1.1	5.6	-2.5	66.1	Yes
Belgium	1.4	5.7	-2.1	122.2	Yes
Denmark	1.9	6.2	0.7	65.1	Yes
Finland	1.3	5.9	-0.9	55.8	Yes
France	1.2	5.5	-3.0	58.0	Yes
Germany	1.4	5.6	-2.7	61.3	Yes
Greece	5.2	9.8	-4.0	108.7	Yes
Ireland	1.2	6.2	0.9	66.3	Yes
Italy	1.8	6.7	-2.7	121.6	Yes
Luxembourg	1.4	5.6	1.7	6.7	Yes
The Netherlands	1.8	5.5	-1.4	72.1	Yes
Portugal	1.8	6.2	-2.5	62.0	Yes
Spain	1.8	6.3	-2.6	68.8	Yes
Sweden	1.9	6.5	-0.8	76.6	No
UK	1.8	7.0	-1.9	53.4	No
Maastricht Benchmark	2.7	7.8	-3.0	60.0	-

Table 1: EU member states economic performance in terms of the Maastricht criteria 1997-1998 (Zestos and Benedict 2018, 147)

By introducing selected nominal targets which had to be met before qualifying for membership in the EMU (Maastricht criteria) policy makers gave little consideration to the different notions of economic convergence. While the Delors Report pointed out the importance of convergence both in economic performance as well as living standards, the final provisions in the treaty of Maastricht laid the emphasis on selected economic indicators, which left aside important areas of economic policy such as economic growth, labour markets or trade relations. Following the prevailing paradigm of economic theory, the combination of eliminating exchange rate risks and lowering borrowing costs should lead to an increase in trade as well as labour and capital flows, thus allowing for higher economic stability and growth. These boosting effects were expected to be particularly strong for the "catching up" economies. The question to what extent the expected catching up process can be observed will be addressed at a later chapter.

In its analysis of economic convergence in the Eurozone from 2018, the IMF pointed out criticism regarding the relevance of the Maastricht criteria for the functioning of a monetary union. While inflation convergence is acknowledged as important for pursuing a common

monetary policy, the need for certain inflation differentials to facilitate real exchange rate adjustments is outlined. Similar arguments can be applied in the context on interest rate levels. As monetary conditions converge among the members, an approximation of interest rates can be expected. A full convergence, however, is not desirable since it does not consider the varying credit risk across different members states. Finally, the complete exclusion of cyclical factors is another important shortfall of the criteria selection. If business cycles diverge significantly between the monetary union's members, applying one sole monetary policy, which is optimal for all members, might not be possible anymore. Optimum Currency Area (OCA) theory is the underlying theoretical framework of this argument. (Franks, et al. 2018, 5 - 7)

According to this theory the suitability of a given region for introducing a common currency can be derived based on a certain set of criteria, focusing especially on the flexibility of wages and prices as well as labour market mobility. By fulfilling these criteria, the need for nominal exchange rate adjustments is reduced while at the same time internal and external balances are promoted. (Issing 2006, 12 - 13) The basic assumption of the theory is that the usefulness of a currency increases with the amount of people accepting it. Therefore, the more a currency area grows, the higher are the resulting benefits from reduced transaction costs, higher price transparency, and the elimination of exchange trade risks. At the same time, increasing the area leads to higher diversity in terms of economic conditions, which makes the occurrence of asymmetric shocks (i.e., economic downturns affecting the members of the common currency area to a varying degree) more probable. By losing the adjustment of nominal exchange rates as policy mechanism for economic rebalancing against the other area members, the need for price and wage adjustments (internal devaluation) arises. The increase in diversity therefore needs to be offset by corresponding adjustment mechanisms. (Baldwin and Wyplosz 2019, 349 - 359) While OCA theory as such acknowledges fiscal transfer systems as potential policy mechanisms to compensate for interregional differences, the political consensus of the early 90ies clearly rejected any integrational efforts around fiscal policy. Additionally, fiscal integration would demand a high degree of cooperation and trust between political decision makers on EU level. Therefore, it can be concluded that high economic heterogeneity made a case for fiscal integration on the one hand, but on the other hand reduced the chances for finding political agreement for it due to varying domestic policy needs. (Leoni and Pekanov 2020, 4)

Academic opinion generally agreed upon the fact that the Eurozone did not represent an OCA from its beginnings. The business cycle synchronization was considered as weak and at the same time the required flexibility in prices, wages and labour markets was not given. (Franks, et al. 2018, 7) Yet, lacking formalization of OCA theory as well as limited attention from public

officials in the early 90ies serve as explanation why its influence on the Delors Report and the treaty of Maastricht remained limited. (Wyplosz 2006, 214 - 216)

2.4 Economic Governance – the fiscal and economic policy ruleset of the EMU

Raising concerns that once the monetary union was established, compliance with the criteria would no longer persist, served as reasoning for the introduction of the Stability and Growth Pact (SGP), which was introduced before the EMU launch in 1996 and came into effect in 1999. (Delivorias 2015, 4 - 5) Following the SGP, member states were obliged to maintain the Maastricht benchmark values of 3% and 60% for the deficit-to-GDP and debt-to-GDP ratios after the establishment of the EMU. (Zestos and Benedict 2018, 152) In detail, the preventive arm of the SGP demanded from all EMU members to maintain their budgets either in balance or surplus (thus creating the required budgetary room for manoeuvre for stabilizing economic policy during recessions), while the corrective arm foresaw proceedings in cases where the above-mentioned threshold values were not met (excessive deficit procedure) as well as corresponding surveillance and sanction mechanisms.

In practice, the early phase of the SGP disclosed significant shortcomings in terms of reaching the targeted goal of fiscal prudence of all member states. During the early 2000s several countries breached the deficit threshold values, yet the enforcement of the pact's provisions proved to be ineffective (especially in the case of large members such as Germany and France). The rigid rule system of the SGP, which strongly limited the appliance of counter-cyclical fiscal policies for EMU members, represented another significant shortcoming of the pact. In response to the identified issues the SGP was reformed in 2005 by reducing the strictness of the deficit limits as well as extending the adjustment periods in case of breaches of the threshold values. (Schuknecht, et al. 2011, 9 - 10)

According to Baldwin, Beck, et al high debt levels in combination with rising doubts as to the solvency of selected Eurozone members did play a role in the emergence of the Eurozone crisis of 2010, however public expenditure levels cannot be understood as its origin. While the intention of introducing the SGP as a substitute for the, in fact needed, fiscal union (matching the full integration in monetary policy) seems comprehensible, the period from the inception of the SGP to the first economic crises experienced by the EMU revealed the limited effectiveness of this mechanism. In addition to the already mentioned recurring violations of the stipulated limits by member states, some of the countries who were affected the most from the Eurozone crisis such as Spain and Ireland had succeeded to reduce their national debt far below the 60% threshold value during the Euro's first decade. (Baldwin, Beck, et al. 2015, 12)

Following the financial, fiscal, and economic crises experienced by the EMU, the Economic Governance⁸ of the EMU (with the Stability and Growth Pact being an essential component) has been strongly revised, with the so-called “Six Pack” from 2011 being the most extensive enhancement of its legal foundations. Before 2011, the SGP contained the only legally enforceable rules while any further coordination of fiscal and economic policies was purely consensus-driven and voluntary. The “Six-Pack”, which came into effect in December 2011, not only strengthened the SGP by further detailing the proceedings both in the preventive as well as the corrective arm (inclusion of additional surveillance and sanction mechanisms as part of the newly established European Semester⁹) but additionally introduced a new macroeconomic surveillance tool, which monitors selected economic indicators (such as housing prices, private sector credit flow and debt, unemployment rates, etc.) in addition to the public spending related criteria of the SGP. (European Parliament 2021)

The Six Pack reform package of 2011 was introduced in response to the Eurozone crisis. Following the argumentation logic of Baldwin, Beck et. al that budgetary indiscipline was not one of the root causes for the crisis, it appears appropriate to question how (or which) structural deficiencies of the EMU were addressed by further constricting budgetary rules and enforcing an austerity-oriented fiscal policy. Following the narrative of a need for reassured market confidence in the EMU and its member’s budgetary policies, the European crisis response followed a strict austerity plan, thus creating incentives for reduced public spending (e.g., on social protection, public employment, or investment) as well as tax raises or public wage freezes.

This restrictive understanding of European economic recovery left little space for alternative approaches. Without any claim to completeness, alternative proposals range from the (at least partial) pooling of sovereign debt within the EMU or the upgrade of the ECB’s role as official “lender of last resort”¹⁰, to common policy initiatives focusing on the reduction of developmental and social inequalities (e.g., harmonization of tax bases and rates, introduction of European-wide minimum wages, implementation of a common industrial policy). (Degryse 2012, 70 - 77) In its recent reflection paper on “Deepening of the Economic and Monetary Union” from 2017

⁸ Economic Governance refers to the rules, institutions and procedures established by the EU to achieve the coordination of economic and fiscal policies of all EMU members, which complements the full European integration in the field of monetary policy.

⁹ The coordination of fiscal and economic policies of all EMU members as well as their revision by the Commission and the Council is conducted each year based on pre-defined working model with a fixed timeline, namely the European Semester.

¹⁰ By defining price stability as the primary objective of the monetary policy agenda and in accordance with the “No Bail Out”-principle, the institutional design of the EMU did not foresee the establishment of a lender of last resort for its members. However, in response to the Euro-Crisis and the observed contagion of European bond markets, the ECB decided quasi-unilaterally to intervene in sovereign bond markets to stabilize the yields of affected EMU members. The Outright Monetary Transactions (OMT) procedure, which was announced in 2012 enabled the ECB to buy unlimited amounts of sovereign debt on secondary markets, thus banishing any fears regarding potential defaults of selected Eurozone countries. (Iversen, Soskice and Hope 2016, 179 - 180)

the European Commission suggests a slight readiness to broaden its austerity-driven horizon from the past by suggesting further steps towards a fiscal union (including common stabilisation tools such as an unemployment reassurance scheme) and referring to the “European Pillar of Social Rights”¹¹ as basis for the European-wide improvement of working and living conditions. (European Commission 2017, 15, 24 - 25) Since the time span for the empirical analysis of the subsequent chapter is from 2000 to 2019 the historical review of the development of the EMU is concluded at this point.

2.5 Conclusion - Bringing together history and theory

The existence of rather stable monetary systems on a global level such as the Gold Standard before the First World War or the Bretton Woods System after the Second World War, reduced the need for integration in economic and monetary policy matters in the early years of the European Union. This however, quickly changed once the early signs of a potential breakdown of the Bretton Woods System and the resulting turbulences on international currency markets became apparent. With the introduction of the customs unions as well as the Common Agriculture Policy, important advances in European integration had been reached in the late 1960ies. The concern regarding potential adverse effects of unstable exchange rates or more generally volatile international trade relations on the existing and potential future European projects, eventually brought the coordination of monetary and economic policy matters on the political agenda of the EU. The corresponding political initiative resulted in the Werner Plan from 1970, which represented a blueprint for the introduction of a full economic and monetary union within the relatively short period of 10 years. While the breakdown of Bretton Woods in combination with insufficient political goodwill for the aspired transfer of power to the community level prevented the implementation of the Werner Plan, it significantly shaped the future attempts of monetary and economic policy integration.

Integration during the subsequent period between the early 1970ies and late 1980ies was thus limited to those areas where a significant level of sovereignty could be maintained by the member states of the EU. The resulting political compromise consisted of exchange rate mechanisms (for a short period the so called “snake in the tunnel”, which was soon relieved by the European Monetary System) which pegged the currencies of the partaking countries to each other, while allowing for floating exchange rates towards those currencies, which were not a member of these mechanisms. Additionally, a supporting fund, the European Monetary Cooperation Fund, was established, which would actively intervene in currency markets or

¹¹ Proclaimed in 2017 at the Gothenburg Summit the pillar defines 20 guiding principles to ensure that the social rights of European citizens are protected. Based on a corresponding action plan the Commission has defined detailed activity plans for these principles (e.g., legislative proposals for the improvement of working conditions or combatting gender inequality, etc.). (European Commission 2022c)

provide financing facilities in case of exchange rates crises. As the later crisis of 1992 would show, the preservation of sovereignty in monetary policy within a functioning EMS turned out to be an illusion. The phase of relatively stable exchange rates within the EMS up to its crisis in the early 1990ies was linked to the adoption of the same restrictive monetary policy approach by the different member states, following the assumed best-practice of Germany. Once the German unification process forced the German Bundesbank to deviate from this approach, the viability of the EMS quickly came into question leading to massive speculative attacks on selected European currencies (the underlying theoretical explanation of Mundell's impossible trinity is described in further detail above).

The final blueprint for establishing the institutional arrangement and corresponding governance framework of today's EMU, the Delors report from 1989, considered important learnings from the past. The transfer of political decision power on the community level, which had already been demanded by the Werner Plan, was realized through the establishment of an independent institution responsible for all monetary policy questions (the European Central Bank). In the area of economic policy decision, the willingness for giving up sovereignty proved to be far lower. As the empirical analysis of chapter 3 will show, this turned out to be a costly structural design flaw, which brought in danger the overall existence of the EMU.

In this context, the question regarding the prerequisites for introducing a common monetary policy, which had accompanied the EMU throughout the 40 years of its development process, became of special importance. Germany, together with other strong currency-countries, had argued in favour of introducing a single currency as a finishing touch, once convergence in economic conditions had been reached ("coronation theory"). The opposition, which consisted of weak currency countries such as France, rather considered the integration in monetary policy to be the initial spark needed for a subsequent harmonization of economic conditions. While the Delors report represented to a certain degree a compromise between these two positions, it also reflected the strong influence Germany had during this key phase of the formation process of EMU.

Germany had oriented its policies in accordance with the changes in economic theory paradigms towards a monetarist understanding, which went along with the period of stagflation during the 1970ies. Thus, the ideal monetary and fiscal policy agenda consisted of restrictive monetary policy (which following the monetarist logic would allow for price stability) in combination with low and stable public deficits, while at the same time maximizing the degree of liberalisation in capital markets¹². Since reaching full economic convergence did not seem feasible in the decade before the implementation of the EMU, the German compromise

¹² Which partially had already been introduced successfully in 1986 through the Single European Market initiative.

consisted in forcing its ideal policy mix on potential EMU members through the introduction of a set of preconditions, which had to be fulfilled before accession into EMU was allowed. In line with its ideological standpoint, the so-called Maastricht criteria focused primarily on price level development, public deficits, and interest rate levels. Thinking one step ahead, the sovereignty in economic policy was further constricted by the introduction of the Stability and Growth Pact, which should ensure, that adherence to those Maastricht criteria, which were linked to public debt levels, had to be maintained as well after the EMU was in place. While the European ruleset for coordinating economic policies has been expanded to a certain extent beyond this very narrow concept of the SGP (for instance through the introduction of the macroeconomic imbalances procedure), the past emphasis on monetarist ideology is still reflected and was partially even intensified since the Six Pack reform package of 2011 (for details refer to chapter 2.4).

In conclusion, the historical review of the EMU formation process helps to comprehend how the structural design came into being, what political limitations went along with this process and what the theoretical rationale behind its development might have been. However, as chapter three will show, additional risk factors potentially leading to diverging economic development had only partially been identified and thus were insufficiently reflected in the economic indicators selected to be part of the Maastricht criteria. It appears, that the alignment in economic policies, which was strongly demanded by Germany and its peers, led to an ideologically driven narrow focus on selected policy areas.

While interest rates and public debt levels became problematic for Spain in the aftermath of the global financial crisis, they did not lay at the heart of the Spanish crisis dynamics. At the same time, basic elements of the structural design of the EMU such as the gradual liberalisation of capital movements as part of the Single European Market, which was never challenged or understood as potential source for divergence, led to the build-up of a massive private and financial-sector debt-fuelled asset price bubble in the Spanish housing and construction industry. The missing lender of last resort (as established within the mandate of the ECB) additionally aggravated the situation by limiting the availability of financial resources for economic recovery. Consumer price level development during the first two decades of EMU, however, showed a deflationary trend, thus putting in question the prominent fear of uncontrolled inflationary pressure.

One of the key preconditions stated by Optimum Currency Area theory, which did not find resonance during the Delors report period, the synchronization of business cycles, was also completely left out from the political debate. Strikingly, recent European crisis response policy has partially fallen back on this theoretical framework by pressuring peripheral countries like Spain through a (from a social perspective) costly process of internal devaluation (while OCA theory additionally recognises fiscal transfer systems as potential adjustment mechanism with

less social cost, lacking political willingness to introduce such systems made it no viable crisis response option). Aiming at an increase in labour market flexibility, the Spanish crisis response reform package translated into lower wages, high job insecurity and worsened working conditions for employees. The subsequent chapter will now analyse in further depth, selected economic indicators to reach a better understanding on sources for diverging economic development within the EMU.

3 Analysing diverging economic development

Having discussed the historical evolution of the EMU as well as its underlying theoretical theories, chapter three will focus on analysing the development of the economic landscape within the EMU since the introduction of the common currency. By looking at selected economic indicators for two different member countries of the EMU, a diverging economic development will be identified. In addition, the analysis will also reflect on how these two member states were affected to a varying extent by the global financial crisis of 2007/2008 and the subsequent sovereign debt crisis.

The selection of economic indicators aims at finding the right balance between significance and scope of the analysis. On the one hand, a wide array of indicators would be of interest, on the other hand, the inclusion of too many indicators could negatively affect the analytical quality since the required room for interpretation would exceed the scope of this thesis. Thus, the selection aims at reflecting the different areas of economic policy (such as economic growth, public and private finances, price development, labour markets and trade) to the fullest extent possible.

With the aim of this analysis being to identify diverging economic development, countries with diverse economic conditions need to be selected. For this purpose, two representatives of different geographical regions of the EMU will be in focus (Germany as core country and Spain for the periphery). While the significant impact of past crises on the Spanish economy can still be observed up until today, the German economy recovered comparatively fast and well during the same time span. This not only points at differences both in the economic policies pursued as well as in the underlying economic and industrial structures but additionally makes the selected countries ideal for identifying imbalances in the economic landscape of the EMU.

The time span of analysis is set from 2000 to 2019, starting with the introduction of the common currency. This time frame, additionally, allows for a differentiated observation of the crisis dynamics between 2007 and 2014 by covering both the build-up phase as well as the aftermath and recovery period during recent years.

3.1 Economic growth

Economic growth not only plays a key role in ECB policy decisions regarding the single monetary policy but in addition is important in the context of coordinating macroeconomic policies within the EMU and is thus of special interest when looking at differences in economic development. Following the above-mentioned argument of OCA theory, which states that synchronization of business cycles is an important prerequisite for the success of a monetary union (Valdes Fernandez 2014, 7), the analysis will not only focus on varying growth levels of GDP in its different dimensions (nominal/ real, absolute/ relative) but additionally consider cyclical divergences between Spain and Germany.

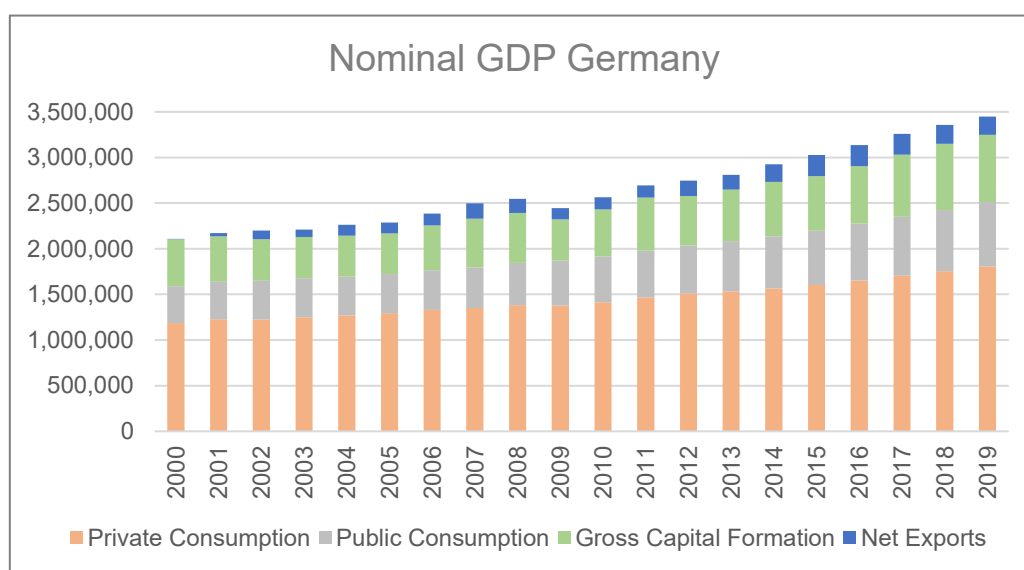


Figure 1: Development of nominal GDP of Germany in million EUR since 2000 (Source OECD)

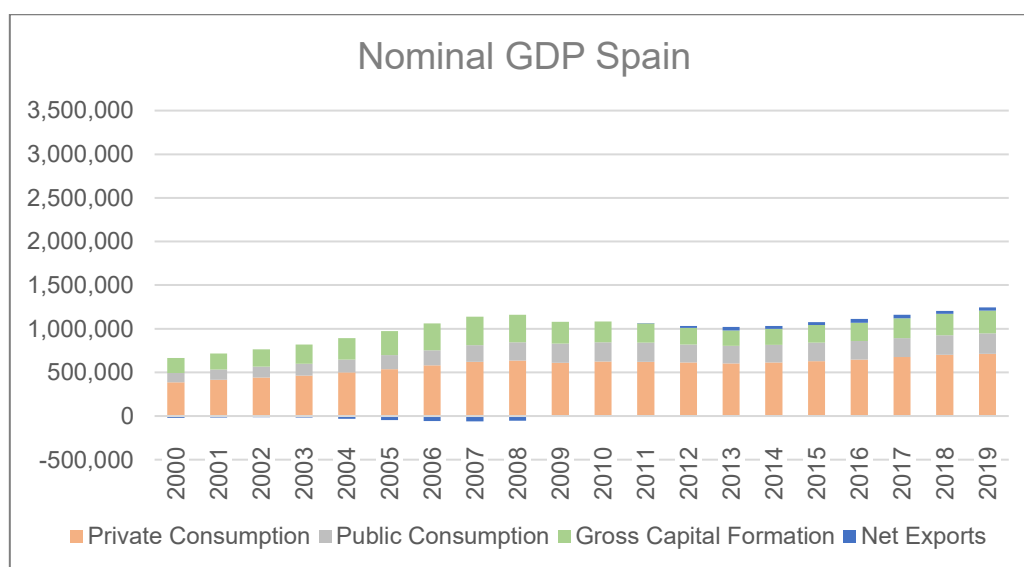


Figure 2: Development of nominal GDP of Spain in million EUR since 2000 (Source OECD)

The German nominal GDP amounted to approximately 3,500,000 MEUR in 2019, making it about three times the size of Spanish nominal GDP (2019: 1,200,000 MEUR). The same relation equalled to one fourth in 2000, which might serve as weak indication for the occurrence of a certain catching up process since the inception of the Euro (certainty cannot be derived without an adjustment for population size and inflation, which will follow at a later stage). Slightly decreasing yet important differences in nominal GDP in absolute terms can thus be observed between Germany and Spain

A second important observation is the different long-lasting impact of the global financial crisis from 2007/2008 onwards on the two countries' nominal GDP. While a significant drop in GDP can clearly be observed for both Germany and Spain in 2009, the recovery process in the aftermath of the crisis shows a strong contrast. It took Germany's nominal GDP one year to return to or rather exceed its pre-crisis level of 2,500,000 million EUR, while the Spanish nominal GDP did not reach pre-crisis levels until 2016.

The final finding of this first glance on nominal GDPs refers to the contribution of trade to the total nominal GDP. Germany succeeded in generating positive net exports in goods and services (i.e., an economy's exports exceed its imports, thus contributing to economic growth) in every year since the establishment of the Eurozone. In the period of 2000 to 2019 net exports increased about 5000% from 3,572 million EUR to approximately 200,000 million EUR. On the contrary, up to the year 2010, Spanish net exports represented a (small but) negative contribution to the total GDP. Even though this trend has been reversed in the recent years, with a total of 37,461 million EUR in net exports in 2019, trade contribution to GDP remains rather limited for Spain (trade relations are discussed in further depth in chapter 3.5).

With regards to business cycle synchronization two dimensions need to be considered in the analysis. Firstly, cyclical convergence is given when member countries experience the same phases of their respective cycles (up- and down-turns) at the same time. However, to reach a comprehensive understanding of synchronization, the amplitude of the experienced business cycles needs to be included as complementary information.

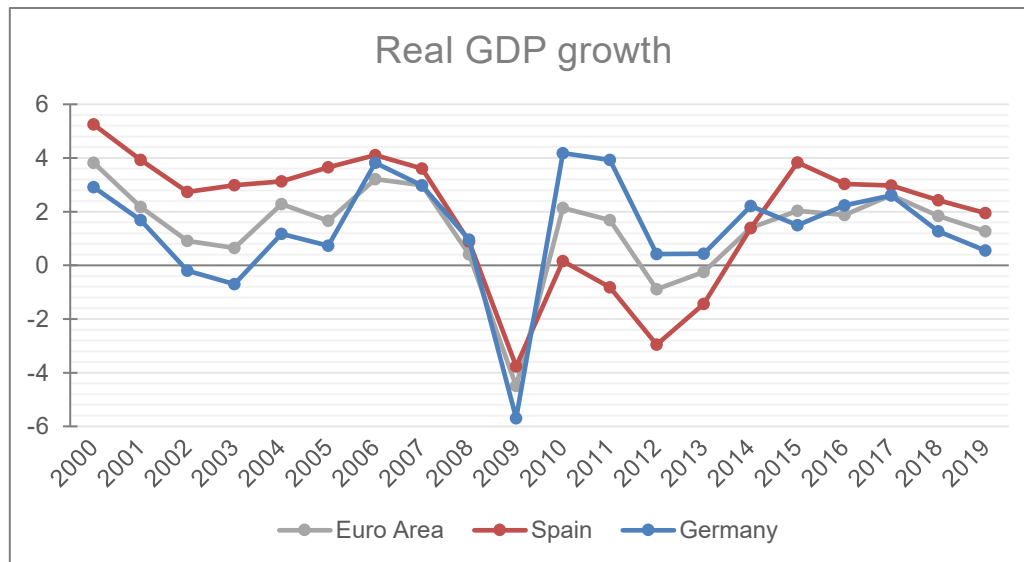


Figure 3: Real GDP growth of Spain, Germany, and the Eurozone in % since 2000 (Source OECD)

In accordance with the findings of De Grauwe and Ji (De Grauwe and Ji 2018, 5) and the IMF (Franks, et al. 2018, 14), the graph above indicates that the business cycles of Spain and Germany were rather synchronized, matching the overall trends on Eurozone level during the observation period. This specifically applies for the time span between 2004 and 2009 (pre-crisis and crisis) as well as for the recent years since 2014.

The early 2000s reflect the weak economic growth and overall economic performance experienced by Germany in the first 15 years after unification. This weakness in growth was linked to higher taxation for financing the unification process as well as the prolonged contraction of the German construction industry. Additionally, German export market shares had been falling until the late 1990s. A trend that was quickly reversed from the end of 2004 where the observed recovery process was fuelled by the strengthening of external demand. (Carlin und Soskice 2009, 69) In contrast, Spanish real GDP grew at an average yearly rate of 3.7% from 2000 to 2007.

An important divergence in the development of real GDP growth resulted from the global financial crisis in 2007/2008 and the recovery process after. Both countries experienced a strong recession in 2009, yet German real GDP growth rebounded one year later to around 4%, while Spanish real GDP growth remained negative until 2014. Like it was the case for other peer countries of the periphery, Spain's economy boomed in the period of 2000 to 2007 and subsequently experienced a deep and protracted recession. At the same time, Germany stood out as one of the Eurozone members with a comparatively low amplitude between boom-and-bust cycles.

The main divergence with regards to real GDP growth thus lies in the amplitude of business cycles. De Grauwe und Ji describe this pattern as follows. Those member states having the

highest amplitudes between business cycles experienced an unsustainable economic boom at first (often in combination with asset price bubbles) which was followed by deep a recession, subsequently putting high pressure on public expenditures and corresponding refinancing costs in the bond markets. (De Grauwe and Ji 2018, 5) This is reflected in the graph above when comparing the average growth rates. From 2000 to 2007, Spanish real GDP grew on average at a rate of 3.7%. In the case of Germany, the growth rate in the same time span amounted to 1.6%. So, both countries experienced real economic growth and thus found themselves in a similar business cycle. Yet the amplitudes of the cycles varied with Spain experiencing higher growth. The deep recession that followed in the case of Spain is also reflected in the graph above. From 2007 to 2014 average real GDP growth remained negative in the case of Spain (approximately - 0.93%), while German average real GDP growth during the same time span equalled 0,92%). Thus, corresponding to this interpretation, the Spanish economy was among the EMU members which were affected the most by the sovereign debt crisis in the aftermath of the global financial crisis, which is shown in the graph above through the double-dip recession experienced between 2008 and 2014.

To finalize the sub-chapter on economic growth, this analysis will now look at convergence in terms of living standards between Spain and Germany (relative to the Eurozone average). This will be achieved by comparing the GDP development adjusted for population size and varying price levels (GDP per capita in Purchasing Power Standards [PPS]¹³). The indicator is expressed in relation to the EU-27 average (refers to all EU member states after “Brexit”), which equals 100. A value above 100 means that a country’s GDP per capita is higher than the EU average for a given year and vice versa. (Eurostat, Dataset Details: GDP per capita in PPS 2020)

¹³ The Purchasing Power Standard (PPS) serves as artificial currency unit, which is used by Eurostat to adjust for different price levels when comparing national accounts aggregates. Theoretically, one PPS buys the same amount of goods and services in each country. Yet, due to varying price levels, the amount of national currency needed for the same basket of goods and services is different for each country. (Eurostat, Glossary:Purchasing power standard (PPS) 2014)

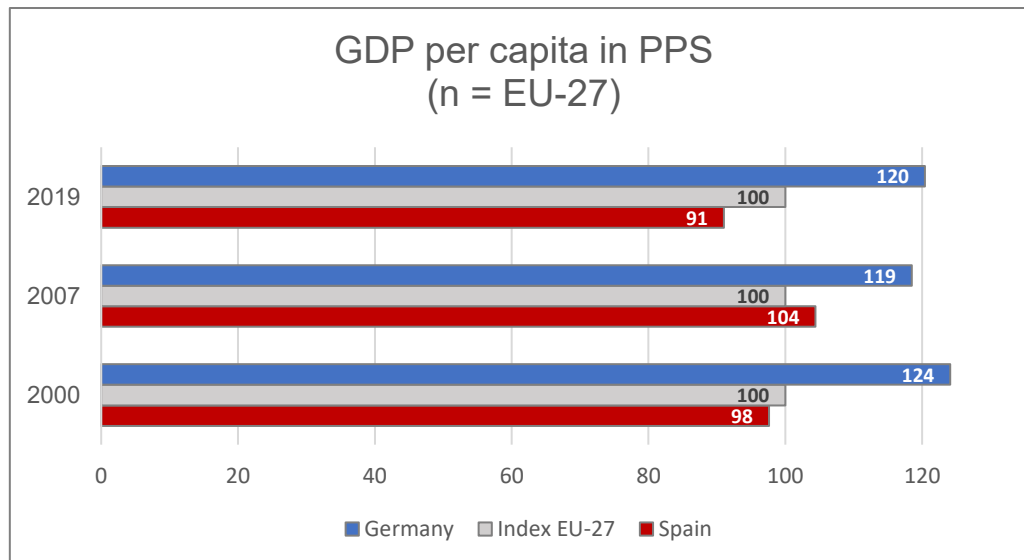


Figure 4: GDP per capita in PPS of Spain and Germany relative to EU-27 average for selected years since 2000 (Source Eurostat)

With an index value of 120 in 2019, German GDP per capita exceeded significantly both the EU-27 average as well as the Spanish index value of 91. While the overall spread between index values has been reduced in the EMU over the last 20 years, this trend can mainly be observed for the member states in Eastern Europe and has not been the case for Spain. Compared to 2000 as well as its peak shortly before the global financial crisis in 2007, the Spanish GDP per capita relative to the EU-27 average has fallen significantly. It is important to consider that this development can be caused both by lower Spanish productivity in terms of GDP per capita as well as the strengthening of overall productivity within the EU. (Bildung 2020)

In accordance with earlier findings as well as the described pattern of desynchronized boom-bust cycles from De Grauwe and Ji, the Spanish economic boom up to 2007 led to an index value above the EU-27 average followed by a stark decline in the year 2019. At the same time, the development of the German index value shows far less variance and remained relatively high as well as significantly above the EU-27 average over the whole observation period. These results go in line with the ECB's analysis on economic convergence in the EU, which indicates that convergence in terms of real GDP growth can mostly be observed for those countries who adopted the Euro after 2002 as well as for non-Euro area EU member states since 1999. In contrast, the income gaps in comparison to the EU-average have either not been reduced (e.g., Spain) or even increased (e.g., Greece) among the early adopters of the Euro. (Diaz del Hoyo, et al. 2017, 22 - 24)

3.2 Public and private finances

As part of the Maastricht criteria, public finances or more specifically public debt and deficit quotas have strongly been shaping any debate about the economic performance of EMU member states since the EMU's inception. Numerous interpretations of the Euro-Crisis and the question why it affected some EMU members more than others as well as the resulting reforms of the economic governance framework of the EMU, have further fostered this already prominent role of public finances. Given their importance in the political and academic debate, this sub-chapter will now focus on how public debt quotas and corresponding financing costs have developed throughout the observation period. In addition, the debt levels of private households and the financial sector will be of special interest, for better understanding variances between the Spanish and the German economy.

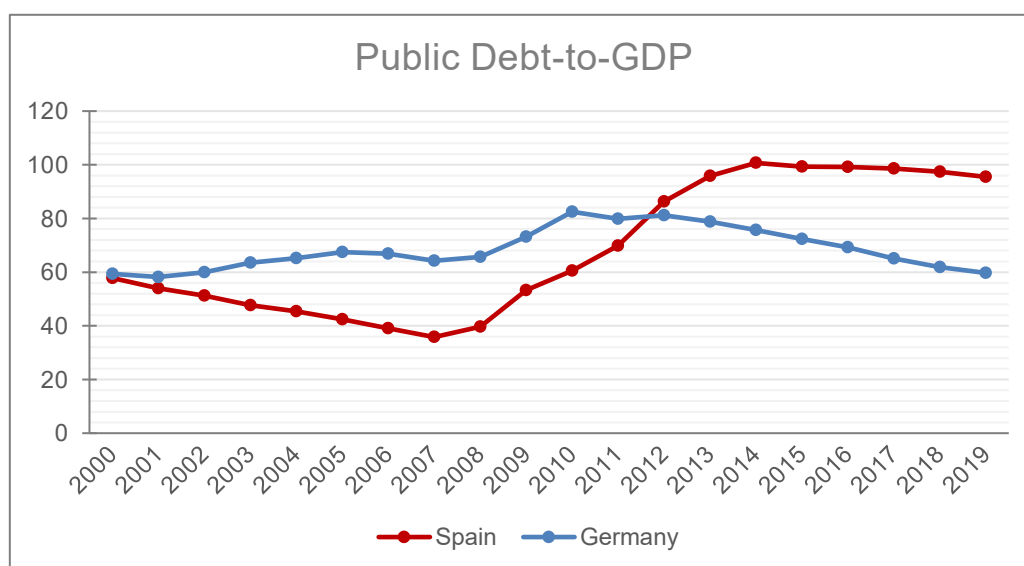


Figure 5: Development of public debt-to-GDP ratio of Spain and Germany since 2000 (Source Eurostat)

When comparing the debt evolution of Spain and Germany since 2000 stark contrasts arise. Challenging the established narrative of fiscally imprudent policy making by peripheral Eurozone members being at the heart of the Euro-Crisis, the Spanish debt-to-GDP ratio remained significantly below the Maastricht reference value of 60% up to 2009 (being at its lowest of approximately 36% in 2007¹⁴). Being among those member states who were affected the most by recent crises, however, Spain experienced a sudden and steep increase of public debt from 2007 on, reaching its peak of around 100% of GDP in 2014. The steep increase in public debt needs to be seen together with the strong recessionary pressure of 2008 and 2009. Amounting to 2.3% of GDP, the Spanish fiscal stimulus package, which was aimed at restoring

¹⁴ Baldwin et al explain this noticeably low ratio with artificially high tax revenues stemming from the experienced real estate boom. (Baldwin, Beck, et al. 2015, 5) High GDP growth rates (as mentioned above) additionally had a positive effect on relative debt levels.

domestic demand was among the most expansive ones in the world. The resulting relatively high levels of public debt have been sustained in recent years, even though public spending was reduced significantly due to a very restrictive budgetary policy in Spain from 2010 to 2013. (Celi, et al. 2018, 120)

German debt evolution, in contrast, shows far less variance, while at the same time failing to comply with those threshold values, which were so fiercely enforced in the years before the inception of the EMU. With an increase of about 30% in public debt levels between 2007 and 2010, Germany was not entirely unaffected by the crisis repercussions. Yet, this trend was noticeably below Spanish growth levels and quickly reversed over the past decade.

The strong debt growth in combination with a sudden stop in cross-border lending by financial markets was one of the key symptoms experienced during the Euro-Crisis. The institutional design of the EMU additionally engraved these issues by explicitly forbidding the ECB from lending money to EMU member states. Lacking the existence of a lender of last resort (before the establishment of the EMU national banks would take over this role) countries suffering from deteriorating budget deficits (such as Spain) were at the same time faced with higher debt servicing costs stemming from the increased risk of default. (Baldwin, Beck, et al. 2015, 2) Portugal and Greece were most affected by such a sudden increase in financing costs¹⁵, followed closely by Spain, where long-term bond yields increased by almost 50% in the period from 2009 to 2012.

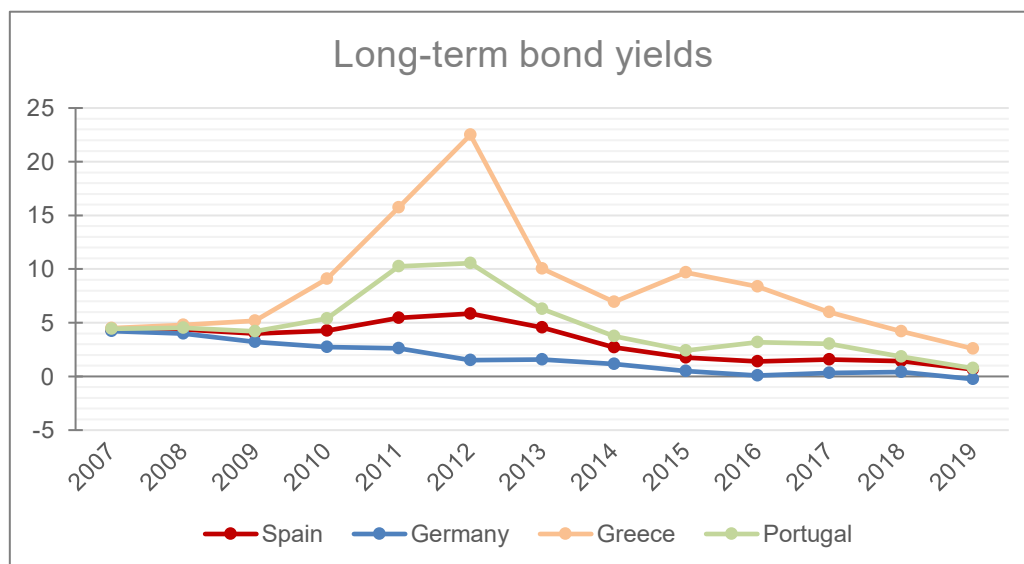


Figure 6: Development of long-term government bond yields for selected EMU members since 2007
(Source OeNB)

¹⁵ At their peak in 2012, long-term government yields for Greece and Portugal amounted to 22.5% and 10.6% respectively.

Another important amplifying dynamic during the Euro-Crisis was the strong interlinkage between the financial sector and government finances. This so-called “doom loop” operated in two directions.

Firstly, strong capital flows from the core to the growing periphery in the first decade of the Euro had created large and highly leveraged financial institutions, which at the same time lacked a corresponding capitalization (referring to financial reserves in the form of equity or similar funds, which can be accessed to absorb potential losses). As a result, public expenditures for saving those financial institutions which were deemed to be “too big to fail” were used to avoid the contagion of other economic sectors by a defaulting banking industry.

The second dimension of the “doom loop” referred to the heavy reliance of governments on bank financing. The same financial institutions being at risk of default and thus requiring bailouts or similar types of financial support, were the ones who had been financing a fundamental part of these now required public finances in the past. (Baldwin, Beck, et al. 2015, 2) This was specifically the case for the Spanish banking industry, which had been among the biggest buyers of government debt. In addition, the deep recession experienced by the Spanish economy went along with a large increase of losses in the mortgage business. With the collapse of the real estate market non-performing loans rose to up to 180 billion EUR troubled assets at the end of 2011. (Royo und Steinberg 2019, 162)

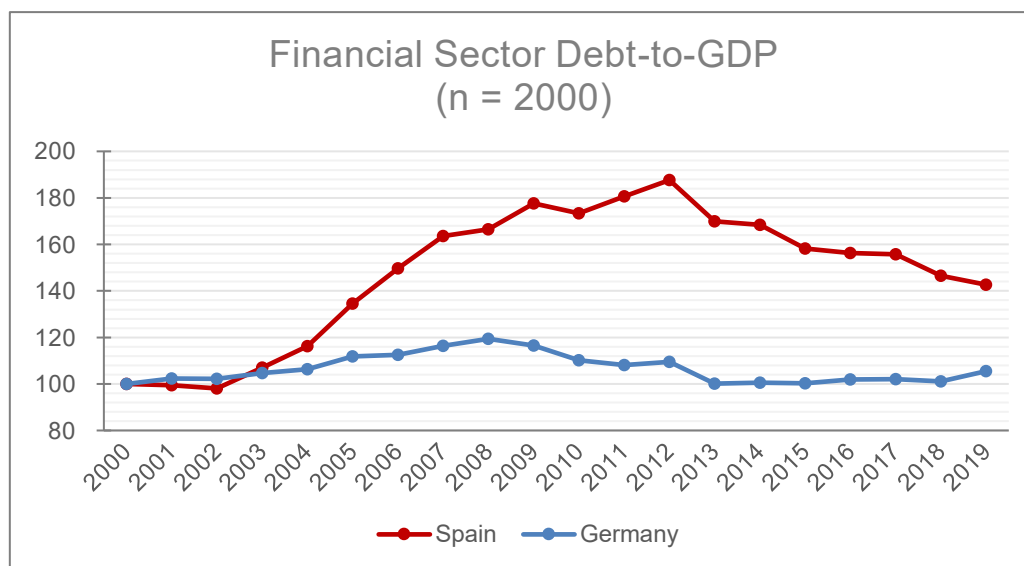


Figure 7: Development of financial sector debt of Spain and Germany relative to 2000 (Source Eurostat based on own calculations)

These challenges of the European financial services industry are shown in the graph above. Financial sector debt relative to GDP increased to up to 190% compared to 2000 in Spain, while German debt levels remained relatively stable. The development over the past years indicates a certain convergence process, linked to deleveraging of the Spanish financial sector.

Yet, the stable debt evolution of the German financial services industry does not reflect the comparatively high starting point of 2000. While the Spanish debt ratio amounted to 260% of GDP, German financial sector debt equalled 450% of GDP.

The growth in the Spanish financial sector debt reflected the strong interconnection of European financial markets, which turned out as a problematic obstacle during the sovereign debt crisis of the peripheral EMU members. As largest creditors, German (and French) financial institutions accounted for a large amount of outstanding debt in Italy, Spain, Greece, and Portugal in 2008. This channelling of financial resources from the core to the periphery was linked to the ongoing financial deregulation and the availability of large amounts of liquidity in international capital markets. Additionally, government debt was considered as basically free of risk by capital requirements regulations and could be used as collateral for central bank loans. Core banks were thus generating profits by expanding their balance sheets with low-interest ECB funding or cheap refinancing on international capital markets on the liability side and using these funds to invest into higher-yielding sovereign debt from peripheral countries on the asset side (which at the same time had the side effect of convergence in nominal interest rates¹⁶).

However, German and French financial institutions had also accumulated important speculative positions through the investment in the US securitized mortgage market and thus suffered large losses with the collapse of the US subprime market in 2007 (which represented the starting point for the global financial crisis of 2007/2008). A large cut in lending to the countries suffering from the Euro-Crisis followed, to compensate for these realized losses, which subsequently created massive financing problems in the periphery. This interlinkage between lender banks in the core and borrowers in the periphery caused a political issue, since writing down peripheral debt to alleviate the crisis in the periphery would have led to significant distortions in the financial sector of the core countries. (Celi, et al. 2018, 38, 102 - 106)

Bailouts in the banking industry were an issue for all EMU members. According to the Directorate General for Competition from the EC the total volume of aid used by the European financial sector (EU-28) amounted to approximately 917,000 million EUR from 2008 to 2019. In addition to these capital-like aid instruments (which mostly refer to liquidity support, capital injections or aids for the treatment of impaired assets), a large volume of guarantees was authorised by the EC as further stabilization measure. At their peak in 2010, the average amount of outstanding financial sector debt with state guarantees for the EU-28 equalled 900,000 million EUR.

¹⁶ Higher demand in sovereign debt leads to increasing bond prices subsequently causing a decrease in bond yields and interest levels of newly issued debt.

In total, the Spanish government invested around 115,000 million EUR in capital-like aid instruments since 2008, while the German investment amounted to roughly 440,000 million EUR. Guarantees were applied to a large extent by the German government in the early years of the crisis (the average amount of state-guaranteed financial sector debt in 2009 and 2010 was among the highest of the EMU only being surpassed by Ireland). While being lower in absolute terms, Spanish state guaranteed bank loans kept growing, in line with the financial sector debt-to-GDP ratio, up to their peak in 2012. In both cases, no outstanding state guaranteed bank debt remains since 2017. For Germany this was already the case since 2014, indicating the varying degree to which Germany and Spain were affected by after-effects of the Euro-Crisis.¹⁷ (DG Competition 2021, 31 - 32)

In response to the high impact of these bailouts on public finances the Single Resolution Mechanism (SRM) has been established as key component of the Banking Union (together with the Single Supervisory Mechanism [SSM] as well as the European deposit insurance scheme [EDIS]). Since the full application of these regulations in the beginning of 2016, financial institutions are obliged to prepare recovery and resolutions plans, which outline how to proceed in the case of financial distress, on a yearly basis. Additionally, new bail-in mechanisms have been introduced, to ensure the contribution of the bank's shareholders and creditors to the costs of resolution. (European Commission 2022d)

When looking at how private debt levels developed over the observation period, similar trends can be observed as in the financial sector. While German private debt relative to GDP decreased since 2000, Spanish private households saw similar growth rates as the financial services industry (almost 200%). Most of these loans were invested in the then-booming housing and construction sector, which rapidly drove housing prices subsequently fuelling a huge asset price bubble. (Baldwin, Beck, et al. 2015, 6) In contrast to the financial sector debt, German private debt levels relative to GDP not only remained stable but in addition were below Spanish private debt levels. In 2019, private debt in Spain amounted to approximately 130% of GDP, while German private debt equalled 105% of GDP.

¹⁷ Data is based on the state aid scoreboard 2020 published on a yearly basis by the DG Competition of the EC. A detailed break-down for each country can be accessed online. Aggregates over the period of 2008 to 2019 are derived from the author's own calculations.

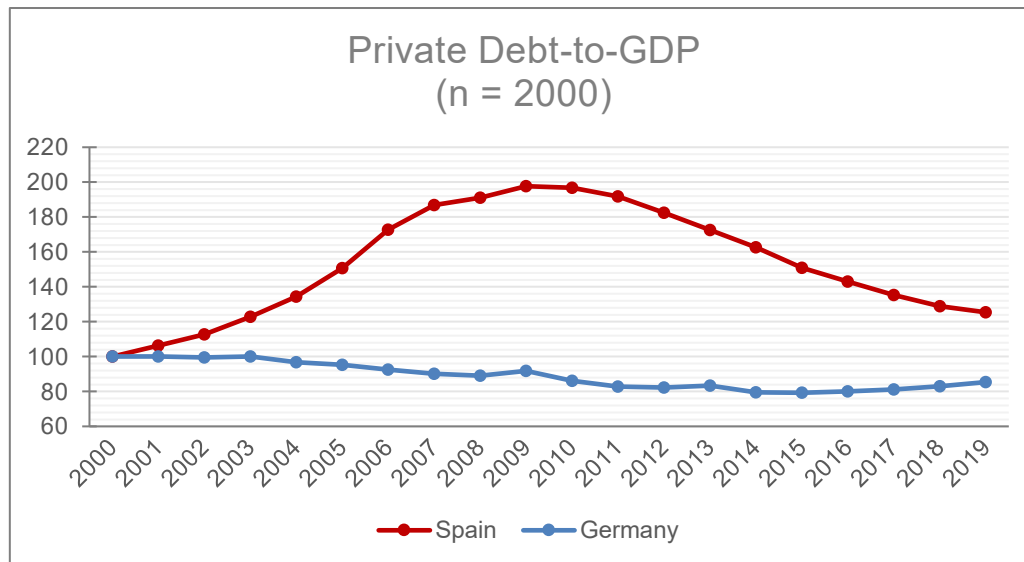


Figure 8: Development of private debt of Spain and Germany relative to 2000 (Source Eurostat based on own calculations)

According to Royo and Steinberg, the problem of excessive private indebtedness in Spain was linked to the convergence of nominal interest rates of EMU members on a relatively low level in the years before and after the introduction of the Euro. As the subsequent analysis of inflationary development will show, these lower nominal interest rate levels went along with higher inflationary pressure in the Spanish economy. This, in turn, led to a significant expansionary spending impulse through lower real interest rates (i.e., an increase in private debt-financed spending) at a time where the Spanish economy had already settled on a comparatively high level of economic growth (Spanish real GDP growth between 2000 and 2007 was about 1.5% higher than the average growth in the Eurozone). (Royo und Steinberg 2019, 161)

To summarize, significant divergences in the development of debt levels can be observed between Germany and Spain throughout the observation period. However, it is important to state that, against the Maastricht criteria paradigm, which strongly emphasised the need for sound public finances, the real source of economic distress in the case of the Spanish economy laid in high levels of indebtedness in the private and financial sector. Benefiting from high GDP growth and connected higher tax returns, relative public debt levels in Spain decreased up to 2007 and were among the lowest in the Eurozone.

At the same time, a massive growth in private and financial sector debt took place. This growth was connected to the high rates of return generated by a booming housing and construction industry. Once the underlying asset price bubbles burst, this boom was quickly reversed, strongly impacting the capability of private individuals to redeem their outstanding loans, and subsequently leading to important loan losses in the financial sector. The strong need for public bailouts of the financial sector in connection with additional fiscal policy measures

counteracting the crisis dynamics, which started in 2007 would eventually become problematic for the public finances of Spain.

Lacking a financing source of last resort such as the national bank, the refinancing options of Spain became sparse. The financial sector, which had served as financing source in the past, was suffering from financial distress and itself in need of support. As interest rates started increasing with rising doubts regarding the Spanish repayment capacity, financial markets became less and less of an option for refinancing. Interventions by the ECB together with austerity-linked support mechanisms on European level helped to reverse this trend. The process of deleveraging is clearly visible in the private as well the financial sector in recent years.

In the case of Germany, the described dynamics became especially problematic in the financial sector, which was highly invested in the peripheral areas and had an important risk exposure towards the global housing and construction industry. Just as it was the case for Spain, huge bailout programs had to be initiated to avoid the failure of some of the largest German financial intermediaries, which subsequently was reflected in growing relative debt levels. Yet from a private and public perspective, the development of debt levels proved to be far more stable for Germany.

3.3 Consumer- and asset-price development

As outlined earlier, past experiences with periods of high inflationary pressure (e.g., during the oil crisis in the 1970ies) as well as fears of contagion effects between EMU members put price stability in focus of economic convergence before the introduction of the Euro. To ensure the ECB's objective of price stability over the medium term, a yearly threshold of below but close to 2% increase in the Harmonised Index of Consumer Prices (HICP) was defined as target for all Eurozone members, leaving a certain margin depending on the given economic conditions on national level. Some cross-country inflation differentials were, therefore, considered as a necessary part of the adjustment process during the early stages of the EMU, lasting divergences linked to inappropriate domestic policies or other unwarranted developments were not desired and were to be acted upon accordingly. (Diaz del Hoyo, et al. 2017, 36)

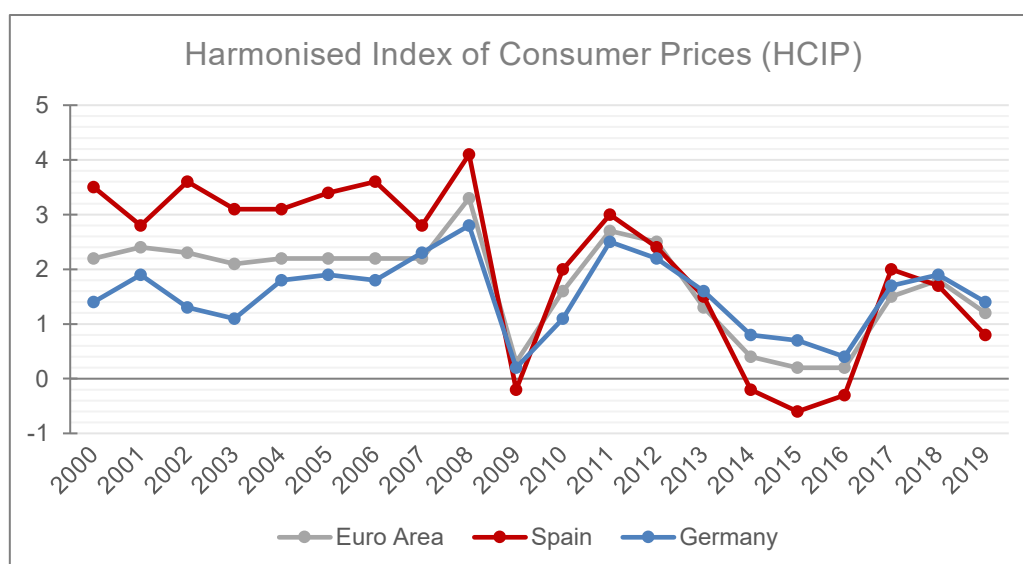


Figure 9: Yearly change of HICP for Spain, Germany, and the Eurozone in % since 2000 (Source Eurostat)

On overall Eurozone level the desired target of approximately 2% or below has mostly been achieved since 2000, tending to almost deflationary conditions in the past decade. In his speech of 2019 regarding twenty years of the ECB's monetary policy Mario Draghi addressed this development by naming a reduction of supply-side shocks as well as contractionary fiscal policy stances on EU-level as driving forces behind these lower price levels. According to Draghi, additional deflationary pressure came from the already mentioned deleveraging process of financial institutions after the sovereign debt crisis and a major collapse in oil prices in 2014, which is also reflected in the graph above (the Spanish economy went through a period of deflation from 2014 to 2016 with inflation rates between -0.2% and -0.6%). (Draghi 2019)

Understanding this deflationary trend of the past decade, however, has been subject to extensive debate. While the ECB's scope of action in the context of monetary policy can be considered strictly defined and rather limited from a legal perspective (the primary objective remains price stability, regardless of its emergence as quasi lender of last resort during the Euro Crisis), less clarity exists with regards to the economic factors actually determining price levels (referring for instance to the interplay of supply and demand-sided, e.g., wages, factors). Due to lacking empirical evidence, pure monetarist theories predicting a relationship between money growth and inflation, have lost their influence on policy decisions.¹⁸ The earlier mentioned Phillips curve, which argues for an inverse relationship between unemployment and inflation levels, similarly, is no longer considered as accurate since this relationship cannot be demonstrated statistically. Modern central banks apply an extended model of the Phillips

¹⁸ Since the ECB's existence, money growth in the EU has exceeded (significantly) inflation in almost every year. Similar trends can be observed for the US, which negates the role of money growth as the leading indicator for changes in price levels.

curve, which introduces inflation expectations as key determinants of actual inflation outcomes. Yet, in its recent Monetary Dialogue Paper the ECB indicates that a significant portion of the past deflationary development cannot be explained by existing models, making it impossible to pin down with full certainty the determining key factors behind this trend. (Whelan 2020, 9 - 13)

Compared to other indicators in earlier sub-chapters, the graph above indicates a rather strong convergence process in the price levels between Germany and Spain, reflecting the already mentioned overall deflationary trend in the Eurozone over the whole observation period. However, inflation differentials were particularly pronounced during the build-up of the global financial crisis in 2008 as well as between 2014 and 2016. Average price levels in Spain were about 1% above the Euro Area level between 2000 and 2008, while Germany remained among those EMU members with the lowest inflation rates (0.5% below the Euro Area average between 2000 and 2008).

Academic theory offers a broad selection of potential explanatory factors behind these experienced differentials at the early stages of the monetary union. In its analysis of 2004, the ECB explained this divergence partially based on the expected adjustment process by referring to the Balassa-Samuelson (BS-effect) and price level convergence effects. (European Central Bank, Inflation differentials in the euro area: Potential causes and policy implications 2003, 9) The BS-effect predicts that “catching up” countries with lower per capita income experience higher inflation rates compared to “richer” countries due to wage dynamics. Higher labour productivity growth in the tradable sector of a “catching up” country leads to higher real wages in this sector. If high labour mobility is given, the transition of workforce from the non-tradable to the tradable sector (incentivised by higher real wages in the latter) will increase wages in the non-tradable sector too (where less differences in labour productivity can be observed between the “catching up” and the “rich” country), leading to higher inflation rates both in the non-tradable sector as well as on aggregate level.

The second effect mentioned by the ECB (price level convergence) describes the adjustment of price levels through increased transparency stemming from the Single European Market. Licheron assumes consumer choice related effects behind this process of price level convergence. Firstly, the single market facilitates price comparison of products for customers throughout the European Union. Secondly, it may lead to a harmonization of ~~process for~~ indirect taxes such as the VAT. Both aspects together could cause a temporary increase in inflation differentials while the varying domestic prices converge towards a common level. (Licheron 2007, 80 - 81) Additionally, production side aspects must be considered. The process of breaking up of state-owned monopolies (as it was the case for example in the energy sector starting in the late 1990ies) facilitated price reductions due to increased competition. The establishment of the Single European Market also allowed for the partial

cross-border relocation of production activities to countries with lower wage levels or more generally favourable conditions from a cost perspective, thus impacting the existing price levels (as later chapters will show, this was an important factor in the significant growth of German exports).

While being of relevance, these temporary effects alone, however, do not sufficiently explain the persistent divergence in price levels, that could be observed up to 2008 and thus need to be complemented by structural factors (such as wage and price setting mechanisms or lacking competition). (European Central Bank, Inflation differentials in the euro area: Potential causes and policy implications 2003, 9) In addition to the mentioned sources, Licheron identified the exposure to external shocks (such as changes in exchange rates or oil prices) as well as differences in cyclical positions (measured via the output gap¹⁹) as key factors for inflation differentials after the establishment of the EMU. (Licheron 2007, 93 - 94)

Diverging development not only affected consumer prices but was additionally reflected in selected asset prices. When comparing Spain and Germany, these differentials were particularly pronounced in the housing and construction sector. As outlined earlier, a significant amount of debt growth both in the private as well as the financial and industrial context was related to the construction and housing industry. According to the Spanish national bank, mortgage loans grew at an average rate of 20% per year between 2000 and 2007 (the highest growth took place in 2005 with 25%). Similarly, credit lending to construction or residential services companies increased by 29% per year on average with the highest yearly growth being in 2007 with 44%. The combination of better access to financial resources both in terms of liquidity as well as reduced lending costs (via lower interest rates) with the expectation of increasing returns from a growing housing and construction sector fuelled housing prices to unsustainable levels within a short period of time. (Banco de España 2007, 31)

¹⁹ A positive 1% increase of the output gap (defined as the difference between actual and potential output/ GDP) statistically leads to an increase in the inflation rate between 15 to 30 basis points in the larger EMU economies. (European Central Bank 2003, 35)

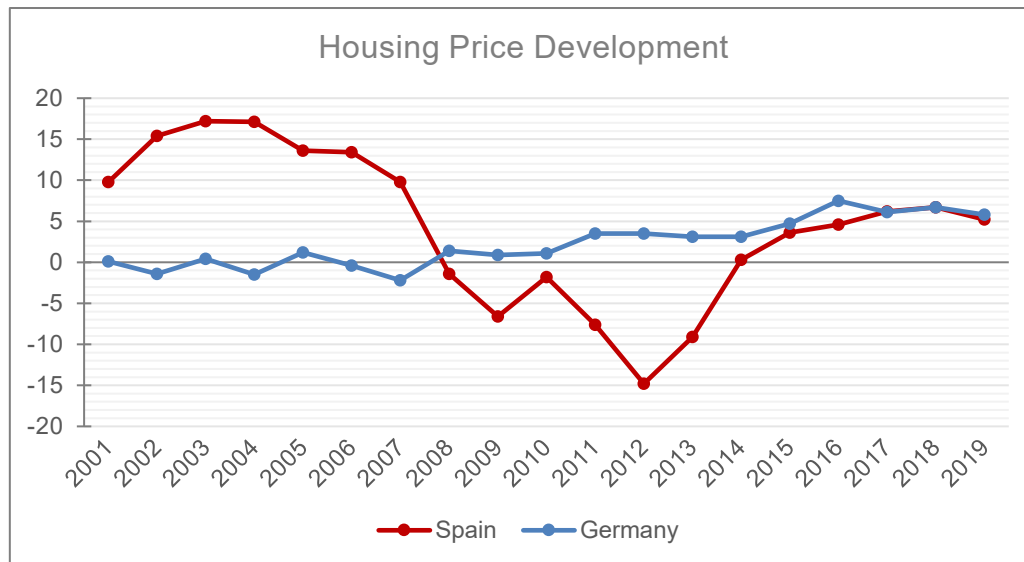


Figure 10: Yearly change of housing prices for Spain and Germany in % since 2001 (Source Eurostat)²⁰

On average prices for private housing increased at a yearly rate of 13.8% in Spain up to the year 2007. While a certain decline in growth can be observed after 2004, the rates remained almost double-digit (9.8% in 2007) throughout that period. The sudden increase in demand for living space was met, with a certain delay, by a significant increase in offer. Regulatory changes in the late 1990ies had significantly improved the availability of constructible surface in Spain. Similar conditions applied to the labour sector in terms of availability of the required manpower. With a gradual approximation of housing demand and offer, it soon became apparent, that this price development was not consistent with the fundamental value of the housing market, but rather represented a debt-fuelled speculative financial bubble. (Banco de España 2007, 32) Following the burst of this bubble, Spanish housing prices experienced a cumulated decline of 35% from 2008 to 2013 (the largest decline amounted to 14.8% in 2012).

On the contrary, German housing prices only show a small growth over the whole observation period (average annual growth of 2.2% between 2001 and 2019). This stability in prices can be explained by specific features of the German housing market. On the one hand, the mortgage loan business was embedded in a strong regulatory framework²¹ and conducted mostly by specialised institutions (in contrast to the general global trend of financial deregulation). On the other hand, the German housing market is characterized by low ownership rates in combination with a large and well-regulated rental market. The interplay of these two characteristics was the basis for the resilient development of the housing and

²⁰ No data for 2000 is provided by Eurostat.

²¹ Rules for mortgage loans for example refer to higher down-payments, higher tax burdens, lower loan-to-value ratios, or stricter valuation rules of the financed object.

construction industry. (Celi, et al. 2018, 67 - 68) In recent years, the price development in Spain and Germany has settled at a comparable level of 5-6%.

To summarize, over the last two decades price level differentials can be observed in the Eurozone. However, while political decision makers during the preparation stage of the Eurozone feared the impact of differentials in consumer price levels and potential contagion effects on low-inflation countries, the development of asset prices proved itself as a much bigger challenge for common economic and monetary policy decisions.

Up to 2008, the Spanish inflation rate remained on average 1.5% above the German rate. However, certain differentials were expected as being a part of the necessary catching up process of the Spanish economy and the rate on European level remained around the defined target of close to 2%. Economic growth in Spain equally remained consistently above German growth levels. In addition to cyclical aspects, growing wages (especially in the housing and construction industry) might have played an important role in the differentials, which could be observed between Spain and Germany up to 2008. Yet, the recent development of consumer prices indicates a certain process of convergence between the two countries and more importantly a shared overall deflationary trend.²²

The housing and construction industry might not only have impacted consumer price levels indirectly through wage dynamics but additionally experienced an impressive asset price bubble, which had a lasting impact on all other major areas of economic policy in Spain. The already mentioned strong interconnections between the German financial sector and the Spanish housing and construction industry facilitated the occurrence of this pricing bubble. Up to 2007, Spanish housing prices showed persistent double digit growth rates. Benefiting from a tight regulatory framework in the industry, German housing prices remained rather stable throughout the whole observation period. Since 2014 and after the reversed adjustment process of Spanish housing prices (Spanish housing prices on average have been decreasing by 7% per year between 2008 and 2013), no major differences can be observed in the development of housing prices between Germany and Spain, indicating a convergent trend for the future.

²² It is important to add, that since the COVID pandemic, the role of consumer price development in economic policy debates on European level has increased significantly. The effects of the breakdown of global value chains as well as the major drop in demand, which went along with regional lock downs all around the world are now reversing, causing shortages in essential products and corresponding increases in prices. Additionally, relative price development temporarily shows an upward trend as prices return to their "normal" levels after experiencing important drops during times of lock down. The question whether recent inflationary pressure must be understood as a temporary adjustment process instead of a lasting structural development is being strongly discussed in the context of the ECB's monetary policy decisions. At the current point in time, it does not seem as if the ECB is planning on turning away from its path of low interest rates and active interventions in the bond markets.

3.4 Labour markets

The sub-chapter on the Maastricht criteria (2.3) has shown, European labour markets were not in the focus of political decision makers in the years before the establishment of the EMU. This, however, has changed significantly in the light of recent crises and resulting debates around the need for structural reforms, to reinstate competitiveness in the periphery of the Eurozone. Additionally, employment has taken a prominent role in the European Pillar of Social Rights Action Plan, which sets out concrete initiatives to bring to reality the social key principles and rights defined in the pillar. All three main targets to be achieved on EU-level until 2030 are related to a certain extent to employment. Firstly, 78% of the population aged 20 to 64 should be in employment. Secondly, at least 60% of all adults should be participating in training every year. Lastly, the number of people at risk of poverty or social exclusion should be reduced at least by 15 million. (European Commission 2022c) Therefore, this sub-chapter will now focus on the development of Spanish and German labour markets since 2000 and aim at finding explanations for the heterogeneity in the adjustment processes of these two domestic labour markets after the global financial crisis and the Euro-Crisis.

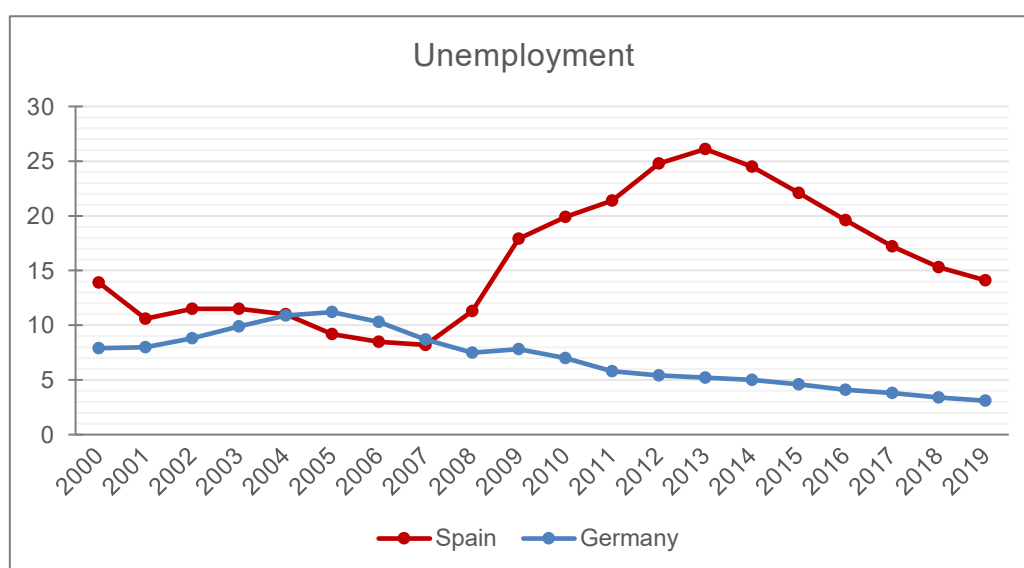


Figure 11: Development of the unemployment rate of Spain and Germany since 2000 (Source Eurostat)

Up to the start of the global financial crisis in 2007, the unemployment rate in Germany and Spain indicated a slow but steady convergence process. With an average rate of 10.55% between 2000 and 2007, the Spanish rate was slightly higher than the German one (9.46% in the same period). At the same time, an opposed trend could be observed in both countries, especially between 2000 and 2005. Overall, Spanish unemployment went down from 13.9% in 2000 to 8.2% in 2007. In contrast, Germany experienced an increase in unemployment starting at 7.9% in 2000 and reaching its peak of 11.2% in 2005. Before the breakout of the

global financial crisis, however, the rate had reached similar levels as in Spain (8.7%) and was thus only slightly higher compared to the beginning of the observation period.

This converging trend was completely overturned quickly once the impact of the financial crisis on the Spanish labour markets became noticeable starting from 2008. The German rate of unemployment continued its downward trajectory (which had started around 2005) throughout the rest of the observation period and reached its lowest level of 3.1% in 2019. On the contrary, Spanish labour markets were strongly affected by the crisis-related economic distortions, meaning that unemployment went up almost by 18% points, reaching its peak of 26.1% in 2013. Since then, the rate has been reduced steadily. With a rate of 14.1% in 2019, however, labour markets in Spain are far away from reaching pre-crisis conditions characterised by high job growth.

Spain experienced an unprecedented job growth in the decade preceding the global financial crisis, by creating an average of 600,000 jobs per year (making it second in the EU after Germany). However, both the type of labour being created as well as the industries which were benefiting the most from this growth are of importance to better understand the subsequent developments. In 2006, most newly created jobs in Spain were allocated in low-productivity sectors such as construction (33%) and services associated with housing, such as sales and rentals (15%). Additionally, in 2007 the temporary labour rate increased to 33.3%. This high dependency on temporary labour is the basis for the strong job growth in times of growth as well as the opposed dynamic in times of recession, which can be observed in the Spanish rate of unemployment. Short-term contracts allow companies to hire extensively in times of growth, while at the same time facilitating to eliminate those jobs as soon as demand decreases. Naturally, this dynamic has significant side effects manifested through high fluctuation, stagnant productivity, and low wages. (Royo und Steinberg 2019, 159 - 161, 174) Keeping in mind the earlier discussed development of the Spanish construction and housing market, these key weaknesses of the Spanish “job growth wonder” eventually brought it to its end, leading to large negative consequences for the social well-being of the Spanish (working) population. The Spanish construction sector suffered the highest drop in employment from 2008 to 2013 both in absolute (-1,400,000 employees) and relative (-58.1%) terms. (Myant und Piasna 2014, 19)

As a response to these substantial and sudden changes of the labour market conditions several policy initiatives were launched between 2010 and 2012, mostly focusing on increasing labour market flexibility (i.e., decentralization of collective bargaining, facilitating alternative contractual types to the detriment of permanent employment, etc.) and reducing public wages. (Royo und Steinberg 2019, 163) These structural reform programmes were aimed at identifying and eliminating so-called labour market “rigidities”, which would limit the flexibility in the allocation of the labour factor. By creating a mismatch between labour demand and

labour supply these rigidities lead to persistent unemployment and additionally weaken price competitiveness in the export sector. Therefore, following this logic, worker protection measures aiming at improving the welfare of the working population, such as social benefits, high minimum wages, firing restrictions or more generally strongly acting trade unions are rather perceived as distortions of the labour markets, which limit the growth potential of an economy. (Celi, et al. 2018, 114)

When looking at the impact of the crises and the subsequent labour market reforms on the social well-being of the Spanish population or more specifically on the distribution of these consequences, clear losers can be identified. Low-skilled young individuals, who already were located at the bottom of the income distribution and who had benefited strongly from the job growth before the crises, experienced the greatest loss in income and purchasing power. Problems have specially arisen for workers, who lost their jobs during the crisis and are now forced to re-enter the job markets in worsened conditions and with precarious contracts as well as for civil servants whose wages have been stagnating over the last decade. Another important factor in this development is the loss of influence by trade unions, whose role in collective bargaining was weakened in the process of liberalizing Spanish labour markets. (Royo und Steinberg 2019, 170) Southern European labour markets had been characterized by levels of collective bargaining coverage of about 80 – 90%. After completion of these reform programmes in 2014 the single-employer bargaining process was the predominant mode of wage determination. From 2008 to 2013 the number of employees covered by collective agreements in Spain dropped from 12 to 5.7 million. Similarly, the total amount of collective agreements dropped from almost 6,000 in 2008 to less than 2,000 in 2013. (Celi, et al. 2018, 115)

To what extent younger individuals were affected by the crisis induced drop in employment in Spain is also reflected in the development of the youth unemployment rate (for young people aged between 15 and 24) as well as the rate of young people who are neither in employment nor in education and training (NEET). The latter refers to young people aged between 15 and 24 who are both not employed and have not received any education or training in the four weeks preceding the survey and is expressed as a percentage of the total population in the same age group.

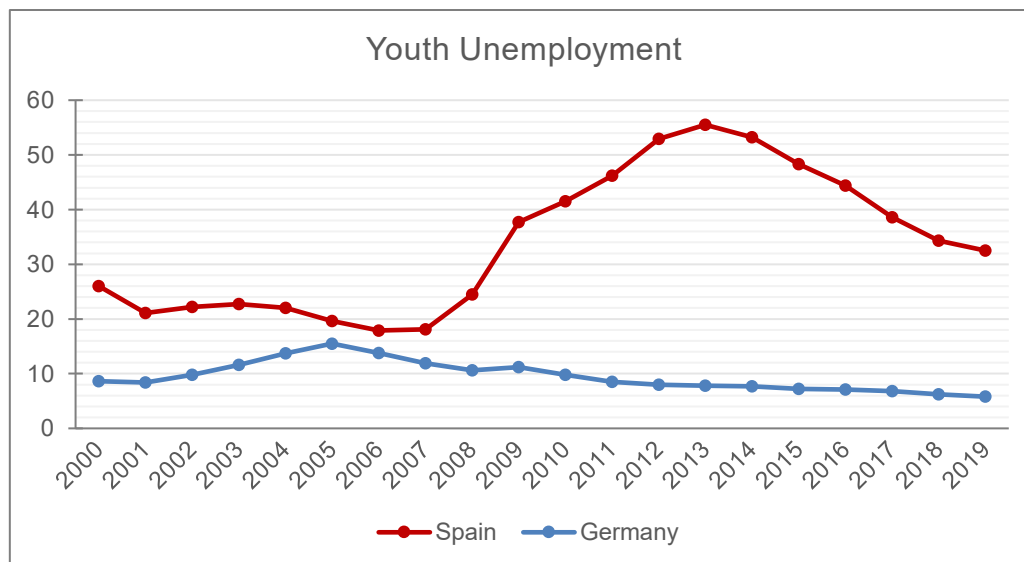


Figure 12: Development of the youth unemployment rate for people aged between 15 and 24 of Spain and Germany since 2000 (Source Eurostat)

With youth unemployment well above 50% between 2012 and 2014, the Spanish youth was exposed to the highest rates in the EU, only being surpassed by Greece, which experienced an average rate of about 55.3% in the same period. Like it was the case for the total rate of unemployment, the recent trend indicates a slight recovery from the steep increase after 2007. However, looking at rates above 30%, youth unemployment remains a significant challenge for the Spanish economy. This dynamic is aggravated by the fact that young workers in Spain are very likely to be employed under atypical forms of employment (such as temporary jobs, involuntary part-time work as well as lower-wage jobs). The resulting high rotation subsequently prevents young people from generating relevant experience, which is required for jobs offering better conditions and wages. (Royo und Steinberg 2019, 172) While being slightly higher compared to the total rate of unemployment, youth unemployment in Germany has been falling steadily since 2005.

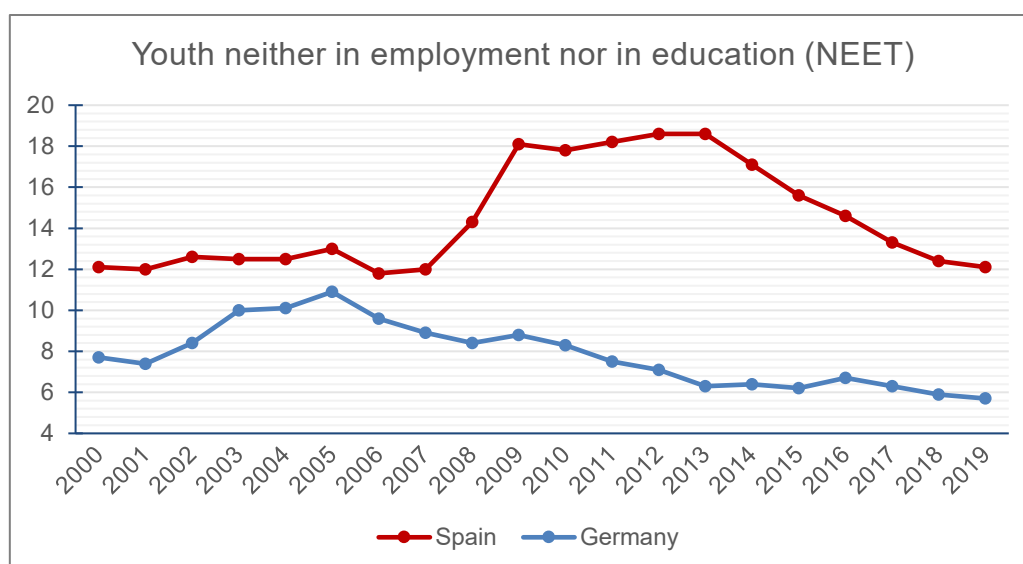


Figure 13: Development of the rate of young people not working or in education aged between 15 and 24 for Spain and Germany since 2000 (Source Eurostat)

The rate of unemployment is calculated by putting in relation the amount of unemployed people with the total working population. This logic, however, does not consider the large proportion of young people who are still attending school, university, or other educational formats. Therefore, when looking at labour market participation of younger people, the NEET-logic gives a better indication on the share of young population being inactive both economically as well as from an educational perspective. Falling under this category has strong implications for the affected individuals since they are more likely to remain excluded from labour markets for years to come and thus at risk of poverty and social exclusion. On macroeconomic level, a rising share of “inactive” young people represents a considerable loss through unused productive capacity and higher welfare expenses.

Comparing the development of the rate of young people NEET, the resulting trends seem to match the development of the youth unemployment rate. Germany saw an increase in its rate between 2001 and 2005 with a peak at 10.9%. Since then, this upward slope has been reversed leading to a steadily falling rate (5.7% in 2019). For Spain, the development before the global financial crisis was rather stagnating around 12%. Like the youth unemployment rate, the share of NEETs rose strongly in the subsequent years. In this case, however, the rise proceeded significantly faster. In 2009, the rate had already increased by 6.3% within 3 years and amounted to 18.1%. This high rate was only surpassed by Ireland and Bulgaria. The former was going through a similar bubble dynamic in the construction and housing sector, while the latter had been experiencing rates far above the 20% mark in the preceding years. Up to the year 2019, the rate has gradually been reduced. Yet approximately one eighth of the Spanish youth still falls in this bracket.

On a more detailed level, it generally shows that young women are more likely to be neither in employment nor in education and training (especially as they get older). According to Eurostat, in 2019, 17.3% of women aged between 15 and 34²³ fell under this category in the, compared to a rate of 10.7% for their male peers (the rate for the EU-27 including both genders was at 14%). When comparing separate age brackets the gender gap on EU-27 level widened as a function of age in 2019. Leaving apart the already mentioned differences of Spain having higher rates of NEETs than Germany, the gender gaps are equally prominent in both cases. The average rate of females falling under the NEET category in Germany between 2000 and 2019 was 15.8% compared to 8.5% males. In the case of Spain, the average rate for females similarly is about 6-7% higher than the male rate (21.7% females, 15.4% males).

A wide range of factors can explain the observed difference between sexes. Without being an exhaustive listing, potential explanations lay in social conventions and pressures, which emphasize the women's role in the sphere of reproductive and care work as well as societally enforced gender-specific career paths that direct women into a relatively narrow range of occupational options. Finally, structural labour market issues leading to a certain preference to hire young men over women play a significant role as well (e.g., due to potential absences linked to childbirth and potential challenges during re-entry into labour). (Eurostat, Statistics on young people neither in employment nor in education or training 2020)

To summarize, while the German and Spanish labour markets seemed to converge in terms of unemployment through an opposing trend in both countries (up to 2007, Spain was benefiting from its "job growth wonder", which was strongly linked to the booming housing and construction industry, while Germany had experienced a slight growth in unemployment up to 2005²⁴), the inception of the global financial crisis together with the bursting of the Spanish housing price bubble quickly reversed this trend.

Within 6 years, the Spanish rate of unemployment grew to 26%. In contrast, the German rate of unemployment continued its downward trajectory, which had been initiated earlier in 2005. In reaction to this steep growth, Spain initiated several labour policy decisions between 2010 and 2012 mostly focusing on increasing the flexibility of labour markets and reducing wages in the public sector. While the development of Spanish unemployment since 2013 serves as an indication for the working of these policy initiatives, the Spanish rate of unemployment remains among the highest within the Eurozone (14% in 2019).

²³ In contrast to the earlier graph analyzing the total development, the age bracket has been extended in the context of better understanding the gender gap, since it widens with higher ages.

²⁴ In the context of a broader political agenda the German Hartz-reforms of the early 2000s led to increased dynamics on the labour markets.

In addition to the observable positive effect on the development of unemployment in Spain, the social impact of these labour policies has been substantial. Low skilled and young workers, who already were located at the bottom of the income distribution are “paying the price” of these reforms through great losses in income and purchasing power. After losing their jobs during the Spanish double dip recession between 2008 and 2014 they either remain without labour or have been obliged to re-enter the job market under worsened conditions with precarious contracts and lower wages. This is reflected in both the rate of youth unemployment as well as in the rate of young people not working or in education. Just as it was the case for the overall rate of unemployment, the situation for young individuals in Germany proves to be far more stable.

3.5 Trade relations

Based on earlier descriptions of the evolutionary process of the EMU, facilitating trade relations within the European Union laid at the heart of the integrational process from an economic perspective. At its initiation, the Euro could be seen as the world’s largest economic policy experiment, considering that nations accounting for 20% of the world output and 30% of world trade decided to introduce one single currency. According to Rose (Rose 2000, 22 - 23), who analysed the effect of a common currency on international trade in the early 2000s, countries, which were part of a currency union, traded significantly more with each other (based on his models, trade boosts by over 200% could be observed) than those who were not. (Baldwin, The Euro’s trade effects 2006, 6 - 7)

While scepticism with regards to the degree of these expected positive effects on intra-European trade has been expressed by other studies arguing for a lower effect and its statistical uncertainty, the eminent role of trade in the EMU remains unchallenged. (Issing, Europe’s hard fix: the Euro area 2006, 15) Therefore, this sub-chapter will now focus on how trade relations have developed since the introduction of the common currency, focusing on the identification of deviating patterns between the core and periphery of the EMU.

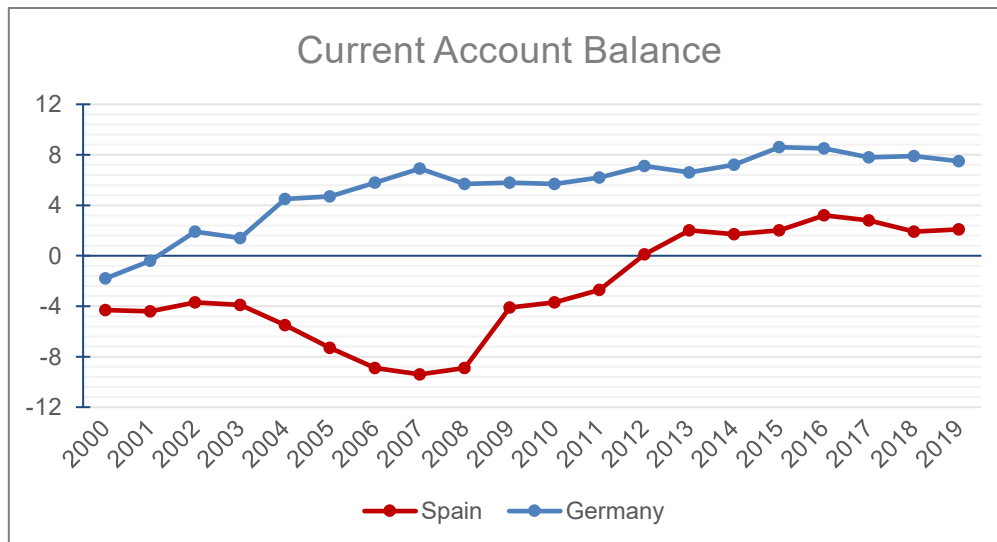


Figure 14: Development of the current account net balance relative to GDP of Spain and Germany since 2000 (Source Eurostat)

The current account reflects information about the transaction of a country with the rest of the world. While a positive current account (as it can be observed for Germany since 2002) indicates net lending to foreigners, a negative current account (which was experienced by Spain up to 2013) indicates net borrowing. When looking at the development of the current account balance of Germany in relation to its GDP, the earlier mentioned growth of net exports, which was initiated in the early 2000s is clearly reflected. The diverging development between Spain and Germany is especially prominent during the build-up phase of the Euro crises during the early 2000s. While the German balance grew from a negative starting point of -1.8% in 2000 to almost 7% in 2007, the already negative balance of Spain deteriorated even further in the same time span (starting at below -4% and reaching its low point of almost -10% in 2007).

The emergence of these significant trade imbalances between the core and the periphery (the current account balance for German peer countries such as Netherlands and Austria developed similarly while the same applies for Spain and other Southern European member states at the periphery) needs to be considered in combination with the development of the economic indicators analysed in the sub-chapters above, which indicate at least a temporary desynchronization of business cycles within the EMU. The strong economic boom with above average GDP growth rates experienced by Spain in the early years of the EMU, was strongly linked to relatively low interest rates and the gradual liberalisation of European financial markets. As described earlier in the sub-chapter regarding the development of private and public debt, the correspondingly needed capital flows, which allowed for the perpetuation of the Spanish net borrowing practice, were financed by surplus countries via direct loans to the financial sector as well as via the acquisition of government bonds. While eventually leading to an unsustainable real estate bubble, these developments additionally allowed for a strong

boost of domestic demand, pushing up both prices and wages. (Dodig und Herr 2015, 194 - 195)

Since 2007, the trend of increasing trade balances has been reversed. However, as the sustained growth in German net exports as well as the relatively stable development of the German current account balance show, the adjustment process has been mostly one-sided and at the expense of those countries, which were hit the most during the crises. With 2% of GDP in 2013, the Spanish current account showed a positive balance for the first time during the whole observation period. The significant reduction of the deficits in the years before, however, was achieved in combination with reduced output and employment, thus meaning that the main factor for adjustment was the shrinking income in crisis/ deficit countries. While Spanish exports increased by 15% from 2007 to 2013, imports shrank by 19% during the same time span. Both developments led to the above-mentioned positive balance of 2013, yet these figures show, that the Spanish crises-response policies had a much stronger impact on aggregate demand than on price competitiveness.

The improvement of the Spanish current account in combination with almost no opposing adjustment in the German balance indicates that the EMU as a whole has developed towards a surplus region. In fact, according to Eurostat the export market shares in % of the total world trade have remained stable for both Germany and Spain since 2000 (approximately 8% and 2% respectively), which means that no significant changes of the relative competitiveness can be observed on the global level. Former surplus countries in the core have managed to counteract the reduced demand for their goods and services within the EMU by breaking into new markets and exporting more to the rest of the world. By increasing their exports in cars and machinery outside of the Eurozone, Germany has successfully stabilised domestic demand and output over the last decade. Surpluses outside of the EMU, however, interfere with the adjustment process of deficit countries by strengthening the Euro as trade currency and thus weakening the relative price competitiveness of deficit countries towards markets outside of the Euro areas. (Dodig und Herr 2015, 206 - 208)

To further elaborate on the role of price competitiveness in the development of the current account balances, one of the macroeconomic imbalance procedure indicators will be analysed in further detail. Eurostat measures the percentage change over three years of the nominal unit labour cost (ULC). It is calculated as the ratio of labour costs (i.e., compensation of employees divided by the total number of employees) to labour productivity (i.e., GDP divided by total employment) and thus serves as an indicator for the development of wages as well as the overall price competitiveness of a member state. Growing ULCs indicate an increase in nominal wages relative to productivity (i.e., GDP) while decreasing ULCs mean that GDP is growing at a higher rate than nominal wages. In the context of trade relations, differentials in the development of nominal ULCs can impact the competitive position of those member states,

who are experiencing higher growth in nominal ULCs since their price competitiveness diminishes in comparison to countries with stagnating or even decreasing nominal ULCs (higher wages translate to higher prices and vice versa).

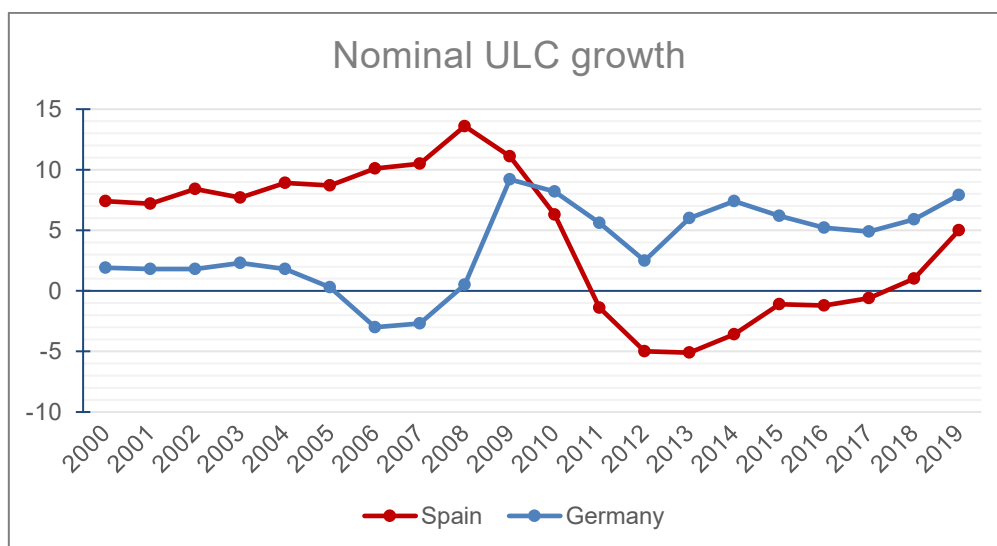


Figure 15: 3-Year change of nominal Unit Labour Costs for Spain and Germany in % since 2000 (Source: Eurostat)

Just as it was the case for the development of price levels (Spain experienced above-average price inflation from 2000 to 2008), the development of nominal ULCs shows a similar pattern up to the beginning of the global financial crisis. While Spanish nominal ULCs kept growing (specially from 2005 to 2008), German nominal ULCs show an opposing trend in the same period. This underlines the above-mentioned argumentation of divergences in the respective trading position of Spain and Germany and their connection to price and wage dynamics. The Spanish decrease in nominal ULCs goes in line with the improvement process of its current account balance since 2009. However, while in the case of Germany an opposing dynamic could be expected, it seems like no clear connection can be derived between increasing nominal ULCs and the development of the German current account balance. As the graph above outlines, a significant trend change can be observed in the development of German nominal ULCs since 2009. Since then, the average 3-years change rate in German ULCs equalled 6.2%. At the same time, the current account balance in relation to GDP remained relatively stable, which indicates that additional non-wage related factors need to be considered when interpreting these figures.

While wage moderation represents one of the factors contributing to the positive development of the German current account balance, alternative explanations lay stronger focus on non-wage related factors such as the regionalization of German production processes through increased cross-border division of labour. By placing an increasing share of industrial (and especially labour intensive) production abroad, Germany has not only profited from lower

production costs but additionally strengthened its economic ties through higher trade volumes between German exporters and its subsidiaries and suppliers abroad. (Danninger und Joutz 2007, 6 - 7) This expansion of the German manufacturing core has been particularly pronounced for the new Eastern European members of the EU. This strong link in productive structures has further accelerated the process of structural divergence between the core and its Eastern European “workbench” and the Southern periphery.

To conclude, between 2000 and 2007 Spain was experiencing above average economic as well as wage- and price level growth. Spanish real GDP growth as well as inflation rates were about 1-1.5% above the Eurozone averages (for details refer to figures 3 and 9 in the corresponding sub-chapters, the above average development of nominal ULCs in Spain during the corresponding time frame is reflected in figure 15). Eroding price competitiveness in combination with high growth subsequently impacted the Spanish current account balance (growth in imports was about 16% higher than in exports, leading to negative net exports as well as a decreasing current account balance). In contrast, Germany was experiencing both lower economic as well as price level- and wage growth during the same time span²⁵, which helped to improve the competitive position of Germany in the context of trade relations and allowed for a growing current account balance. This strong growth in exports could no longer be kept in check by the appreciation of the German domestic currency once the Euro had been introduced as single currency. By sustaining these opposing trends over several years, the occurrence of the observed trade imbalances within the EMU was only a matter of time.

The recent development of the current account balance and nominal ULCs of Spain and Germany indicates a significant but rather one-sided adjustment process by the Spanish economy. Price and wage levels have decreased over the last decade. At first sight, this improved price competitiveness seems to have translated into a growing current account balance. Yet, when comparing the development of imports (shrank by 19%) and exports (grew by 15%) during the phase, which shows the strongest adjustment in terms of current account balances (between 2007 and 2013), it becomes apparent that Spanish crisis response policies had a much stronger impact on aggregate demand than on price competitiveness.

Additionally, the emergence of the German cross-border manufacturing network has lastingly impacted the European industrial production structures. While Eastern European economies have developed a broader production base since the crises (benefiting from the German productive specialization on high-tech and high-priced products) and successfully strengthened their industries from a technological point of view, the trade links of the periphery

²⁵ The German unification process had resulted in a steep increase of wage levels due to tax increases and adjustment processes between the “new” and the “old” Länder. Thus, starting from the mid 1990ies a continued period of restrained wage development was started to counteract these past developments. (Danninger und Joutz 2007, 5)

with the core have weakened significantly together with the peripheral productive capacity. (Celi, et al. 2018, 60, 124 - 127)

3.6 Summary of empirical findings

Experiencing above-average economic growth, decreasing rates of unemployment (job creation could only be matched by Germany) as well as low levels of public debt, the Spanish economy seemed on a strong path of catching-up in comparison to core economies such as Germany. Convergence could not only be observed from the Maastricht criteria perspective²⁶, but also through the improvement of income and living standards in the periphery. The project of economic integration with all its benefits for the involved member states appeared to be working just as expected.

The Spanish pre-crisis deb-driven growth model, however, was characterized by important weaknesses, which eventually brought this beneficial development to its abrupt end. The strong performance of the housing and construction industry financed by a highly over-leveraged financial and private sector, were the main sources for Spanish economic growth. With the bursting of real estate bubbles on a global level, the high dependency on external financing and the weak industrial diversification led Spain into a double-dip recession. In addition, relatively high price and wage levels weakened significantly the Spanish trade position within the EMU during the first decade of its existence. Having lost the adjustment mechanism of nominal exchange rates since the introduction of a common currency, the post-crisis correction process of these macroeconomic imbalances has been mostly one-sided and at the expense of the well-being of the Spanish society.

Following the logic of internal devaluation, Spanish crisis response reforms have aimed at lowering price and wage levels through the liberalization of labour markets and the freezing of public wages. While the social impact of these measures can be observed through high job insecurity (i.e., fluctuation) and significantly worsened working conditions, especially for young workers with lower education, the high rate of unemployment (around 14% in 2019) remains an unsolved issue for economic policy makers in Spain. In parallel, the austerity-oriented management of public finances aims at restoring the trust of international financial markets in the Spanish economy, while at the same time limiting the possibility of counter-cyclical fiscal measures to react to weakening demand and economic output. Therefore, it is of no surprise, that the improvement of the Spanish current account balance was rather linked to decreasing

²⁶ Except for inflation rates. The domestic inflation rates of Spain were not in line with the targeted level of close to 2%, however the existence of certain price level differentials, was seen as a temporary side effect of the required catching-up process (for details refer to the sub-chapter on consumer and asset price development).

domestic demand and imports than to the actual improvement of exports through lower wages and prices.

The high debt levels of the private and financial sector together with the dependency of the Spanish economy on debt-driven growth, nourish the argumentation logic of the periphery “living above its standards”, which is mostly applied by representatives of the core of the EMU. At the same time, such an interpretation of the economic development within the EMU seems rather limited and does not reflect the complexity and interlinkage of the economic relations between EMU members.

An important part of the financial resources, which were needed for the build-up of these high debt levels originated in the financial sector of the core. Regulatory incentives through lower capital requirements as well as the actual process of financial markets deregulation and gradual implementation of the free movement of capital as part of the Single European Market incentivized the financing practice of the peripheral growth model. At the same time, the predicted own regulation of financial markets through the correct quantification and management of underlying risks and a corresponding adjustment of risk premia and provisions did not live up to its expectations. As long as this debt-based growth was generating profits for the financial services industry and meeting the increasing export activity of core countries like Germany, internal devaluations, the restoring of financial markets’ trust or the correction of gradually emerging trade imbalances were left aside of the economic policy agenda of the EMU.

With the introduction of the Banking Union in 2012 and the extensive regulatory requirements which have resulted from the Basel regulations of recent years, the trend of deregulating financial markets has been reversed. By demanding higher risk provisioning and introducing standardized methods and centralized institutions on European level for the supervision and resolution of financial institutions, it can be expected that past dynamics and the significant risks that can result from strong financial interconnections between the core and the periphery will not be repeated in the future.

The German economic development over the last two decades is characterized by much more stability. Considering the important role of exports in the creation of economic growth, the German economy naturally was highly impacted by the drop in global demand during the aftermath of the global financial crisis. At the same time, the existence of the Euro as common currency counteracted a potential pressure for appreciation from growing German export activity, which additionally helped to restore stable economic growth after the crisis.

The gradual emergence of a cross-border manufacturing network with the new Eastern European EU member states, which lowered production costs abroad as well as the high degree of specialization on high-tech and high-priced products represent non-wage or

exchange rate related factors explaining the strong boom of German exports over the last two decades. In the context of asset price development, Germany benefitted from its highly regulated housing and construction sector. As the housing price development in Germany has shown, the bursting of global real estate price bubbles had no impact at all on the German housing industry.

The recent adjustment process is reflected in the development of the economic indicators which have been selected for this thesis. While being slightly lower than the German one, the Spanish current account balance has reached positive fields since 2013. In the context of labour markets, the recent reduction in the Spanish rate of unemployment can be seen as a certain approximation. Yet, while the trend seems to go in the right direction, differences of more than 10% in 2019 indicate that labour market reforms will remain on the top of the future Spanish and European economic policy agenda. Similarly, the efforts of deleveraging both public as well as private and financial sector debt in Spain can be observed in the recent years, leading to better convergence in this economic dimension too.

From the perspective of living standards and income levels in Spain a different trend can be observed in comparison to Germany. In relative terms to the EU-average the Spanish economy seems to have landed in an even worse position than at the inception of the EMU. Current austerity- and liberalization-oriented structural reforms of the Spanish economy, which are deemed as a central component of the internal devaluation process to restore economic competitiveness, could further exacerbate this divergence in the years to come.

Considering that the current account surplus, which can be observed in recent years was mostly linked to a fall in imports, it additionally remains unclear how the strong reliance of the Spanish economy on external borrowing and resulting economic divergences or macroeconomic imbalances can be overcome for good in the future. Both the low degree of industrial specialization as well as lacking productivity have not been addressed by recent austerity-oriented reform initiatives. The promotion of changes in the industrial structure in combination with a corresponding expansionary fiscal policy (e.g., through investments in infrastructure and education) will be an essential component in the process of transforming the Spanish debt-driven growth model of the past towards a more German export-led economy, which eventually might allow for sustained economic convergence. (Celi, et al. 2018, 121) Additionally, keeping the burden of the economic adjustment process on the peripheral areas of the EMU represents a major risk for the political sustainability of the European integration project.

4 Conclusion

The economic sphere played a central role in the European project from its beginnings in the 1950ies. Yet the first actual integrational steps in economic, fiscal, or monetary policy matters took place about two decades later, when the existing global monetary system of Bretton Woods started to show its first signs of a breakdown. The Werner-Plan, which was written by an expert group surrounding the then-president of the European Commission Pierre Werner, was published in 1970 and represented the first draft for establishing an economic and monetary union. Early on, significant ideological differences could be observed between the future members of such a union. One of the key issues referred to the question of economic convergence. While strong-currency countries such as Germany argued in favor of the so-called “coronation theory”, which demanded a strong alignment of domestic policies and political institutions as well harmonized economic conditions in advance of a monetary union, weaker currency members rather expected convergence in economic development to be the result of monetary integration instead of a prerequisite for it.

While the eventual breakdown of the Bretton Woods system prevented the actual implementation of the Werner Plan, economic and monetary integration remained an important topic on the political agenda of European officials. After a period of joint floating of selected European currencies (European Monetary System), the final proposal for reaching full monetary integration was introduced in 1989 by the then-Commission president Jacques Delors and adopted by the Heads of State in 1991 in the Maastricht Treaty. The introduction of a common monetary policy under the sole responsibility of the ECB and the introduction of a single European currency in 1999 represented the final step of this approach. Keeping in mind the above stated dispute regarding economic convergence, adherence to the so-called Maastricht criteria was introduced as a prerequisite for joining the EMU.

These selected economic indicators were particularly focused on price stability and fiscal discipline, which reflected both the strong bargaining power of Germany as well as the increased influence of monetarist concepts in the prevalent economic theories. Thus, economic convergence in terms of the Maastricht criteria rather referred to convergence in selected economic indicators instead of the narrowing of actual living standards or income levels. The latter was expected to be the result of increased trade as well as stronger capital and labour flows within the EMU, which would allow “weaker” economies to initiate a catching up process.

However, convergence needs to be seen in its different dimensions to generate a clear-cut understanding about the actual economic development of the member states of the EMU. While in retrospect broad agreement exists with regards to the emergence of macroeconomic imbalances within the EMU over the last two decades and the role these imbalances played in

the context of recent economic crises, the emergence and recognition of diverging economic development after the launch of the EMU proved to be more of a challenge in practice.

By analyzing the major historical milestones as well as the theoretical foundations and political limitations of the development process of the EMU, this thesis has helped to understand how its structural design came into being. Through the addition of the empirical analysis of the economic development of selected member countries in what can be seen as major economic areas, it additionally became transparent, how this structural design has influenced and, in some cases, affected these member countries' economies over the last two decades. While political consensus with regards to the necessity of gradual convergence in economic conditions within a monetary (and economic) union on European level seems to persist, the difficulty lies in understanding the key levers behind the successful implementation of such a process and thus deriving the correct political reform needs as well as the corresponding economic policy framework.

Chapter 3 has shown that the narrow understanding of economic convergence as applied for the Maastricht criteria did not reflect adequately the complexity and interlinkage of the economic relations within the EMU. While some risk factors resulting from liberalization and deregulation of European financial markets were simply underestimated or overlooked, other factors, which had been given far more attention such as public debt or price levels turned out to be far less problematic in practice. In the context of public debt levels, the elimination of a lender of last resort, which was an essential part of the institutional design of the EMU and the ECBs mandate, proved to be a far more prominent source of economic distress than the public debt levels as such. These initial flaws and the resulting major economic imbalances, however, were not recognized until the global financial crisis of 2007/2008 impacted the EMU, specially affecting its peripheral areas by bringing their pre-crisis economic growth model to a sudden halt.

Once awareness regarding these macroeconomic imbalances was reached, a variety of reform responses was initiated. The earlier discussed adjustments of the Economic Governance framework (for details refer to 2.4) only partially addressed the underlying roots of economic divergence within the EMU. The introduction of the macroeconomic surveillance tool might serve as an important mechanism for the earlier identification of economic imbalances or potential crisis dynamics in the future and thus lead to earlier political interventions. The important question regarding what kind of policy response might be required, however, remains unanswered. The additional enhancements aiming at further constricting budgetary rules and enforcing an austerity-oriented fiscal policy, in exchange, must be assessed rather critically when taking into consideration the empirical findings of this thesis regarding the public debt levels. If budgetary indiscipline was not at the heart of the financial crisis, why introduce further constraints on the political sphere of fiscal policy?

A possible solution for reaching lasting and sustainable convergence in economic conditions within the EMU might lie in the abandonment of the existing restrictive and rule-based policy approach. Important differences in the industrial capabilities and know how between the core (and its eastern extension) and the peripheral areas of the EMU have emerged over the last two decades. More importantly, this seems to be a selfsustained dynamic, which actually reinforces the existing differences in economic capacities. If this development is continued, a situation might arise where the only way of maintaining the EMU and a common currency lies in regular fiscal transfers from the “strong” core to the “weak” economies of the periphery (which would subsequently lead to the eventual breakdown of the Eurozone as known today). The existing competitive advantages, being of rather technical nature (referring to technological knowledge, capacity for innovation, corresponding educational formats, etc.) that can already be observed today, will not be evened out by the further liberalization of peripheral labour markets or similar policy initiatives aiming at internal devaluation through the adjustments of price or wage levels. The current situation rather calls for inclusive policy actions and shared efforts in increasing the overall productive capabilities of all EMU member states.

Turning away somehow from the rather critical position towards past policy decisions on EMU level, most recent changes in the European political landscape need to be included for a complete and final assessment. As part of the European Commission’s priorities for 2019 to 2024 the European Commission has launched two important initiatives (“A European Green Deal” and “A Europe fit for the digital age”), which could be understood as part of a more steering and less austerity-oriented policy approach. By providing fiscal impulses in two policy areas of the future (i.e., climate change and digitization), the European commission plans on transforming the EU into a modern, resource efficient and competitive economy²⁷, thus creating new possibilities for economic growth as well as incentives and financing for its member states to establish the required know-how and capabilities. (European Commission, The European Commission’s priorities 2022b)

Due to the chosen observation period the major impact of the COVID 19 pandemic has not been reflected as part of the empirical analysis. Discussing the economic effects as well as corresponding policy responses on European level in detail exceeds the scope of this thesis, however, certain aspects in the context of how this crisis was approached are of relevance. While the predominance of lacking political willingness for the establishment of a fiscal union and the demand for “no bailout” clauses, seemed to make the introduction of fiscal transfer

²⁷ The planned measures for the EC’s priorities go beyond the described fiscal stimuli for selected policy areas. For more details regarding all the priorities as well as the detailed initiatives refer to the EC homepage.

mechanisms or shared debt instruments on EMU level almost impossible, the apparent threat of the pandemic on economic recovery has led to significant changes in the prevalent opinions.

As part of a broad mix of different measures to address the societal and economic issues arising from this pandemic, EU leaders agreed on a financial recovery budget amounting to 2,018 trillion EUR, which represents the largest economic stimulus package ever financed in Europe. Additionally, escape clauses, which allow for maximum flexibility of budgetary rules have been triggered, which was indispensable for the individual recovery packages which were launched on national level. Finally, the EC was authorized to borrow around 800 billion EUR on the markets, which represents a first step away from completely refusing the communitarisation of debt. (European Commission, Overview of the Commision's response 2022a) These developments indicate a shift from past sovereignty focused political positions to a more supranational understanding of policy making and could represent major milestones in the process of reaching a more unified and European understanding of economic development.

Bibliography

- Ackrill, Robert. *The common agricultural policy*. Sheffield: Sheffield Academic Press, 2000.
- Baldwin, Richard. *The Euro's trade effects*. Working Paper Series, Frankfurt: European Central Bank, 2006.
- Baldwin, Richard, and Charles Wyplosz. *The economics of European integration*. London: McGraw-Hill Education, 2019.
- Baldwin, Richard, et al. *Rebooting the Eurozone: Step 1 - agreeing a crisis narrative*. Policy Insight No. 85, London: Centre for Economic Policy Research, 2015.
- Banco de España. "Informe sobre la crisis financiera y bancaria en España, 2008 - 2014." Madrid, 2007.
- Bildung, Bundeszentrale für politische. *Bruttoinlandsprodukt (BIP) pro Kopf*. 10 August 2020. <https://www.bpb.de/nachschlagen/zahlen-und-fakten/europa/70546/bip-pro-kopf> (accessed June 4, 2021).
- Boughton, James. *On the Origins of the Fleming-Mundell Model*. IMF Staff Papers vol. 50 No. 1, Washington: International Monetary Fund, 2003.
- Carlin, Wendy, and David Soskice. "German economic performance: disentangling the role of supply-side reforms, macroeconomic policy and coordinated economy institutions." *Socia-Economic Review*, January 2009: 67-99.
- Celi, Giuseppe, Andrea Ginzburg, Dario Guarascio, and Annamaria Simonazzi. *Crisis in the European Monetary Union*. London: Routledge, 2018.
- Danninger, Stephan, and Fred Joutz. *What explains Germany's rebounding export market share?* Working Paper, Washington: International Monetary Fund, 2007.
- De Grauwe, Paul, and Yuemei Ji. "Core-Periphery Relations in the Eurozone." *The Economists' Voice*, 2018.
- Degryse, Christophe. *The new European economic governance*. Working Paper 2012.14, Brussels: European Trade Union Institute, 2012.
- Delivorias, Angelos. *A history of European monetary integration*. Briefing, Brussels: European Parliamentary Research Service, 2015.
- DG Competition. *State aid Scoreboard 2020*. Note, Brussels: European Commission, 2021.
- Diaz del Hoyo, Juan Luis, Ettore Dorrucci, Frigyes Ferdinand Heinz, and Sona Muzikarova. *Real convergence in the euro area: a long-term perspective*. Occasional Paper Series, Frankfurt: European Central Bank, 2017.

- Dodig, Nina, and Hansjörg Herr. "Current Account Imbalances in the EMU: An assessment of official policy responses." *Panoeconomicus*, Volume 62, issue 5, 2015: 193-216.
- Draghi, Mario. *Twenty Years of the ECB's monetary policy*. 18 June 2019. <https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190618~ec4cd2443b.en.html> (accessed June 2021, 10).
- European Central Bank. "Inflation differentials in the euro area: Potential causes and policy implications." Frankfurt, 2003.
- . *The European Monetary Cooperation Fund (1973-93)*. 2021. https://www.ecb.europa.eu/ecb/access_to_documents/archives/emcf/html/index.en.html (accessed February 23, 2021).
- European Commission. *Overview of the Commission's response*. 2022a. https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/overview-commissions-response_en#economic-measures (accessed January 21, 2022).
- European Commission. "The Deepening of the Economic and Monetary Union." Reflection Paper, Brussels, 2017.
- . *The European Commission's priorities*. 2022b. https://ec.europa.eu/info/strategy/priorities-2019-2024_en (accessed January 21, 2022).
- . *The European Pillar of Social Rights*. 2022c. https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights_en (accessed March 24, 2021).
- . *What is the banking union*. 14 June 2022d. https://ec.europa.eu/info/business-economy-euro/banking-and-finance/banking-union/what-banking-union_en (accessed June 14, 2021).
- . *What is the euro area?* 2022e. https://ec.europa.eu/info/business-economy-euro/euro-area/what-euro-area_en (accessed March 17, 2021).
- European Parliament. *Economic governance*. 2021. <https://www.europarl.europa.eu/factsheets/en/sheet/87/economic-governance> (accessed March 23, 2021).
- Eurostat. *Dataset Details: GDP per capita in PPS*. 1 December 2020. <https://ec.europa.eu/eurostat/web/products-datasets/product?code=TEC00114> (accessed June 4, 2021).
- . *Glossary: Purchasing power standard (PPS)*. 11 December 2014. <https://ec.europa.eu/eurostat/statistics->

- explained/index.php?title=Glossary:Purchasing_power_standard_(PPS) (accessed June 4, 2021).
- . *Statistics on young people neither in employment nor in education or training*. April 2020. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics_on_young_people_neither_in_employment_nor_in_education_or_training (accessed June 2021, 29).
- Franks, Jeffrey, Bergljot Barkbu, Rodolphe Blavy, William Oman, and Hanni Schoelermann. *Economic Convergence in the Euro Area: Coming together or drifting apart?* Working Paper, International Monetary Fund, 2018.
- Issing, Otmar. "Europe's hard fix: the Euro area." *International Economics and Economic Policy*, 8 November 2006: 181-196.
- . *The Birth of the Euro*. Cambridge: Cambridge University Press, 2008.
- Iversen, Torben, David Soskice, and David Hope. "The Eurozone and Political Economic Institutions." *Annual Review of Political Science*, May 2016: 163-185.
- James, Wil. *European Monetary System*. Factsheet, London: Civitas, 2006.
- Kettell, Steven. "Oil crisis." *Encyclopedia Britannica*. n.d. <https://www.britannica.com/topic/oil-crisis> (accessed March 15, 2021).
- Leoni, Thomas, and Atanas Pekanov. *Die Corona-Krise – Ein Stresstest für den Euro*. Policy Brief, Vienna: Österreichische Gesellschaft für Europapolitik, 2020.
- Licheron, Julien. "Explaining inflation differentials in the euro area. Evidence from a dynamic panel data model." *Économie internationale*, 2007: 73-97.
- Marzinotto, Benedicta. "Unity in diversity? Varieties of capitalism before and after the euro crisis." In *The political economy of adjustment throughout and beyond the eurozone crisis*, by Michele Chang, Federico Steinberg and Francisco Torres, 207-229. London: Routledge, 2019.
- Myant, Martin, and Agnieszka Piasna. *Why have some countries become more unemployed than others?* Working Paper, Brussels: European Trade Union Institute, 2014.
- Rakic, Drazen, and Christian Scheinert. *History of Economic and Monetary Union*. Fact Sheet, Brussels: European Parliament, 2020.
- Rose, Andrew. "One money, one market: Estimating the effect of common currencies on trade." *Economic Policy*, April 2000: 7-45.
- Royo, Sebastián, and Federico Steinberg. "Using a sectoral bailout to make wide reforms: the case of Spain." In *The political economy of adjustment throughout and beyond the*

- eurozone crisis*, by Michele Chang, Federico Steinberg and Francisco Torres, 157-180. London: Routledge, 2019.
- Schuknecht, Ludger, Philippe Moutot, Philipp Rother, and Jürgen Stark. *The Stability and Growth Pact: Crisis and Reform*. ECB Occasional Paper No. 129, Frankfurt: European Central Bank, 2011.
- Valdes Fernandez, Ismael. *Growth differences between EA Member States since the crisis*. Quarterly Report on the Euro Area, Brussels: European Commission, 2014.
- Whelan, Karl. *The ECB's Mandate and Legal Constraints*. Monetary Dialogue Paper, Luxembourg: European Parliament, 2020.
- Wyplosz, Charles. "European Monetary Union: The Dark Sides of a Major Success." *Economic Policy* , April 2006: 207-261.
- Zestos, George, and Jason Benedict. "European Monetary Integration: A History." In *Encyclopedia of International Economics and Global Trade Vol. 2*, by Francisco Rivera-Batiz, 132 - 171. World Scientific, 2018.

Abstract (English)

Throughout its development starting in the 1950ies the process of European integration has strongly been influenced by the economic conditions and necessities of its member states. Thus, convergence in economic conditions within the European Union (EU) or more specifically within the European Monetary Union (EMU) represented a pivotal precondition for a sustainable and lasting political unification. In this context, this master thesis aims at analysing to what extent changes and imbalances in the economic landscape of the Eurozone (in detail the strengthening of core countries at the expense of peripheral areas) can be explained by the structural design of the EMU. Based on this thesis' empirical findings, potential future scenarios, and ongoing academic and political debates for achieving better economic convergence in the EMU are discussed. Firstly, to better understand the connection between convergence in economic conditions within the EMU and the overall process of economic integration, the historical development of the EMU and its underlying theoretical foundations are explored in further detail. Subsequently, an empirical analysis of selected economic parameters for one country of the core (Germany) and one of the periphery (Spain) is conducted in the timespan from 2000 to 2019. Following the neoclassical theoretical understanding of economic convergence, which was predominant from the 1970ies on, European economic integration in its early years focused on liberalization, deregulation and the elimination of trade restrictions or other potential restrictions to the free movement of capital. The empirical assessment of the economic development within the EMU, however, not only challenges whether the important presumed precondition of convergence has been met over the last two decades but also reveals that the presumed key levers and risk factors for economic convergence insufficiently reflected the complexity and interlinkage of the economic relations between EMU members. The gradual liberalisation of European financial markets in combination with relatively low common interest rates fuelled a strong but unsustainable debt-based economic boom in the periphery during the early years of the EMU. The required net borrowing practice of the peripheral areas could only be sustained by corresponding unrestricted capital flows from the surplus countries in the core. While the resulting above average GDP growth rates of the periphery and observable price level differentials were interpreted as the functioning of the expected catching-up process, significant risks of economic distress were overlooked. Once the global real estate bubble burst in 2007, economic conditions in the periphery were completely overturned. While the core of the EMU strongly benefited from this borrowing practice, the consequential costs of the resulting economic crisis have been unequally distributed. This is reflected in the far-reaching economic deviances between the core and the periphery, which can be observed up until today in almost all areas of the economy. The thesis concludes that the economic development over the last two decades calls for inclusive policy actions and shared efforts in increasing the overall

productive capabilities of all EMU member states and refers to current initiatives such as the “European Green Deal” or the European fiscal stimulus package, which was decided upon in response to the COVID 19 pandemic. These developments indicate a shift from past sovereignty focused political positions to a more supranational understanding of policy making and could represent major milestones in the process of reaching a more unified and European understanding of economic development.

Abstract (German)

Die wirtschaftlichen Bedingungen und Notwendigkeiten der einzelnen Mitgliedsstaaten haben den in 1950er Jahren initiierten europäischen Integrationsprozess von Beginn an entscheidend geprägt. Im Besonderen galt und gilt auch weiterhin die Konvergenz in der wirtschaftlichen Entwicklung als zentrale Voraussetzung für eine nachhaltige und anhaltende politische Vereinigung auf europäischer Ebene. In diesem Zusammenhang analysiert diese Masterarbeit wie weit Unterschiede bzw. Ungleichgewichte in der wirtschaftlichen Landschaft der Eurozone (im Speziellen die Stärkung der Kernregionen zulasten der peripheren Länder) aufgrund der strukturellen Ausgestaltung der Wirtschafts- und Währungsunion (WWU) erklärt werden können. Auf Grundlage der empirischen Befunde dieser Arbeit, werden aktuell diskutierte alternative akademische und politische Debatten sowie Initiativen zur Verbesserung der ökonomischen Konvergenz innerhalb der WWU aufgegriffen. Der einführende Überblick zu den wesentlichen historischen Meilensteinen und deren theoretischen Grundlagen soll in einem ersten Schritt offenlegen, wie es zur heute bestehenden strukturellen Ausgestaltung der WWU gekommen ist und welche Wirkmechanismen als Folge der wirtschaftlichen Integration erwartet wurden. In weiterer Folge werden im Rahmen einer empirischen Analyse ausgewählte wirtschaftliche Indikatoren für ein Vertreterland aus der Kernregion (Deutschland) und einem weiteren Vertreterland aus der Peripherie (Spanien) im Zeitraum von 2000 bis 2019 untersucht. Den neoklassischen Paradigmen folgend, die von den 1970er Jahren an in akademischen Kreisen überhandgenommen hatten, war die wirtschaftliche Integration Europas in ihren Anfängen auf Liberalisierung, Deregulierung bzw. ganz generell auf die Beseitigung möglicher Handelshemmnisse (vor allem den freien Kapitalverkehr) fokussiert. Die Ergebnisse dieser Masterarbeit stellen nicht nur das grundsätzliche Eintreten des ursprünglich erwarteten Konvergenzprozesses infrage, sondern legen zusätzlich offen, dass die unterstellten zentralen Hebel, die einen solchen Prozess überhaupt erst ermöglichen sollten bzw. potenziell gefährden könnten, der Komplexität der europäischen Wirtschaftsbeziehungen nicht Rechnung getragen haben. Die graduelle Liberalisierung der europäischen Finanzmärkte in Kombination mit einem niedrigem Zinsniveau befeuerte starkes, aber nicht nachhaltiges Schulden-basiertes Wirtschaftswachstum der Peripherie in den ersten Jahren des Bestehens der WWU. Das nötige Kapital zur Aufrechterhaltung dieser Schuldenpraxis (vor allem im Privat- und Finanzsektor) konnte durch den zunehmend freien Kapitalverkehr von den Kernregionen bereitgestellt werden. Die im europäischen Vergleich überdurchschnittliche Entwicklung der Wachstumsraten und des Preisniveaus der ersten Jahre der WWU wurden als notwendige Nebeneffekte des erwarteten Aufholprozesses interpretiert. Gleichzeitig wurden sich bereits abzeichnenden Hinweise auf signifikante Risikofaktoren für die weitere konjunkturelle Entwicklung der WWU, welche mit dem Platzen der globalen Immobilienblase in 2007 letzten Endes auch schlagend wurden, übersehen. Der

Vergleich der wirtschaftlichen Entwicklung Deutschlands und Spaniens zeigt, dass die Folgekosten der globalen Finanzkrise bzw. der später folgenden Staatsschuldenkrise der WWU ungleich verteilt getragen wurden. Bis heute spiegelt sich diese ungleiche Entwicklung in den wichtigsten wirtschaftlichen Indikatoren wider. Die wirtschaftliche Entwicklung der WWU in den letzten zwei Dekaden lässt darauf schließen, dass die vergangenen Prämissen zur Angleichung der wirtschaftlichen Bedingungen (bzw. für gemeinschaftliches und nachhaltiges Wachstum) unzureichend waren. Zuletzt beobachtbare politische Entwicklungen und Initiativen auf europäischer Ebene wie der „European Green Deal“ oder auch das, in Reaktion auf die COVID 19 Pandemie, beschlossene europäische Konjunkturpaket können als erste Schritte eines größeren Paradigmenwechsels hin zu einem gemeinschaftlichen Europäischen Verständnis der Wirtschaftsentwicklung gedeutet werden.