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# **The International Path of the Euro: An Analysis on the Maintenance of the International Position of the Euro as a Reserve Currency after the Eurozone Debt Crisis**

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# **The International Path of the Euro**

## **An Analysis on the Maintenance of the International Position of the Euro as a Reserve Currency after the Eurozone Debt Crisis**



**Universiteit  
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The Netherlands

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## **Abstract**

Within three years since its introduction in 1999, the euro has developed into the second most important global reserve currency. This thesis is aimed at explaining mechanisms that contributed to the euro's international position. The international role of the euro before and after the eurozone debt crisis will be compared, in order to explain why the euro maintained its position subsequent to this crisis. In addition, this thesis will highlight the importance of the Economic and Monetary Union due to its relation to the development of the international role of the euro. A stronger international role can be achieved by strengthening the Economic and Monetary Union, and in turn a more enhanced monetary union acts as a shield against possible financial crises. By using the new institutionalist theory of historical institutionalism along with the method of process-tracing, it is anticipated to determine critical events and to develop a process of causal mechanisms that can explain why the euro happened to maintain its international position after enduring one of the most critical economic and financial setbacks in the history of the eurozone.

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# 1. Introduction

January 1, 1999, was a historical moment in time for eleven European Union (EU) member states, as a new common currency was introduced: the euro (Bertaut & İyigün, 1999, p. 655). At the time, it was unforeseeable what role the euro would play in the international financial market. The adoption of the euro was an element of the Economic and Monetary Union's (EMU) third stage and was an important factor in EU economic integration (EUR-Lex, 2023; European Commission, n.d.-a). After the euro was introduced, the number of countries adopting the euro expanded, thereby enhancing EU economic integration (European Council 2023b). Integration regarding the EU monetary framework is linked to a stronger and less volatile currency, meaning the exchange rate does not fluctuate much (Bask & De Luna, 2005, pp. 741-748). In addition, entities are more confident to use a less volatile currency for global transactions (Hartmann & Issing, 2002, 321). Multiple factors contributed to the strong international position of the euro, of which the foundation is a strong coordinated eurozone with a developing monetary union (European Council, 2023a). As of the latest data from 2022, the euro is positioned as the second most important international currency (European Council, 2023a). Nevertheless, the path of the euro's position has not always been smooth. Although the euro's international role spiraled since 2002 when banknotes and coins started circulating, the currency did experience a pair of setbacks (European Central Bank, 2022c). Starting from 2008, the eurozone was struck by a double crisis: the Global Financial Crisis and the eurozone debt crisis the following year (Lane, 2021, p. 6). Uncertainties started rising regarding the resilience of the EMU, which initiated certain EU institutions to implement policies to render a stronger monetary union (Scheinert, 2023, p. 3). The implemented measures stretched from short term measures, such as financial support, to longer term crisis management policies, such as the European Stability Mechanism (European Stability Mechanism, n.d.; European Stability Mechanism, 2016). Starting from 2012, additional policies were introduced to achieve a stronger monetary union. A stronger monetary union is connected to an increased international interest in the euro, which is in turn beneficial for the financial stability within the eurozone as well as beyond its borders (European Central Bank, 2022a; Strauch & Hudecz, 2021). Besides the possibility of EU policies affecting the international role of the euro, external factors may also be involved. Geopolitical factors, such as war, can decrease the use of the euro in global transactions (European Central Bank, 2023a, p. 42). Despite the setbacks the

euro had to endure during and after the eurozone debt crisis, the currency remained the second most important international reserve currency as of 2022 (European Council, 2023a).

The aim of this thesis is to derive mechanisms on the cause of the euro's international position, and why certain policies after the eurozone debt crisis contributed to the euro's resilience on the global level. Therefore, the research question of this thesis is formulated as follows: *Why has the euro maintained its role as an international reserve currency since 2002?* As previously mentioned, the eurozone debt crisis caused a shift in the framework of the EMU, as policies were implemented to strengthen the eurozone which may have affected the international position of the euro (Lane, 2021, pp. 11-12). To explain whether this crisis significantly affected the euro's international role, the general research question will be extended with a sub-question, which is: *Did the eurozone debt crisis and the subsequent policies affect the international role of the euro?* With help from primary sources, such as the European Central Bank's (ECB) annual review of the euro's international role, the trends of the euro's international position are going to be analyzed. Secondary sources will be used in addition, such as working papers and web publications from EU institutions to explain the path of the euro since its introduction and during the eurozone debt crisis. Moreover, journal articles will provide information about the connection between a strong monetary union and the strength of a currency on an international level. The foundation of this research lies in the new institutionalist theory of historical institutionalism, and its use is meant to provide insights about pivotal events that unlocked a certain path for EU institutions and to explain which path-dependent decisions influenced the position of the euro (Pierson & Skocpol, 2002, p. 6). The analysis will be conducted through the method of process-tracing, with which a document-analysis will be provided to collect valuable data regarding the role of the euro prior to and subsequent to the eurozone debt crisis (Toshkov, 2016, p. 299). The analysis will be linked to historical institutionalism, with the intention to derive causal mechanisms which could provide an answer to the research question (Toshkov, 2016, p. 298).

This thesis is academically relevant, because the international role of the euro and its maintenance is connected to the degree of a strong coordinated EMU (European Central Bank, 2022a; Hartmann & Issing, 2002, p. 336). Studies about the EMU along with EU economic integration can give insights about the euro's international development since its introduction. In addition, the shifts in the EMU framework caused by the eurozone debt crisis led to stronger coordinated policies within the monetary union (Scheinert, 2023, p.

3). As a result, researching these monetary policies together with EU economic integration may explain why the euro's international role developed in a certain direction and how the eurozone debt crisis contributed to the euro's international position as of today. In addition, relevance surrounding the euro's role also reaches the academic field of public administration. A reason for this is the significant role of EU public institutions regarding the international development of the euro (European Commission, n.d.-c). By applying historical institutionalism as a fundamental part of the analysis, this thesis is aimed to provide a historical context of public institutional change that contributed to the maintenance of the euro's international role. Therefore, this thesis might provide an addition to public institutional research regarding the development of the euro and the importance of public institutional decisions that influence its international path.

Besides the academic relevance, there also exists a social relevance regarding the research of the euro's international role. The developments of the euro and its position as an international currency is of real-world societal importance, because it affects broad groups of people and the economy. The first reason for this is that a stronger international appeal of the euro is related to a stronger EMU, for which the latter is achieved by the implementation of, for instance, crisis management policies (European Central Bank, 2022a; Lane, 2021, pp. 11-13). Crisis management policies may offer a metaphorical shield against future economic and financial crises, which can prevent societal problems such as higher levels of unemployment and a decrease of income levels (United Nations, 2011). Furthermore, the degree of a currency's international strength has other impacts for societies. For example, a strong global currency leads to a lower level of transaction costs for companies and acts as a shield against foreign exchange shocks for the eurozone (European Council, 2023a).

Chapter 2 of this thesis involves a literature review regarding existing research on the euro's international role. Subsequently, the theoretical framework will be presented in the chapter 3. In chapter 4 the research design will be introduced in which the collected data and the research method will extensively be described. Next, the analysis will be conducted in chapter 5, in which the theory of historical institutionalism and the method of process-tracing will be used to derive causal mechanisms regarding the research question. Last but not least, a conclusion will be drawn in chapter 6, in which the research question will be answered.

## 2. Literature review

In this chapter, various existing academic literature will be reviewed that involve the study of the euro's international role to provide a better understanding of the concepts and international currencies in general. First, the concepts of reserve currencies and Special Drawing Rights will be explained, to get a better understanding of what an international currency implies. Next, several reasons on why a more international role of the euro is encouraged will be reviewed. Thereafter, the determinants that influence the international role of the euro will be discussed. Last but not least, the current position of the euro on the international level will be explicated. All things considered, this chapter is meant to reveal if existing literature can provide an answer on why the euro was able to maintain its position as an international reserve currency before and after the eurozone crisis.

### 2.1. Conceptualization

Conceptualization refers to defining concepts that are related to the research, and to clarifying in what manner important concepts relate to other concepts (Toshkov, 2016, p. 95). Prior to the literature review, the concepts of reserve currencies and SDRs will be explained. These concepts will help to provide a better understanding of the components with regard to the research question.

#### **Reserve currency**

A reserve currency is an international currency that is an addition to the foreign exchange reserves of a central bank (Siripurapu and Berman, 2023). Since the US dollar is a widely used currency in international transactions, various countries are unable to use their national currency to borrow money or buy international capital (Siripurapu and Berman, 2023). Consequently, foreign reserves are held to provide financial stability, for example during times where the economy finds itself in an unstable situation (Siripurapu and Berman, 2023). Currencies that are utilized within and outside its state or union, are interpreted as an international currency (Hartmann & Issing, 2002, p. 316). If a certain currency is widely used and held as reserves by states and private institutions outside their borders, it is defined as an international reserve currency (Subramanian, 2011, p. 3). The international role of a currency depends on the degree in which it is used outside its borders relative to alternative currencies (Hartmann & Issing, 2002, p. 316).



## **Special Drawing Rights**

The International Monetary Fund (IMF) established the Special Drawing Rights (SDR) in 1969, and it is defined as “an international reserve asset” (International Monetary Fund, 2021). Although the SDR is not a currency in itself, its value is determined by a “basket” of five currencies, which includes the euro (International Monetary Fund, 2021). In 1969, the IMF established the SDR for member states as an addition to their international reserve assets, and in 1973 the SDR was defined equal to the value of the five included global currencies (International Monetary Fund, 2023a). SDRs are held by the IMF, including its members. While individuals and private institutions are not allowed to hold SDRs, the IMF can give the right to central banks (International Monetary Fund, 2023a). A currency that is part of the SDR “basket” must fulfill two criteria (International Monetary Fund, 2023a). The first criterion is the “export criterion”, which a currency fulfills if its country or union is a part of the IMF and of the five largest global exporters. The second one is the “freely usable criterion”, which is met if the currency is broadly used for global transactions and extensively traded within the most important exchange markets (International Monetary Fund, 2023a).

## **2.2. Benefits of an enhanced international role of the euro**

Before gathering more information about the euro’s international role, it is important to understand why a stronger international currency is beneficial. In general, EU institutions use the international strength of the euro as a method to improve the power of the EU outside its borders (European Commission, n.d.-c). Furthermore, an enhanced international currency will enable the EU to improve the safety of its residents and companies, protect its fundamental principles, and push its ambitions in foreign affairs through its “rules-based multilateralism” framework (European Commission, n.d.-c). Rules-based multilateralism is a framework within the EU based on cooperation between organizations across various member states to establish a shared awareness of global concerns (European Commission, 2020, p. 1). Since the general importance of the international role of the euro has now been explained, time has come to pile up the specific benefits that relate to this stronger role.

First of all, a broader international use of the euro will affect the costs of trade for companies in Europe (European Commission, n.d.-c). By using the euro in trade instead of an alternative currency, the costs together with the risks of exchange will decrease, specifically for smaller companies in Europe (European Commission, n.d.-c). Moreover, a

stronger euro can lead to a depreciation of interest rates for states, residents, and companies because a stronger euro may lead to confidence in the currency, leading to foreign investors requesting lower interest rates (European Commission, n.d.-c). Furthermore, a stronger international role of the euro contributes to a stable and strong global monetary system (European Council, 2023a). A contributing reason for this greater strength is that the global financial system may become less prone to shocks in international exchange due to a strong international position of the euro. (European Council, 2023a).

### **2.3. Costs of an enhanced international role of the euro**

It is important to consider how the costs and benefits are balanced against one another. As described above, a number of advantages are present with an enhanced international position of the euro. However, a stronger role is accompanied with several disadvantages as well. A study from Cohen (2011) and Chinn and Frankel (2007) will be reviewed to point out these downsides, which will eventually clarify whether the gains of a stronger international role exceed the costs.

The first important negative side of a more internationalized currency is the risk of an excessive international demand for a particular currency (Cohen, 2011, p. 19). A high demand might appear to be positive, however the currency can be prone to a too highly valued exchange rate, also known as “exchange-rate appreciation” (Cohen, 2011, p. 19). Subsequently, producers will experience a downside regarding import and export of goods and services because a greater demand of the euro can lead to reduced rivalry on the export side (Cohen, 2011, p. 19; Chinn & Frankel, 2007, p. 290).

Second, there is a risk of external pressure when the international position of a currency rises. This indicates that the value of the currency becomes more vulnerable to fluctuations (Cohen, 2011, pp. 19-20). These fluctuations lead to an unsteady demand for cash, resulting in difficulties for government institutions to determine the desired interest rate (Cohen, 2011, pp. 19-20). In addition, national policies can become more prone to externalities as well when a currency’s role strengthens on the global level. However, Cohen (2011, p. 20) does not clarify the specific factors that are linked to this possible occurrence. Nevertheless, it remains useful to specify the vulnerable side of national policies when a currency’s international importance increases.

A third risk of a currency’s growing international position is that institutions of the issuing country or union, which in this case would be EU institutions, may experience the need for more accountabilities towards the international monetary institutions (Cohen,

2011, p. 20). A reason for this, is because a more widely used currency in the international monetary system increases international obligations to adjust the national monetary policy when complications arise within the international financial market (Cohen, 2011, p. 20; Chinn & Frankel, 2007, p. 290).

#### **2.4. Determinants that strengthen the international role of a currency**

Before we can explain what determinants are visible that underpin the international growth of the euro, it would be useful to first clarify why the US dollar has been the most important international reserve currency since 1945 until today (Siripurapu & Berman, 2023). Observing the path of the US dollar could provide insights on the reasons why the euro has not surpassed the dollar's number one place as an international reserve currency. The question can be answered by elaborating on existing network externalities theories (Papaioannou & Portes, 2008, p. 4). Rey (1999, pp. 2-3) argues that within international trade, actors make use of a third currency due to it resulting in lower transaction costs. This third currency, also known as an “anchor currency”, has usually been the US dollar for almost eighty years (Guo & Zhou, 2021, p. 1). To provide a complete picture, an example from Rey (1999) of an exchange between two currencies will be given: the Greek Drachma and the Thai baht. It is worth mentioning that Greece joined the eurozone in 2001, with which the Greek Drachma has officially been replaced with euro cash since 2002 (European Commission, n.d.-d). Returning to the example, the Greek Drachma was not instantly exchanged with the Thai Baht, but it rather became an exchange between the US dollar and the Baht or the US dollar against the Drachma (Rey, 1999). As previously mentioned, the reason for the inclusion of an anchor currency within exchange was to achieve lower transaction costs (Rey, 1999, pp. 2-3). Nowadays transaction costs for utilizing the euro in exchange is particularly low, however it was in fact high in the period after the Second World War for currencies other than the dollar, which justifies Rey's (1999) analysis (Papaioannou & Portes, 2008, p. 4).

As for the determinants, Beckmann et al. (2020) suggested two possibilities to expand the international power of the euro. The first determinant is to increase the appeal of the euro, which could occur by strengthening the economic and monetary policies within the eurozone (Beckmann et al., 2020, p. 6). Progress within the eurozone's government framework could positively increase the perspective of the euro as a consequence (Beckmann et al., 2020, p. 6). A second determinant is that policy makers could intervene in promising markets to encourage non-eurozone individuals and entities to use the euro.

Increased promotion of the euro in emerging international economies is a potential determinant to enhance the international position of the euro (Beckmann et al., 2020, p. 6). Overall, the degree of robustness of the eurozone's economic and monetary policy is the main determinant for a strong international position of the euro (Beckmann et al., 2020, p. 19).

## **2.5. The current position of the euro**

According to Maggiori et al. (2018) there are four aspects to determine the status of a currency. The first aspect is the degree to which a particular currency is used in “denominating bond and loan contracts” (Maggiori et al., 2018, p. 3). One contributing factor regarding the maintenance of the US dollar as the most important international reserve currency, could be because the US dollar has been widely held as bonds by international investors between 2005 and 2008 (Maggiori et al., 2018, p. 3). However, the euro has been widely used as bonds as well, but when the Global Financial Crisis emerged, the allocation of the euro depreciated while the US dollar experienced an opposite effect (Maggiori et al., 2018, p. 3).

A second aspect to determine the status of a currency is the degree to which a currency is used in “denominating international trade”. Maggiori et al. (2018, pp. 4-6) show a rise of the euro's use in imports between 1999 and 2005, followed by a slight decrease from 2006 until 2014. On the contrary, the share of the US dollar in imports increased from 2004 until 2014 (Maggiori et al., 2018, pp. 5-6). Regarding the exports, the share of both currencies expanded steadily starting from 2005 (Maggiori et al., 2018, p. 6). The findings of Maggiori et al. (2018, pp. 4-6) provide a conclusion that, apart from the fact that the financial crisis and eurozone crisis may have influenced the rise of the dollar in international trade, a rise of a currency's status can partly be explained by its dominance in international trade.

A third aspect to determine the status of a currency is its “volume in foreign exchange trading” (Maggiori et al., 2018, p. 7). After a drop in the beginning of the 2000s, the US dollar's share of foreign exchange trading expanded after the eurozone debt crisis, whereas the euro's share in foreign exchange has not increased in such quantities as the US dollar (Maggiori et al., 2018, p. 7). From this information, it could be expected that the volume of a currency in international exchange partly determines the level of importance of an international currency. According to Maggiori et al. (2018, p. 8) the share of a currency in central bank reserves also determines the status of a currency, which brings us to the fourth aspect. It has been shown that the US dollar's allocation in foreign reserve holdings of central banks has always been higher since the year the euro was introduced (Maggiori et

al., 2018, p. 8). Nevertheless, the broad difference between the share of the US dollar and the euro in central bank reserves reduced until 2009 (Magiorri et al., 2018, p. 8).

Last but not least, the degree of a currency's use as an anchor currency also determines its status (Magiorri et al. 2018, p. 9). It has been demonstrated that the US dollar has mostly been used as an anchor in foreign trade transactions, which makes the extent to which a currency is used as an anchor in international exchange a fifth aspect for the international status of a currency (Magiorri et al., 2018, p. 9).

## **2.6. Gaps within the existing literature**

The review of various academic literature has provided more insight about the development of the euro within the eurozone as well as outside its borders. Thereby, some clarifications have been provided on how a stronger international role of the euro can be beneficial, but that the benefits are accompanied by costs as well. However, the provided literature has not yet clarified specific mechanisms that explain the maintenance of the international role of the euro since its introduction and after the eurozone debt crisis. The existing literature still leads to questions about what actions the eurozone and EU institutions as a whole specifically took in order to maintain the international role of the euro, and if they directly implemented measures to achieve this maintenance. In addition, the reviewed literature does not explain if the international role of the euro can be justified by other factors rather than implemented policies and measures by EU institutions. In order to fill these shortcomings, the theory of historical institutionalism will be utilized to derive specific causal mechanisms that can explain the development of the international position of the euro. The aim is to answer the research question by analyzing specific events and determined paths since the introduction of the euro, and to clarify whether the eurozone debt crisis was a pivotal moment that affected the international path of the euro.

### 3. Theoretical Framework

Subsequent to the literature review, time has come to establish the theoretical framework. In this chapter, one of the new institutionalist theories will be introduced which will act as a foundation for the analysis process. New institutionalism fundamentally includes three types of theories: rational choice institutionalism, sociological institutionalism, and historical institutionalism (Hall & Taylor, 1996, p. 936). In light of this thesis, historical institutionalism will be utilized as a theory in order to analyze the path of the euro's position as an international reserve currency, and how the eurozone debt crisis influenced the importance of a stronger global role of the euro. The use of historical institutionalism to conduct the analysis is anticipated to derive an answer to the main research question as well as the sub-question. The reasons on why this theory is the best fit for this particular research will be clarified underneath.

#### 3.1. What is historical institutionalism?

Historical institutionalism is a useful theory to study processes that occur over time (Pierson & Skocpol, 2002, p. 5). This time element could be useful in order to explain how the euro's role as an international reserve currency developed since its introduction and why it maintained its position after the eurozone crisis emerged. An important concept within historical institutionalism is the concept of critical junctures (Pierson & Skocpol, 2002, p. 6). Critical junctures are described as unforeseeable situations in time at which there are various decisions to choose from, and the decision made directly determines the path that institutions will pursue (Capoccia, 2016, pp. 89-90). Thus, a path-dependence process evolves from such pivotal events that can have broad impacts on future developments (Capoccia, 2016, p. 90). The question is whether the eurozone crisis can be seen as a critical juncture. Important decisions have been taken by EU institutions during and after the eurozone crisis, and such decisions have an impact on the path that the institutions will pursue. The analysis will provide insights on whether the eurozone crisis, or an alternative event, developed incremental decisions in order to maintain the international role of the euro. Important to point out is that a critical juncture could have a significant effect while at the same time not causing a revolutionary shift within the political atmosphere (Thelen, 2004; Streeck & Thelen 2005, pp. 8-9, as cited in Capoccia, 2016, pp. 91-92). Thus, an alternative event that may not seem as a factor that impacted the public institutional environment much, could also be perceived as a critical juncture. Nonetheless, a critical juncture can unlock a path-dependent process leading

to incremental change that eventually build the way to the maintenance of the euro's international role as an outcome. The justification for this, is because within historical institutionalism, the occurrence of a critical juncture is essential to initiate a period of change, and the subsequent decisions taken depend on a certain path (Mahoney et al., 2016, pp. 77-83).

### **3.2. Attributes of historical institutionalism**

Three important attributes are identified within historical institutionalism (Pierson & Skopcol, 2002, p. 3). The first attribute of this theory is that it deals with broad, significant uncertainties that are relevant to both the general audience and experts in the field (Pierson & Skopcol, 2002, p. 3). As previously stated in the introduction, the eurozone debt crisis and the course of the euro's international role is a main issue for both societies in general and experts. A stable monetary union is connected to a stronger international role of the euro, and improved crisis prevention tools could improve the economy as well as the euro's international position (European Central Bank, 2022a; Strauch & Hudecz, 2021). Furthermore, the literature review clarified that multiple scholars are interested in the international development of the euro.

The second attribute is that historical institutionalism mainly focuses on time in order to develop specific ideas about why a certain outcome or puzzle emerged (Pierson & Skopcol, 2002, p. 3). Therefore, this is an additional reason that historical institutionalism is beneficial considering the research question, because this thesis aims to explain why the euro maintained its role as an international reserve currency over time while focusing on gradual decisions taken after the eurozone debt crisis that may had impacts on this maintained position.

Third, historical institutionalism examines processes on macro-level, while speculating about overall impacts of institutional change and decisions (Pierson & Skopcol, 2002, p. 3). Thus, this theory considers the entire picture instead of focusing on a single event. Consequently, this could help answer the research question as well, because the euro's role as an international reserve currency is a global event due to the expansion of the eurozone since 1999 and the increased use of the euro in international trade (European Council, 2023b; European Central Bank, 2023a, p. 54). Focusing on the bigger picture may help to identify involved institutions, specific decisions, and developments before, during, and after the eurozone debt crisis. These mechanisms could be a part of a causal chain regarding the euro's path as an important international currency. Within the analysis, the use of historical institutionalism would concentrate on how the problems of the eurozone debt crisis presented

opportunities for institutional improvements that may have changed the euro's perception and potential international expansion.

### **3.3. Critical junctures and path dependency**

According to Thelen (1999, p. 387), pivotal events give rise to institutional change and leads to institutions pursuing a certain path. Thus, path-dependency is connected to critical junctures. Path dependency is defined as institutions evolving over time due to changes in the environment or certain political engagements (Thelen, 1999, p. 387). In addition, path dependency is bound by historical courses, which means that certain paths that institutions have taken in the past limit institutional change to some extent (Thelen, 1999, p. 387). Eichengreen (1998, p. 484) argues that if a currency is considered an international currency, broadly used in international transactions, and is held as foreign exchange reserves, the currency is prone to remain its status due to its path taken in the past. This might explain why it is challenging for a currency to surpass the US dollar's status as the primary international reserve currency, and why the euro has yet to reach the level of the US dollar. Likewise, the euro has a history of rising as an international currency as well since its introduction (Hartmann & Issing, 2002, pp. 336-342). This suggests that Eichengreen's (1998, p. 484) theory could possibly explain the maintenance of the euro's international position, despite experiencing vulnerable situations such as the eurozone debt crisis. Eichengreen (1998, p. 483) additionally explains that the introduction of a new currency could cause a shift within the international monetary system. Considering this view, the introduction of the euro could have been a pivotal moment in time which started a path-dependent process of incremental change, and each decision taken on this path may have contributed to the maintenance of the international role of the euro. Moving over to the eurozone crisis, this event initiated a period in which new policies were implemented in order to strengthen the eurozone's monetary union (Scheinert, 2023, pp. 3-4). However, since a critical juncture does not necessarily have to result in revolutionary change, an alternative moment in time could have unlocked a process of path-dependent change as well (Thelen, 2004; Streeck & Thelen, 2005, pp. 8-9, as cited in Capoccia, 2016, pp. 91-92). After describing the general process of critical junctures and path dependency, the possibilities of various critical junctures will be extensively clarified in chapter 5.



### 3.4. Path dependency and self-reinforcing sequences

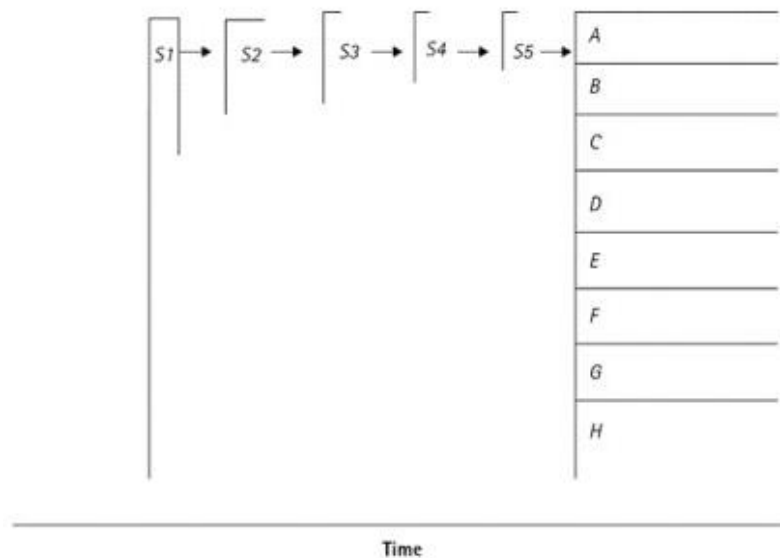
When a critical juncture has developed into a process of path-dependence, decisions are now taken within a certain direction, and each extra step towards that direction increases the possibility that this particular path will be pursued (Mahoney et al., 2016, p. 82). This process limits the possibilities to pursue a different path and is also referred to as “increasing return processes” within the theory of historical institutionalism (Mahoney et al., 2016, p. 82). Thus, the steps taken at the beginning of the path-dependence process are critical because they shape a particular path, leading to an increased chance that this path is continued to be pursued (Mahoney et al., 2016, p. 82). Each decision taken in the direction of the path, contributes to a sequence of events which eventually leads to a certain outcome (Mahoney et al., 2016, p. 83). As previously mentioned, the start of this sequence process based on increasing returns is referred to as a tipping point: the critical juncture (Mahoney et al., 2016, pp. 77-83). Moreover, sequences are related to time because events develop over time that influence the decisions taken in the future (Pierson & Skocpol, 2002, p. 8). This critical moment in time then diminishes various alternatives, with which nearly all options are removed (Mahoney et al., 2016, p. 83). Once the options are limited, a self-reinforcing sequence process is then launched, leading to a certain outcome. Every decision taken increases the likelihood that this particular direction is being pursued in future steps. In other words, every following step is paving the path to a particular outcome, leading to a higher chance this outcome will be achieved (Mahoney et al., 2016, p. 83). Determining sequences is important within historical institutionalism because causality can only be reached if a chain of mechanisms is established that can demonstrate why an event is connected to a certain outcome (Rueschemeyer & Stephens, 1997, as cited in Thelen, 2002, p. 97).

Figure 1 illustrates the process of self-reinforcing sequences, also known as “path dependency based on increasing returns” constructed by Mahoney et al. (2016, p. 83). Within this illustration, the process starts with a critical juncture followed by a sequence process and each following step removes other outcomes, eventually reaching outcome “A”. Whilst it is not guaranteed this outcome will be achieved, each decision taken in the sequence process reinforces the path towards “A”, increasing the probability of attaining this point in the course of time (Mahoney et al., 2016, p. 83). Within the construction of Mahoney et al. (2016, p. 83) illustrated in figure 1, the critical juncture equals S1 and is referred to as the moment in time with which the path-dependent sequence process is unlocked (Mahoney et al., 2016, pp. 77-83). This point in time is then followed by multiple self-reinforcing steps, which starts with S2 and ends with S5 within figure 1 (Mahoney et al., 2016, p. 83). As can be seen in this

figure, each step taken decreases the chance of all other outcomes to occur. Eventually, outcome “A” is reached the moment the sequence process has come to an end. This signifies that each step taken during the process reinforced the direction to this particular outcome.

**Figure 1**

*Self-reinforcing sequence process*



*Note.* Adapted from Mahoney et al. (2016, p. 83).

### 3.5. Incremental causal processes

Changes in the real world take place over a certain time frame until a particular outcome is achieved, meaning they are “incremental” (Pierson & Skocpol, 2002, p. 9). In other words, it requires a broad period of time before incremental changes evolve into a particular outcome. Therefore, institutional change is not an outcome that occurs with one change, such as a new policy measure, but it requires a series of changes that step by step affect institutional change as a result (Pierson & Skocpol, 2002, p. 9). This incremental institutional change can be seen as an element of path dependency as well as the self-reinforcing sequence process. The reason for this is because every step taken on a certain path increases the possibility that every following step pursues the path of the previous one (Mahoney et al., 2016, p. 82). After some time has passed and increasingly more steps have been taken, it is unlikely that the path will alter (Mahoney et al., 2016, p. 82). Therefore, Mahoney et al. (2016, p. 83) argues that the path-dependent process of self-reinforcing sequences is based on slow but steady changes. This sequence process evolves step by step

and each step taken contributes to the eventually reached outcome (Mahoney et al. 2016, p. 83). All things considered, a sequence process that is path-dependent begins with an unforeseeable change, but is followed by incremental steps that evolve gradually in the course of time until a particular outcome is reached (Mahoney et al., 2016, pp. 83-84).

### 3.6. Hypotheses

After explicating the attributes and elements within the theory of historical institutionalism, various assumptions can be derived from the described information. Afterwards, these assumptions will be analyzed and tested in chapter 5. The first hypothesis that can be derived from the theoretical framework is formulated as follows: *Critical junctures were present that affected the development and maintenance of the euro's role as an international reserve currency before, during, and after the eurozone crisis.* This hypothesis is followed by a second one, which is: *Initiated by a critical juncture, a path-dependent causal chain of self-reinforcing sequences was developed leading to the maintained international role of the euro.*

## 4. Research design

### 4.1. Data collection

Before all the information can be analyzed to derive an answer to the research question, it is necessary to set the research design of this thesis straight. First and foremost, qualitative research will be conducted with an explanatory nature. Explanation in research can reveal what caused certain phenomena, it can indicate causal effects, and show the involved causal mechanisms within these specific effects (Toshkov, 2016, p. 35). Explanatory research can be used to reach multiple goals, which in this case is to explain the particular case of the euro and its maintenance as an international reserve currency since the eurozone debt crisis, and to offer the causal mechanisms involved in this outcome (Toshkov, 2016, p. 35). Furthermore, a single-case study will be conducted as the general research design (Toshkov, 2016, p. 285). The case of this research is the euro as a currency itself. The reasoning behind this choice is because the euro is positioned as the main character within this research. This research analyzes the euro's status as an international reserve currency over different time frames, while dwelling on the time during and after the eurozone debt crisis. The European Central Bank (ECB) releases a report each year that provides a review of changes in the usage of the euro by those outside the borders of the eurozone (European Central Bank, 2023b). Concerning the eurozone's aim of strong economic policies, the international role of the euro is fundamentally strengthened by a stable and more coordinated Economic and Monetary Union (EMU), which includes the progress of the capital markets union (European Central Bank, 2023b). This enhancement is encouraged by the Eurosystem and highlights the importance to finalize the EMU (European Central Bank, 2023b). For good measure, the Eurosystem consists of the ECB along with the central banks within eurozone member states (European Central Bank, 2022b). Using the euro as the case will provide a thorough understanding of how the euro's role as an international currency developed, as well as the involvement of certain policies implemented by EU institutions. To sum up, this thesis will explain the euro's international role and what factors were responsible for its maintenance as well as the effect of the eurozone debt crisis on this role. Subsequently, a comparison of the euro's position before and after the eurozone debt crisis will be provided to offer a sufficient contrast. Thus, it is anticipated that using the euro as a case will provide a justifiable answer to the research question.

Furthermore, primary and secondary sources will be used in this thesis. According to Thies (2002, p. 356) primary sources include authentic findings about a particular occurrence in time. The main primary source used in this thesis is the annual review of the international role of the euro by the ECB. This source is chosen as a primary source because the international development of the euro is reviewed each year within this source (European Central Bank, 2023b). It will provide original information to analyze and compare the changes in the development of the euro between different time periods. As the annual reviews have been published for twenty-two years, this source is of great value as this thesis will analyze the role of the euro before and after the emergence of the eurozone crisis in 2009 (European Central Bank, 2023a; Samarakoon, 2017, p. 119). This implies that changes within the international role of the euro can be accurately analyzed before and after the crisis. Aside from the annual review, web publications of the ECB and a speech of former ECB president Mario Draghi will be analyzed as primary sources to further explain the development of the euro. In addition, these sources could explain the motivations to safeguard and maintain the international position of the euro since the eurozone debt crisis. Nevertheless, using exclusively primary sources will be insufficient to analyze the hypotheses and to answer the research question. Thies (2002, pp. 359-369) describes two threats when conducting qualitative historical analysis. First, a bias may emerge when making solely use of certain primary sources (Thies, 2002, p. 359). Second, there may be a “selection effect” when only selecting certain historical publications (Thies, 2002, p. 359). These two threats combined form the “selection bias” (Lustick, 1996, as cited in Thies, 2002, p. 359). Within this thesis, this problem will be minimized by, first of all, using various types of primary sources (Thies, 2002, p. 359). In addition, multiple secondary sources will be used to avoid possible institutional influences that may occur in these sources, as well as to investigate information beyond the theory used in this thesis (Thies, 2002, pp. 362-364). Examples of secondary sources used in this thesis are, first of all, journal articles and e-books that cover evidence about the international development of a currency, which in addition explain why and how a currency can reach and maintain its strength and international position. Examples of these types of sources are the article by Lane (2021) and e-book by Chinn & Frankel (2007). Moreover, working papers, press releases, and web pages from the ECB will be analyzed that cover the implemented measures as a response to the crisis. These sources will be used to derive factors that contributed to the maintenance of the international position of the euro since the crisis. In addition, press releases and web publications from the European Commission, European

Council, European Parliament, and calculated data from the International Monetary Fund are used as additional secondary sources. These sources are mainly used to analyze the history of European economic integration, and to explain why this impacted the international development of the euro. In addition, these sources are helpful to deeply analyze the eurozone debt crisis and how this event led to processes that may have affected the international role of the euro.

## **4.2. Operationalization of theoretical concepts**

### **4.2.1. Critical junctures**

Followed by the clarification of the research design, time has come to operationalize the previously described concepts brought forth in the theoretical framework in chapter 3. Operationalization is defined as “the translation of abstract concepts and their attributes (dimensions), into less abstract ones that can be detected, classified, and measured in the empirical world” (Toshkov, 2016, p. 100). In other words, it is necessary to transform general concepts into instruments that can be measured in the real world. Operationalization consists of direct and indirect indicators (Toshkov, 2016, p. 101). The qualitative nature of this thesis makes it difficult to directly interpret concepts as numbers, thereby the operationalization of a critical juncture will result in an indirect indicator. The first described concept in the theoretical framework is the concept of a critical juncture. As previously stated, a critical juncture is defined as a pivotal moment in time at which various options can be decided on, and the decision chosen determines the path that will be pursued (Capoccia, 2016, pp. 89-90). Capoccia and Kelemen (2007, p. 360) argue that in order to operationalize a critical juncture, the degree of criticalness must first be determined. They suggest two techniques to measure the degree of criticalness, with the first one being the “probability jump”. The probability jump measures the change of the likelihood that a specific outcome will occur related to the critical juncture (Capoccia & Kelemen, 2007, p. 360). The probability jump consists of two parts. The first part is the change of the likelihood of the outcome regarding the minimum possibility before or throughout the critical juncture (Capoccia & Kelemen, 2007, pp. 360-361). The second part involves the proximity to 1 regarding the likelihood the outcome will occur after the critical juncture (Capoccia & Kelemen, 2007, pp. 360-361). Thus, Capoccia and Kelemen (2007, p. 361) suggest that a critical juncture is more critical if the likelihood that a certain outcome will occur nudges more to 1. Furthermore, Capoccia and Kelemen (2007, p. 361) argue that “temporal leverage” can also be used to measure the degree of criticalness. With this term

they imply that a critical juncture is more critical if the subsequent path-dependent process persists for a longer period of time compared to the juncture. Thus, the importance lies in the duration of the path-dependent sequence process rather than the length of the critical juncture. All things considered, a critical juncture in this case can be operationalized as a highly critical or lower critical phenomenon which initiates a path-dependent process of sequences, eventually leading to the outcome intended.

#### **4.2.2. Self-reinforcing sequences**

Within the theory of historical institutionalism, a sequence is conceptualized as a path-dependent process in which incremental steps are taken into a certain direction, with each step increasing the likelihood of reaching a certain outcome based on this particular path (Mahoney et al., 2016, pp. 82-83). The self-reinforcing sequence process is unlocked with a critical juncture (Mahoney et al., 2016, pp. 77-83). The sequence and time of specific phenomena are important as it is necessary to fully understand the causal processes that institutions went through (Pierson & Skocpol, 2002, p. 7). Because self-reinforcing sequences can influence the effects of future decisions, the sequence of an event is important for the general public as well as for political institutions (Pierson & Skocpol, 2002, p. 8). Besides, the self-reinforcing sequence process decreases the possibility to change the path and these increasing return processes in turn lead to the elimination of alternative political decisions (Mahoney et al., 2016, p. 82; Pierson & Skocpol, 2002, p. 8). Thus, a self-reinforcing sequence process can be operationalized as a path-dependent causal chain of mechanisms that is unlocked with a critical juncture, and step by step contributes to the occurrence of a certain outcome. In this case, the critical juncture involves an uncertain moment in time at which the international role of the euro was influenced in such a way that it led to the maintained international position. Certain implemented measures by EU institutions may act as causal mechanisms that pursued a path, eventually leading to the euro's maintained international position as an outcome. However, factors other than EU policies may be a part of the sequence process as well. All things considered, the analysis will clarify whether the eurozone debt crisis or an alternative event acted as a critical juncture. After this has been clarified, the self-reinforcing sequence process starting from the eurozone debt crisis or a different moment in time will be extensively demonstrated.

#### **4.2.3. Incremental causal processes**

Developments in the real world evolve and increase gradually over time, which means they are “incremental” (Pierson & Skocpol, 2002, p. 9). In other words, an event develops into a chain of increasing processes that eventually lead to a certain outcome, while the processes evolve over an extensive time period (Mahoney et al., 2016, p. 77). In this case, incremental causal processes can be operationalized as the separate sequences within the self-reinforcing sequence process. The separate incremental steps evolve steadily in time, and eventually form a path to a certain outcome (Mahoney et al., 2016, pp. 77-84)

#### **4.3. Method**

The method that will be used to conduct the analysis is process-tracing (Toshkov, 2016, p. 297). Process tracing can be useful in qualitative research when conducting a within-case analysis (Collier, 2011, p. 823). The first reason why this is a reasonable method for this thesis, is because process-tracing can detect developments between a factor and an outcome, which increases the internal validity (Gerring, 2007, pp. 173-184, as cited in Blatter & Haverland, 2012, p. 79). Furthermore, process-tracing is often useful in qualitative research in order to test or build causal mechanisms (Blatter & Haverland, 2012, p. 88). An additional benefit of process tracing is that significant information can be gathered from within-case data about causal chains and the way in which they operate in practice (Beach, 2020). The type of process-tracing that will be used in this thesis, is “theory-testing process tracing”, which means hypotheses are deduced from an existing theory (Beach & Pedersen, 2019, p. 9). These hypotheses then will be tested with the aim to derive a causal connection between a mechanism and the outcome (Beach & Pedersen, 2019, pp. 9-10). In this case, a series of events will be analyzed that may have contributed to the maintenance of the euro’s international position prior to and subsequent to the eurozone crisis, while focusing on deriving causal mechanisms that connect these series of events (Toshkov, 2016, p. 298). The question is rather how the method of process-tracing will be used in this thesis. Toshkov (2016, p. 299) describes that document analysis is a useful tool to collect data. Document analysis is defined as a process of examining relevant documents in a structured manner (Bowen, 2009, p. 27). Collecting, identifying, evaluating, and analyzing data is included in document analysis (Bowen, 2009, p. 28). In order to test the assumptions made in chapter 3, document analysis will be used to trace relevant and specific sources that are related to the maintenance of the euro’s international position. In addition, the aim is to derive causal mechanisms linked to the series of events that occurred before and after the eurozone crisis, starting from the



introduction of the euro in 1999. The use of document analysis as a component of process-tracing will act as a tool to derive an answer to the research question.

#### **4.4. Validity and reliability**

In qualitative research, the methods used to acquire validity and reliability is different than in quantitative research. In qualitative research, validity concerns the level of trustworthiness and implementation of the applied methods, as well as how precise the results reflect the collected data (Noble & Smith, 2015, p. 34). As for reliability in qualitative research, it is achieved when the results derived from the analysis will be similar if the entire process of the research would be repeated (Noble & Smith, 2015, p. 34). Achieving validity and reliability can be a challenge in qualitative analysis, as this type of research is prone to subjectiveness, meaning that the researcher's own beliefs can affect the research (Noble & Smith, 2015, p. 34). To minimize this problem as much as possible, the methods used in the analysis will be as specific as possible with a clear operationalization (Toshkov, 2016, p. 117). Applying a “thick description” within the research will provide a justifiable research method, a transparent process, a detailed and complete data collection, and a clarified analysis (Higgs, 2001, as cited in Curtin & Fossey, 2007, p. 90).

Furthermore, the term validity can be deconstructed in two types: internal validity and external validity. Internal validity implies that the causal relationships derived from the analysis are not influenced by external factors, otherwise the research would be vulnerable to biases (Andrade, 2018, p. 499). To ensure internal validity in this research, a tool named “data triangulation” can be used, which refers to using a set of various data sources to collect diverse information in order to provide multiple perspectives (Begley, 1996, as cited in Curtin & Fossey, 2007, pp. 90-91). Triangulation in general is a method used to increase the validity and reliability of a research (Kaman & Othman, 2016, p. 351). Sources such as the ECB’s annual report regarding the use of the euro outside the euro area, speeches, documents from EU institutions and institutions outside the EU will be analyzed and linked to each other to increase the internal validity. External validity concerns the legitimacy of the findings for the intended analyzed group, so that the results can be generalized to a wider group (Toshkov, 2016, p. 248). Toshkov (2016, p. 304) stresses the difficulty to ensure external validity when applying a single-case study as exclusively one case is being analyzed, which results in complications to generalize the results to a wider population. To achieve external validity as much as possible, the position of the euro as an international reserve currency will be compared to the period before and after the eurozone crisis, to

ensure that the results are not limited to the crisis itself. Subsequently, this comparison of the euro's international position in different time periods should execute a comprehensive and detailed analysis that may be applicable to a wider population.

## 5. Empirical findings and analysis

### 5.1. Empirical findings

Before the analysis can be started, it is necessary to gather empirical findings of important events that occurred which can explain the position of the euro as an international reserve currency before and after the eurozone debt crisis. The specific time frame of the analysis will start from the year 1999, which is the year the euro was introduced (European Central Bank, 2022c). The time frame will end in 2022, because it is the last year covered in the annual review of the ECB regarding the international role of the euro (European Central Bank, 2023a). In addition to the findings regarding the international role, there will also be a focus on the period of the eurozone debt crisis which started in 2009 and ended in 2012 (Samarakoon, 2017, p. 119).

#### The EU Treaties

In the year of 1957, a treaty was signed by several EU countries in order to establish an economic union, also known as the Treaty of Rome (European Parliament, n.d.). This treaty initiated the development of two new communities: The European Economic Community (EEC) and the European Atomic Energy Community (EAEC) (European Parliament, n.d.). The Treaty of Rome was signed by six EU countries: the Netherlands, Germany, Belgium, Luxembourg, Italy, and France (EUR-Lex, 2017). The specific goal of the EEC was to generate a common market between the six countries, to provide the freedom to move capital, individuals, goods, and services (EUR-Lex, 2017). A common market implies a harmonization of the economic policies of the countries involved (EUR-Lex, 2017). Thus, the EEC was an important step towards EU economic integration. However, the motivation to increase EU integration depreciated in the midst of the 1970s due to great inflation and high levels of unemployment (European Council, 2023e). Nevertheless, as time passed to the 1980s, the motivation for EU unification emerged once again when the single market was established (European Council, 2023e). This tendency for further integration came into practice with the establishment of the Maastricht Treaty in 1992, which is based on three pillars (European Council, 2023e). The first pillar involves “European communities”, meaning the member states involved in the EEC have to ensure an effective single market with steady economic processes (European Parliament, 2023a, p. 2). The second pillar is named the “common foreign and security policy”, which was mainly aimed at establishing a unified international and security policy and protecting the unified values (European

Parliament, 2023a, p. 2). Furthermore, “cooperation in the fields of justice and home affairs” involves the third pillar, which aims at preserving safety within the union with measures such as border control and tackling terrorism (European Parliament, 2023a, p. 2). With the establishment of the Maastricht Treaty, the European Union (EU) was formed (European Union, n.d.-a). In addition, the Economic Monetary Union (EMU) was founded, initially aimed at harmonizing the economic and fiscal policies of the member states with a unified monetary policy controlled by the ECB (European Commission, n.d.-a). Eventually, in 1999, the Maastricht Treaty pushed EU integration to a next level by introducing a common currency for all member states: the euro (European Central Bank, 2022c; European Council, 2023e). The introduction of a single currency is seen as one of the most important steps for further economic integration in the EU (European Council, 2023e). Thereafter, the Treaty of Amsterdam was signed in 1997, followed by the Treaty of Nice in 2001. Both treaties were aimed at preparing EU institutions for possible new member states (European Union, n.d.-a). Last but not least, EU integration was further expanded with the establishment of the Treaty of Lisbon in 2007 (European Parliament, 2023b, pp. 1-2). This treaty allowed more power to the EU parliament in terms of legislation, meaning the EU as an institution has the power to sign international treaties whereas member states can only do so if it's in line with EU legislation (European Parliament, 2023b, p. 2)

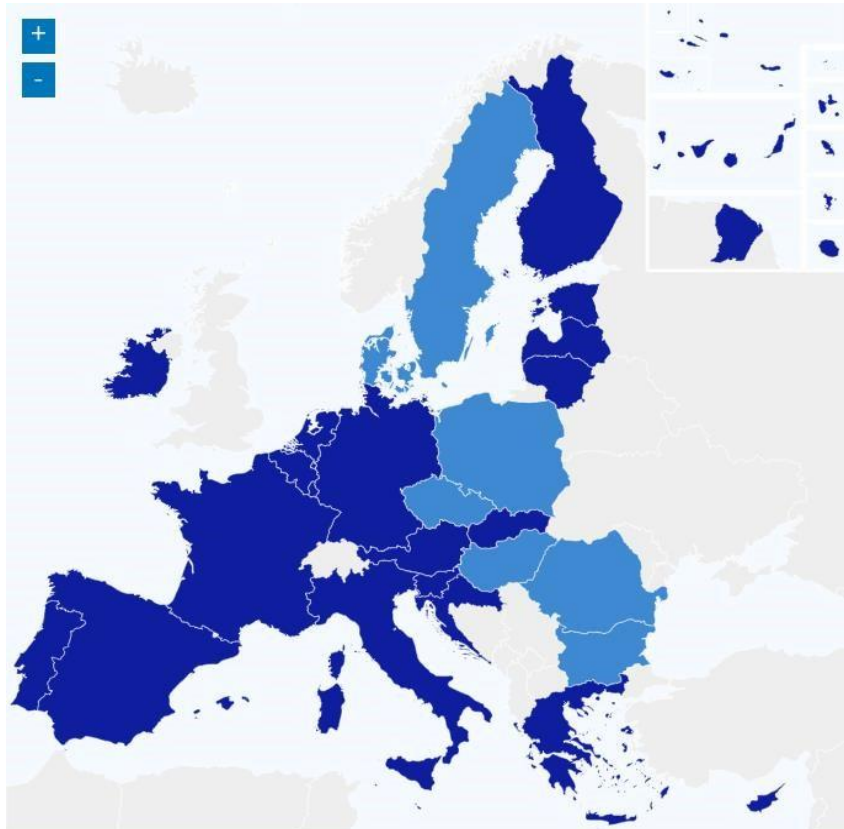
### **The introduction of the Euro**

On the first day of 1999, a common EU currency was introduced: the euro (European Central Bank, 2022c). However, it was not until 2002 when the currency could be used as cash, with which the euro replaced various national currencies such as the Dutch “gulden” (European Central Bank, 2022c). At the time the euro was implemented, only eleven EU countries adopted the collective currency (European Council, 2023b). The countries involved then were Italy, France, Germany, Austria, Spain, Finland, Portugal, Ireland, Luxembourg, Belgium, and the Netherlands (European Council, 2023b). Moving along to the year of 2001, Greece was introduced as a new member of the eurozone. A couple years later in 2007, Slovenia adopted the common currency as well and was followed by Cyprus and Malta in 2008. Then, from 2009 till 2015, Slovakia, Estonia, Latvia, and Lithuania decided to replace their national currencies with the euro. Lastly, in 2023, Croatia has been the last member to join the eurozone after the announcement in 2022 (European Council, 2023b). Nowadays, the euro is used for cash payments by around 350 million citizens and

thereby the common currency is an important character in EU economic integration (European Central Bank, 2022c). Figure 2 illustrates the countries that are part of the EU, for which the dark blue colored countries are eurozone members and the light blue colored countries are non-eurozone members (European Central Bank, 2022c).

**Figure 2**

*Map of the eurozone*



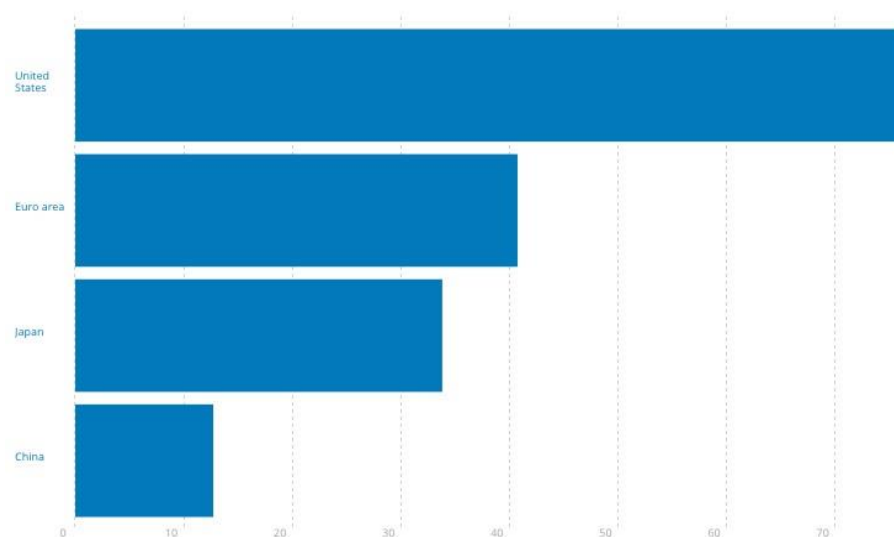
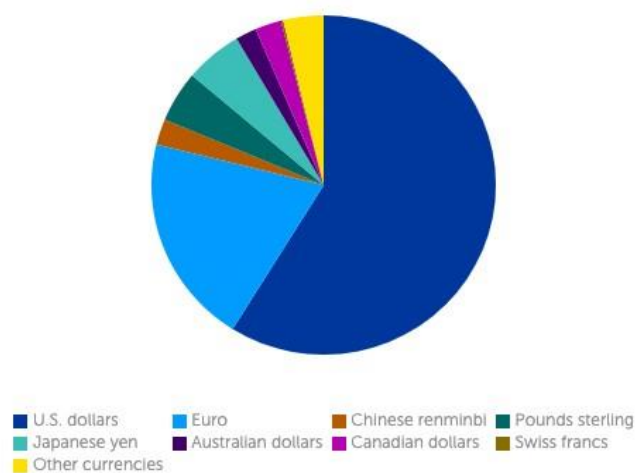
*Note.* Adapted from the European Central Bank (2022c).

### **Expansion of the eurozone**

As of the latest data, twenty countries are included in the eurozone (European Council, 2023c). Before collecting evidence about the expansion of the eurozone and EU integration, the conditions at which a member state is allowed to enter the eurozone will be described first. Before an EU member state is allowed to adopt the euro, certain requirements must be met, which are named the “convergence criteria” and are included in the Maastricht Treaty (European Council, 2023c). The criteria are based on economic and judicial requirements that member states must meet before entering the eurozone. Every two years

at the minimum, the ECB and the European Commission inspect if an EU member state is eligible to implement the euro, that is if the state has met the convergence criteria (European Council, 2023c). Eventually, the rule is that every member state within the EU is required to adopt the euro when they are eligible to do so, however Denmark is excluded from this rule and has officialized this exclusion in EU treaties (European Council, 2023c). The Council of the European Union has the privilege to decide if a member state may enter the eurozone, which is allowed after the European Commission's suggestion and when the European Parliament has been informed (European Council, 2023c). Before the Council has the right to decide, a greater number of eurozone member states must first recommend a country to the Council if it has met the convergence criteria (European Council, 2023c). Despite the fact that the European Council holds the power to decide whether a country can enter the eurozone, it is written down in EU law that the ultimate decision depends on the EU member states (European Council, 2023c). When a country is prepared to adopt the euro, the conversion rate comes into the picture (European Commission, n.d.-e). This conversion rate ensures that when the national currency is replaced with the euro, it is done at a fixed rate (European Commission, n.d.-e).

Both the EU treaties and the introduction of the euro contributed to an expansion of EU integration (European Council, 2023e). Figure 3 demonstrates a comparison of the world's largest economies in 2022 based on the gross domestic product (GDP) per capita (The World Bank, 2022). As can be understood from figure 3, the eurozone is the second most powerful international economy after the United States. Regarding the role of international reserve currencies, figure 4 illustrates that the US dollar remains the main international reserve currency with its highest share of allocated reserves (International Monetary Fund, 2023b). Regarding the position of the euro, figure 4 illustrates that the euro obtains the second highest allocated reserves. The analysis in the following chapter will clarify the mechanisms between enhanced EU integration, the eurozone's strong global economy, and the international position of the euro as a reserve currency. Before these developments can be analyzed, empirical findings will first be gathered concerning the economic and financial crises the eurozone had to endure. This is important because the eurozone debt crisis may have acted as a pivotal event followed by sequences that led to the outcome of the euro's maintained international position.

**Figure 3***Global economies by GDP per capita in 2022**Note.* Adapted from The World Bank (2022).**Figure 4***Allocation of currency reserves in the second quarter of 2023**Note.* Adapted from the International Monetary Fund (2023b).**The Global Financial Crisis and eurozone debt crisis**

Once the Global Financial Crisis emerged in 2008, the eurozone was confronted with a second crisis shortly afterwards: the sovereign debt crisis, also known as the eurozone debt

crisis (Lane, 2021, p. 6). A noteworthy question in light of this thesis, is why the euro managed to maintain its position as an international reserve currency after these critical financial and economic setbacks. Moreover, it is important to address the shortcomings of the eurozone regarding crisis management and prevention at the time, and to reflect on the lessons learned by the crises. The Global Financial Crisis and the eurozone debt crisis, also labeled as the “twin crises”, challenged the eurozone and its currency (Lane, 2021, pp. 6-20). Lane (2021, p. 6) discovered that prior to the financial crisis, macroeconomic disparities were present within the eurozone. He argues that the implementation of the euro caused an unequal economic shock to the eurozone, because member states’ economic conditions were not aligned. In other words, an uneven economic status within each member state at the time they implemented the euro, caused economic imbalances within the eurozone prior to the crises (Lane, 2021, p. 6). A second important shortcoming is that the eurozone was not prepared enough for financial crises, due to insufficient methods to tackle the crisis on a unified level (Lane, 2021, p. 6). According to Lane (2021, p. 6), this shortage of unified crisis management methods is a fundamental reason why the global financial crisis was almost immediately followed by the eurozone debt crises. Lane (2021, p. 7) furthermore argues that after the eurozone debt crisis, specifically in the period from 2014 until 2019, a more aligned growth of the GDP between members of the eurozone is observed compared to before the emergence of the crisis. When reflecting on inflation, it appears to have risen slightly after the crisis but stayed under the ECB’s target of two percent (Lane, 2021, pp. 7-8). Overall, the observed economic disparities across eurozone member states depreciated after the eurozone debt crisis (Lane, 2021, p. 8).

Although the eurozone did not possess strong tools to manage the crises beforehand, the euro has been perceived as a resilient currency after it endured two major financial and economic crises (Lane, 2021, p. 20). Various factors were responsible for the resilience of the euro. To begin with, resilience is defined as the ability to manage macroeconomic shocks (Jollès et al., 2023, p. 2). The first factor that can explain the euro’s resilience, is the implemented collective measures by EU institutions to ease the economic and financial effects of the crises (Lane, 2021, pp. 11-12). One of the first measures implemented was the provision of bailouts to Greece, the country that was billions of euros in government debt (McBride, 2017). This package was provided by the EU together with the International Monetary Fund (McBride, 2017). This particular measure was an element of the European Financial Stability Facility, a program that offered a short-term financial package to Greece along with a few other eurozone members that needed financial support (European Stability



Mechanism, n.d.). When the year 2012 arrived, the EU agreed to establish a collective funding measure to protect member states from financial shocks, also known as the European Stability Mechanism (ESM) (Lane, 2021, p. 12). In addition, the ESM prevented major investments by private investors that might exceed the target of sovereign debt (Lane, 2021, p. 12). The ESM acts as a tool with which loans are available for eurozone member states who find themselves in a financially instable situation, and therefore acts as a crisis management tool to protect the eurozone and its members from a critical financial downturn (European Stability Mechanism, 2016). Following the establishment of the ESM, the ECB could implement a monetary policy based on providing liquidity in the market of government debts for member states who were included in the ESM (Lane, 2021, p. 13). Liquidity is defined as the speed at which money can be accessed (The Economic Times, n.d.). Moving on to July 2012, former ECB president Mario Draghi, delivered a speech regarding the strength of the euro during the crisis, and argued that the ECB is willing to do “whatever it takes” to safeguard the euro (European Central Bank, 2012b; Lane, 2021, p. 13). This promise of Draghi was kept when the ECB introduced a program named Outright Monetary Transactions (OMT) (Lane, 2021, p. 13). The primary goal of this program is to ensure a proper common monetary policy (European Central Bank, 2012a). The OMT program includes several important characteristics. The first characteristic is that there is no maximum set for outright transactions when the ECB and member states engage in the bond market (Altavilla et al., 2014, p. 4). The second characteristic is when bonds are purchased, the amount must be repaid within a timeframe of three years (Altavilla et al., 2014, p. 4). Finally, the third characteristic is that bonds can only be purchased under certain circumstances (Altavilla et al., 2014, p. 4). One condition that the ECB holds is that the state engaging in the bond market must have been involved in the European Financial Stability Facility or ESM program (European Central Bank, 2012a). Eventually, the combination of the OMT and the ESM acted as a critical defense mechanism to tackle the eurozone debt crisis, and eventually were the main factors for the end of this financial and economic downturn in 2012 (Lane, 2021, p. 13).

### **Quantitative easing**

In 2015, the ECB implemented an advanced asset purchase program (APP), in which quantitative easing (QE) was presented as a new element (Delivorias, 2015, p. 1). The goal of this measure was to expand the eurozone’s economic development (European Central Bank, 2021b). The ECB applies this measure by obtaining bonds from other banks.

Subsequently, this results in additional money in the banking sector as the price of these bonds rise (European Central Bank, 2021b). As a result, interest rates decrease, and the price of loans will be lower (European Central Bank, 2021b). In return, this leads to more investments and consumption, leading to a growing economy. Eventually, the rising prices will bring the inflation rate back to the ECB's aim of two percent (European Central Bank, 2021b).

### **Banking Union**

The Banking Union (BU) was established in 2014 to ensure a financially solid eurozone and EU as a whole, and with its introduction the EMU was further enhanced (European Council, 2023d). The BU was established to ensure stable banks that are able to overcome financial crises, with which it fulfilled the demand for more regulation regarding the EU's financial system (European Council, 2023d). The financial crisis and the eurozone debt crisis shed light on the need for more coordination regarding the EU's financial system (European Council, 2023d). Important to analyze in the next chapter, is whether a collective banking system subsequently affected the euro's international role. The reason for this importance, is because this event might be an additional factor why the euro's role as an international reserve currency has been maintained.

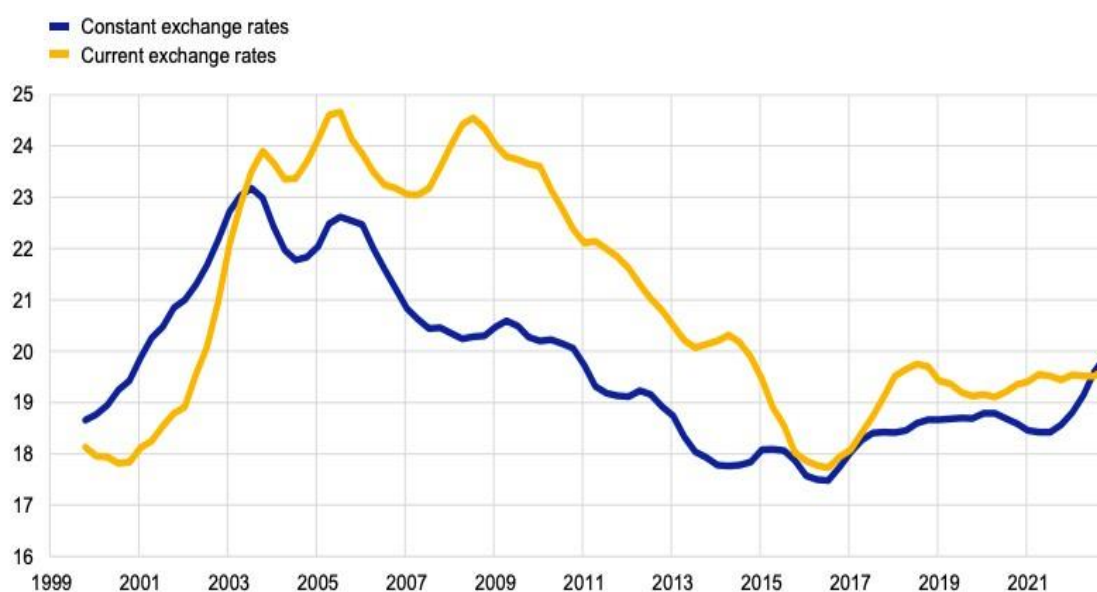
### **Findings of the European Central Banks' annual reviews**

The ECB publishes a review each year regarding the international usage of the euro by those outside the eurozone, in which it discusses the status of the euro's position based on exchange rates and foreign reserves (European Central Bank, 2023a; European Central Bank, 2023b). What can be derived from the multiple annual reviews, is that the current exchange rate of the euro has remained stable or gone upwards from 2020 till 2022 (European Central Bank, 2021a, p. 3; European Central Bank, 2022d, p. 3; European Central Bank, 2023a, p. 3). In the years prior to 2020 but after the eurozone crisis, the exchange rate of the euro has faced depreciations, increases and stabilizations (European Central Bank, 2015, p. 4; European Central Bank, 2016, p. 6; European Central Bank, 2017, p. 15; European Central Bank, 2018, p. 4; European Central Bank, 2019, p. 5; European Central Bank, 2020, p. 3). Figure 5, which is demonstrated underneath, illustrates a graph which involves the current and constant exchange rate of the euro starting from its introduction in 1999 until 2022. The main conclusion of this graph is that the euro's

international position has remained resilient in 2022 (European Central Bank, 2023a, p. 3). The constant rate implies that it is adjusted for inflation impacts, while the current rate is affected by inflation (The World Bank, n.d.). The international role of the euro is measured by calculating the average share of the euro in international bond stocks, foreign exchange reserves, foreign exchange arrangements, banks providing loans to borrowers outside the eurozone, and deposits placed in banks by creditors outside the eurozone (European Central Bank, 2023a, p. 3). Besides its own measurements, the European Central Bank (2023a, p. 3) retrieved data from other sources as well, which are mentioned underneath figure 5.

**Figure 5**

*Euro exchange rates from 1999 up to the fourth quarter of 2022*



*Note.* Adapted from European Central Bank (2023a, p. 3).

*Sources:* Bank for International Settlements (BIS), International Monetary Fund (IMF), CLS Bank International, Ilzetzi, Reinhart and Rogoff (2019) and ECB calculations.

The European Central Bank (2023a, p. 54) argues that the euro's growing importance in foreign exchange comes at a cost for the US dollar. However, it remains difficult for the euro to surpass the US dollars' position as the number one most important international reserve currency. Two speculations are given for the striking increase of the use of the euro in foreign trade between 1999 and 2019, while the US dollar's use declined (European Central Bank, 2023a, p. 54). The first speculation is the existence of a "trade shock", which implies that countries that have a trade connection with the eurozone shift to using the euro

in foreign trade transactions (European Central Bank, 2023a, p. 54). The second speculation is that there might be an “exchange rate volatility shock”, which means more use of the euro in foreign trade leads to a shift towards euro invoices (European Central Bank, 2023a, p. 54). It is of importance to consider that these are only speculations, however the European Central Bank (2023a, p. 54) did examine the significance of these two shocks. First, they concluded that a trade shock is an important factor of the growing use of the euro by countries surrounding the eurozone, in terms of foreign exchange. The increase in the usage of the euro in trade by nearly 40 percent between 1999 and 2019 can be linked to growing trade connections between the eurozone and its surrounding countries (European Central Bank, 2023a, p. 54). Considering the second speculation, the selection of the invoicing currency can be explained by their personal as well as their trade connections’ and rivals’ trade framework and exchange rate volatilities (European Central Bank, 2023a, p. 54). Overall, only the first speculation suggests a significant outcome, which implies that trade connections between the eurozone and surrounding countries is a significant factor for the greater use of the euro in foreign trade (European Central Bank, 2023a, p. 54).

### **Geopolitical factors**

Geopolitical factors, such as the war in Ukraine since Russia’s invasion, have consequences for international currencies, including the euro (European Central Bank, 2023a, p. 41). The moment the war emerged, Russia was faced with various sanctions which includes cutting off the foreign exchange reserves of their central banks (European Central Bank 2023a, p. 41). This “freezing” of reserves impacts the international role of the euro as well as other international currencies. One impact of the war is that the extent of international economic coordination and integration may suffer a decrease (European Central Bank, 2023a, p. 41). The reason for this could be that countries might shift to more cooperation with their political alliances (European Central Bank, 2023a, pp. 41-42). Thus, the global financial system would become more separated due to geopolitical effects. This separation within the monetary system can lead to less countries using the dollar or the euro as an anchor currency in international trade, due to those currency’s nations introducing the sanctions on Russia (European Central Bank, 2023a, p. 42). Furthermore, the European Central Bank (2023a, p. 42) argued that a more separated global financial system has significant effects. For example, they imply that this separation leads to less need for foreign exchange reserves which consequently causes more volatility in exchange rates.

## 5.2. Analysis

In the analysis, the theory of historical institutionalism will be used along with the method of process-tracing to derive a precise as possible answer to the research question. As described in chapter 1, the analysis will focus on deriving causal mechanisms that relate to the euro's role as an international reserve currency since its introduction and the effects of the eurozone debt crisis on this role. At first, the possible critical junctures will be analyzed. After the critical junctures have been established, the self-reinforcing sequence-process will be explicated. It is important to separate the euro's development as an international reserve currency before and after the eurozone crisis occurred. This will produce a comprehensive analysis and will clarify whether certain mechanisms were present following the eurozone crisis that affected the path of the euro. The goal of this chapter is to test the assumptions made in chapter 3, and to find out whether these assumptions are valid. Eventually, an answer to the research question can be derived after testing the hypotheses.

### 5.2.1. Critical junctures

The first hypothesis that will be analyzed is formulated as described in chapter 3: *Critical junctures were present that affected the development and maintenance of the euro's role as an international reserve currency before, during, and after the eurozone debt crisis.* As a reminder, a critical juncture is described as a pivotal event in time at which various options can be chosen, and the decision chosen determines the path that will be pursued, ultimately unlocking a path-dependence process towards a certain outcome (Capoccia, 2016, pp. 89-90). This section has the goal to explain the possible critical junctures regarding the maintenance of the euro's international role at first. Followed by the explanations, it will be verified whether these events acted as critical junctures.

### The introduction of the Euro

Hartmann and Issing (2002, pp. 321-336) argue that two factors determine the maintenance and growth of a currency's international role: price stability and a strong monetary union. Within three years since the implementation of the euro, the currency became the second most important global currency (Hartmann and Issing, 2002, p. 342). This suggests that the introduction of the euro already had an international aspect since its start. From 1999 till 2002 there has been a strong increase in "euro-denominated international bonds", "notes", and "money market instruments" (Hartmann & Issing, 2002, p. 342). In this case, international bonds refer to a bond issued by a borrower outside the eurozone and

denominated in the euro (Bank for International Settlements, 2019). Moreover, notes refer to a debt that is not secured, meaning the borrower must only pay off the debt, and has to be able to repay the debt (Dodd, 2012, p. 46). Considering the term “money markets”, it is defined as a part of the global financial system whereby assets are purchased and traded, with a maximum repayment period of one year (Dodd, 2012, p. 46). In addition, more international banks steadily started to invest in the euro (Hartmann & Issing, 2002, p. 342). The data from Hartmann and Issing (2002) suggests that the introduction of the euro had a significant impact on the international role of the euro. The question then arises whether this international effect was intended. The ECB focused on preserving price stability of the euro, which is an important factor for advancing and sustaining the international position of the euro (Frenkel & Goldstein, 1999; Maehara, 1993; Tavlas, 1991, as cited in Hartmann & Issing, 2002, p. 321). Price stability is also referred to as internal stability. Internal stability indicates a stable currency in the sense that foreign investors are assured that the purchasing power of their assets will be maintained (Hartmann & Issing, 2002, p. 321). Alongside price stability, external stability is important as well, which implies a stable exchange rate that is not expected to continuously decrease (Hartmann & Issing, 2002, p. 321). According to Hartmann & Issing (2002, p. 321), price stability is maintained if the increase in inflation remains less than two percent every year, which is measured within the “harmonized index of consumer prices” (HICP). The HICP measures inflation of consumer prices in the eurozone, also known as the gradual difference in prices of goods and services bought by eurozone citizens (European Central Bank, 2023c). The ECB preserves price stability by examining the future inflation and by collecting data about factors such as wages and the exchange rate to analyze specific changes that might interfere with the international role of the euro (Hartmann & Issing, 2002, p. 331). A stronger international position of the euro could be linked to the degree of exchange rate volatility, and in turn the exchange rate is used as a tool to measure external influences on the price level of goods and services within the eurozone (Hartmann & Issing, 2002, pp. 331-342). All things considered, the findings from Hartmann & Issing (2002) suggests that the monetary policy of the ECB to preserve price stability contributed to a stronger international role of the euro. As a result, the introduction of the euro can be seen as a critical juncture, as it is a pivotal event that directly contributed to the internationalization of the euro due to the monetary policy by the ECB based on the maintenance of price stability. However, the introduction of the euro does not appear to have instantly unlocked a causal chain of incremental decisions to internationalize the euro. The reason for this, is because the ECB specifically focused on

maintaining price stability, which did contribute to the euro's developing international position at the time (Hartmann & Issing, 2002, pp. 315-321). Although expansion of the eurozone did occur after the euro was introduced in 1999, it was only during and after the eurozone debt crisis when more policies regarding the protection of the euro emerged (European Council, 2023b; Lane, 2021, pp. 11-12; European Central Bank, 2012a). The question then arises is whether the eurozone crisis or an alternative event initiated a causal chain of sequences, leading to a maintained international role of the euro. What can already be clarified, is that the eurozone crisis increased the need for stronger governance of the monetary union (European Commission, 2014). A strong monetary union includes price stability, and price stability leads to confidence in the euro for foreign investors (European Commission, n.d.-b; Hartmann & Issing, 2002, p. 321). Thus, without the introduction of the euro and the ECB's policy to maintain price stability, the euro would not have maintained its international position.

### **The eurozone debt crisis**

Shifting the focus from established mechanisms as a response to the crisis, to the eurozone debt crisis itself, the question arises whether the eurozone debt crisis acted as a critical juncture regarding the maintenance of the euro's international role. Subsequent to the year of 2010, after bailouts were provided to eurozone member states that were experiencing high sovereign debt, two significant measures were implemented in 2012 by EU institutions with the aim to tackle the eurozone debt crisis and to manage future crises: the European Stability Mechanism (ESM) and the Outright Monetary Transactions (OMT) (McBride, 2017; Lane, 2021, pp. 11-13). Taking this information into account together with the previous described empirical findings, it can be suggested that the crisis itself did not lead to immediate action to strengthen the international role of the euro, but rather to an incentive to strengthen the economy and financial system within the borders of the eurozone and the EU as a whole. The justification for this, is because the path taken by EU institutions subsequent to the eurozone debt crisis was based on multiple policies, such as the ESM and OMT, in order to strengthen the eurozone and the monetary union as a whole (Lane, 2021, pp. 11-12; Scheinert, 2023, p. 3). In turn, a stronger monetary union is connected to an enhanced international position of the euro (European Central Bank, 2022a). After the ESM and OMT were introduced, more policies were implemented in the following years with regard to crisis management and a stronger EMU. These measures will be further analyzed in the next section as well as in the analysis of self-reinforcing sequences. All things

considered, it can be suggested that the eurozone debt crisis initiated a sequence process of crisis management tools. Because these measures were aimed at strengthening the EMU, which in turn is connected to a stronger international euro, this event is perceived as a critical juncture (Lane, 2021, pp. 11-12; Scheinert, 2023, p. 3; European Central Bank, 2022a). The precise self-reinforcing sequence process will be analyzed in section 5.2.2.

### **The European Stability Mechanism**

The European Stability Mechanism (ESM) was established in 2012 as a response to the eurozone debt crisis (Lane, 2021, pp. 11-12). This mechanism acts as a tool to protect member states from high sovereign debt and from financially instable circumstances (Lane, 2021, p. 12). The question that arises is whether the ESM was a critical juncture or a part of the sequence process that contributed to the maintenance of the euro's international role. As previously described, a critical juncture is an unforeseeable event in time which leads to a certain path being taken by institutions, thereby eliminating other options (Capoccia, 2016, pp. 89-90). Considering the introduction of the ESM was a direct response on the crisis with the aim to protect member states from high sovereign debt, it is perceived as a prevention and management tool for future crises (European Stability Mechanism, 2016; Lane, 2021, pp. 11-12). As a result, the ESM is not defined as a critical juncture. This particular mechanism was a response to the crisis itself in order to enhance crisis management tools in the case of financially imbalanced situations within the eurozone (European Stability Mechanism, 2016). Hence, the aim of the ESM was not to expand the international role of the euro. However, the ESM may have had indirect effects on the international strength of the euro due to its contribution to protect the financial stability of the eurozone and to a stronger EMU (Lane, 2021, p. 12; Scheinert, 2023, p. 3). Securing the financial stability of the eurozone strengthens the trust in the euro for foreign investors, and in turn a stronger international position of the euro benefits the eurozone as well as the global financial system (Strauch & Hudecz, 2021). In turn, a more developed monetary union is associated with a stronger international perspective of the euro (European Central Bank, 2022a).

### **Outright Monetary Transactions**

To resume, the Outright Monetary Transactions (OMT) program will be analyzed regarding the possibility of a critical juncture. As explained in the empirical findings, the OMT was a



tool introduced by the ECB in 2012 to ensure a strong and coordinated monetary policy within the eurozone (European Central Bank, 2012a). This suggests that the OMT was yet another defense mechanism against a future financial crisis that could damage the eurozone and its currency. Again, preserving a financially stable union does provide a perspective of a strong and stable international currency (European Central Bank, 2022a). However, this does not directly suggest that the introduction of the OMT is a critical juncture regarding the maintained international role of the euro. The direct aim of the OMT was to allow the unlimited purchasing of bonds by the ECB, also described as a loan, to prevent instability in the EMU (Gilbert, 2019, p. 5; Altavilla et al., 2014, p. 4). When analyzing whether the OMT is a critical juncture, the same conclusions can be drawn as those of the ESM. The OMT is established as a prevention and management tool to protect the EMU's monetary policy (European Central Bank, 2012a). As a result, the introduction of the OMT led to an enhancement of the EMU framework, because EU leaders called for a stronger governance structure regarding the EMU (Scheinert, 2023, p. 3). Again, enhanced monetary coordination and integration within the eurozone is connected to a stronger international position of the euro (European Central Bank, 2022a). Subsequently, the introduction of the OMT had an indirect positive effect on the international role of the euro and thereby it is a contribution to the sequence process.

### **Quantitative easing, Banking Union, and finalizing EMU**

Subsequent to the ESM and OMT programs, quantitative easing (QE) was implemented as a measure by the ECB in 2015 (Delivorias, 2015, p. 1). The aim of QE was to bring inflation back to the ECB's aim of two percent (European Central Bank, 2021b). Similar as the ESM and OMT, QE acted as an additional tool to strengthen the eurozone. Except, the motive of QE is to manage economic imbalances in order to stimulate economic development within the eurozone (European Central Bank, 2022e). Thus, it can be suggested that QE has contributed to a stronger and stable economy and monetary union. As previously mentioned, a stronger EMU contributes to increased international interest in the euro (European Central Bank, 2022a). However, this indirect effect is not sufficient for QE to be considered a critical juncture, as it did not act as a pivotal moment which initiated a process of gradual change. Similar to QE, the establishment of the Banking Union along with the initiative to finalize the EMU were aimed at strengthening the EMU as well (Andrade et al., 2016, p. 50; European Commission, n.d.-f, European Commission, 2015). Thus, the

suggestion can be made that the three initiatives did not act as a critical juncture regarding the maintenance of the euro's international role. Quantitative easing, the Banking Union, and finalizing the EMU are rather perceived as elements within the self-reinforcing sequence process, and these measures will be extensively analyzed underneath.

### **5.2.2. Self-reinforcing sequences**

The second hypothesis that will be analyzed is formulated as follows: *Initiated by a critical juncture, a path-dependent causal chain of self-reinforcing sequences was developed leading to the maintained international role of the euro.* As stated in chapter 3, self-reinforcing sequences are defined as a process of steps initiated by a critical juncture, with each step taken reinforcing the path towards a certain outcome (Mahoney et al., 2016, pp. 77-83). Thus, each step diminishes the likelihood of other outcomes and increases the possibility that the particular path will be pursued (Mahoney et al., 2016, p. 83). Based on the analysis of critical junctures above, the process of self-reinforcing sequences regarding the maintenance of the euro's international role will be analyzed.

### **The introduction of the euro and the eurozone debt crisis**

As stated above, the introduction of the euro and the eurozone debt crisis are seen as pivotal events. To begin with, the introduction of the euro led to the monetary policy of the ECB aimed at maintaining price stability (Hartmann & Issing, 2002, p. 315). The question that arises is whether the introduction of the common currency unlocked a process of increasing returns that determined a certain path for future decisions. As previously described, the ECB preserves price stability by analyzing inflation rates and various economic factors (Hartmann & Issing, 2002, pp. 321-342). Besides, analyzing these factors can foresee developments in the international role of the euro (Hartmann & Issing, 2002, pp. 321-342). The price stability policy was a direct response to the introduction of the euro, and in turn preserving price stability is a fundamental factor for maintaining the international position of a currency, as a stable price attracts foreign investors (Hartmann & Issing, 2002, pp. 315-321). Since the introduction of the euro, the currency was soon extensively used in international bonds and nearly replaced the position of the dollar (Stark, 2000, p. 2). However, the dollar maintained the position as the most important international currency (Hartmann & Issing, 2002, p. 339). Although the adoption of the common currency was followed by a powerful international position, it did not directly initiate a process of self-

reinforcing sequences that pursued a path to the maintenance of its role. Despite that the introduction of the euro was an important step for EU integration, this event was not immediately followed by incremental sequences, based on the empirical findings described above (European Council, 2023e). Nevertheless, once the eurozone debt crisis emerged, EU institutions responded by implementing incremental policies to enhance the strength of the EMU (Scheinert, 2023, pp. 3-4). As previously stated, a stronger international interest in the euro is connected to a strengthened monetary union (European Central Bank, 2022a). Thus, with respect to this analysis, the self-reinforcing sequence process will start with the eurozone debt crisis.

### **The OMT and ESM**

The monetary policy of the ECB based on maintaining price stability appears to have had positive effects for the international development of the euro (Hartmann & Issing, 2002, p. 321). However, as stated in the empirical findings, the emergence of the eurozone debt crisis called for measures such as the ESM and OMT to tackle the crisis (Lane, 2021, pp. 11-13). As previously stated, the focus of the ESM and the OMT was mainly on the eurozone and on protecting their monetary union from financially unsettling situations (European Stability Mechanism, 2016). As a reminder, the ESM made loans available for eurozone members experiencing financial difficulties, and thereby this measure acts as a crisis management tool (European Stability Mechanism, 2016). In addition, the OMT was aimed at protecting the monetary union by allowing the ECB to purchase sovereign bonds from member states (European Central Bank, 2012a; Gilbert, 2019, p. 5; Altavilla et al., 2014, p. 4). Both measures acted as a response to the eurozone crisis and were critical factors for managing and ending the crisis (Scheinert, 2023, pp. 3-4; Lane, 2021, p. 13). However, as mentioned in the analysis of critical junctures, the ESM and OMT only had indirect effects on the international role of the euro, as their effects are found in their contribution to a stronger and stable eurozone which in turn relates to a stronger international role of the euro (Lane, 2021, pp. 11-12; Strauch & Hudecz, 2021; European Central Bank, 2022a). All in all, it can be implied that the ESM and OMT are part of a causal chain as they acted as tools to maintain a resilient euro during and after the eurozone debt crisis. The main reason for this, is because both measures appear to be an immediate response to the eurozone debt crisis. Besides, they appear to have caused a path-dependent process of similar established policies that were aimed at crisis prevention and management, and at strengthening and deepening the EMU. This specific path-dependent process of self-reinforcing sequences

will be further explained underneath, in which subsequent processes after the ESM and OMT will be analyzed.

### **The Banking Union**

To further strengthen financial coordination within the eurozone, the Banking Union (BU) was established in 2014, with which the EMU was further expanded (European Council, 2023d). The unified banking system contributed to a stronger and more stable eurozone, thereby preserving the strength of the euro (European Council, 2023d). The BU consists of two pillars. The first pillar is the Single Supervisory Mechanism (SSM) (European Council, 2022a). The SSM supervises the eurozone's credit institutions as well as credit institutions outside the eurozone that want to participate in the SSM (European Council, 2022a). The aim of the SSM is to broadly supervise the BU through solid guidelines and criteria, to secure the resilience, and give rise to a stable financial eurozone as well as the entire single market (European Council, 2022a). A single market within the EU indicates the freedom to move capital, individuals, goods, and services (European Union, n.d.-b). The rationale for this pillar was to enhance EU integration regarding the banking sector, as it would regulate the dangers of spill-over effects regarding banking crises within EU member states (European Council, 2022a). Besides supervising credit institutions, the SSM additionally tracks instability within the BU and aims to readjust this as soon as possible to prevent the problem spilling over to the entire EU (European Council, 2022a). A variety of EU institutions are supervising the SSM. First of all, the ECB is responsible for the general supervision of all banks within the eurozone together with the "national supervisory authorities" (European Council, 2022a). Whereas the ECB supervises the most important banks, the national authorities are responsible for the smaller banks. In addition, the supervisory tasks of the ECB are managed by a Supervisory Board (European Council, 2022a). Next, the Council of the EU selects the chair and vice chair of the Supervisory Board. At last, the European Banking Authority regulates the application of the "single rulebook", which is the regulation system of the eurozone's financial sector (European Council, 2022a; European Banking Authority, n.d.).

The BU also consists of a second pillar, known as the Single Resolution Mechanism (SRM) (European Council, 2022b). The aim of this pillar is to manage bank fails, thereby enhancing the financial stability for the eurozone and member states who participate in the BU (European Council, 2022b). The SRM aims to prevent the spill-over effect as well, but additionally ensures that decisions across member states of the BU are coordinated and that

banks do not solely have to rely on their national budget (European Council, 2022b). Within the SRM, the Single Resolution Board makes the decisions, which are mainly focused on deciding and preparing resolution plans (European Council, 2022b). Resolution regarding the banking sector refers to restoring banks by using specific resolution methods while keeping the costs to those paying taxes low (Single Resolution Board, 2023). Next to the Single Resolution Board, the second pillar also consists of the Single Resolution Fund, which is the fund used to restore a failing bank (European Council, 2022b).

Both pillars are fully functioning at the moment (European Council, 2023d). However, the third and last pillar of the BU has yet to be completed. This third pillar was introduced by the European Commission in 2015 and is known as the European Deposit Insurance Scheme (EDIS) (European Council, 2023d). The aim of the EDIS is to offer a unified insurance within the BU (European Commission, n.d.-f). This pillar would further contribute to an enhanced coordinated BU, thereby safeguarding the stability within the eurozone as a whole (European Council, 2023d). Despite the announcement of completing the BU, the legal procedure has been postponed until this day (European Commission, n.d.-f). On the whole, the main intention of the BU was to safeguard the financial area of the single market (European Commission, n.d.-f). This suggests that the BU was an important factor that contributed to the maintenance of the international position of the euro, because a stronger eurozone is related to more international interest in the euro (European Central Bank, 2022a). In addition, the establishment of the BU was a response to the eurozone debt crisis, which called for enhanced integration of the financial sector within the eurozone (European Commission, n.d.-f). Considering this information, the establishment of the BU is perceived as an element within the self-reinforcing sequence process after the emergence of the eurozone crisis as a critical juncture. The establishment of the BU was followed by an additional sequence event, which brings us to the next phase.

### **Quantitative easing**

Proceeding to the year of 2015, the ECB implemented an additional measure aimed at strengthening the monetary policy of the eurozone, named quantitative easing (Delivorias, 2015, p. 3; Andrade et al., 2016, p. 50). Quantitative easing is an element of the asset purchase program (APP) and implies that the ECB buys assets in order to bring the inflation level back to the aim of 2 percent (European Central Bank, 2022e; Andrade et al., 2016, p. 6). These assets include, among others, sovereign bonds and EU institutional securities (European Central Bank, 2022e). The goal of this measure was to expand the eurozone's

economy (European Central Bank, 2021b). As mentioned, a strong monetary union contributes to a more developed and cohesive eurozone, and additionally strengthens the common currency on EU and international level (European Commission, n.d.-b; Strauch & Hudecz, 2021). To briefly summarize the results so far, it can be implied that the eurozone crisis led to more need for crisis protection, which was achieved by strengthening the monetary union with measures, and these measures analyzed so far include: the European Stability Mechanism, Outright Monetary Transactions, the Banking Union, and Quantitative Easing (Lane, 2021, pp. 11-13; European Council, 2023d; Andrade et al., 2016, p. 50).

### **Announcement of finalizing the EMU**

In the year of 2015 on the first of July, the five presidents of the European Central Bank, European Commission, Euro Summit, Eurogroup, and European Parliament announced a plan to finalize the economic and monetary union by the year of 2025 (European Commission, 2015). This plan includes three stages, of which the first stage is called “deepening by doing”. This stage is aimed at finalizing the Financial Union, to obtain powerful policies regarding the fiscal sector within the eurozone and its members, and to increase the harmonization across member states (European Commission, 2015). This stage will be achieved by applying current tools and EU Treaties (European Commission, 2015). Nevertheless, this stage has yet to be completed because the BU is not fully finalized (European Council, 2023d). The BU needs to improve its crises management tools regarding the banking sector, and the previously stated European Deposit Insurance scheme (EDIS) has yet to be completed (European Council, 2023d). According to the five presidents’ report, EDIS falls under the first stage of completing the EMU (European Commission, 2015). The second stage involves finalizing the EMU by making the convergence procedure more inclusive. This process is said to be realized through the development of unified convergence standards and a common treasury (European Commission, 2015). The last stage is set to be finished by 2025 and implies a finalized and strong monetary union (European Commission, 2015). Overall, it can be concluded that the completion of the EMU is not finalized yet. However, the finalization has been initiated and it is anticipated that all the stages will be fulfilled by 2025. With regard to the analyzation of the EMU, it can be suggested that the announcement regarding the completion of the EMU is an additional part within the self-reinforcing sequence process. Similar to the previous

analyzed measures, a stronger EMU is connected to a stronger international role of the euro (European Central Bank, 2022a).

## **Discussion**

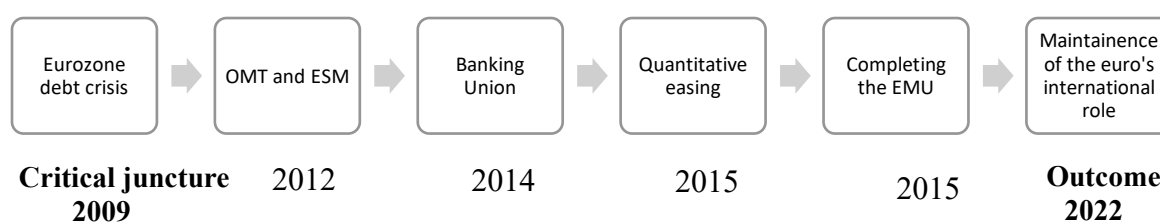
To summarize, the path taken by the ECB and additional EU institutions after the eurozone debt crisis was to implement policies to tackle the eurozone debt crisis and prevent future ones. In addition, the early measures taken were focused on strengthening the eurozone as well (Lane, 2021, pp. 11-12). Afterwards, the subsequent policies all concentrated on ensuring a strong and stable EMU (European Council, 2023d; Andrade et al., 2016, p. 50; European Commission, 2015). A stable, robust, and coordinated eurozone contributes to a powerful euro within and outside its borders (Strauch & Hudecz, 2021). The steps taken to enhance the EMU after the crisis, could have indirectly positively affected the international position of the euro, because a robust EMU is connected to more international attraction regarding the euro (European Central Bank, 2022a). In order to conclude whether this path was taken exclusively due to the occurrence of the eurozone debt crisis, it is necessary to question whether EU institutions would have taken the same decisions if the eurozone debt crisis did not occur. Besides, if the subsequent measures were not implemented, what would it have meant for the international role of the euro? If the eurozone debt crisis did not occur, it is likely that the following policies aimed at strengthening the EMU would have developed alternatively. Former president of the European Council Van Rompuy (2012, p. 4), reported that the financial crisis exposed a deficiency within the unified system of financial stability. It can be implied that the limitations regarding financial stability led to new discussions about certain measures to prevent financial crises, and to strengthen the EMU in the long term as well. All these incremental steps taken since the eurozone debt crisis are perceived as elements of a path-dependent sequence process. This process appears to be based on strengthening the EU monetary framework and seems to have led to the outcome of the euro's maintained international role.

Figure 6 illustrates the modified version of a self-reinforcing sequence process, also known as path-dependency based on increasing returns from Mahoney et al. (2016, p. 83). As mentioned in chapter 3, the process unlocks with a critical juncture followed by a sequence process (Mahoney et al. 2016, p. 77). Each step taken in this process reinforces the path towards one particular outcome, increasing the likelihood that this outcome will be obtained (Mahoney et al. 2016, p. 83). As can be derived from the analysis of critical junctures, the critical juncture in this particular process is confirmed to be the

eurozone debt crisis, which equals the first step within the construction of self-reinforcing sequences from Mahoney et al. (2016, p. 83). What can be understood from the empirical findings and the analysis of self-reinforcing sequences, is that one of the first significant steps taken as response to the crisis was the creation of the OMT and ESM in 2012 (Lane, 2021, pp. 12-13). In figure 6, these two steps are situated directly after the critical juncture. The two crisis prevention measures were then followed by the establishment of the Banking Union in 2014. Afterwards, quantitative easing was introduced by the ECB in 2015. Next, the finalization of the EMU was announced in 2015 as well. At last, the outcome in this case is the maintenance of the international role of the euro after the crisis, which is illustrated as the last element in the sequence process in figure 6. All in all, figure 6 demonstrates that the emergence of the eurozone debt crisis unlocked a process of multiple steps taken as a response to the crisis. The measures taken, as previously mentioned, all contributed to a stronger EMU, which is an important factor for a stronger international role of the euro (Scheinert, 2023, p. 3; Andrade et al., 2016, p. 50; European Commission, n.d.-f; European Commission, 2015; European Central Bank, 2022a). What makes this sequence process self-reinforcing, is that the first measures implemented after the eurozone crisis caused a causal chain of incremental measures that were all introduced with a similar goal: enhancing the strength and stability of the monetary union. This suggests that a path was formed after the eurozone crisis which started with the OMT and ESM as the first steps, and the subsequent measures did not alter this path. The analysis has revealed that, step by step, the eurozone was further strengthened by these measures, eventually leading to the maintenance of the euro's international position.

**Figure 6**

*Self-reinforcing sequence process*



*Note.* Adapted from Mahoney et al. (2016, p. 83).



## 6. Conclusion

After collecting and reviewing existing academic literature, presenting the theory and hypotheses, and applying the research design in the analysis, time has come to conclude the main results and to answer the research question. In the light of historical institutionalism, this research was aimed at deriving causal mechanisms regarding the maintenance of the international role of the euro prior to and subsequent to the eurozone debt crisis. Because the theory acts as the foundation of this thesis, the research question will be answered in the light of historical institutionalism. The main elements of historical institutionalism used to answer the research question are “critical junctures” and “self-reinforcing sequences”. As explained in chapter 1, the general research question is formulated as follows: *Why has the euro maintained its role as an international reserve currency since 2002?* The sub-question is: *Did the eurozone debt crisis and the subsequent policies affect the international role of the euro?* Before these questions can be answered, a summary of the main results will be provided to create a concise outline of this research.

The first hypothesis drawn from the theory is that there were critical junctures present that affected the development and maintenance of the euro’s role as an international reserve currency before, during, and after the eurozone crisis. The analysis clarified that the introduction of the euro as well as the eurozone debt crisis are defined as critical junctures. Within three years since the euro’s introduction, the number of foreign bonds denominated in the euro grew as well as the number of international banks ready to invest in the euro (Hartmann & Issing, 2002, p. 342). With its introduction, the European Central Bank executed a monetary policy based on maintaining price stability, of which the second pillar includes evaluating the exchange rate, and the degree of exchange rate fluctuations could be connected to a strengthened international position of the euro (Hartmann & Issing, 2002, pp. 341-342). Since 2002, the euro was positioned as the second most important international reserve currency (Hartmann & Issing, 2002, p 339). Since price stability is important in terms of maintaining the international position, it can be suggested that the European Central Bank’s monetary policy had an immediate impact on the international position of the euro (Hartmann & Issing, 2002, p. 321). Thus, the introduction of the euro undeniably impacted the maintenance of its role as an international reserve currency in the period prior to the eurozone debt crisis. Although the introduction of the euro almost immediately developed into its international position before the eurozone debt crisis, it was

not until the crisis when a process of self-reinforcing sequences seemed to have taken place, which brings us to the second hypothesis.

The second hypothesis established in chapter 3, was that a critical juncture initiated a path-dependent causal chain of self-reinforcing sequences leading to the maintained international role of the euro. This process is unlocked by a critical juncture and each subsequent step reinforces the path towards one particular outcome (Mahoney et al. 2016, p. 83). The analysis in chapter 5 clarified that the eurozone debt crisis was a critical juncture, leading to a causal chain of incremental policies that affected the international role of the euro. Within historical institutionalism, this causal chain of incremental policies acts as the self-reinforcing sequences that eventually contributed to the outcome of the euro's maintained international position. These policies all shared a common aim: strengthening the Economic and Monetary Union (Scheinert, 2023, p. 3; Andrade et al., 2016, p. 50; European Commission, n.d.-f; European Commission, 2015).

Overall, various factors are involved in the maintenance of the euro's international role. The introduction of the euro served as a critical juncture that contributed to the development and maintenance of the euro's international position prior to the eurozone debt crisis. Second, the eurozone debt crisis served as a critical juncture followed by policy measures that contributed to the maintenance of the euro's position subsequent to the crisis. These policies act as a causal chain based on a path-dependent process, with each additional step increasing the possibility of the euro maintaining its role as the second most important international reserve currency since the crisis.

## **Limitations**

Despite the fact that the results provide various factors and mechanisms that are likely to have affected the euro's role as an international currency, there may be external factors present that could have caused a bias in this research. These can be defined as factors that may have influenced the euro's role, beyond the control of policy makers. The possibility of external factors has implications for the internal validity of this research (Andrade, 2018, p. 499). An example of such a factor regarding the euro's role is fluctuations in the exchange rate of the US dollar and the change in international asset distribution (Bertuch-Samuels & Ramlogan, 2007, p. 49). Such international imbalances can include an unexpected decrease in preferences for US assets, which could lower the use of the US dollar. Then again, this shift could lead to more international usage of the euro relative to the US dollar (Bertuch-

Samuels & Ramlogan, 2007, p. 49). This external factor could have been present in the euro's road as an international reserve currency, meaning it could have contributed to the euro's international maintenance together with the implemented policy measures. A second external factor that may have affected the international role of the euro, is foreign economic growth (Bertuch-Samuels & Ramlogan, 2007, p. 49). If certain economies beyond the eurozone suddenly experience a boost, the international power of the eurozone could decrease (Bertuch-Samuels & Ramlogan, 2007, 49). Thus, this external factor could have contributed to the euro's maintenance as an international reserve currency if no economies were growing in such a speed that it jeopardized the euro's position.

### **Recommendations for future research and policy**

This research was focused on a single case: the euro. Toshkov (2016, p. 304) emphasizes on the challenge of ensuring external validity when conducting a single-case study, because it is unlikely that the results can be generalized to a broader population. Consequently, it is recommended for future research on this topic to use a comparative research design. Conducting comparative research in the case of the international role of the euro, such as comparing the case of the euro to the case of the US dollar, could provide more extensive results about the development of an international reserve currency. As for policy recommendations, it is first recommended to complete the Banking Union. As mentioned in chapter 5, the Banking Union has yet to be finalized (European Council, 2023d). However, communication about completing the BU is in progress (European Commission, 2015). A finalized Banking Union would provide a stronger shield for the eurozone against financial crises, and it would enhance the overall financial solidity (European Council, 2023d). The Banking Union is an element of the Economic and Monetary Union, and in turn a stronger and complete monetary union relates to a stronger international role of the euro (European Council, 2023d; European Central Bank, 2022a). Furthermore, in order to achieve a stronger international role of the euro, it is important for the EU as a whole to become more involved with actors outside their borders (European Commission, n.d.-c). Besides focusing mainly on the European Union, which is indeed of fundamental importance, it is advised to further encourage the power of the euro on the international level (European Commission, 2021). Multiple recommendations were already announced by the Commission, such as promoting the use of the euro with diplomatic actions (European Commission, 2018, p. 11; European Commission, n.d.-c).

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