Article

Divergence Tendencies in the European Integration Process: A Danger for the Sustainability of the E(M)U?

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Abstract: The European integration process started with the aim of reducing the differences in income and/or living standards between the participating countries over time. To achieve this, a certain alignment of institutions and structures was seen as a necessary precondition. While the goal of this income and institutional convergence was successfully achieved over a long period of time, this convergence development has weakened or even turned into divergence in the last one to two decades. This paper provides an overview of the empirical evidence for these convergence and divergence developments and develops policy implications (the challenges and possible ways out).

Keywords: European integration process; convergence dynamics; divergence; institutional quality; economic growth and economic development; European Union

JEL Classification: F55; O10; O11; O43; O52

1. Introduction

It is conventional wisdom that the larger and more complex a project is, the greater the risk that it will fail. This also applies to the project of European integration. This project was initially small and therefore manageable and also successful. Over time, however, more and more extensions were made (in terms of scope, and in terms of areas of application/depth), so that it has become increasingly difficult and complex to keep the situation/project stable/sustainable. In particular, this also made it more difficult to achieve the goal of real (including institutional) convergence, which was emphasized as early as 1957 in the EEC Treaty and later in the EU Treaty as an important precaution for the continued existence and deepening of the project of European integration.

In Section 2, the historical course of the European integration process is briefly traced, and the steady steps of enlargement and deepening are considered. In Section 3, the risk potential of the enlargement process is analyzed. This is illustrated in particular and above all by the example of the danger of institutional divergence within Europe. The assumption of institutional convergence as a prerequisite or, respectively, as a consequence of European integration is examined in more detail before the empirical experience with this institutional con/divergence process (especially the results of econometric studies) is presented and explained. To our knowledge, this is the first paper that so decisively elaborates the relationship between institutional and income convergence with the help of the latest empirical studies on institutional convergence, and with the resulting implications with regard to the sustainability of income convergence and ultimately the survival of the European Union, and also derives policy implications from this. We also refer to the new econometric techniques and methods of recent empirical studies on institutional convergence, which increasingly focus on club convergence. Finally, Section 4 considers and evaluates the different options for the future of the European Union/integration. Moreover, against the background of the above correlations derived in Section 3, the political implications of institutional divergence are examined, including political instability

associated with divergence processes, middle-income trap (MIT) threats within the EU, and emerging phenomena of populism and autocracy. Section 5 then provides a summary.

2. European Integration

2.1. Goals

Three points were at the forefront of the discussion after the Second World War about European integration. At one point, it was necessary to achieve political reconciliation between the European opponents of the war, especially between France and Germany, in order to make a new war unlikely. Secondly, a closer union of the European states was considered necessary to ensure the economic reconstruction of the individual countries. Thirdly, the disintegration of Europe into two blocs, East and West, intensified the efforts of Western Europeans to push ahead with (Western) European integration, thus creating a necessary condition for defending against the communist system (see Wagner 1998; Weidenfeld 2020).

This led to the fact that soon after the Second World War the responsible politicians in some European countries made the fundamental decision to follow the cooperative path of (economic) political cooperation. This ultimately led, in a long and conflict-laden path (after several decades), to the introduction of first an "economic union" and later a "monetary union". This path is referred to here as European Integration with building unity between European countries and peoples by countries' pooling their resources and taking many decisions jointly. This joint decision-making process takes place through the interaction of the EU institutions (the Parliament, the Council, the Commission, etc.).

The original goal was to "strengthen the unity of [the] economies [of the member states] and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less favoured" (preamble of EC Treaty establishing the European Community).

This was confirmed in the preamble of the Maastricht Treaty (TEU 1992) in the context of establishing a monetary union in Europe. Here a connection was made between the goal of real convergence and a monetary union, in that the contracting states declared their resolve to "achieve the strengthening and the convergence of their economies and to establish an economic and monetary union, including, in accordance with the provisions of this treaty, a single and stable currency". In Art. 2 of the Treaty the view was expressed that a monetary union was seen as an instrument for achieving real convergence, stating that the aim of convergence, among other things, is to be pursued "by establishing a common market and an economic and monetary union" (which corresponds to the so-called endogeneity thesis) (see Wagner 2014).

2.2. Progress/Implementation of European Integration

(a) Deepening

Thus far, the process of European integration has taken place in five consecutive steps (here, we only focus on the economic integration of Europe), introducing

1. A free trade zone (reduction of trade restrictions between member states);
2. A customs union (introduction of common customs provisions to third countries);
3. A common market (abolishment of the restrictions in the movement of the production factors labor and capital, in addition to the free flow of goods and services) (This inevitably implied a certain degree of harmonization of economic policy forces. According to the classical foreign trade theory, free trade leads to an equalization of factor prices. In practice, however, this effect is only very limited occurred. Therefore, it is often considered necessary, to extend integration beyond goods markets);
4. an economic union (harmonisation not only of the foreign trade and customs policy of the member countries, but also of their other economic policies, especially their regulatory policy);

5.   a monetary union (complete convertibility of currencies, no restrictions whatsoever on the movement of capital and an irrevocable fixing of exchange rates between the member countries, in the EMU case the introduction of a common currency).

As a 6th logical step a political union (which would have to be preceded, among other things, by the creation of a fiscal union and a social union) would/could follow, but this has not happened so far.

(b) Widening (enlargement in different waves)

Here we lean closely on the presentation in Wagner (2013, pp. 197–98).

European integration has developed in several phases. In 1957, six countries (Belgium, France, Germany, Italy, Luxembourg and the Netherlands) founded the European Economic Community (EEC) and developed it into a common market with various common institutions in the 1960s (In fact, it was not until 1968 that the customs union was completed or introduced and the project of an economic union was first in the making. According to the provisions of the EEC Treaty of 1957, the Common Market (internal market) was to be completed by 1969). The *first round of enlargement* of this Community took place in 1973, when Denmark, Ireland and the United Kingdom joined it (The applications for membership were already on the table in Brussels in 1961, but the project was blocked by French President Charles de Gaulle until he resigned (for fear of Great Britain's disputing France's supremacy in the Community). A *second round* of enlargement took place in the 1980s, when three former dictatorial countries, all of which had shaken off their dictatorships in the mid-1970s, sought early accession to the EEC in order to stabilize their young democracies. These were Greece, Portugal and Spain, which joined the EEC in 1981 and 1986, respectively. In a *third round* of enlargement in 1995 (after the collapse of the Eastern Bloc) Austria, Finland and Sweden (formerly so-called "neutral" border countries to the Eastern Bloc) joined the EEC, which has since been renamed the European Union (EU). In a *fourth round* of enlargement in 2004, 10 countries were allowed to join the EU, namely Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia; and in a *fifth round* in 2007, Bulgaria and Romania were added. 10 of these 12 countries (referred to here as the NMS-10) were former communist, dictatorial states that strove to stabilize their new democracies and grow faster by joining the EU. In 2013 Croatia (also a post-communist country) was finally accepted as the 28th member state of the EU. This means that the driving forces for enlargement of E(M)U from 1980 onwards have mostly been political, driven by the anxiety that former dictatorial states (such as Spain, Portugal and Greece in the 1970s and 1980s, and the Eastern post-communist NMS-10 in the 1990s and 2000s) could destabilize the political landscape in Europe (or turn again to Russia) if they were not integrated in the E(M)U club. This effected that, from an economics point of view, some of the emerging GIPS (GIPS stands for Greece, Italy, Portugal, Spain—the southern (often crisis-ridden) EU member countries) and NMS-10 countries with weak governance structures were probably let into EMU and EU, respectively, too early.

To sum up, we have seen a number of accessions over the last decades. The EU has almost doubled the number of its member states in the last two decades. As a result, the pitfalls of enlargement have increased, especially when the Eurozone was created: While in the last century countries stayed in the EU for many years (i.e., longer) before joining the Eurozone (reason: the Eurozone was only established in 1999), those that joined the EU in the 2000s, by contrast, had the chance to join EMU immediately, i.e., within two years of joining the EU. Additionally, most of the candidate countries have flirted with this idea. For example, in 2003, the year before 10 new member states joined the EU, all designated NMS announced that they wanted to join the Eurozone as soon as possible (i.e., within 2 or 3 years)—although 8 of them (the NMS-8), which 15 years ago were communist planned economies without any experience with western-style market and political institutions, were still emerging (backward) economies. This then led to a certain nervousness, especially among the ECB and national central banks of the established countries as well

as among academic experts, and led to many "marketing" and "educational" exercises (See, e.g., Wagner 2002a, 2002b, written on invitation of the Bundesbank) to convince the politicians of the post-communist new member states to stop and think twice whether this rush was really a good idea. After some efforts of persuasion and after a certain disillusionment in practice, especially with regard to fiscal problems (See, e.g., Wagner 2006, a study commissioned by the International Monetary Fund (Fiscal Affairs Department) at that time), most of the governments of the NMS-8 finally gave in and postponed the planned introduction of the euro from year to year, so that to date only 5 of the now 11 post-communist NMS (Slovenia, Slovakia, Estonia, Latvia and Lithuania) have decided to take the step of introducing the euro, while Bulgaria, Croatia, the Czech Republic, Hungary, Poland, and Romania still remain in a wait-and-see attitude. After the global financial and economic crisis of 2008/9, however, many of these NMS were again more inclined to adopt the euro as soon as possible. Indeed, the cooling of domestic and external imbalances in the context of the recession following the global financial crisis seemed to increase the chances of the remaining then NMS-10 to meet the Maastricht criteria within a timeframe of up to three years. The question remained, however, whether it is a good option for these countries to try to rush into joining the Eurozone (See Wagner 2005, written on invitation of the IMF European Department).

3. Concept and Empirical Development of Real and/or Institutional Convergence

3.1. Concept of Real Convergence

Real convergence is a term that encompasses both the catching-up process in per capita GNI (**income convergence**) and the convergence of institutions and socioeconomic structures (**institutional convergence**) as a kind of precondition (See, e.g., the then vice president of the ECB (Papademos 2006). Real convergence here is, so to speak, the counterpart of nominal convergence, which includes the necessary convergence criteria for joining the euro zone (interest rate, inflation rate, and exchange rate alignment or convergence, sustainable fiscal status), as laid down in the EU Treaty).

Convergence, in the sense of **catching up in terms of GNI or GNP per capita**, aims at a high level of convergence of living standards in the participating countries, which has been a main objective of the European integration process from the beginning (as mentioned above). It is a kind of long-term economic goal of the integration process in Europe.

However, even if the data show a GNI per capita convergence over one or even two decades, this does not guarantee that this convergence process is sustainable, especially if the GNI per capita convergence is achieved through structural aid measures (financial aid from the rich to the poorer member states). However, a "natural" convergence process (i.e., convergence without financial aid) depends on some prior institutional and structural convergence (which can be seen as a prerequisite not only for sustainability but also for implementation and for ensuring a high level of GNI per capita convergence) (This means that conditional convergence depends not only upon foreign aid, but also on institutions, policies, and other country-specific characteristics such as demographics, and the savings rate (Diaz del Hoyo et al. 2017; Rodrik 2011)). This was already the insight of the founding fathers of European integration. Therefore, certain institutional and structural changes/convergence criteria were included in the EU Treaty as conditions for entry into the EU and later into EMU.

Institutional convergence describes the convergence of institutions and rules within a Union, while **structural convergence** describes the convergence of socioeconomic structures in the member states of the Union (whether in labor or goods markets or in terms of the efficiency of the judiciary and administrative capacity or political leadership) (see Wagner 2013). In the rest of the paper we will subsume under "institutional convergence" both institutional convergence and structural convergence.

This institutional and structural convergence can also be considered a prerequisite for the goal of synchronizing business cycles: A supposed prerequisite for the desired

effects of a monetary union (e.g., a rapid catch-up in per capita GNI) has always been that the business cycles of the participating countries must be more or less synchronized. Otherwise, the single (one-size-fits-all) monetary policy in the monetary union would be less effective—i.e., too loose for fast-growing, booming economies and too tight for the others (see, e.g., Eichengreen 1993). This assumption also led to the definition of the acquis communautaire as a prerequisite for joining the EU, and the (nominal) convergence criteria as a prerequisite for joining EMU.

3.2. Empirical Experiences

This Section presents the most important empirical studies on the convergence dynamics within the E(M)U. Sections 3.2.1 and 3.2.2 focus on real and nominal convergence, respectively. The rather new literature branch that analyzes institutional convergence in the EU is then discussed in Section 3.2.3. Table 1 provides a complementary overview of all studies (ordered by type of convergence, method, and year).

Beta (β)-convergence occurs when a poor country tends to grow faster than a rich one and thus catches-up (cf., e.g., Barro and Sala-i-Martin 1991, 1992). It is usually evaluated using "growth-initial regressions" (cf. Islam 2003). In other words, the income growth rate (often approximated by the log difference between the log per capita income in period t and $t + T$) is regressed on the initial per capita income. More formally, it can be expressed as follows:

$$\frac{1}{T} \ln \left(\frac{y_{i,t+T}}{y_{i,t}} \right) = \alpha + \beta \ln y_{i,t} + \varepsilon_{i,t} \tag{1}$$

where $y_{i,t}$ denotes the initial income and $\varepsilon_{i,t}$ is the error term.

In contrast, *sigma (σ)-convergence* takes place if the dispersion of income across a group of countries falls over time (cf., e.g., Baumol 1986), that is, $\sigma^2_{\ln y_{i,t}} - \sigma^2_{\ln y_{i,t+T}} > 0$. See also Islam (2003) and Głodowska and Pera (2019). Beta-convergence is a necessary but not sufficient condition for sigma-convergence (cf. Young et al. 2008).

3.2.1. Income Convergence

The study of Sala-i-Martin (1996) is one of the earliest contributions to the analysis of income convergence within the European Union. In particular, beta-convergence in real per capita income is assessed for 90 regions in eight EU countries (Belgium, Denmark, France, Germany, Italy, Netherlands, Spain, and UK) over the period 1950 to 1990. Sala-i-Martin (1996) also analyzes sigma-convergence within the five largest countries of his sample (Germany, the UK, Italy, France, and Spain). All countries show a declining dispersion of per capita income; however, Germany and the UK have seen only little net change since 1970. Sala-i-Martin (1996) finds that regional incomes converge at a speed of two percent per annum, which is around five percentage points lower than predicted by neoclassical growth models using standard parametrization. Similarly, but at the country level, Crespo Crespo Cuaresma et al. (2008) study beta- and sigma-convergence within the EU-15 over the period 1960–1998. They find evidence for unconditional and conditional beta-convergence across EU members. However, the convergence-stimulating impact of EU membership on long-term growth is asymmetric; in particular, the positive effect is higher for relatively poor economies. Relying instead on time series analysis, Corrado et al. (2005) reject the hypothesis of overall convergence for the core EU between 1975 and 1999 (at the sectoral level).

Table 1. Empirical studies on real, nominal, and institutional convergence.

Author(s)	Year	Indicator	Time	EU/EA	Countries [Regions]	Method	Results
						Panel A: Income convergence	
Sala-i-Martin	1996	Real p.c. income	1950–1990	EU	8, 5 [90]	β-convergence; σ-convergence	Evidence of β-convergence; regional incomes converge at a speed of 2% p.a., which is about 5 p.p. lower than the speed predicted by neoclassical growth models using standard parametrization (i.e., a capital share of 0.3); σ-convergence within the largest five countries
Crespo Cuaresma et al.	2008	Real p.c. income	1960–1998	EU	15	β-convergence; σ-convergence	Significant unconditional and conditional β-convergence across EU members; EU membership has an asymmetric, convergence-stimulating effect on long-term growth; the positive effect of EU membership is relatively higher for poorer economies
Cavenaile and Dubois	2011	Real p.c. income	1990–2007	EU	27	β-convergence	Conditional β-convergence; convergence rates of new entrants from CEE and of the EU-15 significantly differ (pointing to the existence of different convergence groups)
Kaitila	2014	Real p.c. income	1999–2012; 1960–2012 (for EU-15)	EU	15, 27, 33	σ-convergence	EU-15: σ-convergence (1960–1973), stagnation (1973–1986), σ-convergence (1986–2001), stagnation (2001–2007), σ-divergence (since 2008) EU-27: slow σ-convergence (1993–2000), rapid σ-convergence (2000–2008), stagnation (since 2008) EU-33: rapid σ-convergence (2000–2008), stagnation (since 2008)
auf dem Brinke et al.	2015	Real p.c. income	1970–2014	EA	11	σ-convergence	EA-11: stagnation (1970–1985), σ-convergence (1986–1999), σ-divergence (2000–2014)
Diaz del Hojo et al.	2017	Real p.c. income	1999–2016; 1960–2016 (for σ-conv)	EA; EU	12; 28	β-convergence; σ-convergence	EU-12: some β-convergence until GFC, divergence since 2008; stronger convergence in most recent EU members EU-12/EU-15: alternating periods of σ-convergence and stagnation between 1960–2008; σ-divergence since 2008
Franks et al.	2018	Real p.c. income	1960–2015	EA; EU	12, 19; 28	β-convergence; σ-convergence	EA-12: strong β- and σ-convergence (1960–1998), slow convergence (after 1992), divergence (1999–2015) EU-19: β-convergence (1990–1998, 1999–2015), but slower since GFC (2008–2015) EU-28: β-convergence (1993–2015), but lower than for EA-19

Table 1. *Cont.*

Author(s)	Year	Indicator	Time	EU/EA	Countries [Regions]	Method	Results
					Panel A: Income convergence		
Micallef	2020	Real p.c. income, employment	1995–2018; 1995–2010, 2010–2018	EU	15, 28, NMS-12	β-convergence; σ-convergence	EU-28: β-convergence for the entire period and sub-periods, driven by convergence of the NMS countries EU-15: β-divergence, especially after the GFC EU-28: σ-convergence since around 2000 EU-15: σ-divergence, especially after the GFC
Kutan and Yigit	2004	Industrial production	1993–2000	EU	10	Panel unit root tests	Evidence of real convergence for all transition countries with the exception of the (then) laggard EU accession countries LTV, ROM, SVK, LIT, BUL
Kutan and Yigit	2005	Industrial production	1993–2003	EU	12	Panel unit root tests	Strong evidence of real convergence for the NMS (with DEU and GRC)
Corrado et al.	2005	Real p.c. income	1975–1999	EU	15	time series analysis	No overall convergence (in four different sectors; two sub-periods, 1975–1993 and 1981–1999); geographical location and socio-demographic characteristics are correlated with the formation of convergence clusters; regional policy intervention plays a minor role; relevance of the factors decreases for the 1981–1999 period
Brada et al.	2005	Industrial output	1980–2000	EU	11	rolling cointegration	(Former) EU candidate countries (CZE, EST, HUN, POL, SVN) do not exhibit very strong cointegration of real output with EU core countries
Cunado and de Gracia	2006	Real p.c. income	1950–2003	EU	6 (CEEC + DEU)	time series analysis	No convergence for the whole period; when allowing for structural breaks, there is evidence for a catching up process during the 1990s–2003 period for POL, CZE, HUN towards DEU (and only for POL towards the US); 1950-late 1960s/early 1970s: divergence, slowing down since 1973
Canova	2004	Real p.c. income	1980–1992	EU	13 [144]	predictive density approach	4 convergence clubs (North vs. South, rich vs. poor)
Carvalho and Harvey	2005	Real p.c. income	1950–1997	EA	11	multivariate structural time series model	2 convergence clubs, a high income group (5 core economies (DEU, FRA, BEL, NLD, ITA) + AUT, FIN) and low-income group (PRT, ESP, GRC); IRE diverging

Table 1. *Cont.*

Author(s)	Year	Indicator	Time	EU/EA	Countries [Regions]	Method	Results
						Panel A: Income convergence	
Fischer and Stirböck	2006	Real p.c. income	1995–2000	EU	25 [256]	spatial econometric analysis	2 spatial clubs (core vs. periphery, most EU-15 regions are in the same club)
Ramajo et al.	2008	Real p.c. income	1981–1996	EU	12 [163]	spatial econometric analysis	2 spatial convergence clubs (Cohesion fund vs. Non-Cohesion fund); regions in the EU cohesion-fund countries (IRE, GRC, PRT, ESP) converge faster than the rest of the regions (5.3% versus 3.3%)
Apergis et al.	2010	Real p.c. income	1980–2004	EU	14	Club convergence (Phillips and Sul)	1 club for the period 1980-2004 (Greece is diverging); 2 clubs for the period 1990–2004 (GIPS + Germany vs. the rest)
Fritsche and Kuzin	2011	real p.c. income	1960–2006	EU	15	Club convergence (Phillips and Sul)	3 convergence clubs (no clear pattern)
Bartkowska and Riedl	2012	Real p.c. income	1990–2002	EU	17 [206]	Club convergence (Phillips and Sul)	6 regional convergence clubs (core vs. periphery, North vs. South); initial levels of human capital and p.c. income are decisive for club membership
Monfort et al.	2013	Real per worker income	1980–2009	EU	10, 14, 24	Club convergence (Phillips and Sul)	EU-14: 2 clubs for the period 1980–2009 (core vs. periphery); EU-24: 2 clubs for the period 1990–2009 (West vs. East); EU-10: 2 clubs for the period 1990–2009 (Eurozone vs. rest)
Borsi and Metui	2015	Real p.c. income	1970–2010	EU	21, 27	Club convergence (Phillips and Sul)	EU-21: 4 clubs for the period 1970–2010 (West vs. East); 4 clubs for the period 1995–2010 (Northwest vs. Southeast); EU-27: 4 clubs for the period 1995–2010 (Northwest vs. Southeast)
von Lyncker and Thoennessen	2017	Real p.c. income	1980–2011	EU	15 [194]	Club convergence (Phillips and Sul)	4 clubs (North vs. South), high-income cluster for capital cities; the initial labour force participation rate, human capital, and income are decisive for club formation
Glawe and Wagner	2021	Real p.c. income	2002–2018	EU	27	Club convergence (Phillips and Sul)	4 clubs (Northwest vs. Southeast)

Table 1. *Cont.*

Author(s)	Year	Indicator	Time	EU/EA	Countries [Regions]	Method	Results
						Panel B: Nominal convergence	
Hein and Truger	2005	Interest rates, inflation, debt-to-GDP ratio	1981–2001	EU	12	σ -convergence	Nominal convergence (stagnating tendency starting from 1999)
Toader and Gidiu	2012	Inflation, interest rates, budgetary deficits/surplus, public debt	1995–2011	EA	12, 17	σ -convergence	EA-17: σ -convergence in inflation; EA-12/17: σ -convergence in interest rates (until 1999), increasing dispersion after the GFC; no convergence in fiscal indicators
Estrada et al.	2013	Inflation, relative price level, unemployment, current account	1985–2012	EA	17	β-convergence; σ-convergence	β- and σ-convergence in inflation (especially prior to 1999), the relative price level, and unemployment (divergence tendency for the latter two indicators after the GFC); increasing dispersion of the current account before GFC and stabilizing trend thereafter
Franks et al.	2018	Inflation, interest rate, price level	1980–2015	EA; EU	12, 19; 28	β-convergence; σ-convergence	EA-12: σ-convergence in inflation prior to euro adoption but stagnation thereafter; no σ-convergence in price levels; nominal interest rate β-convergence only prior to the GFC; EA-19/EU-27: price level convergence (until GFC)
Brada et al.	2005	CPI, monetary base, M2	1980–2000	EU	11	rolling cointegration	Countries that joined the EU previously (AUS, PRT, ESP, SWE) exhibit time-varying cointegration with the core countries (DEU, FRA); cointegration for the transition economies (CZE, EST, HUN, POL, SVN) was comparable for M2 and CPI, but not for monetary policy; benefits of EMU accession are yet limited
Kutan and Yigit	2004	Price (PPI, CPI), M1, nominal/real interest rates	1993–2000	EU	10	panel unit root tests	Weak CPI, PPI, M1 growth, and real interest rate spread convergence for most NMS; CEFTA-5: only weak nominal interest spread convergence; CEFTA-5 + ROM: CPI, PPI convergence, no M1 convergence; front-runners (CEFTA-5 –SVK + EST): (nominal and real) interest rate spread convergence, no CPI, PPI, and M1 convergence; laggard EU accession candidate countries (LTV, ROM, SVK, LIT, BLG): CPI, PPI, M1 convergence; Baltic countries: CPI, PPI, interest rate spread convergence, no M1 convergence

Table 1. *Cont.*

Author(s)	Year	Indicator	Time	EU/EA	Countries [Regions]	Method	Results
				Panel B: Nominal convergence			
Kutan and Yigit	2005	Price (PPI, CPI), M1, nominal/real interest rates	1993–2003	EU	12	panel unit root tests	Baltic states have the strongest monetary policy and price-level convergence, CEEC group exhibits only weak nominal convergence
				Panel C: Institutional convergence			
Schönfelder and Wagner	2016	WGIs	1996–2012	EU	33	β-convergence; interaction with E(M)U accession status variable	Positive effect of prospective EU membership on institutional development; once countries have become a E(M)U member, their institutional development loses momentum; EMU members underperform regarding the control of corruption
Schönfelder and Wagner	2019	WGIs, product market regulation, doing business distance to frontier	1996–2012	EU	12, 17, 27, 33	β-convergence; σ-convergence	Institutional β-convergence within the EU and its aspirants, mainly driven by the NMS and acceding and (potential) candidate countries; within euro area convergence regarding product market and business regulation but not regarding governance; only for 33 country sample σ-convergence
Beyaert et al.	2019	Six institutional indicators	1998–2018	EA	19	panel unit root tests; distribution dynamics analysis	No convergence in the Eurozone as a whole and also not within smaller sub-groups; Eastern Eurozone members even suffered backsliding with respect to "investment profile"
Pérez-Moreno et al.	2020	Public and private institutions of the GCI	2008–2014; 2014–2017	EA	19	unified framework of Dhongde and Silber (2016)	σ-divergence over the period 2008–2014; non-significant σ-convergence over the period 2014–2017; net effect of σ-divergence across the full period; increasing gap between the Eurozone core countries and the periphery countries (esp. 2014–2017)
Glawe and Wagner	2021	WGIs	2004–2018	EU	27	Club convergence (Phillips and Sul)	Average institutional quality: 4 clubs; government effectiveness: 3 clubs; regulatory quality: 4 clubs; control of corruption: 5 clubs; all clubs reveal a northwest-southeast divide; the initial levels of human capital and institutional quality are decisive for club membership; euro area membership is important for government effectiveness club formation

Notes: The studies are ordered by type of convergence, method, and year. 'GCI' stands for Global Competitive Index, 'WGIs' for Worldwide Governance Indicators, 'CPI' for consumer price index, 'PPI' for producer price index, 'M1' and 'M2' for money supply (narrow and broader), 'GFC' for global financial crisis, 'CEE(C)' for Central and Eastern European (Countries), 'CEFTA-5' for the original five participants of the Central European Free Trade Agreement (CZE, HUN, POL, SLV, SVK), 'GIPS' for Greece, Italy, Portugal, Spain, 'EA' for 'euro area', and 'EU' for 'European Union'.

The next generation of studies also includes the countries that joined the EU after 2004 (In addition, Cuñado and Gracia 2006, using time series analysis, focus on the CEEC' real convergence towards Germany (and the US) before 2004, namely between 1950 and 2003. No convergence is detected for the whole period; however, when allowing for structural breaks, the authors find evidence of a catching up process between 1990s and 2003 for Poland, the Czech Republic, and Hungary towards Germany (and additionally for Poland towards the US)). For instance, Cavenaile and Dubois (2011) show that there has been conditional beta-convergence among the EU-27 countries over the period 1990 to 2007. However, their findings also indicate that the convergence rate of new entrants from Central and Eastern Europe and that of the EU-15 countries differ significantly, suggesting that there exist different convergence groups. Using more recent data, Micallef (2020) shows that at the EU level, evidence of beta- and sigma-convergence over the period 1995 to 2018 is only found when the NMS are included, whereas the EU-15 countries have exhibited signs of divergence, especially after the global financial crisis. Similar findings of increasing divergence since 2008 (sometimes for the more restrictive group of EA-12 countries) are reported by Franks et al. (2018), Kaitila (2014), Diaz del Hoyo et al. (2017), and auf dem Brinke et al. (2015).

While the articles listed above focus primarily on the question of whether there is convergence or divergence in per capita income, another branch of the convergence literature concentrates on the existence of multiple income clubs using different approaches. Applying spatial econometric analysis, Ramajo et al. (2008) identify two spatial convergence clubs within 163 EU regions in twelve EU countries over the period 1981 to 1996 (In particular, there is a divide between faster converging Cohesion-fund countries and non-Cohesion-fund countries). Relatively similar evidence is obtained by Fischer and Stirböck (2006) for the period 1995 and 2000 for a larger sample comprising 256 regions in 25 EU countries. Canova (2004), using a predictive density approach, identifies four income convergence clusters (across 144 EU regions in 13 EU countries that follow a North versus South and rich versus poor classification over the period 1980 to 1992. At the national level, Carvalho and Harvey (2005), employing a multivariate structural time series model, ascertain a similar classification among eleven euro area countries over the period 1950 to 1997; however, they only detect two clusters.

Starting from 2010, there are also various studies that apply Phillips and Sul (2007, 2009) log t test to investigate the formation of income convergence clubs within the E(M)U. Borsi and Metiu (2015) identify four income clubs within the EU which are formed on the basis of geographic region; in particular, they detect a southeast-northwest division over the period 1995 to 2010. Similar results are obtained by Glawe and Wagner (2021) for the period 2002 to 2018. Using a similar country sample but data on per worker income, Monfort et al. (2013) only detect two convergence clubs over the period 1990 to 2009; however, they find a similar geographical pattern (West versus East). Studies focusing only on the core EU countries do not reveal a clear pattern (e.g., Apergis et al. 2010; Fritsche and Kuzin 2011; Monfort et al. 2013); however some papers detect a core-periphery divide. Bartkowska and Riedl (2012) and von Von Lyncker and Thoennessen (2017) analyze club convergence at the EU regional level. Both studies reject the hypothesis of absolute convergence and rather detect six and, respectively, four convergence clusters which are formed along geographic regions; in particular, there appears to be a north–south divide. Moreover, using ordered response models, both studies find that the initial conditions (such as initial per capita income and initial human capital endowment) are decisive for the formation of convergence clusters.

While the initial empirical contributions, relying primarily on beta- or sigma-convergence, find evidence of income convergence among the core EU members (particularly during the period prior to the introduction of the euro), more recent studies report increasing divergence tendencies within the groups of EU-15 and EA-12 countries, especially after the global financial crisis (e.g., Micallef 2020; Franks et al. 2018; Kaitila 2014; Diaz del Hoyo et al. 2017; auf dem Brinke et al. 2015). Moreover, if convergence is detected in the

entire EU, it is often driven by the NMS. More recently, there is also an increasing body of literature that takes into account the possibility of multiple equilibria. Related studies usually reject the hypothesis of convergence and rather detect multiple income clusters in the E(M)U which are typically formed on the basic of geographic region (very often, there is south–north and/or east–west divide).

3.2.2. Nominal Convergence

There are also various studies that analyze nominal convergence within the EU and the Eurozone. Using panel unit root tests, Kutan and Yigit (2004) detect only weak monetary convergence for most NMS over the period 1993 to 2000. In a subsequent paper, Kutan and Yigit (2005) find that among the NMS, the Baltic States have the strongest monetary policy and price-level convergence, whereas the CEEC group exhibits only weak nominal convergence between 1993 and 2003. Relying on a rolling cointegration approach, Brada et al. (2005) show that countries that joined the EU in the 1980s and 1990s exhibit cointegration with the EU core countries for the indicators base money, M2, and CPI between 1980 and 2004, whereas the "second-round" transition economies only exhibit a comparable cointegration for the indicators M2 and CPI, but not for monetary policy. Hein and Truger (2005) report evidence of sigma-convergence for the EU-12 countries in interest rates, inflation, as well as the debt-to-GDP ratios between 1981 and 2001; however, nominal convergence shows a stagnating tendency starting from 1999. Taking also into account the period after the global financial crisis, Estrada et al. (2013) find evidence of sigma- and beta-convergence across the euro area with respect to inflation (especially prior to 1999), relative price levels, and unemployment rates; however, the latter two indicators exhibit signs of divergence after 2007. Similar results are provided by Toader and Gîdiu (2012). Finally, Franks et al. (2018) find evidence of sigma-convergence in inflation rates (especially prior to the adoption of the euro) and beta-convergence in interest rates within the EU-12; however, only the wider groups of EU-17 and EU-27 countries also exhibit sigma-convergence in price levels.

3.2.3. Institutional Convergence

Only since very recently, the empirical literature started to investigate institutional convergence. While Beyaert et al. (2019) and Pérez-Moreno et al. (2020) focus on the euro area, the studies of Schönfelder and Wagner (2016, 2019) and Glawe and Wagner (2021) also include (potential future) EU member countries that are not part of the Eurozone.

Using panel root tests, Beyaert et al. (2019) reject the hypothesis of overall convergence within the euro area and also within smaller sub-groups over the period 1998 to 2018. In addition, they even report an institutional degradation in Eastern Eurozone members. Similarly, Pérez-Moreno et al.'s (2020) results show that there is sigma-divergence in institutional quality after the global financial crisis. Moreover, they also identify an increasing institutional gap between the Eurozone core economies and the periphery countries.

Schönfelder and Wagner (2016) analyze the impact of the European integration process on the institutional development of 33 European countries over the period 1996 to 2012 using fixed effects and system GMM estimations. Institutional quality is measured by the Worldwide Governance Indicators (WGIs). Their findings reveal that there is in general a positive effect of prospective EU membership for most WGIs (most significantly for the indicators "government effectiveness" and "regulatory quality"); however, neither euro area membership nor the preparation to introduce the euro influences a country's institutional trajectory. The only exception is that euro area membership has a negative effect on the indicator "control of corruption". In a subsequent paper, Schönfelder and Wagner (2019) investigate institutional beta- and sigma-convergence within the EU and its aspirants over the period 1996 to 2012. Institutional quality is captured by the WGIs, the product market regulation indicator of the OECD, and the Doing Business distance to frontier ("business regulation") indicator of the World Bank. The authors find evidence for institutional beta-convergence within the EU and its aspirants which is mainly driven

by the NMS as well as acceding and (potential) candidate countries. However, the group of euro area countries only shows convergence regarding the indicators "product market regulation" and "business regulation" but not for the six WGIs. For the sample comprising only the first twelve euro area members, Schönfelder and Wagner (2019) even find significant institutional divergence for the institutional dimension "rule of law" which is mainly driven by the poor performance of Greece, Italy, and Portugal.

Sigma-convergence is only detected for the largest "EU plus aspirants" sample for all governance indicators and—albeit to a lower extent—for the EU-27 sample for the indicators "control of corruption", "government effectiveness", and "regulatory quality". In contrast, there is no sign of sigma-convergence within the EA-17 and EA-12 samples; there is even a diverging tendency for some indicators (especially for the narrower euro area sample). For the institutional indicators "product market regulation" and "business regulation", Schönfelder and Wagner (2019) find evidence for sigma-convergence in all country groups over the entire period. The only exception is the EA-12 sample which only shows product market regulation convergence after 2008.

Glawe and Wagner (2021) analyze the formation of institutional convergence clusters within the EU over the period 2002 to 2018 by using Phillips and Sul's (2007) log t test. They are the first to apply this method to investigate the institutional dynamics within Europe. Their results indicate the existence of multiple institutional clubs for the WGI dimensions "government effectiveness", "regulatory quality", "rule of law", and "control of corruption", as well as for the mean of these four indicators. Institutional clubs are formed mainly on the basis of geographic region; in particular, there appears to be a northwest-southeast divide for all indicators. Among the Western and Northern EU countries, Glawe and Wagner (2021) identify a group of "top performers", including Denmark, the Netherlands, Finland, Sweden, and also (to a somewhat lesser extent) Germany, the UK, and Estonia. The fact that the latter country managed to join this group is especially remarkable. Among the NMS, the Baltic States perform best, whereas most of the remaining countries that joined the EU after 2004 are found to be stuck in poor institutional traps. The situation is particularly severe for Romania, Slovakia, Slovenia, Bulgaria, Croatia, and Hungary. Additionally, the "old" EU member Italy usually belongs to the lowest club, so does Greece (however, the latter is sometimes also diverging, e.g., for the indicator "regulatory quality", which can be explained by its particularly poor performance).

Glawe and Wagner (2021) also investigate the factors that drive the formation of institutional clubs. The initial levels of human capital and institutional quality appear to be decisive for whether a country is converging towards a good or poor equilibrium (or, respectively, following a high or low institutional trajectory). In addition, Eurozone membership increases the likelihood that the country is located in the highest "government effectiveness" club.

Finally, Glawe and Wagner (2021) also analyze the formation of per capita income clusters. The identified pattern shows a great similarity with that obtained when analysing institutional dynamics; many countries that are found to be caught in a poor income trap are also stuck in a rather low institutional equilibrium. The authors therefore surmise that the underlying institutional clusters might drive the formation of income clubs. Still, the southeast-northwest divide is less pronounced for the income clubs, and some countries that managed to join the highest institutional clubs are still located in the lower income clubs (in particular, Estonia, Lithuania, and Latvia).

3.2.4. Summary of the Main Empirical Findings

While there is evidence for income convergence prior to the introduction of the euro within the core EU, many studies using more recent data rather detect divergence tendencies within the groups of EU-15 and EA-12 countries, especially since the global financial crisis. In addition, various studies show that there exist multiple income convergence clubs within the E(M)U and that these clusters follow a geographic pattern (south versus north and/or east versus west). With respect to nominal convergence, the evidence is rather

mixed. Nominal convergence appears to be strongest for the Baltic States, but relatively weak for most other NMS. There is also some evidence of increasing nominal divergence for the euro area after the global financial crisis. Moreover, most of the convergence in inflation rates appears to have taken place prior to the introduction of the euro. Additionally, with respect to institutional quality, the convergence hypothesis is usually rejected, especially for the euro area. The convergence dynamics appear to be rather similar to that of the per capita income, and recent research also identifies a northwest-southeast divide with respect to institutional quality.

Finally, it is worth mentioning that König and Ohr (2013) introduce a new composite index (the so-called "EU-index") that consists of four different dimensions of European "economic" integration, namely (i) the EU single market, (ii) EU homogeneity, (iii) EU symmetry (of business cycles), and EU conformity (participation and institutional compliance) and a total of 25 individual sub-indicators. The four dimensions partly overlap with the above presented measures of income, nominal, and institutional convergence. Using cluster analysis, König and Ohr (2013) find evidence for a strong and growing clustering of EU member states, which according to the authors might challenge the future steps of the European integration process.

Overall, there appears to be a convergence slowdown and often even a divergence tendency for all three types of convergence (income, nominal, and institutional), especially after 2008.

3.3. Implication: Farewell to the Endogeneity Thesis?

The emergence of divergence is fuelling an old debate, the so-called endogeneity thesis. The Maastricht Treaty was preceded by a long dispute between two camps, as was already the case in the legal agreements before it. The first camp argued for a monetary union to be realized as quickly as possible, even if there were still considerable differences in development between the participating countries. It was argued that the introduction of a common currency would provide an enormous boost (as a motor) in the process of economic policy coordination and in making markets more flexible. This would make it possible to overcome national development differences without major employment losses in the peripheral areas of the new currency area and to deepen and advance the process of institutional integration and convergence. This position is also known as the "endogeneity thesis" (Frankel and Rose 1998) (other terms are "motor" or "locomotive theory"). The (then) French policy is seen as the driver of this policy. In France, the striving for a European monetary union has been evident since the 19th century. This should strengthen the (economic) power of France and create a French inspired / French dominated European order. This was also the driving force behind the Werner Plan of 1971 as well as the Delors Plan of 1988, which were the blueprints for a gradual realization of a European economic and monetary union.

The following four were considered to be the main drivers of endogenous convergence through joining the Monetary Union (see Wagner 1998):

- A greater international trade among the euro area countries
- Greater capital inflows (in particular, FDIs) and their effective use
- Larger transfer payments (due to club solidarity)
- A greater political stability through the transfer of monetary policy-making power to the European Central Bank (ECB).

On the other hand, counter-effects, which may lead to divergence, are: a loss of seignorage; austere fiscal policies; business cycle desynchronization; an anticipatory recession; and unintended contagion effects (as explained in Wagner 2013, pp. 188f., 200f.).

In contrast, the second camp took the view that each country must first press ahead with its institutional adjustment. This view can be understood as a kind of German counterposition to the French push for a possible rapid introduction of monetary union. As is well known, France had prevailed at the time and in return had approved Germany's reunification. (On the ideological oppositions of France and Germany—the two dominant states

in the EC/EU integration process—see more in Brunnermeier et al.'s book (Brunnermeier et al. 2016, pp. 18, 375, 379f.); the dominance of these two states was accompanied by weak institutions in the European Community (ibid.)). The common currency was to be merely the crowning achievement of extensive economic harmonization in the participating states ("coronation theory"). The background to this was the fear that otherwise—against the background of the dominance of particular interests in (economic) policy—any problems that might arise would be concealed by inflationary policies (see, for example, Lipp and Reichert 1991, p. 40). Thus the proponents of the coronation theory implicitly argued that the first four stages of integration (free trade zone, customs union, common market AND economic union) described in Section 2 should be completed before moving on to the introduction of a monetary union. Contrary to this, the EC attempted to introduce a common currency as early as 1971, when Stage 4, the economic union, was far from complete (just in the making), and institutional adaptation/convergence had not yet progressed far even between the then only six participating countries, to which a few years later, in addition to Great Britain, Ireland and Denmark were added (Werner Plan of 1971). This failed miserably at the time, so that the project was officially terminated in 1977. In order not to endanger (save) European integration as a whole, the "European Monetary System" was founded in 1979 on the initiative of France and Germany, which served as a transition scenario until monetary union could be implemented in a second attempt in the 1990s (see James 2012).

On non-European continents, contrary to these warning voices of coronation theorists and despite the negative experiences with a hasty attempt to introduce a monetary union in Europe in the 1970s, attempts were even made to envisage monetary integration before the first stages of integration described above were even seriously begun there (the second, third and fourth stages were simply tried to be skipped). As an example, one can cite the attempts in Asia after the Asian crisis of 1998 to create an Asian Monetary Union (see Hyun and Paradise 2020; Wagner 2020).

As the empirical results derived in Section 3.2 show, the hopes (especially those of the endogeneity thesis) regarding real convergence have only been realized to a limited extent, and indeed income and institutional *divergence (or multiple equilibria)* has even taken place for certain countries and indicators and time periods. This does not mean, however, that integration has not had positive effects on real convergence. This is because we do not really know the counterfactual, i.e., it cannot be excluded that without integration there could also have been or even more divergence (less real convergence). This is not unlikely, especially for the post-crisis periods 2010ff. and 2021ff. For a discussion of the endogeneity hypothesis in the context of the optimal currency area (OCA) debate, applied to the euro area, see Wagner (2014).

This is not surprising from the perspective of modern growth theory. This theory also states that sustainable income convergence is not conceivable without good institutional arrangements. At least five reasons for convergence have already been identified by/in the endogenous growth theory, namely the diffusion of technology, the diffusion of capital or foreign direct investment, international trade, diffusion of labor, and diffusion of information (Sala-i-Martin 2003, p. 124). If we look at the first and certainly the most important reason, we see that the diffusion of technology alone does not benefit a poor country (and certainly does not bring about convergence) because it is very difficult to implement advanced technologies (invented and used in rich countries) productively, i.e., growth-enhancing, in poor countries. First of all, this requires the right amount of human capital. Secondly, however, good institutions (and infrastructure capacities and governance) are the second most important factor for the diffusion of technologies, whereby there is much to suggest that good/adequate institutions are also a precondition for human capital accumulation (and for infrastructure governance). It is not without reason that the (by Sala-i-Martin and others) so-called third generation of growth theories (after the first, the neoclassical Solovian growth theory, and the second generation, the endogenous

growth theory) in the last two decades has focused more on the endogenous creation of institutions.

4. Policy Implications

In this section, we will only briefly discuss the policy implications, focusing on the question of appropriate incentive mechanisms to move the Union forward.

4.1. Various Options for the Further Development of the Union

4.1.1. A "Status-Quo" Policy (a Policy of "Business as Usual")

Against the background of divergence (or lack of convergence), not making fundamental (constitutional) changes (in the EU Treaty) would mean muddling through, which would bring little progress, if any; and possibly even backward developments (slow crumbling) or a standstill in the European integration process.

This is due to the fact that increasing divergences tend to generate more and more resistance against the establishment in Brussels (as was the case with the creation of Brexit, or as is evident today with the decoupling of Hungary and Poland). This would be similar to the effects of the divergences in income and life chances in the USA generated by hyperglobalization and technological progress, which led to a resistance movement against the establishment in Washington DC that culminated in the Trump government.

No reforms can be expected with a status-quo policy, since any loser in the transition process of the reform process would have a right of veto within the EU (because of the unanimity rule on fundamental issues).

Furthermore, there are no (significant) sanctions for breaking the law/non-compliance with agreements (no practical possibilities for exclusion). On the contrary, there are possibilities for blackmail by freeloaders/rule-breakers in the Union (again because of the unanimity rule) that allow "horse-trading".

It is therefore hardly possible to tighten the "no-bailout rule" in view of the expected blockade attitude of the profiteers of a bailout (especially southern and eastern countries). As Brunnermeier et al. (2016) emphasize: "Legally speaking, the German view clearly prevailed in the Maastricht Treaty negotiations. Both a monetary bailout through monetization of debt and a fiscal bailout were made illegal, and the restriction was enshrined in an international treaty." (p. 98). While a fiscal union can be seen as an insurance mechanism, "German policy makers worry not only about moral hazard implications of such an insurance arrangement but also about the prospect that the fiscal union could evolve into a permanent transfer union. (. . .) The perceived fiscal irresponsibility of countries such as Greece contributed to this popular rejection of a transfer union." (p. 106).

Even violations of human rights (or common law principles) in individual EU states can apparently hardly be effectively sanctioned, as the example of Hungary and Poland currently shows, which in this case would threaten with a veto on other votes, as was the case recently with the coordinated EU Corona aid program. Hungary and Poland recently did not want to accept the new mechanism to respect basic democratic rights such as the independence of the judiciary or freedom for teaching or education (which provides for the capping of subsidies in case of violation) and therefore announced a veto of the financial package from the EU budget and the Corona reconstruction fund. This aid program has even been dubbed the "Europe's Hamilton moment" by the German Finance Minister Scholz in 2020, referring to the policy of the then US Secretary of the Treasury Alexander Hamilton. His idea of a debt union tempted the US states at the time to live unrestrainedly on credit. In 1842, nine of the then 29 states went bankrupt. The Princeton historian Harald James showed that this contributed to the tensions that led to the American Civil War. The "Hamilton moment" was not cement, but "explosives". After the Civil War, strict debt limits were agreed in the USA for the states.

Thus, there is a danger of aggravating divergences (the emergence of middle-income traps (MITs) or poor divergence clubs (see Glawe and Wagner 2021; on MITs see Glawe and Wagner 2016)) promoting populism/autocracies (which appear with the argument of

the loss of national sovereignty through European integration, and the lack of democratic legitimacy; examples are Hungary, UK, Poland). See Section 4.2. While nominal economic output in Northern Europe increased by around 37 percent between 2009 and 2018, the South achieved growth of just under 15 percent in the same period (iw-kurzbericht 100/2020, p. 12).

In summary, it must be feared that no progress will be possible with a status-quo policy. The EU appears to be too large and too heterogeneous for this.

4.1.2. Exit (Exclusion) of Individual Countries

The costs of a (voluntary) exit of a member state would be very high and uncertain (in order to be able to estimate this exactly, it would require country-specific cost–benefit comparisons). For Germany, the loss of high "target claims" would be associated with such an exit.

On the other hand, an exclusion of individual countries (against their will), which is hardly legally possible at present anyway, would leave behind "scorched earth". Moreover, it would be premature if the governments that do not adhere to rules were in office only for a short period of time and since it would be difficult for a successor government to re-enter. Therefore, one should not imprison/punish a whole country for a longer period of time for a certain government not adhering to rules for a shorter period of time (like the Trump government in the USA, this could only be an episode in between).

Another reason against a hasty exclusion of other non-cooperating (rule-breaking) member countries is the likely consequence of a resurgence of protectionism (as in the 1930s)—which would be harmful to both sides. Globalization in particular exerts pressure on autocracies and institutional stragglers (reform opponents) and promotes transparency and democratization (to which the rating agencies in particular contribute through their policy of public pillorying).

Therefore, in our opinion only the following third variant is promising.

4.1.3. A Multi-Speed Europe

This option is already included in the EU Treaties in Articles 326–334 TFEU. The Treaty on the Functioning of the European Union (TFEU) is, along with the Treaty on European Union, one of the founding treaties of the European Union. Together they form the primary legal basis of the political system of the EU. The TFEU has been in force since 1 December 2009 (Treaty of Lisbon).

Actually, it is an old proposal by Lamers and Schäuble from 1994 (setting out the idea of a Europe of "varying geometry" which relied on a "hard core" provided by Germany and France: Karl Lamers and Wolfgang Schäuble, Überlegungen zur Europäischen Politik, 1 September 1994).

The underlying goal is to create flexible entry and exit options (a "breathing" system) with possibilities for re-entry (for successor governments of rule-breakers).

A multi-speed Europe could look like that there would be three groups:

Group 1: the member states willing to reform (should be a homogeneous, already advanced group if possible)
Group 2: the countries that need and want a time-out
Group 3: Countries that want to stay in the club, but want to progress more slowly

This could create a permeability (by means of contract constructions). In addition, it would help some EU countries to react more quickly to the structural change and the resulting challenges that are becoming faster and more complex in times of globalization.

However, even in a multi-speed Europe, there is much to be said for trying to eliminate the unanimity rule, although it can be countered that giving up the veto (with a qualified majority decision instead) would risk exploitation by the (qualified) majority of the other member countries (but which is also a characteristic of any democracy). In any case, however, an attempt should be made to strengthen the no-bailout rule, and to address the trilemma problem in the EU mentioned in the next section.

4.2. Specific Political Implications with Respect to Institutional Divergence

In the following, a very brief list of some pressing challenges for the European integration process is given.

(1) Unanimity rule

A reason for trying to get rid of the unanimity rule (despite the fear of individual countries to be "exploited" in this case by a majority of the other member countries) is that the unanimity rule promotes free-rider behavior and blackmail attempts as described above.

The unanimity rule has the potential to blow up the EU: look at Hungary and Poland, in connection with their refugee refusal attitude in the joint attempt to find a European solution to the migration problem; another negative example is Great Britain with its Brexit. Such a behavior could lead to destabilization and standstill in the European integration movement.

In addition, the unanimity rule makes it easier for countries outside Europe to try to split the EU. Examples of such an attempt have been Trump's divisive policy, but above all China with its Silk Road Project.

(2) Middle-Income Traps

There are already some MITs in Europe that threaten to increase with divergence (MITs corresponds to inferior income clubs; see Section 3.2 above). This problem can only be avoided, if at all, if the rise of populism and deliberate rule-breaking by individual member states is successfully combated.

(3) Emerging populism and autocracies in individual member states

The reasons for the disappointing experiences so far with convergence in Europe include the politically driven selection of new member countries; and the weak incentives and sanction mechanisms (bad risk management); see Wagner (2013, p. 197). The latter encourage selfish free-rider behavior and thus also allow populism and autocratic structures to emerge in individual member states.

(4) Trilemma problem in the EU

It can be argued that enlargement, deepening and national sovereignty (or even democracy) cannot be achieved simultaneously, since unlimited enlargement and deepening lead to an ever-increasing heterogeneity of the European Union. As a result, it can be argued, a common policy must come into conflict with (the heterogeneous) national preferences. This can be described as a kind of "trilemma" in the EU.

On the other hand, enlargement and deepening in Europe are needed to create a minimum size and clout as a political counterweight in Europe against the great powers USA and China. To manage this trilemma problem of the European integration successfully is essential for the survival of the EU, because this trilemma problem at some point threatens to become bigger and more visible as a trouble spot and can ultimately lead to the unsustainability of the European integration process (see more closely—in relation to a similar trilemma problem in China: China's "political-economy trilemma"—Wagner 2021).

An obvious solution (if/since the current enlargement cannot/should not be reversed) would again be a multi-speed Europe (see above), although this could weaken the political counterweight of the EU against the USA and China.

(5) Defence against attempts at division by non-EU countries

In recent years there have been frequent attempts from outside to create a rift between EU countries. Examples of this were: attempts by US President Trump during his reign; but above all China with the help of its special aid/credit policy within the Silk Road Project (BRI) and the annual 16+1 economic summits since 2012.

5. Conclusions

The point of this article was not to badmouth European integration. On the contrary, European integration has brought peace, prosperity and opportunities for hundreds of millions of people. A continent where people fought and slaughtered each other for centuries has thus become a model with charisma for many other countries outside Europe as well. The EU has become, as is sometimes said, a soft or "quiet" world power that has not only gained global importance in terms of economic bargaining power, but also sets globally effective standards (norms, legal rules) in matters not only of data and environmental protection (Bradford 2020).

Nevertheless, one cannot close one's eyes to the fact that the EU is a relatively young entity by historical standards, in which 13 (16) of the 27 member states only joined in the period since 2004 (1995), and which consequently still exhibits great internal heterogeneity in terms of economic, institutional and structural development. This in turn raises the question of the EU's resilience or internal stability (sustainability), which becomes particularly virulent in times of major crises or upheavals or when ambitious goals are missed. This paper addresses this internal heterogeneity and thus the vulnerability of the EU.

Our paper also provides an overview on the results of a wide range of econometric studies on the convergence dynamics within the E(M)U. With respect to *income* convergence, early contributions often report evidence of beta-and/or sigma-convergence among the core EU economies, especially prior to the introduction of the euro. However, more recent studies rather ascertain divergence tendencies for the group of EU-15 and EA-12 countries which have increased particularly since the global financial crisis. In addition, various studies point to the existence of multiple convergence clubs which usually follow a southeast-northwest divide. Regarding *nominal* convergence, the literature also detects an increasing divergence tendency starting from 2008. In addition, the bulk of progress with respect to inflation rate convergence for the EA-12 was already achieved prior to the formation of the euro area. Moreover, nominal convergence is found to be relatively weak for most NMS (except for the Baltic States). Additionally, concerning *institutional* quality, the convergence hypothesis is rejected by the majority of studies (especially for the Eurozone); instead, there seem to be multiple institutional equilibria. Interestingly, the formation of institutional clusters shows resemblances to that of income clubs in the sense that there is a similar geographic concentration of rather well and rather poorly performing countries. This is important because, as explained above, there is much to suggest that institutional convergence is a precondition for sustained income convergence. Or, to put it another way, the absence of institutional convergence jeopardizes the sustainability of income convergence, as the latter would then only be maintainable via ongoing transfer payments, which might not be politically sustainable in the long run.

The latter needs more empirical research, which is on our research agenda. In future, divergence (institutional as well as income divergence) should be understood more as (also regional) club divergence instead of predominantly country-related divergence.

Overall, the majority of (the more recent) econometric studies on the convergence dynamics within the E(M)U agrees that, especially since the global financial crisis, divergence tendencies for all three types of convergence—income, nominal, and institutional—have emerged or intensified.

We argued that this is due to the fact that the member states of the EEC/EU (led by France and Germany) have adopted a risky strategy by allowing a politically motivated strong enlargement process with ever stronger inclusion of institutionally/structurally weaker states. On the one hand, this has made the EU a geopolitical heavyweight, which can have a positive effect in the globalization process and in the current new system competition between the great powers, the U.S. and China; but on the other hand, it has slowed down or inhibited the possible deepening process of European integration. Moreover, the entire integration process was destabilized in this way, as (at least after monetary integration) the convergence process came to a standstill and even divergence processes (or several convergence/divergence clubs) emerged. This, in turn, has led

(especially after the global financial crisis) to an immense increase in ongoing financial aid for the weaker member states, especially those that have lagged behind institutionally, which may further increase the risk of destabilization.

To sum up one can say that the European Integration project was a good idea, but it has been rather poorly implemented (due to design flaws and policy errors).

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