The Journal of Comparative Economic Studies, Vol.12, 2017, pp. 21–52.

The Crisis of the Eurozone: Institutions, Policies and Structural Factors

Bruno DALLAGO[1]*

* *University of Trento, Italy; bruno.dallago@unitn.it.*

Abstract: The euro is based on an irreversible voluntary but incomplete contract among politically sovereign countries. Incompleteness of the institutional setting goes with asymmetric policy setup and effects. This situation is cause in itself of ineffective solutions to distress, but should be considered as reasonable in a group of countries which lack full mutual trust and intend to avoid inter-country distributive processes. Along with the incomplete institutional setup and asymmetric and restrictive policies, the Eurozone also includes serious structural problems. These three factors contribute to the internal divergence between vulnerable and resilient countries. While this divergence may threaten the economic and monetary unification, recently the Eurozone has advanced and started to implement a series of institutional and policy changes that may foster a positive evolution of integration.

Keywords: Eurozone, euro, Economic and Monetary Union, institutions, fiscal policies, monetary policies, structural factors, divergence, European Central Bank

JEL Classification Numbers: E02, E42, E44, E52, E62, 052

1. Introduction

In an answer given to a question posed by two Italian members of the European Parliament, the president of the European Central Bank (ECB), Mario Draghi, stated: "If a country were to leave the Eurosystem, its national central bank's claims on or liabilities to the ECB would need to be settled in full".[2] Although the message is apparently clear and its meaning obvious, it raised a hot debate: for the first time, the ECB at its top apparently admitted that it is after all possible for a country to leave the euro, although this has a cost.

Calculations made in the case of Italy, the country of origin of the two requesters and a country often mentioned as a possible leaver, reached a rather impressive figure: gross liabilities to the ECB through TARGET2 system[3] would be approximately 360 billion euros[4], or nearly 23 percent of 2016 Italian GDP. Net liabilities would be around 310 billion or 20 percent of GDP. Most experts calculate that, if Italy were to leave the euro, the national currency would depreciate by around 30 percent. The Italian GDP would depreciate accordingly. Since the country's liabilities to the ECB have to be settled in euros, the cost of monetary sovereignty would jump to one third of Italian GDP. To these costs, also the costs on public debt should be added.[5] Costs for other countries having sizeable liabilities to the ECB compared to their GDP (Spain, Greece and Portugal in particular) would also be quite high. If this interpretation were correct, the willingness to trade monetary sovereignty for sizeable financial costs would still be a question of national sovereignty and it would be possible to leave the euro.

So far, the official view was that countries in the monetary union bought a one-way ticket to the common currency: entrance without exit. Indeed, European agreements and treaties and the Maastricht Treaty in particular, make leaving the euro impossible. Understandably so, since one country's exit would jeopardize trust in and solidity of the euro and hence hit negatively other countries. The harsh debate with and approach to Greece in summer 2015 abundantly demonstrate this point. Various economists and policy makers made clear that abandoning the euro would lead a country to economic disaster, both economically and politically, although this perspective is not sufficient in itself to deter a country to do so. Yet others doubt the irreversibility and maintain that leaving the euro or even dissolving consensually the euro would provide a happy end to a supposedly unsustainable situation.[6] Draghi's statement gave apparently support to this view.

Then Draghi clarified the issue in the answers given following his speech at the European Parliament on February 6, 2017.[7] Many other European officials and economists stressed the strength of irreversibility. The ECB, in its policies and action, and the EU made repeatedly clear the concept and gave it substance in the economy and politics. The euro, the common currency of 19 European countries, has to be considered as irreversible in any sense, although it is not indestructible.[8] Having established the perspective of the common currency, though, does not free it of the problems. Hence, it is important to understand and explain why it is so. The best explanation can be found in the institutions supporting the common currency, their relation to national institutions and the nature of the euro, which is clarified by its history and implementation. The euro thus offers an important case study of the possibility of institutional convergence or at least the cooperative cohabitation of different national economic systems.

The institutional basis establishes that the euro is irreversible, since it is based on an irreversible voluntary but incomplete contract among politically sovereign countries. Indeed, member countries of the Eurozone keep full sovereignty in many other fields outside monetary issues. In particular, they keep sovereignty in fiscal affairs, although their sovereignty is constrained by European agreements and rules into which member countries entered voluntarily: convergence criteria and the Stability and Growth Pact (SGP) in particular (Dallago 2016).

This paper aims at analyzing the institutional, policy and structural causes of the Eurozone distress and at identifying possible ways out. The following section looks at the institutional setup of the Eurozone, comparing it to an incomplete contract among member countries, and highlights the reasons for its incompleteness and consequent asymmetries. These are causes of economic and financial distress, as section 3 highlights. While it is true that the Eurozone distress was revealed by the external shock of the international financial crisis, the specific causes and forms of its prolongation have be looked for internally, in the institutional setup, the policies implemented and the structural factor that characterize the Eurozone and its member countries. The analysis of these issues is undertaken in Section 4.

Institutional incompleteness, restrictive fiscal policies - initially also monetary policies - and structural problems in various member countries caused negative economic and fiscal outcomes, which cause a dangerous internal divergence among member countries. These are shown and discussed in Section 5. While the economic and financial situation of the Eurozone is still problematic, interesting signs of a change in strategy are appearing, as Section 6 concludes.

2. The institutional setup of the Eurozone

The incompleteness of contracts is a well-known problem since the path-breaking works by Herbert Simon and Oliver Hart on respectively bounded rationality and contract theory. Social actors have generally bounded rationality, because they do not possess the full ability to exactly foresee and articulate in a contract all possible contingencies of the future state of events. Incompleteness may also derive from the presence of transaction costs. In both cases, bounded rationality and the need to economize on transaction costs require contracts to be incomplete. This certainly represents well the situation of the Eurozone. The Eurozone is both institutionally incomplete and asymmetric in policy making.

The Economic and Monetary Union (EMU) foresaw the common currency in order to manage symmetric shocks. At the same time it foresaw to leave fiscal policies under the control of national governments in order to react to asymmetric shocks (Buti and Sapir 1998). This solution caused the institutions linking Eurozone countries to remain incomplete and be asymmetric in their policy instruments and effects. In fact, the common monetary policy, which should solve symmetric shocks, transmits the effect of external shocks in an asymmetric way to its member countries, depending on the features and the situation of their economies. For instance, the increase of interest rates leading to an appreciation of the common currency does not hart, and may even favor countries with rigid exports. However, it hurts countries with elastic exports. Since a part of the monetary union may gain, no downward adjustment of the exchange rate takes place automatically following current account deficits in some countries. The central bank may be politically impeded to take active measures to weaken the common currency by the upward pressure from current account surpluses in particular large economies and the opposition of the countries gaining from the strong exchange rate. The losers also have a hard time in using fiscal policies to counteract the appreciation, because this would increase their budget deficit.

Moreover, institutional incompleteness opens the possibility for opportunistic behavior by the parties in the contract. Incompleteness prevents the possibility to perfectly align incentives, which prevents full and perfectly convergent commitment by the parties. Imperfect commitment and idiosyncratic incentives may induce one of the parties to activate actions to its own advantage and to renegotiate ex post the terms of the contract. European monetary integration offers important examples of this kind of behavior: from the misrepresentation of official statistics by Greece to various cases of excessive deficit by many member countries, including Germany. Enforcement by the peers suffers from non-alignment of interests and weak effectiveness, particularly when the non-compliant is a strong country.

It is to avoid these events, which could jeopardize the monetary union, that clearly defined and rigidly implemented convergence criteria were identified and voluntarily subscribed by all the countries participating in the monetary union. However, criteria, agreements, treaties and pacts cannot be perfect and leave inevitably room to mismanagement and bargaining. Moreover, when external or internal circumstances change in such a way and measure that was not foreseen at the time the contract was stipulated, it is necessary to introduce a degree of flexibility in the management and enforcement of the contract to avoid negative outcomes. All this weakens the effect and credibility of the contract, creates uncertainty and increases transaction costs of the monetary union. Only the member countries' political will to support the monetary union can keep these phenomena under control.

The irreversibility of a contract could make the situation even more difficult, since each of the parties could threaten the others to disrupt the monetary union (e.g. via excess deficits or current account surpluses), thus increasing transaction costs of the monetary union. Consequently, governance and the effectiveness of governance structures are of the utmost importance, as we know from Oliver Williamson. The European Central Bank is the most obvious such governance structure. However, institutional incompleteness has relevance also here, although this is for political reasons and not for the difficulty to foresee the future.

The ECB, in spite of its strong autonomy, is itself an incomplete organ: it is not fully sovereign, its mandate is limited and incomplete. It is not fully sovereign because monetary decisions are taken by majority in the Eurosystem[9], which includes the ECB together with the 19 National Central Banks (NCBs) of the member countries.[10] NCB's representatives bring their country's view in the decision-making process. This may be the source of distorted monetary policies favoring the strongest countries, although so far the common interest has tended to prevail, at least in the long run. The mandate of the ECB is limited to keep price stability, the latter being defined as "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2 percent". The ECB Governing Council made clear that this has to be meant as maintaining inflation rates below, but close to, 2 percent over the medium term. Although this mandate leaves a vast spectrum of policy instruments available to the ECB, the central bank is not in the situation of considering other important aspects of economic activity, such as employment, as the US Federal Reserve has to do.[11]

Finally, the ECB is an incomplete central bank, since it is an incomplete lender of last resort (LOLR). According to a well-established practice, central banks should create liquidity both for the entire financial system and for solvent but illiquid banks. So far, this function belonged in the NCBs. With the development of the European Banking Union, the supervision of the most important 120 banks was transferred to the ECB, but the LORL function is still the function of the NCBs, although under European constraints against state help to market players.[12] Moreover, the ECB cannot finance directly governments by buying directly state bonds. However, it can lend to countries in distress and can buy bonds on secondary markets through different instruments.[13] It is fair to say that important developments are taking place in this field, particularly following the international crisis and the referendum in Great Britain in 2016.

For a contractual relation to be viable, enforcement is needed by a third party. In the Eurozone enforcement belongs primarily in peers, i.e. the member countries of the Eurozone and their common institutions (Eurosystem and the Eurogroup).[14] Enforcement is based in the Stability and Growth Pact (SGP)[15], a set of rules designed to ensure that countries in the European Union pursue balanced public finances and coordinated fiscal policies. The Pact works through predefined procedures that are activated in the event the value of one particular short-run parameter, public deficit, becomes excessive. Although this system is financially effective, it is one-sided and skewed to a short-term perspective. It does not give proper relevance to the long-run conditions of economic sustainability and growth.

Overall the Eurozone is still rather far from a desirable settlement, one that combines fiscal responsibility, financial stability and common effort for development. While the Eurozone had and has great merit for giving protection and stability to its member countries during the crisis, keeping interests rates and inflation low and speculative attacks against the common currency at bay, it has also imposed rigidities, limits to policy making and costs to the population. The common interest is strong and fairly well served by European institutions. However, the present incomplete and asymmetric institutional and policy construction is also disadvantageous, in particular for vulnerable countries.[16] These countries suffered particularly damaging consequences from external shocks and Eurozone rigidities during the crisis, although being members of the monetary union offered them significant protection and benefits.

The problems of the Eurozone are demanding. It has to continue adjusting incompleteness and asymmetry at European level. In doing so, it should take on a more pro-growth perspective without giving up the need for reasonably balanced finances, a necessary condition in a group of partially sovereign countries.[17] Last, but certainly not least, it should foster the convergence of real national economies. This could be reached through a massive European plan for investments or by excluding investments from consideration in convergence criteria.

The hints from the contract theory are guidelines for understanding the apparently irrational Eurozone situation and behavior. It turns out that the Eurozone is after all based on economic rationality and that the solution to its problems should be looked for in completing and fixing its institutional structure, so that economically rational behavior leads to collective and national wellbeing. In the next sections I sketch the main problems and their causes.

3. Distress, causes and dilemmas

After years of apparently unchallenged success, stability and good economic performance, the Eurozone entered a prolonged period of distress and glooming performance. The spark was the financial crisis which started in the United States in 2007 and that influenced the Eurozone through different channels. Initial optimism apart, the Eurozone was severely hit for a long period, a period that at the time of writing is not over, although the situation is slightly improving. Although the contagion from the United States certainly played a role, it is fair to recognize that much of the damage to the Eurozone economies was home-made: by the Eurozone itself and by its member countries.

Unlike the United States, where the crisis was severe but rather short, the Eurozone went through a double tip, the second one in 2011 and 2012 being particularly severe and alarming (Dallago 2016a). For one country in particular, Greece, the cost of the crisis has been so far worse than those suffered during the Great Depression in the early 1930s. Lately, new and alarming causes of distress and concern have been accumulating. It is useful to distinguish them into external and internal causes, depending on whether they are independent from or dependent on the Eurozone construction and governance. It is also important to have clear the dilemmas that the Eurozone is called to clarify and take on.

External causes are both of economic and political nature. The main external causes of distress that are presently threatening the stability of the Eurozone are the policy orientation of the Trump administration in the United States; the political and social turmoil in the Middle East, with negative consequences for political stability, the supply of energy sources and the flow of migrants; the political tensions with Russia and the economic consequences of cross-sanctions; the growing inward orientation of the Chinese economy, the unclear long-term effects of the Chinese policy of acquisition of European firms and its investments in European infrastructure.[18] These events and initiatives are changing the external context of European activity and may place the EU, the Eurozone and its member countries under distress and oblige them to divert their attention and initiative away from their domestic problems. Some such events and initiatives of them may also jeopardize European interests, threaten European external markets or the supply of important goods and may require costly undertakings, including increased defense expenditures.[19]

Internal causes of distress include the Eurozone institutional setup and policy rigidity, the growing divide between vulnerable and resilient countries, the prolonged stagnation or ailing revival of the Eurozone economies, the continuing economic and fiscal problems of some of the member countries and the growing threat of political populism and anti-Europeanism. In the following I shall concentrate particularly on these causes. Finally, there is one cause of distress that is the source of serious and probably prolonged dilemma. It started as an internal cause but is bound to become a mixed internal-external one soon.[20] This is Brexit, the first case of a member country of the EU, Great Britain, having voted for leaving the Union. This is not only an unforeseen and unexpected event, but also one that the EU is ill prepared to manage (Dallago 2016b). Although Great Britain is not a member of the Eurozone, Brexit has inevitably important effects also for the monetary union, given Great Britain's central role in European financial markets.

It was already mentioned that the institutional setup of the Eurozone is ways less than what is needed. This is due not to the inability of Europeans to understand what is needed for having an economic and monetary union working well and keeping stability. As soon as 1970, the first founding document of the economic and monetary union, the Werner Report (1970), considered that "only the global balance of payments of the Community vis-à-vis the outside world is of any importance. Equilibrium within the Community would be realized at this stage in the same way as within a nation's frontiers, thanks to the mobility of the factors of production and financial transfers by the public and private sectors". This is what actually happened before the crisis, although it contributed significantly to the accumulation of financial and real estate bubbles in various Eurozone countries. Moreover, the Report disregarded that structural problems in national economies may prevent that resource mobility actually contributes to the economic and financial stability and convergence of countries. The Report also foresaw inter-country transfers, including transfers of sovereignty as the milestone of economic and monetary integration and considered political coordination and integration as necessary complements to the monetary union.[21]

Having lost faith in the self-sufficiency of the solutions identified in the Werner Report, mainly due to national governments' opposition or foot dragging, the subsequent very influential Delors Report (1989) placed the accent on national imbalances and the need to put them under control, but also to reform national economies in order to make them more efficient.[22] Therefore, it is not sufficient to look for the origin of the present European problems in the Eurozone. Member countries must at least share the responsibility.

The main reason for the weakness of the institutional setup lies in the unwillingness of national governments to give up their sovereignty, the fundamental lack of deep trust among European countries, the unwillingness to give greater democratic legitimacy to EU organs and the differences in the starting conditions. Eurozone countries differ significantly in their economic, political and social features. It is thus extremely difficult, perhaps impossible to find an institutional setting that would accommodate these differences in the lack of full and complete sovereignty in the hands of Eurozone organs. European organs have been very well aware of these problems for many years, yet they trusted that they could be accommodated and progressively solved through the evolution of the economic and monetary union. Thus the Eurozone could not be a complete achievement, but only a process to be completed progressively, predictably among problems, conflicts and progressive adaptation and steps to completion. The real problem of the Eurozone, then, is not its pretended irrationality or lack of viability, but whether the process will have enough time to go through, among mounting internal and external threats and difficulties. Therefore, speed in pursuing its completion is of the utmost importance. In the next section I review the three fundamental sources of integration difficulties.

4. Internal causes of distress: Institutional setup, the economic and monetary Union, and policies

There are three main sources of the Eurozone difficulties: the institutional setup of the Eurozone, policies, and structural factors. These factors are important in themselves and because they interact in ways that reinforce distress and open continuously dilemmas.

a. *The institutional setup.*

The institutional setup of the Eurozone has a set of features that are important, but not sufficient to explain the present difficulties. Common institutions are incomplete and asymmetric, as stressed in section 2. They are also strongly skewed towards financial stability, to the disadvantage of growth. Moreover, they are unique for countries which are in different, sometimes deeply different situations. In doing so, they impose additional costs and difficulties to countries which are far from the ideal situation on which the common institutions are implicitly based, i.e. in line with what ordoliberalism requires: balanced budgets, ordered competitive economy, efficient and effective public administration, strong and stable currency.[23] Particularly important is that the ECB was set up with the strict mandate of keeping price stability, in line with ordoliberal (and German) precepts.

However, not many countries in the Eurozone share this view and such setting. Most countries have distinct economic, political and social philosophies, a different approach to economic issues and dissimilar sensitivity to economic variables. The nature of Eurozone institutions requires that member countries whose institutions are far away from the ordoliberal principles adapt their institutions and their behavior. Since few put the German institutional strength and economic success in doubt, and given Germany's overwhelming economic power, not much discussion took place about Eurozone institutions. Their acceptance by member countries was surprisingly fast and (nearly) smooth. The problem, then, was to adapt national institutions. This required in some cases deep and far-reaching reforms, in particular for countries used to recover international competitiveness via depreciation and with high public debts, inefficient public administrations and social conflict. This was more easily said than done. In the years elapsed since the adoption of the euro, many Eurozone countries still continue with their traditional, formal and informal institutions, often obsolete (labor market institutions, strong lobbies), costly (welfare, public administration), inefficient and ineffective (economic and legal institutions for doing business).[24]

The institutional setup of the Eurozone is the origin of internal tensions and its effectiveness is doubtful because of its incompleteness and asymmetry and because it is at odds with national institutions of many member countries. As defined above, the Eurozone is based on an irreversible incomplete contract among politically sovereign countries. Although this solution was identified to avoid the uncertainty deriving from the novelty of the economic and monetary union and the impossibility to foresee accurately future contingencies and events and keep transaction costs at bay, it nevertheless created uncertainty and left a broad discretionary area which opened the danger of free riding and conflict among member countries. To avoid these dangers, effective governance is needed, a goal that was not fully implemented so far, as stressed above.

There is a rationale at the basis of this situation, but the final reason lies in the political prudence of member countries in giving up their sovereignty. Among the important features of the resulting institutional setup are: the European Central Bank is not a full lender of last resort and has limited mandate; common bank supervision is incomplete; fiscal governance and fiscal management are informally, yet effectively split between peers in the European Council, the European Commission[25] and national governments and is restrictive, particularly for countries in distress; the collective political will is not guaranteed and there is democratic deficit in the Eurozone; governance is asymmetric due to the differences between monetary and fiscal sides.

The resulting governance relies on effective, but skewed enforcement. In fact, enforcement belongs mainly in peers (Eurogroup, Eurosystem); is based on formal rules (convergence criteria, SGP); is tailored to short-run fiscal discipline; works through predefined procedures in case of non-compliance; processes are lengthy and cumbersome; disregards long-term goals (growth and development); is source of moral hazard and conflicts.

Institutional incompleteness and asymmetry caused the common currency to have a double nature. The euro is a well-managed and solid currency, which protects member countries from external shocks and decreases transaction costs. However, institutional incompleteness and asymmetry cause the euro to have different and diverging effects in separate countries as a consequence of their starting conditions and particular situation, without sufficiently effective compensating mechanisms. Since the exchange rate and monetary policy are the same in the entire Eurozone, irrespective of the particular situation of its member countries, the euro risks feeding a self-defeating mechanism. If productivity in the member countries diverges while costs converge, as it happened particularly until the crisis, prices and real exchange rates diverge and current accounts depart. As a consequence, fiscal compliance, growth rates and (un)employment diverge. To fix this dangerous situation, in the lack of a common government with the power to transfer resources among countries, policies should be different according to the particular situation of each country. However, convergence criteria make this impossible. Hence real divergence increases further and fiscal compliance of vulnerable countries moves away from the required objectives. This in turn increases the suspicion against possible free riding countries, which jeopardizes mutual trust. Under these conditions, the only economic rationale is to find a common minimum denominator to keep the monetary integration afloat. Short-run fiscal discipline offers such easily verifiable denominator, which however gives priority to short-run financial stability over growth and employment.

b. Policies.

Monetary integration was born largely under the sign of German ordoliberalism. This very fact, the dominant approach of international organizations – the Washington Consensus[26] and the IMF[27], - and popular economic recipes – such as expansionary austerity[28] – led European authorities and national governments to pursue and enforce austerity policies and internal devaluation to fight the crisis.[29]

Policies derived from these ideas were implemented for years in the Eurozone. One can wonder why, confronted with clearly negative outcomes, Europeans insisted for such a long time with these policies. Certainly economic and political ideology played an important role.[30] However, it is important to see how this approach promised to minimize the threats for the economic and political stability of the Eurozone and how it was seen as an instrument for disciplining member countries to the virtue of parsimony, hard work and good public management.

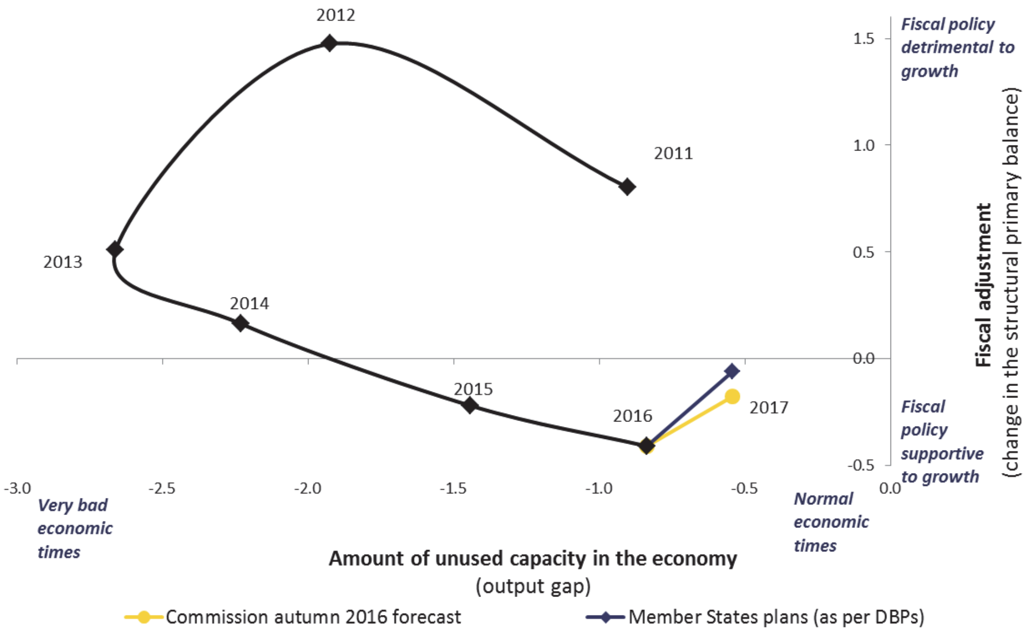
In short, austerity was seen as a device for disciplining the member countries and avoiding the distributive effects that expansionary policies leading to budget deficits usually have. Probably this saved the monetary union, but caused significant and long term economic and social costs and disruption to many countries, with serious political risks. Perhaps the worst outcome of austerity and internal devaluation was the collapse of investments in vulnerable countries, together with a permanently low degree of capacity utilization in industry, which cast a negative shade for years to come (see Section 6). Although one has to admit that the disciplining effect was not negligible, these policies did not work in an expansionary sense and contributed to worsening significantly the economic and social situation of countries in distress and of the entire Eurozone. It was the evidence of the negative effects, together with the indication of more transparent and reliable behavior of countries in distress that led the European Commission and the European Council to progressively soften the rigid implementation of convergence criteria.

Along with the negative effects of austerity policies and internal devaluation, a fundamental problem for the Eurozone was that concern for growth and full employment did not go beyond words and sporadic action. In a monetary union, growth can only come primarily from fiscal policies. In fact, in a strongly integrated industrial and trade area as the Eurzone is, monetary policy can support expansion only through the depreciation of the external exchange rate and only if the Marshall-Lerner condition holds. The ECB followed this policy since 2015 and the effects were beneficial primarily for vulnerable countries, which have on average elastic exports.[31] Also thanks to the persistent stagnation of the economy, current accounts could improve remarkably also in vulnerable countries.

A second line of monetary policy support to economic activity came through different unconventional initiatives, in particular Outright Monetary Transactions (OMT)[32], and the use of the ECB three standard policy instruments (open market operations, standing facilities, minimum reserve requirements for credit institutions). An expanded asset purchase program (APP), including different actions, strengthened monetary support. APP complemented the existing private sector asset purchase programs with a considerable asset purchase program for public sector securities. The ECB action was successful in avoiding that the Eurozone slips further into deflation and in reversing, at least slightly, the trend.[33] In 2016 prices started to move upward, in line with the ECB mandate.

Fiscal policies, conversely, continued to be restrictive until at least 2014 and only very mildly expansionary afterwards (Chart 1).[34] However, this refers to the Eurozone. The situation of individual member countries continued to remain apart, with restrictive fiscal policies dominating in vulnerable countries, the ones which actually needed more fiscal stimulus. At the same time, countries able to implement more expansionary fiscal policies, in particular Germany, continued to be fiscally prudent. The outcome is that growth is still ailing and output gap significant, at least until 2015, while countries in greater difficulty, first among which is Greece, continue to need support by the other countries. While the ECB helped by providing first aid and gaining time, bolder fiscal action is still pending.

Chart 1. Eurozone fiscal stance over 2011-2017



Source: EC (2016)

c. Structural factors.

The third, too often disregarded component of the Eurozone difficulties are structural factors. Although similarities exist among Eurozone countries, and while these features contribute to explain the growing divergence of the Eurozone compared to the United States and emerging countries, structural factors are particularly apt to explain why certain countries are vulnerable, while others are resilient. Indeed, vulnerability originates mainly, although not exclusively, in these factors and in the ability of national governments to deal properly with them in due time.[35] It is appropriate to mention among these factors the unfavourable demography and the welfare system, problems with productivity, and the irregular economy.

The demographic situation is on average quite unfavorable. According to Eurostat database, the old-age dependency ratio has been rapidly growing in the Eurozone.[36] While the situation is similar on average in vulnerable and resilient countries, the ageing process is quite significant in some countries, less in others. The increase of the old-age dependency ratio is particularly evident in Italy, followed by Greece, Finland (where the process is accelerating), Germany (where it is slowing down), and Portugal. Old-age dependency ratio is the lowest in Ireland, followed by Luxemburg (where the ratio is stagnating), and Cyprus. What is remarkable is that inter-country differences are growing and their dispersion is rapidly increasing.[37] At the same time the share of the population between 0 and 14 years of age decreased, with the exception of Ireland, where it increased remarkably. The share is the lowest in Germany, followed by Italy, Portugal, Austria and Greece. While the dramatic increase of the old-age dependency ratio progressively increases the burden for the welfare system, the decrease on the youngest age groups project a dramatic worsening of the old-age dependency in the future.

Ageing population brings to the forefront the sustainability of welfare systems. These are under the responsibility of national governments, proposals of introducing a European system of unemployment benefits notwithstanding. The pension system and health care are the two most relevant items in national budgets and the aging population is bound to make them increase further. Various reforms were attempted to ease the problem, but these were often too harsh, perhaps more for the young than for the old. Pension age was postponed substantially in all countries, but particularly so in countries in financial distress, with negative consequences for youth unemployment. Health care became less generous, with signs of negative consequences for public health. While keeping rising costs under control is inevitable in ageing countries, reforms failed to really innovate the pension system and health care and make them more efficient. In most cases, reforms consisted of cutting costs, hence the benefits for the population. This clearly had negative economic and social consequences likely to continue in the future, including negative effects on aggregate demand, since they pushed large cohorts of adult population to decrease consumption and increase savings to match increasing life uncertainty.

A second problem that in many countries has a structural explanation is ailing productivity. Productivity is important, among other things, because it strongly influences competitiveness. Productivity had a strikingly divergent evolution in resilient and vulnerable countries. Productivity (measured as nominal unit labor cost based on hours worked according to Eurostat data) decreased dramatically in vulnerable countries since 2009, except in Italy, where it slightly increased. Conversely, productivity increased significantly in all resilient countries, particularly so in Finland, Austria and Germany.

Multifactor productivity (MFP, OECD database) was fairly dynamic in Germany and Ireland and less so in France, but in most countries MFP stagnated since the crisis. Overall, MFP in resilient countries evolved in line with the United States after the crisis, but was remarkably less than in the US before the crisis. In vulnerable countries, the stagnation of MFP is a longer-term phenomenon which pre-existed the crisis. This conclusion is all the more important, since MFP reflects the overall efficiency with which labor and capital inputs are used together in the production process and thus MFP reflects innovation and change in the economy. This suggests that the little growth that took place in vulnerable countries before the crisis was primarily the outcome of changes in labor and capital inputs (Boone et al. 2013), the latter often imported from resilient countries. There are many reasons behind this negative outcome, including outdated management practices, an industrial fabric excessively made of tiny firms and powerful lobbies disrupting competition.

A further important structural factor is the irregular economy, which includes such practices as tax evasion, corruption and the employment of irregular labor. According to estimates, the presence of the irregular economy is spread particularly in vulnerable countries.[38] The same refers to the perception of corruption. Overall, there is a remarkable difference between vulnerable and resilient countries also in this field (Dallago 2016). Since these are aspects that influence directly the revenue of the state and the level of taxation (through tax evasion), the working of the labor market (trough the irregular employment of workers) and the smooth working, transparency and reliability of public administration and enterprises (through corruption), their diffusion leads to unbalanced public budgets, excessive taxation and distorted incentives and competition.

5. Outcomes and consequences

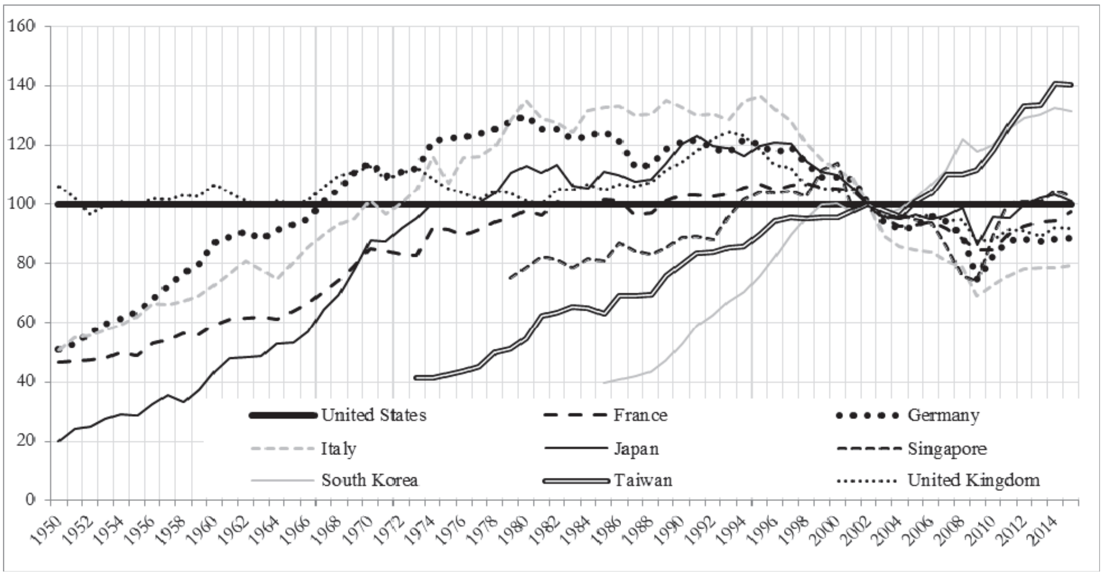
Institutions, policies and structural factors worked together to determine the outcome of crisis management and the consequences for the economy and the society. There are different components in this unfavorable scenario. The long-run performance of the Eurozone countries was weakening not only in comparison with emerging countries, and in particular the new global competitor, China, but also compared to the United States. At the same time, the performance of the individual member countries followed different, often divergent trajectories. The events put economic and financial stability under stress.

To understand and appreciate these developments, it is useful to distinguish the performance of the Eurozone between external performance, i.e. of the Eurozone vis-à-vis the rest of the world, and internal performance, i.e. concerning individual member countries. Four fundamental questions need to be answered to have a complete picture of the situation and its perspectives: a) did the Eurozone experience drawbacks in international comparison (external divergence)? b) did the Eurozone suffer internal divergence of performance among its member countries? c) did the previous two events together with the effect of convergence criteria and policy measures lead to stabilize Eurozone finances? d) did an internal transfer of resources took place to the advantage of member countries in distress and suffering from internal divergence?

As to the first question, the Eurozone (or, better, the three major Eurozone economies: Germany, France and Italy, which together account for two thirds of the Eurozone GDP) witnessed an evident decline of its performance compared to that of the United States. This followed decades of successful catching-up, which led the three major Eurozone economies to surpass significantly the United States in terms of productivity (see Chart 2) and approach it in terms of per capita GDP. This relatively unfavorable performance also led to decreasing shares of the Eurozone exports in the world market.

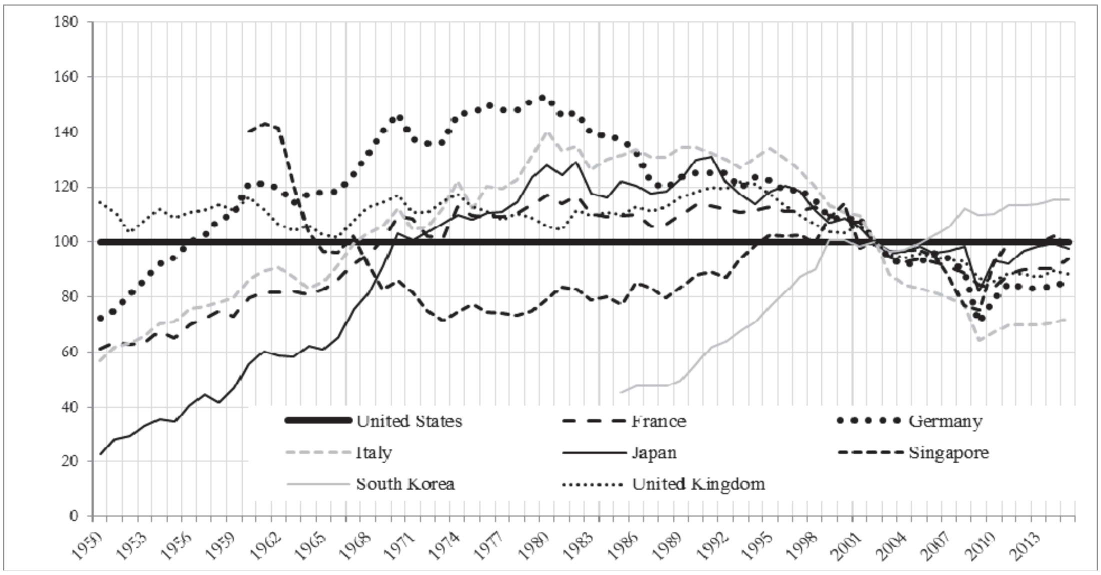
The negative progress of European performance started well before the international crisis and also before the euro was adopted. Indeed, the turning point was in the second part of the 1970s and was due to different causes. Perhaps the most important such cause was the slowness of European countries in pursuing technical progress, in particular in ICT, a field which saw the US preeminence, in particular during the 1990s (Crafts 2006; Field 2006; Rhode and Toniolo 2006b). Labor productivity surge in the

Chart 2A. Performance of the three major Eurozone economies in comparative perspective: Output per hour in manufacturing, 2002=100 and United States=100



Source: Own elaboration on data from CB (2016)

Chart 2B. Performance of the three major Eurozone economies in comparative perspective: Output per person employed in manufacturing, 2002=100 and United States=100

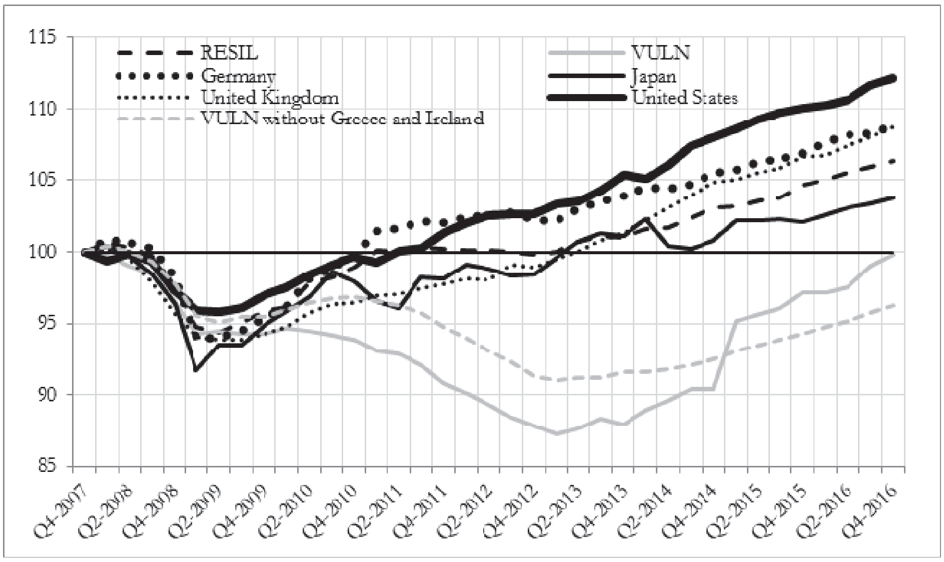


Source: Own elaboration on data from CB (2016)

United States since mid-1990s took place both through capital deepening, in particular by investing in hardware and software and communication equipment, and through increases in multifactor productivity in the sector producing ICT devices and equipment. Other significant economically unfavorable events in the Eurozone compared to the United States were demographic developments and faster decrease of the duration of working time, together with differences in statistical practices and definitions. When considered jointly, these factors explain an important part of the difference in growth rates between European countries and the United States (Faini 2006).

It seems fair to conclude that the relative drawback of the Eurozone was due to factors other than the common currency. In the years following the start of the international crisis, the Eurozone performance was particularly dismal, both in comparison to its main competitors (Chart 3) and in absolute terms (Chart 4). The recession in 2009 was more severe than in the United States, the recovery was slower and the Eurozone economy fell in a double dip, with recession returning in 2011-2013. The Eurozone recovered its pre-crisis, end of 2007 GDP level only in mid-2015, while the United States did so in mid-2011.[39]

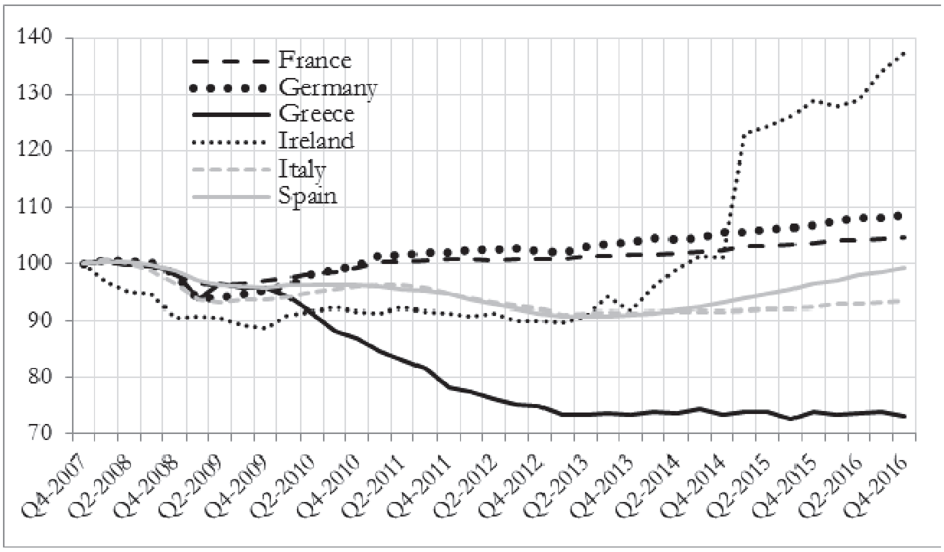
Chart 3. The external performance of the Eurozone in comparative perspective: Quarterly GDP, percentage change over previous period (Q4 2007=100)



Source: Own elaborations on OECD data

The second question is whether the Eurozone suffered internal divergence of performance among its member countries. The answer must be positive and the Eurozone became increasingly split between vulnerable and resilient countries (Dallago 2016). While the latter countries, Germany among them, recovered sooner from the crisis and had a modest, but positive growth in the following years, the former

Chart 4. The internal performance of the Eurozone: Quarterly GDP, percentage change over previous period (Q4 2007=100)

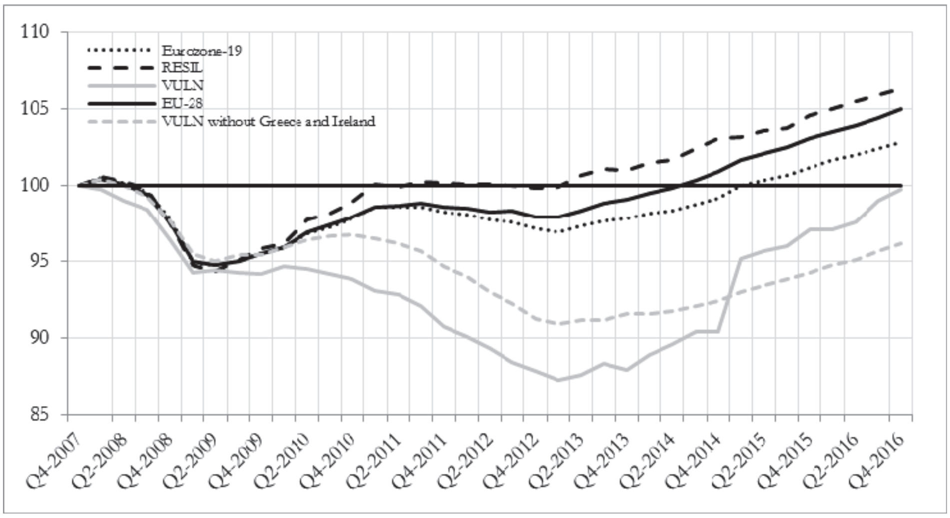


Source: Own elaborations on OECD data

group of countries was in critical situation for years. Germany recovered from a deeper dip sooner than the US, at the end of 2010, although in following years its growth was rather modest and its GDP at the end of 2015 was barely 6 percent above the end-2007 level. While resilient countries recovered mildly from the recession, vulnerable countries' GDP is still well below the pre-crisis level. However, Ireland had a strong recovery and expansion since the beginning of 2014 and Spain started to grow mildly since the same period. The scissor in internal performance led to the accumulation of significant losses in vulnerable countries compared to resilient ones, losses that are bound to have permanent negative consequences (Chart 5).

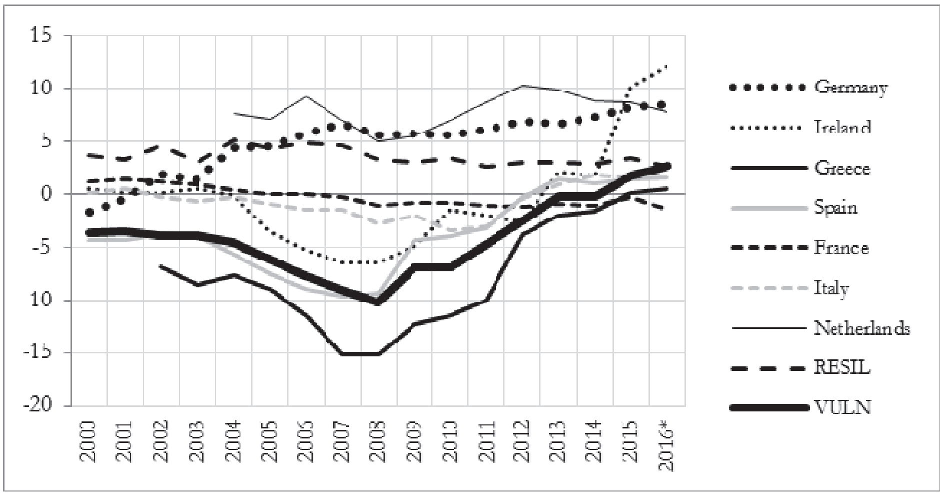
Along with ailing growth, the economic situation of vulnerable countries suffered for other serious problems and drawbacks: high unemployment, particularly among young people, and falling wages and salaries; high inequalities and low social mobility; stagnating investment and low utilization of productive capacity; falling consumption and decreasing investment in human capital; increasing gaps among regions and industrial decline; emigration of the better educated and skilled; social apathy and social unrest. Years of austerity and sacrifices, though, had also some positive effects. After years of higher inflation rates than in resilient countries and appreciation of their real exchange rates, which mined their international price competitiveness, vulnerable countries improved lately their situation. The old illusions that a country can have convergent interest rates, incomes and consumption when its productivity does not justify this situation faded away. Inflation became lower than in resilient countries – a sign of stagnation– and their real exchange rates started to depreciate. Incomes and consumption

Chart 5. The internal divergence of the Eurozone



Source: Own elaborations on OECD data

Chart 6. The external divergence and convergence of the Eurozone: Current accounts balances (in % of GDP)



Source: Own elaborations on Eurostat data

Note: RESIL and VULN are unweighted averages

Unadjusted data (i.e. neither seasonally adjusted nor calendar adjusted data)

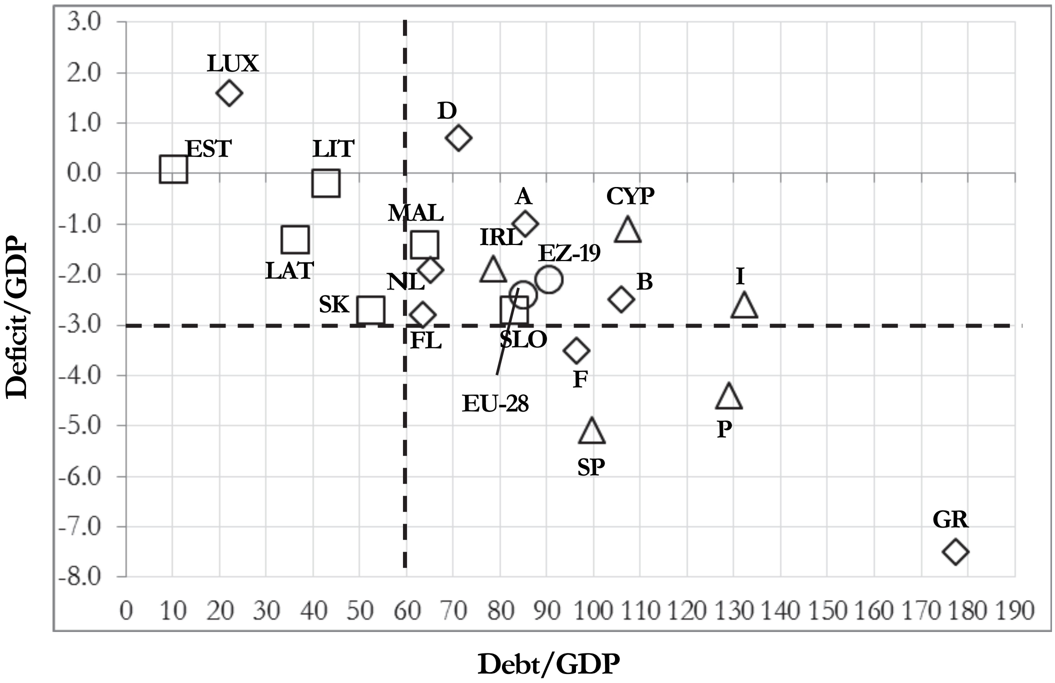
Rest of the world

2016*= average of Q1-Q3

decreased compared to those of resilient countries and in most cases also in absolute terms, thus worsening standards of living. The resulting improvement of competitiveness contributed to the rapid and drastic recovery of the current accounts. While vulnerable countries were in deep and growing current account deficit until 2008, since 2013 this deficit was rapidly transformed into surplus of nearly 2 percent of their GDP (Chart 6).[40]

Did the dismail performance and vulnerable countries' divergence contribute to guarantee financial stability, the main goal of the Eurozone? Unfortunately the answer to this third question can only be prudent: austerity policies and internal devaluation perhaps avoided a larger worsening of public finances, but they depressed economic performance so much, that the sustainability of public finances compared to GDP significantly worsened. The effects were particularly negative for vulnerable countries, although significant differences exist within this group. However, also resilient countries met difficulties and failed for years to meet convergence criteria. Public deficits to GDP worsened significantly in vulnerable countries (except Italy) and public debts increased considerably (Chart 7).

Chart 7. The compliance of Eurozone member countries with convergence criteria, 2015



Source: Ow elaboration on Eurostat database

Austerity policies and internal devaluation apparently did not meet much success, not even in pursuing their own priority. One of the reasons for this was the dramatic increase in interest rates which took place in vulnerable countries. This increase took place both in the market for public bonds and for households and firms. While before the crisis markets believed in the existence of an Eurozone protective umbrella for all member countries, the management of the crisis made clear that this did not hold in reality. Markets reacted by charging rapidly increasing interest rates to vulnerable countries, while the stagnation dominating for years in resilient countries kept their interest rates low and slightly decreasing.

As it turned out, the provisions of the Lisbon Treaty were taken seriously and vulnerable countries payed the price[41], although this was in good part to their own demerit. If the Eurozone has a meaning, though, there should be some kind of solidarity among member countries, as the fourth question asks. In fact, the failure of one country threatens all the others through the disruption of the common currency and financial and economic linkages, plus political and social consequences. In fact, there is a degree of pre-defined internal transfer of resources in the Eurozone for supporting less developed member countries to catch up and an automatic settlement system for backing countries with liquidity problems. Additional ad hoc instruments of support managed by the ECB complement the automatic system. The EU budget apart, no instrument foresees a net transfer of resources to member countries.

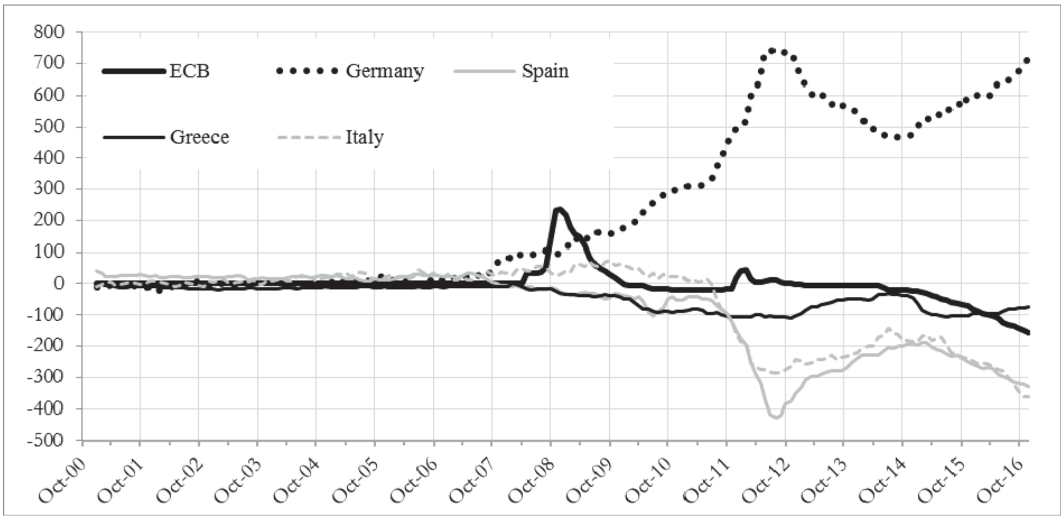
The EU budget finances primarily the convergence of poorer regions, agriculture, trans-European networks and research. These are certainly important actions for the real convergence of the EU countries and their regions and branches, but neither the EU nor the Eurozone have a budget for policy stabilization. Moreover, the EU budget, which amounts to approximately €145 billion yearly, corresponds to less than 1 percent of the EU GDP. All vulnerable countries, except Italy, are net recipients of the EU budget, particularly so Greece and Portugal (for a yearly amount of €400-500 per each of their citizens). Net financers are all resilient countries plus Italy, for a per capita sum of about €150.

The already mentioned TARGET2 system sees mainly Germany settling indirectly the accounts of vulnerable countries, Spain and Italy in particular. Although this is not technically direct financing and it is primarily the consequence of the ECB activity[42], nevertheless Germany plays a fundamental role in guaranteeing the smooth flow of payments within the Eurozone in spite of possible liquidity problems by other countries (Chart 8). These standard and institutional forms are complemented by policy instruments, generally managed by the ECB, to support countries and financial institutions with liquidity problems.[43] While these instruments are fundamental for assuring the smooth working of payments within the Eurozone, they represent in no sense a net transfer of resources among member countries.[44]

6. Conclusions: Squaring the circle?

Brexit highlights how difficult it is to assure the cohabitation and cooperation of countries with different economic systems within the same process of institution convergence and building. The Eurozone represents a much bolder and demanding undertaking, an undertaking that is meeting and affording daunting problems. Internal problems and tensions continue to be palpable. External problems and tensions are growing. At the same time, reasons for optimism exist and are important. There is a

Chart 8. Internal support: TARGET2 balances (billion €)



Source: Euro Crisis Monitor, Institute of Empirical Economic Research, Osnabrück University (Data source: European Central Bank)

growing awareness that not all problems come from the Eurozone and that not only European integration is to be blamed. There apparently still is rather ample political room for reforms of inefficient and ineffective national economies. Political pragmatism is perhaps taking hold at both national and common level, in spite of the threat by populist parties and movements. Inter-governmental trust is probably improving. These are elements upon which the process of integration and in particular the economic and monetary union can be rethought. A fundamental question is looming over the Eurozone: which one of the growing dangers and the improving willingness to cooperate for solving common problems is moving faster?

There is a need to square the circle. While the improvement of the international economy can help[45], the Eurozone must solve its problems by proceeding resolutely in at least one of two directions, and possibly in both: complete institutionally the EMU and create full and complete common policy competences and instruments; and make the performance of national economies converge. The alternative of activating net and permanent transfers to the advantage of the countries in distress seems to be out of the reasonable possibilities for the time being. A reasonable progress, then, requires that fairness (through national and common reforms and balanced budgets) is coupled with more expansionary policies and investments, including bolder common investment programs.

So far the Eurozone has sacrificed its present and future on the altar of financial stability. This is reasonable in an incomplete integration, in which member countries keep significant sovereignty and don't trust much each other. Financial instability threatens to start distributive conflicts among countries, which would mean the end of integration. The problem is how to reach this stability: by decreasing deficits and debts or by increasing GDP? Also the time perspective is important: pursuing stability in the short-run or in the long-run? Convergence criteria, however gradual, proved to be rather harsh for countries not-so-willing to cooperate through internal reforms and policies. A precondition for more flexible solutions to financial stability is to proceed courageously with domestic reforms, particularly so in vulnerable countries. These should include not only structural reforms for decreasing domestic costs, but even more so institutional reforms for making markets more flexible and efficient. Examples of institutional reforms are reforms of labor markets, competition, R&D systems, fiscal systems and fiscal compliance, public administration, corporate governance.

The problem with reforms is that they may be costly, may bring results in the medium or long term and may conflict with policies, particularly stabilization policies. Vulnerable countries are already under distress and this is likely to jeopardize their ability to reform, even if they have the will. The role of the Eurozone and more in general the EU could be fundamental not only in pushing countries to reform, but also in making this possible. Different ideas were advanced, so far to no use. The most important ones are the mutualization of (part of the) debt and a revision of the parameters for calculating the deficit to GDP ratio, which is the basis for the EU surveillance system. Both solutions should be addressed to ease the financing of reforms and investment, to the exclusion of financing current expenditures, but are open to the accusation of fostering free riding.

Since it is seldom clear what reforms and investments are in operational terms, it may be wise to have a common ministry of the economy for overlooking the national reform and investment processes and financing part of them from common funds as an investment in a stronger Union. An idea of the latter type is to institute a European insurance against unemployment. This could be helpful not only during downturns that may hit member countries in different ways, but also to cushion unemployment that may be caused transitorily by reforms and restructuring. National investments should meet a strong support in a bold European plan of investments, on the lines of the ongoing Juncker plan[46], but with more resources and breadth. All this would make of the European minister not only a guardian of the implementation of convergence criteria, but also an actor into the promotion of and support to real and financial convergence.

Reforms and investments are needed also at Eurozone and EU level, in particular in the direction of completing the economic and monetary union. While talks of a political union resonate periodically, they seem premature if conceived as a union across the board. More realistic are progressive steps at both political level and technical level, the only reasonable approach to keep national opportunism at bay. Establishing a common ministry would be a fundamental progress also at political level in the implementation of the European budget and fiscal union.

The ECB turned out to be the fundamental European institution, the one most consistently pursuing the common good. For this reason, to complete its unfinished construction and to give it a mandate more in line with the need to revive European growth, the European Central Bank should get a broader mandate, perhaps along the lines of the Federal Reserve. This would need to modify the European treaties, but it is time to consider seriously this step. The European banking union, which is under implementation since 2014, should be completed rapidly. Along with the existing Single Supervisory Mechanism and Single Resolution Mechanism, also the third leg, the European Deposit Insurance Scheme should be implemented. The coverage of the two existing mechanisms should also be progressively expanded. The Unified European capital market, which is under implementation, should also proceed confidently. A further component coming to the forefront is the establishment of a European Asset Management Company for non-performing loans (NPL). Although this is at the level of proposal by the European Banking Authority (EBA) with the support of the European Stability Mechanism (ESM) Management Board, it is an urgent accomplishment.[47]

It is a truism that the relation between reforms and policies is difficult, unclear and in any case complex and uneasy. Yet, if the EU and the Eurozone want really to address the existing problems, policies must be supportive of reforms. This means having better coordinated fiscal policies at national level: while deficit countries should pursue reliable fiscal management, surplus countries should implement expansionary policies, whose effects will also benefit deficit countries, given the strong integration among European economies and financial systems. This also means that monetary policy should remain supportive, compatibly with inflation.

There is no doubt that the way forward is demanding and probably bumpy. Fault lines within the Eurozone and the European Union continue to be evident and occasionally erupt. This is only in part the outcome of systemic variety, which is not particularly large in the Eurozone. It is at least as much a question of (lack of) political will and of policy disagreement. Consequently, fixing most of the problems does not require systemic change. This leads some to propose a multi-level Union, perhaps a good idea if based on clear conditions, voluntary participation and rigorous management.

External problems and threats are mounting. These factors are not only worrying in themselves, but they could perversely interact, to the disadvantage (among others) of the European integration process. Yet there are solid reasons for hope: the growing European awareness and mutual trust, the continuing popular and political support for the European integration, the growing determination and pragmatism of European officials and most European governments to start a new season of the integration progress. After all, European integration so far proceeded through positive reaction to crises. This time the crisis is greater and deeper and requires bolder progress. Yet there are serious reasons to think that the EU and the Eurozone may meet the challenge. After all, alternatives are worse.

Notes

[1] Department of Economics and Management, University of Trento and KIER, Kyoto University. bruno.dallago@unitn.it. A first draft of this paper was presented at the Kyoto International Conference on "Frontier of Transition Economics", Campus Plaza Kyoto, 23-25 February 2017. I benefited greatly from the debate at the conference. I thank the Kyoto Institute of Economic Research at the

Kyoto University for the hospitality and support provided when working on the research and writing this paper. The comfortable and supporting conditions of my visit and the debate at the conference are not to be blamed in any sense for the errors and omissions that this paper may contain.

[2] See the letter published at http://www.ecb.europa.eu/pub/pdf/other/170120letter_valli_zanni_1.en.pdf

[3] TARGET2 is the real-time gross settlement (RTGS) system involving 25 countries, owned and operated by the Eurosystem. TARGET stands for Trans-European Automated Real-time Gross settlement Express Transfer system. TARGET2 is a platform for processing large-value payments in euro in real time by central banks (the ECB, 19 Eurozone central banks plus those of Bulgaria, Croatia, Denmark, Poland and Romania) and commercial banks. The Eurosystem is the monetary authority of the Eurozone and comprises the ECB and the 19 NCBs of the countries that have adopted the euro. Under the Eurosystem, the ECB has the exclusive right to authorise the issuance of euro banknotes. Member states can issue euro coins, whose amount is authorised in advance by the ECB. The European System of Central Banks (ESCB) includes also the 9 NCBs of the EU Member States that did not adopt the euro.

[4] See http://www.eurocrisismonitor.com/ (Euro Crisis Monitor, Institute of Empirical Economic Research, Osnabrück University).

[5] Guglielmi et al. (2017) quantify the potential cost of re-domination of the euro into a national currency in Italy. The cost would derive from four sources: 1) €48bn of government bonds under foreign law; 2) €902bn government bonds under the new CACs regime (EU discipline on collective action clauses); 3) €210bn held by the ECB under QE subject to no risk sharing; and 4) €151bn public debt derivatives carrying €37bn mark to market loss. Assuming 30 percent devaluation on the new national currency, losses would amount to €280bn, or 17.0 percent of GDP. This amount would be partly offset by €191bn gain on bonds under domestic law, whose value is estimated at €932bn and whose repayment would take place in a new (devalued) currency. The balance is bound to evolve unfavorably through time, since new debt is fully under the CACs regime.

[6] Various economists, including well-known ones, view the euro as irrational since the beginning. In particular, they maintain that the Eurozone is not an optimum currency area and this, missing a common government of the economy, would cause high costs to countries, financial instability and economic underperformance (output gap). As early as 1992, Martin Feldstain (1992) stressed that "Monetary union is not indeed to achieve the advantages of a free-trade zone. On the contrary, an artificially contrived economic and monetary union might actually reduce the volume of trade among the member countries, and would almost certainly increase the average level of unemployment over time. But the creation of a single market for goods and services does not require a monetary union. It is possible to have all the benefits of free trade without a common currency. Indeed, the shift to a common currency could actually diminish trade within Europe. It is also likely to reduce economic well-being by raising future unemployment and increasing the cyclical volatility of activity within individual countries. And it could cause a higher rate of inflation than the current monetary

arrangements". Twenty years later, Feldstein (2012) concluded: "The euro should now be recognized as an experiment that failed". See also Stiglitz (2016).

[7] "L'euro e' irrevocabile, the euro is irrevocable" and "Questo e' il trattato, this is the treaty". Further: "I cannot answer a question that is based on hypotheses, on assumptions which are not foreseen" by the EU treaties, he added (see https://www.bloomberg.com/news/articles/2017-02-06/ draghi-says-euro-is-irreversible-as-le-pen-urges-french-exit).

[8] In a comment published in the Frankfurter Allgemeine Zeitung and subsequently by the European Council on Foreign Relations (ECFR) (http://www.ecfr.eu/article/commentary_the_euro_irreversible_but_not_indistructable_4013) in 2015, Norbert Röttgen - Chairman of the Committee on Foreign Affairs of the German Bundestag and ECFR council member – writes properly that "The euro is irreversible, but not indistructable".

[9] With the accession of Lithuania as the 19th member country of the Eurozone on 1 January 2015 and following the dictate of the European Union treaties, NCB governors vote on the Governing Council of the ECB (the main decision making organ of the Eurosystem) according to a pre-stablished rotation system of voting turns on a monthly basis (https://www.ecb.europa.eu/explainers/tell-me-more/ html/ voting-rotation.en.html). This system is similar to the one used by the Federal Open Market Committee (FOMC) of the US Federal Reserve.

[10] The Eurosystem should not be confused with the European System of Central Banks (ESCB), which also comprises the NCBs of those EU member countries which have not adopted the euro. The ESCB's primary objective is price stability throughout the European Union. The ESCB has the further goal of improving monetary and financial cooperation between the Eurosystem and the member countries outside the Eurozone.

[11] The US Federal Reserve, as specified in the amended Federal Reserve Act of 1977, is committed to "maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates". The two goals of price stability and maximum sustainable employment are known collectively as the "dual mandate" (https:// www.federaalreserve.gov/faqs/money_12848.htm).

[12] Peter Praet (2017), who is a member of the Executive Board of the ECB, observes that "While supervisory decisions are taken at European level, the relevant risk-sharing mechanisms such as deposit insurance schemes are still at national level. Supervision is common, but the consequences of potential bank failures are still predominantly national. National considerations therefore continue to affect supervisory decisions. This is not without consequences for the incentives for banks to become more European. … Overall, the banking landscape still resembles too much a collection of banking systems highly exposed to their domestic economies, with limited cross-border private risk-sharing. At the same time, unprecedented institutional progress has been achieved in a relatively short time span since the establishment of the Single Supervisory Mechanism".

[13] See Buiter and Rahbari (2012) and De Grauwe (2013) for different views on the ECB support to states.

[14] The Eurogroup is an informal body where the ministers of the Eurozone member countries discuss matters of common interest in the monetary union. No minutes are prepared of these meetings. The main task of the Eurogroup is to ensure close coordination of economic policies among the different countries (http://www.consilium.europa.eu/en/council-eu/eurogroup/). In such a way, the group can put the government of a non-complying country under pressure.

[15] https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/stability-and-growth-pact_en

[16] I define as vulnerable those Eurozone countries which have uncompetitive or unbalanced economies or both. As such, they need policies to adjust and strengthen their situation, but, being members of a monetary union, they are unable to do so. In fact, they miss policy sovereignty and the resources necessary to finance the needed reforms. This group includes Cyprus, Greece, Italy, Portugal, Spain and, to a certain extent, Ireland. I define as resilient those Eurozone countries which do not need policies or major reforms to adjust their economies, because they have competitive and balanced economies. This group includes Austria, Belgium, Finland, France, Germany, Luxembourg, and the Netherlands.

[17] The dilemma is: at global level or at national level? An alternative could be the introduction of tradeable permits to deficit, at least for financing investments, following Coase.

[18] Global Chinese activities takes mostly place within the One Belt One Road (OBOR) strategy. For the European position towards this strategy see http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586608/EPRS_BRI(2016)586608_EN.pdf.

[19] The recent Rome declaration (EU 2017), recalling these "unprecedented challenges", pledges to work toward, among others, a "stronger Europe on the global scene", which includes the Union's commitment to strengthen common security and defence.

[20] Starting from March 29, 2017, when the British government will formally trigger article 50 of the Lisbon Treaty, which foresees that "A Member State which decides to withdraw shall notify the European Council of its intention".

[21] "To ensure the cohesion of economic and monetary union, transfers of responsibility from the national to the Community plane will be essential. These transfers will be kept within the limits necessary for the effective operation of the Community and will concern essentially the whole body of policies determining the realization of general equilibrium. In addition, it will be necessary for the instruments of economic policy to be harmonized in the various sectors". (Werner Report 1970, p. 10)

[22] The Delors Report (1989), the funding document of the economic and monetary union, observes: "Such imbalances might arise because the process of adjustment and restructuring set in motion by the removal of physical, technical and fiscal barriers is unlikely to have an even impact on different regions or always produce satisfactory results within reasonable periods of time. Imbalances might also

emanate from labour and other cost developments, external shocks with differing repercussions on individual economies, or divergent economic policies pursued at national level… None the less, such imbalances, if left uncorrected, would manifest themselves as regional disequilibria". Moreover, "Measures designed to strengthen the mobility of factors of production and the flexibility of prices would help to deal with such imbalances". (Delors Report 1989, p. 15).

[23] Ordoliberalism is the German variant of social liberalism. It gave origin to the social market economy that identified Germany in the post-WWII decades. Ordoliberalism emphasizes that the state is fundamental for ensuring that the free market produces results close to its theoretical potential and to the advantage of all. See Bonefeld (2012), Guerot and Dullien (2012), Kemeny (2016), Schnyder and Siems (2013).

[24] An idea on the state of national institutions important for the economy can be found on the Doing business database of the World Bank (http://www.doingbusiness.org/rankings). According to this database, vulnerable countries in the Eurozone (Cyprus, Greece, Ireland, Italy, Portugal, Spain) have a weaker position compared to resilient countries (Austria, Belgium, Finland, France, Germany, Luxembourg, Netherlands). They have on average a weaker position in all variables, except in protecting minority investors, thanks mainly to the excellent position of Ireland and also Spain. Inter-country variance is much higher in the case of vulnerable countries than of resilient countries.

[25] The European Council is an organ without formal decision- or law-making role, which is composed of the national prime ministers and is chaired by the president of the European Commission. Its informal nature notwithstanding, the Council is the most influential European institution which defines strategic issues, including changes in the Treaty, enlargement, the three-year budget, or other reforms of the Union. The European Commission is the fundamental operational organ of the European Union. Its most important role consists of the management and implementation of EU policies, in particular those policies for which the Union has the sole competence such as competition in the internal market and the common commercial policy. Its role includes proposing norms to the European Council and the Parliament; and representing the Union in international negotiations, particularly trade negotiations and negotiations with non-member countries.

[26] The term "Washington Consensus" was proposed by John Williamson (1990). It identifies a set of 10 economic policy prescriptions that the Washington-based institutions (IMF, World Bank and US Treasury Department) considered at the time to be the most effective reform and policy prescription for solving economic and financial distress of various developing countries. The term came later to be popularly identified with the broader and less precise concept of neoliberal policies. See also Williamson (1999), Williamson (2004), Stiglitz (1998).

[27] IMF-supported policies as much as the Stability and Growth Pact were based on the convincement that the fiscal multiplier had values around 0.5. If this were true, decreasing public expenditure by 1 percent would decrease GDP by only 0.5 percent, with a consequent improvement of the debt to GDP ratio. Confronted with apparently perverse outcomes of prolonged stagnation, the IMF undertook to

recalculate the value of the fiscal multiplier during the crisis under the leadership of its principal economist, Oliver Blanchard (Blanchard and Leigh 2013). The recalculation revised the value of the fiscal multiplier during the crisis, which led to the new IMF policy stance since 2013 (IMF 2013): "the multipliers used in generating growth forecasts have been systematically too low since the start of the Great Recession... [T]he multipliers implicitly used to generate these forecasts are about 0.5. So actual multipliers may be higher, in the range of 0.9 to 1.7" (IMF 2012, pp. 41–43). The analysis of data for 28 economies corroborated these results.

[28] According to the "expansionary austerity" – or more precisely the Expansionary Fiscal Contraction (EFC) – hypothesis, a reduction in government expenditures may expand private consumption and promote economic growth by removing the crowding out effect and creating expectations for reduction in taxation. The hypothesis was proposed by Francesco Giavazzi and Marco Pagano (1990) and made popular by Alberto Alesina and Silvia Ardagna (Alesina and Ardagna 1998 and 2009). Later studies found scant evidence supporting the hypothesis and much more evidence to reject it (see, e.g. Gujardo et al. 2011). From 2000 also the Bank of Japan (BOJ) used a similar argument, the "good deflation", to support the view that deflation could improve real welfare of the population (Wakatabe 2015, p. 32).

[29] Austerity policies are usually meant as a set of measures for reducing public budget deficits and public debts. This is done by both rising revenues and reducing expenditures, for decreasing insolvency risks and showing creditors and credit rating agencies that the government is determined to strengthen fiscal discipline. Internal devaluation aims at increasing the external competitiveness of an economy. This is done by decreasing domestic prices, typically obtained through the decrease of labor costs, obtained by reducing wages and social contributions paid on labor. On austerity see Blyth (2012); on internal devaluation see Decressin et al. (2016), Decressin and Loungani (2015), IMF (2015a).

[30] Stiglitz (2016) interprets in this sense policies in the Eurozone. This refers in part also to Eichengreen (2016). On similar policies in Japan and the role of economic ideas and ideology see Wakatabe (2015).

[31] Simulations with the Commission's QUEST model found that a 5 percent depreciation of the euro's nominal effective exchange rate (NEER) could increase real GDP in the euro area by approximately 0.3 percent in the first year and another 0.2 percent in the second year (EC 2015). This average effect was expected to be widely different across member countries and particularly beneficial for Italy and Spain, but also for Portugal, Austria and France, although this effect is influenced by differences in trade openness and integration in global value chains.

[32] OMT was intended to guarantee de facto the bailout of countries in distress, after Mario Draghi's (the President of the ECB) bold statement on "whatever it takes" in 2012. The sole announcement of OMT was sufficient to stabilize markets and there was no need to activate the instrument.

[33] Critics maintain that the ECB action is having dangerous consequences, including stifling needed reforms, misaligning bond prices, causing mounting strains on the eurosystem balance sheet, negative

consequences for savers, misallocation of capital and new asset bubbles. See DBR (2016).

[34] In a communication, the European Commission (2016) shows that fiscal policy in the Eurozone was contractionary in the period 2011-2014, its orientation became neutral and/or slightly supportive in 2015 and 2016 respectively.

[35] There may be an interesting similarity here with the causes of the "lost decades" in Japan, in particular according to the interpretation by Hayashi and Prescott (2002).

[36] Eurostat measures the old-age-dependency ratio per 100 persons as the ratio between the number of persons aged 65 and over and the number of persons aged between 15 and 64. The age categories are meant to distinguish the people that are generally economically inactive from people of working age (15-64).

[37] The average old-age dependency ratio in vulnerable and resilient countries increased in similar way: it was on average 20.2 per cent in 1990 and increased to 28.3 per cent by 2016.

[38] See Transparency International (TI 2017). In its 2017 survey, TI highlights the connection between corruption and inequality. On the irregular economy see Schneider 2013, Schneider and Ernste 2000.

[39] Data for the Eurozone, the EU and for resilient and vulnerable countries are unweighted averages to reflect equal political and economic standing of member countries and their political sovereignty, including their veto power on fundamental decisions.

[40] This created a significant overall current account surplus of the Eurozone – above 2.5 percent of its GDP – to the discontent of the rest of the world and in particular the United States. The surplus of vulnerable countries was due more to import decrease than to export success, suggesting that the surplus may be a sign of stagnation more than a true achievement.

[41] The Lisbon Treaty envisages four fundamental clauses. The "no bailout" clause (Art. 125 TFEU) foresees that the Union or any member country are not liable or can assume the debts of another country or its institutions. The "non-monetisation" of public debt (Art. 123, 124 TFEU) prevents the ECB or the national central banks from financing national debts. Other important rules concern national budget balancing (Art. 126 TFEU) and price stability (Art. 127 TFEU). The Treaty was signed at the end of 2007 and entered into force at the end of 2009, following the doomed project of a European constitution.

[42] The Economic Bulletin of the ECB (2016, pp. 20-23) explains that "In contrast to previous periods of rising TARGET balances, changes in the TARGET balances immediately after APP [the ECB Asset Purchase Programme] purchases are a direct consequence of the implementation of monetary policy decisions, rather than a symptom of renewed stress in financial markets. … With the APP … there is a direct link, since central banks are initiating cross-border payments in order to pay for securities purchased under the programme. The ensuing upward trend in TARGET balances largely reflects the settlement of these cross-border transactions by central banks and, therefore, does not signal renewed stress in financial markets". What is not mentioned here is that what is purchased through APP are primarily securities of countries in financial difficulties. In the ECB websites, TARGET2 is included in

the chapter on "Payments & markets" (https://www.ecb.europa.eu/mopo/ela/html/index.en.html).

[43] Along with the standard policy instruments of the Eurosystem mentioned in Section 4, including various asset purchase programs, the ECB also manages Emergency Liquidity Assistance (ELA). Through ELA, a NCB can provide central bank money to a solvent financial institution, or group of solvent financial institutions, that is facing temporary liquidity problems. This instrument is under the responsibility (and to the cost and risk) of NCB duly authorized by the ECB and is not part of the common monetary policy. ELA was extensively used in the case of Greece.

[44] German analysts in particular stress that, in case of default of one country, TARGET2 imbalances would convert the other countries' taxpayers into the final backstop (DBR 2016). It is to rebut these accusations that Draghi stressed that these imbalances have to be settled (see above, in the introduction).

[45] This is not likely to happen soon and international organizations, such as the IMF and the World Bank warn recurrently of a long period of low growth rates and ailing international trade. In 2016 world trade increased by less than world GDP (Constantinescu et al. 2017).

[46] The "Juncker Plan", more precisely the Investment Plan for Europe (EC IPE) was announced by European Commission President Jean-Claude Juncker in November 2014. The Plan aims at mobilizing public and private resources to support investments of at least € 315 billion over three years, from January 2015 to December 2017. (https://ec.europa.eu/commission/priorities/ jobs-growth-and-investment/investment-plan_en)

[47] NPL in the Eurozone are estimated at more than €1,000 billion, of which more than €200 in Italy. The proposal is to establish a sort of European "bad bank" to take care of one fourth of NPL.

References

Alesina, Alberto and Silvia Ardagna (1998) "Tales of Fiscal Adjustment", *Economic Policy*, Vol. 13, No. 27, October, pp. 498-545

Alesina, Alberto and Silvia Ardagna (2009) "Large Changes in Fiscal Policy: Taxes Versus Spending", National Bureau of Economic Research (NBER), *Working Paper* No. 15438

Blanchard, Olivier and Daniel Leigh (2013) "Growth Forecast Errors and Fiscal Multipliers", *IMF Working Paper* WP/13/1, January.

Blyth, Mark (2012) *Austerity: The History of a Dangerous Idea*, Oxford: Oxford University Press

Bonefeld, Werner (2012), "Freedom and the Strong State: On German Ordoliberalism", *New Political Economy*, Vol. 17, N. 5, pp. 633-656

Boone, Laurence, Ruben Segura-Cayuela and Nick Bate (2013) "Europe: when will growth return?", European Economic Viewpoint, Bank of America Merril Lynch, 15 February (http://www.merrilledge.com/publish/content/application/pdf/gwmol/EuropeanEconomicsViewpoint.pdf)

Buiter, Willem and Ebrahim Rahbari (2012) "The European Central Bank as Lender of Last Resort for

Sovereigns in the Eurozone", JCMS: *Journal of Common Market Studies*, Vol. 50, N. s2, pp. 6–35

Buti, Marco and André Sapir (1998) eds., *Economic Policy in EMU: A Study by the European Commission Services*, Oxford: Clarendon Press

CB (2016) International Comparisons of Manufacturing Productivity and Unit Labor Costs Trends, 2014, The Conference Board (https://www.conference-board.org/ilcprogram/index.cfm?id=30135)

Constantinescu, Cristina, Aaditya Mattoo and Michele Ruta (2017) Trade Developments in 2016: Policy Uncertainty Weighs on World Trade, Global Trade Watch, Washington, D.C.: World Bank, 21 February

Crafts, Nicholas (2006) "The world economy in the 1990s: A long-run perspective", in Rhode and Toniolo (2006a), pp. 21–42.

Dallago, Bruno (2016a) *One currency, two Europes: Towards a dual Eurozone*, Singapore: World Scientific

Dallago, Bruno (2016b) "The Future of European Integration and Brexit: Is Brexit only Brexit?", *Acta Oeconomica*, Vol. 66, N° S1, pp. 111-136

DBR (2016) The Dark Sides of QE. Backdoor Socialisation, Expropriated Savers and Asset Bubbles, Deutsche Bank Research, 1 November, Frankfurt am Mein: Deutsche Bank (https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000425308/The_dark_sides_of_QE%3A_Backdoor_socialisation,_expr.pdf)

Decressin, Jörg, Raphael Espinoza, Ioannis Halikias, Daniel Leigh, Prakash Loungani, Paulo Medas, Susanna Mursula, Martin Schindler, Antonio Spilimbergo, and TengTeng Xu (2016) Wage Moderation in Crises Policy Considerations and Applications to the Euro Area, *IMF Staff Discussion Note*, November 2015 SDN/15/22

Decressin, Jörg and Prakash Loungani (2015) "EZ internal devaluations: Evidence on negative demand spillovers", VOX, CEPR's Policy Portal, 02 December, http://voxeu.org/article/ez-internal-devaluations-and-negative-demand-spillovers

De Grauwe, Paul (2013) "The European Central Bank as Lender of Last Resort in the Government Bond Markets", *CESifo Economic Studies*, Vol. 59, N. 3, pp. 520-535

Delors Report (1989) *Report on economic and monetary union in the European Community*, Committee for the Study of Economic and Monetary Union, April 17

EC (2015) "European Economic Forecast", *European Economy*, Winter 2015, 1/2015, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.

EC (2016) Towards a Positive Fiscal Stance for the Euro Area, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 16.11.2016 COM(2016) 727 final (https://ec.europa.eu/info/publications/2017-european-semester-communication-fiscal-stance_en)

ECB (2016) *Economic Bulletin of the ECB*, N. 7/2016 (https://www.ecb.europa.eu/pub/pdf/ ecbu/eb201607.en.pdf)

EU (2017) Rome Declaration of the Leaders of 27 Member States and of the European Council, the European Parliament and the European Commission, Brussels: 25 March (http://europa.eu/rapid/ press -release_STATEMENT-17-767_en.htm)

Eichengreen, Barry (2016) *Hall of Mirrors: The Great Depression, the Great Recession, and the Uses-and Misuses-of History*, Oxford: Oxford University Press

Faini Riccardo (2006) "Europe: A continent in decline?", in Rhode and Toniolo (2006), pp. 69–88

Feldstein, Martin (1992) "Europe's Monetary Union. The Case against EMU", *The Economist*, June 13 (see also http://www.nber.org/feldstein/economistmf.pdf)

Feldstein, Martin (2012) "The Failure of the Euro", The Foreign Affairs, January/February (https://www.foreignaffairs.com/articles/europe/2011-12-13/failure-euro - republished in http://www.nber.org/feldstein/fa121311.pdf)

Field, Alexander (2006) "Technical Change and US Economic Growth: The Interwar Period and the 1990s", in Rhode and Toniolo (2006a), pp. 89–117.

Giavazzi, Fransesco and Marco Pagano (1990) "Can Severe Fiscal Contractions Be Expansionary? Tales of Two Small European Countries", in Oliver J. Blanchard and Stanley Fisher, eds., *NBER Macroeconomics Annual 1990*, MIT Press, Vol. 5, pp. 75–111

Guajardo, Jaime, Daniel Leigh and Andrea Pescatori (2011) "Expansionary Austerity: New International Evidence", *IMF Working Paper* WP/11/158, International Monetary Fund

Guerot, Ulrike and Sebastian Dullien (2012) "The Long Shadow of Ordoliberalism", *Social Europe*, 30 July (https://www.socialeurope.eu/2012/07/the-long-shadow-of-ordoliberalism/)

Guglielmi, Antonio, Javier Suárez, Carlo Signani and Marcello Minenna (2017) Italy: Re-denomination risk down as time goes by, Milan: Mediobanca Securities, 19 January, http://marcello.minenna.it/ wp-content/uploads/2017/01/Italy-2017-01-19.pdf

Hayashi, Fumio and Edward C. Prescott (2002) "The 1990s in Japan: A lost Decade", *Review of Economic Dynamics*, Vol. 5, pp. 206-235

IMF (2012) *World Economic Outlook: Coping with High Debt and Sluggish Growth*, Washington DC: International Monetary Fund.

IMF (2013) Reassessing the Role and Modalities of Fiscal Policy in Advanced Economies, *IMF Policy Paper*, Washington, DC: International Monetary Fund, 21 June (http://www.imf.org/external/ np/pp/eng/2013/072113.pdf).

IMF (2015a) Crisis Program Review, *IMF Policy Paper*, November 9

Kemeny, Paul James (2016) Ordoliberalism and the Austrian School (https://ordoliberalism.wordpress.com/)

Praet, Peter (2017) "Towards Banking Union", Remarks by Peter Praet, Member of the Executive Board of the ECB, in the session "(Do Not) Break It: Today's Europe at Full Speed" of the LUISS International Conference on "Europe 2017: Make it or Break it", Rome, 24 January, https://www.ecb.europa.eu/press/key/date/2017/html/sp170124.en.html

Rhode, Paul W. and Gianni Toniolo (2006a) eds., *The Global Economy in the 1990s: A Long-run Perspective*, Cambridge: Cambridge University Press

Rhode, Paul W. and Gianni Toniolo (2006b) “Understanding the 1990s: A long-run perspective”, in Rhode and Toniolo (2006a), pp. 1–20.

Schneider, Friedrich (2013) The Shadow Economy in Europe, ATKearney (http:// ec.europa.eu/digital-agenda/futurium/sites/futurium/files/futurium/library/Schneider percent20- percent202013 percent20-percent20The percent20Shadow percent20Economy percent20in percent20Europe percent20 percent 2C percent202013.pdf).

Schneider, Friedrich and Dominik H. Enste (2000) “Shadow Economies: Size, Causes, and Consequences”, *The Journal of Economic Literature*, Vol. 38, No. 1, pp. 77–114.

Schnyder, Gerhard and Mathias Siems (2013) “The Ordoliberal Variety of Neoliberalism”, in Suzanne Konzelmann and Marc Fovargue-Davies (eds.), *Banking Systems in the Crisis: The Faces of Liberal Capitalism*, Abingdon: Routledge, 2013, pages 250-268

Stiglitz, Joseph E. (1998) “More instruments and broader goals: Moving toward the post-Washington Consensus”, 1998 WIDER Annual Lecture, Helsinki, January

Stiglitz, Joseph E. (2016) *The Euro: How a Common Currency Threatens the Future of Europe*, W.W. Norton & Company

TI (2017) Corruption Perceptions Index 2016, Berlin: Transparency International (https://www.transparency.org/whatwedo/publication/corruption_perceptions_index_2016)

Wakatabe, Masazumi (2015) *Japan's Great Stagnation and Abenomics. Lessons for the World*, Houndmills, Basbgstoke and New York, Palgrave Macmillan

Werner Report (1970) Report to the Council and the Commission on the realization by stages of economic and monetary union in the Community, Luxembourg: Council – Commission of the European Communities, 8 October

Williamson, John (1990) “What Washington means by policy reform”, Chapter 2 in Latin American Adjustment: How Much Has Happened?, John Williamson (ed.), Washington: Institute for International Economics.

Williamson, John (1999) “What Should the Bank Think About the Washington Consensus”, Background Paper to the World Bank's World Development Report 2000, July.

Williamson, John (2004) “The strange history of the Washington consensus”, *Journal of Post Keynesian Economics*, Vol. 27, No. 2, pp. 195–206.