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The Euro at 20: Still a Project Projected to Fail?

Anniversaries trigger stocktaking about what has been achieved and what has gone wrong. This holds true for the twentieth anniversary of the creation of the euro. Several reviews continue to see the euro as a project expected to fail, mainly referring to arguments made before the euro was launched. In the language of evaluation reports, they suggest that the overall impact of the euro has been negative.

The introduction of the euro – theories of change

Impact assessments confront theories of change, i.e. they test whether developments have been in line with predictions made before a certain action such as euro adoption. At least six theories of change, each with a 'hope' and a 'fear' dimension, dominated the pre-euro debate in the 1980s and 1990s.[1]

Price stability versus inflation. Euro supporters hoped the introduction of a single currency would transform Europe into an area of price stability, putting an end to the periods of high inflation that many European countries had recorded in the 1970s and 1980s. Others feared that the euro would transform Europe into a zone of monetary instability with high inflation.

Debt containment versus debt explosion. Supporters argued that the Maastricht design would put an end to the fiscal profligacy of the 1970s and 1980s. Others predicted that the euro would create conditions for moral hazard leading to an even greater expansion of debt.

Fostering growth and employment versus stagnation and protracted unemployment. The hope was that price stability and efficiency gains associated with a single currency would contribute to higher growth and lower unemployment. On the other hand, it was feared that either monetary instability or the loss of the exchange rate as a shock-absorbing mechanism – emphasised in the optimum currency area (OCA) theory – would hamper growth and raise unemployment.

Fostering convergence versus increasing divergence. With the creation of the single currency, deeper (financial) integration was expected to support real convergence. Euro sceptics argued that a single monetary policy imposing the same interest rate on a heterogeneous group of countries creates boom-bust cycles leading to more divergence (known as the 'Walters Critique').

A step towards deeper political integration versus a step toward increasing discord and conflict in Europe. A single currency was seen as a further milestone in the European integration process set out to achieve a political union. Others warned that the euro would create conflict among Europeans given the challenges of managing the single currency.

Finally, there was a sixth theory of change that suggested a single currency as the logical implication of capital mobility and thus put an end to balance of payment crises, such as the crisis of the European Monetary System (EMS) in 1992-1993.[2] As the theory was rarely directly rejected,[3] it strongly contributed to an Economic and Monetary Union (EMU) design focusing on the prevention of government 'misbehaviour,' while the potential for private sector misbehaviour and growth enhancing joint government action against speculative attacks was barely debated.[4] The euro crisis was a classical capital flow reversal and hence clearly rejects this theory of change.[5]

1 Five of the six theories of change are derived from Commission of the European Communities: One Market, One Money. An evaluation of the potential benefits and costs of forming an economic and monetary union, European Economy No. 44, 1990; R. Ohr, W. Schäfer: Memorandum führender deutscher Wirtschaftswissenschaftler zur Währungsunion vom 11. Juni 1992, Frankfurter Allgemeine Zeitung, 11 June 1992; W. Kösters, M.J.M. Neumann, R. Ohr, R. Vaubel: Der Euro kommt zu früh, Frankfurter Allgemeine Zeitung, 9 February 1998, p. 15; and the papers reviewed by J. Jonung, E. Drea: The euro: It can't happen. It's a bad idea. It won't last. US economists on the EMU, 1989-2002, European Economy, Economic Papers No. 395, Brussels 2009.

2 H.W. Buiter: The economic case for monetary union in the European Union, in: Review of International Economics, Vol. 5, 1997, pp. 10-35.

3 An exception is G.E. Wood: Fallacies – EMU will eliminate turbulence in the ERM, in: Economic Affairs, Vol. 15, No. 4, 1995, p. 56, explicitly stating that "abolishing the exchange rate leaves plenty of other markets in which to speculate".

4 T.D. Willett, N. Srisorn: The political economy of the Euro crisis: Cognitive biases, faulty mental models, and time inconsistency, in: Journal of Economics and Business, Vol. 76, 2014, pp. 39-54.

5 R. Baldwin, F. Giavazzi: The Eurozone crisis: A consensus view of the causes and a few possible solutions, www.voxeu.org, 7 September 2015.

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The search for a counterfactual

Testing theories of change requires a counterfactual, i.e. how would the euro area and individual Euro Area Member States (EAMS) have developed without the euro. Several assumptions have to hold when considering developments in non-euro area countries as a proper counterfactual.[6] However, as euro adoption was a highly endogenous event, the assumption that any difference in economic developments after euro adoption does not reflect different characteristics between individual EAMS and control group countries is unlikely to hold. In addition, given the size and economic weight of the euro area, few countries can claim that they have not been affected by 'general equilibrium' as well as 'spillover effects' from euro adoption. Moreover, euro adoption has not been the only event impacting developments in the euro area, its Member States and potential control group countries – before and after 1999. Finally, adjustment efforts triggered by the signing of the Maastricht Treaty in 1991 likely violate the assumption that euro adoption had no effects on EAMS in the pre-euro period.[7]

Simple difference-in-difference exercises

Despite the above mentioned shortcomings, we follow the spirit of the impact assessment methodology by running simple difference-in-difference exercises for key macro variables. Thus, caution must be taken in drawing strong conclusions from our results. However, as developments in the euro area and its Member States have been affected by global factors, in the pre- as well as in the post-euro adoption period, we believe that assessments purely based on comparisons between pre- and post-euro adoption outcomes for the euro area and individual EAMS or between post-euro adoption outcomes across EAMS face similar challenges.

We take a pragmatic approach in choosing a counterfactual and compare the euro area as a whole with the United States, as it represents the kind of monetary union the euro area aimed to become.[8] In addition, we use the US and an unweighted average of non-euro area European countries (Denmark, Sweden, Switzerland and the UK) and the remaining G-7 countries (Canada, Japan and the US) as benchmarks for individual EAMS. We cover the period 1981-2018, which we split into a pre- and a post euro period (1981-1998, 1999-2018) and in four decades (1981-1990, 1991-1998, 1999-2009 and 2010-2018). The US recession, German unification and agreement on the Maastricht Treaty in 1990/1991 define the events separating the pre-euro decade from the 1980s, and the euro crisis in 2010 separates the first and second euro decade.

We do not control for other country-specific and area-specific variables that might drive difference-in-differences. We are aware that this is not only a methodological shortcoming. It is also a drawback because we cannot distinguish between the impact of the euro as such and the impact of policies conducted in the euro area over the last 20 years. Such a distinction would be useful, however, as many reviews of the euro at 20 actually reflect assessments about economic policymaking in the euro area which were strongly influenced by the (fiscal) rules of the Maastricht Treaty. Economists have been critical of this set-up from the very beginning, but for highly different reasons. In a nutshell, the ordoliberal view welcomed the rules, but did not believe they would meet the political economy test. By contrast, the macroeconomic mainstream argued that the rules are bad in principle and thus would fail the political economy test. In both cases, the failure was expected to lead to a crisis as the euro area lacks a forum allowing for swift and democratically legitimated action to address the situation.[9] Thus, despite their differences, both camps supported the view that the issuance of money is an activity needing the backing of a state,[10] i.e. that it cannot be run by criteria and rules but "requires a more far-reaching association, in the form of a comprehensive political union, if it is to prove durable".[11]

6 For an introduction to impact assessment methodology see R. Glennerster, K. Takavarasha: Running randomized evaluations: A practical guide, Princeton 2013, Princeton University Press.

7 Given that many assumptions do not hold, several papers employ the synthetic control method to derive a proper counterfactual. We refrain from doing so partly because its application is beyond the scope of the paper, partly because the method continues to rely on the assumption that the countries on which artificial counterfactuals are built have not been affected by euro adoption. Finally, artificial counterfactuals are unlikely to be regarded as useful benchmarks in the political debate about the pros and cons of the euro. See L. Puzzello, P. Gomis-Porqueras: Winners and losers from the euro, in: European Economic Review, Vol. 108, 2018, pp. 129-152; A. Ferrari, A.R. Picco: International Risk Sharing in the European Monetary Union, ADEMU Working Paper Series No. WP 2017/055, 2017, ADEMU; N.F. Campos, F. Coricelli, L. Moretti: Institutional integration and economic growth in Europe, in: Journal of Monetary Economics, 2018.

8 J. Frankel: The euro crisis: Where to from here?, in: Journal of Policy Modeling, Vol. 37, No. 3, 2015, pp. 428-444.

9 See A. Mody: Eurotragedy: A Drama in Nine Acts, Oxford 2018, Oxford University Press. Of course, this was the main reason why the respective rules were agreed upon in the first place.

10 C.A. Goodhart: The two concepts of money: implications for the analysis of optimal currency areas, in: European Journal of Political Economy, Vol. 14, No. 3, 1998, pp. 407-432. In the German pre-euro debate this was the so-called 'coronation theory' stating that political union has to precede the monetary union for the latter to be viable.

11 Deutsche Bundesbank: Statement by the Deutsche Bundesbank on the establishment of an Economic and Monetary Union in Europe, Monthly Report, October 1990, pp. 40-44.

Table 1
Difference-in-difference: Euro area versus the United States

	Pre- and post-euro periods (2018-1999) versus (1998-1981)	The pre-euro decade (1998-1991) versus the 1980s (1990-1981)	The first euro decade (2009-1999) versus the pre-euro decade (1998-1991)	The second euro decade (2018-2010) versus the first euro decade (2009-1999)
Inflation (% p.a.)	-0.0166	-0.0229	-0.0038	0.0006
Gross government debt-to-GDP ratio (change in percentage points)	-46.02	21.84	-35.40	2.94
GDP growth (% p.a.)	0.0037	-0.0007	0.0060	-0.0023
Unemployment rate (average in %)	0.65	2.07	-0.76	0.59

Source: Author's compilation based on IMF data. Euro area aggregates for unemployment (before 1991) and inflation (before 1992) are calculated based on individual EAMS data (the original EAMS + Greece) weighted by the respective EAMS population share; for GDP growth (before 1992) and government debt-to-GDP (before 1995) the weighting is performed by using the respective EAMS shares in total GDP.

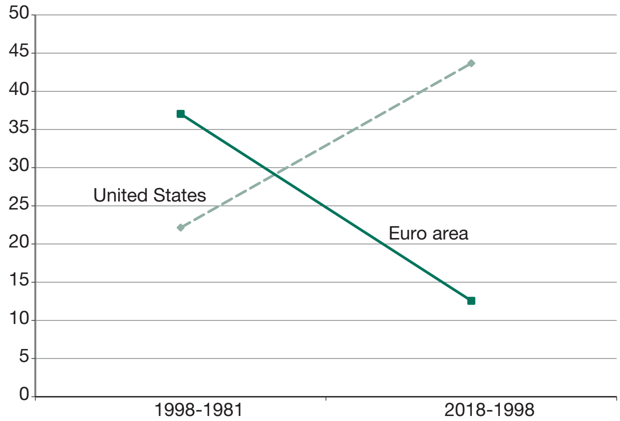
Against this background, we test whether the introduction of the euro is associated with marked differences in the development of government debt in the euro area and individual EAMS relative to the chosen benchmarks after the euro was established, compared to the pre-euro period.

The evidence: Euro area versus the United States

We start with 20-year difference-in-difference exercises comparing the euro area as a whole with the United States. A difference-in-difference of zero implies that there has been no change in the difference between the euro area and the US for the respective variable over the periods under consideration. Recalling again the methodological shortcomings of our analysis, results (Table 1, column 1) indicate that relative to the United States the euro area recorded lower inflation, higher GDP growth, a higher unemployment rate and a lower increase in the government debt-to-GDP ratio compared to the pre-euro period. They reflect that:

- Inflation declined in both areas in the 2000s compared to the 80s and 90s, but the decline was more pronounced in the euro area.

Figure 1
Changes in the government debt-to-GDP ratio (in percentage points), euro area and the United States, 1998-1981 versus 2018-1998



Source: Author's compilation based on IMF data.

- GDP growth dropped in both areas, but the drop was somewhat larger in the US than in the euro area.
- Euro area unemployment remained basically constant (on elevated levels), while it dropped in the US.
- The euro area saw a smaller increase in the government debt-to-GDP ratio in the 2000s compared to the 80s and 90s relative to the US (Figure 1).

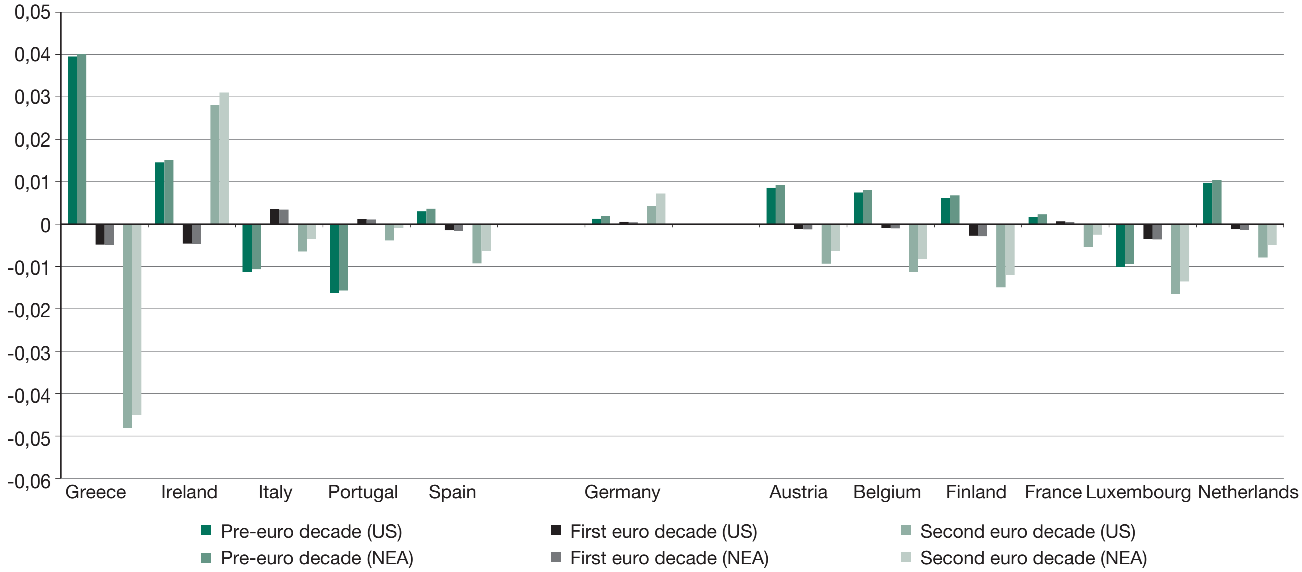
When we split the pre- and post-euro periods into two decades each, inflation difference-in-differences become very small for the two euro decades. This suggests that most of the decline in inflation has actually been achieved in the last pre-treatment decade. By contrast, the 'treatment effect' in government debt can be allocated to the euro period. In the 1990s, euro area debt-to-GDP ratio rose relative to the US and the 1980s, declined strongly in the first euro decade. In the crisis decade the close to zero difference-in-difference indicates that the debt-to-GDP ratio in the euro area basically remained on a relatively less expansionary path compared to the US. Finally, the analysis indicates that the first euro decade (Table 1, column 3, lines 3 and 4) was a relative success in terms of growth and unemployment, while in the second decade (column 4) GDP growth fell and unemployment rose relative to the US and compared to the first euro period.

The evidence: Macroeconomic outcomes – Euro Area Member States

We run similar exercises for the individual EAMS with the US and a non-weighted average of Canada, Denmark, Ja-

Figure 2

Average GDP per capita growth in Euro Area Member States (% p.a.): difference-in-difference to the US and an average of selected mature non-euro area (NEA) countries (1998-1992 vs. 1991-1981; 2009-1999 vs. 1998-1992; 2018-2010 vs. 2009-1999)



Source: Author's calculation based on IMF data.

pan, Sweden, Switzerland, the United Kingdom and United States as benchmarks. Due to spatial reasons, we only summarise the results:

- With the exception of the government debt-to-GDP ratio, the choice of benchmark does not matter much.
- Results indicate divergence between the periphery, Germany and the remaining EAMS. Divergence is most pronounced for the euro crisis decade.
- All three decade analyses show that some results hold for almost all EAMS, namely:
  - none of the EAMS record a substantial increase in inflation relative to benchmarks in either of the two euro decades.
  - all EAMS, with the exception of Germany, Austria and France, fail to show consistent improvements of debt-to-GDP ratios for both euro decades.
  - with the exception of Germany and Ireland, no EAMS shows improvements in GDP per capita growth relative to both benchmarks in the second euro decade (Figure 2).
  - substantial improvements in the unemployment rate vis-à-vis the US or the average of other mature economies are mainly limited to the first euro decade.

Convergence, political integration and conflict

With regard to the fourth and fifth theory of change, we apply the difference-in-difference approach only qualitatively. The literature indicates that the convergence process came to a halt within the euro area after euro adoption, but this coincides with similar findings for other currency areas, e.g. the United States.[12] For the fifth theory of change, there have been no decisive steps towards deeper political integration, i.e. in strengthening the democratic mandate of European policymakers compared to their national counterparts, in the EU since euro adoption. At the same time, the euro and economic policies conducted in the euro area have been increasingly controversial and heavily debated since 2010. As certain policies have been associated with individual EAMS, such as austerity with Germany or fiscal profligacy with periphery

12 See J.L. Diaz del Hoyo, E. Dorruci, F.D. Heinz, S. Muzikarova: Real convergence in the euro area: a long-term perspective, ECB Occassional Paper Series No. 203, 2017, European Central Bank; C. Alcidi: Economic Integration and Income Convergence in the EU, in: Intereconomics, Vol. 54, No. 1, 2019, pp. 5-11.

countries, the euro and the policies conducted in the euro area have become an important issue in national politics. In some countries, they have influenced the rise of new political parties with a national(istic) flavour. Thus, the debate about the costs and benefits of the euro has supported the rise of political conflict within the euro area and between EAMS. Having said this, similar developments have been observed in non-euro area countries, for example in the US.[13] This suggests that Rodrick's trilemma between integration, national state and mass politics, i.e. democracy, is the root cause for the rise of nationalism in Western countries, even if there is some evidence that adopting a single currency has exacerbated the trilemma by adding a monetary dimension missing in non-euro area countries.[14]

Theories of change – twenty years later

The results of our analysis on the theories of change associated with euro adoption can be summarised as follows:

Inflation versus monetary instability. The evidence rejects the theory that the euro would lead to an inflation burst. This holds for the euro area as a whole, individual EAMS and for all time periods under study.

Fiscal discipline versus fiscal profligacy. For the euro area as a whole, the introduction of the euro has been associated with a substantial rise in fiscal discipline compared to the United States. However, the evidence of this for individual EAMS is mixed. Results depend on the benchmark as well as the time period, with several periphery countries showing an expansion of debt if a group of mature non-euro area countries serves as the benchmark and if the comparison focuses on the euro crisis decade.

Growth and employment. The euro has not been associated with a push for growth and employment, neither for the euro area as whole nor for individual countries, with the exception of Germany in the second euro decade. By contrast, most EAMS record lower growth and higher unemployment relative to both benchmarks in the second euro decade. Given that there has not been an inflation or debt burst, this either supports 1.) the OCA pointing towards the negative impact of foregoing the exchange rate as an adjustment mechanism, 2.) the impossibility of conducting (a common) fiscal policy as a response to the economic and financial crises or 3.) a lack of structural reforms in several EAMS.

Convergence versus divergence. The introduction of the euro has not been associated with a push for convergence. However, convergence processes have slowed down in other mature, non-euro area countries as well.

Political integration versus political conflict. The euro has not led to further political integration while the euro and economic policies conducted in the euro area are issues that have been increasingly debated from a national(istic) perspective.

Finally, the euro crisis has demonstrated that the introduction of a common currency as such is no panacea in preventing speculative attacks. The euro area remains subject to crises caused by sudden stops and reversals of capital flows.

Euro impact and political conflict

Our analysis leads to two conclusions. First, most of the hopes associated with euro adoption have not materialised. Second, most of the fears that were raised cannot be decisively confirmed either. However, even when taking into account the methodological challenges referred to above, the underperformance of the euro area and several EAMS in terms of growth and employment in the second euro decade is striking. Since growth and employment are the economic variables dominating the public debate in an era of low inflation, it is no surprise that, that the euro has become a matter of increasing political controversy despite inconclusive evidence on its overall impact. Economic theory itself provides the arguments for this controversial debate. Ordoliberalism refers to a lack of structural reforms within individual EAMS and the failure of the Maastricht rules to contain debt levels in the first euro decade. Mainstream macroeconomists, meanwhile, point to the delayed and weak policy response (particularly of fiscal policies) to the crisis in the second euro decade.[15] This is a 'battle of ideas',[16] which is also fought, in one way or another, in other currency areas. The difference is that other currency areas coincide with nation states. As a result, debates about economic policies, even if they turn populist, do not question the existence of

13 Pew Research Center: Political Polarization in the American Public, pewresearch.org, 12 June 2014.

14 See D. Rodrik: How Far Will International Economic Integration Go?, in: Journal of Economic Perspectives, Vol. 14, No. 1, 2000, pp. 177-186; and L. Guiso, H. Herrera, M. Morelli, T. Sonno: Global Crises and Populism: the Role of Eurozone Institutions, in: Economic Policy, forthcoming, 2019.

15 Draghi implicitly refers to both theories in his review of the euro at 20; see M. Draghi: Europe and the euro 20 years on, speech at University of Sant'Anna, Pisa, 15 December 2018, available at https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181215.en.html.

16 M.K. Brunnermeier, H. James, J.-P. Landau: The Euro and the Battle of Ideas, Princeton 2016, Princeton University Press.

the currency or of the nation.[17] In the euro area, however, the debate cannot be conducted on the European level as the euro area is not a political union, i.e. it lacks European policymakers with a democratic European mandate and hence with a legitimacy to make decisions they deem appropriate and campaign in a European election. Rather the debate reaches the European level via governments of nations only. As a consequence, divergent views on economic policy at the European level are associated with governments and nations. If certain governments are consistently associated with certain economic theories, these economic theories become associated with national identities. The differentiation between a 'French' and a 'German' view,[18] rather than between a macro mainstream and ordoliberal view, illustrates the peculiarity of the euro area and probably says more than any economic variable. There are no 'Virginian' or 'Californian' views on economic policy in the United States and no 'Scottish' or 'Welsh' views in the United Kingdom.

Concluding remarks

Over the last decade, low growth and high unemployment in the euro area and individual EAMS have been major policy challenges, for which economic theory offers a bundle of highly divergent ideas and concepts. However, in a setting where economic policies, not only fiscal policies, remain national, the battle of ideas within the economic profession offers nationalists an easy opportunity to link their rejection of European integration to those economic theories which support a German, French, Italian, Austrian etc. 'First' agenda. This applies in particular when these theories are critical of the (violation of) rules set by 'the elite', the main target of populist thinking. Accordingly, technical integration steps, like the European Stability Mechanism or the Banking Union, useful and functional though they might be, do not fill the gap in the Maastricht setup, as they again substitute debate with regulations, and democratic legitimacy with technocratic rulings.[19] Moreover, as these rules will probably be found to be inadequate in certain situations arising in the future, the euro area will return to square one: the need for policies based on a mandate from the people; those without a mandate cannot expect public support.

The political fathers of the euro, like Chancellor Helmut Kohl, were well aware of this as they always linked the introduction of the euro to the pursuit of a European political union. However, the Maastricht Treaty created the illusion that the EMU can work based on technical expertise enshrined in rules and regulations coupled with the 'falling forward' narrative,[20] namely that when illusion gave way to reality this would trigger the necessary steps towards political union. The first 20 years of the euro show little support for this line of thinking.

This does not mean that the euro's collapse or the exit of an EAMS is imminent, despite much talk – also by economists – about GREXIT, ITALEXIT, DEXIT, or a 'north' and a 'south' euro. But this is also because the technical and logistical challenges of such moves are enormous and the associated costs are extremely high and, from a political economy perspective most importantly, frontloaded.[21] To our knowledge, no serious blueprint exists for a safe and low-cost way out of the EMU. This explains why, to date, political parties campaigning on a platform calling for an exit have buckled at the very moment they could choose to pursue this road, like in Greece in 2015, or have retreated from such calls as they got closer to winning a national election (like in France in 2017 or Italy in 2018). However, sustainability built on high exit costs implies that any new crisis might trigger a decision in favour of one of the two sustainable solutions. While crises might eventually foster integration, the opposite cannot be ruled out either as the euro area lacks a political figure or body with a clear democratic mandate to drive change. Thus, in contrast to the US where in the course of history political union has allowed several presidents to take action when crises hit, the euro area remains vulnerable to (regional) crises as national(istic) politics might scapegoat integration, when the problem is actually a lack of integration.[22] We consider this the main reason why the euro remains a project that might fail.

17 We use the term 'populist' in the economic context with caution, as policies which are referred to as populism in one period may receive academic support in a later period. For example, deposit insurance and the demise of the gold standard were widely regarded as 'populist' (if the word as such had already been used at that time) in the 1920s only to become mainstream in western democracies after 1933 (G. Gorton: Questions and Answers about the Financial Crisis – Prepared for the U.S. Financial Crisis Inquiry Commission, February 2010, available at https://online.wsj.com/public/resources/documents/crisisqa0210.pdf). Populism thrives with economic mismanagement, but it is defined by the general attitude of distinguishing between 'the people' and 'the elite'; also see L. Guiso et al., op. cit.

18 M.K. Brunnermeier et al., op. cit.

19 P. De Grauwe: The legacy of the Eurozone crisis and how to overcome it, in: Journal of Empirical Finance, Vol. 39, 2016, pp. 147-155.

20 A. Mody, op cit.

21 B. Eichengreen: The breakup of the euro area, in: A. Alesina, F. Giavazzi (eds.): Europe and the Euro, Chicago 2010, University of Chicago Press, pp. 11-51; T.D. Willet, N. Srisorn, op. cit.

22 J.F. Kirkegaard, A.S. Posen: Realistic European Integration in Light of US Economic History, in: J.F. Kirkegaard, A. Posen (eds.): Lessons for EU Integration from US History, Washington DC 2018, Peterson Institute, pp. 2-15.