ifo
DICE REPORT

03
2018

Autumn
Vol. 16

FORUM

Euro Sustainability

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ifo INSTITUTE
Leibniz Institute for Economic Research
at the University of Munich

ifo DICE Report
ISSN 2511-7815 (print version)
ISSN 2511-7823 (electronic version)
A quarterly journal for institutional comparisons
Publisher and distributor: ifo Institute
Poschingerstr. 5, 81679 Munich, Germany
Telephone +49 89 9224-0, Telefax +49 89 9224-1462, email ifo@ifo.de
Annual subscription rate: €50.00
Editors: Marcus Drometer, Yvonne Giesing, Christa Hainz, Till Nikolka
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Copy editing: Lisa Giani Contini, Carla Rhode

DICE Database: www.cesifo-group.org/DICE

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VOLUME 16, NUMBER 3, AUTUMN 2018

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Kai A. Konrad and Jörg Rocholl

Introduction

The Euro crisis has disappeared from newspaper front pages. Many experts would agree that some structural problems that caused the crisis and economic imbalances persist, and that economic shocks might cause the crisis to return. But major changes in the regulatory framework and the strong commitment of the European Central Bank make it clear that the Eurozone will deal with economic challenges.

This commitment and the institutional precautions taken are powerless, however, if one or several countries in Europe make a purely political decision. Extremist electoral outcomes may trigger such an exit or disintegration, probably with a small probability, but with one that is different from zero. Waking up on June 24, 2016, the Brexit decision took many of us by total surprise. Similarly, waking up on November 9, 2016, many of us rubbed their eyes and might still not have fully recovered from the news that Donald Trump was elected President of the United States of America. Voting outcomes are not easy to predict, and unexpected outcomes have positive probabilities. What, for instance, if we were to wake up one day, and Madame Marin Le Pen were to have been elected French President? And what if she decided that France should leave the Eurozone? Or what if a newly-elected Italian government were to make such a decision?

The conference entitled: "Is the Euro sustainable – and what if not," held on March 14, 2018 and jointly organized by ESMT Berlin and the Max Planck Institute for Tax Law and Public Finance, aimed to gain insights into possible political worst-case scenarios. The fallout of an exit, or the disintegration of the Eurozone, may be huge. But does this mean that we are not supposed to study what could and should be done if this were to happen? Isn't it the duty of scientists to study such a scenario, and a serious omission if such research is neglected? We need to know what such events imply, and what needs to be done should they occur. Contingency actions and the speed at which they can be decided upon and enacted are relevant for the size of the collateral damage of such a contingency.

The conference took several steps to approach this issue. A first step was to assess where we stand from both an economic policy point of view and a pollster's standpoint. In both his presentation and his contribution to this special DICE issue, Christoph Schmidt reflects on the structural reforms, progress made, and remaining economic problems. This is followed by a report by Bruce Stokes on Europeans' commitment to the European Project from a pollster's point of view. Hans-Werner Sinn analyses the role of Target 2, accounting system for members of the European system of central banks. He has conducted in-depth research into this issue and DICE will publish a more detailed article on the topic in the near future. It becomes clear from this that the Target 2 imbalances are an indicator of economic imbalances within the Eurozone. It also becomes clear that Target 2 imbalances are a relevant and potentially major concern in case of exit or disintegration – a concern that was not considered carefully enough by the founding fathers of the Euro system.

At the conference three scholars reflected on major currency crises in modern history. This issue of DICE features the insights of Luca Einaudi, who assesses the Latin Monetary Union that lasted from 1865-1926 and the major flaws that caused crisis and disintegration. It also includes a report by Jeromin Zetttelmeyer on what we can learn about the possible costs or benefits of a euro exit from the 2000-2002 currency crisis in Argentina. Finally, several researchers discuss the cost of an exit and how these costs hurt different countries. This DICE issue contains contributions by two scholars on this topic. Clemens Fuest discusses the difference it makes if a currency union has formal rules and regulations about institutional procedures in case of an exit; and Costas Lapavitsas writes on Greek exit considerations and assesses the implications of currency redenomination in this context.

The topics of all of these essays are genuinely unpleasant. And one might think that a conference on how to make the European currency union more resilient would have been more positive. We agree that the reform debate is an enormously important topic, and many of us have already participated in a number of conferences on this topic and contributed to the debate too. While there is not necessarily any consensus on what are the suitable reforms, we all agree on the overall goal of friendship in an ever-closer and more integrated European Union. This, however, should not deter us from studying how to address potential setbacks. Fritz Scharpf (2016, p.48) recently emphasized the importance of research on potential failure: "Unfortunately, the unconditional political and ideological commitment to defend the euro has so far prevented the development of such scenarios or serious analyses of exit options." He subsequently reinforces this idea:

Kai A. Konrad
Max Planck Institute for
Tax Law and Public Finance.

Jörg Rocholld
ESMT Berlin.

"Future historians might come to see the unwillingness even to consider such scenarios as the main deficiency of present political discussions."

The goal at the conference was, of course, not to search for exit scenarios, nor to promote such scenarios. But much like atomic war or the impact of a mid-sized asteroid, politics is somewhat unpredictable. Things may happen. In our view, this makes expert assessments of such situations and contingency plans in this DICE issue extremely valuable.

REFERENCES

Scharpf, Fritz, 2016, The costs of non-disintegration: the case of the European Monetary Union, in: Damian Chalmers, Markus Jachtenfuchs and Christian Joerges (eds.), The End of the Eurocrat's Dream, Adjusting to European Diversity, pp. 29-49.

Christoph M. Schmidt

Stabilizing the Euro: Where Do We Stand?[1]

Christoph M. Schmidt
RWI and GCEE.

In its coalition agreement and in the months following its formation, the current German government provided strong indications that European issues are taking centre stage on its political agenda. In principle, this is good news for European integration. But the actual steps taken in this respect will be crucial to the success of this endeavour. Ultimately, only an incentive-compatible European architecture will constitute a sustainable engine of peace and prosperity. In my assessment, the key to ascertaining this stable architecture will be the adamant insistence on three essential principles: subsidiarity, the alignment of liability and control, and unity in diversity.

By and large, the political decisions taken over the last couple of years have been in line with these principles. Eurozone reforms have transformed its architecture mainly, albeit not exclusively, in the direction of the concept proposed by the German Council of Economic Experts (GCEE) as "Maastricht 2.0" (GCEE 2015; Feld et al. 2016a and 2016c). But more recent political rhetoric at the European level has emphasized quite different themes, as shown, for instance, by the Five Presidents' Report (Juncker et al. 2015), the subsequent White Papers and the joint Meseberg Declaration (2018) made by the German and French government. Some elements of these proposals could even jeopardize the long-term stability of the Eurozone if implemented. Instead, European policymakers should recall the three essential principles to identify the correct steps to be taken in the right order in their commendable quest for a more sustainable Eurozone.

CONCEPTUAL CONSIDERATIONS

Any approach to sorting out these intricate issues has to depart from the insight that, in many respects, the Eurozone is an arrangement without historical precedent; namely a monetary union whose individual member states retain sovereignty when it comes to fiscal and economic policy decisions and which – at the same time –operates in an historically unprecedented environment. Today, financial markets and, thus, beliefs about the sustainability of institutional arrangements, matter tremendously to the actual stability of these arrangements. This makes it difficult to decide on the best institutional arrangements for this monetary union.

Two fundamental – and in principle equally attractive – views of how to construct such a stable architecture collide. A first perspective stipulates that the monetary union needs a balancing counterpart in the realm of fiscal and economic policy, with substantial discretion for intelligent policymaking. Fuelled by a serious dose of scepticism regarding the capabilities of policy makers to display such superior conduct, a second perspective emphasizes the idea that pre-determined rules and their adamant enforcement liberate policymakers from the shackles of time inconsistency, effectively leading to better policy outcomes.

Since the lack of empirical precedent makes it almost prohibitively difficult to decide upon the relative quality of these perspectives just by recalling previous experiences with monetary unions, one is thrown back to some extent to discuss the matter on basis of key principles (Schmidt 2017). My thesis is that – perhaps inadvertently – three key principles have guided the fortification of the Eurozone institutions throughout the crisis years, and that it would be quite sensible to complete these steps towards precisely one of the two possible arrangements that promise the sustainability of the euro, namely "Maastricht 2.0". These principles are:

Subsidiarity: joint action should be limited to issues for which individual action severely lacks effectiveness, e.g. due to externalities or economies of scale. This principle respects the heterogeneity of preferences, institutions, history, etc.

Alignment of liability and control: to avoid distributional conflicts, one should adamantly avoid a mismatch between decision-making power and responsibility for the consequences of the decisions made (Feld et al. 2015).

Unity in diversity: it is no coincidence that the motto under which integrated Europe is striving for peace and prosperity actively embraces the diversity that characterises the union, in a deliberate attempt to learn from one another (Feld et al. 2016d).

While completing these steps would arguably be quite sensible, implementing measures that are incompatible with the "Maastricht 2.0" concept might even be counterproductive.

HOW THE CRISIS UNFOLDED

The crisis in the Eurozone relentlessly unveiled the two fundamental structural weaknesses of the Eurozone's original architecture:

Prevention arrangements were insufficient; banking regulation was flawed and the no-bail-out clause was not credible, and thus failed to ascertain fiscal discipline (Feld et al. 2016b).

There were no crisis mechanisms installed for the unlikely, albeit (in hindsight quite obviously) possible case of member states losing market access.

Correspondingly, the crisis triggered an intense discussion of both crisis prevention and management.

[1] I'm very grateful to Sebastian Breuer, Wolf Reuter, and Astrid Schürmann for their constructive comments.

In this process some aspects of the phenomenon were simply rediscovered: with the concept of monetary union, or European integration, the idea of forging a single market for goods, services, capital and labour, was combined with the provision of a single currency. This inevitably eliminated a dimension of macroeconomic adjustment that was previously available to member states – namely the devaluation of their own currency. In this sense, forging the Eurozone created a sort of "super-globalisation" process, with even stronger requirements regarding the flexibility of product and labour markets.

With one dimension of macroeconomic adjustment less at their disposal, member states' governments were required to ascertain that any necessary macroeconomic adjustment would be facilitated by smoothly functioning labour and product markets. It was clear from the start of the first considerations towards the formation of the monetary union that member states' governments would have to implement a broad spectrum of structural reforms aimed at boosting the growth potential of their economies as a result, and that they would have to demonstrate stern budget discipline to retain their room for manoeuvre in the case of a crisis.

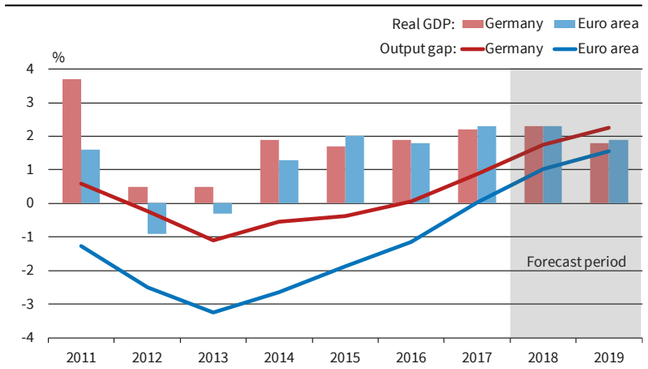
In hindsight it is clear that several member states have failed to comply with these requirements sufficiently. Yet, this neglect was difficult to detect in real time, as the Eurozone members at the Southern periphery in particular experienced a credit-fuelled boom in the pre-crisis period. Had this temporary phenomenon been identified correctly as unsustainable, and had it not been mistaken by many observers as a permanent increase in the growth potential of these member states, many painful discussions could have been avoided. In reality, European policy makers discovered these underlying deficiencies of the Eurozone architecture the hard way during a severe crisis.

Over the course of the Eurozone crisis, its architecture was fortified step by step, by improving prevention measures and implementing mechanisms to deal with crises. Nevertheless, in the summer of 2012 the Eurozone was on the verge of breaking up – the GCEE at the time suggested dealing with legacy debt by installing a debt redemption pact (GCEE 2012), consisting of the inseparable combination of a debt redemption fund together with heavy obligations regarding structural reform and budget consolidation. In the GCEE's assessment, compliance with the pact would have been enforced by the then existing substantial risk premia for sovereign bonds.

This did not happen. Instead the ECB announced its OMT programme, and ECB President Draghi announced that the ECB would stabilize the Eurozone, "whatever it takes." This effectively eliminated speculation as to the premature demise of the monetary union and subdued risk premia, providing the basis for economic recovery, albeit at the expense of increasing risks to financial stability. When the crisis appeared to reignite in early 2015 – and it was feared that deflationary tendencies could take hold – the ECB implemented a second series of large-scale TLTROs and its QE programme. Basically, that's where we stand right now, when it comes to assessing the current macroeconomic outlook.

Figure 1

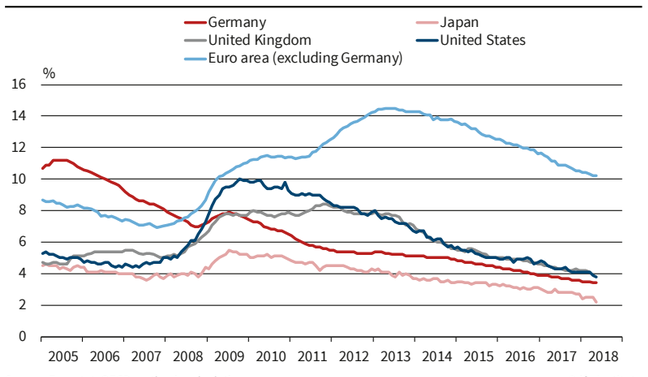
Real GDP Growth and Output Gap



Source: European Commission; Eurostat; Federal Statistical Office; GCEE. © ifo Institute

Figure 2

Unemployment Rates



Source: Eurostat; OECD; author's calculations. © ifo Institute

THE CURRENT STATE OF MACROECONOMIC AFFAIRS

The Eurozone has now experienced several years of economic recovery. The more recent years have witnessed strong and stable growth (Figure 1). GDP growth in the Eurozone has been exceeding potential growth since 2013. Overall, its prospects seem positive. Moreover, as growth has been exceeding its potential for a protracted period, output gaps have entered the positive realm. Finally, capacity utilisation in the Eurozone is rising and unemployment rates are declining (Figure 2).

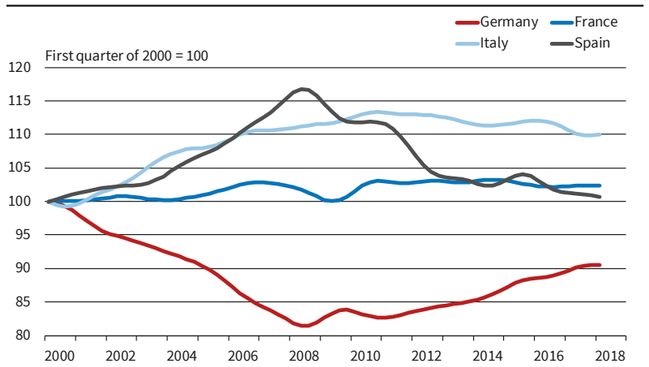
In line with these observations, deflationary risks in the Eurozone have diminished considerably. Core inflation is stable, and it is expected to rise gradually with increasing capacity utilisation and protracted labour market recovery. At the same time, headline inflation has even risen above the ECB's target of just under 2% in June. Arguably, the ECB would be well-advised to take a symmetrical approach to monetary policy, and reduce its expansionary stance under the impression of rising inflation rates in a similar way as it reacted to their decline just a few years ago. Yet, it is still very expansionary, and risks to financial stability keep increasing. However, as monetary policy is not suitable for permanently boosting growth in laggard economies, a normalization of monetary policy is needed fairly soon.

As far as the price competitiveness of Eurozone economies is concerned, almost half of the competitiveness gains experienced by the German economy compared to other member states between the beginning of the century and the Eurozone crisis have now vanished. Unfortunately, however, not all large member states have managed to regain their price competitiveness (Figure 3). Despite these welcome adjustments, a remarkable diversity in the levels of member states' prosperity still remains (Figure 4). It is arguably up to national governments to implement the appropriate structural reforms to lift their potential growth rates and foster convergence.

Figure 3

Real Effective Exchange Rates

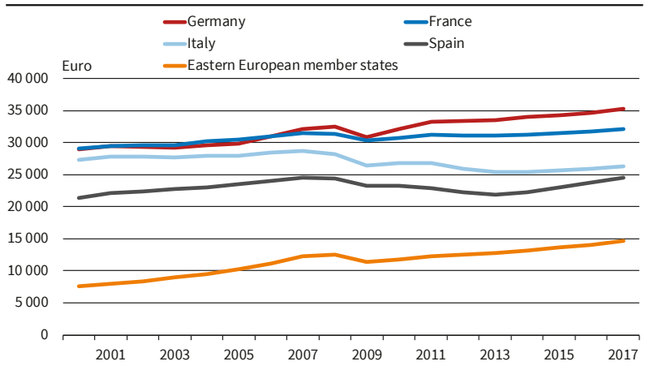
Vis-a-vis the euro area



Source: European Commission; author's calculations. © ifo Institute

Figure 4

GDP per Capita



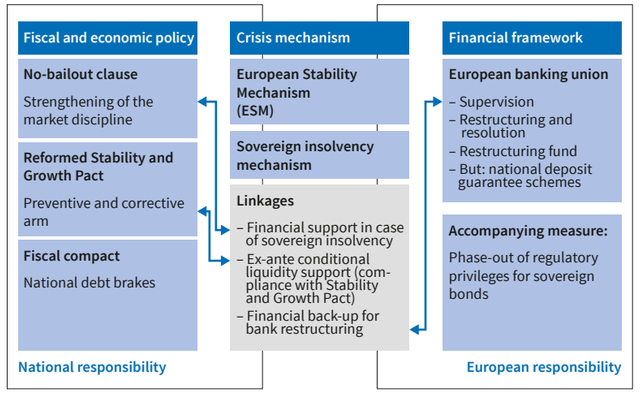
Source: European Commission; author's calculations. © ifo Institute

A STABLE EUROZONE ARCHITECTURE

The economic recovery provides an important tailwind for fortifying the Eurozone's architecture. It is advisable to recall the fundamental principles any sustainable architecture would have to fulfil – subsidiarity, alignment of liability and control, and unity in diversity. Obviously, policy fields to consider are banking and financial markets, for which the decision was made to align liability and control at the level of the monetary union, and fiscal and economic policy, for which the original decision was an alignment at the national levels. Unquestionably, an arrangement whereby member states were making the decisions, and the community of member states was bearing the consequences would be unsustainable.

Figure 5

A Solid Framework for the Euro Area: Maastricht 2.0



Source: German Council of Economic Experts. © ifo Institute

Instead, two sustainable arrangements can be envisaged. The first would be to align decision-making power and liability at the level of the union. To work in practice, however, this arrangement should be pursued whenever preferences are fairly homogeneous, or when externalities are substantial (as for cross-border banking) and if, and only if, the member states display sufficient willingness to relegate their sovereignty to a supra-national level. The European banking and capital market union is a case in point. Although the process is incomplete and fraught with impediments, the development of joint approaches to banking supervision and restructuring is evidence of the willingness to delegate sovereignty in this policy field.

In reality, however, there is currently hardly any substantial willingness on the part of individual member states to relegate sovereignty in the field of fiscal or economic policy to a supra-national level. Consequently, an arrangement similar to the banking and capital market union is hardly advisable when it comes to areas like, for example, the organisation of labour markets. Unfortunately, this is often discussed nevertheless, and the potential adverse long-term implications of this misalignment are frequently disregarded.

The second sustainable arrangement would be to align decision making power and liability at the same national level(s). This arrangement would reflect the principle of subsidiarity and would also respect the European motto of unity in diversity. Yet in cases where fiscal and economic policy remain a national responsibility in monetary union, as in the GCEE's concept "Maastricht 2.0" (Figure 5), one would need to provide one of three potential safety valves for the crisis case:

Exit from the union: a member state under distress that left the union, would regain the adjustment lever of devaluating its national currency. There are very good reasons to be more than hesitant, as the process of European integration can hardly be as easily switched on and off as a country club membership.

Bail-out by other member states: while this is effectively what had to happen to retain the integrity of the Eurozone during the latest crisis, there are very good reasons to be aware of the incentive effects associated with the availability of a bail-out. A severe lack of fiscal discipline could hardly be avoided.

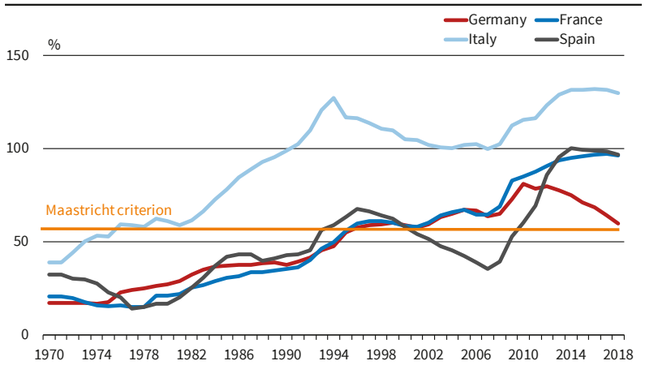
Restructuring of sovereign debt: if none of the first two safety valves could be installed, a member state under distress would need to have the option of restructuring its debt without leaving the monetary union. Now would be the time to phase in such an arrangement, not during the next crisis.

WHAT TO DO NEXT?

While the Maastricht criterion of a debt-to-GDP ratio of 60% was not derived from first principles, it nevertheless serves as an anchor for assessing the room available to governments to fiscally manoeuver should a crisis emerge. Unfortunately, in 12 of the 19 member states of the Eurozone this ratio is still above 60%, and way exceeds the corresponding pre-crisis levels (Figure 6). Moreover, in-depth analyses raise doubts about the sustainability of public finances in many member states (GCEE 2017). Consequently, there is a need to refocus and strictly enforce supra-national fiscal rules, which have become too complicated and overburdened with exceptions and technicalities (Eyraud et al. 2018). Furthermore, the introduction of an insolvency mechanism for sovereigns, with the possibility of debt restructuring within the union, would award more credibility to the no-bailout principle (Andritzky et al. 2018).

Figure 6

Debt-to-GDP Ratios

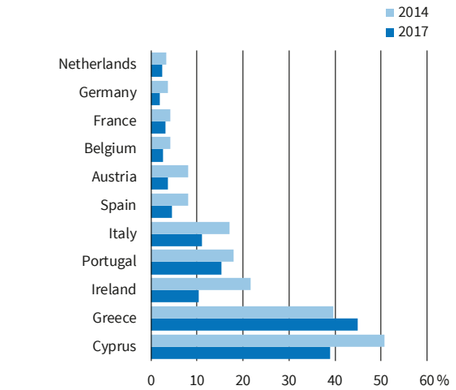


Source: IMF; Mauro et al. (2005); author's calculations. © ifo Institute

In view of the arguments regarding the proper alignment of liability and control, the decision to complement joint monetary policy in the Eurozone by implementing a regime of joint supervision and restructuring authorities for financial markets was commendable. This route should be pursued further, until the European Banking Union is factually completed. Yet any further integration is only advisable after further risk reduction has occurred. This requirement not only pertains to a reduction in the number of non-performing loans on the banks' balance sheets (Figure 7), it also implies the removal of regulatory privileges for sovereign debt (GCEE 2015), ascertaining a higher credibility of the resolution regime, and the separation of banking supervision from the ECB.

Figure 7

Non-Performing Loans
% of gross loans

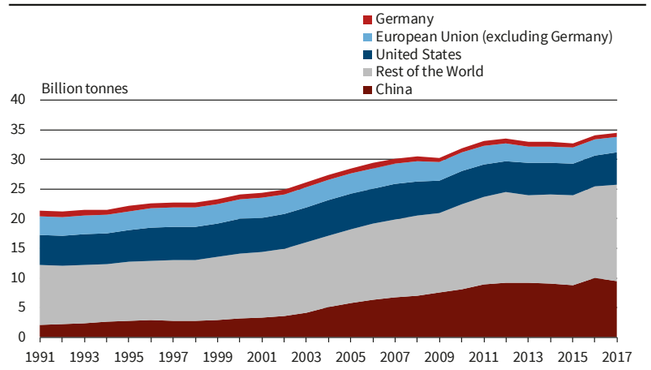


Source: European Banking Authority (EBA). © ifo Institute

Instead of inventing new fiscal instruments, joint European efforts - both in the Eurozone and in the EU - should concentrate on policy fields with genuine European added value. Climate policy is a prime example of one such policy field, as the task of reducing CO2 emissions is a global challenge (Figure 8). National approaches and fragmented climate policy measures are expensive and inefficient. Instead, the EU Emissions Trading System should be strengthened by making use of a single price for CO2 for all emitters and sectors of final energy consumption in the EU (acatech et al. 2015).

Figure 8

CO_2-Emissions in Selected Country Groups and Countries



Source: EIA; author's calculations. © ifo Institute

REFERENCES

acatech – National Academy of Science and Engineering, German National Academy of Sciences Leopoldina, and Union of the German Academies of Sciences and Humanities, eds. (2015), *Incorporating the German Energiewende into a comprehensive European approach – New options for a common energy and climate policy,* Position Paper, Berlin.

Andritzky, J., D.I. Christofzik, L.P. Feld, and U. Scheuering (2018), "A mechanism to regulate sovereign debt restructuring in the euro area." International Finance, 1–15. https://doi.org/10.1111/infi.12142.

Eyraud, L., M.X. Debrun, A. Hodge, V.D. Lledó, and M.C.A. Pattillo (2018), "Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability", IMF Staff Discussion Note SDN/18/04. *International Monetary Fund,* Washington, DC.

Feld, L.P., Ch.M. Schmidt, I. Schnabel, and V. Wieland (2015), "Divergence of liability and control as the source of over-indebtedness and moral hazard in the European Monetary Union", in: R. Baldwin and F. Giavazzi, eds., *The Eurozone Crisis: A Consensus View of the Causes and a Few Possible Remedies,* Centre for Economic Policy Research, London, 187–199.

Feld, L.P., Ch.M. Schmidt, I. Schnabel, and V. Wieland (2016a), "Maastricht 2.0: Safeguarding the future of the Eurozone", in: R. Baldwin and F. Giavazzi, eds., *How to fix Europe's monetary union: Views of leading economists,* Centre for Economic Policy Research, London, 46–61.

Feld, L.P., Ch.M. Schmidt, I. Schnabel, and V. Wieland (2016b), Causes of the Eurozone Crisis: A nuanced view, https://voxeu.org/article/causes-eurozone-crisis-nuanced-view (published 22 March 2016).

Feld, L.P., Ch.M. Schmidt, I. Schnabel, and V. Wieland (2016c), Completing Maastricht 2.0 to safeguard the future of the Eurozone, https://voxeu.org/article/completing-maastricht-20-safeguard-future-eurozone (published 23 March 2016).

Feld, L.P., Ch.M. Schmidt, I. Schnabel, and V. Wieland (2016d), Unity in diversity: The way forward for Europe, https://voxeu.org/article/unity-diversity-way-forward-europe (published 22 August 2016).

GCEE – German Council of Economic Experts (2012), *After the Euro Area Summit: Time to Implement Long-term Solutions,* Special Report, Wiesbaden.

GCEE – German Council of Economic Experts (2015), *Focus on Future Viability,* Annual Report 2015/16, Chapter 1 Economic Policy: Focus on Future Viability. Wiesbaden.

GCEE – German Council of Economic Experts (2017), *Towards a Forward-Looking Economic Policy,* Annual Report 2017/18, Chapter 6: Sound fiscal policy, especially in good times. Wiesbaden.

Juncker, J.C., D. Tusk, J. Dijsselbloem, M. Draghi, and M. Schulz (2015), *Completing Europe's Economic and Monetary Union,* European Commission, Brussels.

Meseberg Declaration (2018), *Renewing Europe's promises of security and prosperity.* The Press and Information Office of the Federal Government, Berlin (press release no. 214, published 19 June 2018).

Schmidt, Ch.M. (2017), "Don't shoot the messenger: About the diversity of economic policy conclusions in the face of severe identification issues", in: T. Beck and H.-H. Kotz, eds., *Ordoliberalism: A German oddity?* CEPR Press: London, 63–75.

Bruce Stokes

Europeans' Commitment to the European Project

Bruce Stokes
Pew Research Center.

The coalition of Eurosceptic parties now ruling Italy is a stark reminder that recent years have seen turbulent shifts in public attitudes toward the European Union. Views of the EU were fairly negative in 2016, prior to the Brexit vote in the United Kingdom, but Europe-wide public sentiment about the European project rebounded in 2017, except in Italy (Figure 1). Even British voters, who narrowly chose to withdraw from the EU, markedly improved their views of the Brussels-based institution in 2017.

Majorities in nine out of ten EU member states, including 74% in Poland, 68% in Germany, 67% in Hungary and 65% in Sweden, now hold a favorable view of the institution (Figure 2). The lone dissenter is Greece (34%), which has been subject to EU-imposed austerity. Even in the UK, where just a year ago voters narrowly chose to leave the EU, 54% now voice a positive opinion of the European project.

The rebound in EU sentiment is particularly striking in a number of countries: with increases of 18 percentage points in Germany and France, 15 points in Spain, 13 points in the Netherlands and 10 points in the UK.

These are some of the key findings from a 2017 Pew Research Center survey, conducted among 9,935 respondents in France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Spain, Sweden and the United Kingdom. Together, these ten European Union member states account for roughly 80% of the EU population and 84% of the EU economy.

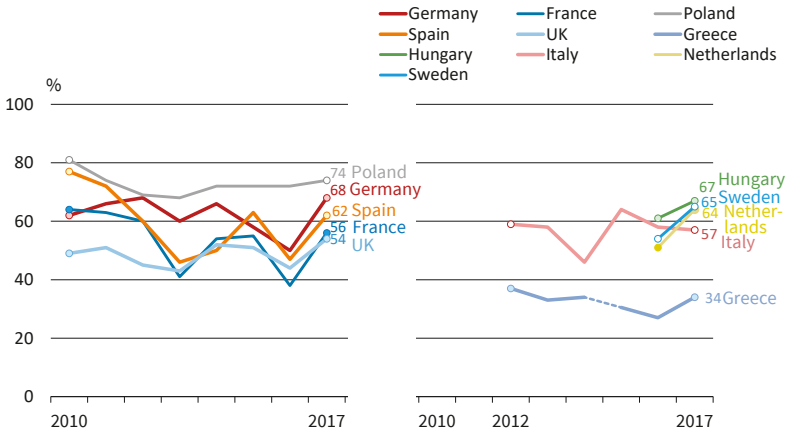
Younger Europeans, who have never known a world without the European project, hold particularly positive views of the Brussels-based organization (Figure 3). A median of 73% of those aged 18 to 29 have a favourable opinion of the EU, compared to a median of 58% of those aged 50+. The generation gap is largest in the UK (33 percentage points between young and old), the Netherlands (23 points) and France (22 points).

The public is also sharply divided along ideological lines in their views of the EU (Figure 4). For the most part, people who place themselves on the left of the political spectrum are more favourably disposed toward the Brussels-based institution, at least compared with people on the right. This gap is 43 points in the UK, 36 points in Italy, 20 points in Poland and 19 points in Germany. Notably, in Spain, the right has a significantly more positive view of the EU, resulting in a gap of 24 points.

As might be expected, most adherents of Eurosceptic parties do not share the generally positive view of the EU. In the UK, just 31% of those who voice a favorable assessment of UKIP hold a favourable opinion of the EU. And just 41% of the public that expresses a favourable view of the Party for Freedom (PVV) in the Netherlands see Brussels positively, as do 40% of those who favour

Figure 1

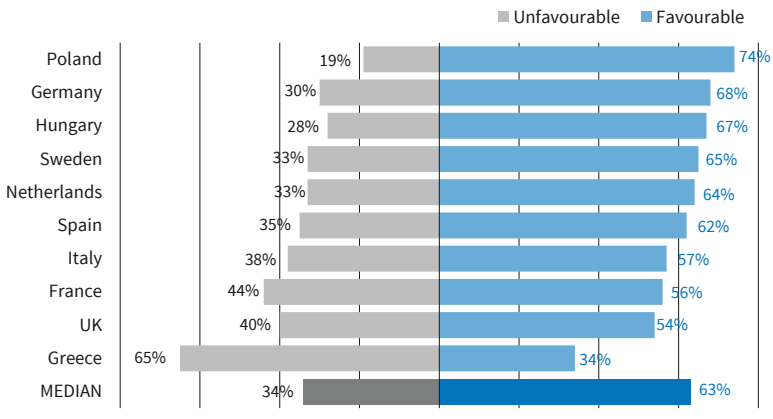
Public Favourable Views of the European Union
2010–2017



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 12f. © ifo Institute

Figure 2

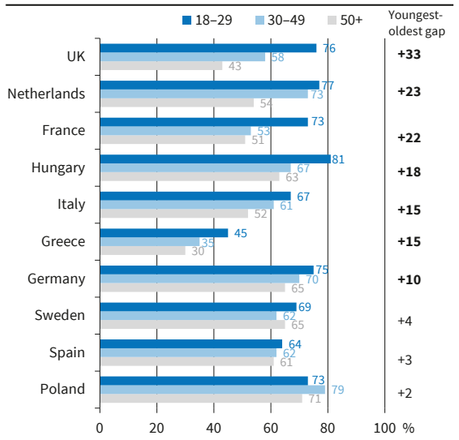
Public Views of the European Union
Majorities in all countries but Greece hold a favorable view of the EU



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 12f. © ifo Institute

Figure 3

Favourable Views of the European Union by Age Groups
Younger adults more likely to favour the EU



Note: Statistically significant differences in bold.
Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q12f.
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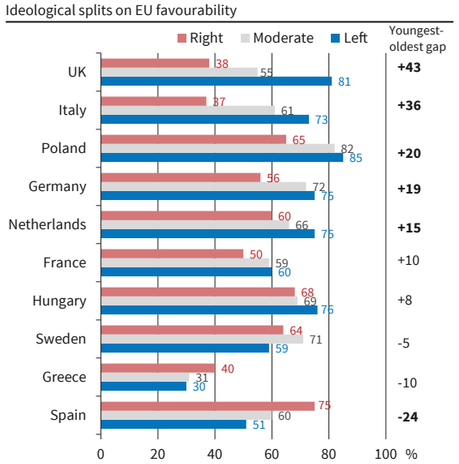
the National Front in France and 40% of those who look favourably on the Alternative for Germany Party (AfD) in Germany.

A party's criticism of the European Union does not, however, always mean that its members share that negative view of Brussels. In Italy, 60% of those who look favourably on the Eurosceptic Five Star Movement have a positive view of the EU, or, at least they did in 2017. In Poland, where the ruling Law and Justice (PiS) party is in a long-running feud with the EU, 65% of Poles who see PiS favourably still hold a positive opinion of the institution.

Figure 4

Favourable Views of the European Union by Political Ideology
Ideological splits on EU favourability



Note: Statistically significant differences in bold.
Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q12f.
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EU'S HANDLING OF ECONOMY AND REFUGEE CRISIS

More favourable views of the EU do not mean that the general public across Europe judges all of Brussels' actions positively. A median of just 42% approves of how Brussels has dealt with economic issues (Figure 5). The Greeks (12%), Italians (23%) and French (35%) are particularly unimpressed. Only in Germany (61%), Poland (58%) and the Netherlands (54%) do majorities hold a positive view of Brussels' handling of the economy. In these three countries, approval of the EU's economic management is up since last year – by 14 percentage points in Germany, 12 points in the Netherlands and 11 points in Poland.

In Hungary, Italy and Poland, leftist respondents are more likely than rightist respondents to approve of the EU's economic management. For example, only 14% of right-leaning Italians approve of the EU's economic policies, but 35% of left-leaning Italians approve. However, in Spain, 48% of people who place themselves on the right support Brussels' efforts, compared with just 27% of those on the left.

Europeans are even more critical of the EU's handling of the refugee issue. In nine of the ten EU countries surveyed, the public overwhelmingly disapproves of Brussels' efforts (Figure 6). This includes 90% of Greeks, 80% of Italians and 78% of Swedes. The first two nations have been on the front lines of the recent European refugee crisis, often being the first port of call for migrants from Nigeria, Eritrea, Sudan, Syria and Libya. And in Sweden, refugees make up a larger portion of the population than in any country in Europe.

In Germany, Hungary, Italy and Poland, respondents on the right of the ideological spectrum are less likely than those on the left to approve of the EU's performance on refugee issues. For example, only 23% of Hungarians on the right are happy with EU refugee policies, but 43% of left-leaning Hungarians are satisfied. However, in Spain the right is more positive – 37% of right-wing Spaniards approve of the EU's actions, compared with just 23% of left-wing Spaniards.

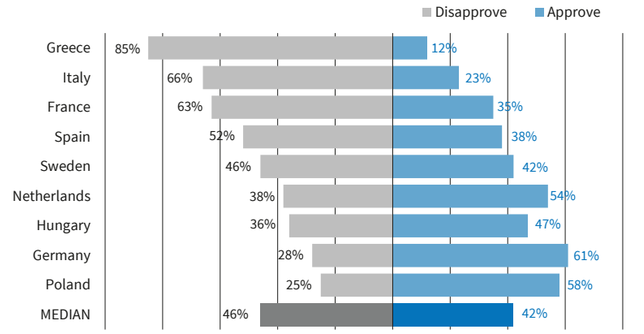
Those who have a favourable view of anti-immigrant parties are particularly judgmental about Brussels' handling of refugees. Among Swedes who have a favorable view of the Swedish Democratic Party, 84% disapprove of what the EU has done on refugees. For the French who see the National Front favourably, 76% criticize the EU on refugee policy, as do 67% of the Dutch who favour the PVV.

MOST EUROPEANS JUDGE BREXIT AS BAD FOR EU AND UK

In 2016, voters in the United Kingdom narrowly approved beginning a process of leaving the European Union. Today, the general public across the European continent thinks that the UK's exit will be detrimental for both the EU and the UK. For their part, Britons agree

Figure 5

Public Views on the EU Handling of Economic Issues
Do you ___ of the way the European Union is dealing with European economic issues?



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 46a.
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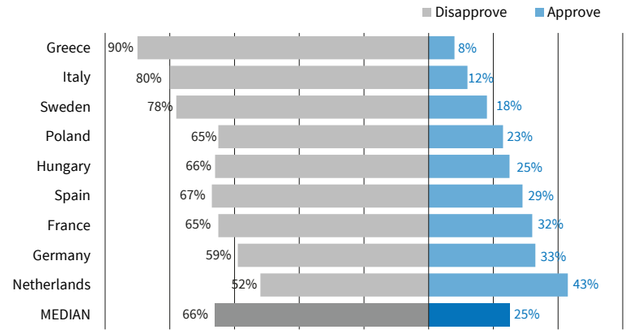
Figure 6

Public Views on the EU Handling of the Refugee Issue
Do you ___ of the way the European Union is dealing with the refugee issue?



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 46b.
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more concerned than those on the right.

A median of 55% also say Brexit will prove bad for the UK, with Western Europeans more pessimistic than those in Central and Southern Europe. Germans (80%), Dutch (73%) and Spanish (70%) strongly believe that Brexit bodes ill for the UK (Figure 8). A plurality of Greeks (46%) and over a third of Italians (36%) say leaving the EU will turn out to be good for the British. Notably, about one-in-five Hungarians and a quarter of Poles voice no opinion on the implications for the UK.

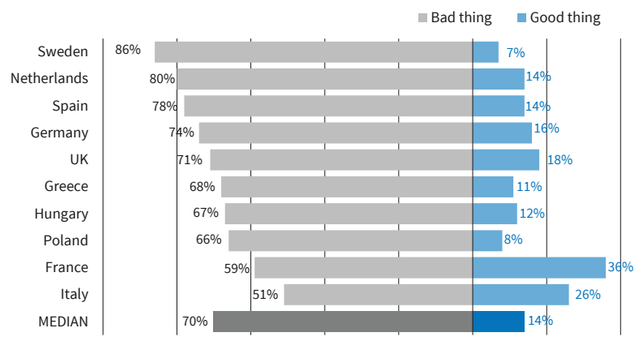
The British, for their part, are divided: 44% believe it will be good for the UK to get out of the EU; while 48% worry it will be a bad thing.

In many European countries, those on the left are more likely than those on the right to believe Brexit will be bad for the UK. In no country is the ideological divide wider than in the UK itself, where 82% of those on the left say Brexit will turn out badly for the UK and 58% of those on the right say it will be a good thing.

that their country's exit will be bad for the European project, but are divided over what it means for the UK. A median of 70% in the ten EU nations surveyed think Brexit will be a bad thing for the EU (Figure 7). This includes 86% of Swedes, 80% of the Dutch and 74% of Germans. Notably, 36% of the French and 26% of Italians say the UK leaving will be good for the Union. Young people in France, the Netherlands and the UK are more worried about Brexit's consequences for the EU than their elders. And those on the left in Germany, the Netherlands and the UK are

Figure7

Public Views on the Effect of Brexit on the EU
The UK leaving the EU will be a ___ for the EU



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 48a.
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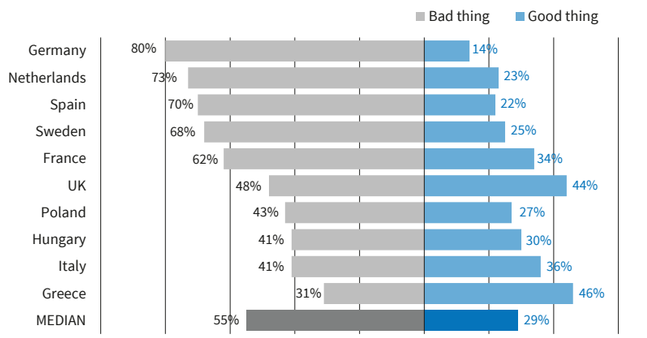
Figure 8

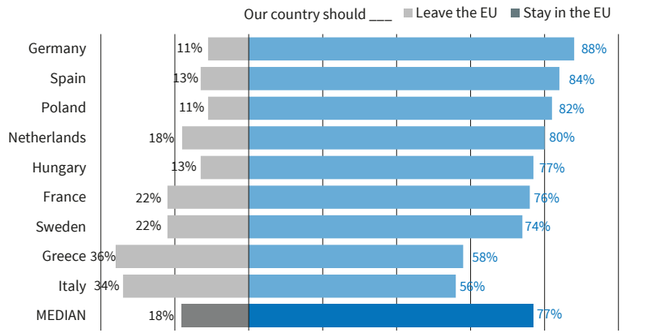
Public Views on the Effect of Brexit on the EU
The UK leaving the EU will be a ___ for the EU



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 48b. © ifo Institute

Figure 9

Public Views on Own Country's EU Membership



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 45. © ifo Institute

FEW EUROPEANS WANT THEIR OWN COUNTRY TO EXIT THE EU

Few citizens on the European continent seem eager to see their own country depart from the EU, as the UK plans to do.

A median of just 18% in the nine continental EU nations surveyed want their own country to leave the EU. Greece and Italy are home to the largest number of exit supporters, but even in these countries over half of all citizens want to remain a part of the European project.

Large majorities across many EU member states surveyed want their nation to stay in the EU (Figure 9). Eight-in-ten or more in Germany (88%), Spain (84%), Poland (82%) and the Netherlands (80%) back remaining. More than seven-in-ten in Hungary (77%), France (76%) and Sweden (74%) also wish to stay in the EU. Even in Greece, where the public is highly critical of the EU, 58% of the public wants to remain a member.

A favourable view of Eurosceptic parties does not necessarily translate into support for leaving the EU. In Germany, 69% of those with a positive view of the AfD still want Germany to remain in the EU. In France, 54% of those who voice a positive opinion about the National Front nevertheless back staying in the EU.

Greece and Italy are the only countries in which a third of survey participants support leaving the EU. In Italy, at least, the prospect of exiting the European project is a deeply ideological issue. Support from those on the right (56%) for leaving the EU is more than twice that found among left-wing Italians (22%).

While the public across Europe generally favours remaining in the EU, most citizens also support holding their own national referendum on EU membership, possibly reflecting a broader interest in their voices being heard on such major national issues. Majorities in Spain (65%), France (61%), Greece (58%) and Italy (57%) support such a national vote; and roughly half of Swedes (53%), Poles (51%) and Germans (50%) agree (Figure 10). Hungarians are divided over whether to hold a referendum, while more than half of the Dutch are against it (54% oppose).

There is stronger support for an EU vote from the right wing than from the left in France, Germany and Italy. In Spain, by contrast, it is the left wing that wants such a vote, including 80% of those who support Podemos. Not surprisingly, given their Euroscepticism, 84% of National Front supporters in France want a referendum on continued EU membership. In Germany, 69% of those who favour the AfD also want their own vote, as do 69% of those who support the PVV in the Netherlands and 63% of Five Star Movement members in Italy.

ON IMMIGRATION AND TRADE: LESS EUROPE

Support for remaining in the EU is strong across continental Europe; but so is support for taking back some powers from Brussels. Many Europeans want national governments, rather than Brussels, to control future migration both from outside the EU (a median of 74% across the nine continental European nations polled) and within the EU (a median of 66%) (Figure 11). Moreover, a median of 51% would prefer their own governments, not Brussels, to negotiate future trade agreements with the rest of the world.

A total of 2.4 million migrants settled in the 28 EU countries from non-EU member nations in 2015. Many were refugees from war-torn Syria and North Africa. EU citizens are quite critical of the EU's handling of refugee issues. They also want their national governments to be the ones making decisions about the migration of non-EU citizens into their countries.

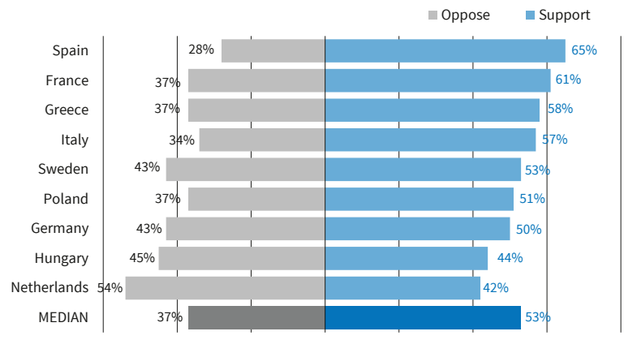
Roughly eight-in-ten in Hungary (82%) and seven-in-ten or more in Poland (77%), France (75%), Germany (75%), the Netherlands (74%), Greece (70%) and Sweden (70%) want their national government to make such judgements, not Brussels. In France, Hungary, Italy, Poland, the Netherlands and Sweden, it is people on the right more than left-wing citizens who back national sovereignty over external immigration. In Germany, the Netherlands and Sweden, people aged 50 and older are more likely than those aged 18 to 29 to want their national government to control such immigration. But in Spain, it is younger people who are more likely to want Madrid to control such policy.

The free movement of people within the EU is one of the core four freedoms – along with the free movement of capital, goods and services – guaranteed by EU treaties. In 2015, 1.4 million people migrated from one EU state to another. But in 2017, over half of survey participants in all nine EU nations wanted their own governments to take responsibility for making the rules on the migration of EU citizens into their countries. Roughly seven-in-ten in France (71%), Poland (71%), Hungary (69%) and Sweden (69%) want their own capitals, not Brussels, to make such decisions. Italy and Poland join France, Hungary, the Netherlands and Sweden as societies where the ideological right is more supportive than the left of the exercise of national sovereignty over internal migration. Germany and Sweden are again the countries where there is a generational gap over views of such movements of people, with older respondents more likely to say power should reside with national governments.

The authority to make trade agreements has rested with Brussels since 1957, when the European Economic Community, the EU's predecessor, was created. In recent years such accords have met with a great deal of public resistance. Majorities in Greece (63%), Sweden and France (both 56%), and Hungary (55%) want the power to make trade deals to return to the hands of their national governments, as do about half

Figure 10

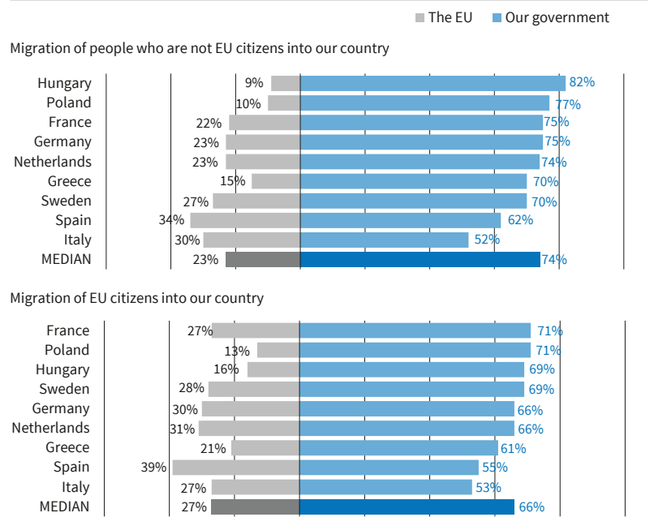
Public Views on Holding a National Referendum on EU Membership
Would ___ holding a national referendum on our country's European Union membership



Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 44. © ifo Institute

Figure 11

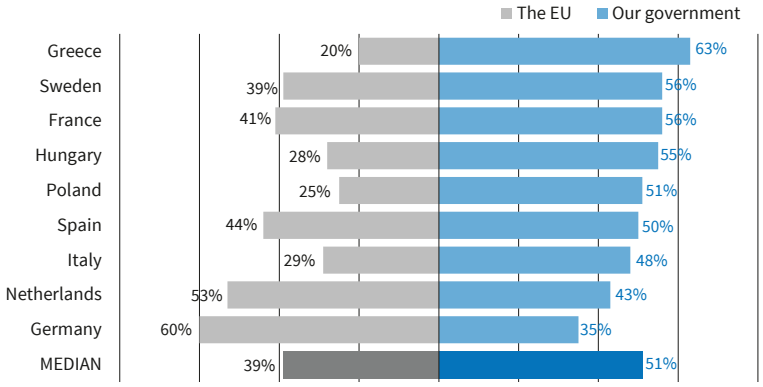
Public Views on Decisions Regarding Migration Issues
Do you think our government should make decisions about ____ for our country or should the EU make decisions about this issue?



Note: Volunteered categories "Both" and "Neither" not shown.
Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 47b–c. © ifo Institute

Figure 12

Public Views on Decisions Regarding Trade Agreements
Do you think our government should make decisions about international trade agreements for our country or should the EU make decisions about this issue?



Note: Volunteered categories "Both" and "Neither" not shown.
Source: Pew Research Center, Spring 2017 Global Attitudes Survey, Q 47a.

of Poles, Spanish and Italians (Figure 12). Only the Germans (60%) want trade agreement authority to remain with the EU. In France, Hungary, Italy and the Netherlands, more people on the right than on the left want to take back responsibility for trade decision making; and it is older more than younger people in France, Germany and the Netherlands who want to reclaim that sovereignty.

Luca Einaudi

A Historical Perspective on the Euro: the Latin Monetary Union (1865–1926)

Luca Einaudi
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INTRODUCTION

Out of the many experiments in international monetary unification that took place in Europe before the creation of the Euro, the Latin Monetary Union (LMU, 1865-1926) is probably the most interesting and long-lasting experiment. Yet, despite its obvious appeal as a subject of study to assess the complex interaction between sovereign states in managing common forms of money despite different financial conditions and political preferences, it is not entirely fitting as a comparison with today's European Monetary Union. The LMU should be correctly defined as a coinage union, rather than a full monetary union, it lacked the most basic common institutions and operated in a world where monetary policy was not really comparable with that of the twenty-first century. Yet its long history provides examples of how apparently major differences in policy and interests could somehow be bridged to maintain mutually beneficial arrangements, while limiting its scope and impact to prevent larger effects on the different member economies.

THE BIRTH OF THE LATIN MONETARY UNION

The Monetary Convention agreed on 23 December 1865 between France, Italy, Belgium and Switzerland was an effort to resolve relatively minor problems of monetary circulation of silver coinage in the area of the former Empire of Napoleon I. The first French Empire (1804-1815) had left an inheritance of homogenous standards for silver and gold coins expressed in francs in France, Belgium and Switzerland or lire in Italy, whose shape, weight, metallic content were identical, even if the images and symbols were different for every country. In fact in the early 1860's those four countries had the same bimetallic coinage and their coins moved across borders and were informally accepted at a one to one exchange rate.

This equilibrium was challenged by the persistently low price of gold after the California gold discoveries of 1848. The latter caused a relative appreciation of silver bullion in comparison to gold bullion, above the fixed official mint price of 15.5 grams of silver for every gram of gold, which had formed the basis of the French and Italian bimetallic system since 1803 (the creation of the franc germinal). In this system every individual had the right to bring unlimited amounts of silver or gold bullion to the mint and have it coined, creating a free market for monetary issue of the most depreciated of the two metals. In the early 1860's gold was the depreciated metal and it was minted in far larger quantities, while silver was progressively driven out of monetary circulation to be transformed into bullion given its higher market value in comparison to its value as coinage. According to Gresham's law the bad depreciated currency (gold) replaced the good appreciated currency (silver).

The problem faced at the time by the governments of bimetallic nations was how to keep a sufficient amount of small change silver coin in circulation despite market forces, in order to prevent difficulties in small-sized daily transactions. Each government started independently seeking a solution by reducing the percentage of silver content in its coinage in order to cancel out any profit for speculators who would demonetize and melt silver coins to sell them as bullion. From a common initial 90% of silver purity, diversity was emerging. Switzerland was the first to take an initiative, reducing the silver purity of some coins to 80% in 1860, Italy chose 83.5% purity and France selected the same level as Italy, but for a different set of coins. Those decisions disrupted the informal free movement of silver coinage in the four countries.

Belgium took the initiative to suggest an agreement between the various nations involved and France called for an International Monetary Conference at the end of 1865. An agreement was achieved by the four participant countries to reestablish a free flow of silver and gold coinage, reducing all silver coins below the écus of five francs/five lire to a common silver content of 83.5%, while the silver écu kept its original 90% silver content, similarly to all gold coins. Public cashiers of the four countries linked by this monetary convention would accept the gold and silver coinage of other nations in the union at par. It was therefore a coinage union with a one to one fixed exchange rate based on the intrinsic gold and silver content (De Cecco 1992). A limit on the issue of depreciated silver coins at 83.5% was fixed at six francs/lire per inhabitant, to prevent over-issue by some countries and loss of seignorage by others. No limits were placed on the issue of gold coins and silver coins with 90% silver. Copper coins and banknotes were not included in the agreement and therefore were not regulated by the Monetary Convention. It was a monetary union with multiple currencies linked by specie money (gold and silver), leaving out fiat money (paper money and bank deposits, which had not yet acquired a dominant role in Continental Europe). In other words, it was a very incomplete union.

The modest official name adopted ("Monetary Convention of 23 December 1865") and the absence of a clear coordination mechanism (no common institution or central bank was created and national banks of issue were not involved in the negotiations) reflected the initial limited purposes set by finance ministries of solving a technical problem of divisionary coinage.

Such modesty was, however, swiftly surpassed by new developments because the involvement in the preparatory negotiations of the French foreign affairs ministry and of the Vice President of the French Council of State, Felix Esquirou de Parieu, as chief French negotiator, gave a far larger international dimension to the negotiations. It also became an attempt to create a European or a Universal currency, in line with the ideas of free trade, simplification and scientific standardization of the time, from the Anglo-French free trade treaty of 1860, negotiated by Cobden and Chevalier, to agreements concerning post, transportation, or units of measure. Parieu progressively injected European federalist ideas into the debate. Accordingly, the Convention included a mechanism inviting the applications by candidates for membership and an intergovernmental mechanism for decision-making through monetary conferences conveyed when necessary. It also became the fighting ground for several decades of debate between the bimetallic view of the monetary system, which had emerged out of the French revolution and the supporters of the gold standard (Willis 1901). Parieu became the chief supporter of the Gold standard in France, a system adopted only in England and Portugal at the time.

ENLARGING THE LATIN MONETARY UNION

At the beginning of 1866 the British press nicknamed the Monetary Convention as the "Latin Monetary Union" (LMU), to highlight how this continental experiment could not possibly involve the United Kingdom. The name stuck even if the French government attempted instead to enlarge the monetary union by inviting all European countries to the International Monetary Conference of Paris in 1867, "to facilitate the establishment of a uniform monetary circulation between all civilized states" (Einaudi 2001). The surprising outcome of the Conference, which was in fact lead by Parieu and attended by representatives of 20 states, including LMU members, the UK, most German states, the USA, Russia, Japan and the Ottoman Empire, was unanimously in favour of the adoption of an international gold standard, and an LMU-style system based on a fixed exchange rate for gold coins with one pound equal to five US dollars, ten Austrian florins and 25 francs/lire/pesetas/drachme. Participant countries had to mint the 25 franc coin, which functioned as a pivot for the system. Following this apparent success, Parieu also developed a project for a "Europa" currency, a European federation, a European Union and a European Parliament (Parieu 1870). Government delegates expressed a growing desire for a gold standard without having necessarily always the authority to commit their governments, which was particularly true of the UK, the US and Prussia.

In the following years a large number of countries applied for full membership of the LMU, or at least with regard to the gold standard (Greece, Papal State, Austria-Hungary, Spain, Sweden, Serbia, Romania, Bulgaria, Finland, plus several Latin American countries). The southern German states, which were still independent at the time, gave their support to the idea of monetary union, at least in their diplomatic correspondence with France. This was part of a strategy to resist Prussian expansionism between their defeat in the Prussian – Austrian war of 1866 and before the creation of the German Empire in 1870. The German and British chambers of commerce strongly campaigned in favour of monetary unification, while bankers opposed it.

The enlargement of the LMU proved far more limited than expected because the Great powers refused to adopt a French-based system; and the refusal by the French Treasury and its banks to abandon bimetallism made it impossible to involve the UK.

Under the Conservative government of Disraeli the UK flatly refused any involvement in 1867, but, after the liberals returned to power under Gladstone the following year, a brief window of opportunity opened. Robert Lowe, then liberal Chancellor of the Exchequer and his adviser, the economist William Stanley Jevons, were convinced that the proposal was bound to unite Europe and that the UK risked remaining isolated if it did not sign up. In 1869 Lowe informally presented his proposal to reduce the value of the pound by 0.8% - making it equivalent to the proposed 25 francs international coin - in exchange for the end of bimetallism in France to Parliament, where it gave rise to heated debate. Gladstone was "astonished", free traders and chambers of commerce lined up to support Lowe, while Conservatives, the Bank of England, the City and most of the press opposed it in an intense debate (Einaudi 2000). After a few months Lowe declared that the proposal could not move forward because France was not willing to abandon bimetallism, which was defended by agricultural and financial interests and by part of the French public administration.

Ultimately Prussia and the USA did not join the project of universal coinage, but instead individually adopted the gold standard in 1872-73. Prussia unified the various German currencies in the process of national unification with a new currency, the mark, equivalent to a third of the old German thaler and unrelated to the franc. The outlook moved from cooperative to antagonistic, with a war occurring between France and the German states in 1870-71, followed by a war indemnity levied on France, protectionist tendencies and competition in the colonial field.

MANAGING A DIFFICULT UNION: THE ITALIANS, THE POPE AND THE GREEKS

The LMU did not expand to become a European monetary union, but it survived - despite conflicts - for over 60 years, until 1926. This was largely due to the introduction of new rules to solve the conflicts and malfunctions of the Union, even at the cost of limiting its expansion in geographic terms. This, however, also prevented its evolution into a full monetary union.

An early problem arose with Italy due to the high budget deficits in the first few years after national unification in 1861 and the inconvertibility of Italian paper currency into gold and silver, caused by a war with Austria in 1866. Inconvertibility was followed by new forms of monetary issue not included in the Monetary Convention (especially paper money), causing the flight of Italian currency to France and Switzerland. Tensions were ultimately resolved, reinforcing the rules on new issues.

The Papal State applied to join the LMU in 1866, but, while negotiating, it over-issued coinage with reduced silver content by ten to one, ultimately declining to join and to take back its depreciated currency which had migrated to France. The Papal State was ultimately pushed out of the LMU system.

Greece was a very early applicant to join the LMU and was actually the only new member admitted (in 1867). Greek wars for national unification against the Ottoman Empire and financial weaknesses led to inconvertible paper currency in 1869 and again from 1877 to 1910, and to debt default in 1893. This, together with the sale of Greek coins at a discount in Paris (by private bankers), determined foreign control of part of Greek monetary issue from 1869, and to limitations to Greek membership of LMU afterwards.

The problems encountered in managing the LMU convinced the strongest members of the Union to block further enlargements (refusing all other applications for membership, coming mainly from southern or central Europe and the Balkans and from Latin America) and to restrict the field of action of the LMU for the future, not extending it to paper money, as the Scandinavian Monetary Union did instead.

After the adoption of the gold standard by Germany and the US in 1873, the price of gold started declining, the LMU suspended its new silver issues to prevent speculation and to avoid receiving demonetized German silver. New rules had to be set within the monetary union to manage the exit from bimetallism, initially on a provisional basis and then permanently.

HOW TO CHANGE THE RULES DURING THE GAME

The initial rules of the LMU proved insufficient and incomplete, as it became clear just a few months after the signature of the Monetary Convention. Essentially these rules amounted to limits on the issue of debased silver coinage and the exchange of information on annual monetary issue to control compliance with those limits. The transmission of information, however, was not credible and political/ military disruption created financial instability.

New rules emerged through an iterative process of pressure by the strongest economies on the weakest, sanctioned through new cycles of intergovernmental meetings. We can identify five set of measures or rules adopted throughout the history of the LMU to enforce monetary discipline and preserve the Union.

1. Limits of issue were extended to other forms of fiduciary money (small change paper money from late 1860's and silver écus from 1874 onwards)
2. The strongest government (France) was attributed absolute control over the issue of coinage in new weak members (Greece);
3. France and Switzerland threatened to return divisionary coinage to issuers of non convertible paper money (Italy and Greece) or to large quantities of silver écus (Belgium) in exchange for gold, a threat that effectively included a financial penalty;
4. Free riders were neutralized or expelled from the Union (non-completion of accession process of the Pontifical State, freezing of Greek currency);
5. Membership was refused to states that did not guarantee sound financial conditions (Spain, Austria-Hungary, Romania, San Marino and later others).

THE LONG PERSISTENCE OF THE LMU AFTER THE END OF ITS EUROPEAN AMBITIONS

The LMU appeared in difficulty, but managed progressively to renegotiate and tighten its rules, but at the cost of a more limited monetary issue and of a reduced role and meaning for the Union itself. The Union persisted, but declined in relevance due to the growth of other forms of monetary issue (banknotes, bank deposits). By 1914 only 5% of the monetary base was in gold and silver LMU coins in Italy, and this figure dropped sharply after World War I.

Despite the Union a trade war started between Italy and France in the late 1880's, military alliances diverged (Italy switched to an alliance with Germany, leaving the French zone of influence), and Greece defaulted. These tensions did not break the monetary union, because the cost of dissolution remained too high and trade advantages persisted. A level of flexibility was also allowed through what amounted to multiple currencies and dual exchange rate. The exchange rates of the LMU paper currencies fluctuated in terms of gold francs, during periods of temporary inconvertibility of national paper money. Italian paper lire and Greek paper drachme fluctuated at times. The paper lira lost up to 20% in comparison to the gold lira in the 1860's; while the drachma lost up to 40% in the 1890's. Both currencies, however, recovered and returned to parity, particularly in the decade before World War I. All members of the LMU devalued during WWI, ending in practice the substance of inter-circulation. The different stabilization levels of the LMU national currencies in the 1920s concluded the monetary union experiment and in 1926 it was decided to disband quietly the Union.

CONCLUSIONS

Rules can be changed and monetary unions can be resilient, but difficulties persist between countries with different levels of economic and financial strength. There is no clear limit to the process of reform and insti-

tutional expansion. On the contrary, it is a never-ending construction site, with alternate winners because the ultimate penalty, expulsion, has a substantial cost for both the weakest and the strongest member states. It is important to be able to tighten rules when the monetary situation changes and fiscal imbalances grow, but excessive austerity can constrain growth and increase poverty, and some forms of flexibility are necessary. The accidental system of dual currencies which emerged in the LMU was never agreed upon by other member sates at the time and does not seem be a solution to EMU's problems, as the rules are much tighter and the European Central Bank has exclusive control over the issue of currency. Expansionary policies are needed in surplus countries, to share the costs of readjustment between nations and not force all the adjustment on productivity, unemployment and wages. Abandoning the monetary union is no easy solution for weaker countries as it entails financial and trade costs; and nor is it advantageous for stronger countries either.

REFERENCES

De Cecco, M. (1992), "European Monetary and Financial Cooperation before the First World War", *Rivista di Storia Economica* 9 (1), 55–76.

Einaudi, L. (2000), "From the Franc to the 'Europe': Great Britain, Germany and the attempted transformation of the Latin Monetary Union into a European Monetary Union", *Economic History Review* 53 (2), 284–308.

Einaudi, L. (2001), *Money and Politics, European Monetary Unification and the Gold Standard (1865-73)*, Oxford University Press, Oxford.

Parieu, F. E. de (1870), *Principes de la science politique*, Guillemin, Paris.

Willis, H.P. (1901), *A History of the Latin Monetary Union*, Chicago University Press, Chicago.

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Lessons from the 2000–2002 Crisis in Argentina for the Sustainability of the Euro

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In December of 2001, after two years of recession and increasingly desperate attempts to forestall a debt crisis through IMF financial support, fiscal adjustment and debt management operations, Argentina defaulted on its external debt. A few days later, on 2 January 2002, it discontinued its "convertibility regime" – a legal commitment, backed by hard currency, to exchange the Argentina peso for US dollars at 1:1. The peso subsequently devalued by about 200 percent, and GDP fell by about 11 percent, before beginning a sustained recovery from 2003 onwards.

There are important parallels between the Argentine 2000-2002 crisis and the euro crisis ten years later, particularly as it played out in Greece. Both occurred in the context of hard pegs. Both were triggered by large external shocks. Both involved IMF-supported programmes that failed to restore solvency. Both resulted in historically large sovereign debt restructurings (Cruces and Trebesch 2013, Zettelmeyer et al. 2013). Both involved large output losses – cumulative negative growth of almost 20 percent in Argentina between 1999 and 2002, and almost 30 percent in Greece between 2009 and 2013. They differed, however, with respect to one critical outcome: the Argentine crisis resulted in the abandonment of Argentina's hard peg, while the euro survived the crisis – even although Greece came close to exiting.

This article aims to examine both the commonalities and differences of the Argentina and euro crises, with a particular focus on Greece, with a view to answering two questions.

- Firstly, what were the causes of the abandonment of the Argentine convertibility regime in early 2002, and what does this allow us to infer about the conditions, if any, in which the euro might in the future suffer a similar fate?
- Secondly, what does the Argentine experience teach us about the potential costs and benefits of a euro exit?

To answer these questions, the article begins by briefly recalling the origins of the two crises. The question of why there was a devaluation in Argentina, but not in Greece is examined next, followed by a review of the aftermath of default and devaluation in Argentina and its lessons for the euro area.

CRISIS ORIGINS

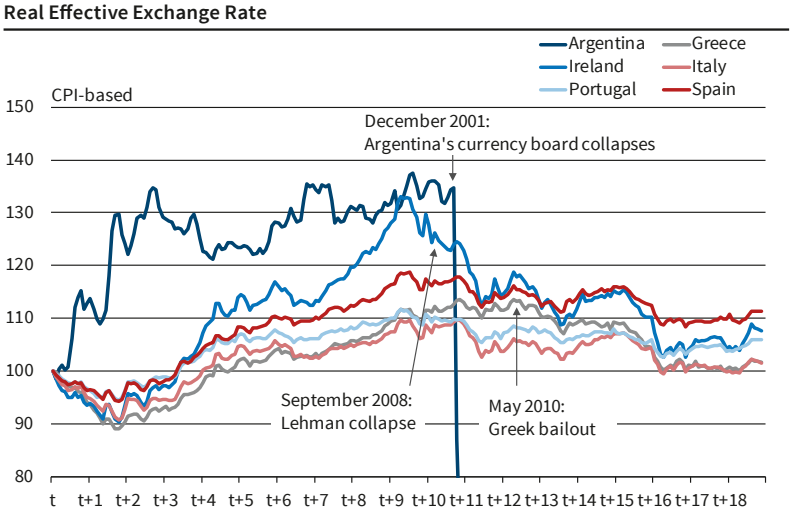
In both Argentina and the euro area, the dynamic that ended with default and devaluation in Argentina and with loss of market access and eventually debt restructuring in Greece was set in motion by a severe external shock. In Argentina, this was the 1998 Russian default, which led to large capital outflows from emerging markets, the devaluation of the currency of Argentina's largest neighbour, Brazil, and a deep recession in 1999. In the euro area, it was the end of the US housing bubble in 2007 which, following the collapse of Lehman Brothers in 2008, triggered large capital outflows from Europe to the United States and a deep recession in 2009.

In both cases, vulnerabilities that had accumulated prior to the external shocks played a critical role. The nature of these vulnerabilities, however, was somewhat different.

- In Argentina, the main vulnerability was a sustained loss of competitiveness after the introduction of the convertibility plan in 1991 (Figure 1). Primary fiscal deficits also played a role, but they were comparatively modest, and not a major contributor to the debt dynamics at the central government level (Figure 2). At the end of 2000, the year prior to the collapse, federal debt stood at just 45 percent of GDP. The debt ratio exploded only after the 2002 devaluation. More important than the size of fiscal imbalances was the government's inability to reduce them, a result of

Figure 1

Real Effective Exchange Rate



Note: The series starts at the time of the currency pegging. Argentina: series starts in April 1991 when the currency board regime was introduced, and ends in January 2002 when it was abandoned. Rest of the countries: series starts in January 1999 when the euro was introduced.
Source: IMF (2018).

[1] I am grateful to participants at the March 2018 Conference "Is the euro sustainable? And what if not" organised by the ESMT, Berlin and the Max Planck Institute for Tax Law and Public Finance, Munich, and to Beatrice Weder di Mauro, Henrik Enderlein, Marcel Fratzscher, Clemens Fuest, Philippe Martin, Jean Pisani-Ferry and Nicolas Véron for conversations on the subject of this article.

political weakness, recession, and a federal structure that made it hard to impose fiscal adjustment on local authorities (Sturzenegger and Zettelmeyer, 2007).

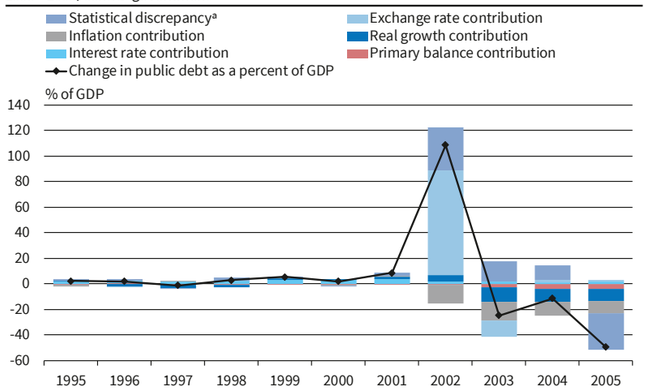
- Euro area crisis countries also suffered from a loss of competitiveness in the decade leading up to the crisis, albeit more gradually and (except in Ireland) to a lesser extent. Instead, the key vulnerabilities resulted from credit booms in some countries (Ireland, Spain) and public overborrowing in others, particularly Greece, where government debt stood at 130 percent of GDP at end-2009. Unlike Argentina, primary deficits were a leading contributor to the rapidly rising debt to GDP ratio between 2003 and 2009 (Figure 3).

In short, in Argentina, the loss of competitiveness and external shocks led to stagnation and recession, boxing the economy into a corner that it found impossible to exit without a devaluation. Argentina's debt crisis was mostly a *consequence* of a balance-of-payments crisis. Greece's debt, by contrast, became unsustainable due to a combination of longstanding public over-borrowing and a major recession.

Figure 2

Argentina Debt Dynamics Decomposition

1995—2005, central government

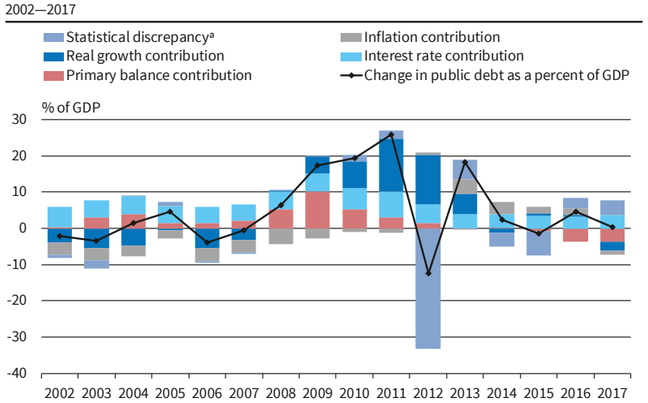


[a]Non-debt financing and stock adjustments.
Source: International Financial Statistics by the IMF (2018). © ifo Institute

Figure 3

Greece Debt Dynamics Decomposition

2002—2017



[a]Non-debt financing and stock adjustments.
Source: World Economic Output April 2018 by the IMF (2018). © ifo Institute

WHY ARGENTINA EXITED CONVERTIBILITY, BUT GREECE DID NOT EXIT THE EURO

While the crises in Argentina and the euro area had an important trigger in common – external shocks that led to severe recessions – they differed in one critical respect, namely, the availability of external financing. This explains why Argentina exited its currency board, while Greece did not exit the euro.

From 2000 onwards, crisis management in Argentina consisted of a constant struggle to retain or regain access to external financing. A rising deficit, driven mostly by higher borrowing rates following the 1998 Russian shock and its knock-on effects on Latin America, had triggered a debt run in December 2000. Over the course of the ten months that followed, Argentina attempted to continue servicing its public debt through a combination of borrowing from the IMF, pressuring local banks to buy bonds and roll over provincial debt, a large – and expensive – voluntary debt swap in June of 2001 that reduced debt service obligations in the short run, and by drawing on a contingent credit line that it had contracted with international banks. A collapse in revenue amid a deepening recession in the second half of 2001 nonetheless forced the government to attempt an extensive restructuring of locally-held sovereign debt in November 2001, followed by the decision to suspend all debt payments on December 24. At this point, massive capital flight made a devaluation inevitable: the government simply did not have sufficient reserves to continue backing the convertibility regime and had run out of sources from which to borrow those reserves.

Greece's struggle to continue servicing its public debt during 2010-2011 initially had a similar flavour. Rapidly rising yields on public debt, together with a looming rollover deadline, forced the country to seek official help, from the IMF and the EU, in early May of 2010. Despite significant fiscal adjustment, however, the scale of government indebtedness combined with a widening recession made a deep debt restructuring unavoidable. It finally happened between February and May of 2012.

At the same time, there were significant differences between Greece's and Argentina's crisis experiences.

First the volume of official financing was much higher in Greece, coming not just from the IMF, but also (and primarily) from the EU. While net IMF disbursements to Argentina during 2000-2001 amounted to just under USD 10 billion (3.1 percent of 1999 GDP), the EU and IMF together disbursed almost EUR 73 billion to Greece during 2010-11 (31 percent of 2009 GDP). In addition, the ECB purchased around EUR 43 billion in Greek bonds in the secondary markets (Trebesch and Zettelmeyer 2018). This massive official support had the effect of delaying the debt restructuring, which would have happened much earlier in an emerging market setting.

Most importantly, the restructuring did not trigger an exit from Greece's currency regime. The essential reason is that a currency union does not require its members to own the reserves that are required to defend it. As capital flees the country, these reserves are automatically borrowed from the central banks of other member states, through the payments system that links banks to one another – the "TARGET" system, as it is called in the euro area. On the eve of its debt restructuring, Greece's TARGET liabilities amounted to about EUR 107 billion – EUR 88 billion more (37 percent of 2009 GDP) than in May 2010, the first month for which the ECB publishes TARGET balances. In contrast, as Argentina was entering its crisis at end 1999, it had just USD 26 billion of gross international reserves at its disposal (8.5 percent of 1999 GDP).

Since any currency union member can effectively borrow unlimited amounts of reserves through the payments system, the constraint that determines whether a country is forced to exit a currency union is not the balance of payments. Rather, it is the willingness of the currency union's central bank to continue to provide liquidity to the country's banking system (the essential condition for the payments system to work). In the case of the ECB, this willingness does not seem to depend on whether the government meets the conditionality of an official support programme, nor similar standards of behaviour (as dictated by EU fiscal rules for example). But neither is it unlimited. During 2010-2015, the ECB appeared to follow a decision rule whereby it continued to provide liquidity to the Greek banking system through either regular facilities, or emergency liquidity assistance (ELA) regardless of programme performance, provided that the government was either still formally in a programme (i.e. the time window approved for disbursements had not expired), or was negotiating a new programme in good faith. Greek banks were cut off from ECB liquidity support only when neither of these conditions were met, in the first two weeks of July 2015, forcing Greece to choose between issuing its own currency and returning to the bargaining table. It chose the latter.

THE COSTS OF EXIT IN ARGENTINA

Following default, exit from convertibility and devaluation, Argentina's economy continued to shrink, by about five percentage points in the first quarter of 2002. While it is impossible to distinguish how much of this was due to the confidence effects and capital outflows triggered by the default, a contributing factor was surely the "pesification" of early February – an attempt to redistribute the losses associated with the revaluation of US dollar liabilities through the forced conversion of USD-denominated deposits and bank loans into pesos at different rates.[2] "Pesification" led to a banking crisis, withdrawal restrictions, and – as the central bank injected liquidity into the banking system – a further currency collapse.

It is possible that the economic costs of exit and devaluation in Argentina were aggravated by the government's choice to convert the deposits of the banking system at higher rates than its claims, while at the same time choosing a deposit conversion that was less favorable to households than the market rate. In this way, pesification both rendered banks insolvent and triggered a deposit run. However, if the government had chosen a different approach – one more favourable to the banks, for example, by converting their claims on private borrowers at a rate closer to the market rate – this would have led to massive corporate insolvencies. No matter how a devaluation is managed, the presence of large-scale foreign currency denominated claims in the financial system will hurt either creditors or debtors. Attempts by the government to control panic by forcing bank holidays or imposing withdrawal restrictions can make things worse.

In light of this, what is most surprising about Argentina's 2002 currency crisis is perhaps not that it led to an additional output collapse, but that the collapse was not bigger, and gave way to stabilisation after only two quarters, and recovery after only one year. The cumulative output decline associated with Argentina's crisis was much smaller than that of the Greek crisis. It took Argentina about three years to restore its end-1999 real output level, whereas Greece has still not returned to its 2009 real GDP after eight years, and will not reach it even by 2023, according to IMF projections.

A potentially much more serious consequence of Argentina's default and exit from convertibility was a breakdown in trust and the return of populist politics for the next decade, and beyond, with the election of Nestor Kirchner, to the presidency in 2003, succeeded by his wife, Cristina Fernandez, in 2007. Under the Kirchner/Fernandez presidencies, output initially recovered rapidly, but at the costs of repressed inflation, supply-side distortions, international isolation stemming from its aggressive handling of the dispute with external

[2] USD deposits were converted into pesos at a 1:1.4 rate, USD loans to the public sector at 1:1.4 and USD loans to the private sector at 1:1, at a time when the market exchange was about 2:1. For details, see Sturzenegger and Zettelmeyer (2007), pp. 182-186.

creditors and a return to growing deficits from 2009 onwards, which ultimately led to a new crisis in 2018, despite a change in government in 2015. While these problems have deep historical roots and were compounded by external shocks, the failure of Argentina's "convertibility" experiment surely contributed to them.

IMPLICATIONS FOR THE EURO

The observations made in the previous three sections have two main implications for the sustainability of the euro and the consequences of exit.

Firstly, the euro is, by construction, much more resilient as a currency regime than any of its cousins in the family of hard pegs. Sudden capital outflows from any specific member are automatically accommodated by the intra-euro payments system. This does not mean that they have no real consequences – as the euro crisis showed, they can trigger banking and sovereign debt crises. But they cannot force exit via the same mechanism through which currency crises happen, namely, that the government either runs out of resources to defend a peg or is forced to raise interest rates to prohibitive and self-defeating levels. Membership in the euro is equivalent to a hard peg with infinite reserves.

This does not imply that the euro cannot fall apart, only that exit is voluntary. Specifically, there are two scenarios that could conceivably lead to exit.

As became clear during the 2015 Greek crisis, the equivalent of running out of reserves in the euro – in the sense of a financial constraint that could force exit – is the decision by the ECB to stop emergency liquidity assistance (ELA) to a member's banking system. The trigger for this, in turn, is the non-cooperation of a member, in the sense that the member in question experiences a financial crisis in which its banking system would require ELA, but does not seek ESM support. Hence, one way that euro exit could happen is through a run on a member's debt, together with the member's decision not to engage with the ESM or the EU on an economic programme that could resolve the crisis.

Voluntary exit may also happen if euro area membership is associated with protracted stagnation which, in the eyes of the government and the general population, can only be addressed by exiting the euro. In this sense, there is a parallel between Argentina's exit from convertibility and a potential future exit from the euro. While Argentina's exit was ultimately triggered by a lack of resources to continue supporting the peg, this lack of resources was closely related to the inability of the Argentine government to restore growth within the framework of the convertibility plan, despite repeated efforts over the preceding two years.

The second – more speculative – lesson for the euro from the Argentinian crisis is that exit from the euro would be economically very costly, given the need to manage enormous balance sheet losses. Even more importantly, it would be politically extremely damaging for both the exiting country and the EU, because the acrimony associated with creditor-debtor conflicts – within the country and across borders – would happen on a larger scale than in Argentina, given much closer financial, political and institutional linkages. With the EU becoming the arbiter of these conflicts, it is easy to see a level of populist response that could take the country out of the EU too, even if the EU tried to accommodate a euro exit. For this reason, an exit from the euro is unlikely to be followed by the quick (if ultimately unsustainable) recovery that Argentina experienced from 2003 onward.

CONCLUSION

The aftermath of Argentina's default and exit from convertibility in 2002 suggests that euro exit would threaten the political and social cohesion of the EU, perhaps with irreparable consequences. Making euro exit irreversible as a matter of economics, rather than just law, requires meeting two conditions.

Firstly, the euro area needs to develop a legal and governance framework that allows the ECB to continue providing liquidity to a member's banking system even when a government does not agree to an ESM-supported programme. This requires giving a euro area authority the power and resources to recapitalize, restructure, and temporarily run a banking system that would otherwise lose access to ELA.

Secondly, the architecture of the euro area must minimize the chances of prolonged periods of depression or stagnation. This requires, in particular, that unsustainable sovereign debts be restructured, rather than pretending that they can be gradually reduced through many years of austerity. As argued by Bénassy-Quéré et al (2018), allowing debt restructurings as a last resort means that banking systems need to be protected from sovereign risk, giving pre-qualified sovereigns easier access to ESM liquidity, and better private and public risk sharing.

Even with these reforms, it is possible that a euro member may find itself in a long period of stagnation in which a nominal devaluation begins to look like the only way out. But in the long run, economic performance is determined by institutions, not exchange rate regimes. Preventing crises and avoiding crisis responses that perpetuate recessions and pit euro area authorities against members and members against each other should hence go a long way to ensuring the sustainability of the euro.

REFERENCES

Bénassy-Quéré, Agnès, Markus Brunnermeier, Henrik Enderlein, Emmanuel Farhi, Marcel Fratzscher, Clemens Fuest, Pierre-Olivier Gourinchas, Philippe Martin, Jean Pisani-Ferry, Hélène Rey, Isabel Schnabel, Nicolas Véron, Beatrice Weder di Mauro, and Jeromin Zettelmeyer, "Reconciling risk sharing with market discipline: A constructive approach to euro area reform", CEPR Policy Insight No. 91, January.

Cruces, Juan J. and Christoph Trebesch. 2013. "Sovereign Defaults: The Price of Haircuts." *American Economic Journal: Macroeconomics*, Vol. 5 (3) July, 85-117.

Sturzenegger, Federico and Jeromin Zettelmeyer. 2007. *Debt Defaults and Lessons from a Decade of Crises*. Cambridge, MA: MIT Press.

Zettelmeyer, Jeromin, Christoph Trebesch and Mitu Gulati. 2013. "The Greek Debt Restructuring: An Autopsy", *Economic Policy* 28(75): 513–563.

Clemens Fuest

[Art 50] Ways to Leave the Euro – Does the Eurozone Need an Exit Clause?

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INTRODUCTION

Over the course of the Euro crisis the possibility that one or various member states may leave the currency union has been discussed intensively. During the stand-off between Greece and the rest of the Eurozone the German finance minister Wolfgang Schäuble suggested that Greece should leave the Eurozone.[1] The current economic recovery has eased the pressure of the crisis and Grexit is no longer on the agenda. But the fundamental question of whether a euro exit clause is needed and how it should be designed needs to be clarified. Recently the Dutch government argued that a procedure for euro exit is missing.[2] In the academic literature on this topic, the issue of euro exit has been discussed for a long time (Sinn 2014 and Scott 2012)[3] and it should certainly be included in the current discussion over Eurozone reform.

This paper aims to discuss some of the key institutional and economic aspects of a euro exit clause. What are the pros and cons of introducing an exit clause for the Eurozone and how should it be designed? Clearly, an open and rational discussion about exit clauses among governments would be difficult because even putting this issue on the agenda of the next European summit could be seen as a signal that a member state may be about to exit. A balanced and constructive debate about introducing an exit clause in a monetary union is only possible in a situation where no country is close to exit.[4] This is the only scenario whereby decisions over the content of such a clause take place under sufficient uncertainty about whom it may potentially concern. Of course, this "veil of ignorance" is never perfect because it is clear, for instance, that countries whose currency would probably devalue after exit would have different interests to those of countries with strong currencies.

Section 2 of this paper discusses why existing federations usually do not have exit clauses while the EU does. Section 3 discusses whether exit from the Eurozone is possible under the existing institutional rules. Section 4 discusses the economic benefits and costs of introducing a euro exit clause, as well as aspects of its optimal design and section 5 draws some conclusions.

WHY DO SOME UNIONS HAVE EXIT CLAUSES WHILE OTHERS DO NOT?

Most federations do not have exit clauses, but the EU does.[5] Why is this the case? Rational thinking about constitutional design will usually lead to the conclusion that some provisions for ending membership of a union are desirable because the absence of any such exit arrangement can easily lead to destructive uncertainty and conflict. So why are exit clauses absent from many constitutions?

Firstly, discussing exit clauses in unions or other types of clubs is delicate because it may be perceived as undermining the spirit of cooperation or solidarity. Secondly, exit clauses could be avoided because there is a concern that countries could invest too little in political debate and negotiation ("voice" in the terminology of Hirschman (1970)) if exit is easily available. One should note, however, that "voice" may also be more effective if exit is available and not too difficult. Thirdly, constitutions are not always the result of a process whereby members of a union maximize progress towards a common long-term goal. Constitutions may be imposed from the outside. The rules may be written by powerful members who do not want to give weaker members the opportunity to leave while hoping that they will be powerful enough to achieve a good result through ad hoc negotiation if they want to exit themselves. The politicians involved in setting up unions may also want to tie the hands of their successors. None of these reasons implies that not having an exit clause is efficient or rational.[6]

It is interesting to ask why the EU introduced the exit clause of Article 50 TEU.[7] Andrew Duff (2016) offers the following explanation:

"The need to include a secession clause in the Constitutional Treaty (2003) and then the Treaty of Lisbon (2007) was upheld both by the federalists and by their

[1] "Anmerkungen zu den jüngsten griechischen Vorschlägen", *Handelsblatt*, 12 July 2015, http://www.handelsblatt.com/politik/international/schaeubles-griechenland-papier-im-wortlaut-anmerkungen-zu-den-juengsten-griechischen-vorschlaegen/12044368.html.

[2] "Following the request by member Schouten to the Finance Minister and the Prime Minister (issue number 2013Z01025) for a letter about the exit from the eurozone, we report as following. The cabinet introduced in its coalition agreement that it should be possible under mutual consideration to exit from the community arrangements (Schengen, eurozone, European Union). This requires in the case of the eurozone and Schengen a treaty change as the current EU treaty does not foresee this possibility." (Rijksoverheid 2013, translation by the author).

[3] For instance, Scott (2012, p.4) puts this as follows: "establishing a withdrawal framework now makes sense (…) After all, the true threat to the long-term viability of the euro area does not come from the current debt crisis in Greece, but from the looming crises in Italy and other large Member States. Establishing the withdrawal framework today ensures it will be in place when it is truly needed."

[4] Unfortunately, on May 15, 2018, a preliminary version of a coalition contract between the Italian 5 Stars Movement and the Lega Nord was leaked according to which the coalition will demand the introduction of a euro exit clause, debt relief, and a relaxation of fiscal rules in the Eurozone, see https://www.huffingtonpost.it/2018/05/15/un-comitato-di-conciliazione-parallelo-al-consiglio-dei-ministri_a_23435353/?utm_hp_ref=it-homepage. This has given rise to a renewed debate about Italy's membership in the Eurozone.

[5] Huysmans and Crombez (2016) highlight the fact that the Latin Currency Union between Belgium, France, Italy, and Switzerland, which existed from 1865 to 1927, introduced an exit clause in 1885.

[6] See also the discussion in Huysmans and Crombez (2016), p.29.

[7] Note that the Draft Treaty establishing a Constitution for Europe proposed by the European Convention (2003) also contained an exit clause for voluntary withdrawal of member states (Article 59).

opponents. Federalists saw the need to have a safety clause in the new treaty that would allow a let-out for any current member state which fought shy of accepting the leap forward in European integration that was at that time postulated. The UK government, aware of the risky nature of its ever-increasing exceptionalism, wanted a clause that would prevent the abrupt expulsion of an awkward member state by the mainstream majority. That said, none of us in the Convention ever expected the provision actually to be used – which might explain its relatively sketchy character. So it is vital to analyse very carefully what the clause says, why it says it, and how it is now to be deployed."

This explanation is interesting because its logic can be applied to the Eurozone too. Those who think that the sustainability of the Eurozone requires deeper integration may support an exit clause because it would allow member states that are unwilling to support these reforms to exit. Those who oppose deeper integration may want to minimize the cost of leaving. However, this logic implies that an exit clause is important for the process of transition towards the optimal club size, not necessarily as a permanent feature of the union. This paper focuses on the role of exit clauses as a permanent part of the institutional setup.

Huysmans (2017) provides a different explanation for the introduction of the exit clause. He argues that Eastern enlargement of the EU increased heterogeneity among member states. Combined with decision making by qualified majority rather than unanimity, heterogeneity implies that some countries may end up in a minority position and be forced into adopting policies they dislike. This may explain increasing support for an exit clause. The role of exit clauses for minority protection will be discussed further in section 4.

IS IT POSSIBLE TO LEAVE THE EURO UNDER THE CURRENT INSTITUTIONAL ARRANGEMENTS?

The Eurozone is a currency union of sovereign states. In view of this fact, it is plausible that member states can withdraw from the Eurozone if they want to; but there is no explicit legal procedure for leaving. Therefore, any country attempting to leave the Eurozone would face difficulties finding a legal basis for exit. Currently the only exit clause the Eurozone has is Article 50 TFEU, which specifies a procedure for countries wishing to exit the EU. If a member state of the Eurozone leaves the EU, this step would imply that the country also leaves the Euro. But Article 50 TFEU was not designed as an exit clause for the currency union. In the debate over a possible exit by Greece, a widely-debated issue was how Greece could leave the euro without leaving the EU.

The EU's treaties include a number of references characterising certain aspects of entry to the Eurozone as "irrevocable". For instance, Article 140(3) TFEU states that, in the process of integrating new members into the Eurozone, the European Council will "irrevocably fix the rate at which the euro shall be substituted for the currency of the Member State concerned". The European Commission has adopted the view that the Eurozone is indeed irrevocable: "The irrevocability of membership in the euro area is an integral part of the Treaty framework and the Commission, as a guardian of the EU Treaties, intends to fully respect it."[8]

Along similar lines, the European Central Bank (ECB) has argued that the euro is irrevocable. In correspondence with Claudio Morganti, a member of the European Parliament, ECB President Mario Draghi puts this as follows:

"The irrevocability of the euro has been part of the EU framework since the Treaty of Maastricht, which included a Protocol on the Transition to EMU whereby the Member States declared "the irreversible character of the Community's movement to the third stage of EMU", inter alia stating that all preparatory work should be concluded by 1998 "in order to enable the Community to enter into the third stage irrevocably on 1 January 1999"."[9]

The references to "irrevocability" in the treaties primarily occur in the context of how the process of entering the Eurozone is organised. However, whether these rules also imply that entry is irrevocable forever is questionable.

It is clear that euro membership is intended to be permanent; but it is also clear that an exit scenario cannot be ruled out. A key question is the type of exit scenario under consideration. Three scenarios are possible: firstly, expulsion of a country; secondly, a unilateral decision to withdraw; and thirdly, a consensual decision that a country leaves the euro.

Expulsion from the Eurozone

When the euro was created expulsion of a member state seemed irrelevant, but the Greek debt crisis changed that perception. In 2010 Manuel Barroso found it necessary to clarify that: "No country can be expelled from the Eurozone".[10] But when the crisis escalated and the Greek government organised a referendum about the bailout programme in 2015, the prevailing view among many policymakers in Europe was that a no vote would imply Greece has to leave the Eurozone. For instance, before the referendum Manuel Valls, who was French Prime Minister at the time, said that there was a "real risk" of Grexit if the Greek people voted against the European bailout proposal.[11] The Greek government immediately threatened to take legal actions to avoid expulsion from the Eurozone.[12]

The case of Greece in 2015 demonstrates that a currency union may need to deal with individual member states that refuse to comply with commonly agreed rules and procedures. Of course, the Greek standoff was not just about the Greek bailout programme. The Greek government had openly challenged the rules and principles of the Eurozone, and particularly the no-bail-out clause and the principle that member states in financial difficulties can only have access to credit from the European Stability Mechanism (ESM) if they accept conditionality, including painful measures to bring down the budget deficit.

There is currently no legal rule in the treaties underlying the Eurozone stating that a country that rejects the common rules about economic and fiscal policy can be expelled from the common currency. It has been suggested that the *Vienna Convention on the Law of Treaties* (1969) might provide a legal basis for expulsion. Article 62 of the Convention states that a fundamental change in the circumstances underlying a treaty "which was not foreseen by the parties" may justify the suspension or termination of the treaty under certain circumstances. But whether this may really serve as a basis for expulsion from the Eurozone, either generally or in the specific case of Greece, is controversial.[13]

Another potential basis for expulsion is Article 7 TFEU. Under this provision the European Council, "acting by a qualified majority, may decide to suspend certain of the rights deriving from the application of the Treaties to the Member State in question" if that state has committed a persistent and serious breach of the values listed in Article 2 TFEU.[14] Again, whether this provision is applicable to Eurozone membership is controversial. More specifically, the question arises of whether violations of the rules on fiscal and economic policy suffice to trigger Article 7 TFEU. Dammann (2016, p. 724-725) argues that this outcome cannot be excluded:

"In fact, one can easily imagine scenarios where a member state's conduct represents a vital threat to the functioning of the Eurozone. For example, a member state might openly declare that it would permanently disregard any rules pertaining to the Eurozone, as well as any fines levied against it and any judgments by the Court of Justice. Depending on the circumstances, such open defiance, if left unpunished, might well threaten the survival of the Eurozone."

Next to the legal question of whether expulsion is possible, there is a way of forcing a country to leave under certain circumstances. In the case of Greece, the ECB could have stopped its emergency liquidity assistance (ELA) for Greek banks. In this case the country would have been forced to introduce its own currency and exit from the common currency to avoid a collapse of its banking system. The ECB did not choose to pursue this course of action, but at some point, refused to further increase the level ELA, forcing the Greek government to introduce capital controls. This could have been a first step towards expulsion.

Unilateral Decision to Withdraw

As mentioned in the introduction, a country may unilaterally decide to leave the EU. Article 50 TFEU requires a country to make the exit decision "in accordance with its own constitutional requirements" and to "notify the European Council of its intention". This triggers exit negotiations, but irrespective of the outcome of these negotiations, membership ends two years after the notification. This clause allows individual countries to leave the euro on the basis of a unilateral decision.

For practical purposes, however, Article 50 TFEU does not constitute an appropriate euro exit clause. This is not just because Article 50 TFEU links exit from the euro to exit from the EU. An important issue is that leaving a currency union cannot be announced two years before membership actually ends because this would cause capital flight, increase uncertainty and create other disruptions. Various steps would need to be undertaken quickly after the announcement to implement the exit decision and measures would be required to limit the cost of exit.

An alternative and widely discussed way of leaving the euro on the basis of a unilateral decision would be to simply introduce a parallel currency.[15] Again, if a member state were to take such a step, the rest of the Eurozone would need to decide how to react, which raises the expulsion issue.

Consensual Exit Decision

Another scenario for exit of a country from the Eurozone would be a consensual withdrawal. If there is a consensus among all member states that one member state should leave the euro, the European treaties can always be amended to allow for this exit. In general, treaty changes are difficult to achieve and time consuming, particularly because they need to be ratified in the member states. There are different ways of implementing consensual withdrawal. One option would be to extend the special rules exempting the United Kingdom and Denmark from the obligation to join the Eurozone to more countries. This could be done on a case by case basis when the need arises and would imply that exit is permanent. Another approach would be to introduce a general exit procedure for the

[8] See response by Olli Rehn, European Commissioner for Economic and Monetary Affairs and the Euro, on behalf of the European Commission, to question submitted by Claudio Morganti, Member of the European Parliament, 22 June 2012, http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2012-004398&language=EN.

[9] See message by Mario Draghi, ECB, to Claudio Morganti, Member of the European Parliament, 6 November 2012, https://www.ecb.europa.eu/pub/pdf/other/20121107_morganti.en.pdf.

[10] See "Barroso: 'No country can be expelled from euro zone'", *Euractiv*, 19 March 2010, https://www.euractiv.com/section/eu-priorities-2020/news/barroso-no-country-can-be-expelled-from-euro-zone/.

[11] See David Revault d'Allonnes, "Face à la Grèce, Hollande joue les équilibristes", *Le Monde*, 23 June 2015, http://www.lemonde.fr/politique/article/2015/06/23/face-a-la-grece-hollande-joue-les-equilibristes_4659873_823448.html#fpI6DWElZm0D1Yyo.99.

[12] See Ambrose Evans-Pritchard, "Greece threatens top court action to block Grexit", *The Telegraph*, 29 June 2015, https://www.telegraph.co.uk/finance/economics/11707092/Greece-threatens-top-court-action-to-block-Grexit.html.

[13] See the discussion in Dammann (2016, p. 717).

[14] The values mentioned in Article 2 TFEU include "respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities."

[15] For a discussion of this option, see Sinn (2014).

Eurozone similar to Article 50 TFEU, but with the objective of allowing countries that leave the euro to stay in the EU.

ECONOMIC BENEFITS AND COSTS OF EXIT CLAUSES

What difference would it make if a new exit clause for the Eurozone was introduced? One issue is whether it would affect the likelihood that a country wants to leave. The other issue is whether it would matter, given that a country has decided to leave. Let us assume that a country has made this decision. Without a euro exit clause, exit would happen on the basis of ad hoc negotiations or through Article 50 TFEU. As mentioned above, the latter would imply that the country leaving the euro also leaves the EU. This is very unlikely to be what either the exiting country or the other EU member states want. There would be ad hoc negotiations aimed at ensuring that the country can stay in the EU. What would the existence of a euro exit clause change? Theoretically such a clause could always be renegotiated. In this case it would not matter much how the clause is designed ex ante. In practice, however, it would matter since renegotiation is very complicated and takes a long time. In the case of Brexit, for instance, the framework given by Article 50 TFEU is very important and highly relevant. A euro exit clause that set out a clearly defined procedure, as well as rights and obligations of the involved parties, would have the effect of reducing uncertainty and the likelihood of conflict (Huysmans and Crombez 2016). By doing so the clause would reduce the economic cost of exit for both the exiting country[16] and the countries remaining in the currency union. It would also reduce the likelihood of the exiting country leaving the EU too, which would further increase the economic damage done.

In addition to reducing the overall economic cost of exit, the clause could regulate the distribution of exit costs. For instance, one key issue would be the redenomination of border crossing credit contracts, which would, in turn, influence the distribution of the economic costs and benefits of exit. An exit clause could even stipulate side payments: Huysmans and Crombez (2016), for example, propose an "exit penalty".

The Buchanan-Faith Model of "Internal Exit"

What does economic theory have to say about exit or secession clauses? A useful starting point for thinking about exit or secession is the "internal exit" model by Buchanan and Faith (1987). This model was not designed for analysing an exit from currency unions, but it includes some basic features that are useful for our discussion.

Let us consider a group of N countries initially forming a union. There is a publicly-provided good of a given quality, the cost of providing the good everywhere in the union is C(N). C(N) is a concave function of N, which means that there are increasing returns to scale. It follows that the larger the union, the lower the cost of providing the good per country.

Private income per country also depends on the size of the union and is given by Y(N). The government is financed through a non-discriminatory tax denoted by t. The government finances the public good and distributes the difference between tax revenue and the cost of public goods provision to a group of countries called the sharing coalition. Assume that a group of L countries forms the sharing coalition while the other S=N-L countries consider secession. Let us also assume that there is no separation into a sharing coalition and the rest in the newly-formed union. Suppose that there is also a clause specifying that countries which leave the union pay a transfer T, per country leaving, to the remaining countries (or receive a transfer from the remaining countries if T is negative). Under these assumptions, the seceding countries should be indifferent to staying in the union and leaving if

$$(1-t)Y(N)=Y(S)-C(S)/S-T$$

which implies that the maximum tax rate compatible with preventing secession is given by

$$t=1-Y(S)/Y(N)+C(S)/[SY(N)]+T/[Y(N)].$$

The highest possible tax rate is increasing in i) the private income gain associated with being member of the larger union, ii) the increase in costs associated with providing the public good in a smaller group of countries and iii) the secession fine paid by the seceding countries.

Implications of the Model for a Euro Exit Clause

What are the implications of the Buchanan-Faith model for the issue of a euro exit clause? According to the model, the role of an exit clause is primarily to prevent the exploitation of individual member states. The model also implies that countries that expect disadvantages from redistribution as members of the currency union should be willing to accept higher hurdles for exit if internal institutions support hard budget constraints and the no-bailout rule.

The Buchanan-Faith model also implies that neither exit nor redistribution is ever socially desirable. In a currency union neither of these two assumptions is entirely appropriate. Firstly, there may be situations where exit from the currency union is socially desirable. In the recent Eurozone crisis one of the key arguments of those supporting Grexit was that Greece needed to devaluate to regain competitiveness and that internal devaluation would not work, or would be too costly. Along the same lines one could argue that the exit by a highly competitive country could be desirable if that would lead to an external devaluation for the remaining countries. Those who reject these arguments claim that differences in competitiveness can and should be addressed by the internal revaluation of the more competitive countries. There may, however, be scenarios whereby this internal revaluation is simply too costly.

Similarly, it may not be redistribution but insurance, namely ex post redistribution, that has a role to play in a currency union. There is an inherent instability in currency unions related to the fact that member state governments do not have access to a central bank as lender of last resort. This makes highly-indebted countries and banks vulnerable to run situations.

One solution to this issue is that both countries and banks maintain sufficient buffers so that runs do not occur, not even in economic crises. Unfortunately, many of the Eurozone member states have accumulated high levels of public debt, which are far higher than the debt limit of 60% of GDP stipulated in the Treaty of Maastricht. This implies that these countries will be vulnerable to runs, at least for the foreseeable future. This means that the Eurozone needs something like a lender of last resort. The ESM currently plays this role. Through the Outright Monetary Transactions (OMT) programme the ECB has also positioned itself as a lender of last resort, which is a controversial part of its crisis management.

The issue of vulnerability to runs is directly related to the exit issue. If a member state is seen as a candidate for exit, this gives rise to uncertainty and increases risk premia. In extreme cases launching a debate over an exit may even trigger a run, which could in turn increase the pressure on a member state to leave. If the existence of an exit clause increases the likelihood of exit compared to a situation without such a clause, there may be a cost in terms of higher economic uncertainty or a lack of commitment (Bordignon and Brusco 2001), which will be reflected in higher risk premia.

Taken together these considerations suggest that an exit clause should achieve two objectives. Firstly, it should be acceptable for countries that are worried they may lose out through redistribution or bailout pressures. This requires low hurdles for exit unless other institutions credibly guarantee limits on redistribution, hard budget constraints and no-bailout. Secondly, the exit rule should not create uncertainty by undermining commitment to remaining in the currency union. This requires high hurdles or even (financial) exit penalties, as suggested by Huysmans and Crombez (2016). Incentives to leave should be avoided. This trade-off highlights the role of internal institutions, which guarantee a hard budget constraint and no bailout. If these institutions are credible, it should be possible to reach a consensus on exit clauses with high hurdles, where the cost of exit is primarily borne by the country leaving the union, or at least financial incentives to leave are avoided.

Content of an Optimal Euro Exit Clause

How should an exit clause be designed beyond the general principles described in the preceding section? The first question is who should be allowed to trigger an exit. As explained in the preceding section, a currency union requires a high degree of commitment from its members to avoid unnecessary uncertainty and financial fragility. This suggests that there should be high hurdles to Eurozone exit. However, since the Eurozone consists of ultimately sovereign states, a country will always be able to withdraw from the euro and introduce its own currency. Therefore, a euro exit clause should follow Article 50 TFEU in stating that member states can decide to withdraw according to their own constitutional requirements. Things are different when it comes to the expulsion of a member state. Here high procedural hurdles like those of Article 7 TFEU would be appropriate.

Clearly a euro exit clause should allow member states to remain in the EU. Since the EU treaties require all member states (with the exception of the UK and Denmark) to join the euro when they are ready to do so, euro exit would by definition mean a temporary exit. Of course, if a country really leaves the euro, re-introducing it will be practically off the agenda for at least a couple of years.

One important difference compared to Article 50 TFEU is that there can hardly be a two-year delay between the decision or the announcement to leave and the actual leaving date. Capital controls would have to be introduced immediately after the announcement in order to prevent capital flight either into or out of the country leaving the currency union. An exit clause should also include provisions regarding the financial arrangements. As explained above, financial incentives to leave should be avoided. Firstly, the national central bank needs to be disentangled from the European System of Central Banks. Secondly, redenomination of private contracts is necessary. These are hugely complex tasks and avoiding financial incentives to exit raises the prospect of some particularly unpleasant trade-offs. For instance, if a European system of deposit insurance is introduced in the future, will deposits in a country that leaves the euro still be covered in euros? If so, a financial incentive to leave is created for countries with weak national currencies. If not, bank runs may occur if the redenomination risk grows. The whole point of introducing a common system of deposit insurance in the Eurozone is to prevent such runs. Another financial incentive that should be avoided is the accumulation of high levels of debt, which can be written down after exit. This suggests that unsecured debts, and particularly today's very high TARGET balances, are a potential source of destabilisation for the currency union (Sinn 2014).

[16] In principle explicit exit clauses may also make exit more costly. Article 50 TFEU implies that membership of the exiting country ends automatically two years after notification. This probably increases the cost of exit relative to a situation where longer negotiations are possible.

CONCLUSIONS

The current debate over Eurozone reform offers an opportunity to consider the introduction of a euro exit clause. The current setup, whereby the only available exit clause would force a country that wants to leave the euro to leave the EU (Article 50 TFEU), is problematic. One reason why the member state governments and European institutions are sidestepping this debate is the concern that starting it could be perceived as signal that the Eurozone wants to expel a given member state, or that a member state wants to leave.[17] It is correct that introducing an exit clause for the Eurozone would be costly if it increased the likelihood that exit occurs. But whether it would have that effect depends on the design of the clause. At the same time, the risks of avoiding the debate about a euro exit clause are considerable. Firstly, if a country should want to leave, the cost to all member states, including the cost of potential conflict, will probably be much higher than necessary. Secondly, current developments, and particularly the accumulation of large imbalances including the TARGET balances, can create undesirable financial incentives for individual countries to leave the euro. Thirdly, countries considering entry to the Eurozone, and especially high-income countries like Sweden, may be more likely to join if an exit clause is available as a safeguard against undesirable redistribution within the currency union.

REFERENCES

Bordignon, M. and S. Brusco (2001), "Optimal Secession Rules", *European Economic Review* 45 (10), 1811-1834.

Buchanan, J. M. and R. L. Faith (1987), "Secession and the Limits of Taxation: Toward a Theory of Internal Exit", *American Economic Review* 77 (5), 1023-1031.

Dammann, J. (2016), "Paradise Lost: Can the European Union Expel Countries from the Eurozone?", *Vanderbilt Journal of Transnational Law* 47 (2), 693-747.

Duff, A. (2016), VerfBlog 2016/7/04: Everything you need to know about Article 50 (but were afraid to ask), https://verfassungsblog.de/brexit-article-50-duff/.

European Convention (2003), *Draft Treaty establishing a Constitution for Europe*, Brussels, 18 July 2003, CONV 850/03.

Hirschman, A. O. (1970), *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organisations and States*, Cambridge (Mass.).

Huysmans, M. and C. Crombez (2016), "I am leaving EU: the political economy of exit clauses", *Discussion paper*, Dec 16, 2016.

Huysmans, M. (2017), "Heterogeneity, Vetoes and Exit Clauses in Federal Systems", *Unpublished Manuscript*, KU Leuven.

Rijksoverheid (2013), Beantwoording verzoek Kamer om brief over uittreding eurozone: Minister-president Rutte en minister Dijsselbloem reageren op een verzoek van de Tweede Kamer om een brief over uittreding uit de eurozone, https://www.rijksoverheid.nl/documenten/kamerstukken/2013/01/31/beantwoording-verzoek-kamer-om-brief-over-uittreding-eurozone.

Scott, H. S. (2012), "When the Euro Falls Apart – A Sequel", *Harvard Law School Public Law & Legal Theory Working Paper Series Paper* No. 12-16.

Sinn, H. (2014), *The Euro Trap. Ob Bursting Bubbles, Budgets, and Beliefs*, Oxford University Press.

[17] In the context of the current political uncertainty about the positions of Italy's new government regarding the Eurozone this is understandable.

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The Redenomination Risk of Eurozone Exit for Greece

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THE PERSISTENT SPECTRE OF EMU[1] EXIT

The prospect of currency redenomination emerged in the course of the Eurozone crisis and the most likely candidate was Greece as it confronted the prospect of exit in the midst of a tremendous depression in 2010-2013.[2] A form of stability has since returned to the Greek economy, but growth has been practically non-existent and there is no realistic prospect of rapid acceleration. The option of exit also emerged at the margins of policy debate for other peripheral countries. Despite the recent recovery of the Eurozone, the longer-term viability of the common currency remains highly uncertain, and the prospect of exit for both peripheral and core countries has to be calmly analysed.

An important aspect of exit is currency redenomination followed by depreciation or appreciation. Its implications can be thought of as a "balance sheet effect" altering the wealth of economic agents and giving rise to "redenomination risk". This risk is estimated below for Greece. The method followed and the conclusions drawn are also applicable to other EMU countries.[3]

REDENOMINATION RISK

The basic steps of exiting the EMU and reintroducing a new currency have been discussed elsewhere.[4] For our purposes, the trigger of an exit would probably be an Act of the Greek Parliament reasserting monetary sovereignty and redefining the unit of account under the *Lex Monetae*. The legal tender of the country would become the New Drachma, replacing the euro.

It is sufficient to assume that the Greek state would declare an obligatory rate of conversion of the new for the old legal tender at 1:1 EUR/GRD.[5] Conversion would apply to contracts falling under Greek law, but not to others. Unfortunately, the grey area between the two is substantial, and thus persistent litigation could be expected for a long time after the currency switch. It is probable, for instance, that the bulk of wage and salary contracts would fall under Greek law, but financial assets would generally be under both Greek and foreign law, as would be financial liabilities. Thus, a proportion of both assets and liabilities would be impossible to convert and would remain in euro. This is the source of the redenomination risk, arising in particular as the New Drachma is likely to depreciate.

The basic method for estimating the redenomination risk has been proposed by Nordvig and Firoozye (2012) and Nordvig (2014). For our purposes, it has been further developed by Durand and Villemot (2016). Moreover, important methodological insights can be obtained from Minenna et al. (2017), particularly with reference to Italian public debt. In this paper, the risk is estimated by identifying and summing up balance sheet entries that are not expected to fall under Greek law, thus remaining in euro on both the liability and the asset side. The difference of remaining Assets (A) minus remaining Liabilities (L) defines the Net Relevant Position, which is a measure of the net wealth at risk in case of redenomination. A positive Net Relevant Position implies gains in case of depreciation.

Table 1

Redenomination Risk

Assets	Liabilities
Under Greek *Lex Monetae*	Under Greek *Lex Monetae*
Remaining in euro: A	Remaining in euro: L

Net Relevant Position: A - L

For the case of Greece, the risk was estimated by splitting the economy into the public sector, the private (non-bank) sector, the banking sector and the Bank of Greece. The financial accounts of each sector were

[1] EMU stands for the Economic and Monetary Union of the European Union.
[2] The literature on the Eurozone and the Greek crisis is extensive and much of it is not directly relevant to our purposes. For the theoretical and empirical analysis that supports this paper, see Lapavitsas, Mariolis, and Gavrielidis (2017).
[3] The estimation and discussion are a condensed form of Lapavitsas (2018).
[4] See, for instance, Flassbeck and Lapavitsas (2015).
[5] The rate could also vary for different classes of assets if redistribution of wealth was a government objective.

Table 2

Net Relevant Position of the Greek Public Sector, December 2016, Millions (EUR)

ASSETS		LIABILITIES	
Portfolio and Other Investments	2,241.00	From Loans	
		Financial Support Mechanism	227,660.49
		Total Loans	239,879.33
		From Bonds	
		Total Bonds	29,673.59
Total	2,241.00	Total	269,552.92
Net Relevant Position		**-267,311.92**	

Source: Constructed from data from the Greek Public Debt Management Agency: http://www.pdma.gr/attachments/article/37/Bulletin%20No_84.pdf.

Table 3

Net Relevant Position of the Greek Private (Non-Banking) Sector, Q3 2016, Millions (EUR)

ASSETS		LIABILITIES	
Portfolio and Other Investment	63,406	Portfolio and Other Investment	24,768
Of which Currency and Deposits	52,206		
Net Relevant Position		**38,638**	

Source: Constructed from BoG, International Investment Position, Quarterly Data, available at: http://www.bankofgreece.gr/Pages/en/Statistics/externalsector/international.aspx.

examined for the third and fourth quarter of 2016 to establish the net relevant position.

Public Sector

The Greek public sector has by far the largest liability exposure to non-Greek law. A highly simplified picture is shown in Table 2.

The strongly negative position of the Greek public sector is entirely due to the bail-out policies whereby the governing law of the vast bulk of Greek public debt was systematically switched from Greek to foreign law. There is no doubt that in the event of EMU exit, the Greek government would have to declare default.

Private (Non-Banking) Sector

Since there is no aggregated balance sheet for the private (non-banking) sector, the redenomination risk was estimated by deploying data from the Greek international investment position, as is shown in Table 3.

The limited exposure of the Greek private sector to international financial markets, together with the relatively large amount of currency and deposits held by the private sector imply that the net relevant position is actually substantially positive. This is a large buffer that would protect the private sector from the shock of redenomination, but its effectiveness would also depend on its distribution among households, enterprises and other institutions. The available data is not detailed enough to estimate the distribution.

Banking Sector

A highly simplified picture of the net relevant position of the Greek banking sector is given in Table 4.

The great bulk of Greek bank assets comprises domestic loans, although banks also hold a substantial volume of non-domestic securities, most of which were probably issued by official lending institutions to replace Greek government bonds at the time of private sector involvement (PSI) in 2011-2012. Similarly, most bank liabilities are owed to domestic agents, typically private deposits and liabilities to the BoG. The latter obviously relates to the huge provision of liquidity to Greek banks throughout the crisis, which is discussed in greater detail below in connection with the BoG. The low exposure of the Greek banking sector to international markets and the relatively high holdings of bonds that cannot be redenominated, entail a large positive net relevant position.

Bank of Greece (BoG)

The most complex problems are posed by the BoG. The liquidity provided by the BoG to Greek banks has been ultimately supplied by the Eurosystem, to which the BoG has become heavily indebted. The basic mechanism was TARGET2, the importance of which is considered below. A highly simplified picture of the BoG's net relevant position is shown in Table 5.

The asset side of the balance sheet of the BoG contains non-domestic securities worth roughly EUR 53 billion, which it would not be possible to redenominate. This part of the balance sheet of the BoG appears to be linked to monetary policy operations conducted by the ECB and the Eurosystem, and has grown systematically since 2013. On the liability side, the most significant element for our purposes is other euro area and other country liabilities, which total roughly 72 billion euros and include the TARGET2 exposure of the Greek central bank. The legal status of that borrowing is far from clear.

Table 4

Net Relevant Position of the Greek Banking Sector, December 2016, Millions (EUR)

ASSETS		LIABILITIES	
Cash	1,754	Liabilities to MFIs other euro area	10,157
Claims on MFIs other euro area	3,428	Liabilities to MFIs other countries	13,606
Claims on MFIs other countries	13,412	Securitisation Liabilities	17,246
Securities other euro area	32,764	Financial derivatives	4,424
Securities other countries	18,352		
Shares other euro area	2,193		
Shares other countries	2,907		
Financial derivatives	3,236		
Total	78,046	Total	45,433
Net Relevant Position		**32,613**	

Source: Constructed from BoG, Aggregated Balance Sheet of MFIs excluding the BoG, available at: http://www.bankofgreece.gr/Pages/en/Statistics/monetary/nxi.aspx.

Table 5

Net Relevant Position of the Bank of Greece, December 2016, Millions (EUR)

ASSETS		LIABILITIES	
Securities, Other Euro Area	36,784	Liabilities to MFIs, Other Euro Area	72,257
Securities, Other Countries	16,494		
Total	53,278	Total	72,257
Net Relevant Position, if TARGET2 could not be redenominated		**-18,979**	
Net Relevant Position, if TARGET2 could be redenominated		**53,278**	

Source: Constructed from BoG, Balance Sheet of the BoG,available at: http://www.bankofgreece.gr/Pages/en/Statistics/monetary/nxi.aspx.

Overall, the net relevant position of the BoG appears surprisingly robust, firstly, due to the large volume of foreign bonds held; and secondly, because the legal status of TARGET2 liabilities is unclear and requires detailed consideration.

TARGET2 AND THE ACQUISITION OF FOREIGN SECURITIES BY THE BoG

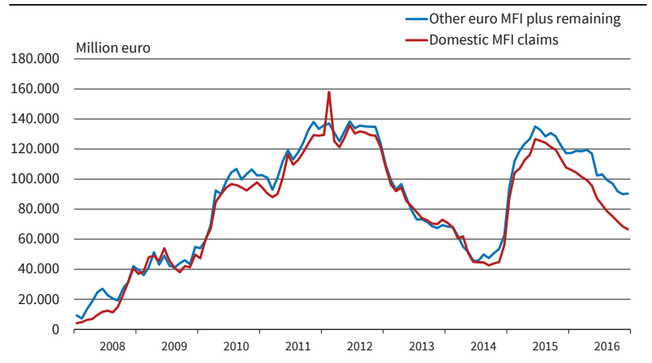
Large scale acquisition of other euro area and other country securities by the BoG began towards the end of in 2013 and accelerated sharply after the summer of 2015. It appears to have been related to the monetary policies of the ECB, and above all to quantitative easing.

Further insight could be gained by considering the BoG's borrowing from the Eurosystem relative to its own lending to Greek banks in Figure 1.

Figure 1

Key BoG Assets and Liabilities

BoG liabilities to other euro MFIs plus remaining liabilities compared to claims to domestic MFIs



Source: Balance Sheet of the BoG. © ifo Institute

Liquidity provision by the BoG to Greek banks was almost perfectly matched by the BoG's borrowing from the Eurosystem. The latter comprises primarily of TARGET2, plus the remaining liabilities of the BoG, which largely include additional banknotes hoarded by the Greek public, which are the liability of the Eurosystem. The fit, however, became less perfect after the summer of 2015, as the liabilities of the BoG to the Euro area began to exceed its provision of liquidity to Greek banks. The gap between the two curves reflects the substantial foreign bond accumulation by the BoG.

Thus, a large volume of bonds that would not be redenominated in case of Greek exit from the EMU corresponds to the liabilities of the BOG that include TARGET2. The question that arises is: what would be the status of TARGET2 liabilities in case of redenomination? There has been a lively academic and public debate over TARGET2 since the outbreak of the crisis, as claims and liabilities within the system reached 1 trillion euros in 2016-2017.[6] While the EMU continues to exist, TARGET2 assets and liabilities are merely clearing entries among central banks of little significance within the Eurosystem. What would happen, however, if a country exited?

TARGET2 operates on a single technical platform, but is legally structured as a multiplicity of systems.[7] Each NCB owns its TARGET2 component and operates it under national law. The TARGET2 components of individual central banks encompass the payment module and the dedicated cash accounts on their books. The ECB also owns its own TARGET2 component and operates it under German law. Each TARGET2 component is designated under the relevant national legislation implementing the settlement finality directive (98/26/EC).

[6] See Sinn and Wollmershäuser (2012), Whelan (2012), Buiter and Rahbari (2012) and Ceccheti, McCauley and McGuire (2012). See also Tuori (2016).

[7] See Decision of the European Central Bank, 24 July 2007, creating TARGET2 (ECB/2007/7), available at https://www.ecb.europa.eu/ecb/legal/pdf/l_23720070908en00710107.pdf

However, the net positions of the payment modules operated by NCBs are settled at the ECB payment module accounts that NCBs hold with the ECB. The ECB holds assets for each net debtor liability of NCBs and vice-versa. Settlements of NCBs with the ECB constitute a bilateral relation between NCBs and the ECB, as part of TARGET2-ECB. This makes it quite clear that such relations would be governed by German Law. Should an NCB default on its obligations under TARGET2 to the ECB, there would be a process of mobilising collateral subsequent to which the ECB would actually recognise a loss and write it off as a bad debt. The ECB would then call on its shareholders, i.e., the remaining NCBs of the Eurozone to participate in the loss according to their shares in the ECB's capital.

However, neither the German Banking Act, nor European or national laws mention the possibility of the Eurozone break-up, nor do they specify the procedure for redenominating claims and liabilities relating to the ECB. The texts refer solely to default. In the case of a break-up and redenomination, it is arguable that no technical default of a national central bank would actually take place, and thus the provisions for dealing with disputes within the Eurosystem framework would not be pertinent. In that case the national *Lex Monetae* could be applicable to NCBs liabilities with the ECB. It is thus conceivable that, if the BoG stopped being part of the ECB and Greece changed its national legal tender, the BoG's TARGET2 liabilities would not be governed by German law, leaving open the option of redenomination.

To conclude, the redenomination risk of Greece's exit from the EMU would be relatively modest as long as the country was prepared to confront the prospect of unavoidable state default. Indeed, from the perspective of the private economy, the "balance sheet effect" of exit is likely to be positive, though its distribution across the non-financial and the banking sectors is likely to be uneven, and hence some agents would be adversely affected. The more unpredictable and complex part of the redenomination risk refers to the BoG. Its TARGET2 liabilities have a complex and unclear status, while its assets include substantial volumes of foreign securities. It is conceivable that even for the BoG, the net relevant position might be positive.

REFERENCES

Buiter, W. and E. Rahbari (2012), "TARGET2 redux: the simple accountancy and slightly more complex economics of Bundesbank loss exposure through the Eurosystem", *CEPR Discussion Paper* no 9211, November.

Ceccheti S., R. McCauley and P. McGuire (2012), "Interpreting TARGET2 balances", *BIS Working Papers* no 303.

Durand C. and S. Villemot (2016), "Balance Sheets After the EMU: An Assessment of the Redenomination Risk", *OFCE, Sciences-Po, Working Paper* 2016-31, October.

Flassbeck, H and C. Lapavitsas, 2015, *Against the Troika: Crisis and Austerity in the Eurozone*, with H. Flassbeck, Verso: London and New York.

Lapavitsas, C. (2018), "The redenomination risk of exiting the Eurozone: An estimation based on the Greek case", *European Law Journal,* forthcoming.

Lapavitsas, C., T. Mariolis, with K. Gavrielidis (2017), Rosa Luxemburg Stiftung Publikationen: Eurozone failure, German policies, and a new path for Greece: Policy analysis and proposals, , http://www.rosalux.de/fileadmin/rls_uploads/pdfs/sonst_publikationen/Online-Pub_Eurozone_Failure.pdf (last accessed 7.3.2018).

Minenna, M., A. Guglielmi, J. Suárez, C. Signani (2017), *Italy: Re-denomination risk down as time goes by*, Mediobance Securities country Update, 17 January.

Nordvig, J. (2014), Risks and Benefits of Eurozone Breakup: The role of contract redenomination and balance sheet effects in policy analysis,

http://jensnordvig.com/wp-content/uploads/2016/01/RiskBenefits-Breakup.pdf (last accessed 10.3.2018).

Nordvig, J. and N. Firoozye (2012), Wolfson Economics Prize, Final Submission: Rethinking the European monetary union,

https://ftalphaville-cdn.ft.com/wp-content/uploads/2012/07/Rethinking-the-European-Monetary-Union-Adapt.pdf (last accessed 10.3.2018).

Sinn, H.W. and T. Wollmerhäuser (2012), "TARGET loans, current account balances and capital flows: The ECB's rescue facility", *International Tax and Public Finance* 1 (4), 468-508.

Tuori, K. (2016), "Has Euro Area Monetary Policy Become Redistribution by Monetary Means? 'Unconventional' Monetary Policy as a Hidden Transfer Mechanism", *European Law Journal,* 22 (6), 838-868.

Whelan. K., (2012), "TARGET2: Not why Germans should fear a euro breakup", *VoxEU* 29, April.

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T2 Balances: A Legal Perspective

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INTRODUCTION

European developments in the spring of 2018 have rekindled public interest in T2 balances. The debate is not new: the issue of T2 balances first came up at the height of Europe's sovereign debt crisis, and it has resurfaced since periodically, at times of heightened tension. Critics have argued that T2 balances resemble covert transfers (loans) from the national central banks (NCBs) of the euro area core to Member States (MS) in distress, without settlement terms or collateral, and with no legal or other democratic legitimation.[2]

This paper explores the risks of T2 balances for the ECB and the T2-participating NCBs, and seeks to shed light on the legal parameters of the debate. The latter have largely been neglected in the extant literature, whose main focus has been on the accounting and economic aspects of T2 balances.[3]

T2 BALANCES: NATURE AND RISKS

Introductory Remarks

In line with its statutory task of promoting the smooth operation of payment systems in the EU, the ECB and the NCBs own and operate the 'Trans-European Automated Real-time Gross Settlement Express Transfer System' (T2), the second generation of the interbank payment system for the real-time settlement, in central bank money, of cross-border payments in euros. Despite its technically centralised structure, T2 is legally *decentralised*, with the ECB and each participating/connected NCB operating its own T2 component.

The consolidated Eurosystem balance sheet (of which T2 balances are a component) consists, on the liability side, of banknotes, and of the deposit accounts of financial counterparties with the NCBs. On the asset side, the consolidated Eurosystem balance sheet consists of gold, foreign reserves, loans to financial counterparties and debt instruments purchased by the ECB and the NCBs.

T2 balances appear on the asset side of the Eurosystem's consolidated balance sheet, and the ECB has defined them as 'the claims and liabilities of euro area NCBs vis-à-vis the ECB that result from cross-border payments settled in central bank money'.[4] The NCBs' T2 balances mirror the cross-border fund transfers that T2-participating commercial banks routinely engage in, either for their own operations or on account of their customers. All of those operations generate payment flows processed through T2. At the end of each business day, all of the NCBs' intraday positions are aggregated and netted-out before being transferred to the ECB, resulting in a single intra-Eurosystem NCB position on the ECB alone, in whose books the NCBs' positions balance-out, adding up to zero.[5]

Although they may resemble national balances of payments, T2 balances are mere reflections of cross border monetary policy-related or private sector capital flows within the single currency area, the accounting treatment of which mirrors the decentralised nature of T2 as a multiplicity of systems.[6] Significantly, the T2 positions of the NCBs on the ECB are not constitutive of the cross-border trade imbalances they mirror, nor is it the mission of T2 to redress them (its mission is the real-time settlement of cross-border transfers in euros).

T2 Balances and their Risks

To analyse the risks, real or perceived, that T2 balances may generate for the ECB and the NCBs, it is possible to distinguish between T2 balances resulting from 'genuine' cross-border payments, and 'capital flight' (or 'crisis avoidance-motivated') transactions. This distinction is, arguably, artificial, as T2 will book and process all transactions in exactly the same way. However, it can help to shed some light on the reasons underlying the concerns hitherto expressed over the build-up of T2 balances.

Risks of Genuine Cross-Border Payments

'Genuine' cross-border T2 payments are those that aim to enable economic actors in one MS to discharge their financial obligations vis-à-vis economic actors in another MS. As mentioned above, at the end of each T2 business day cross border payment transactions may leave the NCB of MS A with an intra-Eurosystem 'liabil-

[1] ECB Legal Services. The views expressed here are purely personal, and they do not necessarily represent those of the ECB or the Eurosystem. The author is grateful to Yves Mersch and Ulrich Bindseil for his comments of an earlier draft of this paper. All remaining errors are those of the author who is solely responsible for the contents of this paper..

[2] See H-W Sinn, 'The ECB's Stealth Bailout' *(VoxEU.org,* 1 June 2011); C. Fahrholz and A. Freytag, 'Whither the TARGET2 System?' (2011) 57 (1) *Applied Economics Quarterly*, pp. 15–25; H-W Sinn, 'ifo Viewpoint No. 139: The Logic of the Target Trap' (CESifo Group, 30 November 2012); S. Homburg, 'Notes on the TARGET2 dispute' (*CESifo Forum*, 2012), pp. 50–54; H-W Sinn and T. Wollmershäuser, 'Target loans, current account balances and capital flows: the ECB's rescue facility' (2012) 19 *International Tax Public Finance*, pp. 468–508; and D. Blake, 'TARGET2: The silent bailout system that keeps the euro afloat' (*City University online*, 2018).

3 See P. Cour-Thimann, 'TARGET Balances and the Crisis in the Euro Area' (*CESifo Forum*, April 2013); S. G. Cecchetti, R. N. McCauley and P. M. McGuire, 'Interpreting TARGET2 balances' (2012) BIS Working Papers No. 393; and U. Bindseil and P. Johann König, 'The economics of TARGET2 balances' (2011) SFB 649 Discussion Paper 2011–035. .

[4] ECB, 'TARGET balances and the asset purchase programme' (*Monthly Bulletin*, July 2016).

[5] TARGET2 Guideline, Article 6(2).

[6] Also see D. Wilsher, 'The Legal Mandate of the ECB and the Economic crisis' in Barnard, Llorens, Gehring and Schütze (eds), *The Cambridge Yearbook of European Legal Studies* (Vol. 15, Hart Publishing 2013), pp. 503-536; and K. Whelan, 'TARGET2 and Central Bank Balance Sheets' (2012) UCD Centre for Economic Research Working Paper Series, WP 12/29, p. 26).

ity' to the ECB and the NCB of MS B with an intra-Eurosystem 'claim' on the ECB. Both the claim and the liability contribute to the respective NCBs' T2 balances. Crucially, however, *no* direct asset transfers take place between the two NCBs: T2 will merely provide them with an *accounting* credit or debit, in the form of a position on the ECB, but with no assets to back the creditor NCB's claim.[7]

To speak of an NCB 'risk' in the context of genuine cross-border transactions merely because the latter will leave the NCB of the funds' recipient with an accounting claim on the ECB is to disregard the particularities of cross-border fund transfers within the framework of the Eurosystem's decentralised monetary policy implementation structure. In a fully centralised system, cross-border payment flows would not give rise to intra-system 'claims' and 'liabilities': had the ECB provided liquidity directly to counterparties, no T2 balances would have arisen.[8] Besides, to the extent that 'risks' may arise, these are unrelated to the operation of T2. Two sources of risk can be identified: the risk of default of the importer/its commercial bank before a fund transfer has been concluded, but after the exporter has parted company with the export goods/services; and the risk of default of a commercial bank on the debt it may have incurred to its NCB in order to finance a cross-border fund transfer. The first risk is not attributable to T2 (it is, instead, part and parcel of all economic activity). The second risk, which is more relevant to our discussion as it accrues to the Eurosystem, can be traced back to a regular liquidity-providing operation between an NCB and its domestic counterparties (it arises, in other words, in the context of a monetary policy operation unrelated to T2). The risk of an undefined 'default' of the NCB of a net-importing MS on its 'debt' to the NCB of a net-exporting MS (and, ultimately, the ECB), is explored below.

Risks of Crisis Avoidance-Motivated Transactions

Similar considerations apply to what we refer to in this paper as crisis avoidance-motivated transactions. A crisis avoidance-motivated transaction is one where an account holder with a commercial bank in MS A instructs her bank to transfer funds to an account she holds in MS B, not in order to discharge a genuine financial obligation, but in anticipation of a sovereign default episode, followed by the euro area exit of her MS of origin, with an impact on the currency of denomination of her deposits, and/or her ability to freely dispose of them.

The mechanics of crisis avoidance-motivated fund transfers will not differ from those of genuine cross-border transactions (T2 will process both in the same way), nor will they change the net asset positions of any institution other than that of those commercial banks where the relevant accounts are held. What may (but need not) differ is the way in which these transactions are funded: where funds move from one MS to another due to deposit flight driven by a crisis in confidence, the magnitude and concentration in time of fund transfers may be such that commercial banks could not satisfy demand for deposit withdrawals without resorting, for liquidity, to their NCB.

No less importantly, these types of transfers will generate no greater risks for the NCBs involved in them than genuine cross-border transactions. The commercial bank of the account holder of our example will have to provide collateral to its home NCB before the latter can extend to it the loan(s) necessary to satisfy deposit withdrawal demands. Should the borrowing commercial bank default, any loss suffered by its NCB will, therefore, be traceable to a Eurosystem credit operation, not T2. While this type of transaction may well lead to the 'creation of money', this will invariably be against adequate collateral, as per the second indent of Article 18(1) of the Statute of the ESCB and of the ECB ('the Statute'). Given that the attendant creation of money cannot be imputed to the payment system, it is unclear why the processing of cross border money transfers involving funds created through the regular money-creation process turns T2 into a 'covert' money-creation mechanism, as some have argued.

Other Remarks

There is a third type of transaction that impacts the NCBs' T2 balances: transactions relevant to the purchase on the secondary market, by the ECB and the NCBs, of securities under the various Eurosystem asset purchase programmes. Although asset purchase programmes have led to a significant rise in cross-border payments by purchasing NCBs (and, by implication, to a corresponding increase in T2 balances), the effects of asset purchases on T2 balances are largely shaped by how the NCBs' counterparties to those purchases are connected to T2. Credit institutions domiciled outside the euro area tend to participate in T2 via just a handful of NCBs: the T2 claims of those NCBs will inevitably increase whenever other NCBs purchase securities from non-euro area commercial banks that have chosen to connect, through them, to T2.[9] It follows that, just as the NCBs of net exporting nations will have a higher share of the total T2 positions on the ECB for no reason other than the direction of economic flows in the euro area, so will the NCBs of euro area MSs used by non-euro area commercial banks to connect to T2 account for a larger share of the total T2 positions arising from the purchase of securities under the Eurosystem asset purchase programmes. Short of disconnecting those non-euro area commercial banks from the T2 components of certain NCBs, and of diverting traffic to the NCBs of other MSs (those of the T2 debit countries), it is difficult to see how an increase in the T2 positions of certain NCBs can be arrested. Be that as it may, the increase in the T2 claims of certain NCBs since the launch of the Eurosystem purchase programmes need not be symptomatic of increased stress, nor a sign of market fragmentation, nor is it necessarily an indicator of imbalances that could affect a country's macroeconomic fundamentals as with the two other types of transactions covered above:[10] it may instead be the product of objective circumstances, such as the higher counterparty demand for the services of certain NCBs.

DEBTOR NCB DEFAULT ON ITS T2 LIABILITIES: A LEGAL ASSESSMENT

Introductory Remarks

Let us for one moment imagine that a debtor NCB were to withdraw from T2: could this NCB default on its T2 'debt'; and what would the legal consequences of its default be?

Some introductory remarks are apposite. Although the causes and potential implications of T2 imbalances have been extensively debated, the argument has not been made that the ECB was in breach of its mandate in allowing T2 imbalances to develop. As mentioned above, T2 balances merely reflect the free cross-border movement of capital, which is neither linear nor evenly balanced. Short of suspending free trade and the T2-processed capital transfers necessary for its financing, or of a reversion to the gold standard, it is difficult to see what the alternative is to the constant shifting of T2 balances; or how a decentralised payment system, such as T2, could work any differently and still preserve the unity of the single currency area. [11] Besides, the risks that some associate with T2 balances could only materialise in one of two scenarios: a change in the composition of the euro area, resulting in a change in the composition of T2 (scenario 1) or a complete break-up of the euro area (scenario 2). Leaving aside, for a moment, scenario 2 (to which we shall revert), it is submitted that scenario 1 is questionable legally, and unlikely practically.

To start with, euro adoption is both legally binding and irreversible,[12] with the irreversibility of euro area participation rendering a scenario in which an NCB would ever find itself confronted with a choice between remaining in, or exiting from, T2 highly improbable. Secondly, as euro area participation is not a condition precedent for an NCB's T2 participation, a MS exit from the euro area would have no impact on its NCB's eligibility for T2 participation (even if on a different legal basis).[13] Legal considerations aside, it is unclear why a withdrawing MS NCB would decide to cut itself and its constituency out of T2 and, simultaneously, default on its 'debt' in a euro area exit scenario. A MS exit from the euro area would trigger a crisis, not least in the withdrawing MS itself: it is not obvious why, at a time of crisis, when commercial banks and other financial actors in the withdrawing MS would desperately need to maintain access to the payment system, their central bank would opt to withdraw from T2. Another practical argument against T2 exit is this: a MS euro area exit would be accompanied by the issuance of a new currency, in which (some of) its outstanding debt would be redenominated. Because this currency would, in all probability, be devalued vis-à-vis the euro, repayment of the withdrawing NCB's accumulated T2 liabilities (assuming any such obligation to exist in the first place) would represent a challenge infinitely greater to the servicing of its T2 positions.[14]

Without prejudice to the foregoing considerations we endeavour to assess, below, the legal parameters of the eventual exit of an NCB from T2 accompanied by a default on its T2 liabilities.

Are T2 Balances a Form of Debt on which Default is Possible?

As explained earlier, T2 balances record the pattern of cross-border, monetary policy-related or private sector bank payments, and reflect the Eurosystem's decentralised modus operandi, as well as the euro area's financial structure, whereby banks attracting more liquidity holdings are located in some jurisdictions, but not in others.[15]

The NCBs' T2 positions on the ECB do not ostensibly take the form of loans: there is no loan agreement in place, the 'debts' that the NCBs incur vis-à-vis the ECB are not backed by collateral (although the underlying transfers themselves may well be collateralised), and

[7] In the Federal Reserve Bank System, assets move from one Reserve Bank to another. However, the '[F]ederal Reserve Districts do not correspond to national, or even state borders' (see A. L. Wolman, 'Federal Reserve Interdistrict Settlement', Richmond FRB Economic Quarterly, (2013) 99 (2), pp. 117-141, at p. 128).

[8] 'If the euro area had only a single central bank, all transaction participants would hold their accounts at the central bank, where all transactions would sum to zero' (C. Jobst, R. Holzfeind and M. Handig, 'Understanding TARGET2: The Eurosystem's payment system from an economic and balance sheet perspective' (Monetary Policy & The Economy (Oesterreichische Nationalbank), 2012), pp. 81-91 (Jobst et al., 2012), at p. 84).

[9] See S. Fiedler, S. Kooths and U. Stolzenburg, 'TARGET (im-)balances at record level: Should we worry?' (*European Parliament, Committee on Economic and Monetary Affairs*, November 2017), especially p. 11; and Deutsche Bundesbank, 'Monthly Report' (March 2016).

[10] '[U]ntil the beginning of the financial crisis in 2007, hardly any imbalances appeared in the system, since the current account deficits (and surpluses) of the different euro area Member States were balanced by cross-border private sector lending. This balancing dried out during the financial crisis, with the imbalances being aggravated by capital flight from the peripheral countries' (C. Herrmann, 'Legal Aspects of the European Sovereign Debt Crisis' (2013) 41 *Hitotsubashi Journal of Law and Politics*, pp. 25-40 (Herrmann, 2013), p. 34).

[11] 'Any attempt to cap [TARGET2 balances] would risk disruption of the EMU. These balances need to be resolved, but in a fashion that safeguards the integrity of the EMU' (A. Åslund, 'Why a Breakup of the Euro Area Must Be Avoided: Lessons from Previous Breakups' (2012) Peterson Institute for International Economics, Policy Brief, pp. 12-20). It has similarly been argued that, 'a limitation of TARGET2 positions would call into question the monetary union. A regular settlement has the same effect as a limitation and would basically transform the monetary union into a system of fixed exchange rates …' (U. Bindseil, P. Cour-Thimann and P. König, 'Target2 and Cross-border Interbank Payments during the Financial Crisis' (2012) 13 *CESifo Forum*, pp. 83-92, p. 84).

[12] See P. Athanassiou, 'Withdrawal and expulsion from the EU and EMU: some reflections' (2009) ECB Legal Working Paper Series, No.10.

[13] TARGET2 Guideline, Article 4.

[14] TARGET2 balances held overnight are remunerated at the interest rate applicable to main refinancing operations (debtor NCBs are to pay while creditor NCBs are to receive interest).

[15] See the response of the President of the ECB to MEP Werner Langen, available at the ECB's website.

there are no repayment terms as one would have expected of genuine 'debts'. Besides, to the extent that T2 balances represent claims, these are not only those of the creditor NCBs, but of all NCBs jointly, as monopolistic (co-)issuers of the single currency. The fact that the Eurosystem has chosen to account for that process by way of claims and obligations is more to do with the euro area's decentralised monetary policy implementation model, where the ECB relies on the NCBs to provide liquidity to commercial banks, than with any conscious attempt to institutionalize an intra-Eurosystem lending mechanism.

It has been argued that the absence of an NCB obligation to repay principal only applies at normal times, but not to a scenario involving the exit of a debtor NCB from T2: in such a scenario a disequilibrium would arise in the ECB's balance sheet between T2 credits and debits, with the latter no longer totalling zero. For all its common sense attraction, the above argument is, in this author's view, flawed. To accept it as valid would be to turn on its head the reality of cross-border fund transfers within a monetary union, where the (accounting) claim of the NCB of a net-exporting MS against the NCB of a net-importing MS (and, ultimately, the ECB) is invariably mirrored by an asset of equivalent value to the claim, in the form of funds actually transferred, through T2, from commercial bank accounts in the net-importing MS to commercial bank accounts in the net-exporting MS. This is corroborated by paragraph 1 of Article 6 of the T2 Guideline (entitled 'Intra-Eurosystem settlement'): it is implicit in this provision that, for intra-Eurosystem transactions, settlement takes place at the level of their T2 participants, not at that of the NCB through which they participate in T2.[16] The fact that no direct asset transfers occur between the two NCBs changes nothing in terms of the legal and economic reality of cross-border T2 transactions: value does, actually, move from economic actors in the net-importing MSs (those running deficits) to economic actors in the net-exporting MSs (those running surpluses), hence the decrease in the liabilities of commercial banks in the former, and the corresponding increase in the liabilities of commercial banks in the latter. To accept that T2 balances represent 'debts' is to posit, rather implausibly, that the exports to country A (where a debtor T2 NCB operates) of a company based in country B (where a creditor NCB operates) are financed by the exporting MS NCB, rather than by the private economic agents involved in them.

To conclude, it is far from clear that negative T2 balances represent debts on which default is legally possible. Arguably, the only debts there can be vis-à-vis a central bank are those arising in the context of its lending operations. Unlike T2 operations, which are not collateralised as they are not intended as monetary policy operations, both refinancing and intraday credit-providing operations are fully collateralised, precisely in order to protect the lending NCBs from the risk of counterparty default. On balance, it is difficult to see what additional risks T2 operations can give rise to for the creditor NCBs and, ultimately, for the ECB, beyond the risks that the ECB and the NCBs are exposed to through their monetary policy operations.[17]

Can a Creditor NCB Default on its T2 Balances?

We consider below, whether debtor NCB default is possible. In a T2 context, the very concept of an NCB 'default' is undefined. This is because, as mentioned above, the positions of the NCBs vis-à-vis the ECB are not backed by a loan agreement, nor is there any reference in the T2 Guideline to the maturity of the T2 balances or the terms of their repayment. Similarly, nowhere does the T2 legal framework define the concept of an 'NCB default' on its T2 liabilities (it is only the default of T2 participants, i.e. of NCB counterparties that the T2 legal framework regulates).

Despite the above, the prevailing wisdom is that, should a debtor NCB exit T2, following the euro area exit of its home MS, the ECB's balance sheet would automatically record any outstanding claims of the ECB against it as assets no longer balanced-out, hence as claims due for settlement. Because the departing NCB would be expected to discharge its debt in euros, rather than in its (new) national currency, and because the latter would presumably be significantly devalued vis-à-vis the euro, repayment would become difficult or, in extremis, impossible. Although the departing NCB could, in theory, print money so as to fulfil its obligations, this could bring a further devaluation of its new currency, threatening to precipitate its default. As the claims of the creditor NCBs on the ECB do not represent direct assets of those NCBs (all credits and liabilities are those of the ECB itself), in the event of an NCB's default on its T2 liabilities to the ECB, the remaining NCBs would become liable for their predetermined share of the total ECB losses, in proportion to their share of the ECB's capital key. The cost of the ECB's recapitalisation would ultimately be borne by euro area taxpayers.

The above scenario rests on three assumptions, which, however plausible, are not universally accepted as valid: firstly, that there is a debt on which default is possible; secondly, that this debt is precisely quantifiable; and thirdly that, in the event of ECB losses, the NCBs ought to recapitalize the ECB. On the first of these assumptions, we refer the reader to our discussion in the foregoing pararaph. On the second assumption, it is an open question whether calculating the exact amount of the ECB's claim against a defaulting T2 debtor NCB would be a straightforward exercise (it is a hallmark of anything that purports to qualify as a debt that it should be amenable to precise quantification, in the absence of which its very characterisation as 'debt' is debatable). The third assumption (that central banks cannot operate on a negative balance sheet) is open to debate, but it would go beyond the scope of this paper to delve into that point here. Although the ECB has touched on the general issue of the impact of negative equity on the monetary policy effectiveness of the ESCB NCBs in some of its Opinions[18] and Convergence Reports,[19] the analysis to date mostly covers non-euro area NCBs, and only approaches the issue from the perspective of the principle of central bank (mainly financial) independence.[20] Suffice it to say that the existence of a requirement to recapitalise the ECB in the event of a T2 debtor NCB's default cannot be taken for granted, and the validity of the concerns expressed with T2 balances largely stands or falls on the existence of precisely such a requirement.

DEMISE OF T2: SOME THOUGHTS

If the scenario of a change in the composition of the euro area is difficult to countenance, this is *a fortiori* true of its dissolution.[21] Whilst speculative, what follows is useful, mostly as a thought exercise.

The prevailing wisdom is that, in the event of a euro area break up, a consolidated balance sheet for the ECB would have to be drawn up, and outstanding claims and liabilities would have to be settled before any remaining capital shares and profits are distributed among the (former) T2-participating NCBs.[22] Two pertinent questions arise: firstly, whether outstanding T2 positions can be honoured after the T2 apex entity has disappeared, and secondly, which law would apply to those positions. At present, Article 25 of the T2 Guideline governs the process of dispute resolution, and determines the law applicable to it. However, in a T2 demise scenario, it is unclear which court would be competent to adjudicate over an unresolved dispute, or which law that court would apply. In such a scenario, the argument runs, creditor NCBs would risk finding themselves with a claim against a system that no longer exists.

The above scenario is only valid to the extent that T2 positions represent debts on which default is legally possible. For the reasons explained earlier in this paper, it is unclear whether negative T2 balances legally represent debts to which the concept of default can meaningfully apply. Moreover, as discussed earlier in this paper, T2 liabilities do not amount to a source of risk for the NCBs that would be *additional* to the risk they assume when conducting regular monetary policy operations or providing intraday credit, invariably against collateral. That collateral may depreciate is true. However, this can, at best, provide the basis for a criticism of the Eurosystem collateral or risk management frameworks, not T2. One respect in which a euro area break up scenario would differ from that of change in the composition of T2 exit is that loss sharing would only apply in the latter scenario. However, on the understanding that there may be no debt proper on which default would be possible, this element appears to be of limited practical relevance.

CONCLUDING REMARKS

T2 balances are the product of the decentralised nature of the euro area, and of its large value payment system, which is structured as a multiplicity of systems. Despite the fact that no assets move from a debtor to a creditor NCB to 'settle' T2 positions, it is unclear whether the latter can be treated as 'debts'. As reflected in the decrease in the liabilities of commercial banks in the T2 debtor NCB countries and in the corresponding increase in the liabilities of commercial banks in the T2 creditor NCB countries, the (accounting) claim of creditor NCBs is invariably matched by the transfer of an asset of equivalent value to that claim (the funds actually transferred, through T2, from commercial bank accounts in one MS to commercial bank accounts in another). No less importantly, the proposition that T2 liabilities represent a source of risk for the NCBs that is additional to the risk they assume when conducting regular monetary policy operations or when extending intraday credit, is unsupported. Outside a euro area dissolution scenario, the risks that the NCBs are exposed to when transferring, through T2, liquidity created and provided to the private sector are kept in check by a dual control mechanism: firstly, the statutory requirement for borrowers to post collateral to their NCB before they can access central bank liquidity and, secondly, the loss-sharing regime. Even if only the former were to remain relevant in a euro area dissolution scenario, it is speculative to posit that it would under no circumstances suffice to immunize creditor NCBs from the risk of losses.

Why, then, have T2 balances been at the spotlight? What is implicit in the works of T2's most prominent critics is their concern with what they perceive as a reduction in the Eurosystem's collateral requirements for credit operations, the attendant expansion of refinancing credit (effectively, money creation), as well as the NCB-financed capital flight and persistent, structural current account deficits that T2 is deemed to facilitate. It follows that, in truth, the concerns hitherto expressed by the critics of T2 are triggered, on the one hand, by the Eurosystem collateral framework, which, in their view, facilitates unbridled commercial bank borrowing from the NCBs and, on the other hand, by the mounting, T2-recorded trade imbalances, which may, at some future point in time, necessitate wealth transfers from some MSs to others.

16 TARGET2 Guideline, Article 6(1).

17 See also Jobst et al., p. 89.

18 See, for instance, CON/2017/17, para. 3.3.5, and CON/2016/55, para. 2.5

19 See, for instance, ECB, 'Convergence Report' (June 2016), p. 24.

20 An NCB's recapitalisation could also raise issues from the perspective of the monetary financing prohibition, not addressed in the ECB Convergence Reports.

21 'The Bundesbank's Target2 claims do not constitute a risk in themselves because I believe the idea that monetary union may fall apart is quite absurd …' (J. Weidmann, Deutsche Bundesbank President, Open Letter, published in the Frankfurter Allgemeine Zeitung and Het Financieele Dagblad, 13 March 2012).

22 See H-W Sinn, 'Target losses in case of a euro breakup' (*CESifo Group, 2012).*

Concerns with a constant widening of trade deficits, capital flight from the euro area periphery, and the expansion of the monetary base are not, *per se*, unwarranted. However, neither trade imbalances, which many are bound to perceive negatively, nor money creation are attributable to T2, whose exclusive task is to facilitate fund transfers, *after* the funds in question have come into existence through the regular money creation channel. Targeted, long-term solutions, ranging from the more modest to the more ambitious, would need to be explored if rising trade imbalances are to be addressed effectively and systematically. Although this author is unqualified to assess the need for adjustments to the rules-based Eurosystem collateral framework, what is clear to him is that its contours are within the remit of the Governing Council, which is alone competent to determine and implement the collateral policy that best suits market needs and liquidity conditions in the euro area. Until such time as the Governing Council has decided that market developments render policy adjustments necessary, it seems unreasonable to blame trade imbalances on T2, when all that T2 does is to record, rather than to create, those imbalances. Similarly, to present T2 as an autonomous channel through which to expand the monetary base *ad infinitum* is to disregard the fact that what sets limits to the creation of money is the availability of adequate collateral, and to forget that, whilst the role of T2 is to facilitate the flow of liquidity, its infrastructure only comes into play *after* liquidity has been created through the regular monetary policy process.

The temptation to blame those bearing bad news is understandable. However, in this, as in all other contexts, this must be resisted vigorously, if the true causes of outcomes perceived negatively are to be identified and addressed, with the benefit of the intellectual probity that problem-solving necessitates.

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Resource-related Income Shocks and Conflict

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INTRODUCTION

Afghanistan is among the most conflict-ridden countries in the world. Since 2002, over 100,000 people have died because of the conflict, including civilians, pro-government forces as well as insurgents.[1] Afghanistan is also a prototypical example of a weak state, which cannot impose its monopoly of violence. Furthermore, the country is characterised by a weak labour market with insufficient formal employment opportunities, resulting in widespread poverty. One of the few booming sectors in such an environment is the production of an illegal product. In Afghanistan, estimates suggest that up to 1/7th of the workforce depends on the production of opium. Opium is processed into heroin and trafficked to end customers mostly in European and US markets. In terms of weight in the economy, this means that opium production is more important for Afghanistan than the automobile sector for Germany (Mansfield and Fishstein 2016).

The aim of our paper, Gehring, Langlotz and Kienberger (2018) is, firstly, to better understand the root causes of the Afghan conflict and, secondly, to understand more about resource-related income shocks in general. The so-called resource curse, i.e. the empirical observation that many countries with large resource endowments have developed poorly, can be partly explained by the higher degree of conflict that is related to resources or resource abundance. Many studies in economics and political science have emphasized the relation between conflict and the discovery of resources and price changes that affect the profitability of resource (Bazzi and Blattman 2014, Brückner and Ciccone 2010, Berman and Couttenier 2015, Miguel et al. 2004, Morelli and Rohner 2015, Berman et al. 2017). So far this line of research has not arrived at a consensus yet. This can partially be explained by the fact that older studies mostly used aggregate data at the national level and could not derive causal estimates. Studies at a more micro-level, however, also yield highly heterogeneous results, depending on the type of resources and on the country.

The mechanisms and channels behind a potential resource-conflict-curse are still poorly understood. A first systematic distinction was made by Dube and Vargas (2013), who found that in Colombia higher prices for particularly labour-intensive resources reduced conflict, whereas higher prices for more capital-intensive resources increased conflict. These findings are relevant for Afghanistan as well, as the main alternative crop to opium is wheat, which requires much less labour (360 vs. 64 person-days/hectare). Accordingly, as the price of wheat relative to opium increases, producers switch to wheat production, which results in less demand for labour. Consequently, unemployment increases and household income most likely decreases.

In Afghanistan, joining pro-government forces, including the Western coalition, or a rebel group such as the Taliban represent some of the few alternatives to wheat or opium production. In fact, most anecdotal evidence suggests that it is even relatively more lucrative to join the Taliban than to work for the government, as the Taliban is reported to pay a wage of about 10 US dollars a day. If fewer, or less attractive, outside options exist in an area, the opportunity costs of supporting the Taliban decrease and we expect conflict to become more prevalent.

A second important mechanism, which we highlight, is the role of competition between different groups that fight for control over lucrative (and contested) terrain. Districts in Afghanistan can broadly be classified as having either a low or a high suitability for producing opium. Highly suitable districts are more profitable, the more so the higher the prices that can be achieved on the world market. A prominent theory of conflict is the so-called contest or rapacity effect, postulating that groups fight for profitable resources and that more resources or higher prices intensify the contest. We argue and test the hypothesis that the importance of this channel depends on the degree of group competition in a district (or country). For example, if an area is controlled by one strong group (or cartel), there is less competition and, therefore, this should play less of a role.

Our results show that, in Afghanistan, conflict actually decreases when opium is more profitable and opium revenues are higher. This effect is stronger in areas that are more suitable for production. At first sight, this is surprising and seems at odds with prior results (Angrist & Kugler 2008; Mejia & Restrepo 2015) on cocaine-related price shocks that fuel conflict in Colombia. For this reason, we collect data at the district and household level to examine the underlying channels of this relationship. We first show that higher opium profitability strongly benefits households' living conditions measured by a variety of indicators. Secondly, we use various specifications and verify that, on average, there is little competition between groups regarding profitable districts in Afghanistan. This contrasts with the Colombian context, in which intensive fighting between cartels and groups is much more common.

The next section provides background information on Afghanistan, Section 3 broadly describes the data and the identification strategy of our analysis, Section 4 discusses the main results as well as the channels, and Section 5 offers some conclusions.

[1] Based on the Uppsala Conflict Data Program (UCDP) data set.

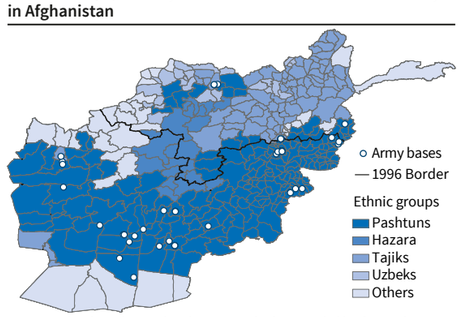
BACKGROUND TO THE CONFLICT

After 2001, about 94% of the conflicts in Afghanistan were fights between the Afghan government and the Taliban (so-called state-based violence, based on the UCDP conflict data set). Less than 4% of all cases are classified as one-sided violence with the Taliban as the perpetrator and civilians as the victims. In the first years of the military intervention, the Western coalition and the official Afghan government forces were largely successful in fighting against the Taliban and reducing their influence. This was partly achieved by financing Afghan warlords and local militia groups, who then joined the fight against the Taliban. Since around 2006, the Taliban have become stronger and have expanded their influence again. Some observers and reports suggest that revenues from taxing opium farmers contribute to the financing of the Taliban activities.

Afghanistan is a very diverse country in terms of ethnicity. While the Taliban is originally a Pashtun group, today they also include members from other ethnic groups. However, Pashtuns are probably still the most represented ethnicity within the Taliban and the presence of Pashtuns in a district makes it easier to re-establish their presence. There are, of course, other important ethnic groups. The Northern areas, for instance, comprise Turkmen and Tajik groups that formed the so-called Northern alliance, occupying territory that was not controlled by the Taliban even before 2001. We will use data on Pashtun homelands, as well as on the territory controlled by the Northern alliance, to show whether the effect of opium profitability differs between districts that are more or less likely to be controlled by the Taliban. Furthermore, we will compare more or less ethnically fractionalized districts to see whether opium leads to more conflicts in districts where different ethnic groups could compete for valuable rents associated with the production of opium. Figure 1 illustrates the 398 Afghan districts and the corresponding distribution of the major ethnic groups, major foreign military bases and the approximate reach of Taliban influence prior to the foreign intervention. The black border (1996 Border) splits the country into the region in the north, which was under control of the Northern alliance, and the southern region, which was under Taliban control in 1996. This information is based on Dorronsoro (2005).

Figure 1

Ethnic Groups, Military Bases and Former Taliban Territory in Afghanistan



Note: 1996 border indicates that the area north of it was ruled by the Northern alliance prior to 2001 and the area south of the border was under Taliban control.
Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

DATA AND IDENTIFICATION

Our analysis is at the district-year level (ADM2). There are 398 districts, which belong to 34 provinces (ADM1). We use data from the UCDP Georeferenced Event Dataset (GED) as the primary source to measure conflict. This dataset includes geocoded information based on media reports on the "best estimate of total fatalities resulting from an event" (Sundberg and Melander 2013; Croicu and Sundberg 2015). To proxy for the incidence and intensity of conflict we use (i) the log number of battle-related deaths (BRD), and (ii) different binary variables that take the value one if a certain threshold in the number of casualties is crossed (5, 25, 50, and 100 BRDs).

We then combine those data with information on how suitable different districts are for growing opium. This index combines data on land cover, water availability, climatic suitability, and suitability of soils, and was gathered using satellite imagery and other sources (Kienberger et al. 2016). To measure the suitability for wheat, which is the main alternative crop available for farmers throughout Afghanistan, we use a comparable index provided by the Food and Agriculture Organization of the United Nations (FAO).

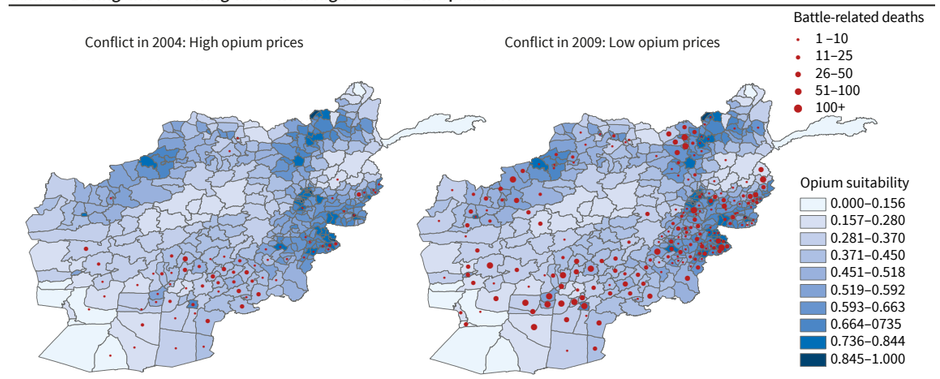
In general, the gross prices for opium are higher than for wheat, but the former also requires more labour and fertilizer. Consequently, which of the two crops is more profitable depends on the relative suitability of a district and on the prices of the two goods in a given year. On the one hand, as wheat becomes more attractive relative to opium, marginal producers that are able to produce both crops, switch to wheat production. As this reduces the demand for labour, the production switch may be accompanied by a reduction in income for many households and a higher likelihood of conflict due to reduced opportunity costs. On the other hand, if violent competition between groups over profitable districts occurs, we would expect higher levels of conflict in those districts in years with higher opium prices.

Figure 2 provides a first suggestion that the former effect seems to dominate. The figures compare the intensity of conflicts in 2004 (left) and in 2009 (right). It is worth noting that world market prices for heroin were high in 2003 and 2004, and much lower in 2008 and 2009.[2] It becomes immediately apparent that, overall, there is much more conflict in the year associated with lower prices, and that these conflicts are also more intense. Exploiting only this difference between

[2] The prices are sourced from the European Monitoring Center for Drugs and Drug Addiction (EMCDDA).

Figure 2

Conflict During and Following Years with High versus Low Opium Prices



Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

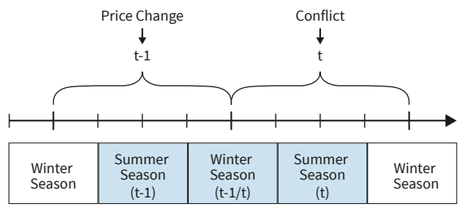
years is, of course, problematic in terms of identifying a causal relationship. Instead, we exploit the fact that changes in prices affect districts with a high suitability more than those with a low suitability. This is evident from the fact that the increases in conflict are higher in the areas of the North-West, North-East and East, where opium suitability is also higher.

Of course, this remains a visual correlation and not a systematic analysis. To approach the question more systematically, we have to consider the right timing between price changes and potential changes in conflict in a first step, as illustrated in Figure 3.

There are two main growing seasons for opium in Afghanistan: the winter season starting in fall and the summer season starting around March (Mansfield 2016). Market price changes can plausibly influence opium cultivation and revenues in the same and the following year. Prices clearly matter as, for instance, Caulkins et al. (2010, p.9) writes that: "the largest driver of changes in hectares under poppy cultivation is not eradication or enforcement risk, but rather last year's opium prices." Conceptually, analysing the effect of prices and revenues on conflict in the same given year gives rise to concerns about reverse causality, which is why our main specification considers the effect of price changes in a given year on revenues and conflict in the following year. Our results remain, however, very similar if we consider the plausible specification with contemporaneous values.

Figure 3

Price Changes in Year t Affect Production and Revenues in t-1/t and Conflict in Year t



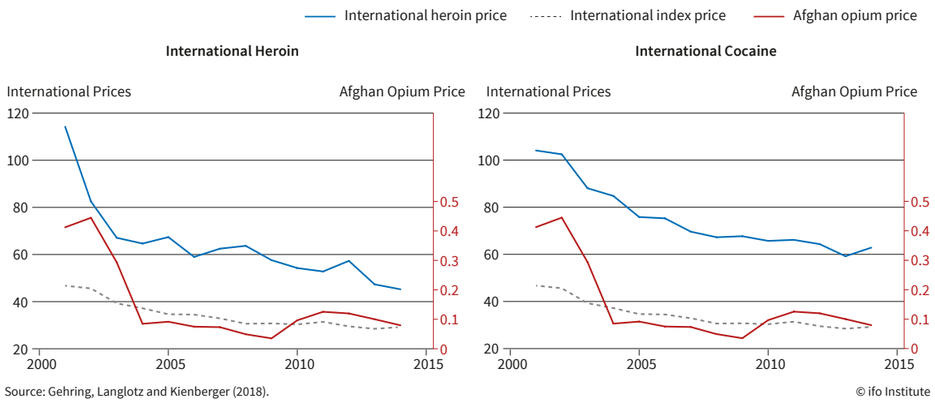
Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

Our main variable of interest, opium profitability, is computed by combining information about the suitability of the district with the drug prices of the previous year. Figure 4 shows the evolution of prices over our sample period between 2002 and 2014. Two things are important to note: firstly, the international heroin price actually affects the local price in Afghanistan that the farmers receive. In our paper, we also show that international price changes directly affect cultivation and revenues at the district level, and have a stronger effect on districts with a higher suitability. Secondly, we also plot the prices for cocaine and an index of amphetamines, cocaine and ecstasy prices. What we can see is that all prices follow a similar trend, which suggests that prices are driven by changes in common demand factors to a larger extent than by supply-side shocks for individual drugs. This is reassuring because Afghanistan, which as the largest producer of opium is estimated to contribute more than 70% to world production, can influence the world market price in a way that could bias our estimations.

Although changes in overall supply would be unproblematic in our econometric model, there could be problematic changes related to unobserved variables that vary at the district-year level. To rule out that this affects our estimations, we pursue different strategies. For the sake of brevity, we mention only two such strategies here. Firstly, as a robustness test, we demean prices to rule out that the downward trend causes a spurious correlation. Secondly, we exploit the fact that drugs can be grouped in two major categories: "uppers" and "downers". Upper drugs such as cocaine act as stimulants, while downer drugs such as heroin act as depressants. A high share of users combine both types of drugs, making the upper drugs a complement to heroin. One infamous example is so-called speedballing, a dangerous but common practice of combin-

Figure 4

Variation in International and Local Prices over Time



Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

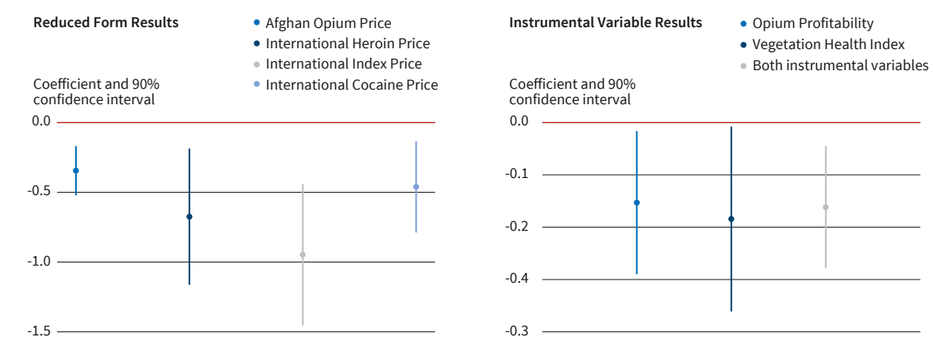
ing cocaine and heroin use, which, for instance, turned out to be deadly for actor Philip Seymour Hoffman. The complementing use of the two drugs translates into a negative cross-price elasticity between the two types of drugs (in other words, the increase in the price of one decreases the consumption of the other). This allows us to exploit the fact that any omitted variable bias in our estimates would point in opposite directions for the two drugs. All details and proofs are provided in the paper and appendix but, in a nutshell, this means that if the coefficient using heroin prices is upward biased, the coefficient using the complement is downward biased.

RESULTS

Our regression results support the initial visual observation as illustrated in Figure 2. We find that a higher profitability of opium causes a decrease in conflict incidence and intensities. Figure 5 plots the main coefficients from our paper. The graph on the left shows the results of the reduced form where we regress the logarithm of battle-related deaths on opium profitability, measured by four different prices. The graph on the right plots the estimates from the instrumental variable regressions using two different IVs for opium revenues. Firstly, we use opium profitability to instrument opium revenues, secondly the Vegetation Health Index, which is a proxy for droughts, and third both instruments at the same time. When interpreting the results of the graph on the left, it is important to note that they depend on the suitability of a district for opium production. A 10% increase in the international heroin price translates into 7% less battle-related deaths in perfectly suitable districts (and a smaller, but still sizeable reduction in less suitable districts). To account for potential concerns about whether international price changes actually affect people in Afghanistan and potential concerns about biased estimates, we show that the results hold when using local prices and when using the prices of cocaine or an index of complement drugs (the average of amphetamines, cocaine, and ecstasy). All coefficients are negative, which would not

Figure 5

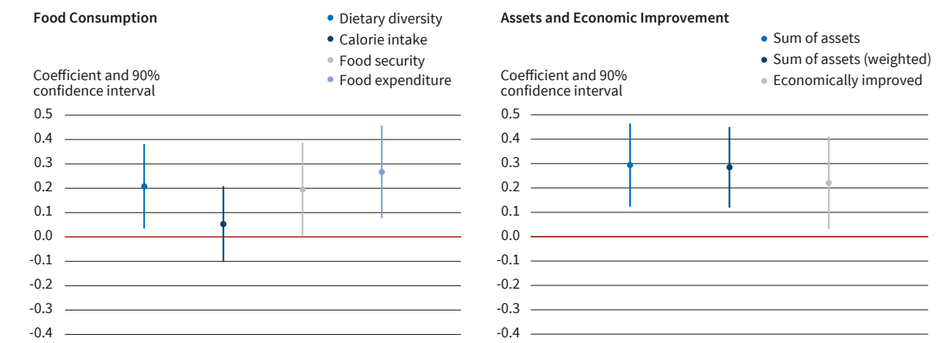
Effect of Opium Profitability and Revenues in Year t-1 on (log) of Battle-Related Deaths



Note: Left graph shows reduced form estimates of opium profitability measured by four different prices. Right graph plots instrumental variable (IV) estimates when using the international heroin price to construct opium profitability. The graph presents IV results for two different IVs, opium profitability and the Vegetation Health Index (VHI).
Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

Figure 6

Effect of Opium Profitability in Year t-1 on Standard of Living Indicators in Year t



Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

be the case if the true effect were not negative too. The paper also shows a wide range of further robustness tests, for instance, that the result is not driven by any particular province nor by border districts.

As a second step, we now consider estimations of opium cultivation and revenues in a particular district and year in the right-hand side graph in Figure 5. Of course, those numbers do not only contain a certain measurement error, but using them directly would also yield a biased estimate. Therefore, we use different instrumental variables to induce exogenous variation in the measure. Besides using the international price changes combined with the suitability, we also exploit exogenous weather shocks that affect production and changes in demand induced by the prescription of legal opioids in the US in a robustness test too. All instruments yield comparable local average treatment effects, which are all negative and comparable in size. The results based on instrumental variables are useful to better assess the size of the conflict-reducing effect. The three estimates suggest that, on average, a 10% increase in opium revenues leads to a decrease of around 2% in the number of battle-related deaths.

Relating these results to the literature on conflict, the Afghan experience suggests that an opportunity cost channel dominates both potential contest effects or the use of opium taxation by the insurgents to finance attacks. One central question is whether opportunity costs only matter at higher levels, for instance for large landlords or district Taliban leaders, or whether households on average actually benefit from higher opium profits.

To shed light on this, we use the Afghan National Risk and Vulnerability Assessment (NRVA) survey waves conducted in 2005, 2007/08 and 2011/12. These include between 21,000 and 31,000 households per wave, covering 341 to 388 of the 398 districts in Afghanistan. We harmonize the data from the three different waves to construct indicators based on food consumption and expenditures, as well as household assets and a self-reported measure on the household's economic situation.

Figure 6 clearly shows that households on average also benefit from higher opium profits. We see both a more diverse consumption of food, higher food security as well as overall higher expenditure on food. People in more suitable areas are also able to acquire more assets and feel that their economic situation has generally improved when heroin prices have been higher.

MECHANISMS AND CHANNELS

Our second main hypothesis is that the degree of violent competition between groups moderates the effect of changes in resource prices on conflict. We propose that the absence of such group competition in large areas of Afghanistan can help to explain the contrasting findings to those observed in Colombia. In that case, higher coca prices seem to be related to higher conflict. To test this hypothesis, we geo-reference further micro-level data and use them in two ways.

Firstly, if competition between producers (between cartels or rival groups) were to exist, we would expect that in districts that specialize not only in raw production, but also in intermediate value-chain processes (such as processing, trading or trafficking), opium rents would be higher leading to more fighting. In line with the contest theory, the conflict-decreasing effect of positive income shocks should thus be relatively smaller in these districts. By contrast, if there were no or little violent group competition, higher profits would increase the opportunity cost of fighting even more in those districts that can extract a larger share of the value-added. To be able to test this formally, we require proxies for the potential share of value-added per district.

To this end, we geo-reference data on whether a district contains a heroin or morphine lab, an opium market (major or sub-market) or whether it is crossed by potential drug trafficking routes. The data is from the United Nations Office for Drugs and Crime (UNODC). Profit margins are higher further up the production chain, markets create additional jobs and revenue, and

trafficking routes make it possible to raise income through some form of taxation or road charges. Regressions using all these different measures show that the conflict-reducing effect is even stronger in districts that capture a higher share of value-added. This is the first evidence that there is indeed on average little violent competition between groups in Afghanistan.

Secondly, we distinguish between districts where the Taliban are more likely to enjoy a monopoly of violence, those where the government is strong, and those where the Taliban and the government are more likely to fight for control. Given that the Taliban have an interest in an undisturbed opium production process, we expect a stronger conflict-reducing effect in suitable areas that are under the control of the Taliban. In areas where the government has a sufficiently strong presence, it is more likely to engage in drug eradication measures. This, in turn, may make it more likely that farmers will provide support to the Taliban in exchange for the protection of their fields. In contested areas, we expect a smaller or even a conflict-increasing effect. Our results show an even larger reduction in conflict in areas that are more likely to be controlled by the Taliban. This supports qualitative evidence that the group has long given up its negative stance towards the crop and profits from taxing opium revenues. It suggests that the role of the group is that of a stationary rather than a roving bandit.

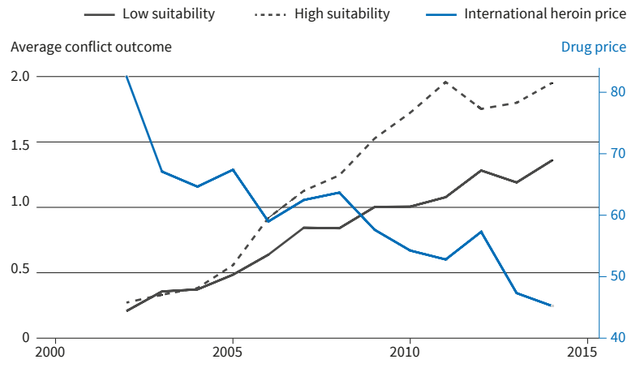
The evidence regarding government presence is mixed. Generally, the distance to Kabul, or to the five other largest cities, as a proxy for the strength and influence of the government, seems to have no influence. The only area within which we find evidence that the government actively engages in measures against drug production is an area of about 75km, or about two hours driving distance around Kabul. Within that area, higher drug prices and opium profitability are not associated with significantly less, but with somehow higher conflict intensity and incidence.

In our final test that competition between groups about suitable districts is not a crucial factor in the Afghan conflict after 2001, we consider the role of ethnic groups. Using data from the Geo-referencing of Ethnic Groups (GREG) dataset (Weidmann et al. 2010), which relies on the Soviet "Atlas Narodov Mira" from 1964, we compute the number of ethnic groups and an alternative measure indicating whether a district features more than one ethnic group. In case of violent group competition, we would expect no or a smaller conflict-reducing effect in districts with more than one group. However, there is again no evidence and no significant differences according to the number of ethnic groups.

Accordingly, we conclude that higher profits from opium cause fewer instances of and less intensive conflict in Afghan districts. The two main reasons for this are: firstly, there is little between-group competition about valuable districts and; secondly, opium requires more labour than the main alternative crop wheat, and through that channel households benefit too. We also show that the reliance of households on revenues from the opium sector seems to increase after about 2005/2006 (see Figure 7). Before that time, the foreign coalition funded local warlords and militia groups to help in the fight against the Taliban. In an attempt to democratize Afghanistan and reduce the influence of those groups and their leaders, funding was cut drastically and hundreds of thousands of men lost their jobs and sources of income after around 2005 (Giustozzi 2009). Due to the complexity of the conflict, it is not possible to explain the re-emergence of the Taliban through this policy change, but it seems at least to have backfired by increasing the reliance of Afghans on opium revenues.

Figure 7

Variation of Conflict Across High and Low Suitability Districts over Time



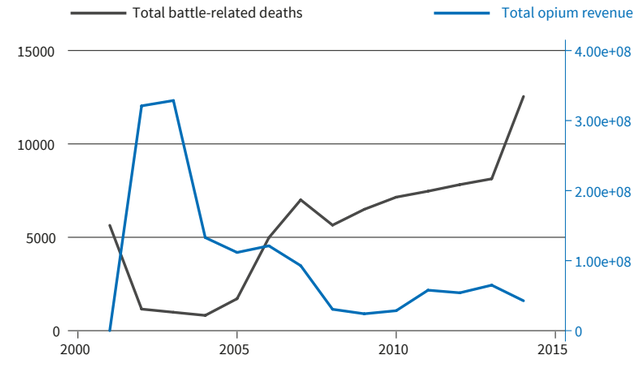
Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

AGGREGATION AND SPILL-OVERS

One apparent concern about our results is that we consider opium revenues and conflict in the same district. Based on the observation that the Taliban are active in taxing opium production and trafficking, it is also plausible that the money they raise could be pooled at the central level. The Taliban have a so-called central financing committee, but estimates of the share of revenues that is actually pooled and the share that local leaders keep within their districts differ drastically. Instead of conducting complex spatial econometric computations that acquire many assumptions, we take two far simpler approaches, which demonstrate that there do not seem to be strong spillovers of conflict. Firstly, we aggregate all our data at the provincial level, and show that there is also a negative relationship at this level. Secondly, Figure 8 shows the trends in opium revenues and in conflict, aggregated at the national level over our period of observation. It is clearly visible that also at the national level higher revenues are associated with less conflict, and lower revenues with higher conflict.

Figure 8

Variation in Total Opium Revenue and Total Battle-Related Deaths



Source: Gehring, Langlotz and Kienberger (2018). © ifo Institute

CONCLUSION

Our paper, Gehring, Langlotz and Kienberger (2018), provides important new insights into the role of opium for the conflict in Afghanistan, but also into the general relationship between resource-related income shocks and conflict. We demonstrate that, in Afghanistan, higher opium profits lead to significantly less conflict in a given district. In particular, 10% higher revenues are associated with a decrease in battle-related deaths of about 2%. This conflict-reducing effect is at least partly explained by the higher labour intensity of opium compared to alternative crops, and the lack of viable alternatives. This is due to a generally weak job market, but was probably amplified by the cuts to the funding of militia groups by the foreign military coalition. Using household-level survey data, we are able to show that higher revenues actually reach households on average by reducing food insecurity and improving their economic situation. This is in line with increased opportunity costs of fighting, resulting in less conflict.

We further provide evidence that differences in intergroup competition about lucrative territories determine the size and direction of the effect. Moreover, if the government is able to enforce laws regarding opium, higher prices are less likely to reduce conflict. Accounting for competition and local monopolies of violence is an important factor that needs to be considered when studying the impact of resource-related price changes. Further research is required to better understand this relationship in other contexts. Nevertheless, there are many countries around the world that share at least some important features with Afghanistan, such as weak central governments, high ethnic fractionalization, weak labour markets, and high unemployment. Accordingly, we should try to transfer insights from the Afghan case to other contexts where they can be useful as well. Heroin consumption is obviously not without its problems. However, without providing viable alternatives to farmers, the eradication of opium in producing countries leads to unintended consequences.

REFERENCES

Angrist, J. D., and A. D. Kugler (2008), "Rural Windfall or a New Resource Curse? Coca, Income, a nd Civil Conflict in Colombia", *The Review of Economics and Statistics* 90(2), 191–215.

Bazzi, S., and C. Blattman (2014), "Economic Shocks and Conflict: Evidence from Commodity Prices", *American Economic Journal: Macroeconomics* 6(4), 1–38.

Berman, N., and M. Couttenier (2015), "External Shocks, Internal Shots: The Geography of Civil Conflicts", *Review of Economics and Statistics* 97(4), 758–776.

Berman, N., M. Couttenier, D. Rohner, and M. Thoenig (2017), "This Mine is Mine! How Minerals Fuel Conflicts in Africa", *American Economic Review* 107(6), 1564–1610.

Caulkins, J. P., M. Kleiman, and J. D. Kulick (2010) *Drug Production and Trafficking, Counterdrug Policies, and Security and Governance in Afghanistan*, New York University Center on International Cooperation.

Croicu, M., and R. Sundberg (2015), *UCDP GED Codebook version 4.0*, Department of Peace and Conflict Research, Uppsala University.

Dorronsoro, Gilles (2005), *Revolution Unending: Afghanistan, 1979 to the Present*, Columbia University Press.

Dube, O., and J.F. Vargas (2013), "Commodity Price Shocks and Civil Conflict: Evidence from Colombia", *Review of Economic Studies* 80(4), 1384–1421.

Gehring, K., S. Langlotz, and S. Kienberger (2018), "Stimulant or depressant? Resource-related income shocks and conflict", *University of Heidelberg Working Paper no. 652*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3224444

Giustozzi, A. (2009), *Empires of Mud: The Neo-Taliban Insurgency in Afghanistan 2002-2007*, Columbia University Press.

Kienberger, S., RE. Spiekermann, D. Tiede, I. Zeiler, and C. Bussink (2016), "Spatial Risk Assessment of Opium Poppy Cultivation in Afghanistan: Integrating Environmental and Socio-Economic Drivers", *International Journal of Digital Earth* 1–18.

Mansfield, D., and P. Fishstein (2016) *Time to Move on: Developing an Informed Development Response to Opium Poppy Cultivation in Afghanistan*, Tech. rept. Afghanistan Research and Evaluation Unit.

Mejia, D., and P. Restrepo (2015), "Bushes and Bullets: Illegal Cocaine Markets and Violence in Colombia", mimeo

Miguel, E., S. Satyanath, and E. Sergenti (2004), "Economic Shocks and Civil Conflict: An Instrumental Variables Approach", *Journal of political Economy* 112(4), 725–753.

Morelli, M., and D. Rohner (2015), "Resource Concentration and Civil Wars", *Journal of Development Economic*s 117, 32–47.

Sundberg, R., and E. Melander (2013), "Introducing the UCDP Georeferenced Event Datas", *Journal of Peace Research* 50(4), 523–532.

Weidmann, N. B., J. K. Rød, L. Cederman (2010), "Representing Ethnic Groups in Space: A New Dataset", *Journal of Peace Research* 47(4), 491–499.

Joachim Ragnitz

European Cohesion Policies: The Need for Reform

Joachim Ragnitz
ifo Dresden.

INTRODUCTION

Policy does mainly act via public expenditure, which makes the funding of the European Union a non-trivial matter. Although the EU budget is only about 1% of European Gross National Product, by forcing member states to co-finance EU-funds, EU policies are far more important than it seems. This is especially true of the Common Agricultural Policies (CAP), but also of cohesion policies. In the Multiannual Financial Framework (MFF) for the 2014–2020 period about 370 trillion euros (38.5% of total budget) are designed for CAP, while a further 325 trillion euros (34.0% of the total budget) are reserved for cohesion policies. The current proposition by the EU Commission for the forthcoming budgetary period (2021–2028) implies only small changes with respect to relative figures.

However, the ongoing negotiations over the forthcoming MFF should be used to fundamentally reform EU policies and their fiscal consequences. Of course, most recipients of EU funds are not really interested in a fundamental reform as this might imply lower payments; the same seems to be true of the EU Commission, as large funds also imply high political influence. But even the objective of deeper integration among EU member states does not necessarily imply higher expenditure if the structure of the budget does not support this (as it is at least doubtful with respect to CAP). With respect to increased difficulties to handle a European Union of 27 states with different interests, it seems to be more important for the EU to concentrate on expenditures that are suitable to generate a "European value added". The most interesting question, therefore, is how to define such a European value added and which funds are necessary to create it without restricting national competences in a way that is not compatible with the existing European legal framework – which still can be characterized by the fundamental principle of "subsidiarity" as defined in Article 5(3) of the Treaty on European Union (TEU).

This following paper deals with one important element of European Policies, namely cohesion policies. While the objective of "balancing" the regional standards of living in all member states and their respective regions has been constitutive for European policies almost since the beginning (although it substantially gained importance when UK and Ireland joined the EU in 1973, and again after the enlargement of the EU by Central European States in 2004), meanwhile all regions (irrespective of their relative level of wealth) are supported by European cohesion policies. Therefore, the question arises of whether cohesion policies do still follow the original concept of supporting the poorest regions (on an EU-scale) and whether a reform is necessary.

The remainder of this paper is organised as follows: the next section gives an (descriptive) overview of the actual institutional setting of EU cohesion policies, followed by an assessment in light of fundamental principles for the assignment of political responsibilities. It ends by drawing some (political) conclusions with respect to the design of future cohesion policies in the EU.

THE INSTITUTIONAL SETTING OF EUROPEAN COHESION POLICIES

Based on Article 174 of the Treaty on the Functioning of the European Union (TFEU), the European Union supports regional development policies in individual member states in order to promote the "economic, social and territorial cohesion" of the EU. Although the main objective is to reduce "disparities between the levels of development of the various regions and the backwardness of the least favored regions", cohesion funds have been increasingly used since 2007 to achieve the EU's general growth objectives (2000-2010: "Lisbon strategy for sustainable growth and employment", from 2010: "Europe 2020 strategy for smart, sustainable and inclusive growth"). As a result, EU regional funding has been made available to all regions since then, irrespective of their specific economic situation, but in varying amounts and intensities.

The EU Structural Funds (since 2014 collectively known as the Structural and Investment Funds, or ESI Funds for short) include:

- the European Regional Development Fund (ERDF)
- the European Social Fund (ESF)
- the Cohesion Fund
- the European Agricultural Fund for Rural Development (EAFRD)
- and the European Marine and Fisheries Fund (EMFF).

The ERDF's objective is "to help to redress the main regional imbalances in the Union through participation in the development and structural adjustment of regions whose development is lagging behind and in the conversion of declining industrial regions" (Art. 176 TFEU); the use of ERDF funds within the framework of the EU's growth strategy is only "supportive" (regulated in Art. 175 TFEU). The ESF, according to Art. 162 TFEU, aims "to render the employment of workers easier and to increase their geographical and occupational mobility within the Union, and to facilitate their adaptation to industrial changes and to changes in production systems, in particular through vocational training and retraining". In this respect, the ERDF serves as an instrument of a "placed-based policy" (support for disadvantaged regions), while the ESF is interpreted as an instrument of a "people-based policy" (support for disadvantaged people).

EAFRD and EMFF are part of the Common European Agricultural and Fisheries Policy under Article 42 TFEU. In this respect, they are primarily sector-specific motivated, but are also used for regional economic purposes, since they may also contribute to a sustainable development of rural areas, taking into account the objectives of the Europe 2020 Strategy. Finally, the Cohesion Fund provides a financial contribution "to projects in the fields of environment and trans-European networks in the area of transport infrastructure" (Article 177 TFEU). In contrast to the above funds, the Cohesion Fund is restricted to member states whose gross national income (GNI) per capita is less than 90% of the EU average; in this respect, it is relevant only for Greece, Portugal and Cyprus as well as the 10 Eastern European EU member states. Furthermore, the restriction to infrastructural investment is a difference to other funds, as these include direct payments to firms, albeit in the framework of national support programmes.

From a regional economic point of view, beside the Cohesion Fund the ERDF and the ESF are particularly important. Throughout the EU, the ERDF and ESF are mainly used to achieve the objective of "Investment in growth and employment", as well as for projects supporting cross-border cooperation between EU countries to a lesser extent. Although the funds provided by the EMFF and the EAFRD are subject to the basic principles of the Common European Agricultural and Fisheries Policy, they are also of regional economic importance due to their integration into the Europe 2020 strategy and concentration on rural areas, which are typically lagging behind. This is particularly true of the EAFRD, as the EAFRD can also finance rural development programmes.

The distribution of funds from the ERDF and the ESF under the "Investment for growth and employment" objective is described in detail in Article 90 and Annex VII of Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013. It first categorises the regions at NUTS level 2 according to their GDP per inhabitant in PPS (currently: average for 2007-2009) in "less developed regions" (GDP per inhabitant less than 75% of the EU average), in "transition regions" (GDP per inhabitant between 75% and 90% of the EU average) and in "more developed regions" (GDP per inhabitant higher than 90% of the EU average). While most funds are allocated to less developed regions (52.5% of the resources available for the ERDF, ESF and Cohesion Fund, 164 billion euros in 2014-2020), all other regions are supported as well: transition regions receive 10.2% of all available funds (32 billion euros in 2014-2020), and 15.7% of total funds are reserved for higher developed regions (49.1 billion euros in 2014-2020). On a per capita base, however, there is a clear preference for support for the less developed regions, as most of EU's population is living in more developed regions.

Within the group of less developed regions, funds are allocated according to the level of national per capita GDP, reflecting the relative prosperity of the member state in which the eligible region is situated (Annex VII of Regulation EU No 1303/2013). So, there is a clear preference in favour of poor regions in poor states, reflecting the "balancing objective" of regional policies. Additionally, there is a "bonus" for regions with high unemployment rates. For transition regions, funds are allocated by means of an interpolation mechanism that takes into account the region specific level of per capita GDP. Finally, within the group of more developed regions, the distribution of funds follows a complex system using different socio-economic indicators. In addition to the unemployment rate and GDP per capita, it also includes indicators that are considered relevant for the European Union's growth strategy (e.g. the employment rate, number of university graduates, number of early school leavers). So, since there is no need for regional policy action in the more developed regions in accordance with Art. 174 sentence 2 TFEU, the funds from the ERDF and the ESF under the "Investment in growth and employment" objective in these regions are used solely to support the global growth and employment objectives set by the EU in line with the logic of EU cohesion policy.

A constitutive principle of EU cohesion policies is that there is no direct support of specific projects, but only a co-financing of national (or regional) programmes. The latter, however, have to fulfill a number of criteria that are defined by the EU Commission – so it is not quite clear whether the EU co-finances national programmes; or whether national policies co-finance EU programmes. The consequence is that national authorities are forced to design their (regional) policies in a manner that is compatible to the policy objectives of the EU; otherwise financing via EU funds is not possible. To this end, a total of 11 "thematic objectives" (alternatively: priority axes) were defined by the EU Commission in advance, under which the funding strategies of the regions must be subsumed.[1] In most regions, the "operational programmes" for the ERDF concentrate on objectives like the strengthening of research, technological development and innovation, the improvement of competitiveness of SMEs and cli-

[1] Cf. Art. 9 EU-Regulation 1303/2003: In order to contribute to the Union strategy for smart, sustainable and inclusive growth, each ESI Fund shall support the following thematic objectives:

1. Strengthening research, technological development and innovation;
2. Enhancing access to, and use and quality of, ICT;
3. Enhancing the competitiveness of SMEs
4. Supporting the shift towards a low-carbon economy in all sectors;
5. Promoting climate change adaptation, risk prevention and management;
6. Preserving and protecting the environment and promoting resource efficiency;
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures;
8. Promoting sustainable and quality employment and supporting labour mobility;
9. Promoting social inclusion, combating poverty and any discrimination;
10. Investing in education, training and vocational training for skills and lifelong learning;
11. Enhancing institutional capacity of public authorities and stakeholders and efficient public administration.

mate protection; the ESF's funding focuses on the promotion of sustainable and high-quality employment and the promotion of social inclusion and the fight against poverty and investment in education, training and vocational training.

To a lesser extent (2.7% of the total ERDF, ESF and Cohesion Fund, equivalent to 8.9 billion euros in 2014-2020), cohesion policy also supports cross-border projects under the European Territorial Cooperation Objective (ETC). ETC aims to support joint actions and policy exchanges between national, regional and local actors from different member states.

EAFRD funding is used to promote the competitiveness of agriculture, increase sustainability in the management of natural resources, improve climate protection and achieve balanced spatial development in rural areas. From a regional policy point of view, the latter objective is particularly relevant, as measures for infrastructure development and the mobilization of local groups of actors can also be financed.

Currently, it is not yet clear how cohesion policy after 2020 will be organised. On the one hand side, with the UK's announced withdrawal from the EU the available budget for cohesion policy will decrease; on the other hand, many regions are concerned that regional support measures can no longer be financed without the support of the EU. This particularly applies to those regions where, due to the statistical effect of the Brexit or a relatively favourable development in the past, GDP per capita exceeds the underlying threshold values for classification as eligible regions. These regions might lose their previous funding status, leading to an increased risk that the convergence process will come to an end unless support will be continued. Actual proposals by the EU Commission provide for a reduction of around 10% in available funds compared to the previous funding period; in addition, the funds are to be concentrated on five (instead of the previous 11) thematic priorities, of which high European added value (with a view to the Europe 2020 Strategy) is expected. But, according to the EU-proposals, threshold values for the definition of transition regions shall be increased. However, a discussion of the fundamental justification of EU cohesion policy in its current form seems necessary. This is the topic of the next section.

ASSESSMENT OF EU COHESION POLICIES

In its original design, being formulated in Art. 174ff. TFEU, cohesion policy aims at reducing regional disparities with respect to income levels, productivity and employment perspectives – so it is mainly regional policy. Of course, it is dubious whether a specific regional competence of the EU is justified at all; however, as this specific EU competence had been agreed upon by political decisions, science has to accept this. However, this does not necessarily require extensive state aid programmes: Theoretically, a deeper integration of the EU member states and a convergence of poorer regions can also be achieved by international trade or by improved mobility of labour and capital, leading to the catching-up of the more backward regions. Since the general cost level in structurally weaker regions is lower than in the more developed regions, these regions are more competitive in terms of export prices and more attractive to investors; in this respect, above-average growth in gross domestic product (per capita) and, as a result, convergence with the more developed regions would occur as a result of market conditions. In fact, however, experience shows that such convergence processes either take a very long time or are completely absent due to the existence of increasing returns to scale, leading to "path dependencies". For example, it is plausible to assume that the more advanced regions can also invest more in research and development due to their initially higher productivity and thus even increase their lead in productivity, while the less developed regions necessarily have to specialize in rather simple and thus less productive productions; the result would be divergence (instead of convergence). Such divergence processes can also be exacerbated by the fact that well-qualified mobile workers migrate to the wealthier regions as a result of existing wage differentials; this brain drain subsequently further worsens the growth prospects of the backward regions. So, under the conditions given, cohesion policies (by financial support for less prosperous regions) might be justified also by theoretical reasons. The concrete design of regional policy aid at EU level can then, of course, only take place on the basis of a uniform EU-wide standard of comparison - for which the regional GDP per inhabitant in relation to the EU average is to be used in accordance with EU Regulation No. 1303/2013. The result would be that EU funds could only be made available to the poorest regions.

The fundamental conflict in regional policies lies between "balancing" and "growth" objectives – redistribution in favour of structurally weaker regions means a (relative or even absolute) disadvantage for the stronger regions and can thus impair overall economic growth (either directly via redistribution to regions with lower marginal productivity or indirectly via the disproportionately large share of financing to be charged by the stronger regions). ESI funding attempts to alleviate this conflict by allowing all types of regions to benefit from the funding, albeit to varying degrees. Thus, the actual design of cohesion policies must be regarded as a "wide" interpretation of the provisions of Art. 174ff. TFEU, obviously being the result of a political compromise. Neither the degree of allocation of funds nor the specific usage is determined by objective considerations.

Furthermore, the actual arrangement reflects the fact that cohesion policies should not only reduce regional disparities, but should also support the objectives of the Europe 2020-strategy. This might lead to difficulties, as both objectives (the reduction of disparities and the growth objectives of the Europe 2020-strategy) are not necessarily compatible with each other. Therefore one might prefer a clear assignment: it would be more beneficial to use different instruments for growth and balancing objectives than to use only one instrument (cohesion policy) for both of them. ERDF funding, for example, could be concentrated in the structurally weakest European regions (balancing objective) only, while the growth policy objectives of the Europe 2020 strategy could be pursued in separate programmes (priority: under the European Research Framework Program (with a view to strengthening innovation results) or the ERASMUS programme (with the objective to improving the human capital base within Europe)). But even in this case, the thematic objectives of the Europe 2020 Strategy (cf. fn. 1) would also need to be reconsidered. A growth policy effect is most likely in the thematic objectives 1-3, 8 and 11, while the other priority areas mentioned are more likely to pursue other targets. The objectives of the ESF and EAFRD could be maintained, but should not be confused with the Europe 2020 objectives either.

A strict assignment of programmes to objectives would not only increase the transparency of EU funding policy, but would probably also improve the efficiency of funding. It seems likely that higher growth incentives (e.g. through support for research and development in firms and/or universities) would be achieved more effectively by concentrating on the agglomeration centers, while improved balancing results would not necessarily be triggered by limitation to the thematic fields of intervention of the Europe 2020 Strategy.

A second point is that Art. 4 TFEU defines a "shared" competence for cohesion policies only – which means that the principle of subsidiarity defined in Art. 5 (3) of the Treaty on European Union (TEU) has to be observed: The EU shall "act only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the member states, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level." Therefore, the question must be raised of whether the EU should continue to intervene in areas of government action, which could in principle, and perhaps more effectively, be dealt with at the level of the member states or their subordinate federal units.

In principle, the allocation of economic policy competences should be based on the scope of their effects. This lies at the heart of the principle of subsidiarity enshrined in Article 5(3) TEU. The reason for this is usually better knowledge of local problems; from an economic point of view. However, the concept of "external effects" is more convincing: only measures whose effects are felt throughout Europe (or at least in several member states) should therefore be allocated to the supranational level. Measures with effects that remain limited at a national or regional level can, however, in cases of doubt be better implemented by the individual member states or their local authorities. In addition to the above-mentioned information argument, this is particularly supported by considerations of connexity theory, because the preferences of citizens in their dual role as taxpayers and consumers of state services are more likely to be met when local tasks are fulfilled locally (and financed locally).

Among the thematic objectives mentioned by the EU in Art. 9 of the ESI regulatory framework, external effects are most likely to be expected under objective 1 ("Strengthening research, technological development and innovation"), since innovations are likely to have spillover effects across regions. Objective 3 ("Promoting efforts to reduce CO2-emissions in all sectors of the economy") also shows EU-wide benefits, although the intervention methodology provided by the ESI funds (namely the promotion of investments relevant to climate protection) is not necessarily the best solution. EU-wide external effects are also conceivable with regard to objective 7 ("Promoting sustainable transport and removing bottlenecks in important network infrastructures"). However, most of the intervention priorities defined by the EU under Article 9 of EU Regulation 1303/2013 are not expected to have cross-regional effects, which could just as easily be achieved through action at a national level.

The above arguments apply not only to the ERDF (and thus to the core area of regional cohesion policy by the EU), but to an even greater extent to the ESF, which, as a people-based policy, has no cross-regional objectives. The same applies to EAFRD financed programs that support the supply of public services and rural development, which also have primarily locally limited effects. Moreover, spatial external effects are hardly to be expected, even in view of the low mobility of labour (otherwise unemployment would hardly occur). At the same time, Article 153 TFEU allows the Union to play a supportive and complementary role in social policy only. In this respect, the further influence of the EU on the design of social policy measures in individual member states achieved through the ESF must be critically questioned.

An additional argument in favour of centralization could be the existence of economies of scale - namely when synergy effects and thus productivity increases may be achieved through, for example, specialization advantages. In the case of EU structural fund support, however, this does not take place at all, because the support measures continue to be implemented by the member states or the authorities downstream of them on the one hand, and an additional administrative level is involved through the coordination and monitoring tasks of the EU Commission on the other. Therefore, at least in the current organizational form, there are additional costs compared to exclusively decentralized (or even fully centralized) task completion.

Thus, the relevant ESI regulatory framework seems to undermine the principle of subsidiarity by pointing out that the objective of strengthening economic, social and territorial cohesion "cannot be sufficiently achieved by the Member States (…) but can rather be

better achieved at Union level", because of the "extent of the disparities between the levels of development of the various regions and the backwardness of the least favoured regions and the limit of the financial resources of the Member States and regions" (EU-Regulation 1303/2013, number 129). Obviously, the EU's interventions are justified mainly by the insufficient financial means of the member states or their regions, but not by arguments based on allocative deficiencies. The justification given can only be convincing in this respect with regard to the promotion of structurally disadvantaged regions in economically weak member states; in the case of ESI promotion for regions in economically strong member states, however, the argument lacks credibility.

Another problem might be that the EU pursues objectives that do not necessarily correspond to the priorities of the member states or their subordinate federal levels. This would not be a problem if only EU funds were used. In reality, however, the EU funds only provide partial financing, with the remainder to be financed by the beneficiaries from their own funds. As a result, the use of EU funds at national level ties up funds that might otherwise have been better used. While there is no obligation to call on the EU's support programmes, it is difficult in the political process to reject EU funds, meaning that money is only spent because it is available. The associated restriction of own scope of action is thereby accepted and often not questioned any further.

This problem would only be ruled out in case of a complete congruence between national policy objectives and EU objectives. In such a scenario the EU would only provide funds to co-finance national programmes that otherwise would also be in effect, but the principle of subsidiarity would be strongly ignored.

Most regions nevertheless show a massive interest in an ongoing co-financing by EU funds – even those regions that must be regarded as net contributors to the EU budget (typically more developed regions as defined by the EU Commission). The EU is financed not only by customs revenues, but also by contributions from the member states to the EU budget. The latter are determined on the basis of the harmonized VAT base of each member state (currently: 0.3%, for Germany, Sweden and the Netherlands a reduced rate of 0.15% applies in the period 2014-2020) and on the basis of the gross national income of the individual countries (currently: 1.23%). In 2017, Germany's own resources paid to the EU from the federal budget amount to 24.1 billion euros (VAT own resources: 2.4 billion euros; GNI own resources: 21.7 billion euros). Thus, all European regions contribute (indirectly) to the EU budget through the taxes generated in these regions. That's one reason why even the wealthier European regions have an interest in recovering at least part of their implicit financial contributions through corresponding revenues from the EU budget in order to improve their position as a net contributor to the EU budget. However, at least due to administrative costs, it would be more efficient to reduce national contributions to the EU budget in line with backflows from the EU. If a reduction in the tasks (and thus in expenditure) assigned to the EU were also to reduce the member states' overall financial contributions, regions could possibly benefit more from this than by drawing on EU funds. However, it is not realistic to assume that this will happen; furthermore, in this case second-order changes in the distribution of tax revenues between the federal and state levels would be necessary – leaving the net effect for the different regions uncertain.

To conclude, from a purely regional economics point of view, there are strong arguments against a widening of cohesion policies by the EU. However, beside regional cohesion, EU policies also aim to deepen the European Union, particularly by supporting the "Europe 2020 strategy for employment and smart, sustainable and inclusive growth". In this respect, it is a deliberate political decision to shift competences to the EU level, which cannot be assessed solely on the basis of subsidiarity criteria. Thus, EU competences could be justified (contrary to the principle of subsidiarity and in line with the objective of deepening the EU) if the projects and programmes supported by the EU generate a (politically defined) "European value added". However, the concept of "European value added" must be carefully assessed – it is not sufficient to postulate such added value for nearly each policy objective that the EU has defined, as is usually the case. It can be assumed (although it's not quite clear) that growth policies of the EU may create such a "European value added".

However, while the existence of a" European value added" is one of the relevant selection criteria for direct project funding by the EU, in the case of funding programmes such an assessment is only carried out in advance when the EU Commission approves the programme guidelines. A "European value added" is already taken for granted when the objectives set by the EU Commission (defined by the thematic priorities defined in Regulation 1303/2013) are addressed. In the concrete selection of projects, however, there is no further examination as to whether a "European value added" can be achieved. In many specific projects funded by the ERDF, ESF and probably also the EAFRD, however, the "European value added" is not immediately apparent, since their effectiveness is usually limited to the region in question (cf. paragraph 15 et seq.). Such an effect only seems to be plausible in the case of cross-border ETC-projects, as cooperation between partners from different countries is much more difficult to achieve than between partners from one country. However, even such cooperations are often on a rather small scale, and seem to have only a limited effect with respect to the objective of deepening EU integration.

CONCLUDING REMARKS

The European Union is currently in a serious crisis of legitimacy. Even if the advantages of European integration are obvious from a theoretical (and even practical) point of view, nationalist tendencies are gaining impetus in many countries that want to prevent a further "deepening" of the EU in favour of greater national autonomy. In this situation, there is a need for a fundamental agreement on how the European integration process is to be shaped in the future. This should include an agreement on the assignment of competences between the member states (and their regions) on the one hand and to the European level on the other. Obviously, this discussion has not been conducted in sufficient depth to date.

The final expression of the future distribution of tasks is the budget of the European Union. It is not without reason that the EU Commission's draft budget for the next seven years places a particular emphasis on expenditure that promises a "European value added", especially in fields where all member states share a common interest. At the same time, however, the Commission is bound by the European Treaties, which restrict the competences of the EU. In addition, a change in priority setting with a given budget volume requires cuts in other areas, which immediately create strong resistance on the part of the previous beneficiaries. In this respect, it is not surprising that the current draft of the EU Commission on the medium-term financial framework only makes gradual changes to previous budget estimates.

Agricultural expenditure remains the most important item in the EU budget, but it only benefits a quantitatively insignificant sector. Obviously, there would be the greatest potential for cutbacks here. However, expenditure on cohesion policy already takes second place. This paper takes takes a critical look at the current shape of cohesion policy. It appears that the current regulatory system is in need of reform not only in detail, but also in its basic orientation. The blending of different objectives (growth versus balancing) and the wide interpretation of the subsidiarity principle draw the sharpest criticism; and that restricts the efficiency of cohesion policies.

However, there is little time left for a fundamental reform before the next medium-term financial framework comes into force, especially since decisions on the future shape of European integration and the associated distribution of competences between member states and EU level must be taken beforehand. This will not be affordable until 2021. However, much would be gained if this discussion were to take place in the first half of the next decade, so that an appropriate distribution of tasks and expenditure may at least be achieved in the budget period 2028-2035.

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Sustainability in the Eurozone

Recent economic and political turmoil throughout the Eurozone has given rise to uncertainty regarding its outlook and sustainability. To investigate the medium and long-term strength of the Eurozone, it is important to consider whether countries have a sustainable economy in the long-run. In this evaluation of the economic stability and status quo of various member states, six topics - growth, debt, unemployment, interest rates, competitiveness and corruption – are covered in this article. After a brief introduction to the Eurozone and the selection of sustainability measures, the indicators will be evaluated for six countries, namely France, Germany, Greece, Ireland, Italy and Spain.

PROFILE OF THE EUROZONE

The Eurozone is a group of countries using the Euro as their sole legal currency. It was created in January 1999 with 11 members initially (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain). Today there are a total of 19 members, as Cyprus, Estonia, Greece, Latvia, Lithuania, Malta, Slovakia and Slovenia have all joined since 1999.

In 1992, the member states of the European Community (EC) signed the Maastricht Treaty, thereby creating the European Union (EU). The Maastricht Treaty laid the foundations for the introduction of the euro, the creation of the Eurozone in 1999, and the formation of the European Central Bank (ECB). The ECB, based in Frankfurt, creates a uniform monetary policy that each member state must adopt with the primary objective of ensuring economic stability across the Eurozone.

The Maastricht Treaty also entails requirements for joining the Eurozone, known as 'convergence criteria'. These criteria are a set of macroeconomic indicators intended to ensure that the accession country is sufficiently prepared and the integration runs smoothly. Table 1 identifies the set of five macroeconomic indicators, outlining how they are measured, as well as their respective convergence criteria.

MEASURING SUSTAINABILITY

To measure the sustainability of selected member states, we will investigate six economic indicators and two indices. These were selected following the European Economic Sustainability Index (EESI) developed by the European Policy Center, as well as the convergence criteria listed previously. The economic indicators include:

- GDP growth rate
- GDP per capita
- Debt level (% of GDP)
- Deficit/surplus ratio (% of GDP)
- Unemployment rate
- Long-term interest rate.

The two indices include:

- Global Competitiveness Index (GCI)
- Corruption Perception Index (CPI).

GDP Growth Rate

The first indicator is the GDP growth rate capturing a state's short-term economic performance and its debt repayment capability. Figure 1 illustrates the GDP growth rate over time for France, Germany, Greece, Italy, Ireland and Spain between 2000 and 2017. The sharp fall in GDP growth rates during the financial crisis can be observed for all selected countries. Whereas the rate in Greece continued to decrease after 2009 and only started to recover after 2011, all other selected countries started to recover after 2009. The sharp and one-time increase in the GDP growth rate in Ireland in 2015 is particularly notable, as the rate reached 25.6%. However, France, Germany, Italy and Spain followed a similar pattern for most of the period under consideration. Greece and Ireland were the first to report negative growth rates (-0.3% in Greece and -3.9% in Ireland in 2008) due to the financial crisis, whereas the other countries reported negative rates in 2009 ranging from -5.5% in Greece to -2.9% in France. In contrast to Spain, Italy and Greece, France, Ireland and Germany quickly recovered and started reporting positive and increasing rates after the peak of the financial crisis. Ireland experienced a large increase in 2015, with a record growth rate of 25.6%. The growth rates of the other countries also increased, although not at such high levels. In 2017, the growth rate reached 4.9% for Ireland and Spain, followed by 2.2% in Germany and approximately 1.5% in France, Italy and Greece. Growth predictions for 2018 forecast relatively similar rates of 1.5% for Italy and 2.5% for Germany. The growth rate in France and Greece is expected to increase to approximately 2.1%. After 4.9% growth in Ireland and Spain in 2017, Spain is expected to experience a sharp decline to 2.8% and Ireland a minor decline to 4.5%. For 2019, the growth rate in all countries is expected to dip by approximately 0,4%.

Table 1

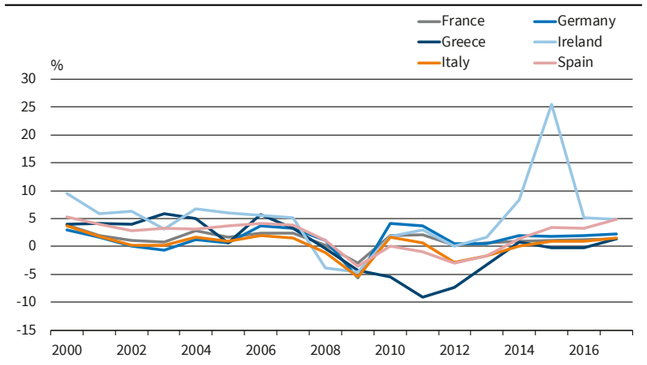
Macroeconomic Indicators and their Respective Convergence Criteria

Macroeconomic Goal	Price Stability	Sound Public Finances	Sustainable Public Finances	Durability of Convergence	Exchange Rate Stability
Measurement Indicator	Consumer Price Inflation Index	Government Deficit as a % of GDP	Government Debt as a % of GDP	Long-term Interest Rate	Deviation from Central Rate
Convergence Criteria	Not more than 1.5 %-points above the rate of the three best performing member states	Reference value: not more than 3%	Reference value: not more than 60%	Not more than 2 %-points above the rate of the three best performing members states	Participation in ERM II for at least 2 years without severe tensions

Source: European Commission (2018).

Figure 1

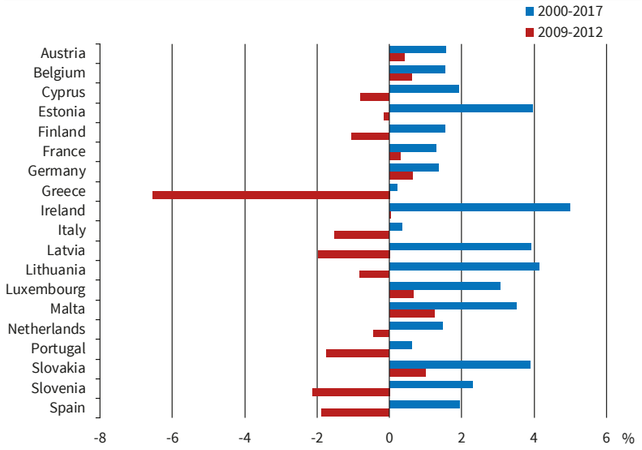
GDP Growth Rate
2000—2017



Source: World Bank DataBank World Development Indicators (2018). © ifo Institute

Figure 2

Average GDP Growth Rate
2000—2017 compared with 2009—2012



Source: World Bank DataBank World Development Indicators (2018). © ifo Institute

Comparing the average growth rate of the whole period (2000–2017, blue bars) with the average during the financial crisis (2009–2012, red bars) reveals that while all countries report positive average growth rates between 2000 and 2017, the variations in growth rate are profound (see Figure 2). While Ireland reports an average of 5%, Greece, Italy and Portugal exhibit average rates of 0.2%, 0.4% and 0.6% respectively. In Greece, this largely results from the financial crisis, during which it reported an average growth rate of -6.6%. Looking closer at the financial crisis, it had a clear negative impact on the growth rates of the Eurozone countries. Negative average rates were reported by Cyprus, Estonia, Finland, Italy Latvia, Lithuania, the Netherlands, Portugal, Slovenia, Spain and notably by Greece, where the average rate was -6.6% during the financial crisis. In contrast, Malta reported the highest growth rate of 1.3% during the years 2009–2012.

GDP per Capita

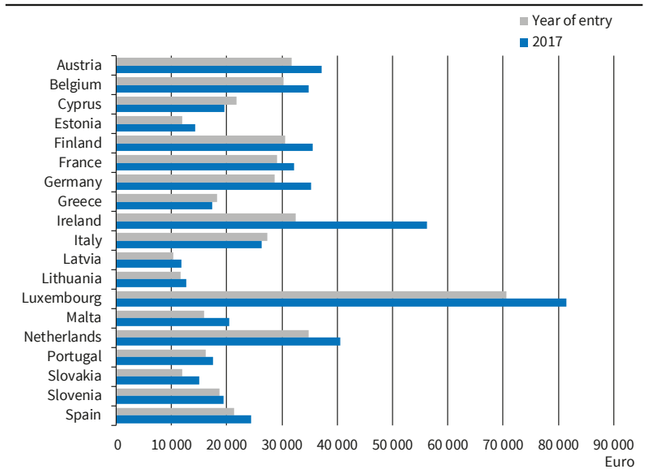
Figure 3 illustrates the comparison of the real GDP per capita in the year of entry with the real GDP per capita reported in 2017. In almost all Eurozone countries the real GDP per capita was higher in 2017 than in the country-specific year of entry to the Eurozone. However, in Cyprus, Greece and Italy the standard of living as measured by GDP per capita has declined since entering the Eurozone. The largest positive change in GDP per capita over time was recorded in Ireland with the figure totalling 23,775.03 euros, while the smallest difference was found in Slovenia (746.72 euros).

Debt Deficit/Surplus

A short-term indicator for the performance of public finance is the government's net borrowing necessity capturing the difference between expenditure and revenues. Figure 4 illustrates the deficit/surplus as a share of GDP in France, Germany, Greece, Ireland, Italy and Spain between 2000 and 2017. Before the financial crisis, Ireland and Spain report a partial surplus. The

Figure 3

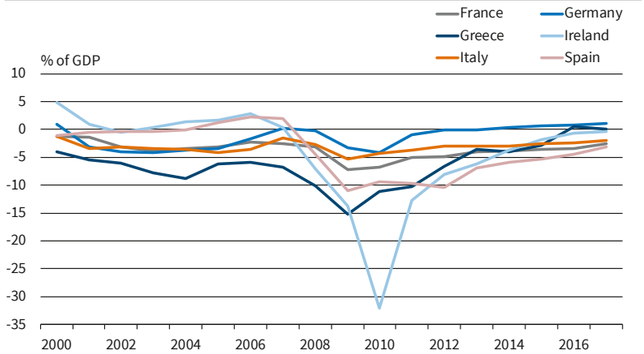
GDP per Capita
Year of entry and 2017



Source: Worldbank Databank (2018). © ifo Institute

Figure 4

Deficit and Surplus
2000—2017



Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

financial crisis had a positive impact on the net borrowing necessity, especially in Ireland in 2010, which turned from a surplus country into a deficit country. After 2010, countries started to recover and deficits expressed as a % of GDP diminished, but only Germany (in 2014) and Greece (in 2016) achieved a balanced budget.

Debt Level

The debt level indicator reports the total government debt level as a percentage of GDP, indicating the medium- to long-term situation of the public finances. Before the financial crisis, Belgium, Greece and Italy all recorded debt levels above the 100% threshold of GDP. The largest debt level was reported in Greece in 2008 (109.4%). Due to the financial crisis, the debt levels of Ireland, Portugal and Cyprus also exceeded the 100% threshold. The lowest debt levels throughout the whole period are associated with Estonia, where the largest debt level reached 10.7% of GDP in 2014.

Figure 5 compares debt levels in 2017 with debt levels in the year of accession of the Eurozone countries. The comparison shows that debt levels are clearly higher in 2017 than in the year of accession for all countries except for Belgium and Latvia, where the debt level was 5.6%-points (3.7%-points) smaller in 2017 than in 2000. The largest increase is related to Greece, where the difference is 177.8%-points of GDP. Italy (95.4%-points), Cyprus (95.4%-points), Portugal (75.3%-points) also report large debt level differences. In France, the debt level was 38.3%-points higher in 2017 than in 2000, while Germany's debt level was only 5.3%-points higher compared to 2000. In Ireland, the debt level was 32.5%-points higher. In Spain, the difference between 2000 and 2017 reached 40.4%-points.

Long-term Interest Rate

An additional indicator of stability is the long-term interest rate of government bonds reflecting borrowing risk. We will present Maastricht criterion bond yields, since these are the long-term interest rates used as a convergence criteria for the Eurozone. Before the financial crisis, the country-specific long-term interest rates were only exposed to low fluctuations. The lowest long-term interest rate was recorded in Luxembourg in 2005 (2.41%). The largest interest rate before the crisis years was reported in Lithuania in 2001 (8.15%). Due to the financial crisis, the interest rates in several countries increased, but most dramatically in Greece and Portugal. After 2012, the interest rates fell to very low levels except for Greece and Portugal, where the lowest interest rate was recorded in Luxembourg with 0.25% in 2016.

As seen in Figure 6, the time trends in the long-term interest rates in France, Germany, Greece, Ireland, Italy and Spain show how the interest rates diverged after the beginning of the financial crisis. In France and Germany, the rates decreased, whereas they increased in Greece, Ireland, Italy and Spain. The highest interest rate was reported in Greece in 2012 where it reached 22.5%. After 2012, a negative trend in interest rates emerged in all four countries where the financial crisis increased interest rates.

Unemployment rate

The unemployment rate reflects the economic situation by focusing on the number of unemployed people as a percentage of the labour force. The impact of the financial crisis is also apparent for this indicator, as the unemployment rate increased in most of the Eurozone countries during the years of crisis, but especially in Greece and Spain. Before the financial crisis, a negative general trend in unemployment in most of the Eurozone countries can be detected, with Luxembourg reporting the lowest unemployment rate over the pre-crisis period. Unemployment has been decreasing since 2013.

Figure 7 compares the unemployment rates of France, Germany, Greece, Ireland, Italy and Spain between 2000 and 2017.The impact of the financial crisis can also be identified for this indicator. A particularly high increase was reported in Spain and Greece, with the unemployment rate reaching 26.10% in Spain and 27.48% in Greece in 2013. Italy was less strongly affected as the highest unemployment was recorded in 2014 with 12.64%. In France, the unemployment rate was relatively stable and only increased slightly after 2008. Remarkably, the unemployment rate in Germany followed a negative trend after 2005.

In addition to the time trends in the selected countries for the period 2000-2017, Figure 8 illustrates the country-specific deviation (in %) from the average unemployment rate in the years 2000 and 2017 focusing on these six Eurozone countries. The average unemployment rate in 2000 for France, Germany, Greece, Ireland, Italy and Spain was 9.45%. In 2017, the average unemployment rate for these selected countries was 11.87%.

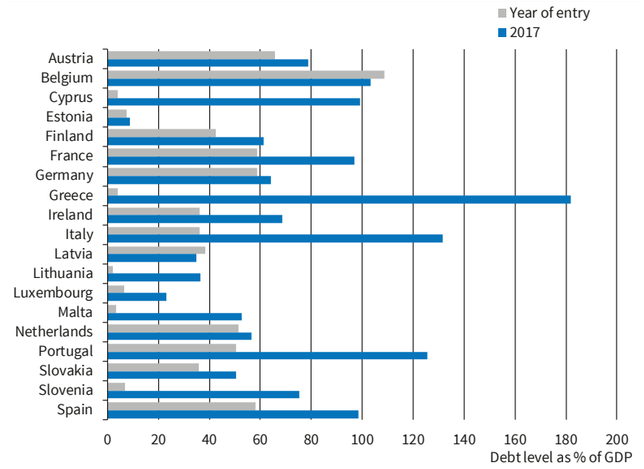
Global Competitiveness Index

The Global Competitiveness Index (GCI) developed by the World Economic Forum measures competitiveness and future economic prosperity by analysing microeconomic and macroeconomic factors such as institutions and policies. The index ranges from 1 to 7 where 7 is the best score.[1] As competitiveness is closely related to country-specific productivity, the GCI serves as an indicator of the Eurozone's sustainability.

[1] http://reports.weforum.org/global-competitiveness-index-2017-2018/introduction/

Figure 5

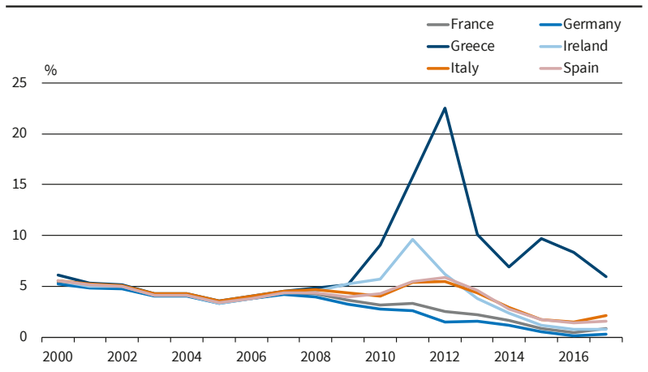
Debt Level
Year of entry and 2017



Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

Figure 6

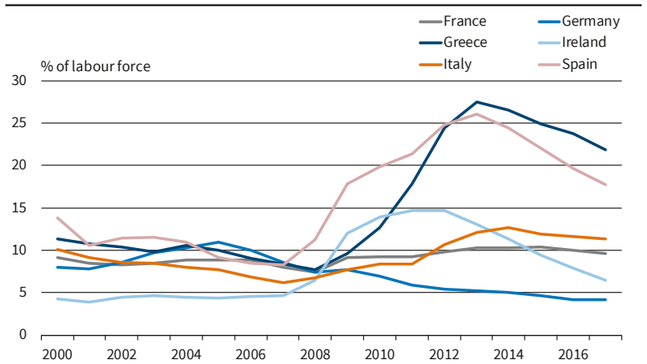
Long-term Interest Rate
2000—2017



Source: Eurostat (2018). © ifo Institute

Figure 7

Unemployment Rate
2000—2017



Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

The most recent GCI of 2017/2018 for the Eurozone countries ranges from 4.0 in Greece to 5.7 in Germany and the Netherlands. France and Ireland each achieved a score of 5.2, while the index for Italy is 4.5 and 4.7 for Spain. By comparison, Switzerland ranks first with a score of 5.9.

When comparing the indices over time little change is observed. The GCI increased for almost all Eurozone countries slightly over time. Figure 9 gives an overview of the performance of the Eurozone countries with respect to the GCI.

Corruption Perception Index

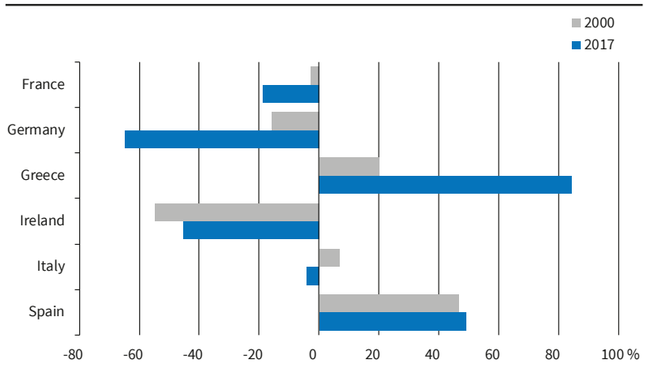
Another Index that serves as an indicator of the Eurozone's sustainability is the Corruption Perception Index (CPI) published by Transparency International. It indexes public-sector corruption according to surveys from experts and businesses. Hence, the index approximates the efficiency of the public sector on a scale from 0 to 100 where corruption decreases with an increasing index. The index analyses the corruption in 180 countries.

The actual CPI of 2017 for Eurozone countries ranges from 85 in Finland to 48 in Greece. Accordingly, Finland achieved the third best place in the ranking, whereas Greece only reached rank 59. Germany reached rank 12 with an index of 81, versus Ireland's index of 74, ranking it 19th. France achieved a score of 70 and ranks 23rd. Spain ranks 42nd and records an index of 57. Italy only reaches the rank of 54 with an index of 50. The country with the highest score is New Zealand with 89 points.

Like its GCI index, both the score and the ranking of the Eurozone countries is relatively constant over time. Figure 10 gives an overview of the scores achieved by Eurozone countries in 2017.

Figure 8

Deviation from Average Unemployment Rate
2000 and 2017



Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

TRUST IN EU INSTITUTIONS

The Standard Eurobarometer

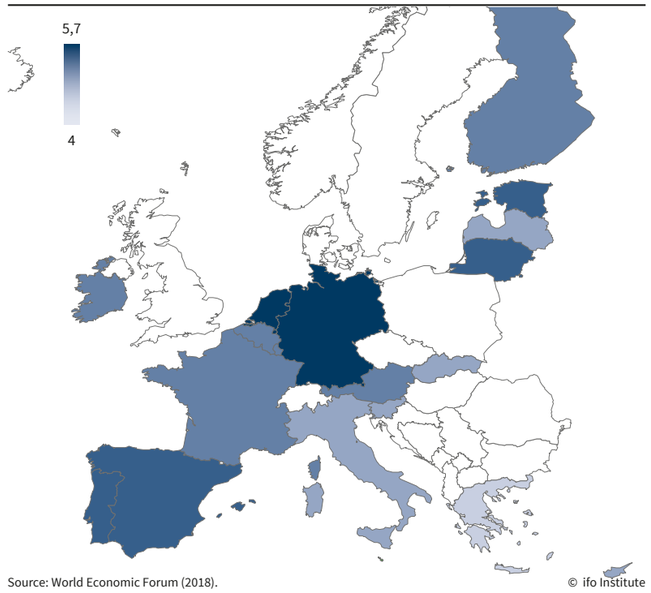
The Standard Eurobarometer survey is conducted on behalf of the European Commission and carried out every year in spring and autumn. EU citizens are interviewed to understand and compare trends within EU member states. The survey covers topics like citizens' perception of the current European political and economic climate, as well as future expectations about the economy. Among other things, a set of questions analyses how people perceive political institutions at national and European level.

This section compares some results of the Standard Eurobarometer survey across Eurozone countries from 2000 to 2017. The focus is on the European Central Bank. A specific question was designed to shed light on whether EU citizens trust this institutional bodiy.[2] In answering this question the respondents could choose between the options tend to trust, tend not trust or don't know.

[2] The original question is: "And, [for each of the institutional bodies], please tell me if you tend to trust it or tend not to trust it?"

Figure 9

Global Competitiveness Index Across Eurozone Countries (2017)



Source: World Economic Forum (2018). © ifo Institute

Figure 11 shows the overall sentiment of EU citizens towards the European Central Bank since 2000[3]. In the beginning and mid-2000s, the majority of respondents (40–50%) indicated their trust in the European Central Bank, while 20–30% did not and another 20-30% were undecided. However, as of 2007, confidence in the ECB has gradually declined. The year 2011 marks a turning point as of which most respondents said they tended not to trust the ECB, while the share of those tending to trust the ECB fell below 40%. In addition, the number of undecided respondents ("Don't know" answers) has declined since 2003.

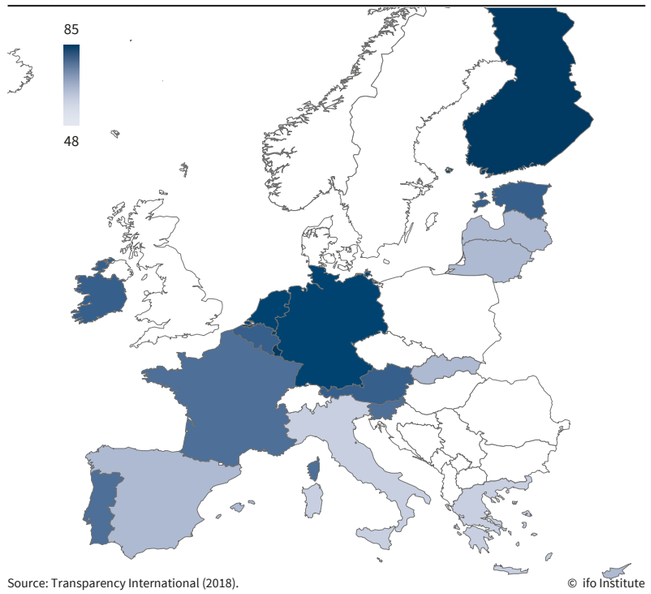
Figure 12 compares the results from the autumn 2017 survey across Eurozone member states. When looking at the Eurozone average, 44% of respondents tended not to trust the European Central Bank, while nearly as many (39%) did and 17% were undecided. Confidence in the ECB was highest in Finland and the Netherlands, where over 60% of respondents indicated their trust in the ECB, followed by Luxembourg (54%), Belgium and Lithuania (both 52%).

The level of confidence plunged to by far its lowest level in Greece, where only 21% of respondents tended to trust the ECB, while 75% did not. Even in the UK, outside the Eurozone, more people had confidence in the ECB (29%). It is striking that respondents from major economies tended to have little confidence in the ECB, as the percentage of those who do not trust the ECB was above the EU average in 2017. In Estonia and Malta over 30% of respondents were undecided. This number was much lower in Greece and Belgium by comparison, suggesting that most of the Greeks and Belgians interviewed formed opinions about the ECB.

[3] The figure reports results of the autumn survey, except for 2005, for which the results of the spring survey are shown.

Figure 10

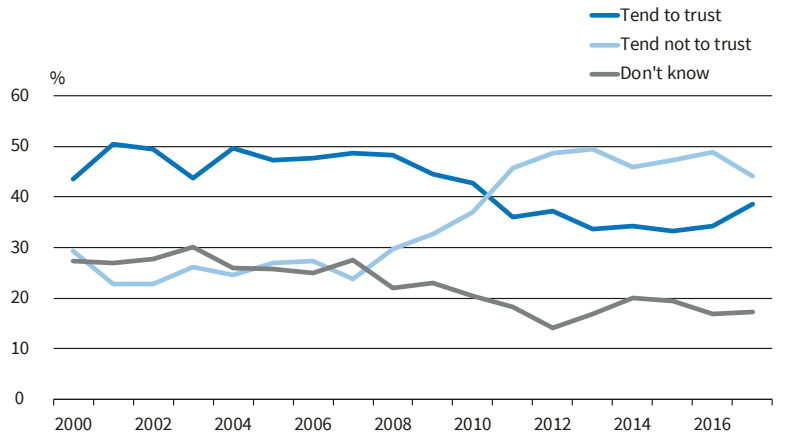
Corruption Perception Index Across Eurozone Countries (2017)



Source: Transparency International (2018). © ifo Institute

Figure 11

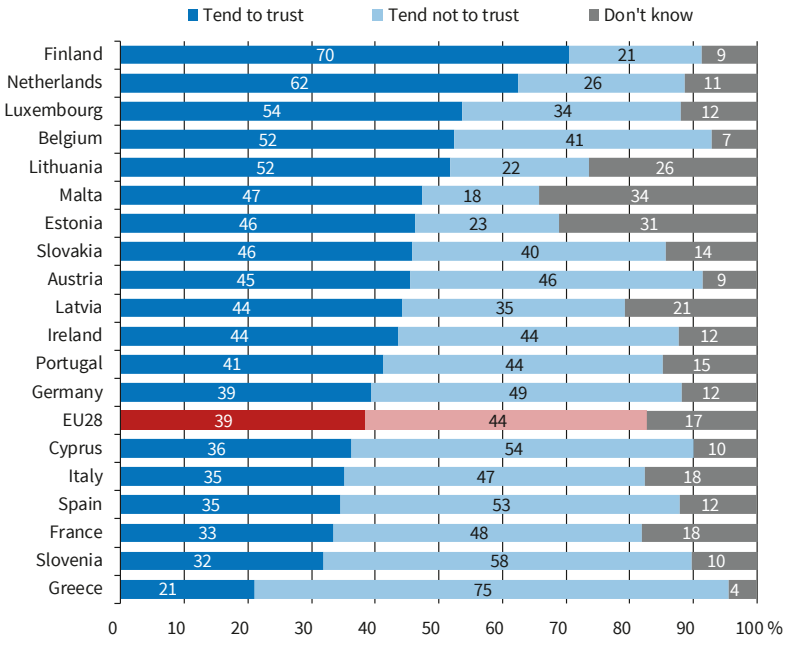
Average Confidence of Eurozone Countries in the European Central Bank Over Time
2000—2017



Source: Eurobarometer (2018). © ifo Institute

Figure 12

Confidence in the European Central Bank by Eurozone Country
2017



Source: Eurobarometer (2018). © ifo Institute

CONCLUSION

To investigate the medium and long-term strength of the Eurozone, this article evaluated the economic performance of selected major euro area member states (France, Germany, Greece, Ireland, Italy and Spain) in six basic areas - growth, debt, unemployment, interest rates, competitiveness and corruption. While the two indices that measure the institutional environment do not show much variation across time, the economic indicators clearly indicate that the overall performance of euro area member countries since the euro's introduction has been quite diverse. Countries like France and Germany have achieved fairly high overall growth rates, while Germany is currently even more successful, especially in terms of unemployment levels. Ireland, even although severely hit by the financial crisis, managed an impressive catch-up in economic terms. To a lesser extent this is still true for countries such as Spain. Unfortunately, some countries have not been able to improve their standard of living since 2000. This is the case for the crisis-shaken Greece where the employment situation even deteriorated significantly, but it is equally the case for Italy, which achieved very meagre growth rates over most of the period considered. For almost all countries, the debt levels increased considerably following the financial crisis with most worrying increases in the countries heavily affected by the crisis. The general economic situation of each country also relates to the perceptions that citizens have of European institutions. Unsurprisingly, Greece displays the lowest confidence in the ECB among the countries studied, with Italy, Spain and France also expressing trust levels below the EU average.

REFERENCES

European Commission (2018), Convergence Criteria for Joining, https://ec.europa.eu/info/business-economy-euro/euro-area/enlargement-euro-area/convergence-criteria-joining_en (accessed 10 September 2018).

World Economic Forum (2018), The Global Competitiveness Index and Report, http://reports.weforum.org/global-competitiveness-index-2017-2018/#topic=data (accessed 17 September 2018).

Transparency International (2018), Corruption Perception Index, https://www.transparency.org/research/cpi/overview (accessed 18 September 2018).

New at DICE Database

RECENT ENTRIES TO THE DICE DATABASE

In the third quarter of 2018, the DICE Database received a number of new entries, consisting partly of new topics and partly of updates. The list below features some of these new entries:

- Trust in European Institutions – Eurobarometer (World Economic Forum)
- Corruption Perception Index
- Global Competitiveness Index

Forthcoming Conferences

CESifo Area Conference on Behavioural Economics
26–27 October 2018, Munich

The eight CESifo Area Conference of the Behavioural Economics area will once again be organised jointly with the Collaborative Research Center „Rationality and Competition". The purpose of the conference is to bring together CESifo and CRC members to present and discuss their ongoing research, and to stimulate interation and co-operation between them. All CESifo Research Network members and all CRC members are invited to submit their papers, which may deal with any topic within the broad domain of behavioural and experimental economics and applications to other fields. The keynote lectures will be delivered by Xavier Gabaix (Harvard University) and Pietro Ortoleva (Princeton University).
Scientific organisers: Ernst Fehr, Klaus Schmidt

CESifo Economic Studies Conference on New Perspectives on Tax Administration Research
2–3 November 2018, Munich

The aim of this conference is to bring together research that addresses issues related to tax administration. Submissions in all areas of tax administration are invited from any perspective. The keynote lecture will be delivered by Brian Erard (B. Erard & Associates).
Scientific organiser: Christos Kotsogiannis

CESifo Area Conference on the Economics of Digitization
30 November–1 December 2018, Munich

This year's conference will be the second annual conference of the Economics of Digitization Research Area of the CESifo Network. The area studies societal and economic consequences of digitization. It has a wide scope of relevant research and its aim is to bring the leading researchers from both sides of the Atlantic working on topics in the relevant fields of economic (including, but not limited to, IO, big data, labour, growth, education, media, public finance, and political economy). The keynote lecture will be delivered by Steve Tadelis (University of California, Berkeley).
Scientific organiser: Stephen P. Ryan

12th Workshop on Political Economy
30 November-1 December 2018, Dresden

CESifo, the Center of Public Economics at TU Dresden and the ifo Institute for Economic Research Dresden will jointly organize a workshop on Political Economy. In the tradition of the previous workshops, the conference will take place in Saxony´s capital Dresden. The two-day workshop will serve as a forum to present current research results in political economy and will give researchers the opportunity to network. The keynote lectures will be delivered by Gilles Saint-Paul (Paris School of Economics) and Stefan Voigt (Universität Hamburg).
Scientific organisers: Christian Lessmann, Gunther Markwardt

9th ifo Conference on "Macroeconomics and Survey Data"
7–8 December 2018, Munich

The ifo Center for Macroeconomics and Surveys will organize a conference in Munich on "Macroeconomics and Survey Data". The "survey" in the conference title is to be understood broadly, including all kinds of (administrative) micro data sets and all manner of consumer and business confidence surveys. The conference is intended to discuss ongoing research on survey and micro data and its role and usage in macroeconomics. Papers, theoretical, empirical and policy-oriented, are actively solicited on issues like:

- Methodology of business surveys
- Uncertainty modelling
- Survey data and the business cycle
- Transmission of cyclical fluctuations
- Inequality and distributional aspects
- Forecasting performance of survey data in business-cycle research
- Usage of micro-data in macroeconomics
- Labour market and the business cycle

Scientific organisers: Klaus Wohlrabe, Timo Wollmershäuser and Andreas Peichl

13th ifo Dresden Workshop on Macroeconomics and Business Cycle Research
25–26 January 2019, Dresden

The ifo Institute, Dresden Branch, and the Helmut Schmidt University, Hamburg, warmly invite submissions to the 13th ifo Dresden Workshop on Macroeconomics and Business Cycle Research. We particularly

encourage PhD students to submit their latest research. Each paper will be allocated 45 minutes, to be divided between the presentation, a discussion by an assigned workshop participant, and a general discussion. There is no workshop fee. However, participants are expected to pay their own expenses for travelling, accommodation and the joint informal dinner on January 25th. The journal Review of Economics publishes a Special Issue on the occasion of this workshop. Please submit your (preliminary) paper by October 31st, 2018, via the workshop website. Please indicate whether your contribution should be considered for publication in the Special Issue. Acceptance decisions will be announced by mid-November.
Scientific organisers: Michael Berlemann, Robert Lehmann and Michael Weber

New Books on Institutions

Discreet Power: How the World Economic Forum Shapes Market Agendas
Christina Garsten and Adrienne Sörbom
Stanford University Press (2018)

European Disintegration: A Search for Explanations
Hans Vollaard
Palgrave Macmillan (2018)

Refugee and Mixed Migration Flows: Managing a Looming Humanitarian and Economic Crisis
Bimal Ghosh
Palgrave Macmillan (2018)

www.ifo.de/w/bcP4Afbn