Feasibility and Added Value of a European Unemployment Benefits Scheme





Miroslav Beblavý Karolien Lenaerts

Feasibility and Added Value of a European Unemployment Benefits Scheme

Miroslav Beblavý

Karolien Lenaerts



The Centre for European Policy Studies (CEPS) is an independent policy research institute in Brussels. Its mission is to produce sound policy research leading to constructive solutions to the challenges facing Europe. The views expressed in this e-Book are entirely those of the authors and should not be attributed to CEPS or any other institution with which they are associated or to the European Union.

This synthesis report constitutes a deliverable prepared in light of the research project "Feasibility and Added Value of a European Unemployment Benefit Scheme", commissioned by the European Commission, Directorate-General for Employment, Social Affairs and Inclusion and initiated by the European Parliament. It was prepared by Miroslav Beblavý, Senior Research Fellow, and Karolien Lenaerts, Researcher, at CEPS, in close collaboration with the consortium partners. The authors are grateful for the feedback and inputs of the consortium partners and of the European Commission. The authors would like to thank Ilaria Maselli for her important contribution to the project. The usual disclaimers apply.

Contact: miroslav.beblavy@ceps.eu and karolien.lenaerts@ceps.eu

This report was written as the synthesis report for the research project 'Feasibility and Added Value of a European Unemployment Benefit Scheme' (contract VC/2015/0006). The research project is undertaken by a consortium comprising the following institutions: the Centre for European Policy Studies (CEPS), the Centre for European Economic Research (ZEW), the Institute for Social and Economic Research (ISER), Cambridge Econometrics (CamEcon), EFTHEIA and the University of Leuven (KUL); we use 'the Consortium' as a shortcut throughout this paper.

An Executive Summary of this e-book is published separately as a CEPS Research Report, entitled "Stabilising the European Economic and Monetary Union: What to expect from a common unemployment benefits scheme?", by Miroslav Beblavý and Karolien Lenaerts, February 2017. It is available for free downloading at https://www.ceps.eu/publications/stabilising-european-economic-and-monetary-union-what-expect-common-unemployment

A third substantive output of this project has also been published on the CEPS website as a CEPS Research Report, entitled "Design of a European Unemployment Benefit Scheme" by Miroslav Beblavý, Karolien Lenaerts and Ilaria Maselli. It can be downloaded at https://www.ceps.eu/publications/design-european-unemployment-benefit-scheme

More information on the project can be found on the CEPS website here.

This document has been prepared for the European Commission, but it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information it contains.

ISBN: 978-94-6138-576-5

© European Union, 2017

Reproduction is authorised provided the source is acknowledged.

Table of Contents

List of ab	brevia	atio	าร	I
Introduc	tion			1
Chapter	1. A E	urop	pean unemployment benefits scheme as a stabilisation instrument:	
Why the	EMU	nee	ds a stabiliser and could the scheme meet these objectives?	3
1.1	Rat	iona	lle for a supranational automatic stabiliser for the EMU	5
	1.1	1	Building blocks of the EMU	5
	1.1	2	Incompleteness of the EMU	5
	1.1	3	A common fiscal-stabilisation function for the EMU	7
1.2			this stabiliser complement or substitute for market mechanisms and other nstruments that already exist or are being implemented?	9
1.3	An	EUB	S as a stabilisation instrument	. 11
Chapter	2. Key	/ fea	tures and policy choices involved in a potential EUBS	. 13
2.1	The	e 18	EUBS variants examined in this study	15
2.2	Wo	ould	it be best to implement an EUBS as a genuine European insurance scheme ugh reinsurance of national funds?	
2.3			ins of an EUBS	
2.3			ng of an EUBS	
2.4			s of an EUBS	
2.5	2.5		Benefits of the genuine variants	
	2.5		Benefits of the equivalent variants	
2.6			ue of permanent transfers	
2.7			nazard in an EUBS	
2.7	2.7		The issue of institutional moral hazard	
		-	How can moral hazard be addressed?	
2.8			suing in an EUBS	
			ded value of a potential EUBS	
3.1			S could contribute to macroeconomic stabilisation	
5.12	3.1		Enhancing the national unemployment benefits schemes?	
	3.1		How much stabilisation could an EUBS achieve and at what cost?	
	3.1		Temporary and permanent transfers in an EUBS	
3.2			S could contribute to labour mobility	
3.3			S could contribute to Social Europe	
			entation of a notential FURS	53

4.1	Constraints and options under European law					
	4.1.1	Legal base for payments under an EUBS57				
	4.1.2	Legal base for establishing the financing of an EUBS61				
4.2	Constraints and options at the Member State level					
	4.2.1	Legal and operational constraints and the options for the reinsurance schemes				
	4.2.2	Legal and operational constraints and the options for genuine schemes64				
4.3	How co	ould an EUBS be implemented?68				
	4.3.1	Concepts for a roadmap68				
	4.3.2	A theoretical roadmap for the reinsurance schemes69				
	4.3.3	A theoretical roadmap for the genuine schemes70				
	4.3.4	Converting a reinsurance scheme into a genuine one?72				
	4.3.5	Would the EUBS start 'blind'?73				
	4.3.6	Changing the parameters of the EUBS after its introduction73				
	4.3.7	What role could the social partners have?				
Chapter 5	. Conclu	sions from the study				
Glossary o	of key co	ncepts and project terminology80				
Bibliograp	hy					
Appendice	es	90				
Арре	endix A:	Overview of the specifications of the 18 EUBS variants as examined in this				
	project	90				
Арре	endix B:	Methodology and data used in the modelling exercises				
Арре		Overview of the legal articles taken into consideration and the conclusions d				

LIST OF FIGURES

Figure 1. Comparison of coverage of NUBS (average over 1995-201 immediately on becoming unemployed ('V7')	
Figure 2. EA19 GDP (level and growth), 1995-2013	38
Figure 3. Comparison of the stabilisation impact of selected EUBS v and two genuine) if these variants had operated over 199	
Figure 4. Historical real GDP growth rates and stabilisation impact of Slovakia, if the schemes had operated over 1995-2013	
Figure 5. Historical real GDP growth rates and stabilisation impact of Ireland, if the schemes had operated over 1995-2013	
Figure 6. Roadmap for the reinsurance schemes	70
Figure 7. Roadmap for the genuine schemes	71
Figure 8. The design for the interactions between the micro- and m	nacroeconomic simulations96
LIST OF TABLES	
Table 1. An overview of the reinsurance systems examined in the p	roject16
Table 2. An overview of the genuine systems examined in the proje	ect16
Table 3. Summary indicators for selected EUBS variants (results fro	m backward-looking analyses)41
Table 4. Summary indicators for selected EUBS variants (forward-lo	ooking simulations)46
Table 5. Effect of the EUBS on poverty and inequality: scenario of a	short asymmetric demand shock51
Table 6. An overview of the specifications of the EUBS variants exa	mined90
Table 7. Summary of the EU legal analysis (EP = European Parliame EP consent required (APP), COD = Ordinary legislative proc the Council, IGA = Intergovernmental Agreement)	redure (COD), UN = Unanimous voting in
LIST OF BOXES	
Box 1. The harmonisation of national unemployment insurance sch	emes – A key issue for the EUBS18
Box 2. Basic versus top-up genuine EUBS variants and its impact on	EUBS financing and benefits22
Box 3. The trigger in this project	23
Box 4. Experience rating in this project – Present in 16 of the 18 va	riants examined26
Box 5. Claw-back in this project – Present in 16 of the 18 variants e	xamined26
Box 6. Cyclical variability in this project – Present in one of the 18 v	ariants examined74
Box 7. Extracts from the Treaty on the Functioning of the European	n Union97

List of abbreviations

CJEU Court of Justice of the European Union

EA Euro area

ECB European Central Bank

EMU Economic and Monetary Union

EUBS European unemployment benefits scheme

EU-SILC EU Statistics on Income and Living Conditions

GDP Gross domestic product

MIP Macroeconomic Imbalance Procedure

MS Member States

NUBS National unemployment benefit schemes

OMT Outright monetary transactions

SSM Single Supervisory Mechanism

TEU Treaty on European Union

TFEU Treaty on the Functioning of the European Union

UI Unemployment insurance

Introduction

This report constitutes the synthesis report of a comprehensive study on the "Feasibility and Added Value of a European Unemployment Benefits Scheme". The aim of the study is to assess the legal and operational feasibility of introducing a European unemployment benefits scheme (EUBS), as well as the economic added value that such as scheme could bring. This study was initiated by the European Parliament and commissioned by the European Commission, Directorate-General for Employment, Social Affairs and Inclusion (Contract VC/2015/0006).

The project contributes to a much larger debate on *supranational automatic stabilisers*, of which a European unemployment benefits scheme is one specific form. In recent years, there have been widespread calls for a supranational automatic stabiliser, since it has become clear that traditional stabilisation mechanisms are insufficient to deal with (asymmetric) shocks and the institutional architecture of the Economic and Monetary Union (EMU) has proved to be incomplete. The Five Presidents' Report (Juncker et al., 2015) has suggested important steps towards further strengthening the EMU, one of which is the introduction of a common macroeconomic-stabilisation function. The Five President's Report does not specify the precise design of this stabiliser.

The decision on whether a common unemployment insurance scheme is a suitable stabiliser is a political one, which has to be taken by the EU's political bodies. As this study focuses exclusively on the potential of an EUBS, it does not present an in-depth comparison of the EUBS with other stabilisation mechanisms. Procedurally, the follow-up to the Five Presidents' Report and this report are not linked in any way, since the report is governed by the Terms of Reference issued by the Directorate-General for Employment, Social Affairs and Inclusion prior to the publication of the Five Presidents' Report. Nevertheless, this study does take the conclusions of the Five Presidents' Report into account and, in that sense, it is consistent with its proposals.

Given that 18 different variants of an EUBS are analysed in terms of their design, legal and operational challenges and economic effects, this study presents the most comprehensive work on the subject to date. For each of these 18 variants, the impact on the individual Member States, the EMU and the EU has been examined. The 18 variants vary across a range of features, such as the replacement rate and caps used, the duration of unemployment benefits and the eligibility conditions that apply, which were largely specified in the Terms of Reference issued by the Directorate-General for Employment, Social Affairs and Inclusion. If an EUBS were considered one of the potential stabilisation mechanisms to explore further, this study provides evidence and insights on the barriers ahead and different ways to deal with them. However, to make the report useful, results are presented in such a way that the reader is not required to acquire and retain detailed familiarity with differences among the 18 variants.

This synthesis report summarises an extensive research project that has been executed by a consortium led by CEPS. It is the outcome of a close collaboration among the consortium partners. This report integrates contributions from Miroslav Beblavý, Ilaria Maselli, Daniel Gros, Gabriele Marconi, Karolien Lenaerts, Cinzia Alcidi, Mikkel Barslund, Matthias Busse, Lars Ludolph and Gilles Thirion at CEPS, Frank Vandenbroucke and Chris Luigjes at KULeuven, Michael Coucheir, Harald Hauben and Grega Strban at EFTHEIA, René Repasi at the University of Heidelberg, Richard Lewney and Hector Pollitt at Cambridge Econometrics, Xavier Jara, Holly Sutherland and Alberto Tumino at ISER (Essex), and Mathias Dolls at

ZEW. It has benefited greatly from the discussions with the European Commission and feedback from external experts.

The remainder of the report is structured as follows. The report begins with a discussion of the rationale for a supranational automatic stabilisation mechanism and the objectives that it would seek to achieve in chapter 1. It also considers the role of an EUBS in this regard. Chapter 2 delves into the design of an EUBS, outlining general concepts and policy choices as well as the specific design of the 18 variants examined in the project. Chapter 3 is devoted to the added value of an EUBS. It presents estimation results on macroeconomic stabilisation and redistribution, and discusses the potential contribution of an EUBS to labour mobility, upward convergence and Europe's social dimension. In chapter 4, the implementation of an EUBS is analysed. It focuses on the legal and operational constraints at the EU and national levels and presents a roadmap for the implementation of the EUBS. Chapter 5 concludes the synthesis report.

Chapter 1. A European unemployment benefits scheme stabilisation instrument: Why the EMU needs a stabiliser and could the scheme meet these objectives?

"Europe's Economic and Monetary Union (EMU) today is like a house that was built over decades but only partially finished. When the storm hit, its walls and roof had to be stabilised quickly. It is now high time to reinforce its foundations and turn it into what EMU was meant to be: a place of prosperity based on balanced economic growth and price stability, a competitive social market economy, aiming at full employment and social progress. To achieve this, we will need to take further steps to complete EMU."

Extract from the Five Presidents' Report by Juncker et al. (2015), p.4

Key messages

While Europe is slowly recovering from one of the most severe crises it has ever experienced, there have been widespread calls for reform. These calls have focused especially on the EMU, whose fundamental weaknesses were uncovered in the global financial crisis of 2008 and the subsequent eurozone crisis that lasted for several years. With the inception of the EMU, countries lost control over their monetary policy, which is now managed centrally. National fiscal policy has remained in place, and has widely been believed to gain in importance as a mechanism to prevent economic shocks and mitigate their impact on employment and incomes. Yet during the crisis, this combination of monetary and fiscal policy proved to fall short. Other instruments, including labour mobility or wage flexibility, were not so powerful either. Market failures, current account imbalances and spillover effects raise additional concerns.

These issues have re-focused attention on EMU reform. Whereas most Member States are equipped with powerful automatic stabilisation mechanisms that are very responsive to shocks, the EMU does not have such an instrument. In the Five Presidents' Report published in 2015, the idea of establishing a common fiscal capacity is put forward as one of the steps towards completion of the EMU by 2025. The Five Presidents' Report does not suggest a specific mechanism, but it does outline four criteria that any stabiliser should meet: it should not lead to permanent transfers, it should not undermine the incentives for sound fiscal policy-making at the national level, it should be developed within the EU framework and it should not be an instrument for crisis management. This study is devoted to one possible mechanism for automatic stabilisation that would be in line with these conditions: a European unemployment benefits scheme (EUBS).

Since 2009, important steps towards EMU reform have already been taken and a series of instruments to prevent shocks or mitigate their impact have been developed. Still, this study finds that an additional macroeconomic stabiliser would be beneficial. The study also concludes that this mechanism would be a complement rather than a substitute for the other instruments and market mechanisms. In that way, it corroborates earlier work. Many of these instruments are intended for either prevention or mitigation

¹ This notion was already hinted at by Marjolin et al. (1975). At the time, economic and monetary unions with very different levels of integration existed (e.g. Australia, Canada and the US). Each of these unions, however, was equipped with an internal market, a central bank and a centralised fiscal and social security system (Beblavý, Marconi & Maselli, 2015b).

of shocks. Others are only active in very severe circumstances or have not been used very much. The Macroeconomic Imbalance Procedure (MIP), for example, is a powerful mechanism that can contribute to stabilisation, but the corrective arm has not been used much. Similarly, the Outright Monetary Transactions (OMT) have not been used so far. The OMT and European Stability Mechanism (ESM) are both major stabilisation instruments, but not suited to crisis prevention. The Banking Union and the Capital Markets Union could play a key role, but are expected to have little impact in stabilisation terms in the medium-run. Regional policies and public investment are also important, but only have a delayed impact.

Besides unemployment-based stabilisers, several other proposals have been put forward by academics and policy-makers. Some examples are stabilisers tied to the output gap or GDP, a modification of the ESM so that it becomes an automatic mechanism, and an EMU budget. A comparison of the EUBS with these mechanisms was beyond the scope of this study.

The incompleteness of the institutional architecture of the EMU and several shortcomings in its system of economic governance were painfully demonstrated during the global financial and economic crisis that started in 2008 (Obstfeld, 2013; O'Rourke & Taylor, 2013; Wren-Lewis, 2013; Moro, 2016). In its aftermath, there have been calls for EMU reform. This appeal was taken up in the *Blueprint for a deep and genuine Economic and Monetary Union*, the Four Presidents' Report, entitled *Towards a Genuine Economic and Monetary Union* (Van Rompuy et al., 2012), and later restated in the Five Presidents' Report, entitled *Completing Europe's Economic and Monetary Union* (Juncker et al., 2015).²

To complete the EMU, several proposals have been put forward. One idea that can be found in many of them is to establish a *supranational automatic stabilisation mechanism*. Such a stabiliser is at the heart of this study, which explores in detail one specific mechanism: a *European unemployment benefits scheme*. Although the focus of this study is on a single stabiliser, this does not imply that no other mechanisms exist or that this mechanism is to be preferred over others. The study does not present a comparison of different stabilisation mechanisms, as such an analysis is beyond the scope of the project.

Against this background, the focus of this chapter is on the rationale for an automatic stabiliser for the EMU and on the role that such a mechanism could play. The chapter explains why the EMU could benefit from having an automatic stabiliser, considering the market mechanisms and the alternative instruments that exist or are being developed. The chapter also describes some proposals for stabilisation mechanisms such as an EUBS.

² The Five Presidents' Report can be found on the following link: https://ec.europa.eu/priorities/sites/beta-political/files/5-presidents-report_en.pdf

1.1 Rationale for a supranational automatic stabiliser for the EMU

1.1.1 Building blocks of the EMU

The inception of the EMU sparked a widespread debate on the costs and benefits of a single currency (Mongelli, 2008). One of the main concerns raised at the time was that in a monetary union, a country hit by an asymmetric shock can no longer fall back on monetary policy.³ By joining a monetary union, countries give up an important policy instrument to prevent economic shocks or to mitigate their impact on employment and incomes (De Grauwe, 2003). In the EMU, national monetary policy has been replaced by a common monetary policy, which is managed by the European Central Bank (ECB) and the central banks of the EMU Member States. Individual Member States can no longer use exchange rate or interest rate adjustments to deal with country-specific shocks. These countries can, however, make use of their national fiscal policy instruments to address such shocks.⁴ At the time, many argued that fiscal policy would play a much more prominent role in the EMU, serving as a key adjustment mechanism when market mechanisms, such as labour mobility or wage and price adjustments, are insufficient (Emerson et al., 1990). In addition, there was a widespread belief that asymmetric shocks would actually become rarer in the EMU (Emerson et al., 1990; Allard et al., 2013). The common monetary policy and national fiscal policy were therefore considered the two main building blocks of the EMU when it was first initiated (Poghosyan, 2016). Both are powerful stabilisation mechanisms in normal times. Yet, given the current fiscal situation of many Member States (e.g. high debt), the long-term demographic pressures, the EU's fiscal rules and the financial market constraints, many countries are not likely to enjoy normal times for many years (Poghosyan, 2016).

1.1.2 Incompleteness of the EMU

In the aftermath of the crisis, the EMU's architecture, with these two building blocks, has been heavily criticised (Dabrowski, 2015). National fiscal policies and the common monetary policy have proved insufficient for the *prevention of economic shocks*, notably when these shocks have been of an asymmetric nature. In relation to the *mitigation of their impact*, it is clear that a common monetary policy cannot accommodate all Member States in the case of asymmetric shocks, which may result in large cross-country divergences. If one country's economy is overheating while another country's economy is going through a downturn, it is impossible to implement a single policy measure that is suitable for both (e.g. in terms of inflation targets or price level targets). This affects the common monetary policy's stabilisation capacity.

Additionally, the stabilisation capacity of national fiscal policy measures may also be reduced due to financing constraints (e.g. posed by the EU's fiscal rules and financial markets). Alcidi & Thirion (2016) report that the EU's fiscal rules have indeed put considerable constraints on national governments, precisely when flexibility has been needed the most. These constraints have only become more

³ An asymmetric shock affects some countries (regions, sectors) more strongly than others.

⁴ Traditionally, fiscal policy has three objectives: stabilisation, redistribution and the promotion of growth, which it aims to achieve using different instruments (e.g. for the first two goals, taxation and welfare policy are relevant, while for the latter public investment is much more important).

stringent in light of the new economic governance. Alcidi & Thirion (2016) also find that most countries have a poor track record in implementing counter-cyclical fiscal policies since the EMU was established. The authors detect a procyclical bias in national fiscal policies and indicate that it remains an open question whether the new economic governance rules will make them less procyclical. This combination of a bad track record and procyclical fiscal policy limits countries' capacity to deal with shocks, even those of an asymmetric nature.

Alongside these issues related to monetary and fiscal policy, the academic literature on automatic stabilisers has centred on *market failures, current account imbalances* and *spillover effects* to justify the EMU's need for such a mechanism.

Market failures. *Market failures* are a first reason why the EMU could benefit from a stabiliser (Goodhart & Smith, 1993; Allard et al., 2013). One area in which this becomes particularly clear is labour: in Europe, labour mobility is low owing to linguistic and cultural barriers - and there are downward wage rigidities (Majocchi & Rey, 1993). With monetary policy and the exchange rate absent from EMU countries' toolbox, labour mobility and wage flexibility would, at least in theory, serve as important mechanisms to absorb asymmetric shocks (Arpaia et al., 2014). Already in 1993, Goodhart and Smith (1993) argued that due to market failures adverse shocks would affect real variables (employment and output) rather than nominal variables. If labour mobility is low, unemployment stays high in the country hit by the shock. This can have severe economic and social consequences. Yet, the European experience is rather different. Even though recent research suggests that labour mobility did go up during the crisis, it remains much lower in Europe than in the US (Alcidi et al., 2016). Arpaia et al. (2014) confirm that labour mobility has indeed grown since the start of the EMU. Interestingly, they further report that it is becoming an increasingly relevant channel for asymmetric demand shocks.

Current account imbalances. Current account imbalances provide another rationale, one that became particularly prominent during the recent crisis. Earlier research had claimed that in a currency union, current account imbalances would be easy to address through capital and labour adjustments, thus reducing the need for fiscal policy instruments (Emerson et al., 1990). Europe's experience in the last decade clearly contradicts this view.

A country with a large and sustained current account deficit that is fully in control of monetary policy can use the exchange rate to facilitate adjustment. In this scenario, a devaluation in the country's currency makes it more expensive to import (cutting down demand) and cheaper to export. If this is not an option, adjustments occur in the real economy through a deflationary process to moderate demand, such as a deflationary fiscal policy by raising income taxes or by reducing wages (Majocchi & Rey, 1993). In a recent contribution, Pasimeni (2015) argues that if internal adjustment is the only available solution, this may induce a deflationary bias in the whole area (not just the countries hit by the shock). According to this author, the EMU has a structural tendency to develop internal imbalances in Member States' current accounts. The pressure to adjust imbalances, however, is asymmetric: it is biased towards addressing current account deficits rather than surpluses. Starting from this observation, Pasimeni (2015) concludes that the EMU is characterised by an inherent deflationary bias, which results from the lack of a supranational instrument to steer demand and from the fact that national-level adjustments can only occur through deflationary processes. To cushion the adjustment process, an automatic

stabiliser is needed (alternatively, an expansionary fiscal policy can be adopted in the surplus country; Guyon, 2007). As will become clear below, the Banking Union could contribute to addressing some of these problems, though not all.

With regard to current account imbalances, there is one additional mechanism that needs to be discussed: the EU's MIP. Launched in 2011, the MIP is a surveillance mechanism that monitors the functioning of Member States, the EMU and the EU, on the basis of a list of indicators. The goals are to prevent macroeconomic imbalances before they emerge and to address existing imbalances. Fourteen indicators and thresholds are considered to capture the main sources of such imbalances (e.g. the current account balance as a percentage of GDP, private sector debt and credit flows as a percentage of GDP, and changes in the activity and unemployment rates). The Council can issue recommendations to Member States with imbalances. Excessive imbalances may lead to further monitoring and sanctions (through the Excessive Imbalance Procedure; still, the corrective arm has not been used much).

Spillover effects. The last argument relates to *spillover effects*. When a country in a monetary union is hit by a shock, this gives rise to negative spillover effects on other economies (Majocchi & Rey, 1993; Frankel & Rose, 1998; Kalemli-Ozcan et al., 2001; Allard et al., 2013). A demand shock in one country can easily be transmitted to other countries within the union, given that their economies are highly integrated. In these circumstances, national policy instruments are less effective and a common macroeconomic policy is needed to achieve stabilisation. In the event of an asymmetric shock that only hits a subset of Member States, the common policy fosters risk-sharing.

The 'spillover effects' argument can also be interpreted in another way: national governments might be reluctant to carry out a fiscal policy of the optimal size, as the benefits of the policy are partly transferred to neighbouring countries (Alcidi & Thirion, 2016). Positive spillover effects could encourage governments to reduce their stabilisation efforts, hoping that other countries will do the work instead. This problem can be overcome by an explicit voluntary coordination of national policies (which is the purpose of the EU Semester). While such coordination can occur in the event of an extremely strong symmetric shock (as in 2009), it seems much less likely otherwise. Nevertheless, the 2009-10 experience is an interesting example. At the end of 2008, the European Commission launched its European Economic Recovery Plan to deal with the consequences of the crisis. This plan supported national measures, which strongly differed across Member States. In the event of a symmetric shock, a coordination of fiscal policy is needed to boost demand.

1.1.3 A common fiscal-stabilisation function for the EMU

These issues have re-focused attention on the EMU's architecture and on the idea of establishing a common stabilisation function in the EMU. An *automatic stabiliser* is an economic policy that offsets fluctuations in a Member State's economic activity, upswings and downturns, without government intervention (in't Veld et al., 2012). One example is unemployment benefit schemes: benefits increase during bad times and decrease during good times. Whereas many Member States are equipped with powerful automatic stabilisers, the E(M)U currently lacks such a mechanism. Automatic stabilisers can be *market-based* (e.g. wage and price adjustments, labour and capital mobility) or *institutional* (e.g. automatic and discretionary transfers – fiscal policy) (Patterson & Amati, 1998).

The Five Presidents' Report is the latest high-level document calling for a supranational automatic stabiliser in Europe. It is one of the four fronts on which the report calls for progress to complete the EMU by 2025 (these four fronts aim at a genuine economic union, a financial union, a fiscal union and a political union). The Five Presidents' Report made the point that "all mature Monetary Unions have put in place a common macroeconomic stabilisation function to better deal with shocks that cannot be managed at the national level alone. (Juncker et al., 2015, p.14)". The report further states that: "The objective of automatic stabilisation at the Euro Area level would not be to actively fine-tune the economic cycle at Euro Area level. Instead, it should improve the cushioning of large macroeconomic shocks and thereby make EMU overall more resilient." (ibid).

Nonetheless, the debate on such a supranational automatic stabiliser for Europe is not new. It dates back to the 1970s (Marjolin et al., 1975; MacDougall et al., 1977) and was revived in the early 1990s, when a consensus was reached on the need for a European fiscal stabiliser (Padoa-Schioppa et al., 1987; Emerson et al., 1990). Over time, different stabilisation mechanisms have been proposed. None of these early proposals have been executed, however, which mostly stems from the common belief that market adjustment mechanisms would drive macroeconomic stabilisation. In the 1990s, the idea of establishing a stabiliser was never put into practice for a variety of reasons, including the full Maastricht Treaty agenda, discussions on the size of the EU budget and the enlargement ahead. Another major argument against the early proposals was that asymmetric shocks would become rarer in a monetary union (Allard et al., 2013). After the recent crisis, the debate again resurfaced.

During and after the crisis, the EU's governance framework has undergone substantial changes. As indicated above, the crisis exposed some fundamental shortcomings, such as an excessively narrow focus on budget deficits (rather than government debt), a lack of surveillance and weak enforcement of the rules. Following the collapse of the American bank Lehman Brothers, many feared that other banks would have the same fate. As it became increasingly difficult for banks to obtain loans for each other or other investors, several of them had to turn to the government for help. Governments had to bail out banks to prevent them from failing, which put serious pressure on their budgets and nearly caused the bankruptcy of some of them (e.g. Ireland). At the same time, much attention centred on governments' finances (especially on countries with high debts).

In response to the global financial crisis that started in 2008, the EU took a range of measures. Many measures focused on the financial sector, which translated into stricter supervision (with three new supervisory bodies) and the ECB's OMT programme, and paved the way for Banking Union. The EU proposed an Economic Recovery Plan in 2008. This programme had two main pillars: 1) a budgetary impulse of €200 billion (1.5% of GDP) (through a coordination of national stimulus packages, within the Stability and Growth Pact) and 2) a smart investment plan (in which the European Investment Bank has a key role). The aim was to boost demand and consumer confidence, protect jobs and deal with negative spillover effects. In response to the subsequent debt crisis, bilateral loans from governments were pooled and two temporary funds were set up: the European Financial Stabilisation Mechanism and the European Financial Stability Facility. In 2012, the European Stability Mechanism (ESM) was established (permanently). The EU further strengthened fiscal rules, put forward the Europe 2020 growth strategy and introduced the European Semester. More details on these mechanisms are given below.

1.2 Would this stabiliser complement or substitute for market mechanisms and other policy instruments that already exist or are being implemented?

Even if the EMU requires an additional macroeconomic stabiliser, which would contribute to *counter-cyclical policy, stabilisation and smoothing the cycle* as well as *crisis and default prevention*, it is not *a priori* clear that this mechanism would not duplicate the market mechanisms or other policy instruments that already exist or are being implemented. This concerns European-level public investment funding, but also the ESM or the Banking Union and Capital Markets Union.

Public investment. To start with public investment, Europe's fragile recovery after the crisis has been attributed to feeble investment. In the short-run, weak investment is an impediment to recovery. Its long-run implications are more severe, considering that weak investment undermines Europe's productivity and economic growth. In this regard, President Jean-Claude Juncker's Investment Plan for Europe is an important contribution. Nevertheless, public investment would not prevent economic downturns. Moreover, there is a longstanding debate on whether investment can be regarded as a tool for stabilisation or not, given that it is not easy to adjust to timing of the investment needed so that it would be counter-cyclical. Investments indeed take time to materialise (e.g. because proposals have to be prepared, evaluated and implemented), which could result in a delayed impact on the real economy. In this context, public investment would not necessarily serve as an effective short-term stabiliser because stabilisation mechanisms need to be largely automatic rather than discretionary in order to take effect quickly enough.

Regional policies. Another mechanism, closely related to the idea of encouraging investment, is that of *regional policies*. Regional policies, however, are clearly an EU-level stabilisation mechanism rather than an EMU stabiliser (given its limited redistributive capacity, which is almost zero within the EMU). In addition to this important caveat, one also has to keep in mind that regional policies have not been implemented to ensure stabilisation. Instead, their goal is to boost growth and convergence. In the 1970s, MacDougall et al. (1977) introduced a system of cyclical grants to regional and local governments. Grants were conditional on the economic policy performance of the countries receiving them. A similar idea was put forward by Padoa-Schioppa et al. (1987). In their proposal, the focus was on a dual strategy: providing grants to vulnerable regions (if they pursue medium-term structural reforms) and subsidising the interest paid on loans taken on by the private sector (conditional on investment quality). A more recent contribution suggests setting up a public investment programme for projects related to social housing, transportation and renewable energy (Drèze & Durré, 2014). The question remains of whether this would be a good stabiliser given the time lag.

ESM, OMT and MIP. A different, but parallel logic applies to *ESM*, which is a powerful mechanism to assist a Member State already in dire crisis but not intended for prevention. The ESM is indeed a crisis-resolution mechanism. It issues debt instruments to finance loans and offers financial assistance to EMU Member States (e.g. the ESM has lent money to Greece). By design, the ESM is not automatic. Next to the ESM, which was inaugurated in 2012, the *OMT* programme of the ECB is an important tool for assisting Member States in times of recession and for default prevention. The programme allows central banks to buy bonds on secondary markets. The ESM and OMT are mechanisms to supplant monetary

policy when there is no longer a lender of last resort. The *MIP* aims at preventing macroeconomic imbalances and addressing existing imbalances. In this way, the mechanism could also contribute to stabilisation. Still, as explained before, the corrective arm of the MIP has not been used much.

Banking Union and Capital Markets Union. To help smooth the impact of shocks through private channels, steps have already been taken to create a *Banking Union* and a *Capital Markets Union* (i.e. market risk-sharing, Alcidi & Thirion, 2016). Neither the Banking Union nor the Capital Markets Union have been introduced to respond to shocks. The purpose of the Banking Union is to monitor risk, deal with sovereign debt and promote risk-sharing. Breaking the link between banks and sovereigns also supports monetary policy. The Capital Markets Union strives to achieve financial integration and promotes the single market. Although the Banking Union and the Capital Markets Union are not explicitly designed for risk-sharing, they will nonetheless have a positive impact. Both contribute to the smoothing of the effects of a shock (i.e. shock absorption) as well as to crisis prevention.

The first pillar of the Banking Union is the Single Supervisory Mechanism (SSM). The SSM should facilitate the detection of financial risks and lower the propagation of shocks. Yet, not all banks are covered by the SSM. The Banking Union's second pillar, the Single Resolution Mechanism, only became fully operational on 1 January 2016 (together with the Single Resolution Fund, with limited resources though, which are private). The Banking Union, by improving the monitoring of the banking sector, should reduce the probability of large shocks in the banking sector. Its new setting should avoid the repeat of a banking crisis turning into a sovereign crisis, by limiting government intervention in bank resolutions, reducing the risk of collective action failures and raising the credibility of creditor bail-in.

The Capital Markets Union has yet to be established. Alcidi & Thirion (2016) find that although the Banking Union and Capital Markets Union are expected to improve the capacity of the system to deal with asymmetric shocks, their impact should remain limited (in the medium term). The reason is that currently risk-sharing through capital markets is very low in Europe,⁵ which implies that the role of the market is small and it is mainly driven by credit rather than capital markets (thus sensitive to the cycle and likely to fall when needed the most). Theoretical research by Fahri & Werning (2012) has found that market risk-sharing is intertwined with fiscal insurance (i.e. fiscal and market channels are not independent), indicating that market and fiscal insurance mechanisms are complements, not substitutes.⁶ Their argument is that the level of risk-sharing achieved through private markets is not Pareto efficient⁷ (even under the assumption of complete financial markets). Private agents do not purchase efficient amounts of private insurance because they do not internalise the positive externalities from the macroeconomic stabilisation effects of their portfolio choices. A fiscal insurance

⁵ This is often assessed relative to the US. In this respect it should be noted that measures of market risk-sharing, either through capital or credit markets, are not comparable across the Atlantic. Because of the way data are constructed, in a large part of the literature (based on Asdrubali et al., 1996) capital markets in the US also include capital depreciation and retained earnings of the corporate sector. In the EMU estimates, while the depreciation is usually calculated in a separate way, corporate retained earnings are included in the credit channel.

⁶ Asdrubali & Kim (2004) empirically assess the interaction between these channels and confirm their complementarity.

⁷ Pareto efficiency refers to an allocation of resources in which it is impossible to improve the situation of any individual without making at least one individual worse off.

mechanism would then be a response to a market failure. Fiscal risk-sharing could also serve as a catalyst towards the provision of higher market risk-sharing: if investors know that the government provides a minimum level of insurance against negative shocks, they might be more willing to provide more insurance through market-based channels.

In terms of the two policy challenges discussed, stabilisation during an economic shock and crisis prevention, the Banking Union and the Capital Markets Union can smooth risk-sharing and break the sovereign-banks link, but are unlikely to make a real difference in terms of stabilisation to alleviate the need for other instruments. Both mechanisms also contribute to crisis prevention. Recent work by Buti et al. (2016) asserts that policy-makers' focus should be on the further improvement of the Banking Union and the Capital Markets Union, to arrive at a financial union. The authors contend that establishing a financial union is the most effective way to increase the capacity of Member States and the EMU to deal with economic shocks.

Other instruments. Besides these mechanisms, there are a number of other instruments (which have already been discussed): labour mobility, price and wage adjustments, and national fiscal policy. During the Great Recession, labour mobility did not react very much, which suggests that this is not a powerful instrument in Europe. Price and wage adjustments are hindered by rigidities. National fiscal policy is another important instrument, which is generally composed of automatic stabilisers (e.g. national unemployment benefit schemes or NUBS in short) and discretionary elements (e.g. tax cuts). Fiscal policy, however, turned out to be procyclical during the Great Recession (as governments are inclined to spend more in good times, while in bad times the EU rules are binding). As countries start building up debt, markets induce procyclicality. In the event of a large shock, NUBS are often reduced to save funds.

1.3 An EUBS as a stabilisation instrument

One of the many mechanisms that could serve as a stabiliser for the EMU is a common EUBS. As the EUBS is unemployment-based, it brings the advantage that unemployment benefits are counter-cyclical and very responsive to shocks (as they are automatic and fast, and quickly provide a source of income to the unemployed to support their consumer spending). Unemployment benefits further have a high multiplier effect. Moreover, an EUBS focuses attention on the issue of unemployment, which has been persistently high since the crisis (especially among young Europeans). Unemployment is easy to measure, as it is observed and monitored regularly through survey data and administrative data (based on a head count).

Over the years, several proposals for a common scheme of European unemployment insurance have been launched. One of the earliest proposals dates back to 1975, when the report by Marjolin et al. (1975) introduced the EUBS as a tool for fiscal policy, stabilisation

⁸ See Beblavý, Gros & Maselli (2015). The quantification of multipliers is not easy, as evidenced by the fact that multipliers vary substantially across the literature. Though, multipliers for unemployment benefits seem higher than those for other types of expenditures. Zandi (2008), for instance, estimated a multiplier of 1.64 for extended unemployment insurance benefits, while the multiplier of tax cuts is 1 or less.

and redistribution. The Marjolin et al. report paved the way for later work, such as that by Italianer & Vanheukelen (1993), Dullien (2013, 2014), Beblavý & Maselli (2014), Dolls et al. (2014), Jara & Sutherland (2014) and Beblavý, Gros & Maselli (2015).

Before exploring the EUBS in more depth, it is important to briefly discuss proposals based on alternative measures, such as GDP or the output gap. Enderlein et al. (2013), for example, consider the idea of a *European fund* based on Member States' contributions (a cyclical shock insurance scheme, tied to the output gap). Countries pay into the fund when their business cycle position is better than the euro area average and receive a pay-out from it when they are in a worse position. Another option that these authors explore is the setup of a *European debt agency*, which would issue its own bonds.⁹ Each EMU member would issue part of its debt as bonds through this agency ('eurobonds'). This part amounts to about 10% of GDP, but could be increased to 20% of GDP in a downturn. Yet, such an increase is not automatic. Rather, it is conditional on the adoption of structural and macroeconomic policies. A similar idea was discussed by De Grauwe (2014).

Nevertheless, several contributions to the literature find that the output gap is not a suitable measure, despite its relation to the economic cycle, because it is not observed and frequently revised (see e.g. Biggs & Mayer, 2010; Ince & Papell, 2013; Strauss et al., 2013; Darvas, 2015). Additionally, in a monetary union like the EMU where the traditional adjustment mechanism (the exchange rate) is lost and fiscal policies are constrained, the burden of adjustment is likely to fall on unemployment (Pasimeni, 2015). This argument makes the EUBS a particularly interesting mechanism, precisely because it focuses attention on unemployment.

⁹ The idea of a European debt agency has also been discussed in depth in recent years. One could argue that an EUBS with the capacity to issue debt could be a precursor of a European debt agency that could issue its own bonds.

¹⁰ Still, one has to keep in mind that output gap revisions could also result from changes in the methodology used to estimate them (e.g. methodological improvements) (Enderlein et al., 2013).

Chapter 2. Key features and policy choices involved in a potential EUBS

Key messages

There is great diversity among the national unemployment insurance schemes across the EU. This diversity reflects important differences between the building blocks that shape them as well as the policy choices that motivate them. Similarly, an EUBS can be designed in many ways, for achieving specific policy objectives. If policy-makers would decide to design an EUBS, they have a range of features to select from that, in turn, can be defined in different ways and take on different values. This study covers 18 EUBS variants, most of which differ from the other variants in terms of the values of certain parameters. Still, a fundamental distinction that can be made is that between the equivalent and genuine EUBS variants. Both the genuine and equivalent EUBS variants have their merits, and the choice of one of them would be based on political grounds.

A genuine EUBS pays out benefits directly to any eligible unemployed individual and collects contributions from employers and employees (who contribute an equal share). Genuine EUBS function continuously. These variants would Europeanise the existing national schemes and thus require considerable harmonisation among them. Such harmonisation would face substantial political, legal and operational barriers, which result from the fact that Member States would have much less flexibility to operate their own schemes if the national unemployment benefit scheme (NUBS) had to comply with a set of common minimum standards. Yet, harmonisation and minimum standards would be essential for the stabilisation capacity of the EUBS and would help to mitigate moral hazard. Equivalent EUBS variants function very differently: all financial transfers would occur between the supranational fund and the Member States (which would only receive a pay-out when the EUBS is triggered). The equivalent EUBS would thus 'reinsure' the existing NUBS. Equivalent EUBS could leave a lot of flexibility to the Member States, but this crucially depends on the extent to which conditions are imposed on how governments can spend the funds received from the supranational fund and whether there are minimum standards for the NUBS.

Regardless of whether a genuine or equivalent EUBS variant were selected, it would usually have three conceptual functions, which could be combined. The first of these functions is geographical insurance: cross-country risk-sharing, which is where the EUBS could make the difference vis-à-vis the national schemes. Geographical insurance would be sufficient to cover asymmetric shocks in small or medium-sized Member States, but would fall short of alleviating a symmetric shock or an asymmetric shock in a large share of the EU's economy. The second function is intertemporal insurance: a reallocation of resources across time, which could be achieved through debt-issuing or going into deficit and compensating in good times. It is both the most powerful and contentious function to deal with major symmetric or extended downturns. The third function is enhancement of the NUBS, through common minimum requirements. Strong minimum standards would go a long way towards strengthening the counter-cyclical capacity of the NUBS in Europe. This capacity currently differs widely and it tends to be weak, precisely in those Member States with a more volatile economic cycle, weaker growth or higher debt. Enhancing the NUBS would nonetheless be politically and economically difficult without a backstop.

Two issues that are high on the political agenda concerning an EUBS are moral hazard and permanent transfers. An EUBS is an insurance mechanism; in the short-run, there would be redistribution across Member States. In the long-run, however, fiscal neutrality, would be important to prevent some countries

from becoming permanent net recipients or net contributors. The study finds that experience rating and claw-back would be effective mechanisms to address permanent transfers. Both mechanisms connect the EUBS pay-in to the use of the scheme and therefore serve the same objective. Experience rating, however, achieves this objective in a more gradual way than claw-back. For that reason, claw-back is regarded as redundant in this study. Experience rating and claw-back are present in most of the 18 EUBS variants considered (in fact, there is no variant without at least one of these mechanisms). The simulations carried out in the study suggest that no country would be a permanent net contributor or recipient if one considers a sufficiently long period.

Institutional moral hazard refers to a situation in which two levels of government deal with the governance of a social risk, and one level covers this risk, though in principle the other level could have carried out the task. Institutional moral hazard involves shifting of caseloads, having poor activation policies, and reducing the coverage or generosity to shift costs. The study finds that moral hazard is inevitable in any multi-tiered unemployment insurance scheme. There are several strategies to mitigate it. In this study, the key strategies are: experience rating, claw-back, the presence of a trigger and imposing minimum standards. Still, there is a trade-off between moral hazard and the benefits of insurance. In addition, one has to make a distinction between moral hazard as a reality, public perception of the issue and public concerns about it (which may vastly differ).

Although most of the 18 EUBS variants examined in the study are allowed to issue debt to cover short-term imbalances in the fund, debt-issuing is a highly contested potential feature. The advantages of debt-issuing are that it avoids having to gather funds through supplemental contributions (which is likely to be procyclical), that it makes contributions less volatile and that it is an automatic solution (which would be important given the EU's complicated institutional framework). At the same time, there are legal, political and moral hazard concerns. Debt-issuing may increase public debt (which is already very high) and is associated with moral hazard. No consensus has been reached on this topic.

This chapter presents the key features and policy choices involved in designing a potential European unemployment benefits scheme. In the course of this study, 18 EUBS variants have been examined as requested by the Commission Services in the tender. However, the differences between many of the variants are not fundamental, but rather reflect different values for certain parameters that characterise the types of EUBS. This chapter focuses on the key questions that would have to be answered in the EUBS design. The chapter first presents in detail all 18 variants analysed by the study and then discusses important features from which policy-makers could select if they chose to design an EUBS. The chapter further identifies some of the most frequently posed challenges to a common insurance scheme, such as (institutional) moral hazard and permanent transfers. A technical summary of the 18 variants and their features as examined in this study is presented in Appendix A. Although these features and values have received support in the literature and the study, policy-makers have to bear in mind that there is a range of options to choose from. These are illustrated in Table 1 and Table 2. In the project, variants are identified by their number (e.g. V1, V2, etc.).

2.1 The 18 EUBS variants examined in this study

A first important distinction that has to be made is that between the *equivalent* and *genuine* EUBS. In a system where Member States already have their NUBS, a European system could fully Europeanise them by setting up not just a common fund, but also common (minimum) eligibility and benefit rules for individuals. In this case, the EUBS would – at least partly – replace existing NUBS. In this study, this first type is referred to as "genuine EUBS". Of the 18 variants examined in the project, 14 are genuine in nature. In the genuine EUBS variants, unemployment benefits are transferred directly to the unemployed individuals, and, in turn, contributions are collected from employers and employees.

Alternatively, the national schemes could remain in place and the European level could "reinsure" them, which means providing additional funding in difficult times to allow for more aggressive counter-cyclical policies. In this study, such EUBS variants are referred to as "equivalent or reinsurance EUBS". Of the 18 EUBS examined, 4 are equivalent schemes. In the reinsurance EUBS, financial transfers occur between the supranational fund and the Member States. Countries pay contributions into the fund and receive transfers from the fund when triggered.

As will become clear below, both approaches, genuine and equivalent, have their advantages and limitations and the choice of one of them is a political one. Genuine schemes, for example, would likely be more visible among European citizens and could become tangible proof of European solidarity. Such variants would also permanently remove a large part of the unemployment benefit burden from national budgets. At the same time, genuine schemes would necessitate a higher level of harmonisation of the existing national schemes. Equivalent schemes, in contrast, would likely be more acceptable politically but may only cover large shocks, depending on how the trigger of the scheme is defined.

In its most *basic form*, an equivalent EUBS is characterised by a trigger, experience rating, claw-back and debt-issuing (as shown in Table 1). The trigger is a condition that determines when the EUBS becomes active (i.e. when funds are paid out). In this project, the trigger is based on the short-term unemployment rate. Experience rating and claw-back are two mechanisms that link the EUBS pay-in to the use of the scheme. Debt-issuing captures whether the fund is allowed to issue debt to cover short-term imbalances. More details on each of the features are presented below.

In Table 1 deviations from the baseline equivalent EUBS are indicated in grey. Reinsurance EUBS differ in terms of the design of the trigger, experience rating, claw-back and debt-issuing (Table 1). The most important differences lie in the trigger, which is defined in a similar way across the variants but has different threshold levels (cut-offs): 0.1%, 1% and 2%. In this study, the EUBS is triggered when a country's short-term unemployment rate in quarter t exceeds its average short-term unemployment rate in the last 40 quarters (or 10 years) plus a certain percentage (i.e. 0.1%, 1% or 2%). Other notable differences among the equivalent EUBS are that one variant does not have experience rating, another variant does not have claw-back, and two variants do not allow for debt-issuing in case of short-term imbalances.

Table 1. An overview of the reinsurance systems examined in the project

	Trigger	Experience rating	Claw-back	Debt
V1	$UR_{t,i} - \overline{UR}_{i,t-40 \dots t-1} > 1\%$	No	Yes	Yes
V2	$UR_{t,i} - \overline{UR}_{i,t-40t-1} > 0.1\%$	Yes	Yes	Yes
V3	$UR_{t,i} - \overline{UR}_{i,t-40 \dots t-1} > 0.1\%$	Yes	Yes	No
V4	$UR_{t,i} - \overline{UR}_{i,t-40,\dots,t-1} > 2\%$	Yes	No	No

Table 2. An overview of the genuine systems examined in the project

	Basic or Top-up	Duration	Replacement rate	Eligibility	Capping	Cyclical variability	Experience rating	Claw- back	Debt
V5	Basic	M3-M12	50%	3M out of 12M	150%	No	Yes	Yes	Yes
V6	Top-up	M3-M12	50%	3M out of 12M	150%	No	Yes	Yes	Yes
V7	Basic	M0-M12	50%	3M out of 12M	150%	No	Yes	Yes	Yes
V8	Basic	M3-M6	50%	3M out of 12M	150%	No	Yes	Yes	Yes
V9	Basic	M3-M12	35%	3M out of 12M	150%	No	Yes	Yes	Yes
V10	Basic	M3-M12	60%	3M out of 12M	150%	No	Yes	Yes	Yes
V11	Basic	M3-M12	50%	3M out of 6M	150%	No	Yes	Yes	Yes
V12	Basic	M3-M12	50%	12M out of 24M	150%	No	Yes	Yes	Yes
V13	Basic	M3-M12	50%	3M out of 12M	100%	No	Yes	Yes	Yes
V14	Basic	M3-M12	50%	3M out of 12M	50%	No	Yes	Yes	Yes
V15	Basic	M3-M12	50%	3M out of 12M	150%	Yes	Yes	Yes	Yes
V16	Basic	M3-M12	50%	3M out of 12M	150%	No	No	Yes	Yes
V17	Basic	M3-M12	50%	3M out of 12M	150%	No	Yes	No	Yes
V18	Basic	M3-M12	50%	3M out of 12M	150%	No	Yes	Yes	No

Table 2 presents the genuine EUBS and their main features, as they are defined in this project. The standard genuine scheme is variant 5 (represented in the first row of Table 2). This variant is a basic genuine EUBS that pays out unemployment benefits to all the unemployed who have worked as employees during at least three out of the last twelve months (eligibility). These individuals are entitled to unemployment benefits equal to 50% of their last gross wage, capped at 150% of the national average wage (benefit level). Benefits are paid out for nine months, from the start of the fourth month until the end of the twelfth month of unemployment (M3-M12) (benefit duration). The variant is further characterised by experience rating, claw-back and debt-issuing, but does not allow for cyclical variability (which entails that certain features of the scheme can be adjusted in severe circumstances).

The 13 remaining genuine EUBS variants are all based on this baseline variant. In fact, they are identical to it with the exception of one feature, for which they take a different value (i.e. basic or top-up,

2.2 Would it be best to implement an EUBS as a genuine European insurance scheme or through reinsurance of national funds?

In this study, the equivalent and genuine EUBS variants differ in two important respects: the *trigger* that sets the scheme running and the *collection and disbursement of funds*. The equivalent EUBS variants studied are characterised by a trigger, which is a threshold level that determines when funds are paid out. Genuine variants, in contrast, continuously pay out unemployment benefits, they do not have to be triggered to become operational. As regards the collection and disbursement of funds, all financial transfers occur between the supranational fund managing the EUBS and the Member States in the equivalent variants, meaning that there are no direct transfers to the unemployed. Transfers may reach the unemployed indirectly, when Member States direct the funds received towards them. Genuine EUBS variants, instead, do involve direct transfers from the supranational fund to the unemployed.¹¹

The distinction between equivalent and genuine EUBS may be theoretically sound, but it does not reflect well the complexities of multi-tiered unemployment insurance schemes in practice. Many existing multi-tiered schemes are difficult to classify as equivalent or genuine. The US system of Extended and Emergency Benefits is a telling example: the extended and emergency benefits are 'federal', conditioned by a trigger but paid out directly to the unemployed. The first two features would signal that these schemes are equivalent in nature, whereas the latter suggests that they should be considered as genuine.

A better approach would therefore be to think of equivalent and genuine variants as existing along a continuum, where variants are distinguished on the basis of the specifications of their features. In this regard, there are two important dimensions to consider: the *trigger* and the *level of harmonisation needed across the national unemployment insurance schemes*.

Trigger. In this study, the trigger is defined by an indicator and a threshold, and it is activated when the value of the indicator rises above the threshold level. More specifically, in the project the indicator is the *country's short-term unemployment in every quarter*, while the threshold is *the sum of the 10-year* (or 40 quarter) moving average of the country's short-term unemployment rate plus a percentage. In the study, this percentage is equal to zero for the genuine EUBS variants (so that they function continuously) and it can take a range of values for equivalent variants.

Nevertheless, some studies have experimented with genuine EUBS that are tied to a trigger (Dullien, 2007), whereas other work has considered equivalent EUBS without a trigger (Pisani-Ferry et al., 2013).

¹¹ In one of the first studies on this topic, Marjolin et al. (1975) proposed a genuine EUBS variant, funded through contributions from employers and employees, paying out benefits directly to the unemployed. It would be managed by an independent administrative body in collaboration with the social partners.

Beblavý, Marconi & Maselli (2015), however, recommend against using a trigger in a genuine EUBS variant precisely because it involves direct transfers to individuals. For example, it would be very difficult to explain why, given two unemployed individuals with identical characteristics except for their country of residence, one would be eligible for European unemployment benefits due to the macroeconomic conditions of the country he or she lives in while the other would not.

Harmonisation. Along with the trigger, genuine and equivalent EUBS variants differ in terms of the degre of harmonisation across the NUBS that they would require (i.e. the extent to which countries would be able to operate their own scheme). With regard to this dimension, there would be greater divergence between the genuine and reinsurance variants: the genuine EUBS would require much more harmonisation as they would allow less flexibility to countries to operate their own scheme.

Box 1. The harmonisation of national unemployment insurance schemes – A key issue for the EUBS

One of the most predominant concerns raised in the debate on a potential EUBS is the degree of harmonisation of the existing NUBS that would be required. Throughout this project, it has been demonstrated that such a harmonisation would give rise to substantial legal, operational and political challenges. These challenges are briefly summarised in this box, and discussed in more detail in the chapters of this report. The degree of harmonisation of the NUBS has a great impact on the stabilisation capacity of the NUBS and EUBS. Common minimum standards would also contribute to the mitigation of moral hazard (on which more details are available below). Therefore, the decision on how much harmonisation the EUBS might call for (and the choice between genuine and equivalent variants) should not be made lightly.

Legal and operational concerns: The harmonisation of the NUBS would be a complicated task. The diversity among the existing NUBS is considerable, and extends to all dimensions of an unemployment insurance system. Harmonisation would have both legal and operational implications, which would be the most substantial for Member States with NUBS based on voluntary insurance, a liberal welfare system or a radically different scheme in terms of scope or design. Especially in those countries, the operational difficulties associated with an EUBS would be considerable. In all Member States, changes to national legislation would be needed to set up a genuine scheme. Many difficulties would arise from the differences in design between the EUBS and NUBS. Unemployment benefit schemes interact with other dimensions of social policy, such as pensions, voluntary leave, hiring and firing. At the EU level, there is no legal obligation to harmonise NUBS but a *de facto* harmonisation would be likely.

Political concerns: One of the downsides of harmonisation of the NUBS is that it implies a loss of policy flexibility at the Member State level. In other words, national governments would be restricted by the European standards when designing and managing their NUBS, which could interfere with their political choices and preferences. This could be a significant issue in the case of a genuine EUBS, especially for those countries with a NUBS that by design differs a lot from the EUBS, or for the equivalent EUBS, if highly strict conditions were imposed on how governments could spend the funds received from the EUBS and if there were minimum standards for the NUBS (similar to the genuine EUBS). Another point is political accountability (i.e. who would bear the political responsibility). One idea is that the governance of the EUBS could fall under the responsibility of a European minister of finance, who would be fully accountable to the European Parliament.

2.3 Functions of an EUBS

Regardless of whether a potential EUBS is equivalent or genuine in nature, a scheme typically would have three (conceptual) functions, which could be combined in various forms: 1) geographical insurance, 2) intertemporal insurance, and 3) the enhancement of the NUBS through minimum requirements.

Geographical insurance. The first function of an EUBS is *geographical or spatial insurance*. This refers to the reallocation of resources across Member States within a given period. It is true risk-sharing (Alcidi & Thirion, 2016): resources that are temporarily pooled together according to some commonly accepted rule are distributed to those who may be in greater need compared with those who are well off in accordance with the principle of insurance. Spatial insurance would not require that the EUBS has the ability to raise debt because it would only entail a redistribution of available resources. As became clear in the project, especially in schemes without experience rating and claw-back, the redistributive impact of an EUBS would be noticeable (experience rating and claw-back being mechanisms to prevent long-term redistribution among countries). Geographical insurance would suffice to cover asymmetric shocks in small or medium-sized Member States. It would not be sufficient in the case of a symmetric shock or an asymmetric shock in a significant proportion of the EU economy. Still, it would be through this function that an EUBS could really make the difference vis-à-vis the national mechanisms.

Intertemporal insurance. The second function of an EUBS is *intertemporal insurance*. This function would involve a reallocation of resources across time (consumption smoothing, Alcidi & Thirion, 2016). This could be achieved through debt-issuing or by allowing the supranational fund to go into deficit in recession times while compensating in good times (e.g. if reserves had been accumulated). Intertemporal insurance is both the most powerful and the most contentious element of EUBS to deal with major symmetric or extended downturns. At the country-level, intertemporal insurance could play a role as well but only for temporary shocks. When a country is hit by a negative permanent shock, consumption has to fall accordingly and adjustment mechanisms like price and wage corrections as well as the mobility of workers are likely to be inevitable to achieve a new equilibrium. The use of savings and access to borrowing in international financial markets (the issuing of debt) can help to smooth the cost of the corrections over time, but it cannot avoid or substitute them. Note that geographical and intertemporal insurance could be combined (or coincide) if not all countries were hit at the same time by shocks.

Enhancement of NUBS. The third function of an EUBS is the enhancement of the NUBS through the introduction of minimum standards. This function can theoretically be severed from the EUBS altogether, to be implemented on its own. To better understand this component, it is interesting to refer back to the US insurance scheme. In the US, the federal state unemployment insurance system was introduced in 1935. Back then, hardly any state had an unemployment insurance programme (out of fear that this would bring additional costs, making the state less attractive for investors) (O'Leary and Barnow, 2016). A clever characteristic of the US system is that it is incentive-based. By imposing a federal tax on employers that would be reduced by 90% if states followed the federal guidelines, the system

managed to combine flexibility with minimum standards.¹² As O'Leary and Barnow (2016) explain: "[f]ederal law provides states latitude to establish practices that adapt to the economic and cultural conditions of the region. The interplay of federal and state partners has resulted in a system that varies greatly at the state level, but maintains important federal standards nationwide" (p.4). These authors further note that state practices have to comply with federal regulations, while state law has to be in conformity with federal law. Over time, new requirements were added and existing standards were further specified (such as eligibility, e.g. being able, available and actively looking for work).

Strong minimum standards would go a long way towards *strengthening the counter-cyclical capacity of the NUBS* in Europe. This capacity currently differs widely and it tends to be weak, precisely in those Member States with a more volatile economic cycle, weaker growth or higher debt. Common minimum requirements concerning the provision of unemployment benefits would enhance the coverage and stabilisation capacity of the NUBS and may contribute to upward convergence. The research performed within this project points to vast divergences in unemployment insurance systems across Europe (which reflects national preferences), in that way corroborating earlier work by Esser et al. (2013). Empirical simulations provide evidence for the resulting large gaps in coverage.

The main challenge ahead is that strong minimum requirements would be politically and economically difficult or even unrealistic without a backstop and external funding source. For example, if an economic crisis were combined with a difficult fiscal situation, governments may have the incentive to scale back their NUBS in order to save funds, rather than top up the EUBS when needed the most (which explains why an EUBS is needed on top of reinforced NUBS). Another issue is a loss of policy flexibility (or of national powers/ sovereignty), which seems inevitable when minimum requirements are imposed (though in this regard the design of the EUBS matters). For example, if there are minimum requirements, Member States whose NUBS have a similar degree of generosity would have little room to cut their NUBS to save funds. This may put pressure on other areas of public expenditure. Another example is that countries may have less flexibility to adjust their NUBS to specific features of their labour market or social model. Despite these considerations, these issues mainly affect genuine schemes (especially in countries where the NUBS matches fairly well with the minimum requirements or falls short of it). For equivalent EUBS, the impact would depend on whether there are conditionalities on how countries can use the money received (but as will become clear below, such conditionalities would be important for a scheme's stabilisation capacity). In addition, Member States can always go beyond what the EUBS prescribes. Finally, minimum requirements may boost the stabilisation function of the national scheme, but do not necessarily encourage risk-sharing.

2.4 Financing of an EUBS

Genuine variants. These variants would be financed by contributions collected from employers and employees. All workers and employers would contribute a certain percentage of the gross salary every month. This contribution would be split equally between the employer and the employee. The

¹² The remaining 10% is used to fund grants to the states, which cover among others programme administration, employer services, and extended programmes.

contribution rate would be set to balance the fund on average over the business cycle. The EUBS variants studied in this project would require contribution rates ranging from 0.35% to 1.36%.

Equivalent variants: In these variants, contributions would be collected from the Member States. Each Member State would contribute 0.1% of its GDP every quarter until 0.5% of EU GDP is accumulated. Then, countries would cease to contribute to the supranational fund. When the balance of the fund drops below 0.5% of EU GDP, contributions would restart (start-stop mechanism). In this way, the supranational fund could build up reserves, thus decreasing the likelihood of having to request additional contributions in difficult times. The cut-offs have been proposed in earlier studies (Beblavý, Gros & Maselli, 2015) and their validity has been confirmed by the simulations performed in this project.

2.5 Benefits of an EUBS

2.5.1 Benefits of the genuine variants

Unemployment benefits from a genuine EUBS are paid out to any eligible unemployed citizen on a continuous basis. Payments from the EUBS are not conditioned by a macroeconomic trigger. Most of the genuine EUBS variants studied in this project would pay out unemployment benefits from the beginning of the fourth month until the end of the twelfth month of unemployment. The economic argument for this three-month waiting period is to avoid paying for seasonal and very short-term unemployment (e.g. frictional unemployment). In other variants, benefits are paid out from the start of the first month until the end of the twelfth month or from the beginning of the fourth until the end of the sixth month. Given the administrative complexities of handing over from the national system to the European system at the end of the third month, the study suggests that the optimal path would be for the EUBS to cover the first twelve months from the start of the unemployment (no waiting period).

The *level of the unemployment benefits* that an eligible individual receives is usually determined by three parameters: the reference wage, the replacement rate and the cap. In this study, the replacement rate is generally equal to 50%, but there are also two variants assuming 35% and 60%. A rate of 50% appears to balance the need to avoid unemployment traps and to provide sufficient means to support household income (Krueger & Mueller, 2010). The reference wage to which these percentages are applied is the last gross wage in this study (and it is used in most countries). Member States with a NUBS based on net wages or flat-rate benefits could maintain their system, if they guaranteed an unemployment benefit amount equivalent to 50% of the average gross wage. The third factor affecting the benefit amount is the cap, which prevents benefits from rising above a maximum amount. In this study, EUBS benefits are capped at 150% of the national average wage in nearly all EUBS variants, but also at 100% and 50% in some of the variants. For the EU, Dullien (2007) recommends a cap of 50% of the average national wage. Delpla (2012) proposes capping benefits at €2,000.

EUBS eligibility rules determine who would be entitled to unemployment benefits. Commonly, eligibility depends on many factors such as the nature of unemployment and the employment record vis-à-vis a reference period. In most variants, unemployed persons who worked as employees for 3 months (not

necessarily consecutively, in full-time equivalents)¹³ out of the last 12 months are eligible for benefits. There are also other variants: in one, individuals must have worked for 3 months out of the last 6 months; in another, they are required to have worked for 12 out of the last 24 months.¹⁴

Eligibility rules are extremely important for any unemployment insurance scheme, as they have a large impact on its coverage and stabilisation capacity. Esser et al. (2013) define the coverage rate as the percentage of insured individuals in the labour force. They show that the coverage rate is close to 75% in the EU and the EMU, but this percentage hides a substantial variation across countries. This variation is partly caused by the types of unemployed individuals covered by the scheme (e.g. whether self-employed are within or outside the NUBS) and the overall stringency of the criteria (e.g. a long employment record). Across Member States, there is a huge diversity with regard to eligibility in terms of both the employment record and reference period. While the self-employed are not covered by the EUBS presented here, including them could strengthen stabilisation. At the same time, this could lead to administrative difficulties and extra costs.

Box 2. Basic versus top-up genuine EUBS variants and its impact on EUBS financing and benefits

One of the most defining features of a genuine EUBS variant is whether it is a 'basic' or 'top-up' scheme. In a basic variant of the genuine scheme, the supranational fund pays out benefits to the eligible unemployed for a predefined number of months. The benefit amount is also fixed; it depends on the replacement rate and capping that apply. *Top-up genuine schemes* are rather different. In this case, every eligible unemployed is guaranteed a minimum benefit. Importantly, 'minimum' not only refers to the benefit amount but also to other features (e.g. benefit duration). If a country's national provision guarantees this minimum, the EUBS does not intervene. In the opposite case, when the national provision does not reach this level, the top-up EUBS covers the difference, supplementing the national benefits.

This distinction has major implications: while in the basic scheme every Member State could benefit in the event of an increase in short-term unemployment, the top-up variant would support countries that are less generous than the EUBS. Countries with more generous NUBS would contribute but may never receive pay-outs from the fund. The top-up scheme would therefore encourage countries to lower their NUBS' generosity, triggering a race to the bottom. This issue not only arises in normal circumstances. It could also be especially problematic during long severe crises in which countries adjust their NUBS downwards; with a top-up EUBS, they may be compensated for the difference. Although this issue could, at least to some extent, be offset by the experience rating and claw-back, hardly any study considers the top-up scheme a valid option (Dullien, 2012, 2013; Beblavý & Maselli, 2014).

Even though the stabilisation effect of the top-up EUBS variant could not be modelled due to data limitations, it is clear that its capacity would be lower than that of the basic genuine variants. The top-up scheme would intervene less frequently and contribute fewer benefits to an unemployed person than a basic scheme would. One advantage of the top-up variant, however, is that it would result in a smaller scheme, requiring lower contributions to set up the fund. In legal and operational terms, the top-up

¹³ Part-time workers are not excluded by design, but it is more difficult for them to meet these goals.

¹⁴ In the simulations, these two alternatives are operationalised as demanding that one has worked for 6 months out of the last 12 and at least 9 months out of the last 12.

scheme would be the most problematic of all the variants examined. Legally, it is unclear how the top-up would interact with the NUBS and national social assistance schemes (e.g. in terms of precedence and the benefit to which top-up is applied, more specifically the unemployment benefits alone or benefits that have already been topped up by social assistance). In many countries, the national benefits decrease over time, so the contribution of the top-up would increase. Similarly, in countries where benefits are reduced when claimants have other sources of income, the top-up would – save legislative intervention - result in a self-defeating scenario whereby the supranational benefit, paid to raise the claimant's NUBS income to the level of the EUBS minimum provision, would result in his/her NUBS provision being reduced, which in turn would warrant a higher EUBS payment, and so forth. On the operational side, the top-up EUBS would give rise to a highly complex structure in which NUBS and EUBS function simultaneously. It would require more frequent and more intensive interactions between the two schemes than between any other EUBS.

2.5.2 Benefits of the equivalent variants

In equivalent EUBS variants, funds are transferred from the supranational fund that manages the EUBS to those Member States that meet the triggering condition. When triggered, Member States would receive a *pay-out* from the supranational fund, which would be equal to the funds needed to support unemployed citizens who have worked during at least 3 out of the last 12 months, for 9 months with benefits equal to 50% of the replacement rate and capped at 150% of the average national wage (i.e. the baseline variant in this project).

Box 3. The trigger in this project

The trigger is defined by an indicator and a threshold, and activated when the value of the indicator surpasses the threshold level. In the project, the indicator is the *country's short-term unemployment rate in every quarter*, while the threshold is *the sum of the 10-year (or 40-quarter) moving average of country's short-term unemployment rate plus a percentage*. The trigger is activated when short-term unemployment surpasses its long-term average by more than a certain value. In the project, the values are set at 0.1 %, 1% or 2% depending on the variant (respectively, "rainy day", "stormy day" and "reinsurance of the national schemes"). This value is of crucial importance, as it determines the frequency of the transfers and the size and power of the EUBS. A cut-off of 0.1% is very low and would invoke transfers from an equivalent EUBS even in cases where there is no need for supranational intervention. Very high cut-offs (e.g. 2%) imply that the scheme is only triggered for Member States under very severe circumstances. Yet, this may make the implementation of common minimum standards difficult (as poorer countries could not expect any social assistance in return for the increased cost unless they were in an exceptionally severe situation). It may also weaken the stabilisation effect of the EUBS, which again would be limited to very severe shocks. A cut-off of 1% appears to strike a balance between these two extremes.

This design results from a careful analysis of the literature. Earlier work on EUBS has identified two types of *indicators*: those based on the *output gap* and those based on the *unemployment rate*. In the literature, a consensus has emerged that the unemployment rate is preferable to the output gap. The rationale is that although there is a strong relationship between the output gap and the economic cycle,

the output gap is unobserved and it is frequently revised, calling into question the reliability of the measure in real time (Biggs & Mayer, 2010; Ince & Papell, 2013; Strauss et al., 2013). The bulk of the literature has therefore opted for the unemployment rate, because this measure is based on a head count that is available and therefore followed and monitored on a regular basis (Italianer & Vanheukelen, 1993; Dullien, 2007, 2012, 2013; Beblavý & Maselli, 2014; Vetter, 2014). There is an agreed international definition of the unemployment rate, and as an indicator it is clearer and more easily understood by the general public when compared with the output gap.

More specifically, the trigger is based on the *short-term unemployment rate*¹⁵ and defined in terms of a *difference from a norm* (instead of the unemployment level) (in line with Dullien, 2013; Beblavý & Maselli, 2014; Vetter, 2014; Beblavý, Gros & Maselli, 2015). Notwithstanding that the total unemployment rate is also an option, as it is a simple measure that it easy to explain to the public, short-term unemployment is more sensitive to the economic cycle. This fits well with the idea of the EUBS as a shock absorber and a mechanism that should not result in permanent transfers. Moreover, total unemployment also includes structural unemployment which is not necessarily the result of the shock that the mechanism is meant to absorb. Note, nevertheless, that correlations between short-term and total unemployment rates are high, but this does not preclude that the short-term and the total unemployment rate can deviate (e.g. due to hysteresis).

The design of the *threshold* has also been much debated in the literature. One proposal is to use year-on-year increases in unemployment as the norm for the threshold, but this idea has been criticised by Beblavý & Maselli (2014). These authors claim that such an approach would lead to a volatile measure that, to a large extent, is determined by the unemployment level in the previous year. While this issue could be avoided by means of a structural unemployment indicator, like the NAWRU, such indicators typically are hard to estimate and often revised. Beblavý & Maselli (2014) rely instead on the moving average of a country's short-term unemployment rate during a 10-year reference period. The idea is to strike a balance between using a very long reference period (which potentially penalises successful labour market reform during a crisis) and a very short one (that is too greatly affected by the economic cycle).

In this study, the *10-year moving average of short-term unemployment* is selected for the threshold. As indicated above, the literature suggests using a *deviation from the norm* rather than the norm itself. This deviation can be expressed in terms of fixed percentages or standard deviations. While using standard deviations could perhaps be preferred from a scientific point of view, this could lead to a politically unacceptable situation in which two Member States have the same short-term unemployment rate but only one of them qualifies for the EUBS. The following fictional example illustrates this issue. Assume that the short-term unemployment rate of country A is much more volatile than that of country B, which translates into a higher standard deviation in country A, e.g. 2% in country A and 0.5% in country B, and that in both countries the long-term average of the short-term

¹⁵ The short-term unemployment rate is obtained as the ratio of individuals unemployed for less than a year to the size of the labour force. The proposal is to opt for seasonally adjusted quarterly data because most economic indicators are produced on a quarterly basis. Annual data would result in too slow a response, defeating the purpose of the EUBS. Monthly data, however, are very comparable to quarterly data.

unemployment rate is 4%. This could result in a situation whereby the short-term unemployment rate in both countries is 5%, triggering the EUBS for country B (5% > 4% + 0.5%) but not for country A (5% < 4% + 2%).

Defining the deviation in terms of *fixed percentages* therefore seems to be a better, more transparent and easily understood approach. A calibration exercise is performed to come up with *three cut-off points*: one for the rainy-day scenario (in which the EUBS is activated very frequently), one for the stormy-day scenario (in which the cut-off is somewhat higher) and one for the reinsurance scenario (which only covers severe shocks resulting in a large increase in short-term unemployment in percentage terms). In this exercise, the following potential cut-off points were considered: 0.1, 0.25, 0.5, 0.75, 1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75 and 3. On the basis of these simulations, 0.1% was chosen for the rainy-day scenario (triggered 197 times i.e. counting all instances in which the EUBS was triggered by country and by year, with all countries qualifying at some point), 1% for the stormy-day scenario (triggered 80 times, benefitting 22 countries) (value of 1 is close to average standard deviation of 0.94) and 2% for the reinsurance scenario (triggered 32 times, benefitting 14 countries) (if over 2.5% then hardly any country would qualify, within a range of 1.75% and 2.25% there are only few differences).

2.6 The issue of permanent transfers

One of the main concerns emerging from the political debate on an EUBS is the issue of permanent transfers and how these could be avoided. As an EUBS is an insurance mechanism, it would be impossible to design a scheme that would not allow for redistribution on an annual basis. At the same time, long-run fiscal neutrality would be important to preclude Member States from becoming permanent net contributors or recipients from the EUBS. ¹⁶

To this end, an EUBS could be designed in such a way that it is equipped with experience rating and claw-back, two instruments that connect pay-in with pay-out.¹⁷ Experience rating is a mechanism that ties the pay-in into the supranational fund to the likelihood of using it, either by taking into account how often the fund is used (reinsurance EUBS) or by linking the pay-in to a country's past unemployment record (genuine EUBS). As such, experience rating would rule out permanent redistribution from Member States with low unemployment rates to Member States with high rates. The concept of experience rating could be applied to countries or smaller entities (e.g. US employers that dismiss more, pay more).

Experience rating should, as far as possible be simple, robust, automatic, counter-cyclical and non-discretionary. It would have to function in real-time and be implemented at the launch of the EUBS. In its design, experience rating should reflect that Member States differ substantially in terms of their short- and long-term unemployment rates. For that reason, it would be based on the long-term average

¹⁶ Note that the EUBS is also based on short-term rather than total unemployment.

¹⁷ As none of the variants modelled in the project lacked both mechanisms, an estimate of how big permanent transfers would be if these mechanisms were missing cannot be provided.

of the short-term unemployment rate. This approach would also avoid intertemporal inconsistencies: raising contributions when a country is still in recession or just starting to recover would undermine the aim of the EUBS.

Box 4. Experience rating in this project – Present in 16 of the 18 variants examined

The experience rating for the *reinsurance schemes* is set up as follows in this project. A single coefficient is applied to all contributions from a specific country at a specific moment in time, ranging from 1 to 2. The maximum value of 2 corresponds to a situation in which the system was triggered in each preceding quarter or where claw-back is activated. The pay-in can never be more than doubled.

Applying the same logic to the *genuine EUBS* leads to an experience rating where a single coefficient is applied to all individual contributions originating from a Member State at a specific time. The value of the coefficient is given by the ratio of the 10-year average of the short-term unemployment rate in a country over the 10-year average of the short-term unemployment rate across the EU (thus capturing other countries' past performance). This coefficient is updated every three years. Over-frequent updates of this coefficient would be administratively difficult to manage, especially in Member States where contribution rates do not change very often. Another issue is its impact on labour costs.

Claw-back serves as a second mechanism that could be used to address permanent transfers. It would act to ensure that there are no long-term imbalances vis-à-vis the supranational fund (i.e. when countries for several years, countries receive much more from the fund than they have paid). Long-term imbalances could, for example, arise after a long and severe crisis in a Member State that causes a significant deficit vis-à-vis the fund, which cannot solely be addressed by the experience rating due to its gradual nature. Given their similar objectives, claw-back shares some characteristics with experience rating, such as the need for it to be simple, robust and counter-cyclical (through a delayed and gradual implementation). Claw-back could be automatic, like experience rating. Nevertheless, a better solution would be to opt for a discretionary mechanism. This would allow for a clearer distinction between temporary and permanent shocks.

Box 5. Claw-back in this project – Present in 16 of the 18 variants examined

To ensure counter-cyclicality, the claw-back becomes active for countries with a negative cumulative balance vis-à-vis the supranational fund of more than 1% of GDP for a three-year period. It continues to operate until this balance falls below the 1% cut-off.

In the *reinsurance EUBS*, the claw-back is implemented in a similar way as the experience rating: it works as a coefficient equal to the value of 2 that is applied to Member States' pay-in. In other words, the pay-in of a country is doubled after three years of a negative balance vis-à-vis the fund that exceeds 1% of GDP.

For the *genuine EUBS*, claw-back is not paid by employers and employees (as is the case for the experience rating). Instead, it is operationalised as a supplementary contribution of the Member States, equal to 0.2% of GDP annually. This choice is motivated by the fact that employers and employees are already faced with higher contributions due to the revision of the experience rating (which also occurs at the three-year

mark), when the economy is still in recession or recovering. A further automatic increase of labour taxation would be administratively complex and contradict the idea of the EUBS as a stabiliser.

Experience rating and claw-back have similar goals, but experience rating could achieve them in a more gradual way. One could therefore argue that the combination of experience rating and claw-back is largely redundant and violates the spirit of insurance. A gradual implementation would be necessary to avoid intertemporal inconsistencies. For that reason, an EUBS with experience rating but without a claw-back mechanism could be sufficient. Still, an EUBS with claw-back but without experience rating would be problematic: it would mean that Member States with permanently higher unemployment rates would pay similar contributions to the fund as those with permanently lower rates, but would later have to make up for the difference with ex post claw-back contributions (which would have to be almost permanently activated). Such an approach does not appear to be very sensible. Furthermore, this approach would also not be very credible, as Member States with permanently lower unemployment rates might wonder whether there would ever be a time when those with permanently higher rates could repay. This would be particularly problematic if the EUBS were allowed to issue debt.

2.7 Moral hazard in an EUBS

Another issue that has received a lot of attention in the political debate on an EUBS is moral hazard. In this project, these issues are examined on the basis of eight case studies that map the experience of countries with a multi-tiered unemployment insurance scheme.

2.7.1 The issue of institutional moral hazard

The concern of institutional moral hazard inevitably emerges in multi-tiered systems where a central government can be regarded as 'insuring' or 'reinsuring' the risk of unemployment for lower levels of government. Moral hazard is described by Barr (2004) as a situation in which an insured person is able to affect an insurance firm's liability without the latter's knowledge. *Institutional moral hazard* refers to a situation in which two levels of government deal with the governance of a social risk, and one level covers this risk — a task that could in principle be tackled by the other level as well (Vandenbroucke & Luigjes, 2016). Each level of government is politically accountable vis-à-vis its own political constituency.

In the context of unemployment insurance, one can imagine a situation in which a country's federal government is responsible for the financing and payment of unemployment benefits, whereas the activation of the unemployed and related policies are left to the lower levels of government. The behaviour of the latter has an impact on the former, in the sense that the quality of the policies implemented interacts with the costs borne by the federal level. ¹⁸ For example, if activation policies are poorly designed or implemented, they can be less effective in eradicating unemployment, thereby

¹⁸ Unemployment evidently is a risk that is both endogenous and exogenous for lower levels of government. While they are able to influence the unemployment rate through policies, there are many other factors that contribute to unemployment (the international business cycle being one example).

pushing up the costs of unemployment benefits at the federal level. Thus, policies implemented by one level of government can influence the actual incidence of the social risk at this level, and in turn, the cost to be covered by the other level of government. Moral hazard is intrinsically linked to *asymmetric information*. In the example, the federal policy-makers lack sufficient information to distinguish between the effects of policy and pure risk factors on unemployment benefits. ¹⁹ The former is under the control of lower levels of government while the latter is not. Institutional moral hazard matters especially when one expects that lower levels can determine these costs to a great extent and when there are differences in the quality of the policies implemented.

This study looked in-depth into the incidence of institutional moral hazard in eight countries: Australia, Austria, Belgium, Canada, Denmark, Germany, Switzerland and the US. For each country, the benefits and the activation sides of unemployment and social assistance as well as the interplay between them were investigated. All countries are characterised by a multi-tiered insurance scheme, which commonly involves at least three levels of government (and frequent interactions with other actors, such as the social partners).

In each of the studied countries, the existing unemployment insurance system is already fairly complex. The introduction of a European scheme would thus add an additional layer of complexity, as it would interfere with the already very complicated national systems. ²⁰ This constitutes a first challenge to the EUBS. Second, institutional moral hazard operates through the shifting of caseloads between social assistance and unemployment insurance, through poor activation policies, and - for some types of EUBS – by diminishing the coverage or generosity of the regional schemes to shift costs to the federal level.

From the case studies it is clear that institutional moral hazard is embedded in any multi-tiered insurance scheme - it is an intrinsic characteristic. The real challenge thus lies in its mitigation or partial avoidance if a European scheme were to be introduced. In practice, this could be done by raising the costs of manipulation and reducing any information asymmetries. One way to achieve this goal would be by centralising the risk (i.e. ending the scheme's multi-tiered setup). An example of this approach is the German case, where the government centralised a social assistance scheme that had been run locally into a federally run scheme. In the eight countries examined, different solutions were put forward including conditional funding, minimum requirements, and financial incentives, which are often subject to continual reforms. Moreover, the adverse effects of institutional moral hazard and the costs of mitigating it, have to be weighed against the benefits of insurance, such as economic stabilisation, redistribution, social cohesion and growth. In other words, a certain level of institutional moral hazard may be regarded as 'a price to pay' to achieve stabilisation and risk-sharing.

Another factor to take into account is the distinction between *institutional moral hazard as an objective* reality, public perceptions of the issue and public concerns about it (which depends on countries' views on the generosity of systems or tolerance regarding moral hazard). Here, substantial differences among

¹⁹ In the context of institutional moral hazard, one could argue that the federal government may have enough information, but that the issue is that it does not have enough power to change the process.

²⁰ On the other hand, one could also argue that an EUBS could be an opportunity for simplifying the national structure (which relates to minimum requirements or common standards and harmonisation).

the eight countries surfaced, notably between the US and Europe. Building mutual trust among the EU Member States would therefore be an important consideration if an EUBS were to be established.

2.7.2 How can moral hazard be addressed?

Within the project, several ways to address moral hazard are emphasised: experience rating, claw-back, the presence of a trigger, and common minimum standards. The important role of *minimum standards* has already been discussed in previous sections. Similar to the issue of permanent transfers, moral hazard could be addressed by equipping the supranational fund with *experience rating* and *claw-back*, to link the pay-in for the EUBS to its use. Member States that use the fund more or have a higher likelihood of doing so, have to contribute more. This would discourage countries from shifting caseloads to the EUBS. More information on these two mechanisms and their operationalisation in the study is provided in the previous section.

In addition to these two mechanisms, a *trigger* may prove to be another relevant tool. In this project, only the equivalent EUBS variants are conditioned by a trigger. Without a trigger to activate the genuine EUBS variants, benefits would be paid out to any eligible unemployed person, regardless of the activation measures that Member States provide. Under these circumstances, Member States may have less incentive to offer activation measures to their unemployment insurance caseload (or at least the caseload covered by the EUBS) than when they are fully financially responsible for benefit payments. In the reinsurance EUBS variants (which are tied to a trigger in this study), ineffective activation policies increase the costs for Member States during periods in which they are not triggered. Moreover, a reinsurance EUBS would most likely be triggered in a period of high unemployment, precisely when activation policies are less effective. Ineffective activation policies therefore are less likely to be a structural problem, and less likely to be perceived as institutional moral hazard, in the context of a reinsurance scheme.

2.8 Debt-issuing in an EUBS

Debt-issuing is one way to address short-term imbalances in the supranational fund. If the global balance of the EUBS became negative, the fund could be allowed to borrow on the financial market. If debt-issuing were not impossible, the resources needed to correct the imbalance would have to be collected in another way. It should, however, be recognised that any alternative option would likely result either in a reduced stabilisation or in a procyclical stance, at least in some Member States.

Indeed, one option is to *adjust some parameters of the EUBS* to reduce the costs of the scheme (e.g. eligibility criteria). Yet, this could affect the scheme's coverage and stabilisation capacity, making this approach problematic. A second option is to *claim additional contributions from the Member States*. In the case of equivalent EUBS, the fund could increase Member States' pay-in, i.e. raise their contributions in proportion to their GDP. For the genuine variants, the fund could either increase Member States' contributions by a temporary coefficient, or demand a special contribution proportional to Member States' GDP (countries would be free to decide how to raise the funds needed, as for the equivalent EUBS). Demanding a special contribution would be preferable to temporarily raising the pay-in, as one might expect debt-issuing to be necessary particularly in the case of large symmetric shocks. Increasing

contributions by a temporary coefficient during such a time would boil down to raising labour taxes in Member States that are already struggling.

In both cases it would be easy to call for an additional contribution from Member States, but this would be procyclical (and it undermines the idea of a stabiliser). Allowing the supranational fund to issue debt could avoid the prospect that during an economic downturn, countries that are less affected than others would still see contributions go up to support those facing a greater shock. Debt-issuing would make the pay-in less volatile. In addition, the EU's complicated institutional framework calls for a predetermined, automatic solution. Of the 18 EUBS variants examined in this study, only 3 were prevented from borrowing. According to the simulations performed, extra payments would indeed have been requested in these variants. For example, for the equivalent EUBS variant with a no-debt constraint and a very low trigger, additional payments would have been needed during 1995-1998 in the EMU (and during 1995-97 and in 2013 in the EU case). Similarly, in the only genuine EUBS with a no-debt constraint, extra payments would have been demanded in 1995-99 and 2013 in the EMU case (and in 1995-98 and 2013 in the EU case).

Yet, there is no consensus on the idea of debt-issuing. Apart from potential legal constraints, which are discussed in more detail in chapter 4, there are political and moral hazard concerns about debt-issuing. A first argument against debt-issuing is that public debt could be higher due to the EUBS. The EMU, however, is already highly indebted. In recent years, parts of the EMU experienced a sovereign debt crisis. Some of the underlying causes of the sovereign debt crisis were high private debts (transferred to sovereigns due to the housing bubble), bail-outs of over-indebted banks, and large debt-to-GDP ratios (Petrakis et al., 2013). In this light, introducing a mechanism that would be allowed to issue debt may be a cause for concern. Financial markets indeed are likely to consider not only Member States' debt levels but also EU/EMU debt financing. Another concern is that some Member States may end up bailing out others. In an EMU where government-to-government bail-outs are possible, as evidenced by the Greek bail-out of 2010, moral hazard is an important challenge (Kirkegaard, 2010). Feld et al. (2015) confirm this observation. These authors argue that an effective and sustainable fiscal policy requires 'unity of liability and control in political decision making'. Prior to the crisis, the risk of moral hazard, fuelled by the fact of having a joint liability without EU-level control, was underestimated. Now, the issue is back on the agenda of policy-makers. At the same time, the level of debt that should be accumulated by EUBS would not be likely to exceed 1% of EU GDP even under circumstances of severe recession.

Chapter 3. The added value of a potential EUBS

Key messages

A European unemployment benefits scheme is one of the many options that policy-makers could consider for an automatic stabiliser for the EMU. To enable policy-makers to make an informed decision on whether such an EUBS would be a viable option, it is important to gather more insight into the added value that such a scheme would have. A substantial part of this project has therefore been devoted to an assessment of the potential added value of each of the 18 EUBS variants analysed. This assessment has mainly been supported by a series of backward- and forward-looking simulations that mapped the economic impact, and also by the literature and other work carried out in light of the project.

There are many channels through which an EUBS could provide added value (both as a stabilisation mechanism and when compared with the existing national unemployment benefits schemes). More specifically, an EUBS could contribute to macroeconomic stabilisation and efforts to address unemployment, encourage labour mobility, stimulate upward convergence and support the further development of 'Social Europe' along several dimensions. As such, an EUBS could be a clear sign to Europe's citizens that the Union cares about their well-being. In the current context, this would be a meaningful signal.

As the primary objective of an EUBS would be to serve as a stabilisation mechanism, important added value would stem from the scheme providing an automatic response to cyclical developments. Such an automatic stabiliser is currently missing in the EMU and would be an essential complement to other existing instruments and market mechanisms. If an EUBS were to be set up, it would provide macroeconomic stabilisation through three channels: its (potentially) higher counter-cyclicality when compared with the national schemes (because an EUBS would generally have a wider coverage and higher generosity than the NUBS), spatial smoothing (as risks could be centralised), and intertemporal smoothing (as an EUBS typically could borrow). Within this context, it is important to recall that an EUBS would meet the criteria for such a stabiliser stipulated in the Five Presidents' Report (Juncker et al, 2015).

The enhancement of the national schemes is a particularly important channel through which stabilisation would be attained (by extending their coverage and/or generosity). One may therefore wonder whether simply improving the existing NUBS in these areas would not be sufficient to achieve the same stabilisation result. This reasoning, however, neglects the other two channels: NUBS cannot fall back on a cross-country smoothing of shocks (which is the main added value of the EUBS in comparison with the NUBS) and may face financial or institutional constraints (whereas the EUBS could issue debt in most cases). In addition, the project argues that enhancing the NUBS may prove difficult from the political and financial points of view without a common backstop. Furthermore, such an enhancement would have to go hand in hand with common minimum requirements, to ensure that Member States could not reduce their schemes to save funds.

To investigate the macroeconomic stabilisation capacity of the 18 EUBS variants, the study conducted a series of backward- and forward-looking simulations. Their stabilisation effect was mainly assessed on the basis of how the variant affects the *level of GDP and its growth rate*. As genuine EUBS variants pay out benefits for any eligible job loss, pay-outs are much smoother and so their impact on the level of GDP

would generally be larger than on GDP growth. For equivalent EUBS variants, which specifically target crisis years, the opposite holds.

In general, the stabilisation impact of an EUBS is found to be relatively limited due to the small scale of the scheme (which would typically be less than 1% of EU GDP). An EUBS would thus be able to partially absorb economic shocks, with the absorption capacity depending notably on whether the EUBS can be in deficit and on the extent to which the EUBS would be more generous than current national UBS. Another conclusion that emerges from the models is that equivalent EUBS variants generally perform better in stabilisation terms than genuine EUBS variants. This result can be explained by the focus of the equivalent EUBS on the crisis years, while genuine EUBS would operate continuously. Finally, for both types of EUBS, the stabilisation impact would be the largest at the start of the downturn.

The stabilisation capacity of the equivalent schemes examined in this project is determined by the threshold of the trigger that conditions them in particular. Whereas schemes with a very high trigger threshold are relatively cheap (as they are only rarely triggered), they may not respond to even very severe crises and would have a substantially lower stabilisation impact than their counterparts with lower trigger thresholds (0.21% versus 0.09% of GDP on the 19 euro area (EA) countries' GDP level in 1995-2013). In addition, fewer countries may benefit, which may cause polarisation. Variants with low thresholds provide more stabilisation, but are much more expensive. Striking a balance between thresholds that are too low or too high would thus be important. In the study, a trigger threshold in the range of 1% to 1.5% is considered.

For genuine EUBS variants, the main determinants of stabilisation capacity are the features that affect their coverage and generosity: the eligibility conditions, the duration of benefits and the replacement rate applied. The genuine EUBS variants with the longest duration and the highest replacement rate perform best in stabilisation terms (respectively 0.18% and 0.14% of GDP on EA19 GDP level in 2009). These schemes, however, are also more costly (reaching a scale of 0.43% and 0.32% of EMU GDP). A three-month waiting period reduces coverage by about 30 percentage points, and hence lowers a scheme's stabilisation impact.

Other findings that result from the simulations are that experience rating and claw-back are effective mechanisms to prevent permanent transfers, variants that are not allowed to issue debt wold be faced with additional contributions, and some variants do build up reserves (especially those with high trigger thresholds and those that cannot borrow).

Besides its role as a stabilisation mechanism, an EUBS could be designed in such a way that it facilitates cross-border job search (labour mobility). In Europe, labour mobility is low and boosting it has been a priority for European policy-makers for many years. An EUBS could stimulate labour mobility by overcoming the limitations of social security rules and regulations and by making EUBS benefits portable. In that way, an EUBS could contribute to a more integrated European labour market. At the same time, it seems likely that the impact on labour mobility would be limited. One reason for that is the very poor use of the exportability of unemployment benefits today. Another reason could be that setting up the EUBS so that it encourages mobility would necessitate a complex monitoring and coordination system.

An EUBS could further spur convergence and contribute to **Social Europe**. By enhancing the NUBS, an EUBS would not only provide stabilisation, but also improve the protection of the unemployed (in terms of the number of people protected or the level of protection offered). In addition, by imposing minimum

requirements on activation policies, the EUBS could actively address unemployment in Europe as well as moral hazard. All these items may result in an upward convergence of labour market policies and institutional capacity. An EUBS could contribute to the European Pillar of Social Rights, to achieve a deeper and fairer EMU. The study also finds that an EUBS could have a positive impact on poverty and inequality, in that way supporting social cohesion. Finally, an EUBS could be regarded as a sign of solidarity and may bolster the legitimacy of the European project.

This chapter analyses what the added value could be of a European unemployment benefits scheme. It investigates whether and how an EUBS could contribute to macroeconomic stabilisation, labour mobility, upward convergence and Social Europe (in several dimensions). To provide empirical support for the discussion, the chapter draws on the findings of a series of backward- and forward-looking simulations conducted in the study. These simulations are linked to each other and based on a combination of macro and micro models.

3.1 An EUBS could contribute to macroeconomic stabilisation

In essence, the added value of an EUBS follows from its role as an automatic macroeconomic stabilisation mechanism.²¹ Therefore, the most important questions to be answered in this project were the following ones: to what extent can an EUBS enhance the stabilisation capacity of the existing national unemployment benefits schemes and what additional stabilisation effects can it achieve? To answer these questions, a series of simulations was carried out to better understand how the 18 EUBS variants at the core of this project differ in terms of economic and fiscal outcomes and macroeconomic stabilisation impact. The modelling was applied both to the past, creating an alternative scenario for what would have happened over the period 1995-2013 if an EUBS had been in place ('backward-looking analysis'), and also to various hypothetical futures, to see how an EUBS might perform when confronted with different kinds of macroeconomic circumstances ('forward-looking analysis'). Details on the methodology and data used in the simulation are provided in Appendix B of this report. Details on the four hypothetical scenarios modelled as part of the forward-looking analysis are available in Appendix B as well. The simulations were carried out for each Member State on the assumption that the system was implemented for the present eurozone members (EA19) and then across the whole EU.

Stabilisation channels. The stabilisation effect of an EUBS stems from three main channels. The first channel involves *an enhancement of the existing national unemployment insurance schemes*: the EUBS differs from the NUBS in many dimensions, which results in a *(potentially) higher counter-cyclicality of the EUBS vis-à-vis NUBS because of greater coverage or benefit generosity*. The second channel relates

²¹ A study of the US Department of Labor highlights the important role of unemployment insurance as a stabiliser in the Great Recession, which proved to be higher than in previous downturns (Vroman, 2010). It also shows that the average multiplier effect on real US GDP was real and meaningful.

²² In the backward-looking simulations, the *baseline* is represented by the actual legislation of national unemployment benefit systems, while in the *counterfactual* different EUBS variants are simulated. In the forward-looking simulations, the baseline depends on the macroeconomic circumstances modelled.

to *inter-country (spatial) smoothing*: the establishment of an EUBS effectively means that the NUBS are first harmonised such that they fulfil the minimum requirements defined by the EUBS conditions and subsequently centralised (inducing spatial insurance).²³ Spatial insurance implies that the risk and costs of unemployment are pooled across a group of countries, instead of being borne by a single Member State. The third channel is *intertemporal smoothing*, which can be achieved by allowing the EUBS to borrow. In the absence of financing or other institutional constraints (this may be a strong assumption if either financial markets charge a premium for borrowing or Fiscal Compact rules are binding), NUBS could in principle effect intertemporal smoothing; *inter-country smoothing effects thus constitute the 'real' added value of an EUBS*.

Based on micro simulations, which do not take into account macro-economic feedbacks or behavioural responses, Dolls et al. $(2016)^{24}$ report that, for the euro zone as a whole, about 10% of income fluctuations caused by transitions into and out of unemployment are absorbed by interregional and another 10% by intertemporal smoothing. The smoothing effect of enhanced national unemployment benefit schemes is negligible once one takes into account the higher contribution rates needed to finance more generous benefits.

3.1.1 Enhancing the national unemployment benefits schemes?

As one of the three channels through which an EUBS could contribute to macroeconomic stabilisation is an enhancement of the NUBS, one may wonder whether improving the NUBS would not be sufficient. The NUBS may indeed be powerful stabilisation mechanisms. The crisis, however, has shown that this is not necessarily the case, notably due to *limited coverage* (i.e. the share of the short-term unemployed eligible for benefits) or *generosity* (in terms of benefit amount or duration) of the currently existing NUBS. In some countries, for example, the self-employed are not entitled to benefits (but do represent a large part of the working population). This may result in low coverage rates.

In this project, the 18 EUBS variants examined generally have a broader coverage than the national schemes in place. This is depicted in Figure 1, which illustrates differences in the coverage rates between the NUBS and the most generous genuine EUBS variant²⁵ modelled. It compares how many short-term unemployed individuals were covered by the NUBS (on average over 1995-2013), with how many would have been covered under the most generous genuine EUBS variant (variant 7, which pays out benefits for 12 months from the first month of unemployment). The coverage gaps between the EUBS and NUBS are particularly pronounced for countries in Central, Eastern and southern Europe. In most countries, the young (under age 30) would tend to gain the most in terms of additional coverage of an EUBS

²³ For example, consider a fiscal union consisting of two countries, A and B, which centralise their NUBS. If the union is hit by asymmetric unemployment shocks, contributions to the centralised system are less volatile than those to the NUBS.

²⁴ Dolls et al. (2016), 'An Unemployment Insurance Scheme for the Euro Area? A Comparison of Different Alternatives using Micro Data', CESifo Working Paper No. 5581 (revised).

²⁵ The comparison is based on the backward-looking analyses. It is shown for the most generous genuine variant because this is the only variant that pays out benefits for a twelve-month period and starts immediately upon becoming unemployed. This corresponds to the situation in most NUBS. Moreover, all other genuine variants have a three-month waiting period, which also complicates the comparison.

because short-term unemployment is particularly prevalent among the young in most countries. Similarly, the forward-looking models used in this project indicate that in most countries over 80% of the short-term unemployed would be eligible for the EUBS. On average, the EUBS would increase coverage of the short-term unemployed by 45 percentage points among the EA19 Member States.

A more generous EUBS (represented by a longer benefit duration or a higher benefit amount) requires larger social contributions to be raised, reducing income and spending in comparison with a less generous EUBS. When short-term unemployment is low, these reductions are not offset much by benefit receipts from the EUBS. When it is high, a more generous EUBS pays out larger transfers, boosting income and spending compared with a less generous EUBS. The higher social contributions required to finance a more generous EUBS, however, increase the tax wedge between the cost of labour faced by the employer and the wage income received by the worker, which makes the labour market less flexible (consistently over time, not just in the periods when macroeconomic stabilisation is needed).

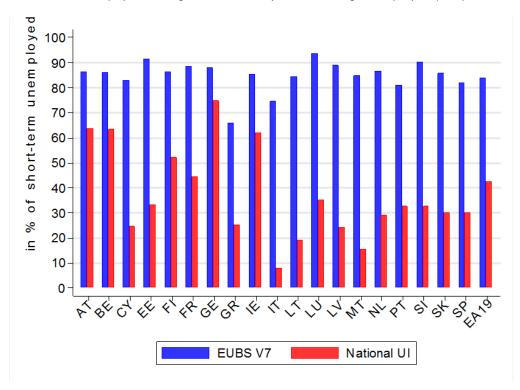


Figure 1. Comparison of coverage of NUBS (average over 1995-2013) and an EUBS in which payment begins immediately on becoming unemployed ('V7')

Although adapting the existing NUBS so that they reach the coverage and generosity levels of the EUBS might go a long way towards expanding the EU's stabilisation capacity, there are a number of caveats that one has to bear in mind. As indicated above, improving the NUBS may be politically and fiscally difficult or even impossible without a common backstop. An enhancement of the NUBS would likely raise the cost of unemployment insurance in countries that currently have a less generous scheme. In addition, this would also require common minimum standards and rules so that countries could not return to their original NUBS to save funds in recession times. Finally, an EUBS would attain stabilisation

through two additional channels: intertemporal and spatial insurance (i.e. where the EUBS could make an important contribution).

3.1.2 How much stabilisation could an EUBS achieve and at what cost?

This section explores in depth how much stabilisation the EUBS variants studied in this project could provide and at what cost. To this end, the section draws on the results from the backward- and forward-looking simulations that were conducted. Before delving into these results, it first needs to be explained how reinsurance and genuine EUBS variants contribute to stabilisation and what can be expected more generally from an EUBS. In this report, the stabilisation effect is mainly illustrated on the basis of how an EUBS affects the *level of GDP and its growth rate*.

A first result that emerges from the study is that the contribution to stabilisation that the 18 EUBS variants make would be limited, which is due to the small scale of the additional unemployment benefit spending under the EUBS in comparison with the scale of the reduction in GDP. In other words, an EUBS could only partially absorb economic shocks because the scale of the transfers would not be large enough to offset a substantial degree of the shock. Second, the stabilisation capacity of the reinsurance EUBS variants exceeds that of the genuine EUBS variants. The reason is that reinsurance schemes are focused on the crisis years in particular. This also may translate into a broader macroeconomic stabilisation effect, depending on how the scheme is set up.²⁶ Genuine EUBS variants, by contrast, function continuously. Third, for both types of variants, the macroeconomic stabilisation impact is the highest at the start of the downturn. For reinsurance schemes, this follows from the fact that they are conditioned by a trigger: payments are made in the early part of the crisis when short-term unemployment is high. These payments drop off fairly quickly, even if the recession is prolonged, because then typically the average duration of unemployment increases (i.e. long-term unemployment becomes more important). For genuine variants, a similar effect applies but the contrast between crisis years and 'normal' years is less pronounced as genuine EUBS function on a continuous basis (without a trigger).

Genuine and equivalent variants differ in how they provide macroeconomic stabilisation. The genuine variants pay out to beneficiaries for any eligible job loss while the equivalent variants pay out funds when triggered. As a result, pay-outs from the genuine EUBS are smoother than those from the equivalent EUBS (which target the 'bad' times). This implies that the impact on the *level of GDP* is generally larger than the impact on the *growth rate* for genuine EUBS. Equivalent EUBS typically have a larger stabilisation effect on GDP growth.

Stabilisation impact and costs of an EUBS

In the EMU, an EUBS could serve as a mechanism to absorb asymmetric shocks. An assessment of its effectiveness therefore depends on its contribution to the stabilisation of the level and growth of GDP in the countries that experience the largest shocks. Although the crisis caused record falls in GDP in 2009

²⁶ In particular, this pertains to whether spending the income on government investment, consumption or transfers would give a larger boost to economic activity than paying off debt.

in all EU Member States except Poland, the duration and scale of this drop varied substantially across countries. From the backward-looking models it is clear that the stabilisation effects of an EUBS would generally be larger in countries that experienced more severe recessions.²⁷ There are, however, some exceptions (as the rules determining pay-outs do not assure a simple correspondence to the scale of GDP decline). In Estonia, Latvia and Lithuania, which suffered GDP falls of between -14% and -15% in 2009, equivalent EUBS would have mitigated the fall in GDP by 0.5 to 0.8 percentage points. A similar impact on GDP growth would have been seen in Spain, although its 2009 recession was less severe (a GDP fall of -3.6%, which would have been reduced to something in the range -2.6% to -3.2% depending on the rules of the scheme). Had an EUBS operated across the EA19 between 1995 and 2013, EA19 GDP would have been up to 0.2% higher in 2009 (depending on the scheme).

Backward-looking simulations carried out in the study reveal that the size of an EUBS would have ranged from 0.03% to 0.43% of GDP over the period 1995-2013 (across the 18 variants, expressed as a share of GDP over the whole period). The total amount of spending through the scheme would have ranged between 0.03% and 0.13% of GDP if an equivalent EUBS had been in place during 1995-2013 and between 0.11% and 0.43% of GDP if it had been a genuine EUBS instead. For the forward-looking models, the corresponding percentages fall between 0.01% and 0.43% of GDP over the whole period for the equivalent variants and between 0.60 and 0.80% of GDP over the whole period for the genuine variants.

Stabilisation capacity and costs of the equivalent EUBS variants: the role of the trigger

The *threshold of the trigger* that conditions the equivalent EUBS is one of the main determinants of their stabilisation impact. This is illustrated in Figure 3, which depicts four EUBS variants (two genuine and two equivalent) and shows for each of them what the level of EMU GDP would have been if it had been in place over the period 1995-2013 (based on the backward-looking simulations). Figure 2 depicts the level and growth of EA19 GDP over the period 1995-2013, to provide the context in which the impacts shown in Figure 3 should be interpreted. The *two dashed lines* in Figure 3 show the impact of two reinsurance EUBS: one with a fairly high threshold for the trigger (i.e. an EUBS is triggered when the short-term unemployment rate is over 1 percentage point higher than its long-term average) and one with a low threshold (0.1 percentage points).

For the period 1995-2007, the scheme with the high threshold slightly reduces GDP (by less than 0.1%), because most countries are paying contributions into the scheme without receiving payments (so reserves are build up). After the 2008 recession, payments are triggered for some Member States. The number of countries that receive a payment remains limited, however, due to the high threshold. As a result, the stabilisation impact for the EMU as a whole is also small. In the variant with the low threshold,

²⁷ Because each country's *contributions* to the EUBS are much less sensitive to macroeconomic conditions than *pay-outs*, the stabilisation effect is dominated by the extent to which a recession is mitigated rather than the extent to which a boom is curbed.

²⁸ These numbers refer to the 'gross cost' of the EUBS, which is defined as the total value of benefits paid out over the whole period expressed as a proportion of total GDP over the whole period. This measure thus represents the scale of financing that would have to be raised through contributions for the scheme to be in balance over the long term.

payments are triggered more frequently and for more countries, so the scale of stabilisation is larger (0.21% versus 0.09% of GDP on the EA19 GDP level in 2009, more details are provided below).

Of the four schemes depicted in Figure 3, the reinsurance EUBS with the low threshold has the largest stabilisation impact on GDP growth, since it has the largest shift from net contributions to net payments in the crisis year 2009. At the same time, it would only have reduced the fall in GDP by 0.2 percentage points (from -4.5% to -4.3%). As the scale of the impact on GDP of the EMU as a whole is small, the difference that the EUBS makes to the EMU growth rate is also limited. Schemes with high trigger thresholds are cheaper, as they rarely pay out. For example, an equivalent EUBS with a threshold set at 0.1% would require 0.13% of GDP, while the corresponding numbers for schemes with a threshold of 1% or 2% are 0.05% of GDP and 0.03% of GDP. Yet, schemes with higher trigger thresholds also tend to lead to more polarisation: fewer countries qualify for pay-outs. On the other hand, if the threshold is set too high, stabilisation payments can fail to kick in even in the event of a quite severe downturn. A balance between these two options would thus have to be attained.

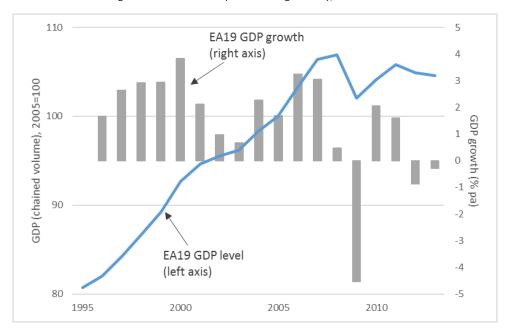


Figure 2. EA19 GDP (level and growth), 1995-2013

Note: chained volume means that raw GDP data for successive years (which reflects both changes in price level and volume) have been put in real terms and are then linked to obtain a time series of volume data (from which price effects have been removed).

Figure 3. Comparison of the stabilisation impact of selected EUBS variants on EA19 GDP, (two equivalent and two genuine) if these variants had operated over 1995-2013

Note: chained volume means that raw GDP data for successive years (which reflects both changes in price level and volume) have been put in real terms and are then linked to obtain a time series of volume data (price effects have been removed).

2005

2010

2000

1995

Stabilisation capacity and costs of the genuine EUBS variants: features determining coverage and generosity

For the genuine EUBS variants, the major determinants of stabilisation capacity are features that affect the coverage and generosity of the scheme. Again, this is illustrated in Figure 3, where the *two solid lines* represent the stabilisation impact of two genuine EUBS variants: one variant has the longest duration of benefit receipt of all variants that were modelled (12 months, and no waiting period), while the other has the shortest benefit duration (3 months, with a 3-month waiting period). A genuine EUBS operates at all times and has a continuously positive impact because there is a transfer from those who pay contributions into the fund to those who receive benefits from it (and this group is assumed to have a higher marginal propensity to consume). A genuine EUBS variant with a long duration would have an important impact on the level of GDP, but its stabilisation impact on GDP growth would be less pronounced than that of the equivalent schemes (for 2009, when the shock hit). Equivalent EUBS move from net contributions to net payments when the recession begins, whereas the genuine EUBS moves from net payments to slightly larger net payments at that time. The genuine variant with a short duration would only have a limited stabilisation capacity (0.03% of GDP on EA19 GDP level in 2009).

Which features raise coverage and generosity? In this study, three key features have been identified: the *eligibility conditions*, the *duration of unemployment benefits*, and the *benefit amount* (mainly the *replacement rate*; schemes with different benefit caps had similar stabilisation effects). If benefits are

only paid out from the fourth month of unemployment, the coverage rate drops by about 30 percentage points (compared with a scheme in which benefits are paid out immediately upon becoming unemployed). Testing alternative eligibility conditions had a much smaller impact on coverage.²⁹ The genuine EUBS variant with the longest duration had the largest stabilisation impact, while the opposite is true for the scheme with the shortest duration (i.e. 0.18% versus 0.03% of GDP on the EA19 GDP level in 2009). Another issue with schemes with a short duration is that they may leave insufficient time for the unemployed to find decent work. The genuine EUBS variant with the highest replacement rate performed second-best in stabilisation terms and vice versa (0.14% versus 0.07% of GDP on the EA19 GDP level in 2009).

Higher coverage and generosity would naturally be reflected in higher costs. Indeed, the schemes with the biggest financing needs are those with a *long duration* (0.43% of GDP for a genuine EUBS variant with a 12-month duration and no waiting period) and a *high replacement rates* (0.32% of GDP for a scheme with a replacement rate of 60% of the last gross wage) (in the backward-looking simulations).

Stabilisation capacity and costs: summary indicators and results for specific countries

To provide more details on the stabilisation capacity and costs of an EUBS, this section presents two tables that contain summary indicators for four variants (based on the backward- and forward-looking simulations, in both cases two equivalent and two genuine schemes). In Table 3, the results of the backward-looking models are summarised for four EUBS variants. The first column reports the cost of the scheme, ³⁰ the second column reports whether it was in deficit or surplus at the end of the simulation period, and the three last columns report its stabilisation impact (in year 2009, in terms of GDP levels and growth rate). The reinsurance EUBS with the high trigger threshold is the cheapest option, and shows a surplus in 2013 (first row). For Latvia, a country that experienced a severe crisis in 2009, ³¹ it would have had a larger impact on GDP growth than the other schemes. While the most generous genuine EUBS (third row) has the largest impact on Latvia's GDP level in 2009, it also raises the level of Latvia's GDP in other years and so it is somewhat less well-targeted on the recession year (so its impact on GDP growth is smaller). As it is less focused on the recession period, the scheme is considerably more expensive.

²⁹ Note, however, that the EUBS variants modelled in the project apply only workers, which means that coverage rates are lower for those countries where self-employment is more important. The scope of the EUBS could be extended to the self-employed, if policy-makers would decide to do so.

³⁰ 'Cost' here refers to the 'gross cost' of the scheme, measured by the expenditure on benefits. A scheme with higher expenditure on benefits must be financed by higher contributions, and this is the sense in which a scheme may be 'low' or 'high' cost.

³¹ Latvia suffered the third-largest fall in GDP in 2009 of any EU Member State and, under the rules used in the modelling, would have experienced the largest boost to GDP under the EUBS if it had been in operation.

Table 3. Summary indicators for selected EUBS variants (results from backward-looking analyses)

	Accumulated	GDP impact in 2009				
Gross cost	deficit / surplus in 2013	EA19	Latvia (Country with largest impact)			
% of whole period GDP (1)	% of 2013 GDP (2)	% above baseline level of GDP (3)	% above baseline level of GDP (3)	pp above baseline GDP growth rate (4)		
Reinsurance schemes						
0.05	0.79	0.09	0.82	0.76		
0.13	-0.04	0.21	0.82	0.51		
Genuine schemes						
0.43	-0.34	0.18	1.04	0.58		
0.11	-0 N9	0.03	0.20	0.07		
	% of whole period GDP (1) 0.05 0.13	Gross cost in 2013 % of whole period GDP (1) % of 2013 GDP (2) 0.05 0.79 0.13 -0.04	Gross cost deficit / surplus in 2013 EA19 % of whole period GDP (1) % of 2013 GDP (2) % above baseline level of GDP (3) 0.05 0.79 0.09 0.13 -0.04 0.21 0.43 -0.34 0.18	Accumulated deficit / surplus in 2013 EA19 (Country with 2013 GDP whole period GDP (2) Salar (

⁽¹⁾ The total value of benefits paid out over the whole period expressed as a proportion of total GDP over the whole period. (2) The EUBS surplus or deficit that would have resulted in 2013, expressed as a percentage of EA19 GDP in 2013. (3) The percentage difference between the level of GDP in the variant and the baseline (actual historical) value of GDP in 2009. (4) The percentage points difference between GDP growth in 2009 in the variant and in the baseline (actual history).

Figure 4 and Figure 5 show the actual historical real GDP growth rates for four countries (together with the EA19 average, for comparison), and the growth impacts that selected variants of the EUBS would have had, according to the modelling. The countries shown experienced relatively large absolute differences in annual GDP growth rates from the EA19 rate, averaged over 1995-2013.³² In each case, the middle chart shows the addition or subtraction to the annual GDP growth rate that the EUBS variants would have brought about, while the lower chart shows the percentage difference in the *level* of GDP. These impacts reflect the scale and timing of contributions to and pay-outs from the EUBS fund. Note that there is a very large difference in scale between the upper chart, on the one hand, and the middle and lower charts on the other: the largest impact is for Latvia in 2009, when GDP growth would have been 0.76 percentage points higher in the presence of a 'high threshold' EUBS variant, which would have mitigated its decline in GDP in that year from -14.3% to -13.6%.

The upper charts in Figure 4 show that both Latvia and Slovakia experienced a slowdown in GDP growth in 1999 followed by a marked acceleration in growth up to 2007, in contrast to the EA19 average. Latvia's recession was far more severe than the EA19 average; Slovakia's was only slightly more severe than the average. The middle charts confirm that the two equivalent schemes would have tended to

³² Estonia, Latvia and Lithuania stand out as having recorded by far the largest difference in annual growth rates over 1995-2013 compared with EA19 rate. Because their experience was broadly similar, Latvia is shown here as broadly representative of all three cases, to allow the Figures to present some contrasting cases.

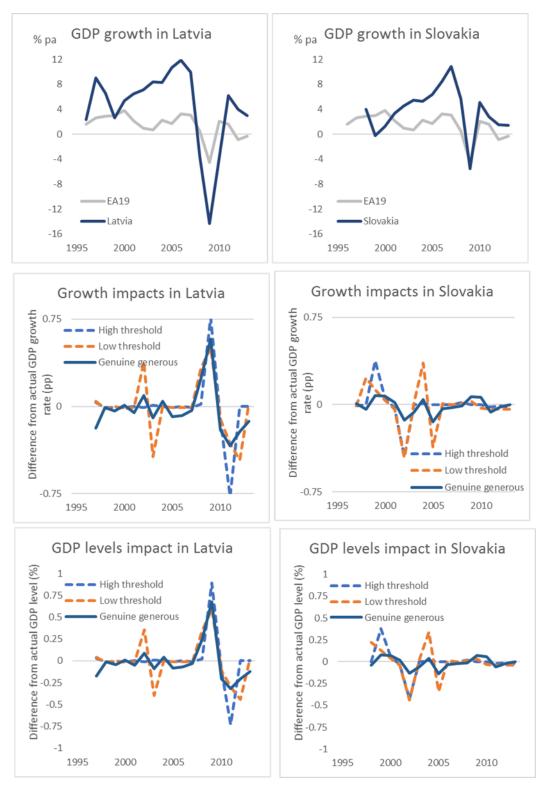
have somewhat larger growth stabilisation effects in most years (both positive and negative), but the scale of these is modest.³³ They also show how quickly the positive impact on growth in Latvia would have been curtailed under the rules of equivalent schemes (in fact the level of GDP would have been *lower* in 2011 in both equivalent schemes, and particularly in the high threshold version, if those rules had been followed).

The cases of Greece and Ireland shown in Figure 5 provide examples where GDP growth was not simply more volatile than the EA19 average but incorporated rather different long-term trends. Ireland saw a steady slowdown from the unsustainably high growth rates of the early part of the period and went into recession earlier than the EA19 average. The modelling results suggest that the two equivalent schemes would have reduced the 2009 decline in GDP by about 0.4 percentage points (from -4.6% o -4.2%). The unsustainable nature of Greece's growth in the 2000s is not particularly evident in the GDP growth rates³⁴ shown in the upper chart in Figure 5, but its consequences are evident in the duration of the subsequent recession, which was markedly different from the EA19 average. The scale of the estimated impact of the EUBS is particularly small in the case of Greece, reflecting the ineligibility of the self-employed, and the short-lived nature of the support is evident in the falling back of the positive contribution to growth even as the recession persisted.

³³ The negligible impact in Slovakia during the recession reflects the fact that the increase in short-term unemployment was far smaller in Slovakia than in Latvia, and in Slovakia the short-term unemployment rate remained below the high levels seen over 1999-2004. Consequently, even the 'low' threshold to trigger payments under an equivalent scheme was not crossed.

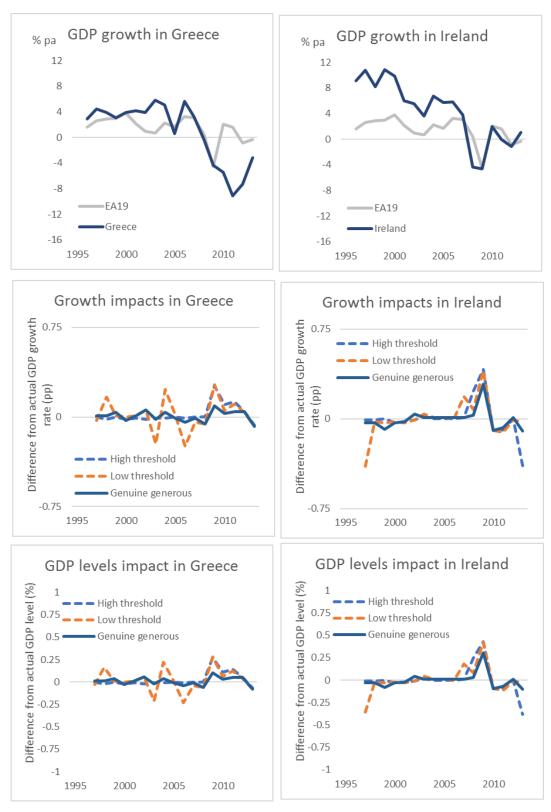
³⁴ It was, for example, much more evident in the balance of payments current account indicator.

Figure 4. Historical real GDP growth rates and stabilisation impact of selected EUBS schemes on Latvia and Slovakia, if the schemes had operated over 1995-2013



Note: The three variants shown in the Figure correspond to the first three variants shown in Table 3. The less generous case in Table 3 (with the most restricted duration of benefit eligibility) is not shown because its impact is negligible.

Figure 5. Historical real GDP growth rates and stabilisation impact of selected EUBS schemes on Greece and Ireland, if the schemes had operated over 1995-2013



Note: The three variants shown in the Figure correspond to the first three variants shown in Table 3. The less generous case in Table 3 (with the most restricted duration of benefit eligibility) is not shown because its impact is negligible.

Summary indicators from the forward-looking analysis for four EUBS variants are reported in Table 4. The table shows these indicators for each of the four hypothetical scenarios. As before, the two reinsurance schemes are smaller in scale than the two genuine schemes (gross cost). The equivalent EUBS with the higher trigger threshold is substantially smaller in scale as it pays out more rarely. The EUBS that is not allowed to borrow is never in deficit, because it raises additional contributions if needed. Some of the variants run up a deficit, which is not cleared at the end of the period at the as experience rating and claw-back operate with a lag.

Table 4 reports the impact on GDP in the country that experienced the largest effect of the EUBS in its trough year. For most scenarios, this country is generally the same across the EUBS variants. Scenario A is an exception: here the choice of variant influences which country experiences the largest impact of the EUBS. The table shows the impact on both the level of GDP in the trough year and on the growth rate of GDP in the trough year and its preceding year.³⁵

Under Scenario A, a global trade shock, Germany's export-dependent economy would be more exposed when compared with the last recession, and consequently it would experience a larger stabilisation effect from an EUBS than under conditions similar to the last recession. Under Scenario B, the EUBS is put under heavy strain because of the prolonged duration of the hypothetical shock effects, which hits all countries. In this case, there is still some stabilisation effect, but the system's outflow is significant and requires much higher contribution rates to finance it and/or the fund goes into substantial deficit. The only variant of the EUBS, which would not result in a deficit at the end of the period, is that which requires Member States to make additional payments to the fund when the overall balance of the fund is negative. A variant, which triggers payments to government budgets under a low threshold, would result in a particularly high accumulated deficit of 3.5% of GDP by the end of the period.³⁶ Scenario B highlights that the EUBS is not intended to address prolonged or permanent symmetric shocks, though the nature of the shock will normally not be apparent initially and the system would respond as soon as short-term unemployment rises. Scenarios C and D confirm that an EUBS would work more effectively in the event of a short-lived recessionary shock that affects some countries but not others ('asymmetric') than in a prolonged shock that affects most countries in a similar way ('symmetric'). Most countries directly affected by the shock would be net recipients (e.g. Estonia in Scenario C, Portugal in Scenario D). For other countries, the initial employment conditions could interact with the design of the EUBS so that they would not end up as net recipients (e.g. Greece). This could be an unintended consequence when experience rating factors in previous history from the beginning (e.g. so Greece would already start with very high short-term unemployment levels).

³⁵ The preceding year is also shown to allow for cases where the recession and the support given by the EUBS begin to take effect in the year prior to the trough year. In that case, the impact on the growth rate can be higher in the preceding year (because the growth rate in the trough year can be depressed by the boost to GDP given in the preceding year).

³⁶ This deficit would not necessarily reduce national public debt, given that the GDP impact of the EUBS is limited and that benefit payments are going to the unemployed (whose net wealth position would be improved).

Table 4. Summary indicators for selected EUBS variants (forward-looking simulations)

The period Period					Accumula-		GDP impact in trough year			
A: Short sym. global trade shock Reinsuran B: Long sym. EU confidence shock Shock Short asym. EU confidence shock Short asym. EU confidence shock A: Short sym. Bib shock Short asym. EU confidence shock Short asym. EU confidence shock A: Short sym. EU confidence shock A: Sho						· · · · · · · · · · · · · · · · · · ·				
Scenario Variant Gross cost period EA19 % above baseline before be					/ surplus					P 4 4 4
Scenario Wariant					at end of				pp above	baseline
Note Scenario Wariant Whole Period P				Gross cost	period	EA19			GDP grow	th rate (4)
Scenario Variant				% of		% above		% above	Year	
Scenario Variant GDP (1) GDP (2) GDP (3) GDP (3) year year				whole	% of end-	baseline		baseline	before	
Reinsuran Ce				period	period	level of		level of	trough	Trough
Reinsuran Ce	Scenario	Var	riant	GDP (1)	GDP (2)	GDP (3)		GDP (3)	year	year
A: Short sym. global trade shock			High							
A: Short sym. global trade shock Genuine Generous with debt Generous no debt Generous shock Genuine Generous with debt Generous no debt Generous shock Genuine Generous shock Genuine Generous no debt Generous shock Generous no debt Generous no debt Generous shock Generous no debt Generous no debt Generous shock Generous no debt Generous hthreshold Generous no debt Generous no debt		Reinsuran	threshold	0.02	0.98	0.43	ES	1.31	0.03	1.40
Sym. global trade shock Generous With debt O.68 O.10 O.63 PT O.92 O.19 O.11	A 61 .	ce	Low							
trade shock Genuine Generous with debt Generous no debt O.68 O.15 O.63 DE O.92 O.19 O.12 O.12 O.13 O.14 O.15 O.15 O.15 O.15 O.15 O.15 O.15 O.15			threshold	0.24	-1.09	0.73	PT	1.45	0.45	0.12
With debt 0.68 -0.10 0.63 PT 0.92 0.19 0.13	-		Generous							
Generous no debt 0.68 0.15 0.63 DE 0.92 0.18 0.04	trade snock		with debt	0.68	-0.10	0.63	PT	0.92	0.19	0.11
High Composition Composi		Genuine	Generous							
Reinsuran Ce			no debt	0.68	0.15	0.63	DE	0.92	0.18	0.04
B: Long ce			High							
sym. EU confidence shock Genuine shock threshold one of shock Generous with debt one of shock 0.80 one of shock one of shock 0.60 one of shock one of shock one of shock one of shock 0.80 one of shock one o		Reinsuran	threshold	0.20	-1.04	0.54	FI	1.63	1.27	0.50
Confidence Shock Genuine Generous with debt 0.80 -0.50 0.69 FI 1.08 0.13 0.14	B: Long	ce	Low							
shock With debt 0.80 -0.50 0.69 FI 1.08 0.13 0.14 Generous no debt 0.80 0.02 0.69 FI 1.08 0.12 0.12 Reinsuran C: Short asym. Ce Low threshold 0.01 1.17 -0.12 FI 1.58 1.24 0.47 demand shock Generous with debt 0.09 0.33 0.00 FI 1.34 0.99 0.22 Generous no debt 0.60 -0.56 0.52 FI 1.18 0.15 0.08 High Reinsuran charant supply High Low threshold 0.07 0.55 0.06 ES 1.49 1.42 0.16 D: Long asym. supply Generous Generous 0.19 -0.84 0.06 ES 1.34 0.15 0.10	sym. EU		threshold	0.43	-3.56	0.77	FI	1.44	1.05	0.26
Generous Generous No debt O.80 O.02 O.69 FI I.08 O.12 O.12	confidence	Genuine	Generous							
Generous no debt 0.80 0.02 0.69 FI 1.08 0.12 0.12	shock		with debt	0.80	-0.50	0.69	FI	1.08	0.13	0.14
High Reinsuran threshold 0.01 1.17 -0.12 FI 1.58 1.24 0.47			Generous							
Reinsuran C: Short Ce			no debt	0.80	0.02	0.69	FI	1.08	0.12	0.12
C: Short asym. ce Low threshold 0.09 0.33 0.00 FI 1.34 0.99 0.22 demand shock Generous with debt 0.60 -0.56 0.52 FI 1.18 0.15 0.08 Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05 High Reinsuran D: Long asym. supply ce Low threshold 0.19 -0.84 0.06 ES 1.34 0.15 0.10 supply Generous Generous 0.06 ES 1.34 0.15 0.10			High							
asym. demand shock Genuine Generous with debt 0.60 -0.56 0.52 FI 1.18 0.15 0.08 Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05 Beinsuran asym. 1.49 1.42 0.16 <t< td=""><td></td><td rowspan="3"> </td><td>threshold</td><td>0.01</td><td>1.17</td><td>-0.12</td><td>FI</td><td>1.58</td><td>1.24</td><td>0.47</td></t<>			threshold	0.01	1.17	-0.12	FI	1.58	1.24	0.47
demand shock Genuine Generous with debt 0.60 -0.56 0.52 FI 1.18 0.15 0.08 Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05 High Picture Reinsuran threshold 0.07 0.55 0.06 ES 1.49 1.42 0.16 D: Long asym. supply Generous 0.19 -0.84 0.06 ES 1.34 0.15 0.10	C: Short		Low							
shock Genuine with debt 0.60 -0.56 0.52 FI 1.18 0.15 0.08 Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05 High Reinsuran D: Long asym. supply Ce Low threshold 0.07 0.55 0.06 ES 1.49 1.42 0.16 supply Generous 0.19 -0.84 0.06 ES 1.34 0.15 0.10	asym.		threshold	0.09	0.33	0.00	FI	1.34	0.99	0.22
Genuine Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05		Genuine	Generous							
Generous no debt 0.60 0.02 0.48 FI 1.13 0.12 0.05			with debt	0.60	-0.56	0.52	FI	1.18	0.15	0.08
High Reinsuran threshold 0.07 0.55 0.06 ES 1.49 1.42 0.16			Generous							
Reinsuran threshold 0.07 0.55 0.06 ES 1.49 1.42 0.16			no debt	0.60	0.02	0.48	FI	1.13	0.12	0.05
D: Long ce Low asym. threshold 0.19 -0.84 0.06 ES 1.34 0.15 0.10 supply Generous			High							
asym. threshold 0.19 -0.84 0.06 ES 1.34 0.15 0.10 supply Generous		Reinsuran	threshold	0.07	0.55	0.06	ES	1.49	1.42	0.16
supply Generous Generous	D: Long	ce	Low							
	1 '		threshold	0.19	-0.84	0.06	ES	1.34	0.15	0.10
shock		Genuine -	Generous							
Genuine Will debt 0.01 0.24 0.00 13 1.15 0.00 0.16			with debt	0.64	-0.24	0.56	ES	1.13	0.06	0.18
Generous			Generous							
no debt 0.64 0.01 0.56 ES 1.12 0.07 0.17			no debt	0.64	0.01	0.56	ES	1.12	0.07	0.17

⁽¹⁾ The total value of benefits paid out over the whole period expressed as a proportion of total GDP over the whole period. (2) The EUBS surplus or deficit that would result at the end of the period, expressed as a percentage of EA19 GDP in that year. (3) The percentage difference between the level of GDP in the variant and the no-EUBS baseline value of GDP in the trough year. (4) The percentage points difference between GDP growth in in the variant and in the no-EUBS baseline for the year preceding the trough year and for the trough year.

In summary, the project suggests that equivalent EUBS variants with very high and very low trigger thresholds, and genuine EUBS variants with limited coverage (due to strict eligibility conditions) and generosity (due to a low replacement rates, short benefit duration and waiting periods) perform less well in stabilisation terms than their counterparts. If policy-makers decide to design an EUBS, it would be important to take these factors into consideration.

3.1.3 Temporary and permanent transfers in an EUBS

As an EUBS by its very nature is an insurance mechanism, it would imply a reallocation of resources across countries in the short-run. In fact, this is one of the three channels through which an EUBS would contribute to macroeconomic stabilisation and it is precisely this channel that would give an EUBS an important advantage over (enhanced) NUBS. In the long-run, however, fiscal neutrality is warranted for a number of reasons (e.g. political feasibility). Some Member States may be more likely to use the EUBS, which could result in a situation in which some countries contribute much more to the EUBS than they receive from it. For that reason, any EUBS variant would have to be equipped with instruments that balance Member States' use of the scheme with the contributions they pay into it. Each of the 18 EUBS variants analysed in this study either has experience rating, claw-back or both instruments to limit permanent transfers. The question therefore is: do these mechanisms work?

According to the backward- and the forward-looking analyses performed in the project, the answer would be positive: hardly any Member State would be in a permanent net contributor or net recipient position if a sufficiently long period is considered. In some of the variants, not a single case can be found (e.g. in one of the reinsurance schemes with a very low threshold for the trigger, where the EUBS is triggered very frequently and in (nearly) all Member States). In addition, it is important to recall that permanent transfers could be limited if Member States implemented labour market reforms aimed at reducing unemployment.

In the short-run, some countries do show up as net contributors or recipients of the EUBS. If an EUBS had been applied in the past, the Member States that would have been net claimants are among those that experienced the worst recession following the 2007-08 crisis. Importantly, this does not imply that the same countries would suffer recession in the future. If an EUBS had operated across the current EA19 Member States, between 1995 and 2013, Spain, Portugal and Cyprus would have built up deficits (net recipients) over the period taken as a whole (generally in the range of 0.5-2.0% of 2013 GDP) under all variants that were modelled. For the genuine EUBS, most of the other countries would also have been in deficit in 2013 (due to the timing of the crisis), while Austria, Finland, Germany and the Netherlands would have been net contributors. Equivalent EUBS would have had most countries as net contributors, and with their number going up as the trigger threshold became more difficult to surpass.

Experience rating would have been applied in all EUBS variants that are equipped with this mechanism, and it would have been used particularly in the equivalent variants with a very low trigger threshold (and much less for those with high thresholds that are rarely triggered). For claw-back, it is clear that this mechanism is particularly important in the genuine variant that does not have experience rating. For no-debt variants, claw-back would often have been delayed due to the additional payments that countries would have had to make into the fund (which raised the net pay-in).

The forward-looking simulations also shed light on the short-term redistribution effects. In a number of scenarios, some countries are in deficit several years after the end of the recession (e.g. Germany, Finland and the Netherlands in the short symmetric shock scenario, also the countries directly affected by an asymmetric shock end up as net recipients — Estonia, Finland, Lithuania, Latvia (temporary shock), Portugal, Ireland, Spain (permanent shock)).

In summary, the EUBS is an insurance mechanism that redistributes funds in the short-run. In the long-run, permanent transfers are avoided through experience rating and claw-back.

Debt-issuing and reserve-building

Of the 18 EUBS variants analysed, only three are not allowed to borrow to finance short-term imbalances. As indicated above, in the EMU additional payments are demanded during 1995-98 for the no-debt equivalent EUBS variant with a low trigger, and during 1995-99 and in 2013 for the no-debt genuine EUBS variant (backward-looking model). In the models, a jump in the pay-in is detected without any corresponding jumps in the experience rating or claw-back. The no-debt equivalent EUBS variant with a very high threshold would not necessitate extra contributions as it is triggered so little. Neither of these schemes would face a deficit at the end of the period.

How do these schemes perform in stabilisation terms? In terms of the impact on the EA19's GDP level in 2009, the effect of the no-debt equivalent EUBS with a very low trigger threshold would have been at the same level as a variant with identical specifications that can issue debt. The stabilisation results for the genuine variant that cannot borrow are also in line with those of other genuine schemes over the period examined. However, these metrics for the EMU hide variation across the Member States. In addition, the impact of debt-issuing likely becomes much clearer in the evolution of the contributions, the experience rating and claw-back, and over time (surplus or deficit).

Additionally, especially in the equivalent EUBS variants, it is possible that reserves are built up (given that countries pay into the supranational fund until 0.5% of EU GDP is reached, then contributions are halted until the fund declines below this level). For genuine EUBS, reserve-building is less likely but not impossible. In any case, reserve-building would be temporary. On the one hand, it would allow the EUBS to acquire reserves and avoid having to issue debt or raise (additional) contributions in difficult times. On the other hand, reserve-building would come with costs, of which forgone interest is one example. From the simulations carried out in the project it is clear that the deficit or surplus acquired would range between 0% and 1% of 2013 EMU GDP by the end of the simulation period. If a surplus is built up, it is run down as the EUBS pays out funds. If a deficit is built up, it is addressed through experience rating and claw-back (these mechanisms operate with a lag, so the deficit may not be fully cleared up by the end of the period).

The backward-looking simulations suggest that equivalent EUBS variants that only pay out in the event of severe shocks build up surpluses for the EUBS by the end of 2013 (i.e. the end of the simulation period). For these variants, a surplus is built up in the years prior to the recession when economic conditions are moderate or good. Even though the scheme is triggered during the recession, for some countries payments do not continue much after 2010 (as the triggering condition is difficult to meet). Equivalent variants with lower trigger thresholds are triggered more frequently, transferring more funds

In the forward-looking models, the Member States directly affected by the shock usually end up with a deficit at the end of the simulation period even some years after the recession is over (i.e. they are net recipients). This occurs especially in the case of symmetric shocks.

3.2 An EUBS could contribute to labour mobility

An EUBS could be designed in such a way that it stimulates labour mobility, facilitating job search across the EU by making EUBS benefits portable, and thus contributing to a more integrated European labour market. Nonetheless, the research performed within the project shows that the impact of an EUBS on labour mobility is likely to be limited. One reason is the very limited use of the exportability of unemployment benefits today; another is that setting up the EUBS so that it encourages labour mobility would require substantial monitoring and coordination at the EU level, which would represent an operational barrier. In legal terms, the EUBS would not give rise to any insurmountable issues for the application of the Coordination Regulations (Nos 883/2004 and 987/2009).³⁷ These regulations provide for a coordination of national social security systems. They ensure that people moving from one Member State to another are not, as a result, penalised in terms of their social security rights.³⁸ It is based on two key principles: the *aggregation of periods* (periods of insurance or (self)employment completed in other Member States can be taken into account for acquiring the right to benefit in a given Member State, as though they were completed there) and *exportability*. Neither genuine nor reinsurance variants would come into conflict with these principles.

3.3 An EUBS could contribute to Social Europe

A common EUBS may provide support for Social Europe along several lines. First, an EUBS may lead to an enhancement of the NUBS and thus give rise to *convergence*. Member States could be stimulated – even without any formal obligation – to *align their national schemes with the EUBS*, which would generally be more comprehensive, to smooth transitions between the national and European schemes (especially in case of basic genuine EUBS). The US case, one of the eight cases studied in this project, is an interesting example in this regard. In the US, federal requirements often concern the design of administration systems when federal subsidies, grants or solidarity have an impact on state-run

 $^{^{37}}$ Regulation (EC) No. 883/2004 of 29 April 2004 on the coordination of social security systems, OJ L 166 30.4.2004 as amended and Regulation (EC) No. 987/2009 of 16 September 2009 laying down the procedure for implementing Regulation (EC) No. 883/2004 on the coordination of social security systems, OJ L 284/1, 30.10.2009.

³⁸ To this end, the Coordination Regulations use a number of key principles: non-discrimination on grounds of nationality; the aggregation of periods of insurance, employment or residence; the waiving of residence rules or exportability of cash benefits (i.e. the principle that benefits under the legislation of one country can be paid to persons residing in another country); and the application of a single social security legislation.

programmes. These federal requirements are not so strict and mostly cover the administrative side. Interestingly, this indicates that even in the most decentralised case of the eight cases examined in this project, there is at least some need for administrative adjustment, if only to smooth the cooperation between levels of government. Such adjustments might prompt broader reforms and mutual learning. A second interesting case is Switzerland, where as a response to common non-binding guidelines, the cantons have adjusted their social assistance legislation — with convergence as a result. In the case of an EUBS, similar effects might occur.

Next to this, European minimum requirements with regard to the quality of unemployment benefits and the quality of activation policies of the national schemes would be a natural corollary of an EUBS, with twin goals: enhancing the stabilisation capacity of the NUBS, and reducing institutional moral hazard. More specifically, minimum requirements could be imposed on the coverage and generosity of unemployment benefits, to strengthen the stabilisation capacity of the EUBS (by enhancing the NUBS design). Minimum requirements on the activation side would serve a different purpose. Their aim would be to prevent behaviour from lower levels of government from negatively affecting the risk for which they would be (re)insured (e.g. to prevent Member States from reducing their efforts to activate the unemployed). The specific nature of these minimum requirements would depend on the variant chosen (cf. reinsurance versus genuine EUBS). The potential of 'soft law' to pursue convergence in this area has already been tested, yielding mixed results. Hence, European minimum requirements could be an important step forward, by creating stronger pressure, more incisive follow-up procedures and/or formal obligations ('hard law'). In the eight examined countries with a multi-tiered unemployment regulation, minimum requirements governing the quality of activation policies already play a major role in the prevention of institutional moral hazard (aside from such mechanisms as financial incentives or the centralisation of benefit systems and activation policies). Any EUBS should be accompanied by improved coordination of activation policies across the Member States in a way that takes due account of these existing internal mechanisms.

An EUBS could further *help to promote and develop the European Pillar of Social Rights*. In light of the recent crisis, its impact on social outcomes, the persistently high unemployment and the growing differences among countries, much attention has been devoted to the EMU's social dimension. In his state of the union address of September 2015, President Juncker introduced the idea of a "European Pillar of Social Rights" as an important stepping stone to achieve a deeper and fairer EMU. The idea behind the social pillar is to support Member States in overcoming the challenges they face in the domains of employment and social policies. The pillar aims at encouraging reform and fostering convergence among the EMU countries. A first outline of the European Pillar of Social Rights was presented on 8 March 2016. It comprises three categories: equal opportunities and access to the labour market, fair working conditions, and adequate and sustainable social protection.

An EUBS could support *social cohesion*, as it would contribute to income protection of the unemployed and their families in the face of macroeconomic shocks. In this project, the impact on poverty and inequality is assessed through four hypothetical scenarios. Because of its higher generosity and coverage, the EUBS would have a *positive effect on poverty and inequality reduction*, when compared with the existing NUBS, although this could admittedly also be achieved by upgrading the less generous NUBS; the scale of the effect reflects that poverty and inequality are driven by much more than the

impact of short-term unemployment. On average, under the most generous genuine EUBS that was simulated, poverty would be reduced by 0.35 percentage points while inequality measured by the Gini coefficient would be reduced by around 0.14 percentage points.³⁹ Table 5 below illustrates the effect of the EUBS on poverty and inequality reduction in EA19 Member States for the first year of introduction and the year when short-term unemployment is hit the hardest under a scenario with a short asymmetric demand shock, in Estonia, Finland, Latvia, Lithuania, Slovakia and Slovenia, followed by a swift recovery (Scenario C). In the first year of introduction, prior to the macroeconomic shock, the largest impacts are on those countries that begin the simulation with relatively high short-term unemployment rates and for which the EUBS would represent a substantial increase in coverage (e.g. Spain). The countries that experience the largest change in poverty impact between the first year and the year of largest shock are those that suffer the largest shock: the Baltics, Slovakia and Slovenia.

Table 5. Effect of the EUBS on poverty and inequality: scenario of a short asymmetric demand shock

	First year of introduction of EUBS			Year of largest impact on unemployment			
	Poverty	Gini	s80/s20	poverty	Gini	s80/s20	
AT	-0.30	-0.08	-0.01	-0.28	-0.08	-0.01	
BE	-0.10	-0.07	-0.02	-0.12	-0.07	-0.01	
CY	-0.50	-0.18	-0.05	-0.56	-0.19	-0.05	
DE	-0.09	-0.03	-0.01	-0.10	-0.04	-0.01	
EE	-0.32	-0.13	-0.04	-0.46	-0.19	-0.06	
EL	-0.16	-0.09	-0.03	-0.16	-0.09	-0.03	
ES	-0.85	-0.38	-0.32	-0.85	-0.38	-0.29	
FI	-0.14	-0.04	-0.00	-0.11	-0.05	-0.01	
FR	-0.37	-0.14	-0.04	-0.41	-0.15	-0.04	
IE	-0.19	-0.08	0.01	-0.24	-0.10	-0.02	
IT	-0.25	-0.24	-0.15	-0.24	-0.23	-0.15	
LT	-0.43	-0.21	-0.11	-0.58	-0.27	-0.09	
LU	-0.51	-0.11	-0.02	-0.61	-0.12	-0.01	
LV	-0.47	-0.17	-0.10	-0.74	-0.27	-0.13	
MT	-0.20	-0.09	-0.03	-0.17	-0.08	-0.03	
NL	-0.25	-0.14	-0.04	-0.24	-0.14	-0.04	
PT	-0.28	-0.10	-0.02	-0.28	-0.09	-0.01	
SI	-0.20	-0.07	-0.01	-0.30	-0.09	-0.02	
SK	-0.15	-0.06	-0.02	-0.24	-0.08	-0.02	
EA19	-0.30	-0.13	-0.05	-0.35	-0.14	-0.05	

Note: Differences in poverty rates are calculated based on a poverty threshold equal to 60% of the median equivalised disposable income in each country in the absence of the EUBS. Earnings growth is not considered in the calculation of poverty and inequality in the trough year. A negative sign implies a positive effect.

Sources: Own calculations based on EUROMOD version G2.74.

³⁹ Note that the impact on poverty and inequality are only modelled for two genuine EUBS variants studied in the forward-looking analysis, which only differ from each other in the sense that one of the two variants modelled is able to issue debt while the other is not (the impact on poverty and inequality would therefore be identical). In the equivalent EUBS, transfers do not go directly to unemployed households and would therefore have no effect on poverty and inequality.

Strengthening the social dimension may also contribute to the *legitimacy* of the European project (Andor, 2015). Unemployment benefits can further be seen as a sign of *solidarity* (among countries and citizens), targeting precisely those individuals who bear a large share of the costs in a recession. Research carried out in this project suggests that an EUBS would reinforce citizens' confidence (as solidarity with the unemployed is high at the national level and policies aimed at tackling unemployment are deemed important by citizens) and market confidence (due to its stabilising effect). As such, EUBS could boost trust in Europe's institutions (but note that the literature is not conclusive on whether policies implemented at a low or a higher level boost trust the most). This, however, will also depend on the setup of the scheme and the costs that it entails.

Finally, the project also found that an EUBS does not seem to run counter to Member States' incentives to implement structural reforms. This is because policy-makers are not likely to think of fiscal policy and structural reforms as substitutes (persistent unemployment rates and crises go hand in hand with a sense of urgency, which increases reform momentum independent of fiscal policy) and fiscal policy which could creative incentives to increase labour market flexibility under an EUBS (which would insure against short-term costs or compensate the losers).

Chapter 4. Implementation of a potential EUBS

Key messages

Although there are several contributions on an EUBS, the legal and operational feasibility of such a scheme and the way it could be implemented, if policy-makers decide to do so, have not been studied much. This project has sought to fill this gap by carrying out legal assessments from the EU and the Member States' perspectives and by presenting a theoretical roadmap.

Previous work on an EUBS has debated whether such a scheme could be established within the existing EU legal framework, i.e. without requiring a treaty change. Some authors have argued that this is impossible (e.g. Fuchs, 2013), while others have identified a legal base for some types (e.g. Eichenhofer, 2015 and Kullas & Sohn, 2015). The conclusion that is reached within this project is that most of the 18 EUBS variants examined can be established within the existing legal framework. A legal base to set up the payment side of equivalent EUBS is found in Art. 352(1) TFEU (Treaty on the Functioning of the European Union). For the genuine variants, a combination of Arts. 175(3) and 352(1) TFEU can be considered. These articles are subject to the no bail-out clause (embedded in Art. 125(1) TFEU). For four variants, no legal base was found. Three other schemes do not comply with the no bail-out clause. The adoption of these EUBS would necessitate a treaty change in the form of an inclusion of an explicit legal base for establishing an EUBS. A legal base for the financing side of the EUBS can also be found within the existing legal framework. Setting up the financing side of the EUBS as part of the general budget appears to be the easiest and preferred option (rather than setting it up outside of the budget). Importantly, one has to bear in mind that if policy-makers decided to set up an EUBS variant that cannot be established within the existing EU legal framework, there would be ways to overcome this issue. One option would be a treaty change, while other options are enhanced cooperation and intergovernmental agreements.

As there is already considerable diversity in NUBS across the Member States, countries might encounter considerable legal and operational difficulties if policy-makers decided to establish an EUBS. This is particularly the case for genuine EUBS variants, which (at least partially) would replace the existing national schemes. The analyses carried out in this project show that amendments to ordinary national legislation governing unemployment insurance, social security and social assistance, labour markets and taxation would be inevitable in all Member States for genuine EUBS variants. Fewer legislative amendments would be necessary if an equivalent EUBS were introduced. Legal issues mostly emanate from the interaction of the genuine EUBS with numerous detailed mechanisms and concepts characterising NUBS (e.g. how interruptions of unemployment are dealt with). If an EUBS were set up, either these concepts could be determined at the EU-level, or the national legislation could apply mutatis mutandis. The conclusion that emerges from the study is that the latter should be the default option, because it would present the fewest legal barriers, be less intrusive and best capable of preserving the internal coherence of national policies and social security systems. Determining concepts at the EU-level should ideally be confined to undesirable effects (e.g. situations of moral hazard). Both types of EUBS could potentially invoke constitutional conflicts in a few Member States, but overall this issue is likely to remain limited. In terms of operational feasibility, genuine EUBS would considerably increase the administrative burden and require more and well-trained staff, close coordination between an EUBS and NUBS, data exchange, etc. Especially for Member States with NUBS that are very different from an EUBS, in scope and design, many obstacles would be ahead. Examples are countries with a so-called 'Ghent system' (Denmark, Finland and Sweden, where unemployment insurance is voluntary and managed by

special insurance funds) or a liberal welfare system (Ireland, Malta, Poland and the UK, which typically have flat-rated unemployment benefits). In comparison with genuine EUBS variants, reinsurance schemes are also associated with fewer operational challenges.

The study additionally presents a theoretical implementation plan (or 'roadmap') that outlines the steps to be taken if policy-makers decided to set up an EUBS. The plan consists of three parts: the establishment of the EUBS (during which all legal challenges would need to be tackled), the transition towards the EUBS phase (during which all operational challenges would have to be addressed) and the launch of the EUBS. According to the Five Presidents' Report (Juncker et al., 2015), this should be achieved by 2025. The study confirms the feasibility of an EUBS, despite the many obstacles that would be ahead. If an EUBS were created, it would rely heavily on the existing national bodies. There would be no need to set up new national bodies, but their capacity would have to be expanded and improved. The design and capacity of institutions involved in policy-making (and in delivering active labour market policies) would be crucial in this regard. To ensure that the EUBS achieves the same results across the Member States, an upward convergence of the existing institutions would be necessary. This would go hand in hand with the harmonisation and enhancement of the NUBS. A final important point in the context of implementation is the role of the social partners: in many Member States, social partners are closely involved in the design and management of the NUBS. Policy-makers would have to consider the role of social partners in the EUBS accordingly.

This chapter is devoted to implementation of a potential European unemployment benefits scheme. It addresses the legal and operational feasibility of an EUBS at the EU level and the Member State level and then presents a roadmap towards its implementation if there is political will to move ahead with this stabiliser.

One question that would need to be answered if an EUBS were considered is whether the scheme should be introduced in the EMU or the EU. The case for limiting an EUBS to the EMU seems compelling, especially in the current context. Although establishing it for the EU as a whole would imply a larger pool of countries for risk-sharing, much more attention has gone to the completion of the EMU (e.g. in the Five Presidents' Report by Juncker et al., 2015). A single monetary policy by definition cannot suit all in the case of idiosyncratic shocks. Asymmetric shocks can lead to wide divergences which are particularly problematic in the context of a monetary union. In the absence of the exchange rate as an instrument for insurance against country-specific shocks, there would be substantial added value for an insurance instrument at the EMU level, more than for non-EMU countries.

Regardless of whether the scheme applied to the EU or the EMU, making it mandatory could help to avoid adverse selection (Beblavý & Maselli, 2014). For similar reasons, allowing Member States to 'optout' of the scheme is not recommendable, even though this solution could make the EUBS politically more acceptable. Allowing Member States to decide whether to join the EUBS, but making this decision irreversible may thus have political merits. By contrast, allowing countries to step out of the scheme when it is operational does not appear to have any such merits. Furthermore, this would introduce severe complications for the other countries involved (e.g. balance of payments) and provide incentives for strategic behaviour. From the legal perspective, one has to note that in principle an EU legal act binds all Member States except for explicit op-outs or legal acts adopted under enhanced cooperation.

Related to opt-outs, there is the issue of accession criteria (i.e. assuring convergence among the Member States prior to the implementation of the EUBS). This idea has also been highlighted in the Five Presidents' Report (Juncker et al., 2015). In the report, "a significant degree of economic convergence" is listed as one of the pre-conditions for establishing a risk-sharing mechanism in Europe. It is an important point, in light of Europe's considerable labour market heterogeneity and diversity in welfare systems. Further convergence in both economic reality and policy-making would facilitate the functioning of an EUBS (or other stabilisers) and make it more politically acceptable. A further convergence of policies would likely affect the national economy's capacity to absorb shocks as well as the size and pattern of net transfers, thus reducing the risk of moral hazard. Nevertheless, given the experience rating and claw-back, the burden of non-convergence and of more intensive use of the schemes by some countries will largely fall on them (which means that there is limited negative externality). In addition, upward convergence could also be achieved in other ways (cf. the Commission's work on the development of employment and social benchmarks in light of the European Pillar of Social Rights to foster convergence, limit negative spillovers in employment and social protection and strengthen the social dimension of Europe 2020 and the European Semester).

4.1 Constraints and options under European law

To implement an EUBS, the first step would be the legal establishment of the scheme at the EU level. For that reason, the study starts from an analysis of the constraints and options within the EU legal framework, which aims to provide an answer to the question whether a legal base can be found for genuine and reinsurance EUBS within the existing framework or whether a treaty change would be needed. There are only a few legal assessments of the feasibility of an EUBS. Some authors have argued that it is impossible to introduce an EUBS within the existing Treaty framework (Fuchs, 2013). Others have found a legal base within the framework for some forms of EUBS (Repasi, 2013; Barnard & De Baere, 2014; Eichenhofer, 2015 and Kullas & Sohn, 2015).

The present study expands these earlier contributions. It considers three separate legal issues, which may result in separate legal acts: the payment side of the EUBS, the financing side of the EUBS and minimum requirements for NUBS. Separate legal acts are needed where the payment side and the financing side have to be based on different legal bases. Moreover, since minimum requirements can only be established on the basis of Art. 153 TFEU, which is different from the possible legal bases for the payment and/or the financing side, they have to be introduced in a separate legal act.

As noted earlier in this report, it is necessary to differentiate between reinsurance EUBS and genuine EUBS. In this project, this distinction is based on two dimensions: the presence of a trigger and the recipient of the payment. While the reinsurance schemes are tied to a trigger in this study, genuine schemes are not. With regard to the second dimension, the recipient of the payment, in the reinsurance schemes, a lump sum transfer is made to the NUBS for subsequent use in accordance with *NUBS law*. In the genuine EUBS, funds are transferred to the NUBS for subsequent payment to the unemployed person in accordance with *EUBS law*. The second dimension also highlights the *relationship between the European and the national schemes*. In this study, genuine EUBS and NUBS are assumed to co-exist in the territory of the Member State. It is the national scheme that pays out the unemployment benefits.

National benefits are defined by the NUBS, whereas European benefits are set by the EUBS. The legal relationship to each other has to be defined by a conflict rule. In case of an overlap, the EUBS takes precedence over the NUBS. Within the scope of the EUBS, the European benefit supersedes the national benefit. This is only different for the EUBS variant in which the EUBS tops up national benefits. Here NUBS takes precedence over the EUBS insofar as both benefits overlap. To the extent that the scope of the EUBS surpasses the national benefit, the European fund pays out the additional top-up. When the national schemes are more 'generous' than the EUBS and are, by that, outside the scope of the EUBS, the national schemes remain applicable. NUBS are not obliged to adapt in the opposite scenario, if it falls outside of the scope of the EUBS.

This distinction between reinsurance and genuine EUBS highlights that they differ in terms of their main objective. The necessity to assess a possible hierarchy of aims derives from the case law of the Court of Justice of the European Union (CJEU), which requires that if a Union measure pursues several aims that can be linked to several Union competences and if one of those aims is identifiable as the main one, whereas the other is merely incidental, the measure must be founded on a single legal basis, namely that required by the main or predominant aim. The main aim of reinsurance schemes is to achieve macroeconomic stabilisation. This follows from the presence of a trigger and from the fact that, once the trigger is activated, a lump sum is transferred to the national budgets. This does not exclude positive effects on the overall social standard of the unemployed people, but the main focus of reinsurance schemes would be on stabilising the status quo of existing NUBS in times of economic crisis rather than achieving an upward harmonisation of unemployment benefits across regions and groups. In that respect, the genuine EUBS differ. They mitigate the social risk of being unemployed by paying the financial support directly to the person concerned and by abstaining from any additional criteria for payment than those linked to unemployment and eligibility.

Genuine EUBS may have, in economic terms, the same *macroeconomic stabilisation* effect as reinsurance EUBS as they would (just as the reinsurance variants) also bear increased costs related to increased unemployment in times of crisis. Still, genuine EUBS go a step further compared with reinsurance EUBS by being applicable not just in times of crisis but at all times. This permanent applicability of genuine EUBS shows that they primarily serve to insure social risks and strengthen social cohesion, while the stabilising effect for national budgets in times of economic crisis is not excluded but rather a welcome side effect of the genuine EUBS variants. Since the case law of the CJEU requires that a legal act in fact pursues the objective of the legal basis, on which it is based, the choice of the right legal base has to be made in accordance with the predominant effect achieved by the EUBS option in question. While having the same macroeconomic stabilisation effect as reinsurance options, genuine EUBS surpass reinsurance EUBS in relation to the effect mitigating a social risk, such that they require being based on a different legal basis than reinsurance variants. Finally, it is worth noting that concerning final selection of the suitable legal base, there must be compliance with a general principle of EU law, according to which the use of a legal base may not undermine limitations set by other legal bases in the Treaties.

The remainder of this section discusses potential legal bases for the payment and financing sides of an EUBS. The conclusions for each of the 18 EUBS variants examined are summarised in Table 7 in Appendix C. More details on the articles that were considered as legal bases are presented in Appendix C as well.

4.1.1 Legal base for payments under an EUBS

4.1.1.1 Reinsurance EUBS

Art. 122(2) TFEU stipulates that the EU may grant financial assistance to a Member State that 'is in difficulties or is seriously threatened with severe difficulties caused by [...] exceptional occurrences beyond its control'. The article could therefore apply when an exogenous economic crisis causes severe difficulties in the Member States, as would clearly be the case in the event of a global financial and economic crisis. Interestingly, circumstances where failed economic and fiscal policies have led to weak public budgets, which in times of crisis prove to be insufficient, would not, by definition, exclude the use of this legal base. The fact that Art. 122(2) TFEU serves as the legal base for the European Financial Stability Mechanism is an example in this regard. This suggests that a legal base for the reinsurance EUBS can be found in Art. 122(2) TFEU, on the condition that these schemes have a high threshold for the trigger (i.e. when they are true 'reinsurance' schemes). However, there is one important caveat: the requirement of 'certain conditions' embedded in the article implies that financial assistance can only be granted on a case-by-case basis linked with conditionality and not automatically. This means that any EUBS that is only triggered would not comply with Art. 122(2) TFEU.

With these issues in mind, Art. 352(1) TFEU appears to be a more suitable candidate. This article is also known as the 'flexibility clause', because it offers a solution when the Treaties do not provide for a (sufficient) legal base but legislation is needed to achieve objectives set out in the Treaties (explicit or implicit). In this scenario, the European Commission prepares a proposal that may be adopted by the Council by unanimity, if the European Parliament has given its consent. Art. 352(1) TFEU can serve as a legal base, when these two conditions are satisfied (i.e. meet Treaty goals, and no other competences are provided). Reinsurance EUBS clearly fulfil the first condition as they would contribute to Union objectives: the establishment of an 'economic and monetary union whose currency is the euro', which is embodied in the creation of 'a highly competitive social market, aiming at full employment and social progress'. This constitutes the Treaty objective of creating a currency union that provides for financial stability with high social standards. Furthermore, it also meets the second condition. Although Art. 122(2) TFEU is an option for equivalent EUBS with high trigger thresholds, it is insufficient as a legal base (due to the conditionality linked to financial assistance that must be granted on a case-by-case basis). Moreover, no competences are available for schemes with low trigger thresholds, because this conflicts with the degree of seriousness of the difficulties a Member State is threatened with as required by Art. 122(2) TFEU. Art. 352(1) TFEU could therefore serve as a legal base for the equivalent EUBS. Criteria describing exceptional economic crises and the financial assistance they necessitate can be created

⁴⁰ In the project, only variant 4, the equivalent scheme with the highest trigger that is activated only in severe circumstances, would match the criteria imposed in Art. 122(2) TFEU. None of the other equivalent variants examined (variants 1, 2 and 3) would be covered due to their lower trigger.

⁴¹ For this reason, variant 4 cannot solely be based on Art. 122(2) TFEU as it clashes with the requirement of 'certain conditions'. Conditionality in Art. 122(2) TFEU has to be understood in the same way as in the context of Art. 125(1) TFEU. By that, Art. 122(2) TFEU is reconciled with Art. 125(1) TFEU although it provides for adopting measures that can deviate from the requirements of the no bail-out clause.

4.1.1.2 Genuine EUBS

One article that could potentially serve as a legal base for genuine EUBS variants is Art. 175(3) TFEU. Under Art. 175(3), the Council and European Parliament may adopt 'specific actions outside the Funds' if this is needed to strengthen the EU's economic, social and territorial cohesion (Art. 174 TFEU). In relation to the kind and the content of measures that are suitable for strengthening economic and social cohesion, cohesion should be understood as a broad concept. 42 Cohesion is presently understood as reducing disparities in relation to unemployment between regions and groups within the EU that are politically and socially intolerable. The backward-looking analyses, as well as the analysis of the state of national unemployment insurance schemes carried out in this project, revealed that over the last years, disparities in key indicators such as the unemployment rate, the coverage, the characteristics of the unemployed (education level) and the quality of social protection increased. Genuine EUBS variants that effectively reduce the identified disparities are able to strengthen social cohesion within the EU and would, by that, be covered by the scope of Art. 175(3) TFEU. The reference to 'outside of the Funds' conveys that as long as a policy encourages economic and social cohesion, it may also differ from those pursued by the funds. 43 As explained above, from the legal perspective, reinsurance EUBS – by design have macroeconomic stabilisation as their main purpose, while social cohesion appears to be a secondary objective. Although one may argue that stabilisation does contribute to economic and social cohesion, it is the predominant objective of a policy measure that matters for the selection of the suitable legal base. 44 Moreover, reinsurance EUBS apply in case the trigger is activated and include only

⁴² It is worth mentioning that the objective of the Union to promote social cohesion can be understood as a standalone objective, although the wording of the cohesion goal refers to 'economic, social and territorial cohesion' (Art. 3(3)(3) TEU (Treaty of European Union), Art. 174(1) TFEU). Measures promoting social cohesion are not limited to only addressing region-specific problems. This understanding derives from the fact that 'territorial cohesion', which explicitly addresses region-specific problems, was only included in the cohesion goal with the entry into force of the Lisbon Treaty. Furthermore, the European Social Fund refers explicitly to the cohesion goal without being limited to region-specific problems. The same applies to the European Globalisation Adjustment Fund, which allows for financial support in case of redundancies resulting from a global financial and economic crisis irrespective of the impact on the local or regional economy. These secondary law measures provide for European financial support in order to reduce social disparities regardless of the geographical scale of the disparities. Finally, Art. 174(1) TFEU specifies that the purpose of the 'economic, social and territorial cohesion' is to promote the Union's overall harmonious development as an expression of the 'solidarity among Member States' (Art. 3(3)(3) TEU). This means that measures, which improve the overall development of the Union, are covered by the cohesion goal even if they involve EU-wide activities.

⁴³ It should be noted that the reference to 'the Funds' in Article 175(3) TFEU covers not only financial support that can be granted within Title XVIII of the TFEU but all financial support programmes that are foreseen in the Treaties (such as e.g. the European Social Fund).

⁴⁴ This strict distinction between genuine and reinsurance schemes may seem categorical, which is the result of how the law works (i.e. legal bases work in categories and there is a hierarchy of objectives). Next to this point, one also has to keep the complementarity between stabilisation and social cohesion in mind. In a stable environment, fewer people will become unemployed and fall into poverty. With higher social cohesion, there may be stronger aggregate demand increasing stability. Another important point is that harmonisation efforts can also be linked to the introduction of an equivalent EUBS (yet again, this is not the main objective of these schemes).

transfers from a European fund to national budgets. Notably having regard to the indicator of the quality of social protection, one has to acknowledge that reinsurance EUBS only have an impact on the quality of social protection in times of economic crises. They only prevent a further increase of disparities when an economic crisis hits a Member State, but do not contribute to a reduction of already identified disparities. In contrast to this, certain genuine EUBS variants do have economic and social cohesion as their central target. Art. 175(3) TFEU therefore is relevant for the genuine EUBS only.

In this project, the coverage rate of most genuine EUBS variants examined is higher than that of the existing NUBS. The only exception is a variant that only covers a short three-month period of unemployment. In addition, as regards the impact on employment, the analysis finds that all genuine EUBS variants have a more positive impact on the employment than the situation, in which only national unemployment insurance schemes are in place. Regarding the quality of social protection, the coexistence of EUBS and NUBS in the territory of the Member States leads, in principle, to an overall higher level of EUBS benefits as compared with national benefits. A notable exception is a variant that has a lower replacement rate than the vast majority of national systems in place. A low replacement rate combined with a high capping favours, in particular, high-income earners over low-income earners, which cannot be regarded as reducing disparities anymore. The same is true for another variant that refers to such a low capping that it leads to lower unemployment benefits in most of the Member States and that corresponds de facto to a flat-rate provision for above-average earners. Such a variant would generate frequent top-ups by NUBS, which proves that it is not suitable for reducing current disparities. With the exception of these variants, genuine EUBS may also trigger convergence in the design of national schemes towards the EUBS as Member States may take steps to smooth the transition between EUBS and NUBS.

Nevertheless, Art. 175(3) TFEU does face important challenges, with 'no undermining of limitations set in other legal bases' being the main one. This issue applies particularly to the Member States' right to define fundamental principles of their social security systems (embedded in Art. 153(4), first indent TFEU). Furthermore, under Art. 153 TFEU Member States' sovereignty in social security law matters is protected procedurally by requiring a unanimous vote in the Council.⁴⁵ Art. 175(3) TFEU, however, allows for a qualified majority voting. Basing a genuine EUBS, which entails no legal harmonisation but has a de facto harmonising effect on NUBS (triggered by political and economic processes), on Art.

⁴⁵ Member States' sovereignty is protected procedurally by the unanimity principle. No Member State has to 'give up' sovereignty against its will. Art. 153 TFEU contains the so-called constitutional saving clause to protect national competences in the area of social security. EU legislation may not affect the right of Member States to define the fundamental principles of their social security systems (1), it may not affect the financial equilibrium thereof (2), and when adopting measures in the area of social security law, the Council votes by unanimity (3). When looking at all the provisions in the Treaties that deal *explicitly* with social security matters, the legal base requires unanimous voting. Art. 175(3) TFEU does not explicitly mention social security. However, basing EUBS on Art. 175(3) TFEU might interfere with national social security law, so that using this legal base which only requires a qualified majority voting might undermine the unanimous voting requirement put in all those legal bases that deal explicitly with social security matters.

175(3) TFEU would therefore undermine this protection of Member States' sovereignty (thus ruling out Art. 175(3) TFEU as a legal base). 46

To address these issues, Art. 352(1) TFEU comes into play for the genuine schemes as well. As indicated above, Art. 352(1) TFEU requires the achievement of a Treaty objective and the fact that no other competences are available or sufficient. Regarding the Treaty objectives, reference is made to the creation of 'a highly competitive social market, aiming at full employment and social progress' and the advancement of 'social justice and protection', 'economic, social and territorial cohesion' and 'solidarity among Member States'. As just explained, certain genuine EUBS variants would be covered by the scope of Art. 175(3) TFEU, but this article turns out to be insufficient as especially its voting requirements would undermine the protection of Member States' sovereignty in social security matters. For this set of schemes, a legal base is found within the existing EU legal framework when Arts. 175(3) TFEU and 352(1) TFEU are combined. Art. 352(1) TFEU is necessary to ensure unanimous voting in the Council. This protects procedurally the Member States' right to define the fundamental principles at the core of their social security schemes as it concedes them a veto power in case they consider these principles endangered by a proposed EUBS. In other words, Member States could vote against a proposed EUBS if it is not in line with the fundamental principles of their own schemes before it would have to be implemented. If the Council vote is unanimous and the EUBS is established, the unanimous adoption of the EUBS establishes a presumption that it does not affect the fundamental principles of the social security systems of the Member States. In substantive terms, it should be noted that Art. 352(1) TFEU may not overcome the prohibition to legislate if the intended measure affects the Member States' right to define the fundamental principles of their social security systems. That would require a treaty change. Yet, in this context one has to bear in mind that although the introduction of an EUBS might put a de facto pressure on governments to adapt national schemes (convergence towards the EUBS), it would not legally oblige the Member States to do so. EUBS and NUBS co-exist in the territory of the Member States.

4.1.1.3 No bail-out (Art. 125(1) TFEU)

The payment side of both the reinsurance and genuine schemes can therefore be established by at least additionally relying on Art. 352(1). Art. 352(1), however, is subject to the no bail-out clause embedded in Art. 125(1) TFEU. This article states that '[t]he Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State'. One may argue that the no bail-out clause would not be applicable to the EUBS, because (at least some forms of) EUBS work independently of a Member States' ability to assume its financial commitments vis-à-vis others.

⁴⁶ When screening the EU Treaties, it becomes clear that whenever social security matters are explicitly affected by the legal base, unanimity is required. Article 175(3) TFEU does not refer to social security law but to social cohesion. Establishing a social cohesion fund does not, in principle, affect Member States' social security systems. Yet, with regard to the EUBS, it can be seen that the interplay between NUBS and EUBS would require (not legally but factually) an adaption of NUBS law in order to smooth transitions. This de facto harmonisation has a comparable impact on national social security law as legal harmonisation. Therefore, merely basing the EUBS on Art. 175(3) TFEU would undermine limitations set by other EU legal bases.

This idea is contested in this study. Art. 125(1) TFEU conveys the general principle that the EU is not allowed to finance Member States unless there is an explicit legal base. Otherwise, it is Art. 125(1) TFEU that determines the boundaries for financial assistance. The EUBS, when introduced on the basis of Art. 352(1) TFEU, therefore falls within the scope of the no bail-out clause. In this project, with one exception all of the examined EUBS are (at least partly) based on Art. 352(1) and therefore subject to this clause. 47 Under Art. 125(1) TFEU, the EU may grant assistance to Member States provided that it stimulates them to pursue sound budgetary policies and carry out structural reforms. An EUBS must foster labour market reforms at the national level. There are three mechanisms that could provide such incentives: experience rating, claw-back and minimum requirements concerning activation. Experience rating and claw-back are key features of an EUBS that can be found in most of the variants considered. Both mechanisms are vital tools to deal with moral hazard and permanent transfers (from Member States with low to Member States with high unemployment rates). Experience rating achieves this goal by linking the pay-in for the scheme to the likelihood of using it. Claw-back deals with any long-term imbalances that Member States hold vis-à-vis the supranational fund to maintain long-term budget neutrality. The third mechanism, minimum requirements pertaining to activation policies, connects the EUBS with national policies that stimulate labour market participation provided that they are necessary for the social protection of workers under the EUBS (supported by Art. 153(2) TFEU).

An EUBS variant with experience rating, claw-back and minimum requirements is, in principle, in line with the no bail-out clause. Experience rating sets a financial incentive for Member States to carry out structural reforms in order to avoid recurring high rates of short-term unemployment, which would lead to an increase of the affected Member States' contributions to the fund. Claw-back mechanisms indicate to Member States that inactivity in labour market policies, which entails permanent transfers, will only result in higher contributions. Both mechanisms therefore replace the financial incentive of increased unemployment expenses in case of failed labour market reforms so that Member States remain prompted to implement structural reforms as required by the *Pringle* case law⁴⁸ in order to 'justify' the transfer of funding from the EU level to Member States in case such a transfer is not explicitly foreseen by the Treaties. Schemes without experience rating and claw-back can hardly be considered not to violate the no bail-out clause.

4.1.2 Legal base for establishing the financing of an EUBS

For the financing side of an EUBS, there are two options. The first option is to establish the financing side within the EU budget (by introducing a budget line in the general EU budget). This option requires a dual legal base, which is found in Art. 314 TFEU along with Regulation No 966/2012⁴⁹ with regard to the introduction of a new budget line and in Art. 352(1) TFEU with regard to raising additional revenue

⁴⁷ More precisely, in this project: variants 1-3 are based on Art. 352(1) TFEU, variants 4 on Art. 122(2) TFEU, variants 5-7, variants 10-13 and variants 15-18 on Art. 175(3) TFEU and Art. 352(1) TFEU. For variants 8-9 and variant 14, there is no legal base. All EUBS have to comply with Art. 125(1) TFEU except for variant 4, for which 'conditionality' in its legal base, Art. 122(2) TFEU, is interpreted in the same way as under Art. 125(1) TFEU.

⁴⁸ See the CJEU Case C-370/12, Pringle, ECLI:EU:C:2012:756 paras 130 and 136.

⁴⁹ Regulation (EU, Euratom) No. 966/2012 of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euroatom) No. 1605/2002, OJ L. 298/1, 26.10.2012.

for the EUBS. The general budget has two sources of income: 'own resources' and 'other revenue'. According to Art. 311(2) TFEU, the EU budget is financed from 'own resources', without prejudice to 'other revenue'. The latter is not primarily intended to finance the general EU budget but rather to finance a specific purpose exclusively. On the basis of Art. 21(2)(d) of Regulation No 966/2012, revenues collected from Member States or individuals⁵⁰ can be earmarked for exclusive use by the EUBS. Earmarked revenues are considered 'external assigned revenue' and appear in the budget as 'other revenue'. They do not feed into the general EU budget, nor do they require modifications of the Own Resources Decision.⁵¹ External assigned revenue furthermore is not subject to the multiannual financial framework ceilings.

The second option is to establish the financing side *outside the EU budget*. In this case, either an EUBS agency with a legal personality, and, linked to that, its own distinct budget (Art. 352(1) TFEU) or a dedicated fund (through an intergovernmental agreement) would have to be set up. Establishing a fund outside the general EU budget may not impair the budgetary control function and rights of the Council and the European Parliament. Contributions can be collected from Member States and individuals (and so the same caveat applies as before).

One feature of the EUBS that is particularly relevant for the financing side is *debt-issuing*. Of the 18 variants under consideration in this project, only 3 have a no-debt constraint.⁵² This emphasis on debt-issuing in the EUBS design sharply contrasts with the legal perspective. In fact, Art. 17(2) of the Regulation on financial rules prohibits debt-issuing to finance the general EU budget. Despite this rule, there are many counter-examples (e.g. the European Financial Stability Mechanism may issue debt), which stem from the fact that the EU is allowed to borrow or lend for specific and predefined purposes. The guarantee for the borrowing is then limited to the fund and could only be extended to the Union budget.⁵³ The legal base to support debt-issuing is identical to that establishing the EUBS (Art.352 (1) TFEU for reinsurance EUBS variants and Arts. 175(3), 352(1) TFEU for genuine variants).

4.2 Constraints and options at the Member State level

This section reviews the feasibility of introducing an EUBS at the national level. It complements the previous one by examining the feasibility of an EUBS in terms of its compatibility with national laws and practices, taking into account its features. This examination covers the legal and operational sides, pointing out the barriers to establishing an EUBS and the benefits that it may bring.

⁵⁰ From the legal perspective, collecting contributions from individuals is trickier than collecting pay-in from Member States as the former raises the question whether the EU has the power to levy such contributions. One solution would be to conclude an intergovernmental agreement for levying and transfer of funds by national authorities (following the example of the Single Resolution Fund).

⁵¹ Council Decision 2007/436/EC, Euratom of 7 June 2007 on the system of the European Communities' own resources, [2007] OJ L 163, p. 17.

⁵² These three variants are: 3, 4 and 18.

⁵³ This raises the follow-up question of whether in the Council such extension of the guarantee to the Union budget would find the necessary majority if the EUBS is only designed for a subset of Member States.

One of the most striking conclusions from the analysis at the national level is that genuine and reinsurance schemes are radically different in terms of their legal and operational feasibility. Yet, within these two families of schemes differences are smaller. As one may recall, the distinction between reinsurance and genuine schemes is not clear-cut (as explained in chapter 2, there exists a continuum of potential EUBS). Nevertheless, in relation to the level of harmonisation required to implement the scheme, the set of genuine schemes is much more demanding as it requires much more harmonisation of NUBS than the set of reinsurance schemes (but within each set of EUBS differences may emerge due to the design of the scheme). This observation has been confirmed by the analysis performed. In terms of ordinary national legislation and operational feasibility, genuine EUBS are much more difficult to implement than reinsurance schemes. Still, both types of schemes are relatively comparable in terms of their relation to national constitutional law.

4.2.1 Legal and operational constraints and the options for the reinsurance schemes

Reinsurance schemes, by design, essentially leave the existing national schemes unaffected. Funds are not disbursed to the qualified unemployed directly. Instead, financial transfers occur between the supranational fund managing the EUBS and the Member States. Equivalent EUBS variants are therefore not very demanding to implement at the Member State level in legal and operational terms. There is, however, one major caveat to take into account. The extent to which adopting a reinsurance EUBS does not provoke amendments to the NUBS crucially depends on the introduction of minimum requirements for the NUBS and on whether the way in which governments spend the funds disbursed by the supranational fund is pre-determined. The analysis performed here started from the assumption that the EUBS leaves the NUBS intact and that the funds are earmarked for passive unemployment protection.

Constitutional law. Given that the reinsurance schemes are solidly based on European law and would leave the existing NUBS unaffected, national-level feasibility does not appear to raise many obstacles. That being stated, for a few countries complications with regard to compatibility with constitutional law and fiscal rules have been identified.

In the large majority of Member States, the reinsurance EUBS would be compatible with constitutional law, but in some countries these schemes could give rise to constitutional problems (Austria, Denmark, Germany, Finland, France, Luxembourg, and the Netherlands). Constitutional problems would essentially stem from the transfer of competence in social security, where the constitution demands that social security be regulated by national legislative acts (as opposed to regional, local or EU legislative instruments). In Germany, for instance, the social state principle ensures that the state (and not other levels of government) is accountable for social security and social justice. If constitutional amendments were required (e.g. if clear competence in social security matters had to be given to the EU), these typically can only be made through a demanding, lengthy and complex process, which would impede the introduction of reinsurance EUBS. For example, it could require multiple rounds of voting in parliament, the involvement of both chambers of parliament, the achievement of an absolute qualified majority or a referendum. Even if the constitution did not need to be amended, it might prescribe a burdensome legislative procedure. This would be the case in Denmark, if the introduction of a reinsurance scheme were considered transfer of competence going beyond that already delegated

through previous acceptance of the Treaties. In such a case, a five-sixths majority in the parliament would be required or, failing that, a majority supported by the population in a referendum. The outcome of such a referendum is difficult to predict.

Ordinary legislation. Besides the constitutional conflicts, the necessary amendments to ordinary legislation have been studied. In this regard, especially the issue of limits to public debt and/or deficits emerges. Many countries have translated the EU's requirement to limit budget deficits to 3% of GDP and public debt to 60% of GDP into national legislation. In Austria, for example, structural deficits are limited to 0.35% by law. In some Member States, national budget acts prescribe that EU funds (which would include an equivalent EUBS) have to be considered in the planning of national budgets, regardless of whether social insurance budgets are included in the national budget. Payments related to and from the equivalent EUBS could be subject to balanced budget rules as well. If these rules were respected, Member States would not find it difficult to sign up to an EUBS.

4.2.2 Legal and operational constraints and the options for genuine schemes

Genuine EUBS (at least partly) replace the existing national unemployment insurance schemes (as contributions are collected from employers and employees and benefits are paid out directly to the unemployed). As a consequence, they have a substantial impact on the NUBS and on Member States' legal and operational frameworks. Genuine EUBS variants would require much more harmonisation than reinsurance EUBS variants among the NUBS. For these reasons, legally and especially operationally, genuine EUBS would be very demanding to implement.

4.2.2.1 General feasibility issues

Constitutional law. With regard to potential constitutional conflicts, a similar picture emerges as for the reinsurance EUBS. For most Member States, genuine EUBS would not come into conflict with national constitutions, if there is a legal base at the EU-level. For some countries, constitutional conflicts are possible, to the extent that introducing the genuine EUBS would be regarded as transferring competences in social security matters that are reserved to the national level. This issue, as mentioned in relation to the reinsurance schemes, applies more strongly for the genuine schemes, as they would significantly interfere with the NUBS and be akin to an actual social insurance system.

For these reasons, the genuine EUBS also has to be considered in the light of the constitutional principles of social insurance, especially insofar as particular aspects are concerned. Claw-back and experience rating, for example, may come into conflict with the principle of solidarity. These two mechanisms imply that the pay-in and pay-out are balanced in the longer term, thus ruling out solidarity between contributors and beneficiaries across the EU. Experience rating, for instance, could result in EU citizens in different countries paying a different price for their unemployment insurance, depending on the risk of unemployment. Still, experience rating is only one of many elements defining the level of contributions and would be dependent on the past unemployment risk of a country as a whole, as opposed to individual citizens. For that reason, these issues should be regarded as points of attention rather than insurmountable barriers to introducing an EUBS.

Ordinary legislation. For ordinary legislation, the impact of genuine EUBS variants differs fundamentally from reinsurance EUBS. In all Member States, national legislation would have to be adapted. This concerns legislative acts and administrative decrees on unemployment insurance, labour market regulation, social security contributions and social assistance, and legislation pertaining to tax authorities, income tax and budgets. In some countries (e.g. France), collective agreements would have to be adapted as well. Amendments to the ordinary legislation would mainly be needed to govern the relationship between the EUBS and the NUBS. In addition, consultations with social partners or the public are part of the legislative process in some Member States. Other parties may be involved as well, such as units of regional and local governments and the bodies responsible for the operation of the system.

A related issue is that of adapting national organisational and financing frameworks to the genuine EUBS. This would be less problematic in Member States where the existing NUBS is based on the social insurance principle. Especially in countries where the NUBS is very different from the EUBS – e.g. in terms of financing or administration – there would be substantial impediments ahead if a genuine EUBS were to be introduced (e.g. in Scandinavia). Nevertheless, in all countries, the best approach seems to be to make use of the existing structures for the administration of the genuine EUBS. The parallel operation of the NUBS and EUBS would encounter considerable administrative obstacles, requiring careful coordination, the exchange of information (e.g. national public employment services and the EUBS agency might share information on the eligibility of an unemployed individual for the national and the European schemes), and more and well-trained staff. These challenges are associated with higher administration and technical costs (though in the NUBS administration costs do not appear to be very high, so these costs may remain limited in the EUBS case as well). Issues of a more political nature might also emerge, in terms of the prevailing concept of social security, the level of contributions and the position of different interest groups.

4.2.2.2 Feasibility as regards the different dimensions

NUBS are characterised by a number of features, which may diverge considerably from the features of the genuine EUBS. In this section, these issues are explored in more depth. Given that the EUBS could fully or partially replace the NUBS, such discrepancies could give rise to significant legal and operational barriers.

Personal scope. The scope of an unemployment benefits scheme determines which categories of persons are covered by the scheme. Commonly, this is based on such factors as the pursuit of an economic activity, the type of economic activity or residence. Some of the groups that are not covered may have the option to insure themselves on a voluntary basis or can rely on a separate provision. While in this project the genuine EUBS is limited to workers and coverage is mandatory, the national realities can be radically different (e.g. countries with a voluntary insurance scheme). These differences pertain to the coverage of specific groups of non-employees (e.g. artists and the self-employed) and the exclusion of certain groups of employees (e.g. civil servants, workers with too few working hours). The case of the self-employed is interesting, given the huge cross-country divergences (e.g. covered by NUBS, not covered but with the option of voluntary coverage, not covered but having a separate scheme, or not covered at all). This raises the question how the personal scope would be defined in the

EUBS and to what extent the scope of the EUBS and NUBS could be aligned. Alignment of the personal scope in both systems would be recommended from a legal and operational perspective, but introduces other obstacles that may be difficult to overcome (e.g. coverage differences). These notions also relate to the issue of minimum requirements, discussed in chapters 1 and 2 of this report.

Eligibility. A closely related issue is entitlement: When does one qualify for unemployment benefits? Entitlement conditions have several dimensions, of which the qualifying period is the main one. The qualifying period has two components: an activity/insurance period and a reference period. As for the personal scope, there is also a wide variety of qualifying periods among Member States, with distinctions based on age, profession and first-time claimants. Moreover, these entitlement conditions could again differ substantially from those of the EUBS. 54 These divergences between NUBS and EUBS could reflect the different aims (NUBS, for example, may also cover the long-term unemployment). Other issues related to entitlement are that NUBS commonly recognise assimilated periods (e.g. child-rearing and sickness), ensure the maintenance of rights in case of (short) interruptions of unemployment, and so on (which the EUBS could or could not take into account, depending on how it is designed). Furthermore, NUBS entitlement is often conditional on further requirements, related to the origin and nature of unemployment, the fact of not pursuing work, not receiving other benefits (e.g. accumulation of benefits and partial unemployment), one's age and availability for work, being registered with employment services and active job search. Operational issues stemming from differences in entitlement are administratively complexity, more caseloads, technical difficulties (e.g. the time unit in which periods are expressed and use of full-time equivalents in computations), and the setup of monitoring and sanctioning mechanisms.

Benefit amount. The benefit amount of an EUBS would typically be contingent on several factors: the replacement rate, the reference wage and capping. In each of these dimensions, the EUBS could diverge substantially from the existing national scheme. 55 NUBS again show ample diversity in their calculation base, calculation method and the benefit ceilings used to determine the amount of unemployment benefits an individual receives. Four countries, Ireland, Malta, Poland and the UK, offer flat-rate benefits that are unrelated to previous earnings. The operational barriers associated with a genuine EUBS would be the most significant for these countries. In terms of the calculation base, NUBS use gross or net earnings (a minority), the last wage (a minority) or an average value over a longer period, and often include reference earnings ceilings. The NUBS calculation can also be based on mixed methods (e.g. combining fixed flat-rate and earnings-related benefits). Furthermore, benefit amounts vary according

⁵⁴ In this project, entitlement is mainly defined on the basis of a qualifying period, which is equal to having worked for 3 months (activity period) out of the last 12 months (reference period) in the baseline case. These conditions are found in most variants. In one variant, entitlement conditions stipulate having worked for 3 out of the last 6 months. In another variant, it is set at 12 months out of the last 24. In comparison with the NUBS, the EUBS studied generally have a very short employment period and a short reference period (making it easier to qualify for the EUBS than the NUBS). Only the variant with a qualifying period of 12 months out of the last 24 is stricter.

 $^{^{55}}$ In the EUBS studied in this project, the reference wage is the last gross wage. The replacement rate is 50%(baseline), 35% or 60%, while capping is set at 150% (baseline), 100% or 50% of the average national wage. Overall, with some variation depending on the variant, EUBS benefits seem proportionally lower (higher) for low-income (high-income) groups than national benefits. In some cases, these criteria are very different from those used in the Member States.

to other factors, besides earnings, in most Member States. Examples of such factors are the unemployment duration and household composition. Capping of benefits is also common in the Member States but the approach used to achieve this differs. One option is to use reference earnings ceilings, while another option is to use benefit ceilings (or a combination of both). In some cases, multiple benefit caps are combined. Many countries also have minimum benefit values. While divergences between the EUBS and NUBS in this regard might result in legal obstacles, they would lead to operational difficulties in particular and could be accompanied by substantial fluctuations in the amount that an unemployed worker receives. Such fluctuations could undermine a country's active labour market policies and result in unemployment traps. For example, if the benefit amount that an unemployed individual receives is comparable to what he or she could earn on the labour market, it would be much more attractive for this person to remain unemployed rather than to look for a job (despite the country's activation measures).

Benefit duration. In the majority of the Member States, benefit duration strongly depends on such criteria as previous employment/insurance duration, household composition and age. There is large cross- and within-country variation in terms of benefit duration: for example, there is a maximum duration of 2 to 25 months, depending on age and insurance record in Slovenia. Similar to for the benefit amount, differences between NUBS and an EUBS in this regard would especially cause operational issues. More specifically, insured persons would likely be subject to multiple schemes over the course of their unemployment. If there were a waiting period before the EUBS started, unemployed workers would have to rely on their national scheme to bridge the gap. This does not mean that this waiting period would necessarily be fully covered by the NUBS. There may be waiting periods (typically three to eight days for involuntary unemployment, and sometimes outstanding annual leave or employer compensation have to be used up first) and coverage gaps (when an insured person is entitled to benefits for a period that is shorter than the duration of the waiting period). In the latter case, social assistance may come into play (which would also be true for people who would not qualify for NUBS but do so for EUBS). When the EUBS benefit would expire, the NUBS or national social assistance might (re)start.⁵⁶ This frequent switching between multiple schemes would cause major administrative and operational challenges (with errors and delays as a result) and would be associated with huge fluctuations in the amount someone receives. If workers were aware of this jump, this would actually impair job search, especially if the EUBS benefit level were comparable to what one could earn in the labour market.

Interrelation of EUBS with other branches of social protection. The link between an EUBS and social assistance has already been discussed to some extent. In addition to general social assistance, many countries have separate categorical assistance schemes (e.g. to cover jobless persons capable of working). If the EUBS were less strict than the NUBS (e.g. in terms of eligibility) or more generous (e.g. in terms of duration or amount), it seems likely that fewer people would rely on social assistance than

⁵⁶ The (full) NUBS would not resume in half of the Member States (in the baseline variant and variant 7). In the remaining 14 countries, it would restart for all (4 countries) or some (10 countries) of the unemployed. For variant 8, a restart would happen in 23 countries, for 6 of them in all cases. Even if someone received NUBS benefits after the EUBS ran out, it is likely that when NUBS benefits stopped, he or she could usually benefit from social assistance.

4.3 How could an EUBS be implemented?

The third section of this chapter explains how an EUBS could be implemented in practice if there were a decision on proceeding in principle. The section first outlines the general concepts behind the roadmap and then presents a roadmap for the reinsurance and genuine EUBS.

4.3.1 Concepts for a roadmap

In this research project, the main idea behind the theoretical roadmap presented below is that it should serve as a tool to guide the introduction of an EUBS in practice. A roadmap should outline the different steps towards the implementation of an EUBS or, in other words, the different stages to go through in the establishment process. ⁵⁸ Conceptually, *three stages* can be distinguished. Each stage would require actions at the supranational level and the level of the Member States. Each stage would also have a clear objective. The first stage is the "establishment of the EUBS". This stage would begin with the

⁵⁷ In this research project, this proves to be the case: the EUBS is generally less strict/more generous than the NUBS. This is also in line with the idea of an EUBS: to cover more unemployed individuals and ensure a higher coverage than the national schemes, in that way providing stabilisation.

⁵⁸ Here, it is assumed that both the genuine and the reinsurance schemes comprise the same set of features. If the schemes differed in this regard, this may have implications for the roadmap, as it could necessitate additional legal amendments or pose further operational barriers in one case but not the other. The impact of such divergences would depend on the features selected. Overall, it should not affect the roadmap's structure, only the length and complexity of different stages.

political decision to propose an EUBS as a supranational automatic stabiliser. It would be finalised when the EUBS is formally established. Between these two milestones, all the legal activities that would to be needed at the Member States or the EU level would be undertaken. In the second stage, the operational or practical implementation of the EUBS at the supranational level or the national level would take place. This stage bridges the gap between "the establishment of the EUBS and the EUBS becoming operational". The third and final stage of the roadmap would be the "launch of the EUBS".

This three-step procedure would apply to both the reinsurance and genuine EUBS variants. Research carried out in this study suggests that the legal and operational challenges differ substantially when reinsurance EUBS and genuine EUBS are compared, while only a few differences are found within each group of schemes. With this conclusion in mind, a first roadmap is presented exclusively for the reinsurance EUBS. It is depicted in Figure 4 in the next subsection. Subsequently, a second roadmap is produced for the set of genuine schemes. The roadmap for these schemes is displayed in Figure 5, also below. These roadmaps do not differ in terms of the number of stages, but rather in the complexity and length of each stage and the actors involved. Given that genuine schemes would be legally and operationally more demanding for Member States, the first two stages of the roadmap for the genuine EUBS would likely be more complex and longer than those of the equivalent EUBS.

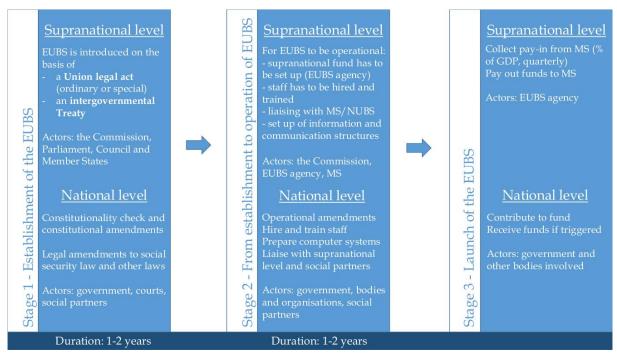
If an EUBS were set up, it could build on the existing national bodies that manage the national unemployment insurance schemes. An EUBS agency could be established to manage the EUBS at the supranational level. At the Member State level, the existing bodies could step in (bearing in mind that their workload would increase and may become more complex, requiring more staff, new information, etc.). This, however, may necessitate upward *institutional convergence*. The *design* and *capacity* of institutions in policy-making (and also in delivering active labour market policies and implementing conditionality) would be of crucial importance to assure that the EUBS achieved similar results across the Union and that the rules were applied in a consistent way.

4.3.2 A theoretical roadmap for the reinsurance schemes

4.3.2.1 Stage 1: Establishment of the EUBS

At the EU level, there are two options for establishing the EUBS. The first option is an EU legal act, either through an ordinary or a special legislative procedure (which differ from each other with regard to the involvement of the European Parliament). Either way, the European Commission would have to take the initiative. The second option is an intergovernmental treaty. Negotiations and the adoption of such a treaty would fall outside of the EU legal framework and the initiative would be left to the Member States. In this project, it became clear that there is a legal base for the reinsurance EUBS in the existing framework: Art. 352(1) TFEU (Union legal act). This article falls under the scope of the no bail-out clause. At the level of the Member States, constitutional amendments would possibly be needed in a few cases (e.g. Germany). Generally, few amendments to ordinary legislation would be required. The duration of this process is hard to predict, but would likely take at least 18 months.

Figure 6. Roadmap for the reinsurance schemes



Note: MS means Member State.

4.3.2.2 Stage 2: From establishment to operation of the EUBS

At the EU level, operational challenges would include setting up a supranational fund or EUBS agency (to take care of EUBS-specific dimensions, such as experience rating and claw-back, among other tasks), hiring and training staff, and establishing links with national administrations and social partners. Especially at the Member State level, there would be operational barriers. For example, staff would have to be hired and trained, and information and communication structures between the national and the European scheme would have to be created. The extent to which operational obstacles might arise would be inversely linked to the degree of flexibility that governments had to spend the funds received. In any case, the operational phase of the roadmap would require at least a year.

4.3.2.3 Stage 3: The EUBS becomes operational

At the EU level, the supranational fund would start to collect contributions and disburse pay-outs to Member States when triggered. At the level of the Member States, contributions would be paid to the fund. According to the Five Presidents' Report, this stage should be completed by 2025 (Juncker et al., 2015).

4.3.3 A theoretical roadmap for the genuine schemes

4.3.3.1 Stage 1: Establishment of the EUBS

At the EU level, the procedure would be identical to that for the reinsurance schemes, although genuine schemes would be established on the basis of a different article. Again, there are two options: a Union

legal act (ordinary or special legislative procedure, with the European Commission having the initiative) or an intergovernmental treaty (with some or all of the Member States taking the initiative). Likewise, there is a legal base within the EU framework: it lies in a combination of Art. 175(3) and Art. 352(1) TFEU, and has to comply with the no bail-out clause.

At the national level, constitutional amendments also may be necessary in some cases. Constitutional issues could be expected to be much more problematic for the genuine than the reinsurance EUBS. The main difference between the two, however, lies in ordinary legislation. Major amendments to ordinary legislation would be needed in all Member States, in social security law and related fields (e.g. labour market regulation, taxation and social assistance). Often, legislative procedures are complex and lengthy, calling for consultations of the public and social partners, the involvement of local and regional governments, etc. This process could easily take two years.

Supranational level Supranational level Supranational level H For EUBS to be operational: Jo a Union legal act operation an intergovernmental BS H establishment to of the EUBS Establishment of the National level National level National level Stage 3 -Stage Stag partners Duration: 1-2 years Duration: 1-2 years

Figure 7. Roadmap for the genuine schemes

Note: MS means Member State, UB means unemployment benefits.

4.3.3.2 Stage 2: From establishment to operation of the EUBS

At the EU level, the list of actions to be taken is comparable to the reinsurance case. Yet, it would be more challenging to complete this list for the genuine schemes. The reason is that genuine EUBS would be much more demanding. They would necessitate more supervision of the national implementation, a closer collaboration between the EUBS agency and the other actors (e.g. national administrations and social partners), a more extensive data collection and exchange, etc. This would require at least a full year.

As before, the main operational barriers to the EUBS would emerge at the Member State level. The EUBS would be highly demanding for the bodies responsible for unemployment insurance, as the

parallel operation of the EUBS and NUBS would pose major challenges. The more divergent the current NUBS and the EUBS were, the greater the operational obstacles for an EUBS. These obstacles would be related to the aim and personal scope of the scheme, differences in entitlement conditions (e.g. the nature of unemployment, assimilated periods and household composition), differences in the calculation bases and methods, and other factors, including the need to monitor national policies to prevent moral hazard. At the national level, the administrative burden would be huge. This would call for good information, communication and data collection and exchange channels, more and well-trained staff, updated computer systems, arrangements for collecting the contributions and disbursing the pay-outs, etc. This process would be time-consuming and could easily take two years.

4.3.3.3 Stage 3: The EUBS would become operational

At the EU level, the supranational fund would start to collect the contributions from employers and employees and disburse the pay-outs to the eligible unemployed. In practice, this would occur through the existing national channels that are responsible for the collection of contributions and the disbursement of benefits at the country-level. In principle, a share of the social security contributions that are collected at the national-level would then be directed towards the EUBS. However, in practice, it would not be necessary to actually deposit these funds into an EUBS agency account (i.e. to pass on the funds to the EUBS agency), given that the national institutions also are responsible for paying out the EUBS benefits. In every Member State, a system would be needed that keeps track of the EUBS revenues and expenditures in an efficient and reliable manner. This information would allow the EUBS agency to monitor the system and to apply experience rating and claw-back, if needed. At the level of the Member States, support would similarly be provided by the existing structure to secure contributions and pay-outs. As indicated before, this stage should be finalised by 2025.

4.3.4 Converting a reinsurance scheme into a genuine one?

One conclusion that clearly emerges from this study is that genuine schemes would be much more challenging to implement than reinsurance schemes from the legal and operational points of view. Could these challenges be mitigated by first establishing a reinsurance EUBS, which is subsequently transformed it into a genuine EUBS? To this end, first a reinsurance scheme would have to be adopted, following the steps outlined in the roadmap above in Figure 6. Then, all legal amendments that are needed at the EU-level and the level of the Member States would have to be tackled. At the EU level, this transformation would not call for a treaty change but amendments of secondary law, budget rules, and so forth could still be necessary. At the national level, it seems that only little could be gained by first implementing a reinsurance scheme. Indeed, countries would have to make all the necessary legal changes at the moment of conversion. On the operational side, a similar conclusion is reached. At the national level, many operational challenges would have to be addressed during or after the transformation process. At the EU level, the existing linkages with national bodies and administrations would have to be strengthened and deepened upon conversion. The process would be further complicated by other issues, for example when and under what circumstances the transformation would take place. In conclusion, introducing a reinsurance scheme to transform it into a genuine scheme later on does not appear to be an appropriate strategy.

4.3.5 Would the EUBS start 'blind'?

An important question that emerged from the policy analysis as well as from the simulations in this study is whether the EUBS would 'start blind'. In other words, if the scheme were to be launched, how would the experience rating, claw-back and trigger be approached? Although the project already considered the design of these mechanisms, the extent to which the legacy of the Great Recession should be taken into account remains an open question - especially for Member States like Greece and Spain, which were hit very hard in the crisis. The way in which the EUBS variants are set up in the project would imply that these countries would have to contribute more to the supranational fund. If this caused the EUBS to be triggered more, it would mean that countries also received more pay-outs (but again, this would be compensated later on through experience rating or claw-back). In addition, given that both the experience rating and trigger take countries' unemployment history into account, Member States with persistently high unemployment rates may face the consequences – even if they recently underwent labour market reforms.

One option would therefore be to have the EUBS start 'blind'. The experience rating could, for example, be accumulated gradually. Yet, even in this case, initial differences between Member States in their short-term unemployment rates would mean that as soon as the EUBS is applied, these countries would see a sharp increase in their contributions. Alternatively, policy-makers could have the EUBS start blind, decide on a point when to introduce it and then wait for some time before the scheme is actually implemented (e.g. to ensure that a country can influence its own 'history' with policy reforms). If the EUBS would start blind, a date could be set that coincides with the time when the EUBS legislation is first introduced or when a political decision is made from when 'history' would be taken into account. Another option is to design these mechanisms in a different way, e.g. the experience rating or trigger could be tied to a sudden increase in the unemployment rate. This, however, does not seem a satisfactory approach because it does not take into account that Member States do differ in the longterm average of the (short-term) unemployment rate (so that some countries could use the EUBS more, which raises political concerns and may result in permanent transfers) and how shocks feed through the system. In addition, using a sudden increase in short-term unemployment would not provide information on how severe a recession is; only how fast it is changing. A sharp increase from a very low to a low unemployment rate, for instance, may trigger the system, even though the country is not in a deep recession.

There is no clear answer on how to address this issue, as different options are available which each have their advantages and limitations. Furthermore, the answer would crucially depend on policy-makers' preferences in this regard. Therefore, it is an important issue that policy-makers would need to reflect on if they decided to design an EUBS.

4.3.6 Changing the parameters of the EUBS after its introduction

One of the most prominent features of the American unemployment insurance scheme is the system of extended and emergency benefits (Beblavý, Gros & Maselli, 2015). If there is a severe economic downturn in one or more states, the federal system can prolong benefits. In this way, the system offers stabilisation when this is needed the most. The extended and emergency benefits are financed at the

federal level (the former partially, the latter fully). While extended benefits are permanently authorised, emergency benefits require a specific authorisation by the US Congress (Whittaker & Isaacs, 2014).⁵⁹

The idea of defining the parameters of an unemployment benefits scheme so that they can be *adjusted according to the economic cycle* (cyclical variability), can be translated into the European context. In this project, two types of cyclical variability are considered: one tied to the national-level and one to the EU level. In none of these cases, cyclical variability is automatic. Instead, such a prolongation of benefits would have to be approved by the Council. Unlike in the US, the duration of unemployment benefits paid under the EUBS would be relatively long. In addition, countries would have to pay back more in the future because of this automatic mechanism. In addition, this is likely to interfere with the labour market institutions of the Member State and with the idea of a 'non-transfer' Union.

Box 6. Cyclical variability in this project – Present in one of the 18 variants examined

Cyclical variability at the national level is defined as an extension of the unemployment benefits for a maximum of six months, on top of the normal provision, as long as the short-term unemployment rate in the previous quarter exceeds its 10-year average plus 3% (this 'triggers' the option of cyclical variability, allowing for a non-discretionary decision). When a country faces these circumstances, it can request a prolongation of benefits.

At the EU level, cyclical variability applies to a recession (two consecutive quarters of negative growth) in half+1 of the Member States simultaneously. As for the national level, it provokes an extension of unemployment benefits for up to six months.

Earlier work on an EUBS suggests that extending benefits has important stabilisation effects, at a relatively low cost (Dullien, 2007). This conclusion is confirmed in this study: a sensitivity test in which the EUBS included cyclical variability found that the worst-affected countries in the 2008 crisis (such as Estonia, Greece, Ireland, Latvia, Lithuania and Spain), would have had the level of their GDP boosted by about a further 0.2%in 2010 or a later year. Without the cyclical variability, the boost to GDP from the EUBS would typically have started to fall away in 2010, as the duration of unemployment for some of the unemployed would have exceeded the scheme limit (no longer 'short-term'). However, these countries would also have had a larger accumulated deficit by 2013 (given that the simulation period was not long enough for experience rating and claw-back to correct this).

⁵⁹ In the aftermath of the Great Recession, academics have tried to uncover whether the extended and emergency benefits programmes had a positive or negative impact on the recovery of the US labour market. Marinescu (2015) argues that benefits should be made more generous in times of crisis, as this encourages the many unemployed job seekers to search less hard, in that way reducing competition for jobs and helping job seekers find a new position more easily. She reports that there was only a limited impact on aggregate unemployment. At the same time, unemployment insurance had a positive impact on consumption. Hagedorn et al. (2015), in contrast, find that after the extension of benefits was stopped, 2.1 million individuals found work as a result. According to their work, 1.1 million of these workers would have remained unemployed if the extension had continued. A consensus has yet to be reached in this debate.

4.3.7 What role could the social partners have?

In many Member States, social partners play an important role in the design and management of the national unemployment insurance schemes (Eurofound, 2013). Their role takes different forms and assumes different levels of involvement⁶⁰. For example, in Belgium, social partners are strongly involved in unemployment insurance schemes and they co-manage the unemployment funds. The role of social partners therefore is also a factor to take into account if an EUBS would be introduced.

Social partners participate in the *design* of the national unemployment insurance schemes in Austria, Belgium, Bulgaria, Germany, Finland, France, Luxembourg, the Netherlands, Portugal and Slovenia. In Croatia, Denmark, Estonia, Italy, Lithuania, Latvia, Poland, Romania, Sweden and Slovakia, they have a more moderate role when it comes to the design of these schemes. Social partners are also heavily involved in the *management* of the NUBS in four Member States (Belgium, Denmark, Finland and Sweden) and moderately involved in eight of them (i.e. Austria, Estonia, France, Italy, Lithuania, Latvia, Portugal and Romania). In some Member States, social partners have to be consulted before or during the legislative process.

⁶⁰ See also European Commission (2016), chapter on capacity building for social dialogue.

Chapter 5. Conclusions from the study

Since the Great Recession and the subsequent eurozone crisis brought the issue of EMU reform back on the agenda, there has been a debate on the idea of establishing a common fiscal capacity. A European unemployment benefits scheme has long been discussed as one potential response to the EMU's stabilisation needs, among other possible mechanisms. Whereas most Member States are equipped with powerful automatic stabilisers that are highly responsive to economic shocks, the EMU does not have such an instrument. Nevertheless, given the limitations of national fiscal policy and the common monetary policy, market failures and spillover effects, a stabiliser would be a valuable additional instrument.

As the crisis unfolded, important progress was made to reform the EMU. Some of the existing mechanisms to absorb shocks or deal with their impact were modified, and new instruments have been introduced. Nevertheless, they can be limited in scope, may not have been used much or only have a delayed impact. For these reasons, an automatic stabiliser would be a complement rather than a substitute to these instruments and the market mechanisms. In this context, it is worth recalling that an EUBS could be designed in such a way that it meets the criteria for an automatic stabiliser laid down in the Five Presidents' Report (Juncker et al., 2015).

Similar to the national unemployment benefit schemes, an EUBS could be designed in different ways. This report presents an in-depth study of how an EUBS could be designed to ensure its feasibility and to benefit from its potential added value. The study has examined 18 EUBS variants that have many features in common and compared two different forms: genuine and equivalent EUBS variants. In this final chapter of the report, the main findings of the study are briefly summarised and the key points that policy-makers should take into consideration when exploring the idea of a common EUBS are outlined.

In the design of an EUBS, policy-makers could opt for a genuine or equivalent variant. Both types have their merits and drawbacks, and the choice of one of them would thus mainly be based on political grounds. Genuine schemes would Europeanise the existing NUBS and thus require a lot of harmonisation. Equivalent EUBS, in contrast, could offer much more flexibility to the Member States, though this depends on the extent to which governments would be constrained in how they could spend the funds received. Harmonisation and minimum standards would be key to support the stabilisation capacity of the EUBS and mitigate moral hazard. At the same time, an enhancement of the NUBS alone might be politically and economically difficult to achieve without a common backstop and overlooks the stabilisation effects of an EUBS through intertemporal and interregional (or spatial) smoothing.

The study suggests that for both types of EUBS variants, common minimum standards for the national unemployment insurance systems, experience rating, cyclical variability and a debt-issuing option are relevant features that policy-makers should take into consideration. A set of common minimum requirements would be important to enhance the coverage, generosity and stabilisation capacity of the existing national schemes. It may also contribute to upward convergence and help address moral hazard problems. The genuine EUBS variants would (at least partially) replace the national schemes and therefore impose minimum requirements automatically. For the equivalent variants, it could be specified how funds may or may not be used and what standards should be achieved by the national schemes. It would be difficult to envisage an equivalent scheme without any minimum requirements,

as it could then be lacking in terms of stabilisation and legitimacy (if there were no link between the EUBS transfers and the NUBS). Experience rating would tie the contributions to the EUBS to the use of the scheme. It is an important mechanism to avoid moral hazard and permanent transfers. Claw-back has the same functionalities and objectives but it aims to achieve them much faster (or less gradually than experience rating). A gradual implementation would be necessary to avoid intertemporal inconsistencies, which would emerge if a Member State's pay-in were raised when it was still going through the recession or in recovery. Cyclical variability, or the ability to extend the duration of benefits in the event of a severe crisis (on a discretionary basis), is another interesting feature to consider. A similar system exists in the US, where it is found to work well. A final feature that could be taken into account for both types of EUBS is a debt-issuing option to allow the EUBS to deal with short-term imbalances without having to collect (additional) contributions, thereby reducing the volatility in contribution rates and enhancing the stabilisation capacity. However, debt-issuing would raise difficult questions on how much debt could be incurred and on the liability for such debts, and it could make it more difficult to prevent permanent transfers.

For the set of *equivalent variants*, the trigger is a key determinant of the size and the stabilisation capacity of the scheme, which is a result to keep in mind. In the design of an equivalent scheme, the main challenge is to achieve a balance between a trigger threshold that is set too high and one that is set too low. Equivalent EUBS would only pay out funds when triggered, which – in this project - occurs when a Member State's short-term unemployment rate exceeds its long-term average by a certain value. This value is probably the single most important component of an equivalent scheme as it determines the frequency of its utilisation and, consequently, its size and power. If the trigger threshold were set too low, the scheme operates nearly continuously and becomes more expensive. If it is set too high, there is a risk that the EUBS would not be triggered even for large shocks. Moreover, this would make it difficult to implement common minimum standards as poorer Member States may not receive any assistance despite being faced with higher costs. Owing to the design of the equivalent EUBS, the scheme might build up reserves over time (which could then be used when it is triggered). The reason is that Member States would have to contribute into the fund until it reached 0.5% of EU GDP, after which no further contributions would be requested until the balance of the fund declined below this level.

For the set of *genuine variants*, features that determine the coverage and generosity of the scheme are found to be the main determinants of its stabilisation capacity. In the project, these features are the eligibility conditions, the duration of unemployment benefits and the replacement rate used to determine the benefit amount. Schemes with higher coverage and generosity performed better in stabilisation terms than their counterparts, but they come with higher costs. If policy-makers wanted to establish a genuine EUBS, this trade-off would have to be taken into consideration. In addition, from the study it is clear that a waiting period in the beginning of unemployment has a negative impact on stabilisation. On the other hand, there may be important arguments in favour of such a waiting period (e.g. avoiding coverage of seasonal unemployment). As the genuine EUBS variants operate continuously (collecting contributions from employers and employees, and paying out benefits for any eligible job losses), these schemes are less likely to build up reserves.

How could an EUBS be implemented, if policy-makers decided to do so? What would be the legal and operational barriers ahead? To answer these questions, the study has conducted a legal assessment at the European level and the level of the Member States, and developed a theoretical implementation plan. An EUBS could be set up *outside the existing EU legal framework* through an intergovernmental agreement or enhanced cooperation. This study has considered options to establish an EUBS *within the existing legal framework*, without requiring a treaty change. For most of the 18 EUBS variants examined, a legal base was found (for four EUBS variants, no legal base has been found). In the study, Art. 352(1) TFEU has been identified as a possible legal base for the payment side of some of the equivalent EUBS variants. For genuine EUBS variants, the study suggests a combination of Art. 175(3) and 352(1) TFEU. These articles would be subject to the no bail-out clause. Three EUBS variants would not adhere to the no bail-out clause. As regards the financing side of an EUBS, the study suggests that establishing the EUBS as part of the general budget could be an interesting approach (no treaty change). One has to bear in mind, however, that if policy-makers preferred an EUBS for which no legal base could be identified, a treaty change could be another option to consider.

At the Member State level, an EUBS may give rise to substantial legal and operational barriers. Especially genuine EUBS variants, which (at least partially) replace the existing national schemes, would be difficult to implement. The study has found that if a genuine EUBS were introduced, it would trigger amendments to *ordinary national legislation* governing unemployment insurance, social security and social assistance, labour markets and taxation in all Member States. If instead an equivalent scheme were set up, fewer legislative amendments would be needed. Both types of EUBS variants may lead to *constitutional conflicts* in a few Member States (of which Germany is one example), but the study suggests that such conflicts would likely be rare and not successful (though that cannot be predicted with certainty). On the operational side, genuine variants would pose substantial challenges that would be far less significant for the equivalent schemes. Examples of *operational barriers* are an increased administrative burden and the need for additional staff. The Member States that would be most affected are those that have very different national schemes, such as those with a so-called Ghent system (in which unemployment insurance is voluntary and run by special funds) or a liberal welfare system (with flat-rate benefits).

If policy-makers decided to set up an EUBS, the scheme could be implemented as follows. As a first step, the EUBS could be formally established and all legal challenges could then be dealt with. As a second step, the launch of the EUBS could be prepared by addressing all operational obstacles, after which the scheme would be activated. The EUBS could make use of the existing national structures and its implementation would largely be decentralised. To this end, it would be relevant to factor in the *institutional capacity* of the national structures and assess whether this could be improved. Finally, in many countries *social partners* play a major role in the design and management of the NUBS. Policy-makers would therefore also have to reflect on the role that social partners could play in the EUBS.

An EUBS could serve as an automatic stabilisation mechanism for the EMU, even though the stabilisation impact of an EUBS found in the project was relatively limited. Besides stabilisation, an EUBS could also contribute in other areas: it might boost labour mobility by making EUBS benefits portable, contribute to upward convergence, enhance the protection of the unemployed, contribute to social cohesion, help to address unemployment and poverty while ensuring that moral hazard is addressed. It could be a clear

sign to Europe's citizens that the EU cares about their well-being, which especially in the current context, would be a meaningful signal. An EUBS may also be a stepping stone towards a deeper and fairer EMU, if policy-makers decided that it is a viable option to consider.

Glossary of key concepts and project terminology

Automatic stabiliser. An automatic stabiliser refers to an economic policy or programme that offsets fluctuations in a country's economic activity — economic downturns as well as upswings — without intervention from policy-makers or the government (in't Veld et al., 2012. There is a range of mechanisms and policies that can be regarded as automatic stabilisers on the basis of this definition. Well-known examples are taxes and transfer systems (e.g. unemployment benefits, which go up during a crisis and go down in upswings).

• Supranational automatic stabiliser. This form of automatic stabiliser is introduced at the supranational level. For example, a country's national unemployment insurance scheme can be regarded as a national automatic stabiliser. A European unemployment benefits scheme is an example of a supranational automatic stabiliser.

Business cycle. This term refers to the recurrent sequences of alternating phases of expansions and contractions of economic activity in an economy (European Commission glossary). 'Economy' can refer to, e.g. a single country, the EMU or the EU. 'Economic activity' typically refers to an economic indicator like GDP or employment. Expansions and contractions are measured on the basis of a percentage change in the indicator.

- **Procyclical.** A procyclical economic indicator moves simultaneously with and in the same direction as the fluctuations (up and down movements) of the economy as a whole or part of it (European Commission glossary). In the economic policy-making context, procyclical means that a policy could magnify economic fluctuations (i.e. weaken an economy in a downturn or boost it in an upswing).
- Anti- or counter-cyclical. An anti-cyclical economic indicator moves simultaneously with and in the opposite direction of the fluctuations (up and down movements) of the economy as a whole or part of it (European Commission glossary). In the economic policy-making context, anti-cyclical means that a policy could magnify economic fluctuations (i.e. boost an economy in a downturn or slow it down in an upswing).

Capping. Unemployment benefits are capped if they cannot exceed a given proportion of the national average wage. For example, if the reference wage of an unemployed citizen is €3,000 and the replacement rate is 70%, then his/her expected unemployment benefit is €2,100. However, if the average national wage is €1,000 and there is a cap set at 150% of the average national wage, then the unemployed citizen will receive only €1,500.

In this project, three levels of capping are explored: 50%, 100% and 150% (baseline).

Claw-back. This mechanism deals with long-term negative (positive) net contributions by a Member State by increasing (decreasing) the amount that the Member State has to pay into the supranational fund. For example, say that country A is a net beneficiary of the fund after a number of years in which the system is in place, meaning that this country has paid less into the system than it has received. As a result, the country's contribution to the supranational fund would be increased.

In this project, claw-back applies to countries that have had a negative cumulative balance of over 1% of GDP vis-à-vis the supranational fund for three years. Claw-back remains active until the balance declines below 1% of GDP. It is operationalised as follows: in the reinsurance EUBS, the country's pay-in is doubled; in the genuine EUBS, an additional contribution of 0.2% of GDP annually is charged to the country.

Coverage rate. The coverage rate refers to the share of unemployed individuals receiving unemployment benefits.

In this project, it is calculated in three ways: as the ratio of the number of the short-term unemployed receiving benefits over the total labour force, over the total number of the unemployed (short- and long-term) or over the total number of the short-term unemployed.

Cyclical variability. Cyclical variability refers to the extent to which some of the parameters defining the EUBS (e.g. the replacement rate or duration) are a function of variables related to the economic cycle. The US unemployment insurance scheme is an example of a system exhibiting a certain degree of cyclical variability. In the US, there are several options for providing unemployed citizens with 'extended benefits' (i.e. increasing the duration of the unemployment benefits) if a recession is particularly severe.

In this project, cyclical variability translates into an extension of unemployment benefits for six months (in addition to the normal provision). It exists on two levels. First, as long as a country's short-term unemployment rate in the previous quarter is higher than its 10-year short-term average + 3%, it can request an extension of benefits (from the Council). Second, if at least half of the Member States simultaneously experience two consecutive quarters of negative growth, an extension of benefits can be granted at the EU level by the Council.

Debt-issuing. Debt-issuing is possible if the supranational fund can borrow money from the capital markets to cover short-term imbalances. This is an essential feature of the EUBS, as it ensures intertemporal smoothing of shocks. This is particularly important in the event of a symmetric shock or a prolonged recession.

In this project, debt-issuing is a feature of most of the schemes examined (baseline).

Duration. In this context, duration refers to the number of months during which unemployment benefits are paid out.

In this project, three durations are considered (of which two are associated with a 3-month waiting period): 3 months (benefits are paid out from the beginning of month 4 until the end of month 6 of unemployment), 9 months (from the beginning of month 4 until the end of month 12) and 12 months (from the beginning of month 1 until the end of month 12).

Economic policy. Government actions intended to influence the economy.

• **Fiscal policy**. The use of government spending and taxation to influence the economy. Examples are the goods and services the government buys or provides, the taxes collected and the transfers paid.

• Monetary policy. Actions undertaken by a central bank using the instruments at its disposal in order to achieve its objectives (e.g. maintain price stability, influence the economy) (European Central Bank glossary).

Eligibility. Eligibility rules determine which unemployed citizens qualify for benefits. These rules generally are based on a qualifying period (i.e. how many months a citizen must have worked vis-à-vis a reference period prior to becoming unemployed, e.g. six months out of the last year). Another dimension is the personal scope (e.g. only covering workers). Besides these dimensions, other factors are considered (e.g. family status and the first time benefits are requested). Eligibility conditions define minimum requirements for EUBS coverage, which in turn affect the incentives in place for individuals and the stabilisation effect of the EUBS.

In this project, eligibility is determined on the basis of a previous employment record (measured by the number of months that one has worked) vis-à-vis a reference period. Three options are studied: having worked for 3 out of the last 12 months, for 3 out of the last 6 months or for 12 out of the last 24 months. In each case, this applies to those who have worked as employees, not necessarily consecutively, in full-time equivalents.

Experience rating. This mechanism ensures that the pay-in that countries or individuals must contribute to the supranational fund differs depending on their past experience with unemployment. For example, in the US, where the pay-in is collected from employers, the tax due to finance the unemployment insurance scheme is higher for companies that have laid off more workers in the past. In a similar way, countries with a higher or more volatile short-term unemployment rate may be requested to pay a higher contribution, relative to their GDP, than other countries.

In this project, experience rating is defined in different ways for genuine and reinsurance schemes. In the reinsurance EUBS, it is operationalised as a coefficient, which takes on a value of between 1 and 2, applied to all contributions (meaning that countries' pay-in is multiplied by this value). In the genuine EUBS, it is operationalised as a single coefficient that applies to the contributions paid by employers and employees. The coefficient is revised every three years, to avoid administrative difficulties. In both cases, experience rating is based on the long-term average of the short-term unemployment rate and takes into account a country's past experience with unemployment.

Macroeconomic stability. Such stability exists when key economic relationships are in balance, e.g. between domestic demand and output, the balance of payments, fiscal revenues and expenditure, and savings and investment (Ames et al., 2001). These relationships, however, need not necessarily be in balance. Imbalances such as fiscal and current account deficits or surpluses are perfectly compatible with economic stability provided that they can be financed in a sustainable manner. Macroeconomic stability depends not only on the macroeconomic management of an economy, but also on the structure of key markets and sectors. To enhance macroeconomic stability, countries need to support policy with structural reforms that strengthen and improve the functioning of these markets and sectors.

Macroeconomic stabilisation. In this condition, a complex framework for monetary and fiscal
institutions and policies is established to reduce volatility and encourage welfare-enhancing
growth (United Nations).

Moral hazard. In essence, moral hazard occurs when a person takes more risks because someone else bears the cost of those risks. The concept refers to a problem associated with insurance policies. Barr formalises it as follows:

At its strongest, the condition that there should be no moral hazard requires that both the probability of the risk, **p**, and the insured loss, **L**, should be exogenous to the individual who is insured. Slightly less stringent, moral hazard can be avoided so long as individuals can influence **p** or **L** only at a cost to themselves greater than the expected gain from so doing. Where that assumption fails, customers of an insurance company can affect the insurer's liability without the latter's knowledge, given the context of asymmetric information (Barr, 2012, p. 92).

In this project, the focus is on institutional moral hazard, which refers to a situation in which two levels of government deal with the governance of a social risk, and one level covers this risk — a task that could in principle be tackled by the other level as well. Each level of government is politically accountable vis-à-vis its own political constituency. Applied to the case of unemployment insurance, one can think of a situation in which a country's federal government is responsible for the financing and payment of benefits while activation is left to the regional governments.

Redistribution. A redistribution of income implies a transfer from those with more to those with less income. There are many ways in which this can be achieved: taxation, welfare and public services are just a few examples.

Reference wage. The reference wage is the average wage in the last x months, either net or gross.

In this project, the reference wage is defined as the last gross monthly wage. Yet countries can use the net wage instead or opt for a system of flat-rate benefits as long as the benefits paid out are equivalent to those based on the gross wage (when a replacement rate of 50% is applied, for the average worker).

Replacement rate. This rate refers to the proportion of the reference wage that is paid out as an unemployment benefit, so that the benefit equals the reference wage times the replacement rate.

In this project, three replacement rates are used: 35%, 50% (baseline) and 60%.

Risk-sharing. This term refers to how macroeconomic risk is shared across and within economies. When a country is hit by a shock, the impact of this shock can affect different groups within society and spread throughout the economy through various channels. Asdrubali et al. (1996) consider a range of channels: capital markets, credit markets and the tax–transfer system.

Shock. In economics, a shock is understood as an unexpected or unpredictable exogenous disturbance (originating from outside of the economy) that has a positive or negative impact on the economy. Shocks can be large or small, temporary or permanent, a supply or demand shock, etc.

• Asymmetric shock. This type of economic shock affects one economy (e.g. one of the EMU or EU Member States) or one part of an economy more than another (one region or one industry within the country) (*Financial Times* Lexicon).

• **Symmetric shock**. A symmetric shock affects all economies (e.g. all of the EMU or EU Member States) or all parts of an economy (e.g. all regions or sectors) in the same way.

Trigger. This condition, which determines when a mechanism becomes operational, is defined by an indicator and a threshold. The mechanism becomes active when the indicator exceeds the threshold.

In this project, the trigger is the condition that determines when the supranational fund transfers funds to the government. The indicator is the country's short-term unemployment rate in a given quarter, the threshold is the sum of the 10-year (40-quarter) moving average of the short-term unemployment rate and a certain percentage. In the project, the values are equivalent to 0.1%, 1% or 2%, depending on the variant. The reinsurance EUBS are triggered for each country where short-term unemployment surpasses its long-term average by more than 0.1%, 1% or 2%. A trigger is only present in the reinsurance EUBS in this study, but it could also be applied to a genuine EUBS.

Types of EUBS. A European unemployment benefits scheme is an unemployment-based, supranational, automatic stabilisation mechanism that can take different forms. Most of the literature distinguishes between an equivalent and a genuine EUBS.

In this project, the main distinction between reinsurance and genuine schemes lies in the trigger (absent in a genuine EUBS, present in a reinsurance EUBS) and the flow of transfers (between the fund and individuals in a genuine EUBS, and between the fund and the government in a reinsurance EUBS).

- Equivalent or reinsurance EUBS. Equivalent EUBS are those in which financial transfers from the supranational fund occur solely towards Member States, and not directly towards unemployed individuals. Transfers may reach unemployed individuals indirectly, whereby the supranational fund pays the national state, which in turn directs the funds towards its unemployed citizens. Equivalent schemes are activated by a trigger. In this report, equivalent and reinsurance schemes are used as synonyms.
- **Genuine EUBS.** In genuine EUBS, financial transfers from the supranational fund directly target unemployed individuals. Contributions to the fund are collected from employers and employees. Genuine EUBS operate continuously (without a trigger).
 - o **Basic genuine EUBS.** In a basic genuine EUBS, the fund pays out unemployment benefits according to the predefined replacement rate to the eligible unemployed persons for a predefined number of months. Each country is free to increase the amount paid or the duration (or any other characteristic) at its own expense.
 - O Top-up genuine EUBS. In a top-up genuine EUBS, every eligible unemployed person is guaranteed a given replacement rate and duration. If the national unemployment insurance scheme is generous enough to cover these costs, the supranational fund does not contribute to the benefits of the unemployed citizens. If, however, the national scheme does not meet these minimal requirements, then the EUBS supplements the payments of the national fund by the necessary amount to meet these requirements.

Bibliography

- Alcidi, C. and G. Thirion (2016), "Assessing the Effect of Shocks in the Euro Area's Shock Absorption Capacity Risk-sharing, consumption smoothing and fiscal policies", CEPS Special Report No. 146, CEPS, Brussels, March.
- Alcidi, C., M. Barslund, M. Busse, F. Nicoli, L. Ludolph and G. Thirion (2016), "Additional effects of a European Unemployment Benefit Scheme", March.
- Allard, C., P.K. Brooks, J.C. Bluedorn, F. Bornhorst, K. Christopherson, F. Ohnsorge and T. Poghosyan (2013), "Toward a Fiscal Union for the Euro Area", IMF Staff Discussion Note, No. 13/09, Washington, D.C.
- Andor, L. (2015), "Shared Unemployment Insurance Helping refocus the Eurozone on convergence and cohesion", *Prime Economics*, November.
- Arpaia A., B. Kiss, B. Palvolgyi and A. Turrini (2014), "Labour Mobility and Labour Market Adjustment in the EMU", European Economy Economic Papers, No. 539, DG for Economic and Financial Affairs, European Commission, Brussels.
- Asdrubali, P., E. Sorensen and O. Yosha (1996), "Channels of Interstate Risk Sharing; United States 1963-1990", *Quarterly Journal of Economics*, 111(4), pp. 1081–1110.
- Barnard, C. and G. De Baere (2014), "Towards a European Social Union", Euroforum KU Leuven, p. 29.
- Beblavý, M. and I. Maselli (2014), "An Unemployment Insurance Scheme for the Euro Area: A simulation exercise of two options", CEPS Special Report No. 98, CEPS, Brussels, December.
- Beblavý, M., D. Gros and I. Maselli (2015), "Reinsurance of National Unemployment Benefit Schemes", CEPS Working Document No. 401, CEPS, Brussels.
- Beblavý, M., G. Marconi and I. Maselli (2015), "A European Unemployment Benefit Scheme The rationale and the challenges ahead", CEPS Special Report No. 119, CEPS, Brussels.
- Biggs, M. and T. Mayer (2010), "The Output Gap Conundrum", Intereconomics, 2010(1).
- Buti, M., J. Leandor and P. Nikolov (2016), "Smoothing economic shocks in the Eurozone: The untapped potential of the financial union", *VoxEU* article, 25 August (based on a recent contribution from the Commission's Quarterly Report on the Euro Area).
- Dabrowski, M. (2015), "Monetary Union and Fiscal and Macroeconomic Governance", Discussion Paper 013, DG for Financial and Economic Affairs, European Commission, Brussels.
- Darvas, Z. (2015), "Mind the gap (and its revision)!", Breugel Blog Post, 20 May.
- De Grauwe, P. (2003), Economics of Monetary Union, Oxford: Oxford University Press.
- De Grauwe, P. (2014), "Macroeconomic Policies in the Eurozone since the Sovereign Debt Crisis", Euroforum Network, September.
- Delpla, J. (2012), "A Euro-wide Conditional Unemployment Insurance", paper prepared for the seminar "EU Level Economic Stabilisers", Brussels, July.

- Dolls, M., C. Fuest, D. Neumann, and A. Peichl (2014), "An Unemployment Insurance Scheme for the Euro Area: Evidence at the Micro Level", paper prepared for the seminar "Economic shock absorbers for the Eurozone Deepening the debate on automatic stabilizers", Brussels, 20 June.
- Dolls, M., C. Fuest, D. Neumann and A. Peichl (2015), "An Unemployment Insurance Scheme for the Euro Area? A Comparison of Different Alternatives using Micro Data", CESifo Working Paper No. 5581, CESifo, Munich.
- Dolls, M., C. Fuest, D. Neumann and A. Peichl (2016), "An Unemployment Insurance Scheme for the Euro Area? A Comparison of Different Alternatives using Micro Data", revised version of CESifo Working Paper No. 5581, CESifo, Munich.
- Drèze, J. and A. Durré (2014), "Fiscal Integration and Growth Stimulation in Europe", CORE Discussion Paper No. 13/2013, Université catholique de Louvain.
- Dullien, S. (2007), "Improving Economic Stability in Europe: What the Euro Area Can Learn from the United States' Unemployment Insurance", Working Paper FG 1, German Institute for International and Security Affairs (SWP), Berlin.
- Dullien, S. (2012), "A European Unemployment Insurance as a Stabilization Device Selected Issues", paper prepared for the brainstorming workshop at the DG for Employment, Social Affairs and Inclusion, European Commission, Brussels, 2 July.
- Dullien, S. (2013), "A euro-area wide unemployment insurance", paper prepared for the DG for Employment, Social Affairs and Inclusion, European Commission, Brussels.
- Dullien, S. (2014), "Preventing permanent transfers under a European Unemployment Insurance: Can a claw-back mechanism be the answer?", presentation at the conference "Economic shock absorbers for the Eurozone: Deepening the debate on automatic stabilisers", Brussels, 20 June.
- Eichenhofer, E. (2015), "Europäische Arbeitslosenversicherung", ZESAR, 2015(7), pp. 259, 262 et seq.
- Emerson, M., D. Gros., J. Pisani-Ferry, H. Reichenbach, A. Italianer, S. Lehner, M. Vanheukelen, A. Brandsma, J. de Macedo, J. Pearce, J. Kröger, A. Cabral, P. Santos and C. Ghymers (1990), "One market, one money", European Economy, No. 44, European Commission, Brussels.
- Enderlein H., L. Guttenberg and J. Spiess (2013), *Blueprint for a Cyclical Shock Insurance in the Euro Area*, Notre Europe, Paris.
- Esser, I., T. Ferrarini, K. Nelson, J. Palme and O. Sjoberg (2013), *Unemployment benefits in EU Member States*, European Commission, Brussels.
- Eurofound (2013), "Social partners' involvement in unemployment benefit regimes in Europe", Dublin.
- European Commission (2016), Employment and Social Developments in Europe 2016, Brussels.
- Fahri, E. and I. Werning (2012), "<u>Fiscal Unions</u>", <u>NBER Working Paper</u> No. 18280, National Bureau of Economic Research, Cambridge, MA.

- Feld, L., C. 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", *VOXeu* column, 7 September.
- Frankel, J. and K. Rose (1998), "The Endogeneity of Optimum Currency Area Criteria", *Economic Journal*, 108(449), pp. 1009-1025.
- Fuchs, M. (2013), "Assessing the impact of an EMU UBS on diverse national benefits systems: (To what extent) Do we need common eligibility rules?", statement at the workshop "Neue Wege zur Stabilisierung der Euro-zone" organised by the Bertelsmann-Stiftung, Brussels, 11 October.
- Goodhart, C. and S. Smith (1993), "Stabilization", European Economy, Reports and Studies, No. 5, pp. 417-456.
- Guyon, T. (2007), "Should We Worry about Current Account Imbalances in a Monetary Union?", Trésor-Economics No. 2, Direction Generale du Tresor et de la Politique economique, Paris, pp. 1-8.
- Hagedorn, M., I. Manovskii and K. Mitman (2015), "The Impact of Unemployment Benefit Extensions on Employment: The 2014 Employment Miracle?", NBER Working Paper No. 20884, National Bureau of Economic Research, Cambridge, MA, 13 January.
- In't Veld, J., M. Larch and M. Vandeweyer (2012), "Automatic Fiscal Stabilisers: What they are and what they do", European Economy Economic Papers, No. 452, European Commission, Brussels, April.
- Ince, O. and D. Papell (2013), "The (Un)Reliability of Real-Time Output Gap Estimates with Revised Data", No. 13-02, Department of Economics, Appalachian State University, February.
- Italianer, A. and M. Vanheukelen (1993), "Proposals for community stabilization mechanisms: Some historical applications", *The Economics of Community Public Finance, European Economy: Reports and Studies*, No. 5, European Commission, Brussels.
- Jara Tamayo, H.X. and H. Sutherland (2014), "The implications of an EMU unemployment insurance scheme for supporting incomes", EUROMOD Working Paper No. EM5/14, Institute for Social and Economic Research, Colchester.
- Juncker, J., in close cooperation with D. Tusk, J. Dijsselbloem, M. Draghi and M. Schulz (2015), Completing Europe's Economic and Monetary Union, European Commission, Brussels.
- Kalemli-Ozcan, S., B. Sorensen and O. Yosha (2001), "Economic Integration, Industrial Specialization, and the Asymmetry of Macroeconomic Fluctuations", *Journal of International Economics*, 55(1), pp. 107-137.
- Kirkegaard, J.F. (2010), "Will It Be Brussels, Berlin, or Financial Markets that Check Moral Hazard in Europe's Bailout Union? Most Likely the Latter!", Policy Brief PB10-25, Peterson Institute for International Economics, Washington, D.C., October.
- Krueger, A. and A. Mueller (2010), "Job search and unemployment insurance: New Evidence from time use data", *Journal of Public Economics*, 94(304), pp. 298-307.
- Kullas, M. and K.-D. Sohn (2015), "Europäische Arbeitslosenversicherung Ein wirkungsvoller Stabilisator für den Euroraum?", cepStudie, Centrum fur Europaische Politik, Freiburg, April.

- MacDougall, D., D. Biehl, A. Brown, F. Forte, Y. Fréville, M. O'Donoghue and T. Peeters (1977), Report of the Study Group on the Role of Public Finance in European integration Volume I: General Report, European Commission, Brussels.
- Majocchi, A. and M. Rey (1993), "A special financial support scheme in EMU: Need and nature", *Rivista di diritto finanziario e scienza delle finanze*, 52(2), pp. 161-204.
- Marinescu, I.E. (2015), "The General Equilibrium Impacts of Unemployment Insurance: Evidence from a Large Online Job Board", University of Chicago.
- Marjolin, R., F. Bobba, H. Bosman, G. Brouwers, L. Camu, B. Clappier, I. Foighel, F. Forte, H. Giersch, P. Lynch, D. MacDougall, H. Markmann, F. Peeters, A. Shonfield and N. Thysegen (1975), *Report of the Study Group 'Economic and Monetary Union 1980'*, European Commission, Brussels.
- Mongelli, F.P. (2008), "European Economic and Monetary Integration and the Optimum Currency Area Theory", Economic Paper No. 302, DG for Financial and Economic Affairs, European Commission, Brussels.
- Moro, D. (2016), "For a federal European Unemployment Insurance Scheme", Reflection paper, Union of European Federalists, Brussels, March.
- O'Leary, C. and B. Barnow (2016), "Lessons from the American federal-state unemployment insurance system for a European unemployment benefits system", paper prepared for the international research conference of the Association for Public Policy Analysis and Management (APPAM), London, 13-14 June.
- O'Rourke, K.H. and A.M. Taylor (2013), "Cross of Euros", *Journal of Economic Perspectives*, 27(3), pp. 167-92.
- Obstfeld, M. (2013), "Finance at center stage: Some lessons of the euro crisis", European Economy Economic Papers, No. 493, European Commission, Brussels.
- Padoa-Schioppa, T., M. Emerson, M. King, J. Milleron, J Paelinck, L. Papademos, F. Pastor and F. Scharpf (1987), *Efficiency, Stability and Equity: A Strategy for the Evolution of the Economic System of the European Community*, Oxford: Oxford University Press.
- Pasimeni, P. (2015), "The Economic Rationale of an EMU Fiscal Capacity", Proceedings of the Oesterreichische Nationalbank Workshop "Towards a Genuine Economic and Monetary Union", Vienna, September.
- Patterson, B. and Amati, S. (1998), "Adjustment to Asymmetric Shocks", Working Paper, Economic Affairs Series, ECON-104, DG for Research, European Parliament.
- Petrakis, P.E., P.C. Kostis and D.G. Valsamis (2013), European Economics and Politics in the Midst of the Crisis: From the Outbreak of the Crisis to the Fragmented European Federation, VIII 260, Berlin and Heidelberg: Springer-Verlag.
- Pisani-Ferry, J., E. Vihriälä and G. Wolff (2013), "Options for a Euro-area Fiscal Capacity", Bruegel Policy Contribution, Issue 2013/01, Bruegel, Brussels.

- Poghosyan, T. (2016), *Options for a Central Fiscal Capacity in the Euro Area*, IMF Country Report No. 16/220, Euro Area Policies, Selected Issues, International Monetary Fund, Washington, D.C., July.
- Repasi, R. (2013), "Legal options for an additional EMU fiscal capacity", Study for the European Parliament, p. 26.
- Strauss, R., O. Bontout, G. Lejeune, M. Ciesielska and R. Di Girolamo (2013), "Paper on automatic stabilizers", European Commission, Brussels.
- Sutherland, H. and F. Figari (2013), "EUROMOD: The European Union tax-benefit microsimulation model", *International Journal of Microsimulation*, 6(1), pp. 4-24.
- Van Rompuy, H., in close collaboration with J.M. Barroso, J. Juncker and M. Draghi (2012), *Towards a Genuine Economic and Monetary Union*, Report of the President of the European Council, Brussels, 5 December.
- Vandenbroucke, F. and C. Luigjes (2015), "Institutional Moral Hazard in the Multi-tiered Regulation of Unemployment and Social Assistance Benefits", CEPS Special Report No. 137, CEPS, Brussels, April.
- Vetter, S. (2014), "Stabilization, solidarity or redistribution?", Deutsche Bank Research Briefing on European Integration, Deutsche Bank, Frankfurt am Main, 25 November.
- Vroman, W. (2010), *The Role of Unemployment Insurance as an Automatic Stabilizer during a Recession*, IMPAQ International LLC and Urban Institute, Colombia, MD.
- Whittaker, J.M. and K.P. Isaacs (2014), "Unemployment Insurance: Programs and Benefits", CRS Report for Congress, Congressional Research Service, Washington, D.C.
- Wren-Lewis, S. (2013), "Macroeconomic Stabilisation in the Eurozone: Lessons from Failure", *Global Policy*, 4(1), pp. 66–73.
- Zandi, M. (2008), "Washington Throws the Economy a Rope", Moody's Dismal Scientist, 22 January.

Appendices

Appendix A: Overview of the specifications of the 18 EUBS variants as examined in this project

All the policy choices on how features are determined in this project and the values they take are summarised in Table 6. These values, however, are - to some extent - only illustrative. While they are generally based on theoretical and empirical evidence and closely related to the real situation in many national unemployment-benefit schemes, policy-makers are not limited to them. Rather, they could select other values that have not been considered in this project. In other words, policy-makers have a range of features and values to choose from to design an EUBS if they decide to set up such a scheme.

Table 6. An overview of the specifications of the EUBS variants examined

	Genuine schemes	Reinsurance schemes
Trigger	Not applicable	$Pay \ claim \ if \ UR_{i,t} - \overline{UR}_{i_{t-40,\dots,t-1}} > \tau$ where UR is the short-term unemployment rate, \overline{UR} the average short-term unemployment rate in the last 40 quarters and τ the cut-off. In this equation, the indicator is the short-term unemployment rate in quarter t, the threshold is the sum of the 10-year (or 40-quarter) average of the short-term unemployment rate and the cut-off (which takes the values of 0.1, 1 and 2 in this study). Simulations suggest that with a cut-off of 0.1%, the EUBS would have been triggered 197 times during 2000-14 in the EU27 (no data for Croatia). For a cut-off of 1%, 80 times, for a cut-off of 2%, 32 times.
Pay-in (accounting for experience rating)	Pay-in = x*w*C where w refers to gross salary and C is the coefficient that accounts for the experience rating. The pay-in is equally divided between employers and employees (x = a/2, 'a' is a %, x ranges between 0.35 (0.36) in V8 and 1.36 (1.34) in V7 for the EA19 (EU27) case according to the simulations)	Pay-in $= x * GDP_{i,t} * C$; until $z\%$ of EU GDP is reached where the pay-in is a function of the country's GDP and C is the coefficient that accounts for the experience rating; x is equal to 0.1 and z is equal to 0.5. Countries contribute 0.1% of their GDP each quarter until the fund accumulates 0.5% of EU GDP. Then, contributions are stopped. If the fund drops below 0.5% of EU GDP, contributions are restarted until this level is reached again.
Experience rating	$C = \frac{\overline{UR}_{i_{t-40,\dots,t-1}}}{\overline{UR}_{EU_{t-40,\dots,t-1}}}$ where \overline{UR} is the average short-term unemployment rate in the last 40 quarters (i.e. the 10 year average of the country's short-term unemployment over the 10 year average of the EU's short-term unemployment; it is updated every 3 years, to avoid administrative difficulties). It is based on the long-term average of short-term unemployment to avoid intertemporal inconsistencies.	$C=1+\ 0.025*F_{i,t-40,\dots,t-1}$ where F is the number of times country i recurs to the Fund in the past 40 quarters. C takes values between 1 and 2. The maximum value of 2 corresponds to a situation in which the scheme has been triggered in each of the 40 previous quarters or when the claw-back has been activated. A country can thus never pay more than twice the basic pay-in. It is based on the long-term average of short-term unemployment to avoid intertemporal

		inconsistencies. The value of 0.025 in the equation ensures that the pay-in can never be more than doubled.
Claw-back Duration	A specific contribution by the national government of i if $cumulative\ balance_{i,t} > 1\%\ of\ GDP_i\ for\ t > 12$ (0.2% of GDP in our proposal, applies after three years of negative cumulative balance of more than 1% of GDP). Claw-back is paid by the government, not employers or employees, to avoid an increase in labour taxation precisely when the economy is still in recession or just recovering. M3 to M12 (baseline) except in	$C=2$ in pay-in formula if cumulative balance $_{i,t}$ $>1\%$ of GDP_i for $t>12$ (applies after three years of negative cumulative balance of more than 1% of GDP vis-à-vis the fund until the balance declines below 1%)
	V7 = M0 to M12 V8 = M3 to M6 Benefits are paid out from the beginning of the fourth month until the end of the twelfth month of unemployment, the beginning of the first until the end of the twelfth month or the beginning of the fourth until the end of the sixth month.	M3 to M12 Funds sufficient to cover unemployment benefits paid out from the beginning of the fourth month until the end of the twelfth month of unemployment are transferred.
Replacement rate	50% of reference wage (baseline), except in $V9 = 35\%$ $V10 = 60\%$ The replacement rate is 35%, 50% or 60% of the reference wage.	50% Funds sufficient to cover unemployment benefits paid with a replacement rate of 50% of the reference wage are transferred.
Reference wage	Last gross monthly wage (alternatively, the net wage or flat-rated benefits can be used)	Last gross monthly wage (alternatively, the net wage or flat-rated benefits can be used)
Eligibility	3M out of 12M (baseline), except in V11 = 3M out of 6M V12 = 12M out of 24M (all the unemployed who have worked as employees during at least 3 out of the last 12 months, not necessarily consecutively, in full-time equivalents)	3M out of 12M (Funds sufficient to cover all the unemployed who have worked as employees during at least 3 out of the last 12 months, not necessarily consecutively, in full-time equivalents, are transferred)
Capping	150% of the average national gross wage (baseline), except in V13 = 100% V14 = 50% Unemployment benefits are capped at 50%, 100% or 150% of the average gross wage	150% of the average national gross wage Funds sufficient to cover the unemployment benefits paid with a cap of 150% of the reference wage are transferred.

Appendix B: Methodology and data used in the modelling exercises

In this research project, a series of backward- and forward-looking macro- and microeconomic simulations is carried out to assess the economic impact of an EUBS. The study is set up in such a way that the micro- and macroeconomic dimensions are closely intertwined (as illustrated in Figure 8). This means that the simulation exercises are composed of *multiple rounds*.

It should be restated that equivalent EUBS involve transfers between the supranational fund and the Member State governments, whereas genuine EUBS result in direct transfers from the fund to the eligible unemployed. In the models, this difference implies that the national schemes are (fully or partially) replaced by the genuine EUBS but remain fully operational under the equivalent EUBS. Especially in the genuine case, it is important to *carefully represent the interactions between the EUBS and NUBS*. In the backward-looking analysis, this issue is addressed by means of a national unemployment insurance calculator that combines the main policy rules of the NUBS (e.g. regarding the benefits duration and replacement rates during 1995-2013). National schemes are assumed to provide a top-up on the EUBS if the latter is less generous to guarantee that no unemployed person is worse off.

Micro simulations (first-round effects)

For a given macroeconomic environment (the actual history in the case of the backward-looking analysis, and the simulated alternative macroeconomic scenarios in the case of the forward-looking analysis), the **microeconomic simulations** first determine the *eligibility* of individuals under the rules of the national unemployment insurance schemes and under the rules of different types of EUBS. ⁶¹ Next to eligibility, these simulations also supply information on the *transfers* that flow into and out of the supranational fund (*first-round effects*). For each variant, the micro model was used to estimate the number of the eligible unemployed, the rate of benefits paid, and the amount of the social contributions levied on employers and employees.

These simulations build on micro data extracted from EU-SILC⁶² (EU Statistics on Income and Living Conditions, used in combination with EUROMOD, a static tax-benefit micro-simulation model for the EU) and the EU-LFS (Labour Force Survey), which provide highly detailed information on changing labour market patterns over time. Both datasets comprise information from representative households. Given that neither panel data nor repeated cross-sections are available for all EU Member States for the simulation period 1995-2013, a series of reweighted cross-sections is simulated building on the

⁶¹ In the backward-looking analyses, eligibility can be derived from the data. In the forward-looking models, no such information is available. In this case, individuals with the highest risk of becoming unemployed are identified on the basis of an economic model (taking into account gender, age, work experience, educational attainment and several other variables) and ranked. Note that the composition of this group differs, depending on the scenario under consideration. From this group, the number of unemployed individuals is selected to match the macro model. Coverage of the national schemes is constrained to match what has been observed during 1995-2013.

⁶² This is the most recent EU-SILC edition in the forward-looking models, except for Denmark (where the EU-SILC 2008 is used instead) and the UK (2008/2009 Family Resource Survey), and the 2008 EU-SILC edition in the backward-looking models. Note that the data year does not affect results because reweighting techniques are applied. EUROMOD has been widely used in the literature for this type of exercise (Sutherland & Figari, 2013).

approach of Dolls et al. (2015) in the backward-looking analyses. The reweighted cross-sections replicate changes in labour market conditions (the unemployment rate, share of the short- and long-term unemployed, composition and size of the labour force) and average earnings over time. To this end, for each Member State, 2008 EU-SILC data are first reweighted to reflect the labour market conditions in 1995 and then reweighted again for each year. The EU-LFS is used to impute annual data on changes in (un)employment rates, the shares of the short- and long-term unemployed, the labour force size and coverage rates of the national schemes. This information is obtained for 18 gender-age-education strata or socio-demographic subgroups. In this way, the analysis reveals which subgroups benefit or lose from the EUBS in terms of coverage relative to the baseline scenario of no-EUBS. For each group, changes in (un)employment over time are simulated to bridge the gap between the subgroup and aggregate level. AMECO data (Annual Macroeconomic Database) are used to impute earnings growth, to account for changes in the tax base of the NUBS and EUBS. Individual behavioural responses and moral hazard are not considered in the model.

Macro simulations

The results from the microeconomic analyses are then used as inputs into the *E3ME macro-econometric model*, which is used to estimate the extent to which the EUBS contributes to stabilisation. ⁶³ Results are compared with a non-EUBS baseline. While the scale of the macroeconomic impact crucially hinges on the size of the transfer received, the precise impact depends on whose income is boosted and how they respond. In other words, the macro model is used to represent the effect on incomes and spending of the raising of contributions and the paying out of benefits, capturing both the *direct effects* (on the country that raises contributions to pay into the EUBS and receives transfer payments from it) and *spillover effects* (smoothing of spending within one country affecting the demand for its imports from other countries).

In the model, the EUBS is regarded as a source of income for the government (equivalent) or households (genuine). Its impact depends on their response to this income boost. When a genuine EUBS is implemented, the national government sees a reduction in its expenses on unemployment benefit payments and in the social protection contributions that it receives, to the degree that the EUBS substitutes for the NUBS. In countries where the EUBS provides a net increase in the incomes of the unemployed, the surplus is assumed to be fully spent on household final consumption. ⁶⁴ In the equivalent case, government income rises. In principle, this could be used to pay off debt, cut taxes or increase spending, and the macroeconomic impact would vary according to which of these is chosen. In order to make a comparison with the results for genuine schemes straightforward, it is assumed that the additional income is used to increase benefit payments to the unemployed, and so the same

⁶³ In the model, monetary policy is assumed to be endogenous, while each country's fiscal policy is adjusted, compared with the non-EUBS scenario by the size of the net additional transfer (positive or negative) resulting from the EUBS.

⁶⁴ That is, the marginal propensity to consume for those receiving benefit is assumed to be 1.0. This was preferred to the obvious alternative, namely that households receiving benefits have the same marginal propensity to consume as the average for all households.

channel, boosting household consumption by the amount of the benefit payment, is used.⁶⁵ The macro modelling did not assume that the existence of an EUBS would affect any 'self-insurance' arrangements made by individuals (e.g. holding higher precautionary savings), an effect that could matter in countries for which the introduction of the EUBS would represent a marked improvement on the NUBS. In these countries, the estimated smoothing effect could be overstated to the extent that individuals would rely less on self-insurance. The macro model also does not assume that there is an automatic tendency for output to recover quickly from a recession (a characteristic that has clearly been a feature of the experience since the 2008 recession) and incorporates some consequences of a recession on long-term growth (e.g. lower investment leading to weaker trade competitiveness) but not all (e.g. a deterioration in the quality of skills of those who are unemployed for longer periods). To that extent, some of potential economic benefits of enhanced stabilisation are not captured while other effects may be overstated.

Micro simulations (second-round effects)

The findings from the macro model serve as an input for the *microeconomic analyses* (second-round effects). The macroeconomic consequences for short-term unemployment feed into the micro model. As a last step, the micro models are updated to detect the implications for the net transfers to and from the fund (to capture general equilibrium effects).

The four hypothetical scenarios at the heart of the forward-looking simulations

In contrast to the backward-looking analysis, which is based on Europe's past experience, the forward-looking analysis starts from four hypothetical macroeconomic contexts or scenarios. These scenarios were designed to compare cases in which a recession is felt widely across the EU ('symmetric') and in just a few countries ('asymmetric') as well as cases in which the factors triggering the recession are of short ('temporary') and of prolonged duration ('permanent'), ⁶⁶ as the literature that discusses the problems of adjustment to unfavourable economic events in a currency union makes those distinctions. Against this background, the potential impact of *four EUBS variants* was examined (two equivalent, two genuine). ⁶⁷ The hypothetical macro scenarios simulated for a period of 17 years are:

⁶⁵ As a sensitivity test, an alternative assumption was also tried, in which it was assumed that the additional income to governments boosted investment spending (since this typically bears the brunt of cuts to spending in a period of austerity. The stabilisation impacts tended to be somewhat larger, reflecting the fact that government investment spending has a substantial construction component and hence a lower import content than household consumption spending.

⁶⁶ In this report, a distinction is made between 'short' and 'long' rather than 'temporary' and 'permanent' shocks, because in a world with hysteresis effects the distinction between temporary and permanent shocks is unclear even in theory.

⁶⁷ The two equivalent EUBS are identical to those modelled in the backward-looking analysis (one with a low, one with a higher trigger). The two genuine EUBS are a scheme with a benefit duration of twelve months and no waiting period that can issue debt and one with the same features that cannot issue debt.

- A) Short symmetric⁶⁸ global trade shock: a sharp reduction in world trade leads to a recession in Europe. This reduction is caused by temporary shocks to investment and household consumption in China, with corresponding reductions in imports into the country, supplemented by reductions in investment and household consumption in the US and Japan. In this scenario, Germany is one of the most affected countries. It experiences a GDP drop of about 7.5% between year 4 and year 6 of the analysis. There are knock-on effects throughout Europe, especially in countries exposed to trade with Germany (e.g. Belgium and Denmark), countries reliant on tourism (e.g. Greece and Malta), and Ireland (a small export-dependent economy).
- B) Long symmetric EU confidence shock: a sharp reduction in EU domestic spending triggers a recession, the subsequent recovery is weak. This reduction results from a sharp decline in investment and household consumption in each Member State, along with zero growth in these aggregates for another two years. The shock is symmetric. The scale of recession for the EU as a whole is somewhat larger than in Scenario A and the recovery is slower.
- C) Short asymmetric demand shock: a sharp demand shock hits Estonia, Finland, Latvia, Lithuania, Slovakia and Slovenia. This shock is followed by a swift recovery. In these countries, there is a sharp decrease in investment and household consumption, but the impact on the remaining EU Member States is limited because of the small size of the affected economies.
- D) Long asymmetric supply shock: a persistent supply shock hits Greece, Ireland, Spain and Portugal to represent a future in which, for selected countries, the trade-off between output and inflation is markedly worse. In this scenario, short-term unemployment becomes less relevant as time progresses. As with Scenario C, there is no recession elsewhere in the EU.

⁶⁸ A global trade shock would affect all countries in Europe and would be symmetric in its *timing*, but not identical across countries in the *scale of impact*. The differences in scale of impact are outcomes of the model, reflecting the (direct and indirect) dependence of each national economy on extra-EU exports.

Pre or post-model Macro modelling Micro modelling analysis (E3ME) (EUROMOD) Specification of baseline (with no European scheme) Representation of baseline Baseline aggregate unemployment rate Specification of the rules for a scheme variant Modellingofthe variant scheme's rules First estimate of net transfers per MS, and impact on aggregate benefit rate Modellingof the impact of higher household incomesand benefit rate Revised aggregate Results for unemployment rate macroeconomic reflectingmacro stabilisation indicators, impacts fiscal balances Updated modelling of the scheme to obtain distributional ${\sf Results for}$ effects distributional Review of macro effects and distributional results

Figure 8. The design for the interactions between the micro- and macroeconomic simulations

Appendix C: Overview of the legal articles taken into consideration and the conclusions reached

This appendix presents an overview of the legal articles in the Treaty on the Functioning of the European Union (TFEU) that have been regarded as a basis for the establishment of an EUBS (see the box below).⁶⁹ In the project, the conclusion is reached that an EUBS could be adopted on the basis of three legal acts: the first legal act establishes the payment side, the second legal act establishes the financing side and the third legal act relates to minimum requirements concerning the activation of the unemployed (as summarised in Table 7). The two equivalent EUBS variants with the lowest triggers (variants 2 and 3) could be established within the current EU framework on the basis of Art. 352(1) TFEU. Genuine EUBS variants 5-7, 10-13, 15 and 18 could be established within the framework in the basis of a combination of Arts. 175(3) TFEU and 352(1) TFEU. 70 In each case, the no bail-out clause embedded in Art. 125(1) TFEU applies. For the equivalent variant with the highest trigger (variant 4) and the genuine variants with the shortest duration (variant 8), lowest replacement rate (variant 9) and lowest cap (variant 14), no legal base has been found. Variant 4 does not comply with the conditionality required by Art. 122(2) TFEU. Variants 8, 9 and 14 do not reduce the disparities in relation to unemployment between regions and groups within the EU and does therefore not strengthen social and economic cohesion. For the equivalent EUBS variant with a trigger threshold of 1% (variant 1) and the genuine EUBS variants without experience rating (variant 16) or claw-back (variant 17) there is a legal base, but these schemes would violate the 'no bail-out' clause in Art. 125(1) TFEU. The adoption of these EUBS would necessitate a Treaty change in the form of an inclusion of an explicit legal base for establishing an EUBS. If policymakers decide to introduce an EUBS for which no legal base can be found within the EU legal framework, a treaty change could be considered, in addition to other solutions such as an intergovernmental agreement or enhanced cooperation.

Box 7. Extracts from the Treaty on the Functioning of the European Union

Article 21 TFEU:

- 1. Every citizen of the Union shall have the right to move and reside freely within the territory of the Member States, subject to the limitations and conditions laid down in the Treaties and by the measures adopted to give them effect.
- 2. If action by the Union should prove necessary to attain this objective and the Treaties have not provided the necessary powers, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, may adopt provisions with a view to facilitating the exercise of the rights referred to in paragraph 1.

⁶⁹ http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN

⁷⁰ These are: the baseline variant (5), the top-up variant (6), the variant with the longest duration (7), the variant with the highest replacement rate (10), the two variants with different eligibility conditions (11, 12), the variant with a cap set at 100% (13), the variant that allows for cyclical variability (15) and the variant that does not allow borrowing (18).

3. For the same purposes as those referred to in paragraph 1 and if the Treaties have not provided the necessary powers, the Council, acting in accordance with a special legislative procedure, may adopt measures concerning social security or social protection. The Council shall act unanimously after consulting the European Parliament.

Article 45 TFEU:

- 1. Freedom of movement for workers shall be secured within the Union.
- 2. Such freedom of movement shall entail the abolition of any discrimination based on nationality between workers of the Member States as regards employment, remuneration and other conditions of work and employment.
- 3. It shall entail the right, subject to limitations justified on grounds of public policy, public security or public health:
- (a) to accept offers of employment actually made;
- (b) to move freely within the territory of Member States for this purpose;
- (c) to stay in a Member State for the purpose of employment in accordance with the provisions governing the employment of nationals of that State laid down by law, regulation or administrative action;
- (d) to remain in the territory of a Member State after having been employed in that State, subject to conditions which shall be embodied in regulations to be drawn up by the Commission.
- 4. The provisions of this Article shall not apply to employment in the public service.

Article 48 TFEU:

The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure, adopt such measures in the field of social security as are necessary to provide freedom of movement for workers; to this end, they shall make arrangements to secure for employed and self-employed migrant workers and their dependants:

- (a) aggregation, for the purpose of acquiring and retaining the right to benefit and of calculating the amount of benefit, of all periods taken into account under the laws of the several countries;
- (b) payment of benefits to persons resident in the territories of Member States.

Where a member of the Council declares that a draft legislative act referred to in the first subparagraph would affect important aspects of its social security system, including its scope, cost or financial structure, or would affect the financial balance of that system, it may request that the matter be referred to the European Council. In that case, the ordinary legislative procedure shall be suspended. After discussion, the European Council shall, within four months of this suspension, either:

- (a) refer the draft back to the Council, which shall terminate the suspension of the ordinary legislative procedure; or
- (b) take no action or request the Commission to submit a new proposal; in that case, the act originally proposed shall be deemed not to have been adopted.

Article 121 TFEU:

1. Member States shall regard their economic policies as a matter of common concern and shall coordinate them within the Council, in accordance with the provisions of Article 120.

- 2. The Council shall, on a recommendation from the Commission, formulate a draft for the broad guidelines of the economic policies of the Member States and of the Union, and shall report its findings to the European Council. The European Council shall, acting on the basis of the report from the Council, discuss a conclusion on the broad guidelines of the economic policies of the Member States and of the Union. On the basis of this conclusion, the Council shall adopt a recommendation setting out these broad guidelines. The Council shall inform the European Parliament of its recommendation.
- 3. In order to ensure closer coordination of economic policies and sustained convergence of the economic performances of the Member States, the Council shall, on the basis of reports submitted by the Commission, monitor economic developments in each of the Member States and in the Union as well as the consistency of economic policies with the broad guidelines referred to in paragraph 2, and regularly carry out an overall assessment. For the purpose of this multilateral surveillance, Member States shall forward information to the Commission about important measures taken by them in the field of their economic policy and such other information as they deem necessary.
- 4. Where it is established, under the procedure referred to in paragraph 3, that the economic policies of a Member State are not consistent with the broad guidelines referred to in paragraph 2 or that they risk jeopardising the proper functioning of economic and monetary union, the Commission may address a warning to the Member State concerned. The Council, on a recommendation from the Commission, may address the necessary recommendations to the Member State concerned. The Council may, on a proposal from the Commission, decide to make its recommendations public. Within the scope of this paragraph, the Council shall act without taking into account the vote of the member of the Council representing the Member State concerned. A qualified majority of the other members of the Council shall be defined in accordance with Article 238(3)(a).
- 5. The President of the Council and the Commission shall report to the European Parliament on the results of multilateral surveillance. The President of the Council may be invited to appear before the competent committee of the European Parliament if the Council has made its recommendations public.
- 6. The European Parliament and the Council, acting by means of regulations in accordance with the ordinary legislative procedure, may adopt detailed rules for the multilateral surveillance procedure referred to in paragraphs 3 and 4.

Article 122 TFEU:

- 1. Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy.
- 2. Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control, the Council, on a proposal from the Commission, may grant, under certain conditions, Union financial assistance to the Member State concerned. The President of the Council shall inform the European Parliament of the decision taken.

Article 125 TFEU:

1. The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State,

without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public under takings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.

2. The Council, on a proposal from the Commission and after consulting the European Parliament, may, as required, specify definitions for the application of the prohibitions referred to in Articles 123 and 124 and in this Article.

Article 153 TFEU:

- 1. With a view to achieving the objectives of Article 151, the Union shall support and complement the activities of the Member States in the following fields:
- (a) improvement in particular of the working environment to protect workers' health and safety;
- (b) working conditions;
- (c) social security and social protection of workers;
- (d) protection of workers where their employment contract is terminated;
- (e) the information and consultation of workers;
- (f) representation and collective defence of the interests of workers and employers, including codetermination, subject to paragraph 5;
- (g) conditions of employment for third-country nationals legally residing in Union territory;
- (h) the integration of persons excluded from the labour market, without prejudice to Article 166;
- (i) equality between men and women with regard to labour market opportunities and treatment at work;
- (j) the combating of social exclusion;
- (k) the modernisation of social protection systems without prejudice to point (c).
- 2. To this end, the European Parliament and the Council:
- (a) may adopt measures designed to encourage cooperation between Member States through initiatives aimed at improving knowledge, developing exchanges of information and best practices, promoting innovative approaches and evaluating experiences, excluding any harmonisation of the laws and regulations of the Member States;
- (b) may adopt, in the fields referred to in paragraph 1(a) to (i), by means of directives, minimum requirements for gradual implementation, having regard to the conditions and technical rules obtaining in each of the Member States. Such directives shall avoid imposing administrative, financial and legal constraints in a way which would hold back the creation and development of small and medium-sized undertakings. The European Parliament and the Council shall act in accordance with the ordinary legislative procedure after consulting the Economic and Social Committee and the Committee of the Regions. In the fields referred to in paragraph 1(c), (d), (f) and (g), the Council shall act unanimously, in accordance with a special legislative procedure, after consulting the European Parliament and the said Committees. The Council, acting unanimously on a proposal from the Commission, after consulting the European Parliament, may decide to render the ordinary legislative procedure applicable to paragraph 1(d), (f) and (g).
- 3. A Member State may entrust management and labour, at their joint request, with the implementation of directives adopted pursuant to paragraph 2, or, where appropriate, with the implementation of a Council decision adopted in accordance with Article 155. In this case, it shall ensure that, no later than the date on which a directive or a decision must be transposed or implemented, management and labour have

introduced the necessary measures by agreement, the Member State concerned being required to take any necessary measure enabling it at any time to be in a position to guarantee the results imposed by that directive or that decision.

- 4. The provisions adopted pursuant to this Article:
- shall not affect the right of Member States to define the fundamental principles of their social security systems and must not significantly affect the financial equilibrium thereof,
- shall not prevent any Member State from maintaining or introducing more stringent protective measures compatible with the Treaties.
- 5. The provisions of this Article shall not apply to pay, the right of association, the right to strike or the right to impose lock-outs.

Article 175 TFEU:

Member States shall conduct their economic policies and shall coordinate them in such a way as, in addition, to attain the objectives set out in Article 174. The formulation and implementation of the Union's policies and actions and the implementation of the internal market shall take into account the objectives set out in Article 174 and shall contribute to their achievement. The Union shall also support the achievement of these objectives by the action it takes through the Structural Funds (European Agricultural Guidance and Guarantee Fund, Guidance Section; European Social Fund; European Regional Development Fund), the European Investment Bank and the other existing Financial Instruments.

The Commission shall submit a report to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions every three years on the progress made towards achieving economic, social and territorial cohesion and on the manner in which the various means provided for in this Article have contributed to it. This report shall, if necessary, be accompanied by appropriate proposals.

If specific actions prove necessary outside the Funds and without prejudice to the measures decided upon within the framework of the other Union policies, such actions may be adopted by the European Parliament and the Council acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions.

Article 314 TFEU:

The European Parliament and the Council, acting in accordance with a special legislative procedure, shall establish the Union's annual budget in accordance with the following provisions.

- 1. With the exception of the European Central Bank, each institution shall, before 1 July, draw up estimates of its expenditure for the following financial year. The Commission shall consolidate these estimates in a draft budget. which may contain different estimates. The draft budget shall contain an estimate of revenue and an estimate of expenditure.
- 2. The Commission shall submit a proposal containing the draft budget to the European Parliament and to the Council not later than 1 September of the year preceding that in which the budget is to be implemented. The Commission may amend the draft budget during the procedure until such time as the Conciliation Committee, referred to in paragraph 5, is convened.

- 3. The Council shall adopt its position on the draft budget and forward it to the European Parliament not later than 1 October of the year preceding that in which the budget is to be implemented. The Council shall inform the European Parliament in full of the reasons which led it to adopt its position.
- 4. If, within forty-two days of such communication, the European Parliament:
- (a) approves the position of the Council, the budget shall be adopted;
- (b) has not taken a decision, the budget shall be deemed to have been adopted;
- (c) adopts amendments by a majority of its component members, the amended draft shall be forwarded to the Council and to the Commission. The President of the European Parliament, in agreement with the President of the Council, shall immediately convene a meeting of the Conciliation Committee. However, if within ten days of the draft being forwarded the Council informs the European Parliament that it has approved all its amendments, the Conciliation Committee shall not meet.
- 5. The Conciliation Committee, which shall be composed of the members of the Council or their representatives and an equal number of members representing the European Parliament, shall have the task of reaching agreement on a joint text, by a qualified majority of the members of the Council or their representatives and by a majority of the representatives of the European Parliament within twenty-one days of its being convened, on the basis of the positions of the European Parliament and the Council. The Commission shall take part in the Conciliation Committee's proceedings and shall take all the necessary initiatives with a view to reconciling the positions of the European Parliament and the Council.
- 6. If, within the twenty-one days referred to in paragraph 5, the Conciliation Committee agrees on a joint text, the European Parliament and the Council shall each have a period of fourteen days from the date of that agreement in which to approve the joint text.
- 7. If, within the period of fourteen days referred to in paragraph 6:
- (a) the European Parliament and the Council both approve the joint text or fail to take a decision, or if one of these institutions approves the joint text while the other one fails to take a decision, the budget shall be deemed to be definitively adopted in accordance with the joint text; or
- (b) the European Parliament, acting by a majority of its component members, and the Council both reject the joint text, or if one of these institutions rejects the joint text while the other one fails to take a decision, a new draft budget shall be submitted by the Commission; or
- (c) the European Parliament, acting by a majority of its component members, rejects the joint text while the Council approves it, a new draft budget shall be submitted by the Commission; or
- (d) the European Parliament approves the joint text whilst the Council rejects it, the European Parliament may, within fourteen days from the date of the rejection by the Council and acting by a majority of its component members and three-fifths of the votes cast, decide to confirm all or some of the amendments referred to in paragraph 4(c). Where a European Parliament amendment is not confirmed, the position agreed in the Conciliation Committee on the budget heading which is the subject of the amendment shall be retained. The budget shall be deemed to be definitively adopted on this basis.
- 8. If, within the twenty-one days referred to in paragraph 5, the Conciliation Committee does not agree on a joint text, a new draft budget shall be submitted by the Commission.
- 9. When the procedure provided for in this Article has been completed, the President of the European Parliament shall declare that the budget has been definitively adopted.

10. Each institution shall exercise the powers conferred upon it under this Article in compliance with the Treaties and the acts adopted thereunder, with particular regard to the Union's own resources and the balance between revenue and expenditure.

Article 352 TFEU:

- 1. If action by the Union should prove necessary, within the framework of the policies defined in the Treaties, to attain one of the objectives set out in the Treaties, and the Treaties have not provided the necessary powers, the Council, acting unanimously on a proposal from the Commission and after obtaining the consent of the European Parliament, shall adopt the appropriate measures. Where the measures in question are adopted by the Council in accordance with a special legislative procedure, it shall also act unanimously on a proposal from the Commission and after obtaining the consent of the European Parliament.
- 2. Using the procedure for monitoring the subsidiarity principle referred to in Article 5(3) of the Treaty on European Union, the Commission shall draw national Parliaments' attention to proposals based on this Article.
- 3. Measures based on this Article shall not entail harmonisation of Member States' laws or regulations in cases where the Treaties exclude such harmonisation.
- 4. This Article cannot serve as a basis for attaining objectives pertaining to the common foreign and security policy and any acts adopted pursuant to this Article shall respect the limits set out in Article 40, second paragraph, of the Treaty on European Union.

Table 7. Summary of the EU legal analysis (EP = European Parliament, APP = Special legislative procedure – EP consent required (APP), COD = Ordinary legislative procedure (COD), UN = Unanimous voting in the Council, IGA = Intergovernmental Agreement)

	1	Legal act 1			Legal act 2				Legal act 3			
		Payment side of EUBS				Financing side of EUBS				Minimum requirement		
						Within the EU budget		Dedicated fund outside EU budget				
		Legal base	EP	Council	Compliance with Article 125 TFEU	Legal base	Characteristics	Legal base	Characteristics	Issuing debt	w.r.t. regulation of NUBS	w.r.t. activation policies
equivalent EUBS	V1/18	352	APP	UN	(-)	352	No change of Own Resources Decision required External assigned revenue (Art. 21(2)(d) of Regulation 966/2012) Earmarked for the exclusive use of EUBS	352 or IGA	Establishment of an EUBS agency Distinct budget for EUBS agency Control by budgetary authorities (EP/Council) has to be secured			
	V2/18	352	APP	UN	(+)					(+)	153(2)(b)	153(2)(b)
	V3/18	352	APP	UN	(+)					not foreseen	153(2)(b)	153(2)(b)
	V4/18	(-)										
35	V5/18	175(3), 352	COD	UN	(+)		No change of Own Resources Decision required External assigned revenue (Art. 21(2)(d) of Regulation 966/2012) Earmarked for the exclusive use of EUBS		ed by MS contributions	(+)	153(2)(b)	153(2)(b)
	V6/18	175(3), 352	COD	UN	(+)	352		or IGA		(+)	153(2)(b)	153(2)(b)
	V7/18	175(3), 352	COD	UN	(+)					(+)	153(2)(b)	153(2)(b)
	V8/18	(-)								-		
	V9/18	(-)										
	V10/18	175(3), 352	COD	UN	(+)					(+)	153(2)(b)	153(2)(b)
e EU	V11/18	175(3), 352	COD	UN	(+)					(+)	153(2)(b)	153(2)(b)
genuine EUBS	V12/18	175(3), 352	COD	UN	(+)	352+ IGA	Dagarana Dagisi on	352+ IGA or IGA	Distinct budget for EUBS agency Control by budgetary authorities (EP/Council) has to be secured	(+)	153(2)(b)	153(2)(b)
50	V13/18	175(3), 352	COD	UN	(+)					(+)	153(2)(b)	153(2)(b)
	V14/18	(-)										
	V15/18	175(3), 352	COD	UN	(+)					(+)	153(2)(b)	153(2)(b)
	V16/18	175(3), 352	COD	UN	(-)							
	V17/18	175(3), 352	COD	UN	(-)							2
	V18/18	175(3), 352	COD	UN	(+)					not foreseen	153(2)(b)	153(2)(b)