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European unemployment insurance and macroeconomic stabilisation: are permanent fiscal transfers between States needed?

The creation of a European unemployment insurance scheme is often cited as an important step towards macroeconomic smoothing within the euro area and deepening of European integration. Depending on the features envisaged, such a mechanism could be effective without necessarily involving permanent fiscal transfers between euro area Member States. This *Bulletin* measures the potential effects of setting up a European unemployment insurance fund of EUR 10 billion per year on average (i.e. the equivalent of one SURE plan per decade), designed as an addition to national unemployment insurance schemes without replacing them. In their central scenario, the authors simulate a European unemployment insurance system without permanent transfers between States, but with a temporary common borrowing capacity. Such a system could have meaningfully mitigated the shocks of 2009 and 2013, by smoothing out consumption and GDP, while also improving the synchronisation of European cycles and reducing national debt burdens.

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European Relations Division

* Yann Perdereau was a trainee at the time of writing.

European unemployment insurance counterfactual without permanent transfers between States:

+0.28pp
additional consumption in the euro area in 2009, following the global financial crisis
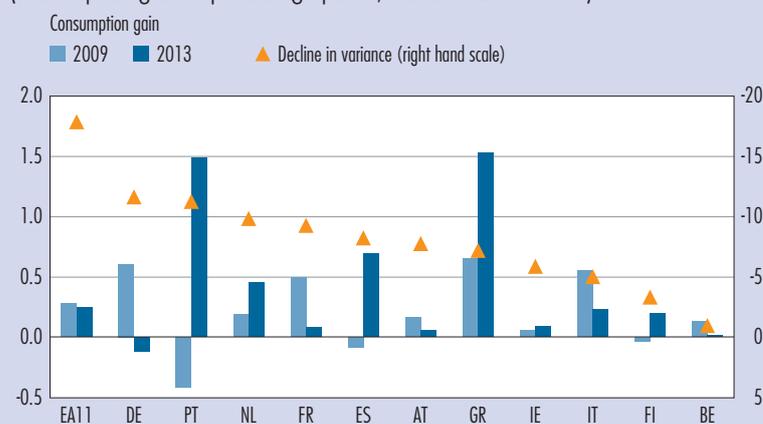
+0.25pp
additional consumption in the euro area in 2013, following the euro area crisis

−18%
reduction in the variance of euro area consumption between 2000 and 2019

Macroeconomic stabilisation with a European unemployment insurance without permanent transfers between States
(consumption gain in percentage points; variance decline in %)

Source: Authors' calculations (based on the NiGEM model).

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A common unemployment insurance mechanism would be a concrete expression of solidarity between EU Member States as it would help to smooth the impact of economic shocks. As early as 1975, the Marjolin report underlined the importance of this type of mechanisms for reducing intra-regional imbalances. In response to the strong asymmetric shocks observed since the early 2000s, the Five Presidents' Report (2015) also stressed the importance of setting up a "common macroeconomic stabilisation function [...] to better deal with shocks that cannot be managed at the national level alone".

From a theoretical point of view, the presence of market failures justifies the creation of such a mechanism. In a fixed exchange rate regime, the presence of nominal rigidities and frictions to free factor mobility prevents the absorption of asymmetric shocks by market mechanisms. Beyond measures aimed at modifying the incentives of private economic agents,[1] public policy has a role to play. However, public risk-sharing mechanisms at the Economic and Monetary Union (EMU) level raise several questions regarding their implementation and political feasibility. In particular, the lack of consensus on possible fiscal transfers between countries has so far prevented further steps forward.

A European unemployment insurance fund would be a first step towards risk-sharing within EMU (Bilbiie et al., 2021), presenting clear features of subsidiarity between levels of government. A widely influential report by fourteen French and German economists (Bénassy-Quéré et al., 2018) on the completion of the euro area proposed setting up a European unemployment insurance scheme with no permanent fiscal transfers within EMU. The Franco-German Meseberg Declaration (2018) called for further examining "the issue of a European Unemployment Stabilisation Fund, for the case of severe economic crises, without transfers".

This *Bulletin* estimates the gains in terms of intra-European business cycle smoothing and harmonisation that would be obtained from a European unemployment insurance system. The analysis focuses on an insurance system **without** permanent transfers, but **with** a common borrowing capacity. The supranational scheme would be designed as an addition to national unemployment insurance transfers, partly based on the US federal unemployment insurance model. The simulation is calibrated to involve an additional expenditure of EUR 10 billion per year on average, i.e. the equivalent of a SURE plan[2] per decade.

We find that such a scheme could play an important role as a countercyclical stabiliser, with no permanent redistributive effects between Member States. In particular, our simulations show that a European unemployment insurance scheme would have meant: i) a gain in consumption of about 0.3 percentage points for the euro area during the two peaks of benefit payouts in 2009 and 2013; ii) a smoother consumption over time with an 18% decline in the variance of consumption between 2000 and 2019; and iii) an improvement in the synchronisation of euro area cycles.

1 Modelling and simulation of a European unemployment insurance

Designing a European unemployment insurance

A European unemployment insurance system can be designed in two ways: a so-called "genuine" insurance system, or an "equivalent" system, according to the terminology of Beblavy and Lenaerts (2017).

Setting up a **genuine European unemployment insurance** would require harmonising the national systems of the various European countries and then having them taken over by a European fund. Such a mechanism would be difficult to set up and would require a high level of integration of economic and social policies. **An equivalent European unemployment insurance system**, or reinsurance system, would be designed as an addition to existing national systems, triggering supplementary transfers to the unemployed in predetermined crisis scenarios. This mechanism, which is close to the US federal

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1 Farhi and Werning (2017) show that, in a monetary union, private risk sharing is suboptimal even in the presence of complete financial markets, because private economic agents do not internalise the indirect effects of stabilisation.

2 A temporary mechanism introduced following the Covid-19 crisis, which enables Member States to access EU loans to finance short-time work schemes.

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unemployment insurance scheme, seems more compatible with the heterogeneous domestic preferences of Member States in terms of social policy. In this *Bulletin*, we therefore model this second option. We look closely at the issue of fiscal redistribution across Member States and test scenarios with both temporary – each country reimburses in full the benefits received over the entire period – and permanent transfers. A macro-econometric approach (see the third approach in Box 1) simulates the adoption of an equivalent system, by precisely modelling its financing according to several transfer scenarios.

BOX 1

Methodological approaches for simulating a European unemployment insurance

Three approaches have been used to simulate the effects of the introduction of a European unemployment insurance: they concur on the smoothing potential of such a mechanism, despite methodological and calibration differences.

- **The first is based on DSGE[1] models.** Moyen, Stähler and Winkler (2019) study the potential gains of a transnational unemployment insurance based on a two-region ("periphery" and "centre") model with incomplete financial markets and frictional labour markets. According to their calibration on euro area data, and allowing for temporary countercyclical transfers in response to negative productivity shocks, the optimal level of transfers is high and results in a better smoothing of consumption and a reduction in unemployment in the periphery, without negatively affecting employment in the centre. However, this approach is not very flexible (number of countries and characteristics) and neither produces any counterfactual results for the euro area countries nor introduces institutional mechanisms such as the constitution of reserves or the creation of a borrowing capacity.

- **A second, more empirical approach uses microeconomic data** to calculate the smoothing effect on household consumption of a European unemployment insurance system, as well as the redistributive effects of such a system between individuals and between countries. By simulating a replacement rate of about 70% partly insured at the European level, Dolls et al. (2018) manage to smooth income fluctuations at the European level by 10% on average between 2000 and 2013, and obtain very variable gains across countries. Such an approach allows for a fine-grained analysis of individual gains, but masks general equilibrium effects.

- **The third approach uses macroeconometric simulation models** to assess the effect of a European unemployment insurance, which allows for a quantitative analysis of general equilibrium effects and feedbacks between countries. Fichtner and Haan (2014), for example, study an insurance system close to a true system[2] using the NiGEM model (see Box 2) in which they assume that a part of the unemployment expenditure is financed at the European level, thus increasing national public expenditure by the same amount. They show that harmonising and taking over part of the national unemployment insurance systems at the euro area level would have significantly reduced the drop in GDP during the crisis in some countries.

1 Dynamic Stochastic General Equilibrium models are used to assess the macroeconomic impact of monetary or fiscal policy.
2 Considering a generous or restrictive scenario (70% vs. 30% replacement rate for twelve vs. six months). The European unemployment insurance replaces the national system if the latter is less generous. If the national system is more generous, the national authorities pay additional benefits to the unemployed to avoid a reduction.

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Modelling a European unemployment insurance

We use the NiGEM macroeconometric model (see Box 2) to perform counterfactual simulations and measure the impact of a European unemployment insurance fund (EUIF) on consumption, GDP and unemployment in eleven euro area Member States.[3] The simulations cover the period from the first quarter of 2000 to the third quarter of 2019, incorporating the financial crisis of 2009 and the European debt crisis of 2013.

In the insurance system that we model, reserves for each Member State are accumulated in a specific EUIF account; they are financed by a European unemployment contribution (EUC) at the peak of the cycle. These reserves are used for the payment of European unemployment benefits (EUB), in addition to national benefits, in the trough of the cycle. In some scenarios (2 and 3 described below), a Member State that has exhausted its reserves may receive European transfers in order to continue paying "European" unemployment benefits beyond the accumulated own resources. Depending on the scenario, the transfers may be temporary (scenario 2) or permanent (scenario 3).

BOX 2

The NiGEM macroeconomic simulation model

The NiGEM macroeconomic maintained by NIESR[1] allows for the simulation of many policy shocks. In this *Bulletin*, an extension is included in the model, which makes it possible to create a European unemployment insurance fund (EUIF) in eleven euro area countries. The European unemployment benefit (EUB) paid out by the fund is calibrated to reach EUR 200 billion over the period 2000-19 – the equivalent of one SURE programme (see footnote 1 in Box 3) per decade – and is determined by the following formula for country i:

$$EUB_{i,t} = 0.25 \times \text{Net wage}_{i,t} \times \text{Nunemployed}_{i,t}$$

with Nunemployed$_{i,t}$ the number of persons who have been unemployed for less than 6, 12 and 24 months in country i when the first, second and third thresholds are triggered, and 0 otherwise. The European Unemployment Contribution (EUC) is levied on households' disposable income according to the following formula:

$$EUC_{i,t} = \text{Contribution rate}_{i,t} \times RDIH_{i,t}$$

with RDIH the real disposable income of households and the contribution rate modelled under several scenarios:

- in scenario 1, this rate is 0.24% for all countries, but is reduced to 0% when the country has accumulated a reserve representing 1.5% of its GDP;

- in scenario 2, this rate differs for all countries, to ensure that each country returns to equilibrium[2] at the end of the period;

- in scenario 3, this rate is equal to 0.24% for all countries, in order to ensure that the European fund returns to balance at the end of the period.

In addition, when transfers are activated, the contribution rate is set to 0% in each scenario. EUC contributions and EUB benefits are directly integrated into the equations: additional levies on benefits received by employees and additional payments received in households' real disposable income (see chart). Since the model takes into account interactions between economies, other euro area countries benefit indirectly from benefits paid in another country through foreign demand.

1 National Institute of Economic and Social Research.
2 The equilibrium here is characterised by a net position of the fund between EUR 0 and EUR 10 million in the third quarter of 2019.

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3 The sample represents 98% of euro area GDP: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain.

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Modelling of the European unemployment insurance system according to three financing scenarios – Illustration for France
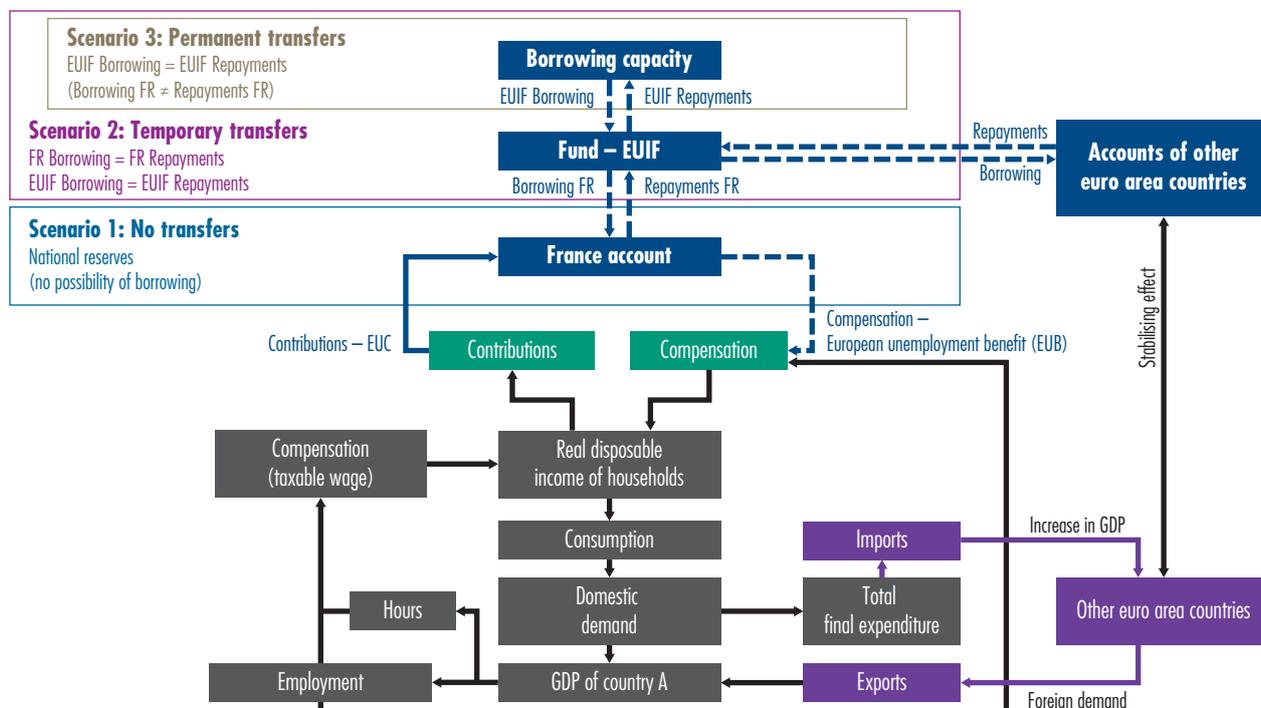
Source: Authors (based on the NiGEM model).
Notes: In grey (purple), the model equations used to pass the effect of the scheme on to the domestic (foreign) level. In green, the modified model equations. In blue, the equations added to the model.

We simulate three scenarios in terms of financing:

- **Financing scenario 1.** Accumulation of national reserves only, financed by the EUC alone and without debt. The EUC rate is the same for each country and the collection of EUC stops when the country has accumulated 1.5%[4] of its GDP in reserves. The payment of EUB stops when the country has exhausted its reserves. The net position of each country vis-à-vis the European fund thus ranges between 0% and 1.5% of its GDP.

- **Financing scenario 2.** Temporary transfers which enable a Member State to record a negative position vis-à-vis the European fund when it exhausts its reserves. This negative position is financed by the EUIF

borrowing on the markets, at an interest rate equal to the GDP-weighted average of the 10-year rates of euro area countries. The EUC rate is country-specific depending on its position vis-à-vis the EUIF. A negative position triggers an increase in the EUC rate in order to avoid permanent transfers, with a calibration ensuring that each country has a neutral position vis-à-vis the EUIF – repaying all transfers – at the end of the estimation period.

- **Financing scenario 3.** Permanent transfers between countries are possible: some countries are debtors or creditors of the EUIF at the end of the period. The EUC rate is the same for all countries and calibrated so that the total EUIF position is neutral at the end of the period.

4 By way of illustration, over the period 2000-16, the reserves of US States did not exceed 1.5% of their GDP in more than 99% of cases.

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BOX 3

Breakdown of flows by financing scenario and triggering of European unemployment benefits

The table shows for each country the average annual contributions and benefits paid and received between 2000 and 2019 as a percentage of GDP, under the different scenarios. At the European level, in scenarios 2 and 3, the scheme is calibrated to provide EUR 100 billion of transfers – permanent or temporary, depending on the scenario – per decade, which corresponds to about 0.1% of GDP or EUR 10 billion per year on average for the euro area as a whole, i.e. the equivalent of one SURE[1] plan per decade.

Average annual contributions and benefits paid and received between 2000 and 2019, under three European unemployment insurance financing scenarios
(% of GDP)

		BE	FI	FR	DE	GR	IE	IT	NL	AT	PT	ES	EA11
Scenario 1	EUC paid	0.11	0.13	0.10	0.11	0.11	0.1	0.08	0.1	0.12	0.13	0.12	**0.11**
	EUB received	0.04	0.05	0.07	0.05	0.07	0.08	0.04	0.04	0.05	0.08	0.07	**0.06**
Scenario 2	EUC paid	0.04	0.11	0.05	0.09	0.27	0.09	0.09	0.05	0.06	0.16	0.31	**0.10**
	EUB received	0.04	0.11	0.05	0.09	0.27	0.09	0.09	0.05	0.06	0.16	0.31	**0.10**
Scenario 3	EUC paid	0.10	0.09	0.11	0.10	0.11	0.07	0.11	0.09	0.10	0.11	0.11	**0.10**
	EUB received	0.04	0.11	0.05	0.09	0.27	0.09	0.09	0.05	0.06	0.16	0.31	**0.10**

Source: Authors' calculations (based on the NiGEM model).
Notes: EUC, European unemployment contributions; EUB, European unemployment benefits.
Scenario 1: constitution of national reserves only, without debt. Scenario 2: temporary inter-State transfers possible.
Scenario 3: permanent inter-State transfers possible.
ISO code correspondences are detailed below Chart 2.

The terms and conditions for triggering EUB benefits apply in the same way to all three scenarios, with a tiered system that makes it possible to extend payouts over time when the intensity of the recessionary shock, as measured by the fall in GDP, reaches a particularly high level. The three thresholds that trigger successive monthly EUB payouts (equivalent to 25% of the national net average wage) to different categories of unemployed persons[2] are:

- **Payout threshold 1.** In the event of a recession in a country (two consecutive quarters of falling GDP), we trigger an EUB payout to persons who have been unemployed for less than 6 months;[3]

- **Payout threshold 2.** In the event of a 1% fall in national GDP, we trigger an EUB payout to persons who have been unemployed for less than 12 months;

- **Payout threshold 3.** In the event of a 1% fall in euro area GDP: payout of EUB to persons who have been unemployed for less than 24 months.

Benefits continue to be paid for one year after the shock[4] that triggers the threshold. Thus, if a shock occurs in quarter t, transfers will be made in each month of quarters t + 1, t + 2, t + 3 et t + 4.

1 Temporary mechanism introduced following the Covid-19 crisis, which enables Member States to access EU loans to finance short-time work schemes.
2 In order to target the increase in cyclical unemployment, only those persons unemployed for less than six months receive benefits. In case of larger shocks, and as in the US system, the scope of unemployed persons covered by the scheme is extended.
3 Our threshold is compatible with the "exceptionally bad times" threshold of the Stability and Growth Pact.
4 In line with the durations observed in the European Union over the period selected by Claeys, Darvas and Wolff (2014).

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2 Modelling results: Evidence of stabilising effects without permanent transfers between Member States

Stabilising effects for the euro area

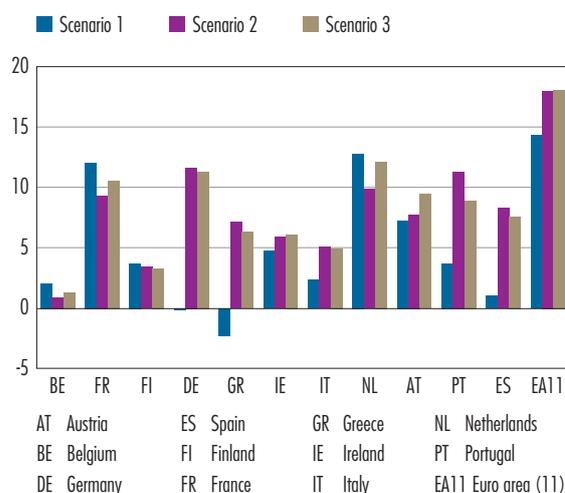#### Mitigation of negative shocks, especially in 2009 and 2013

In times of economic downturn, as in 2009 or 2013, a European unemployment insurance system would have raised households' disposable income, thus reducing consumption losses and ultimately mitigating the negative effects on growth (see Chart 1). Income stabilisation in one country also benefits other countries via external demand. For example, in 2009, in scenarios 1, 2 and 3, the counterfactual gain in consumption in the eleven euro area countries studied stood at 0.33%, 0.28% and 0.31% respectively, compared with a situation without any European unemployment insurance. By contrast, in 2013, the increase in consumption in scenario 1 is lower, as the proximity of the two crises prevents the replenishment of reserves. A European unemployment insurance fund, particularly in scenarios 2 and 3, therefore allows for income and consumption smoothing over time and implies a significant increase in consumption during a recession (however, this mechanism carries a cost over the whole period, see below).

Reduction in the volatility of consumption and GDP

This smoothing out of consumption can be measured by the decline in the variance of consumption for the different scenarios (see Chart 2). We compare the variance of consumption, trend-adjusted using a Hodrick-Prescott (HP)

C2 Decline in the consumption variance in eleven euro area countries studied with a European unemployment insurance scheme
(%)

AT	Austria	ES	Spain	GR	Greece	NL	Netherlands
BE	Belgium	FI	Finland	IE	Ireland	PT	Portugal
DE	Germany	FR	France	IT	Italy	EA11	Euro area (11)

Source: Authors' calculations (based on the NiGEM model).
Notes: The description of the scenarios is shown in Chart 1. Change in the consumption variance in percent, with the application of the Hodrick Prescott filter.

C1 Change in consumption with a European unemployment insurance scheme in eleven euro area countries surveyed
(%)
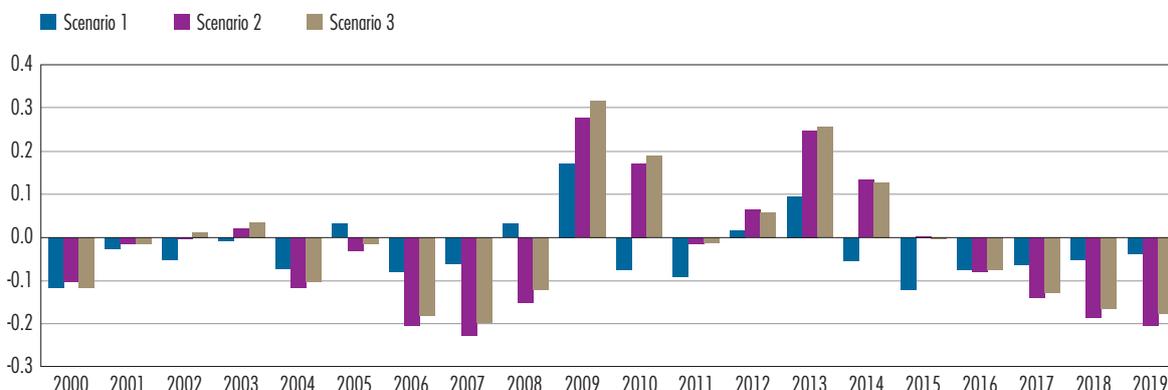
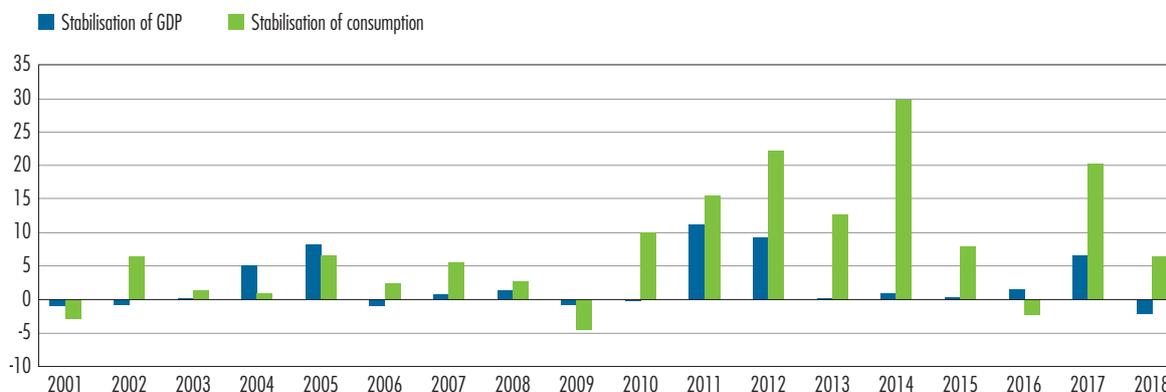Source: Authors' calculations (based on the NiGEM model).
Scope: The eleven countries are listed in Chart 2.
Note: Scenario 1: constitution of national reserves only, without debt; scenario 2: temporary transfers between States possible; scenario 3: permanent transfers between States possible.

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C3 Change in the real cycle dispersion of eleven euro area countries studied (scenario 2 with a European unemployment insurance system)
(%)

■ Stabilisation of GDP   ■ Stabilisation of consumption

Source: Authors' calculations (based on the NiGEM model).
Scope: The eleven countries are listed below Chart 2.
Notes: In scenario 2, temporary inter-State transfers are possible but are fully repaid at the end of the period.
Real business cycles are defined as the succession of economic expansions and recessions, delimited by peaks (highest level of activity) and troughs (lowest level of activity).
Dispersion is measured by the variance.

filter, with and without unemployment insurance, and observe a decline in the variance in scenarios 2 and 3 ranging from around 1% for Belgium to around 10% for France, Germany, the Netherlands and Portugal. The variance of consumption in the euro area thus decreases by 14.3%, 17.9% and 18% respectively in scenarios 1, 2 and 3.[5] The inability of the EUIF to issue debt in scenario 1 appears to be a major obstacle to the stabilisation of consumption and GDP for some countries (Germany, Greece, Italy, Portugal and Spain). On the other hand, permanent transfers in scenario 3 bring about a stabilisation similar to that of scenario 2 both for the euro area and at national level.

Better synchronisation of real cycles in the euro area

This stabilisation is also reflected, for scenarios 2 and 3, in lower dispersion of real cycles in euro area countries. Chart 3 shows how, in scenario 2, the dispersion of trend-adjusted GDP and consumption in Europe is reduced, implying that business cycles are better synchronised. The variance of consumption across countries is particularly reduced between 2010 and 2018, by up to 15% in 2014. Over the period 2001-18, European

unemployment insurance would have lowered the variance of consumption across euro area countries by 7.8%, and that of GDP by 2.2%. While the fall in the dispersion observed in scenario 3 is similar (respectively 6.3% for consumption and 1.7% for GDP), the absence of a EUIF borrowing capacity in scenario 1 results in an increase in the dispersion of cycles compared to the no-European unemployment insurance baseline.

Permanent transfers would have implied limited additional gains at the euro area level and unevenly distributed costs

Comparing scenarios 2 and 3 in our modelisation enables us to assess the additional gain related to permanent transfers between countries (i.e. the case where some countries contribute more than they receive and vice versa). Chart 4 shows the change in consumption for the scenarios with and without permanent transfers in the case of France (potentially the largest contributor, +EUR 32 billion between 2000 and 2019, i.e. 0.08% of GDP on average per year) and Spain (potentially the largest recipient, –EUR 41 billion over the same period, i.e. 0.2% of GDP on average per year).

5 These results are relatively conservative as they assume that the unemployed have the same propensity to consume as other households. With a unitary propensity to consume for the unemployed persons the decline in the variance is even greater: 14.9%, 20.1% and 19.9% in scenarios 1, 2 and 3.

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C4 Change in consumption in France and Spain with or without permanent transfers under a European unemployment insurance scheme (over eleven euro area countries)

(%)

■ Without permanent transfers   ■ With permanent transfers

a) France

b) Spain
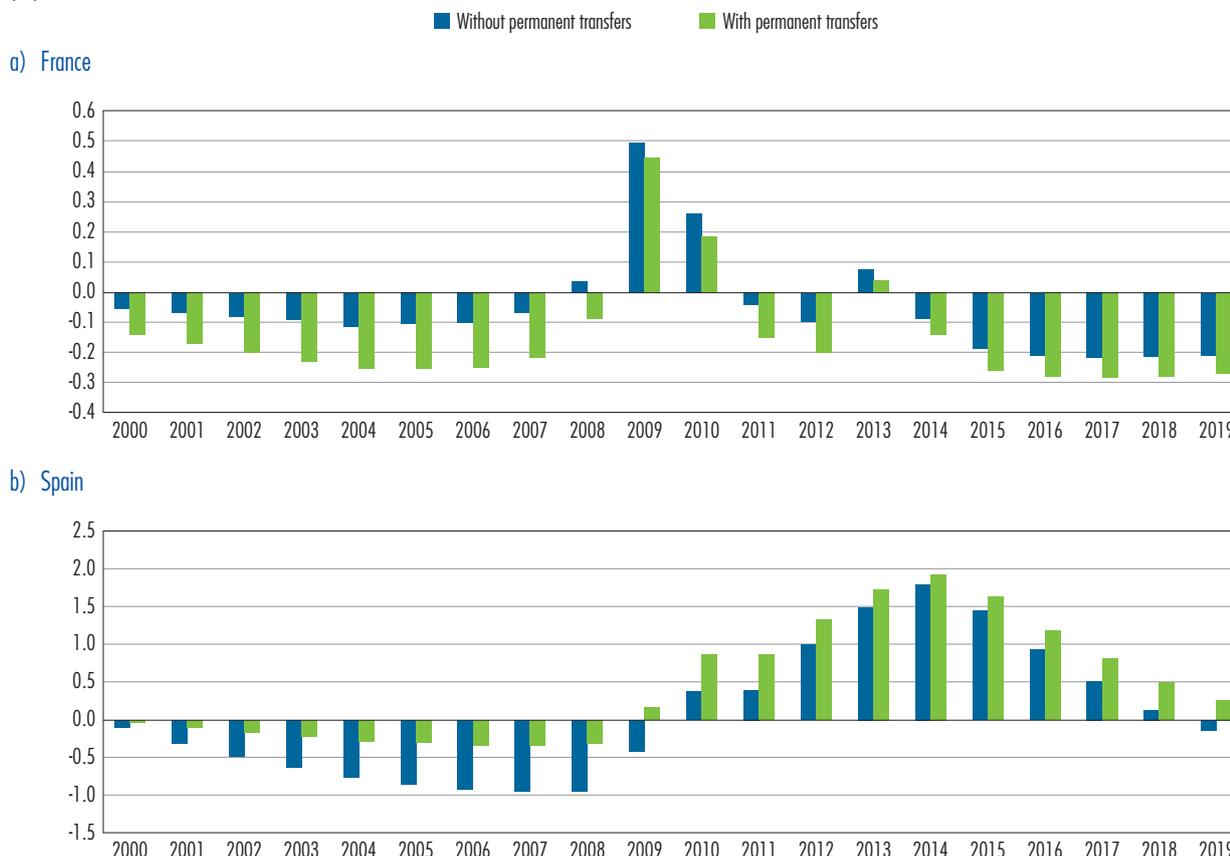
Source: Authors' calculations (based on the NiGEM model).
Note: The eleven countries are listed below Chart 2.

The introduction of permanent transfers would have led to a weaker stabilising effect in France in periods of crisis (2009, 2010 and 2013) and to larger contributions in periods of growth. Conversely, the stabilising effect would have been higher in Spain during the European debt crisis. Not surprisingly, the introduction of permanent transfers produces winners and losers. In particular, the permanent transfers in scenario 3 yield limited marginal gains compared to the temporary transfers in scenario 2 (a slightly weaker synchronisation of business cycles and only a slightly better smoothing of consumption and GDP) and the costs of permanent transfers are very unevenly distributed. The main contributors would have been Belgium, France, the Netherlands and Austria and the main beneficiaries Spain, Greece and Portugal (see table in Box 3). We therefore focus our analysis on scenario 2.

A relatively moderate cost

The smoothing effect of our EUIF has a very low cost in terms of GDP, arising from the contributions collected to constitute the reserve fund. Euro area GDP is reduced, especially between 2015 and 2019, when no country is in recession (see Chart 5 for scenario 2) and the payments previously received are repaid.

Over the whole period, the introduction of a European unemployment insurance would have lowered growth in our three scenarios by less than 0.005% on average per year. This would have implied a very small cumulative difference between simulated and observed European GDP of 0.1% between 2000 and 2019. This structural loss of growth would also have resulted

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C5 GDP gains and losses in the eleven euro area countries studied, according to scenario 2 of a European unemployment insurance system

(in GDP points)
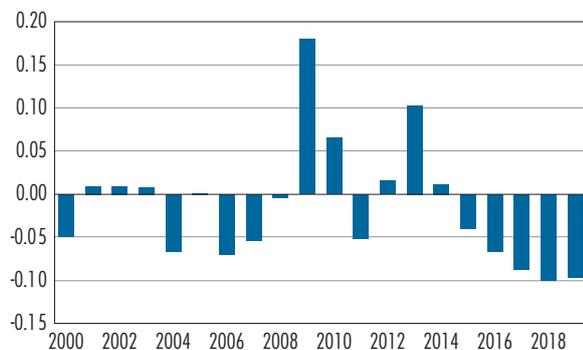
Source: Authors' calculations (based on the NiGEM model).
Notes: The eleven countries are listed below Chart 2.
In scenario 2, temporary inter-State transfers are possible but are fully repaid at the end of the period.

C6 Macroeconomic stabilisation with a European unemployment insurance without permanent transfers between States (scenario 2)

(consumption gain in percentage points; decline in variance in %)
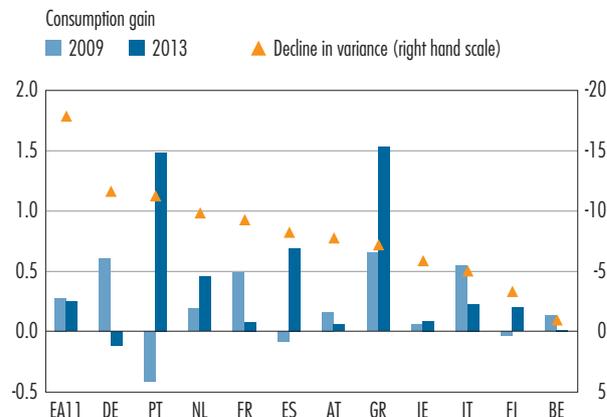
Source: authors' calculations (based on the NiGEM model).
Key: A European unemployment insurance scheme would have led to a gain in consumption of 0.28 percentage points in 2009 in the eleven euro area countries studied and would have lowered the dispersion of values (variance) of consumption by 17.9% between 2000 and 2019.
Note: Percentage change in consumption, using the Hodrick Prescott filter. The variance of a series is a statistical measure of the dispersion of the values of that series around the mean.
ISO code correspondences are detailed in Chart 2.

in a slight increase in structural unemployment in Europe. The unemployment rate would have dropped by 0.1 percentage point with the EUIF in 2009 (i.e. 152,000 fewer unemployed persons in the eleven euro area countries studied in 2009) compared to a baseline without any European unemployment insurance. However, unemployment would have been slightly higher, by 0.005 percentage point on average, over the period (i.e. 9,000 more unemployed persons on average). In total, according to our simulations, the European unemployment insurance system described in scenario 2 results in a gain in GDP, consumption (see Chart 6) and employment during recessions, a smoothing of income over time and a small structural cost on average.

Summary of results for the euro area

To sum up, scenario 1 differs from the other two in that it does not smooth the 2013 shock as well – due to the depletion of national reserves built up after the 2008 crisis – and is less able to reduce the variance of consumption at national level and the dispersion of real cycles across countries. Scenario 3 would require an agreement on permanent transfers between countries, but would not yield any meaningful gain compared to scenario 2 – neither in terms of smoothing the shocks of 2009 and 2013 nor reducing the variance or the levels of synchronisation of national cycles (see summary table of results below).

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Main results by financing scenario of a European unemployment insurance system for the eleven euro area countries studied

(in EUR billions and in %)

			Scenario 1	Scenario 2	Scenario 3
Unemployment benefits paid per year (in EUR billions)			6	10	10
of which permanent transfers between States			*0*	*0*	*3*
Gain (%)	2009	Consumption	0.3	0.3	0.3
		GDP	0.2	0.2	0.2
	2013	Consumption	0.1	0.25	0.25
		GDP	0.1	0.1	0.1
Change (%)	Variance	Consumption	-14.3	-17.9	-18
		GDP	-5.9	-6.3	-6.5
	Dispersion of national cycles	Consumption	1.4	-7.8	-6.3
		GDP	0.3	-2.2	-1.7
Average annual GDP loss (%)			-0.004	-0.005	-0.004

Source: Authors' calculations (based on the NiGEM model).
Scope: The eleven countries are listed below Chart 2.
Key: In green, the scenarios producing the largest positive effects on the observed variable.
Note: Scenario 1: constitution of national reserves only, without debt; scenario 2: temporary inter-State transfers possible;
scenario 3: permanent inter-State transfers possible.

3 Implications for the policy debate in the euro area

This *Bulletin* shows that a European unemployment insurance scheme without permanent transfers, but with a borrowing capacity, would have a stabilising effect. It could both lower the amplitude of national cycles and increase the synchronisation of cycles across member countries. All other things being equal, the implementation of such a scheme would rebalance at the margin the policy mix[6] in the euro area and facilitate the conduct of the single monetary policy on the back of slightly higher cyclical synchronisation (Afonso and Furceri, 2007). Finally, this scheme would ease the constraint on national debts during recessions, which could help lower the associated sovereign risk.

Strengthening risk-sharing tools through a European unemployment insurance might reinforce EU citizens' adhesion to the European project, as they would benefit from it directly. Our results show that the lack of consensus on the desired level of transfers between Member States should not be seen as an obstacle. Significant gains in terms of stabilisation would have been obtained from a European unemployment insurance system without permanent transfers between countries.

Like any insurance system, the mechanism described above carries a cost. The increased stabilisation of the cycles within the euro area comes at the cost of a very slight slowdown in countries' growth trajectory, arising from the contributions collected during higher growth periods. We therefore highlight a trade-off between a cost in terms of lower growth at the peak of the cycle on the one hand, and the gains associated with macroeconomic stabilisation on the other. Furthermore, our modelling exercise does not consider the additional gains that would arise from limiting the structural consequences of major cyclical shocks on the labour market or the financial system.

6 The policy mix is the combination of monetary and fiscal policies aimed at stabilising economic activity.

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