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**Article**

## The Stabilising Role of US Federal Fiscal Institutions – What Lessons for the Euro Area?

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## End of previous Forum article

Cinzia Alcidi and Gilles Thirion\*

# The Stabilising Role of US Federal Fiscal Institutions – What Lessons for the Euro Area?

The classic argument for a euro area “fiscal capacity”, understood in this contribution as a centralised fiscal stabiliser, revolves around the need to dampen the effects of asymmetric shocks. According to those preaching this conventional wisdom, a common fiscal stabiliser designed along the lines of the US federal fiscal system would have stabilised incomes in member states hit the hardest, thereby avoiding the divergence that has unfolded in the aftermath of the financial crisis between the South, led by Italy and Greece, and the North, led by Germany and the Benelux countries.

This article sets out to contribute to the debate by questioning the above-mentioned hypothesis, namely that the euro area (EA) needs a fiscal capacity in order to improve its capacity to deal with asymmetric shocks.<sup>1</sup> We argue

that EA policymakers could borrow important lessons from the stabilising role of a number of fiscal institutions in the United States, but that they are not what policymakers typically envision, based on the mainstream narrative dominated by the focus on the absorption of asymmetric shock through fiscal policy.

## Fiscal policy and asymmetric shocks: do automatic stabilisers really function better in the US?

We start out by measuring the share of an asymmetric shock to GDP that is absorbed by domestic fiscal policy across the Atlantic. Obviously, fiscal policy remains a domestic prerogative in the EA, while in the US it is embedded in a multi-tier dimension across different government levels. Since the vast majority of cyclically sensitive fiscal policy items are administered by the US federal budget, we assume that the smoothing effects of state and local government budgets are null and focus exclusively on the role of US federal institutions. Indeed, past studies<sup>2</sup> have shown that the stabilisation capacity of states and local government budgets is negligible or even destabilising.<sup>3</sup> Conversely, the structural nature of transfers from the EU budget implies that they have negligible stabilising properties.

\* The authors are grateful to Paolo D’Imperio for data support and insightful discussions. This article draws on C. Alcidi, G. Thirion: Fiscal risk-sharing in response to shocks: New lessons for the euro area from the US, CEPS Working Document 05-2017, Centre for European Policy Studies, 2017. The latter paper was prepared in the context of the Horizon 2020 project “FIRSTRUN – Fiscal Rules and Strategies under Externalities and Uncertainties”.

<sup>1</sup> See e.g. J.-C. Juncker, D. Tusk, J. Dijsselbloem, M. Draghi, M. Schulz: Completing Europe’s Economic and Monetary Union, Five Presidents’ Report, European Commission, 2015; H. Van Rompuy, J.M. Barroso, J.-C. Juncker, M. Draghi: Towards a Genuine Economic and Monetary Union, European Council, 2012.

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<sup>2</sup> See e.g. G. Follette, B. Lutz: Fiscal Policy in the United States: Automatic Stabilizers, Discretionary Fiscal Policy Actions, and the Economy, FEDS Working Paper No. 2010-43, Federal Reserve Board, 2010.

<sup>3</sup> Since most US states have some kind of balanced budget requirement, a decline in state revenues must be matched by a reduction in public spending.

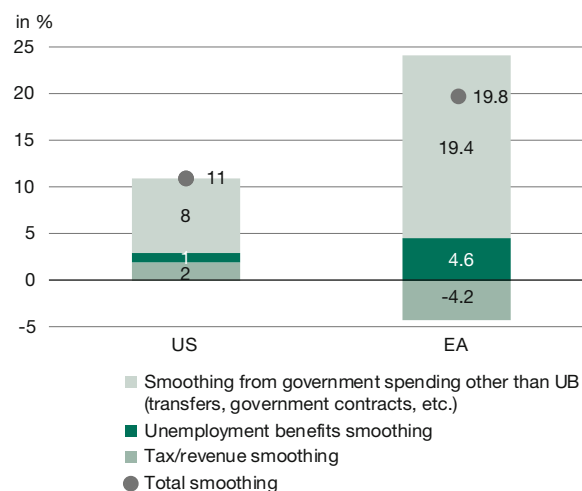
In order to measure the insurance role of US and EA government budgets against asymmetric shocks, we update the study by Asdrubali et al.<sup>4</sup> on the channels of risk sharing in the US and extend the work of Arreaza et al.<sup>5</sup> on the smoothing effect of government budgets in EU countries. This approach further allows us to quantify the smoothing effect of different components of the tax and transfer systems, focussing particularly on unemployment benefits.<sup>6</sup>

Our estimates appear to dismiss the widespread view that EA members lack the capacity of the US federal institution to stabilise asymmetric output fluctuations (Figure 1). Indeed, EA members smoothed nearly twice as much of an asymmetric shock (19.8%) as the US federal budget did through inter-state risk sharing (11%) in 1995-2013. Unemployment benefits play a negligible role in the US, cushioning barely one per cent of output shocks, while in the EA11 unemployment benefits provide five per cent of insurance.

These results qualify the presumed superiority of US federal stabilisers over the EA's decentralised fiscal policies when dealing with asymmetric shocks. A number of factors explain these results. First, most federal fiscal transfers to states, particularly grants, are structural (and often pro-cyclical) rather than cyclical in nature and have little to do with buffering state-specific macroeconomic fluctuations. Second, fiscal policy in the US has historically relied more heavily on discretionary fiscal policies and less on automatic stabilisation as compared to the EA. However, the more minimalist character of the US welfare state compared to EA welfare states only partially accounts for the lower level of asymmetric shock absorption through fiscal policy.<sup>7</sup> When adjusting the coefficient estimate of fiscal policy by spending size (or total tax revenue), we find that the larger budgets of euro area members do not explain this trend alone. Indeed, the EA members' budgets appear to outperform the US in terms of "efficiency" for all budget items.

Since the lack of a common EA fiscal stabiliser is often cited as having fostered North-South (or surplus vs. defi-

**Figure 1**  
**The insurance role of government budgets in the US and the euro area, 1995-2013**



Note: The bars represent the percentages of states' output shocks that were absorbed through the various government budget items.

Sources: Authors' own calculations based on data from AMECO; the OECD Social Expenditure Database; and the US Bureau of Economic Analysis.

cit) divergences since the sovereign crisis emerged, an important question is whether the degree of stabilisation is homogenous across member states, or whether significant discrepancies exist. Not surprisingly, our estimates reveal that fiscal insurance is weaker in the periphery of the EA: direct fiscal transfers stabilise twice as much in the core (27%) as in the periphery (11%). Unemployment benefits smooth out about seven per cent of an asymmetric shock in the core, which is about twice as much as in the periphery and seven times larger than in the US. More detailed results (not reported) suggest that this gap was further exacerbated during the sovereign debt crisis.

Interestingly, and despite the different degrees of generosity of welfare benefits across states, such a pattern is not encountered when comparing poor and rich US states. The amount of fiscal risk sharing appears highly homogenous – formly low – across rich and poor states and net recipients of and contributors to federal fiscal transfers. In other words, poorer states, defined as those below the median gross state product (GSP) per capita, feature similar degrees of smoothing through the federal budget as richer states. The same observation holds when distinguishing between net recipients of and net contributors to federal transfers. One interpretation is that most transfers are indeed not designed to achieve fiscal risk sharing or stabilise output fluctuations, but rather are generally guided by the structural features of the transfer system (state income level, demographics, presence of US military bases, US federal institutions). As far as the

4 P. Asdrubali, B.E. Sørensen, O. Yosha: Channels of Interstate Risk-Sharing: United States 1963-1990, in: *Quarterly Journal of Economics*, Vol. 111, No. 4, 1996, pp. 1081-1110.

5 A. Arreaza, B.E. Sørensen, O. Yosha: Consumption Smoothing through Fiscal Policy in OECD and EU Countries, in: J.M. Poterba, J. von Hagen (eds.): *Fiscal Institutions and Fiscal Performance*, Chicago 1999, The University of Chicago Press.

6 For detailed description of the empirical methodology, see C. Alcidi, G. Thirion: *Fiscal risk-sharing in response to shocks: New lessons for the euro area from the US*, CEPS Working Document 05-2017, Centre for European Policy Studies, 2017.

7 J.F. Kirkegaard: *Economic Governance Structures in the United States*, Study provided for the attention of the Economic and Monetary Affairs Committee, European Parliament, 2015.

unemployment insurance (UI) system is concerned, this suggests that the US system does not disproportionately benefit the poorer states in terms of stabilisation capacity, despite different levels of structural unemployment and output growth rates.

### Fiscal insurance from the US federal budget: beyond asymmetric shocks

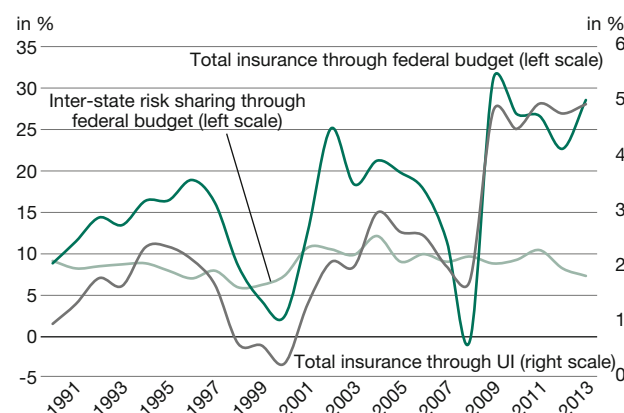
The results presented above prompt another question, namely whether the US budget (and in particular the UI system), rather than cushioning asymmetric shocks, provides insurance against common macroeconomic shocks (i.e. stabilisation of an output shock simultaneously hitting all states).<sup>8</sup> In order to capture the evolution of inter-state risk sharing and total fiscal smoothing (including common shocks) over time, Figure 2 reports five-year rolling window estimates of various relevant factors.

The evidence points to a significant stabilising role of the US federal tax-transfer system against nationwide output fluctuations (the difference between the dark green and light green lines). The degree of total fiscal insurance (symmetric + asymmetric shocks) fluctuates markedly over the US business cycle. This contrasts to the remarkable steadiness of inter-state risk sharing, which remains close to ten per cent (light grey line). In fact, and against our expectations, there is a clear decreasing trend in fiscal risk sharing throughout the crisis, which indicates that the US fiscal boost primarily provided inter-temporal smoothing of aggregate shocks rather than transferring resources to the most distressed states.

In times of recessions (e.g. 2001-2002 and 2008-2009), discretionary fiscal stimuli enacted by Congress thus appear to have stabilised US-wide fluctuations rather than asymmetric shocks. Stimulus packages also typically extend the duration and coverage of unemployment benefits. As a result, the smoothing effect (grey line) of US unemployment benefits is on average three times larger (from one to three per cent) when common output fluctuations in the US are included. As can be observed by comparing the dark and grey lines, the degree of insurance provided through unemployment insurance features a remarkably similar dynamic to that of the total US budget, driven by episodes of booms and bust.

Overall, this stands in contradiction with one of the most permeable myths about the US fiscal union, namely that

**Figure 2**  
**US smoothing via the federal budget over time (five-year rolling window): inter-state risk sharing vs total shock absorption, 1985-2013**



Note: The lines represent the percentages of states' output shocks absorbed through government budget items using a five-year rolling-window approach. 1990 corresponds to the coefficient estimate for the period 1985-1990, and so forth.

Source: Authors' calculations based on data from the US Bureau of Economics Analysis.

the US fared better during the financial crisis as a result of the capacity of the US federal tax-transfer system to transfer resources to states that were hardest hit during the financial crisis. Rather, it seems that fiscal reactions to crises in the US carry an important element of insurance against common shocks. It is important to stress that joint fiscal expansion is not a zero-sum game on aggregate: it also allows states to internalise cross-border fiscal policy externalities, specifically the effect of demand stimulus on states that are trade partners.<sup>9</sup>

### Unemployment insurance in the US: a semi-automatic stabiliser with limited risk pooling

Another myth about the US fiscal union concerns the idea that the UI system is a unitary and centralised insurance scheme with significant inter-state solidarity. In reality, the estimates of the insurance effects of this UI against asymmetric shocks are likely to overestimate the true level of risk sharing. Indeed, contrary to what is often assumed, the semi-decentralised nature of the UI system in the US limits the scope for true inter-state risk sharing.

Unemployment insurance in the US was established in 1935 following the Great Depression by the Social Se-

8 T. Poghosyan, A. Senhadji-Semlali, C. Cottarelli: The role of fiscal transfers in smoothing regional shocks, in: C. Cottarelli, M. Guerguil (eds.): *Designing a European Fiscal Union: Lessons from the experience of fiscal federations*, London 2015, Routledge, pp. 60-89.

9 C. Alcidi, N. Määttänen, G. Thirion: *Cross-Country Spillover Effects and Fiscal Policy Coordination in EMU*, FIRSTRUN Deliverable 1.1, 2015.

curity Act as a hybrid state-federal scheme.<sup>10</sup> This institutional set-up was deliberately chosen and designed to limit the degree of risk pooling and to let states have freedom over the design of UI, unlike the fully centralised UI system introduced by Canada in the same period.<sup>11</sup>

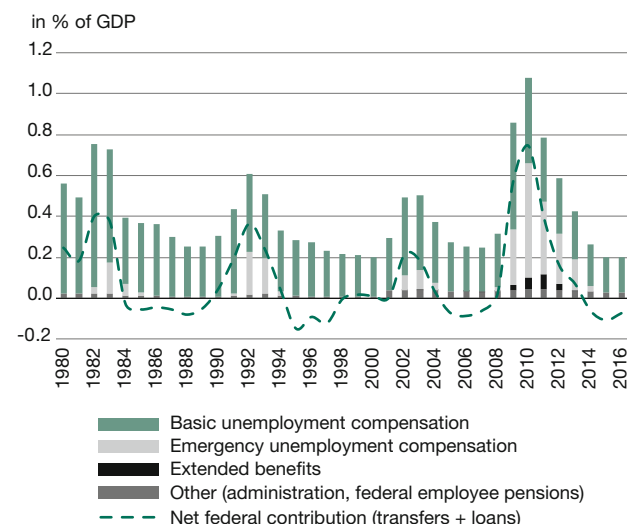
Compared to a fully centralised system, the US system embeds two relevant particularities. First, the US Department of Labor sets broad guidelines and minimum common standards that state programmes must follow. Hence, the ultimate design and implementation is left to the discretion of states, which results in important differences in the prerequisites, duration and generosity of benefits among states.<sup>12</sup>

The hybrid nature of the scheme is reflected in its funding structure, which significantly constrains the scope for solidarity. Indeed, basic unemployment benefits are paid out of each state's UI trust fund, which is funded through state taxes. As a result, the figures presented above overestimate the true degree of risk sharing. The federal budget can however provide additional funding in two different ways (see net federal contribution in Figure 3, green dashed line).

First, it can provide *loans* through the Treasury to finance states' basic unemployment insurance. This occurs when states' trust funds dry, typically during spells of prolonged high unemployment, forcing them to borrow from the federal level to fund unemployment benefits. It is thus a varying fraction of the green bar in Figure 3. This system does not necessarily involve inter-state risk sharing, since loans must be repaid after two years with interest, which introduces some mild pro-cyclicality in UI financing. The system is thus best understood as a federal reinsurance instrument that guarantees unemployment benefit payments in hard times.

Second, it can grant outright *transfers* to finance emergency benefits (this requires action by Congress). Emergency unemployment compensation (EUC) schemes (light grey) provide genuine (discretionary) fiscal transfers, but to individuals, not states. These transfers finance additional weeks of unemployment benefits to individuals who have exhausted regular state benefits during periods of

**Figure 3**  
**UI expenditure by programme and net federal support in the US**



Note: Due to data restriction, the variable basic unemployment compensation includes spending on extended benefits prior to 2000.

Sources: NIPA tables of the US Bureau of Economic Analysis (prior to 2000); and US Department of Labor.

US-wide recessions.<sup>13</sup> As can be observed from the light grey bars in Figure 3, this programme typically finances the bulk of the increase in benefit spending during crises. While these are genuine transfers, since they must not be repaid by states, emergency programmes are characterised by their discretionary rather than automatic nature. As such, they have historically been activated in the face of US-wide recessions (symmetric shocks), which may explain why the UI system in the US does not seem to provide substantial insurance against asymmetric shocks.

### Market and public risk-sharing mechanisms: substitutes or mutually reinforcing?

Beyond the existence of a federal tax-transfer system, another distinctive feature of the US is the much larger degree of private risk sharing through asset portfolio diversification across states.<sup>14</sup> The difference between the EA and US is substantial in this respect: about 40% of an output shock in the US is shared through capital market diversification; the equivalent figure in the EA is about five per cent.<sup>15</sup> This means that the losses of failing busi-

10 For a more detailed description of the UI US system, see S. Simonetta: What the European Union Can Learn from the American Experience with Unemployment Insurance, in: *Intereconomics*, Vol. 52, No. 3, 2017, pp. 142-148.

11 P. Beramendi: Risk-sharing and the Decentralization of Social Insurance, Prepared for presentation at the workshop on Federalism and Decentralized Governance, Stanford University, 21-22 July 2008.

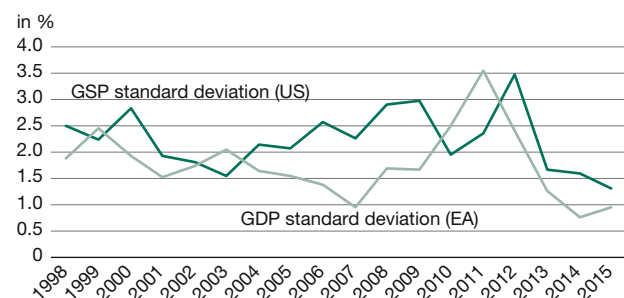
12 Note that workers only receive unemployment benefits from the state where they used to be employed. The maximum state-provided benefits range from \$235 in Mississippi to \$679 in Massachusetts.

13 The most recent example of an EUC scheme was from June 2008 until the end of 2013.

14 P. Asdrubali et al., op. cit.

15 See C. Alcidi, P. D'Imperio, G. Thirion: Risk sharing and consumption smoothing patterns in the US and the euro area: A comprehensive assessment, CEPS Working Document No. 2017/04, Centre for European Policy Studies, 2017.

**Figure 4**  
**Asymmetry in real GDP growth**



Sources: Authors' elaboration based on Eurostat; and the US Bureau of Economic Analysis.

nesses in one state tend to be systematically borne by investors in other states. An important question is to what extent the demand for fiscal insurance against asymmetric shocks is influenced by the existence of private risk-sharing mechanisms.

Figure 4 displays the standard deviation in real GDP growth rates for the US and the EA. It shows that in US states, the growth rate's dispersion is larger than in the EA, with the exception of the sovereign debt crisis (2011-2012) and 2003. Interestingly, in 2008-2010 this declined, whereas it sharply increased in the EA. The underlying message behind these stylised facts, and in particular the larger output dispersion observed in the US, is that diversity in a monetary union is not necessarily a weakness. With appropriate institutions to deal with risks, diversity can also turn into an opportunity to diversify and share risks in a mutually beneficial way.<sup>16</sup>

In Figure 5, we compare the standard deviation of changes in unemployment rates in the US and the EA.<sup>17</sup> The dispersion is consistently lower in the US than in the EA. In addition, with the exception of 2008-2009, it has remained remarkably stable over time. This stands in contrast with the double surge in the dispersion of unemployment among EA countries during the crisis.

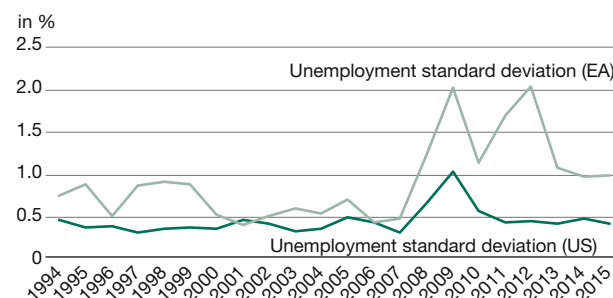
The combination of high output growth dispersion and low dispersion of unemployment rate changes in the US can appear puzzling at first sight. Indeed, the lower degree of employment protection in the US labour markets, compared to Europe, should lead to higher cyclical unemployment movements and hence high dispersion in changes in unemployment.<sup>18</sup> However, the large amount

16 W. Scheikle: *The Political Economy of Monetary Solidarity: Understanding the Euro Experiment*, Oxford 2017, Oxford University Press.

17 We opt for changes in unemployment rates to eliminate differences in the level of structural unemployment.

18 G. Bertola: *Labour markets on the verge of a regulation crisis*, VoxEU, 26 May 2009.

**Figure 5**  
**Asymmetry in unemployment rate changes**



Sources: Authors' elaboration based on Eurostat; and the US Bureau of Economic Analysis.

of inter-state risk sharing through capital and credit markets in the US<sup>19</sup> can help buffer income and consumption from idiosyncratic output fluctuations.<sup>20</sup>

The nature of shocks hitting the US and EA may also explain divergences. Risk-sharing mechanisms are typically more effective in the face of transitory shocks. Hence, if shocks are more persistent in the EA than in the US,<sup>21</sup> output shocks will materialise in unemployment and the real economy. This would explain higher dispersion in unemployment growth rates in the EA. Labour mobility may also play a more favourable role in the US than in the EA. This is the classical adjustment mechanism to asymmetric shocks according to the optimum currency area theory, and mobility has historically been much stronger in the US than in the EA.

Overall, there are relevant reasons to believe that there is a causal link between high market risk sharing and low public risk sharing in the face of asymmetric shocks. Nevertheless, there may also be crucial mutually reinforcing dynamics between market and public risk sharing. Federal fiscal institutions can reinforce the market's willingness to share risks,<sup>22</sup> hence further contributing to stability. In this sense, by evaluating fiscal insurance provided by the US federal government against asymmetric shocks, we implicitly regard market-based income-smoothing as exogenous to other institutions (fiscal or not) that help man-

19 P. Asdrubali et al., op. cit.; C. Alcidi, P. D'Imperio, G. Thirion: *Risk-sharing and Consumption-smoothing Patterns in the US and the Euro Area: A comprehensive comparison*, CEPS Working Document No 2017/04, 2017.

20 The idea that US risk-sharing institutions buffer employment from output shocks is supported by the fact that state unemployment rates are weakly correlated with states' output growth (-.15), whereas national output and unemployment changes are significantly and negatively correlated (-0.4).

21 See C. Alcidi et al.: *Risk sharing and consumption ...*, op. cit.

22 I. Werning, E. Farhi: *Fiscal Unions*, NBER Working Paper No. 18280, National Bureau of Economic Research, 2012.



age markets. However, it is largely implausible that such an outcome can be considered exogenous due to likely positive non-measurable benefits from fiscal risk-sharing institutions (e.g. the Federal Deposit Insurance Company) on private risk sharing in the US.

### Concluding remarks and policy implications

This contribution shows that the macroeconomic stabilisation role of US federal fiscal stabilisers in the face of asymmetric shocks, and most prominently the role of UI, is largely overstated in the current debate. We argue that those looking at the US fiscal union as a guide for designing an EA fiscal capacity based on the optimum currency area paradigms tend to derive policy prescriptions that are inconsistent with the function of fiscal institutions in the US.

A high degree of inter-state fiscal risk sharing is not necessarily a precondition for a stable and resilient monetary union. In fact, the discretionary character of US fiscal policy leads to a significant degree of stabilisation against common output fluctuations. This is also the case for the UI system in the US: fiscal transfers at the federal level only take place in response to large US-wide recessions. This suggests that the main benefits from a fiscal stabiliser may arise in the face of such large nationwide recessions, when

the positive externalities of fiscal policy stimuli can be internalised through a centralised fiscal policy instrument.

Interestingly, all of this does not necessarily make the US fiscal system a less meaningful guide for an EA fiscal capacity. Given that cyclical unemployment rate movements tend to be more asymmetric in Europe, an EA fiscal capacity along the lines of the UI system in the US could ironically provide more inter-state risk sharing than the US system does. The reinsurance of national UI schemes by a common EA fiscal entity along the lines of the role played by the US Treasury would prevent member states from cutting back social benefits when they were faced with difficulties in accessing financial markets. The latter point would be the single-most important added value of an EA stabiliser from a macroeconomic and social point of view, regardless of whether it helped to smooth asymmetric or symmetric shocks.

Finally, it must be acknowledged that the co-existence of different private and public risk-sharing mechanisms, some of which are hardly measurable, imply that the low amount of inter-state fiscal risk sharing may well be due to the effect of other mechanisms that spread the consequences of shocks in the US and thereby reduce the need for fiscal stabilisation.