

Ognian N. Hishow*

Germany's Debt Brake: Pulling the EU Out of Its Debt Trap?

How high would be the opportunity costs of the introduction of a German-style debt brake in other EU member states? The following article calculates these and concludes that they would in many cases be politically unacceptable. The author proposes an alternative solution, a "debt brake light".

One and a half years after the debt crisis in the EU began to unfold, European politicians' search for the right method of tackling the problem continues. Germany, the economic heavyweight of the Union, has decided to employ a specific mechanism, a debt brake, and has even amended its constitution to make fiscal policy immune against bids to manipulate it. Other member states have declared they will follow suit. At a cursory glance this looks appealing. Reversing the destructive trend of high indebtedness is a good idea given that Europe's debt ratio has never stopped growing during the last couple of decades.

The Sacrifice Ratio of Debt Reduction

Would the German debt brake deliver? It should be borne in mind that policymakers will face a trade-off between reducing the debt ratio and the ensuing economic and political cost. In monetary policy, the cost associated with bringing inflation down is called the "sacrifice ratio". Using the same approach, we can calculate the economic cost of rebalancing the budget across the EU as required by a German-style debt brake. It can be estimated econometrically as a GDP loss per each per cent of budget deficit reduction. Then the ratio would be, say, two, three, four or the like; however, this would provide only fuzzy guidance to policymakers and practitioners. Therefore we introduce an alternative approach to make the pain obvious, specifically by looking at the sensitive issue of unemployment.

Intuitively, one would expect unemployment to rise, at least in the short run, if efforts were made to stop borrowing and to reign in the process of ever-growing indebtedness. Hence budget deficits and the deviation of unemployment from its natural rate are inversely related. That is, when the deficit is reduced, unemployment will initially be higher than the natural rate of unemployment. But unemployment is an important issue for politicians. In the large continental EU member

states, unemployment rates have been stubbornly high for many years. The overall rate is made up of two components: the structural component and cyclical unemployment, which fluctuates around the NAIRU. The NAIRU is well explained by structural factors, and since the structural component is a matter of domestic (labour market) policies, a fiscal tool like the German debt brake would allow cyclical unemployment to fluctuate alongside the business cycle. In contrast, it would certainly cause structural unemployment to rise. Policymakers would face the dilemma of how to balance the advantages of a lower debt burden in the long term against the negative short-term effect of a debt brake.

Applying Okun's law and setting the tax rate in the EU on average close to 0.43, we can numerically estimate the real cost of cutting deficits.¹ At the EU level, each percentage point cut from the deficit would prompt unemployment to rise by approximately two percentage points. However, at the level of individual member states, the employment loss may vary given the different sizes of government and different individual Okun coefficients (see Table 1).

As a next step we can assess the least possible economic and social load a member state would bear if it wanted to address its indebtedness. The least a state could do is to merely stabilise rather than reduce the nation's debt ratio. Stabilising the debt ratio means not allowing the budget deficit to surpass a given limit. The limit is drawn at the nominal rate of output growth times the debt ratio of the economy. With this approach in mind, one can estimate the least pos-

* Senior Research Associate, German Institute for International and Security Affairs (Stiftung Wissenschaft und Politik), Berlin, Germany, and Visiting Professor, University of Rochester, Rochester, New York.

1 The EU's average tax rate is taken from Eurostat. Estimates for the major European economies indicate Okun's coefficients above the US value of two. However, there are significant variations in the findings depending on the chosen analytical approach and given the changing labour market conditions in the EU. Therefore a value of 2.5 appears to fit in. For further information on this topic see L. Stock, K. Vogler-Ludwig: NAIRU and Okun's Law – The Macro-Economy in a Nutshell? Final report, Thematic Paper for the European Commission Directorate General for Employment, Social Affairs and Equal Opportunities, Economix Research and Consulting, Munich 2010, <http://www.economix.org/ERC%20-%20Nairu%20and%20Okun%20-%20Final%20Report.pdf>.

Table 1
Change in Budget Deficits – Change in Unemployment Ratio in Selected EU States¹

(Sacrifice Coefficient by Country)

	Sacrifice coefficient		Sacrifice coefficient
Austria	3.5	Italy	1.0
Belgium	1.1	Netherlands	1.0
Denmark	1.3	Sweden	1.9
Finland	1.8	UK	1.1
France	2.7	Euro area	2.0
Germany	2.1	EU	1.9

¹ Due to the limited availability of data, only selected member states are considered.

Sources: L. Stock, K. Vogler-Ludwig: NAIRU and Okun's Law – The Macro-Economy in a Nutshell? Final report, Thematic Paper for the European Commission Directorate General for Employment, Social Affairs and Equal Opportunities, Economix Research and Consulting, Munich 2010, <http://www.economix.org/ERC%20-%20Nairu%20and%20Okun%20-%20Final%20Report.pdf>; EU Commission.

sible sacrifice cost borne by the respective economy. At the level of the euro area (old member states), the maths for the year 2011 are as follows:

- nominal growth rate in 2011: 3.0%
- general government budget balance: -4.3% of GDP
- general government public debt: 89% of GDP.

Thus the required future cuts that would bring the deficit into line with output growth ought to be at least 1.6 percentage points:

$$4.3 - (89 \cdot 0.03) = 1.6.$$

Accordingly, unemployment will rise by some 3.2 to 3.3 percentage points, other things being equal (1.6 • the EU's sacrifice coefficient as indicated in Table 1). The results by country are given in Table 2.

Obviously, even the least painful policy would result in some member states – particularly France, the UK and Denmark – facing huge economic and political costs given the significant rise in their unemployment rates. In contrast, others – Sweden, Finland, Germany and Belgium – would enjoy a reduction in unemployment if debt ratio stabilisation were pursued as a fiscal goal.

This would be only a small part of the effort, however. Bear in mind that the current debt ratio in the Union is on average more than 22 percentage points above the allowed Maastricht limit of 60 per cent of GDP. Worse, there are huge deviations within the sample, with highly indebted Greece or Ireland on the one hand and low-debt nations like Estonia and Bulgaria

Table 2
Estimated Sacrifice Burden of Stabilising Member States' Debt Ratios, Percentage Change in the Unemployment Rate

	Debt ratio	Nominal growth	Budget deficit	Deficit limit	Required deficit reduction	Change in unemployment
Austria	74.0	4.1	-3.7	-3.0	-0.7	2.3
Belgium	97.0	4.3	-3.7	-4.2	0.5	-0.5
Denmark	35.2	3.5	-4.1	-1.2	-2.9	3.6
Finland	52.7	6.3	-1.0	-3.3	2.3	-4.1
France	84.7	3.6	-5.8	-3.0	-2.8	7.5
Germany	82.4	3.6	-2	-3.0	1.0	-2.0
Italy	120.0	2.6	-4	-3.1	-0.9	0.9
Netherlands	69.7	3.9	-3.7	-2.7	-1.0	1.0
Sweden	44.1	5.1	0.9	-2.2	3.1	-6.1
UK	84.2	3.6	-8.6	-3.0	-5.6	6.1
Euro area	87.7	3.0	-4.3	-2.6	-1.7	3.3
EU	82.3	3.4	-4.7	-2.8	-1.9	3.6

Sources: EU Commission; Table 3, last column; own calculations.

on the other. Stabilising the debt ratio is thus for many countries not an option. What is expected is not just the reduction of the structural deficit but the practical elimination of it.

The German Debt Brake Comes at Heavy Opportunity Cost

The near complete elimination of the structural deficit and a subsequent repayment of the accumulated public debt is what the German debt brake and other similar deficit control mechanisms aim at. How would this goal conflict with the desire of policymakers to keep the opportunity cost of rebalancing low?

First of all, the German debt brake has a complicated design and is heavily dependent on getting the statistics right.² The mechanism considers the cyclical position of the economy and corrects it by a few more indicators, the budget sensitivities, which are obtained from specific macroeconomic numbers. That makes it necessary to correct regularly for possible errors.³

² For an easy to understand description see M. Meurers: Wirtschaftspolitische Aspekte der neuen Schuldenregel, in: Schlaglichter der Wirtschaftspolitik, Monatsbericht April 2011, pp. 7-15, www.bmwi.de/BMWi/Navigation/Service/publikationen,did=385294.html.

³ The problem of ex post correcting planned figures was first pioneered by the Swiss debt brake, which serves as a model for the German one. For a description of the so-called adjustment/control account, see F. Bodmer: The Swiss Debt Brake: How it Works and What Can Go Wrong, in: Swiss Journal of Economics and Statistics, Vol. 142, No. 3, 2006, pp. 307-330, www.sjes.ch/papers/2006-III-1.pdf.

Table 3
Budget Balances as Reported and as Required by the German Debt Brake in an Economic Upswing – 2007
 % of GDP

Country	Required balance	Reported balance	Country	Required balance	Reported balance
DE	-0,10	0,3	LU	1,46	3,7
BE	0.01	-0.3	HU	1.21	-5.0
ES	-0.15	1.9	MT	0.46	-2.4
AT	0.07	-0.9	NL	1.52	0.2
CZ	1.94	-0.7	PL	0.65	-1.9
DK	1.73	4.8	PT	-0.04	-3.1
EE	3.19	2.5	SL	2.29	-0.1
EL	0.73	-6.4	SK	1.59	-1.8
FR	0.63	-2.7	FI	2.20	5.2
IE	1.53	0.1	SE	1.91	3.6
IT	1.10	-1.5	UK	0.70	-2.7
CY	0.66	3.4			
LV	3.77	-0.3	Euro area	0.66	-0.7
LT	2.24	-1.0	EU25 ^a	0.71	-0.9

^a Due to lack of data on Romania and Bulgaria, only a 25 country sample has been analysed.

Sources: EU Commission; own calculations.

Secondly, if introduced soon by central decision making at the EU level, the debt brake might be only partly useful. It would appear to be an effective instrument in good times. Simulations show that if such a debt brake had been in place by the late 1990s, no loans would have been taken on by most member states in the upswing years 2004 to 2007. That would have allowed these countries to keep their overall public debt in check. It should be borne in mind that Europeans seem to have become addicted to debt, borrowing even as the economy was booming. At the time the justification was that more citizens should participate in the boom, and thus excessive spending was downplayed as socially just. The daunting outcome was that even at the height of the business cycle in 2007, Greece allowed itself a budget deficit that was an amazing seven percentage points of GDP above the (cyclically) justified limit. Hungary followed closely with a deficit of some six percentage points, and the entire Union ended up with an economically unjustified budget deficit as well (see Table 3). However, the Union as a whole and almost all member states should have had budget surpluses in 2007 due to high nominal growth in that year. In fact, only a few member states – in particular the Nordic countries, Cyprus and to a lesser extent Estonia – ended the year with surpluses as required, some of them well above the required limit. Spain and Germany, which were allowed to run small deficits, also finished with small surpluses.

Table 4
Budget Balances as Reported and as Required by the German Debt Brake in an Economic Downturn – 2009
 % of GDP

Country	Required balance	Reported balance	Country	Required balance	Reported balance
DE	-1.06	-3.0	LU	-2.75	-1.7
BE	-0.88	-5.9	HU	-2.88	-4.5
ES	-1.08	-11.1	MT	-1.28	-3.7
AT	-0.78	-4.1	NL	-2.22	-5.5
CZ	-1.13	-5.9	PL	-0.91	-7.3
DK	-3.99	-2.7	PT	-1.79	-10.1
EE	-3.68	-1.7	SL	-2.81	-6.0
GR	-3.66	-15.4	SK	-0.96	-8.0
FR	-2.26	-7.5	FI	-3.60	-2.6
IE	-2.63	-14.3	SE	-3.71	-0.7
IT	-2.50	-5.4	UK	-2.53	-11.4
CY	-1.01	-6.0			
LV	-3.40	-9.7	Euro area	-2.32	-6.3
LIT	-2.75	-9.5	EU25 ^a	-2.24	-6.8

^a Due to lack of data on Romania and Bulgaria, only a 25 country sample has been analysed.

Sources: EU Commission; own calculations.

The conclusion to be drawn is that in phases of high growth a debt brake would have been helpful to prevent most of the member states from indulging in more spending. Because GDP growth was picking up across the entire Union, surpluses would have been justified, as they would not have harmed economic activity.

The debt brake might have turned into a problem in bad times, though. Nonetheless, debt brakes are expected to work properly, and even if GDP growth is sluggish, the brake must help avoid overspending. That would, of course, always be the case in the absence of discretionary meddling in the budget process by the authorities. But what if the authorities actually did avoid meddling in the process? We can visualise this by employing real ex post data on the member states. As shown in Table 4, in the recession year 2009 only Estonia, Denmark, Finland and Sweden avoided budget deficits that were larger than a debt brake would have permitted. The simulations indicate that in a crisis year such as 2009, Greece, Ireland, Spain and Portugal would have been prompted to cut their public spending by some 12, 12, 10 and 9 percentage points of GDP, respectively. Across the EU, the deficit reduction demanded by a German-style debt brake would have been more than four percentage points of GDP.

Thus if GDP is stagnating or contracting, the picture might in reality be quite bleak. While governments tend to accept

rather large structural deficits to keep their economies on track, the German debt brake would call for their swift reduction. The deeper the spending cut, the bigger the sacrifice ratio, i.e. the economic cost of the profligacy in the past. In general, the difference is the structural component of the deficit.⁴

Thirdly, the German debt brake does not anticipate the possibility of a prolonged recession, since it allows for only small structural deficits to accrue over the recession period, up to just 1.5 per cent of GDP. Breaching that limit would oblige a country to undertake deep spending cuts or significantly increase taxation to restore the balance.⁵ As shown by our example, that would have been mission impossible. Greece, for example, would have experienced an immediate output loss of possibly 20 per cent of GDP given a multiplier of two or higher. Most of the other member states would either have suffered a similar output crash or they would have experienced a massive growth slowdown and a collapse in employment and therefore social and political effects that were hard to predict.

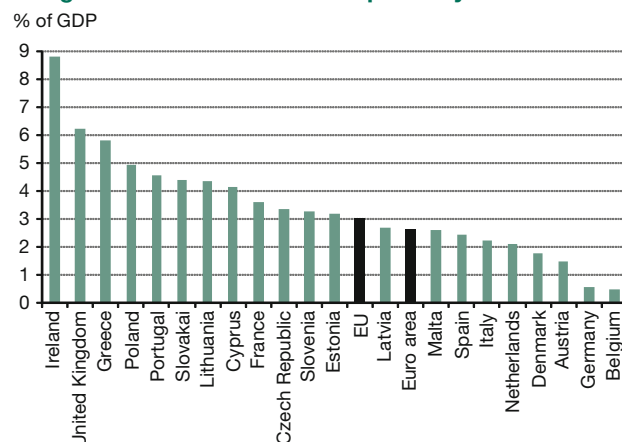
Following this line of reasoning and looking at the member states' budget balances over the entire business cycle 2001-2011, we can conclude that growth across the majority of member states was most likely powered by reckless public spending, i.e. it was not self-sustained. During the last business cycle, the highly indebted member states such as Greece, Portugal, the UK, Hungary and Ireland persistently ended the fiscal year with budget deficits far above the ones that would have been permitted by a hypothetical German debt brake. The brake would have demanded massive budget realignments, as seen in Figure 1.

Therefore, had a German debt brake been in place, the economic fallout in the form of big sacrifice ratios would have been enormous. If the member states had complied with the requirement to quickly rebalance their budgets, the subsequent material cost would have been very large: the employment loss would have been between five and six percentage points across the EU and as large as eight to nine percentage points in Portugal and up to twelve percentage points in Greece. No politician would have survived the lay-offs and the accompanying economic depression, and the entire social market economic system in Europe would have been in jeopardy.

4 This is not exactly the case, as the German debt brake does allow for small – 0.35 per cent of GDP – structural deficits at the central government level over the business cycle. In contrast, other mechanisms like the Swiss debt brake do not consider a structural component of the federal government budget deficit. For more detail see F. B o d m e r, op. cit.

5 Worries about the detrimental effect of the brake on growth and employment were expressed soon after discussion on the mechanism started in Germany. See for instance G.A. H o r n, T. N i e c h o j, C.R. P r o a n o, A. T r u g e r, D. V e s p e r, R. Z w i e n e r: Die Schuldenbremse – eine Wachstumsbremse?, IMK Report No. 29, Düsseldorf, June 2008, www.boeckler.de/pdf/p_imk_report_29_2008.pdf.

Figure 1
Budget Deficit Reductions Required by a Debt Brake¹



¹ Based on the average budget deficit by country 2001-2010.

Note: Four member states – Luxembourg, Finland, Sweden and Hungary – are not depicted, since in 2011 they expect lower deficits than permitted and are not required to consolidate.

Source: EU Commission; own calculations.

Moreover, had a German-style debt brake been at work, the entire economic performance of individual countries and of the EU as a whole would have been different. Most likely there would have been less growth, because the brake would have prevented governments from overspending. In absolute terms, a one per cent reduction of general government debt may translate to some €80-100bn of foregone output in the euro area in the short run. Depending on the nation-specific multiplier, the output loss might be significantly larger, especially in countries with a larger consumption share of their GDPs. These countries tend to be the member states with traditionally large current account deficits and weightier debt problems – e.g. Greece, Portugal and Spain (where, as in many of the new member states with worrisome current account deficits, it is more the private indebtedness that is an issue of concern).

Against this backdrop one can rationally understand why policymakers often appear to detest spending discipline and fiscal prudence. They dread the cost of fiscal discipline, in particular the likely punishment they will receive from angry voters who have lost their jobs in the wake of budget reforms. This is even more crucial once the real challenge ahead is considered – not just reducing the structural deficit, but practically eliminating it. But as seen in Figure 1, Europeans have been used to running unjustified structural deficits no matter the economic conditions.

Faced with a policy objective of reversing the current trend of increasing debt ratios, policymakers will have to choose between gradualist and “cold turkey” policies. According to the analysis sketched above, a cold turkey approach would

inflict damage in the form of a sudden recession or even depression. Hence a debt brake might only prove beneficial if implemented via a more sensitive approach. This implies instituting a transition period to ensure there is no pro-cyclicality in its implementation. Germany allowed itself such a period of five years; Greece, Portugal, Ireland and others will need even more transition years. Sadly, most of the heavily indebted member states do not have much time left to adjust; perhaps they will have to accept the cold turkey solution and go through a recession to bring their budgets back into equilibrium. Because of its design, the German debt brake would reduce public demand at once with no guarantee that the demand gap would be quickly compensated for by other demand components. Even in the medium run, planners cannot be sure how the economy will perform. By intuition, the estimated cost associated with a debt brake in place might decline. The underlying assumption is that the economy will have time to adjust, especially to manage a shift away from public demand and towards more private and export demand. However, whether or not the result would be satisfactory remains an open question. (A beneficial supply shock would be helpful as well, for instance declining commodity prices).

The truth is that most of the heavily indebted member states do not have time at hand to adjust. Specifically, in the euro area, nominal currency depreciation is ruled out, so export demand cannot expand fast enough to replace the dwindling demand of the state. The private sector may hold back with demand expansion if there is overall uncertainty about the economic future. All this makes it hard to model possible shifts within the aggregate demand and hence to model output growth – at least shortly after the implementation of a debt brake.

A German-style debt brake as a constitutional tool to prevent governments from excessive borrowing appears problematic. Yet there might be an alternative – one that would not cause a recession but would still reverse the debt ratio growth.

One Size Fits All? An Alternative Proposal⁶

At the core of the proposal is the assumption that budget deficits do not need to be banned at any cost. An economy can afford some structural deficits alongside cyclical ones and still have its debt ratio, i.e. its public debt as a share of GDP, simultaneously decline. A simple rule making sure a certain deficit limit is not breached would gradually reduce the debt ratio and the associated debt service burden. According to the rule:

1. The current general government budget deficit equals the debt ratio as a percentage of GDP times nominal GDP growth rate less 2-3 percentage points, i.e.

$$d = D \cdot (g - 3) \text{ or } d = D \cdot (g - 2).$$

In this case the debt amount may grow further. However, the debt ratio will decline over time.

2. In phases of sluggish nominal growth, i.e. 2% p.a. and below, the rule is simplified to

$$d = D \cdot g.$$

In this case the debt ratio will stabilise. In contrast, the debt amount will expand at the rate of GDP growth.

3. In phases of negative nominal growth, e.g. minus 1%, the rule would be

$$d = D \cdot (g + 2) \text{ or } d = D \cdot (g + 4)$$

or the like. In this case, both the debt ratio and the debt amount will increase, providing the economy with a stimulus.

Under such a rule, full repayment of the gross/net public debt would not be a political option and it is not being suggested.

Would such a (non-German) debt brake do? Simulations based upon ex post statistical data for a few EU member states, particularly Portugal and Italy, have produced convincing and positive results. The debt ratio of both countries might have declined if the rule had been in place in the early 2000s. In contrast, the debt ratio has not declined in Italy and has been growing in Portugal. In both countries the public debt ratio would have been some 20-25 percentage points smaller on the eve of the financial crisis. With much lighter debt burdens, neither nation would have lost the confidence of the financial markets. Potentially, the EU could have avoided a debt crisis altogether.

The conclusion is that a hard debt brake such as the German one would not be suitable for every member state of the EU. Only countries with small structural deficits and a history of rather stable finances should implement it. Even for these countries, a more gradualist approach appears recommendable to rule out a recession. Nonetheless, these governments would have to deal with costs that will accrue over a certain period of time until a budget balance is achieved. The accompanying heavy economic and political burden might become a difficult political challenge.

The rest of the Community should consider introducing the alternative fiscal tool outlined above, a “debt brake light”. It will take the countries in question longer to get down from their stratospheric debt mountains, but the path will not be as bumpy. Only in the rather unlikely case that the “debt brake light” fails to stop debt ratio growth, would more – painful – endeavours to reduce structural expenditures be required.

⁶ This proposal was put forward in O. Hishow: Gesetzliche Schuldenbremsen in der Europäischen Union – Bremsmechanismus, Bremskraft und Bremsleistung, SWP-Studie, Stiftung Wissenschaft und Politik Berlin, 2011, forthcoming.