Achim Truger

Berlin School of Economics and Law, Germany ☑ Achim.Truger@hwr-berlin.de

Acknowledgments: Support of the work on this paper by the Berlin School of Economics and Law by a research allowance reducing my teaching load is gratefully acknowledged. I am grateful to two anonymous referees for helpful comments. Earlier versions and results of this paper were presented at the 11th conference "Developments in Economic Theory and Policy" at the University of the Basque Country, Bilbao, at the 7th workshop "Jahrbuch für öffentliche Finanzen 2015" at the University of Leipzig and at the 20th workshop on Alternative Economic Policy in Europe, organized by the Euromemorandum group and Economia civile at the Sapienza University, Rome. I would like to thank participants for the discussion and for helpful comments. The usual disclaimer applies.

The Fiscal Compact, Cyclical Adjustment and the Remaining Leeway for Expansionary Fiscal Policies in the Euro Area

Summary: Fiscal policy in the Euro area is still dominated by austerity measures implemented under the institutional setting of the "reformed" stability and growth pact, and the even stricter "fiscal compact". At the same time, calls for a more expansionary fiscal policy to overcome the economic crisis have become more frequent, recently. Therefore, the article tries to assess the remaining leeway for a truly expansionary fiscal policy within the existing institutional framework. Special emphasis is put on the method of cyclical adjustment employed by the European commission in order to assess member states' fiscal position and effort. It turns out that even in the existing framework the leeway for a macroeconomically and socially more sensible fiscal policy using the interpretational leeway inherent in the rules is quite substantial.

Key words: Fiscal policy, Austerity, Cyclical adjustment of public finances, Euro area.

JEL: E61, E62, E65, H62, H63.

Fiscal policy in most Euro area countries has been dominated by austerity measures implemented under the institutional setting of the "reformed" stability and growth pact and the "fiscal compact" for several years. From a (post-)Keynesian perspective the outcome in terms of devastating economic, social and political consequences was predictable (see e.g. Achim Truger and Christoph Paetz 2012; Observatoire Français des Conjonctures Économiques, Economic Council of the Labour Movement, Institut für Makroökonomie und Konjunkturforschung in der Hans-Böckler-Stiftung 2013; Truger 2013). The serious risk of a vicious circle of consolidation efforts leading to higher deficits and debt levels and in turn to higher consolidation efforts seems to have materialised. However, the calls for a more expansionary fiscal policy have become louder, as it is getting clearer that monetary policy alone will not be able to spark off the recovery. In his by now famous Jackson Hole speech Mario Draghi, the president of the ECB, called for a more expansionary fiscal stance for the Euro area as a whole and a public investment programme on the European level insisting, however, that the existing rules of the Stability and Growth be respected (Mario Draghi 2014). The European Council at its meeting in June 2014 also saw the need to enhance growth, but insisted as well that this be realised within the current institutional framework: "The possibilities offered by the EU's existing fiscal framework to balance fiscal discipline with the need to support growth should be used." (European Council 2014, p.7).

Against this background the central question from a (post-) Keynesian point of view is whether for lack of institutional changes the current institutional framework – that has only just been severely tightened by the recent reforms of the Stability and Growth Pact and the Fiscal Compact (European Commission 2013a, pp. 13-42) - still allows for a fiscal expansion strong enough to spark off a real recovery in the stagnating Euro area economy. The current article argues that, indeed, there is substantial leeway for expansionary fiscal policies provided that the European Commission is willing to use the technical and interpretational leeway that is inherent in the central ambiguous concepts used in the current framework. In order to show this, Section 1 will reconsider the crucial concept of cyclical adjustment. As a consequence of the stagnation the estimate of potential output has been pro-cyclically decreased leading in turn to an underestimation of the output gap and an overestimation of the structural budget deficits. Correcting for those effects leads to substantially higher estimates for the volume of austerity programmes which is very well in line with the development of output in most Euro area economies. Section 2 turns to the European Commission's way of dealing with the problem and shows that the practical conclusions drawn so far are only weak. If put into practice, the Commission's current plans as expressed in the "country specific recommendations" would mean a continuation of austerity policies. Section 3 then tries to identify the remaining leeway for a fiscal boost to the European economy within the existing institutional framework. Section 4 briefly concludes.

1. The Problems of Cyclical Adjustment and Austerity in the Euro Area

Cyclical adjustment in general and that of public finances in particular plays a major role in the EU's concept of budgetary surveillance within the framework of the Stability and Growth Pact and the Fiscal Compact (Martin Larch and Alessandro Turrini 2010). With the exception of the excessive deficit threshold all target values for the budget balance are formulated in terms of structural, i.e. cyclically adjusted, values, and the cyclical condition of the economy plays a major role in assessing the necessary consolidation effort and potential exceptions. The most important concept in this respect is the structural budget balance, i.e. the cyclically adjusted government budget balance net of one-off measures in terms of which the consolidation requirements under the Stability and Growth Pact (and the fiscal compact) are expressed. The method used by the Commission so far severely - and deliberately - overestimates the consolidation requirements and underestimates the fiscal effort already undertaken by the member states. All of this is well known and has in principle already been acknowledged by the Commission and used to justify exceptional circumstances for several countries in retrospect, but the Commission hesitates to modify its method in a more foreward-looking manner and grant fiscal policy the leeway that is essential to end the stagnation in the Euro area and the depression in the periphery (see Section 2 below). As will be argued in the present article a reassessment of the structural balances in combination with the application of the recent findings as to the size of the fiscal multiplier may be sufficient to bring about a substantially positive fiscal stimulus.

The European Commission in its calculations proceeds in two steps. First potential GDP is estimated which allows the determination of the cyclical condition of the economy, i.e. the output gap as the percentage deviation from potential output. Second, with the help of budgetary semi-elasticities (Gilles Mourre et al. 2013) the cyclical impact on the budget balance is identified which then allows calculation of cyclically adjusted balances. The separation of trend or potential GDP and cyclical GDP and its effects on the budget balance constitutes a major progress compared to a situation in which fiscal policy targets are formulated in terms of the actual budget deficit which would result in purely pro-cyclical fiscal policies.

However, from a post-Keynesian perspective many fundamental objections can be raised. First, it must be doubted whether the setting of strict target values for the government budget balance is adequate, because, in fact, fiscal policy plays a major role in stabilising the economy and should therefore not be constrained (see e.g. Philip Arestis 2011). Second, the theoretical idea behind the concept of identifying potential GDP that is determined by structural factors, above all on the labour market, can be criticised for a number of reasons (Eckhard Hein and Engelbert Stockhammer 2011). Third, and somewhat more pragmatically, the usual methods of cyclical adjustment tend to underestimate the cyclical fluctuations and will therefore have pro-cyclical effects if applied to fiscal policy. In the rest of this section we focus on the latter aspect and illustrate the pro-cyclical downward revision of the European Commission's potential GDP estimates during the Euro crisis, particularly in the crisis countries and the resulting underestimation of the tremendous consolidation efforts.

1.1 The Pro-Cyclicality of Potential Output Estimates

The European Commission estimates potential output by means of a Cobb-Douglasproduction function. This combines a potential labour input (the product of the working age population, the participation rate and *per capita* hours of work minus structural unemployment), a capital input (the product of the gross fixed investment in relation to potential output and potential output minus a constant depreciation) and total factor productivity (see Francesca D'Auria et al. 2010). The estimate of potential output is a medium-term projection based on short-term forecasts. All the ingredients are forecast separately: demographic trends, the participation rate, structural unemployment, *per capita* hours of work, the investment ratio, the rate of depreciation (usually a constant), and the total factor productivity as Kalman-filtered capacity utilisation. The estimate is calculated for all EU Member States using semistandardised specifications. The specifications are usually adjusted regularly. The main problem in the current context is that the method employed by the EUcommission has proven to be highly sensitive to the endogeneity bias, i.e. the problem that potential output is highly sensitive to variations in actual output (see Camille Logeay and Silke Tober 2006; Erik Klär 2013, 2014; Truger and Henner Will 2013). During economic contractions - especially during large and durable contractions as those that had to be observed in the Euro crisis - the estimates of potential output are substantially revised downwards: Increases in actual unemployment will be reflected in increases in NAWRU estimates and stagnating investment will reduce the estimate of the capital stock in the production function (for the Euro area see Klär 2014 in detail as well as João Sousa Andrade and António Portugal Duarte 2014).

The effects can very well be illustrated in the Spanish case (see Figure 1). Before the crisis potential output growth as estimated by the Commission was around 4 per cent annually with a clear slowdown due to the expected slowdown in actual economic growth from 2008 onwards. After the bubble had burst and Spain was slowly recovering from the global economic and financial crisis in spring 2010 the commission very substantially diminished its potential output estimates for the Spanish economy. After consecutive waves of austerity had taken effect and had driven the Spanish economy back into serious recession in 2012 and 2013 potential output was again revised downwards in a dramatic way: Potential output was expected to shrink in four consecutive years from 2012 to 2015.



Figure 1 Real Actual and Potential GDP in Spain as of Different European Commission's Forecasts, Annual Growth Rate in % 2000-2018

It is of course difficult – if not theoretically meaningless – to decide by how much the crisis has really affected potential output (Observatoire Français des Conjonctures Économique, Economic Council of the Labour Movement, Institut für Makroökonomie und Konjunkturforschung in der Hans-Böckler-Stiftung 2013). However, it seems clear, that the medium term growth prospects were negatively affected by the bursting of the Spanish real estate bubble. But is it really plausible to assume that the downward revision still continues more than four years after the crisis? Indeed, given the pro-cyclical technical nature of the production function approach (and indeed most other approaches) it is much more likely that the ongoing downward revisions simply reflect the worsening cyclical condition of the Spanish economy that in turn was brought about by the massive austerity policies. The same pro-cyclical downward revision of potential GDP with a corresponding downward revision of the output gap from the Spring 2010 to the Spring 2014 Commission forecast can be identified (see Table 1).

¹ European Commission. 2014b. Circa Database on Output Gaps.

https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp (accessed June 21, 2014).

Table 1 Output Gap in % of Potential GDP, EMU-12 Countries 2007-2015 with Potential GDP Growth of EU Commission's Spring 2014 Forecast Compared to EU Commission's Spring 2010 Forecast

	Output gap with potential GDP from EU Commission spring 2014								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Euro area (12 countries)	2.8	1.7	-3.4	-2.1	-1.3	-2.4	-3.3	-2.7	-1.8
Belgium	2.6	2.0	-1.9	-0.8	-0.3	-1.3	-1.7	-1.1	-0.5
Germany	1.9	1.8	-4.2	-1.4	0.6	-0.1	-1.1	-0.7	-0.3
Ireland	4.5	1.3	-4.1	-4.1	-1.2	-0.6	-1.4	-1.0	0.0
Greece	3.2	1.5	-1.5	-4.7	-8.7	-12.2	-12.6	-9.3	-4.0
Spain	2.8	0.9	-4.0	-5.3	-5.9	-7.3	-8.1	-6.7	-4.7
France	3.4	1.8	-2.4	-1.8	-0.9	-2.0	-2.7	-2.8	-2.4
Italy	3.4	1.8	-3.5	-1.7	-1.4	-3.0	-4.3	-3.6	-2.5
Luxembourg	4.6	1.3	-5.0	-2.4	-1.8	-3.6	-2.8	-1.6	-0.3
Netherlands	2.1	2.2	-2.5	-1.4	-1.0	-2.4	-3.3	-2.6	-1.8
Austria	2.1	1.9	-2.9	-2.0	-0.1	-0.4	-1.1	-0.8	-0.4
Portugal	1.1	0.3	-3.0	-1.6	-2.6	-5.0	-5.6	-4.0	-2.3
Finland	5.0	3.8	-5.4	-2.5	-0.1	-1.4	-2.7	-2.6	-1.9
		Outr	ut aan with	notential G	DP from	FII Commiss	sion enring (2010	
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Furo area (12 countries)	2.9	19	_3.3	_22	_1 7	-3.6	-5.4	-5.7	-5.6
Belgium	2.3	1.5	-2.4	-11	-0.5	-1 7	-2.6	-2.3	-2.0
Germany	3.2	3.3	-2.8	0.2	22	12	0.0	0.2	0.6
Ireland	4.0	0.0	-6.0	-6.2	-4.4	-6.0	-8.9	-10.5	-10.9
Greece	3.3	11	-3.4	-8.9	-16.1	-22.3	-25.7	-25.8	-24.3
Snain	1.8	0.8	-3.8	-4.4	-4.8	-7.3	-9.9	-10.5	-10.3
France	1.0	0.0	-4.3	-39	-3.0	-4.2	-5.3	-5.7	-5.6
Italy	3.8	2.3	-3.4	-2.0	-2.2	-5.3	-8.0	-8.7	-8.8
	4.6	0.4	-7.3	-6.4	-6.9	-9.9	-11 1	-12.0	-127
Netherlands	2.5	24	-2.6	-2.0	-2.3	-4.8	-7.3	-8.2	-8.9
Austria	3.6	3.2	-2.0	-17	-0.3	-1.2	-2.5	-2.8	-29
Portugal	4.9	4.2	11	27	0.0	-3.5	-6.2	-6.6	-6.8
Finland	4.5 5.5	3.7	-6.2	-4.0	-2.6	-4 9	-7.6	-8.8	-9.3
	0.0	•	0.2					0.0	0.0
	2007	2008	2000	2010	Differenc	2012	2012	2014	2015
	2007	2000	2009	2010	2011	2012	2013	2014	2013
Euro area (12 countries)	0.1	0.2	0.0	-0.1	-0.3	-1.1	-2.1	-3.0	-3.8
Beigium	-0.3	-0.5	-0.5	-0.3	-0.2	-0.4	-0.9	-1.3	-1.5
Germany	1.3	1.5	1.4	1.5	1.0	1.5	1.0	0.9	0.0
	-0.5	-1.3	-1.9	-2.2	-3.2	-5.5	-7.5	-9.5	-10.9
Greece	0.1	-0.5	-1.9	-4.5	-7.4	-10.1	-13.2	-10.0	-20.3
Spain	-1.0	-0.1	0.2	0.9	1.1	0.0	-1.8	-3.8	-5./
France	-1.8	-1.8	-2.0	-2.2	-2.1	-2.2	-2.5	-2.9	-3.2
italy	0.5	0.4	0.1	-0.3	-U.ŏ	-2.3	-3.1	-5.1	-0.3
Luxembourg	0.1	-0.9	-2.3	-4.0	-5.1	-6.3	-8.2	-10.3	-12.4
ivetneriands	0.4	0.2	-0.1	-0.5	-1.3	-2.4	-4.0	-5.6	-1.1
Austria	1.5	1.2	0.9	0.3	-0.1	-0.8	-1.4	-2.1	-2.5
Fortugal	3.ð	3.9	4.1	4.2	3.5 0 -	1.0	-0.5	-2.0	-4.5
Finianu	0.5	-0.1	-U.ð	-1.5	-2.5	-3.5	-4.ŏ	-0.2	-1.3

Source: EU Commission (2010a², 2014a³, 2014b); author's calculations.

² European Commission. 2010a. Annual Macro-Economic Database (Ameco).

http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm (accessed June 20, 2010).

³ European Commission. 2014a. Annual Macro-Economic Database (Ameco). http://ec.europa.eu/economy_finance/db_indicators/ameco/zipped_en.htm (accessed June 19, 2014). We take the Spring 2010 forecast as a baseline, because at the time potential GDP estimates had already been revised downwards very substantially. At the same time most Euro area economies were recovering before in the summer of 2010 a switch to a fast exit and the beginning of austerity in the Euro area was decided (see Mark Blyth 2013, Chapter 3). Table 1 shows the Commission's spring 2014 estimates of member states' output gaps and contrasts them with the output gaps that would have been estimated had the spring 2010 potential GDP forecasts remained unchanged. The European Commission (2014b) published potential output estimates until 2014. For the calculation the 2014 potential growth rate was simply reproduced for 2015. From 2013 to 2015 for all countries with the exception of Germany the output gap would have been substantially higher had it not been for the crisis induced downward revision of potential GDP since Spring 2010.

One might argue that the downward revision of potential GDP could be plausible also from a post-Keynesian point of view if hysteresis was involved (for the role of hysteresis e.g. Marc Lavoie 2009). However, firstly, the downward revision implicit in the EU Commission's calculations is occurring in a very fast manner. And secondly, the post-Keynesian approach would exactly be to prevent or fight those effects by counter-cyclical fiscal policy. Therefore, it is consistent to take the year 2010 as a starting point for the alternative calculations, because it is exactly the year in which counter-cyclical policy was given up and replaced by austerity policies.

In the numerical analysis we focus on the 12 countries of the "old" Euro area for several reasons: Firstly, with the exception of Slovenia this is the Euro area that existed at the pre-crisis starting point of our calculations. Secondly, because of permanent new accessions to the Euro zone, otherwise a consistent Euro area average would not have existed. Thirdly, the crisis countries in the periphery, that were in the focus of the debate from the beginning, all belonged to the "old" members. Fourth, there were simply space limits. Of course, this is not, at all, to say that the problems addressed here were not relevant for the "new" member countries, or, even, that those countries were less important. In fact, as in their case potential output calculations have to be based on relatively few observations and their output development was quite erratic over time, the resulting endogeneity problems are probably even stronger. However, this deserves to be tackled in greater depth than is possible in this article.

1.2 The Resulting Underestimation of Fiscal Restraint in the Euro Area

Such dramatic downward revisions of potential GDP have substantial consequences for the calculation of structural budget balances and the assessment of consolidation efforts (see Felix Eschenbach and Ludger Schuknecht 2004; Christina D. Romer and David H. Romer 2010; as well as Jamie Guajardo, Daniel Leigh, and Andrea Pescatori 2011). These efforts will usually be underestimated because first a substantial part of the fiscal effort is wiped out, as a larger part of the actual deficit is registered as structural although in fact it may well just be cyclical, i.e. caused by the (in principle) temporary contraction. Second, a further underestimation or at least inaccuracy as to the estimate of structural balances may result from deviations of actual budget semi-elasticities from the estimated average values in the procedure of cyclical adjustment (see European Commission 2010b, pp. 124-128; Guido Zack et al. 2014, for the case of Spain; and Hein and Truger 2014, pp. 24-25 in the case of Germany).

Focussing on the first problem, this can be demonstrated by comparing the fiscal stance derived from the Commission's estimates with the one derived from the Commission's estimates correcting for revisions in potential output since Spring 2010 (Tables 2 and 3). The structural primary budget balance is the cyclically ad-

	Balances								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Euro area (12 countries)	0.8	0.1	-1.6	-1.5	-0.4	1.1	1.7	1.8	1.7
Belgium	2.4	1.6	-0.3	0.0	-0.1	0.4	0.9	0.8	0.5
Germany	2.0	2.0	1.9	0.4	1.6	2.7	2.8	2.4	1.9
Ireland	-1.1	-6.7	-7.6	-6.1	-5.1	-4.2	-1.5	0.2	0.7
Greece	-3.3	-4.7	-9.5	-3.3	1.1	4.0	5.9	5.4	4.7
Spain	2.2	-3.1	-6.8	-5.1	-4.0	-1.0	0.6	1.1	0.1
France	-2.0	-1.5	-3.7	-3.5	-2.2	-1.3	-0.7	0.0	0.5
Italy	1.3	1.2	0.4	0.8	1.3	4.0	4.4	4.4	4.4
Luxembourg	1.8	2.9	2.1	0.8	1.5	2.2	1.9	1.1	-0.7
Netherlands	1.2	1.5	-2.0	-2.1	-1.7	-0.8	0.5	0.4	0.9
Austria	0.8	0.7	0.1	-0.5	0.4	1.0	1.4	1.3	1.4
Portugal	-0.8	-1.5	-5.7	-5.6	-2.1	0.8	1.6		
Finland	4.2	3.8	1.6	0.0	0.5	0.0	0.3	0.1	0.6
				Fiscal	stance (200	8-2015)			
		2008	2009	2010	2011	2012	2013	2014	2015
Euro area (12 countries)		-0.7	-1.7	0.1	1.1	1.5	0.6	0.1	-0.1
Belgium		-0.8	-1.9	0.2	-0.1	0.6	0.5	-0.1	-0.2
Germany		0.0	0.0	-1.6	1.2	1.1	0.1	-0.4	-0.6
Ireland		-5.6	-0.9	1.5	1.0	0.9	2.6	1.7	0.5
Greece		-1.3	-4.9	6.2	4.5	2.9	1.9	-0.5	-0.8
Spain		-5.3	-3.7	1.7	1.1	3.0	1.6	0.5	-1.0
France		0.5	-2.2	0.3	1.3	0.9	0.5	0.7	0.4
Italy		-0.1	-0.8	0.4	0.5	2.7	0.3	0.0	0.1
Luxembourg		1.1	-0.8	-1.3	0.7	0.7	-0.3	-0.8	-1.8
Netherlands		0.3	-3.5	-0.1	0.4	0.9	1.3	-0.1	0.4
Austria		-0.1	-0.6	-0.6	1.0	0.6	0.4	-0.1	0.1
Portugal		-0.7	-4.1	0.0	3.6	2.9	0.8		
Finland		-0.4	-2.2	-1.6	0.5	-0.5	0.3	-0.3	0.6
					Cumula	ative fiscal	stance (201	0-2015)	
				2010	2011	2012	2013	2014	2015
Euro area (12 countries)				0.1	1.2	2.7	3.3	3.4	3.3
Belgium				0.2	0.1	0.7	1.2	1.0	0.8
Germany				-1.6	-0.4	0.7	0.9	0.5	-0.1
Ireland				1.5	2.5	3.4	6.1	7.8	8.3
Greece				6.2	10.7	13.5	15.5	14.9	14.2
Spain				1.7	2.8	5.8	7.4	7.9	6.9
France				0.3	1.6	2.5	3.0	3.8	4.2
Italy				0.4	0.9	3.6	3.9	3.9	4.0
Luxembourg				-1.3	-0.6	0.1	-0.2	-1.0	-2.8
Netherlands				-0.1	0.3	1.2	2.5	2.4	2.8
Austria				-0.6	0.4	1.0	1.4	1.2	1.4
Portugal				0.0	3.6	6.5	7.3	7.3	7.3
Finland				-1.6	-1.1	-1.6	-1.3	-1.5	-1.0

 Table 2
 General Government Structural Primary Budget Balance (SPB) and (Cumulative) Fiscal Stance (Annual Change in the SPB), Euro Area Countries 2007-2015 in % of GDP

Source: EU Commission (2014a); author's calculations.

 Table 3
 General Government Structural Primary Budget Balance (SPB) and (Cumulative) Fiscal Stance (Annual Change in the SPB), Euro Area Countries 2007-2015 in % of GDP (Potential GDP Growth as of EC's Spring 2010 Forecast)

	Balances								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Euro area (12 countries)	0.7	-0.1	-1.6	-1.5	-0.3	1.7	2.8	3.3	3.6
Belgium	2.6	1.9	0.0	0.2	0.0	0.7	1.4	1.5	1.4
Germany	1.3	1.1	1.1	-0.5	0.7	1.9	2.2	1.9	1.4
Ireland	-0.9	-6.2	-6.8	-5.2	-3.8	-2.0	1.5	4.0	5.0
Greece	-3.4	-4.4	-8.6	-1.2	4.8	8.9	12.4	13.5	14.6
Spain	2.7	-3.0	-6.9	-5.5	-4.5	-1.0	1.4	2.7	2.5
France	-1.1	-0.5	-2.7	-2.3	-1.0	-0.1	0.6	1.6	2.2
Italy	1.1	1.0	0.4	1.0	1.7	5.2	6.3	7.1	7.8
Luxembourg	1.7	3.4	3.2	2.7	4.0	5.3	5.9	6.1	5.4
Netherlands	1.0	1.4	-1.9	-1.8	-1.0	0.6	2.9	3.7	5.0
Austria	0.1	0.1	-0.3	-0.7	0.5	1.4	2.1	2.3	2.6
Portugal	-2.7	-3.4	-7.6	-7.7	-3.8	0.1	1.9		
Finland	3.9	3.9	2.0	0.7	1.7	1.7	2.7	3.0	4.2
				Fi	iscal stanc	e (2008-201	5)		
		2008	2009	2010	2011	2012	2013	2014	2015
Euro area (12 countries)		-0.8	-1.6	0.1	1.2	1.9	1.1	0.6	0.3
Belgium		-0.7	-1.9	0.2	-0.2	0.7	0.7	0.1	-0.1
Germany		-0.1	0.0	-1.6	1.2	1.3	0.3	-0.3	-0.5
Ireland		-5.3	-0.6	1.6	1.4	1.8	3.5	2.5	1.1
Greece		-1.0	-4.2	7.4	6.0	4.2	3.5	1.1	1.1
Spain		-5.7	-3.9	1.4	1.0	3.4	2.4	1.4	-0.2
France		0.5	-2.2	0.4	1.3	1.0	0.7	0.9	0.6
Italy		-0.1	-0.6	0.6	0.7	3.5	1.1	0.8	0.7
Luxembourg		1.6	-0.2	-0.5	1.3	1.3	0.6	0.2	-0.8
Netherlands		0.4	-3.3	0.2	0.8	1.6	2.3	0.8	1.3
Austria		0.0	-0.5	-0.3	1.2	0.9	0.7	0.2	0.3
Portugal		-0.8	-4.2	0.0	3.9	3.9	1.8		
Finland		-0.1	-1.9	-1.3	1.0	0.0	1.0	0.4	1.1
					Cumula	ative fiscal	stance (201	0-2015)	
				2010	2011	2012	2013	2014	2015
Euro area (12 countries)				0.1	1.4	3.3	4.4	5.0	5.2
Belgium				0.2	-0.1	0.6	1.4	1.5	1.4
Germany				-1.6	-0.5	0.8	1.1	0.8	0.3
Ireland				1.6	3.0	4.9	8.3	10.8	11.9
Greece				7.4	13.4	17.5	21.0	22.2	23.2
Spain				1.4	2.4	5.9	8.3	9.6	9.4
France				0.4	1.7	2.6	3.3	4.3	4.9
Italy				0.6	1.3	4.8	5.9	6.7	7.4
Luxembourg				-0.5	0.8	2.1	2.7	2.9	2.2
Netherlands				0.2	1.0	2.5	4.8	5.6	6.9
Austria				-0.3	0.8	1.8	2.5	2.6	3.0
Portugal				0.0	3.9	7.7	9.5	9.5	9.5
Finland				-1.3	-0.3	-0.3	0.7	1.1	2.2

Source: EU Commission (2010a⁴, 2014a⁵, 2014b); author's calculations.

⁴ European Commission. 2010a. Annual Macro-Economic Database (Ameco).

http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm (accessed June 20, 2010).

⁵ European Commission. 2014a. Annual Macro-Economic Database (Ameco).

http://ec.europa.eu/economy_finance/db_indicators/ameco/zipped_en.htm (accessed June 19, 2014).

justed budget balance corrected for one-off measures less interest payments on outstanding government debt. Table 2 gives an overview of the development of the structural primary budget balance in the Euro area countries from 2008 to 2014 (estimate) and the resulting cumulative discretionary fiscal stance from the trough of the crisis in 2009 as calculated by the EU Commission. Positive (negative) values for the fiscal stance indicate contractionary (expansionary) fiscal policy. As can be seen the so called "fiscal effort", i.e. the discretionary measures taken in order to consolidate the budget is guite substantial. On average for the EMU-12 as a whole the cumulated volume of consolidation measures is more than 3% of GDP from 2009 to 2015 with the bulk of measures realised within only three years from 2011 to 2013. As was to be expected Greece and to a lesser extent Ireland, Spain and Portugal stand out with a total volume of 7.3 (Portugal) to 14.9% (Greece) of GDP. France and Italy show substantial efforts slightly above the EMU-12 average whereas the Netherlands and above all Belgium, Germany and Austria consolidated to a much lesser extent. According to the EU Commission's calculations Luxemburg and Finland even showed some small fiscal expansion.

Table 3 shows the corresponding numbers after controlling for the downward revision of potential output by assuming that the development of potential GDP that was forecast in spring 2010 remained unchanged. In most cases and years this led to an upward revision of potential GDP and therefore also an upward revision of the structural budget balance, which automatically leads to more sizable estimates of the fiscal effort. For the calculations the EU Commission's budgetary semi-elasticities for the individual countries (Mourre et al. 2013) were used and applied to the corrected output gap. As can be seen, in virtually all cases the resulting numbers for the fiscal effort are substantially higher.

1.3 The Economic Effects of Austerity Policies

The potential economic consequences of austerity in the huge dimension stated in the previous section can most easily be illustrated by using the concept of the fiscal multiplier. Multiplying the cumulative negative fiscal stance for a given year in relation to some base year with the multiplier gives a rough estimate of the output effects of austerity relative to a baseline scenario without any consolidation measures. The size of the multiplier then becomes the pivotal issue. Maybe one of the very few and small positive side effects of the Great Recession and the austerity crises in many countries is that it has strongly encouraged empirical research on fiscal policy effectiveness and the size of the multiplier. And, in fact, many of the recent studies support the more Keynesian views of a sizeable multiplier. Firstly, the case for expansionary consolidation has severely been damaged by Guajardo, Leigh, and Pescatori (2011) as well as Roberto Perotti (2012). Secondly, especially under the current conditions in the Euro area with monetary policy at the lower bound, fixed exchange rates within the currency union and simultaneous consolidation, the multiplier tends to be large and (sometimes well) above one (Nicoletta Batini, Giovanni Callegari, and Giovanni Melina 2012; Anja Baum, Marcos Poplowski-Ribeiro, and Anke Weber 2012; Günter Coenen et al. 2012; Bradford J. DeLong and Lawrence H. Summers 2012; Dawn Holland and Jonathan Portes 2012; Alan J. Auerbach and Yuriy Gorodnichenko 2013; Olivier Blanchard and Leigh 2013). Thirdly, as suggested by the standard Keynesian textbook models and the Haavelmo-Theorem, the expenditure multiplier tends to be larger than the revenue side multiplier (Batini, Callegari, and Melina 2012; Auerbach and Gorodnichenko 2013; Sebastian Gechert forthcoming). Fourthly, multipliers tend to be higher during strong recessions (Baum and Gerrit B. Koester 2011; Jèrome Creel, Èric Heyer, and Mathieu Plane 2011; Batini, Callegari, and Melina 2012; Baum, Poplawski-Ribeiro, and Weber 2012; Steven M. Fazzari, James Morley, and Irina Panovska 2012; Auerbach and Gorodnichenko 2013). According to Batini, Callegari, and Melina (2012, p. 23) the expenditure multiplier during recessions may be in the range of 1.6 to 2.6 whereas the tax multiplier only in the range of 0.16 to 0.35.

Of course, most of the conclusions reached by the recent studies – most notably that there tend to be sizeable multipliers and that expenditure multipliers are larger than revenue side ones – could easily also have been drawn on the basis of the earlier literature well before the crisis (see e.g. the overviews by Richard Hemming, Michael Kell, and Selma Mahfouz 2002; Arestis and Malcom Sawyer 2003; Carine Bouthevillain et al. 2009; and Creel, Heyer, and Plane 2011).



Figure 2 Cumulative Fiscal Effort 2010-2014 in % of GDP and Real GDP Index (2009=100) 2009-2014, Euro Area-12

Applying multipliers of the order of magnitude in line with the older and more recent reviews of the literature to fiscal stances of the order of magnitude shown before unavoidably leads to the result of devastating economic effects of austerity policies in the Euro area. In fact, a strikingly clear correlation between the cumulative fiscal stance and the development of real GDP since the trough of the crisis can be established. With the exception of Ireland and Finland the countries that saw the strongest fiscal restriction (as calculated in Table 3) obviously performed worst in terms of GDP growth (Figure 2). This result – to a somewhat smaller degree – also holds when the EU commission's original data for the fiscal stance as displayed in Table 1 is used. It gets stronger if instead of GDP domestic demand is used. Although many other factors must be taken into account, it does seem pretty obvious that restrictive fiscal policy has prevented and/or ended the recovery in the most troubled economies and has driven them into recession which in turn – together with the global economic slowdown – was responsible for the stagnation in the rest of the Euro area economies in 2012.

2. The European Commission's Reaction: Lessons Still Not Learned

The European Commission's reaction to the problems of the cyclical adjustment of public finances are – at best – ambivalent. On the one hand, on an intellectual level the Commission seems to be conscious of the problems and is regularly addressing them in papers or some more or less minor (in terms of the policy implications) changes in the technical procedures. On the other hand, the Commission shies away from drawing obvious conclusions in terms of practical fiscal policy and consolidation requirements for the future.

The Commission has continuously been changing its method of cyclical adjustment over time (see Truger and Will 2013). For the autumn 2010 economic forecast the estimation procedure for total factor productivity was changed, explicitly with the aim of providing more stability for the short term potential output and output gap estimates (European Commission 2010b, pp. 120-124). Also the Commission has often dealt with the problem of time-varying tax elasticities and their role in the determination of the structural budget balance (European Commission 2010b, pp. 124-130). It has even admitted that the estimates of the fiscal effort based on the change in the structural (primary) budget balance tend to underestimate the true discretionary consolidation efforts and is since then using complementary measures to assess fiscal effort (European Commission 2013a, pp. 101-132) that have even been used in the assessment of effective action taken under the excessive deficit procedure (European Commission 2013b). Time varying tax elasticities and a deterioration of potential output have even been accepted as a retrospective justification that the structural budget balance did not improve as required under the excessive deficit procedure, e.g. in the case of Spain, by the European Council (European Council 2013, p. 8). Finally, in the spring 2014 forecast the Commission changed its NAIRU estimation procedure as important part of the determination of potential output, in order to avoid "excessively pro-cyclical NAWRUs under certain circumstances" (European Commission 2014d, p. 27). Most probably this reaction was initiated by the Spanish finance ministry claiming that estimates for the Spanish NAWRU of 28% were most implausible (Klär 2014, pp. 24-28). However, the reaction was delayed due to protests from European governments, namely the German one (Klär 2014, p. 25), and in the end the Commission decided that the ensuing positive revisions of structural budget balances - which in the Spanish case amounted to almost 2% of GDP for 2015 – did not lead to a revision of the required fiscal effort (European Commission 2014d, p. 29).

That the Commission has in fact not changed the ambitious consolidation targets can be derived from its assessment of the Stability programmes (European Commission 2013c, 2014c) and its country specific recommendations (European Central Bank 2014, pp. 91-94). In Table 4 we identify the fiscal stance that would apply if the Commission's country specific recommendations for consolidation policies were put into practice. Under the usual no policy change scenario the Commission forecasts only mildly restrictive fiscal policies in 2014 (0.2% of GDP restriction for the EMU-12) and even a slightly expansionary stance (0.1% of GDP expansion for the EMU-12) with some differences between the individual countries. If its recommendations were put into practice a slightly more restrictive policy stance would result. However, as before, if one controls for the downward revision of potential GDP since 2010 the degree of restriction becomes much more pronounced: In this case the negative fiscal stance for the EMU-12 is as strong as 0.9 and 0.5% of GDP for 2014 and 2015, respectively.

	Fiscal stance									
	2010	2011	2012	2013	2014 10 2014	2015	2014+	2015+		
Euro area (12 countries)	0.1	0.9	1.5	0.8	0.2	-0.1	0.4	0.0		
Belgium	0.5	0.0	0.5	0.7	0.0	-0.2	0.5	0.6		
Germany	-1.4	1.2	1.2	0.4	-0.2	-0.4	-0.2	-0.4		
Ireland	0.4	0.9	0.5	1.7	1.7	0.4	1.7	0.9		
Greece	5.6	3.1	5.0	3.0	-1.0	-1.4	-0.5	-0.9		
Spain	1.5	0.6	2.4	1.3	0.4	-1.1	0.8	0.8		
France	0.3	1.1	1.0	0.8	0.6	0.4	0.8	0.8		
Italy	0.5	0.1	2.1	0.6	0.1	0.1	0.7	0.7		
Luxembourg	-1.3	0.6	0.7	-0.3	-0.8	-1.9	-0.8	-0.1		
Netherlands	0.0	0.4	1.1	1.4	0.0	0.5	0.5	0.5		
Austria	-0.5	1.0	0.6	0.5	-0.1	0.1	0.6	0.6		
Portugal	0.1	2.3	2.6	0.8			0.5	0.5		
Finland	-1.5	0.5	-0.5	0.4	-0.3	0.6	0.0	0.6		
		Fiscal stance								
	(Commis	sion spring 2	2014 forecast	corrected for	r revisions of	potential out	tput since spr	ing 2010)		
	2010	2011	2012	2013	2014	2015	2014+	2015+		
Euro area (12 countries)	0.2	1.0	1.9	1.3	0.6	0.3	0.9	0.5		
Belgium	0.4	-0.1	0.6	1.0	0.3	0.0	0.8	0.3		
Germany	-1.5	1.2	1.4	0.5	-0.1	-0.4	-0.1	-0.4		
Ireland	0.5	1.3	1.4	2.5	2.5	0.9	2.5	1.4		
Greece	6.8	4.6	6.3	4.5	0.7	0.4	1.2	0.4		
Spain	1.2	0.5	2.9	2.0	1.3	-0.2	1.7	1.3		
France	0.4	1.1	1.0	1.0	0.8	0.5	1.0	0.7		
Italy	0.7	0.4	3.0	1.3	0.8	0.7	1.4	0.7		
Luxembourg	-0.5	1.2	1.3	0.6	0.2	-0.9	0.2	0.9		
Netherlands	0.3	0.8	1.7	2.4	0.9	1.3	1.4	0.8		
Austria	-0.2	1.2	0.9	0.8	0.2	0.3	0.9	0.1		
Portugal	0.0	2.7	3.6	1.8						
Finland	-12	10	0.1	11	04	11	0.7	0.8		

 Table 4
 Fiscal Stance (Change in the General Government Structural Budget Balance), Euro Area Countries 2010-2015 in % of GDP

Note: + scenario shows effect if Commission's recommendations were put into practice.

Source: EU Commission (2010a, 2014a, 2014b); ECB (2014); author's calculations.

It is highly unlikely that the Euro area economy would recover much under these circumstances. Therefore, a strong recovery of the Euro area can only be plausibly expected if austerity policy is stopped and replaced by a substantial expansionary fiscal stimulus at least for a few years.

3. A Pragmatic Way Forward: Using the Existing Institutional Leeway to Boost the European Economy

What can be done instead to help the Euro area economy recover strongly? Of course, the current institutional framework with the Stability and Growth Pact and the Fiscal Compact does not offer a generally favourable climate for expansionary fiscal policy. Governments' deficits and debts in the EU are currently constrained by numerous rules (see European Commission 2013a for an overview).

The Excessive Deficit Procedure (EDP) within the corrective arm of the Stability and Growth Pact (SGP) is currently being applied to eight Euro area members: Cyprus, France, Greece, Ireland, Malta, Portugal, Slovenia and Spain. Cyprus and Greece face even stronger restrictions as they are subject to financial assistance programmes. It requires the general government budget deficit to be reduced to below 3% of GDP. Member states under the EDP must bring their budget deficit below 3% of GDP within a time period specified by the EU Council after recommendations from the Commission. The constraints for structural deficits under the preventive arm of the Stability and Growth Pact and the Fiscal Compact apply to all member states not under the excessive deficit procedure. Member states that have not reached their medium term budgetary objective (MTO) had already been obliged to decrease structural deficits annually by a minimum of 0.5% of GDP under the old SGP. The Fiscal Compact has made these prescriptions more binding by calling for institutionalised debt brakes on the national level that are to ensure that cyclically adjusted deficits are kept under 0.5% of GDP with automatic corrections in the case of deviations. The **new debt related branch of the EDP** calling for a 1/20th annual reduction of the part of the debt-GDP ratio that is above the 60% threshold of the SGP. This rule will become effective after member states have left the EDP, because they have reached the 3-%-target with respect to the budget deficit. As the target for debt-GDP ratio is taken into account in the formulation of national medium term objectives this new prescription will most probably not be binding in most cases.

As stated before, without a substantial fiscal expansion for at least a few years the Euro area will hardly escape from stagnation (or even deflationary stagnation or depression). As in the short run major institutional reforms do not look very likely, alternative ways will have to be found within the existing framework unless some governments decide to openly refuse obeying the rules and taking into account possible (though maybe not probable) sanctions and political quarrels within the European Union. Therefore, the European Commission would have to change its current interpretation of the existing framework which – as argued before – still keeps up the severely restrictive fiscal stance. If the Commission instead used the interpretational leeway that the current institutions leave, it could provide substantial room for manoeuvre for national governments to switch to a truly expansionary fiscal policy. At least the following four proposals that are generally complementary to each other should be considered.

First and least controversial, the one country that is currently in a rather favourable position as to its budgetary situation, Germany, should use up its safetymargin to its Medium Term Objective and to the limits of its national debt brake and increase public (investment) spending in order to stimulate domestic demand, increase imports and help its neighbours to recover. Currently, the safety margin as calculated by the EU Commission is in the order of magnitude of 1% of GDP and 0.5% of GDP in 2014 and 2015 respectively (see Table 5). If that were in fact used to increase public (investment) spending, the overall effect for the Euro area economy would not be very large, but certainly not completely negligible. Actually, using this leeway was even recommended by the European Commission (2014e, p. 6) and approved by the Council.

Second, the EU-Commission should use aggressively any interpretational leeway within the preventive as well as the corrective arm of the SGP in order to allow for a more expansionary fiscal stance in additional countries. For an overview of the potential flexibility that is provided within the European fiscal rules see Stefano Micossi and Fabrizia Peirce (2014). Although the authors' conclusion that the rules provide sufficient flexibility and that, therefore, there is no need for reform is not shared. For example, in the preventive arm deviations from MTO or the adjustment path especially those that stem from increases in public investment – could be handled in a more generous way, as they can easily be interpreted as structural reforms that are likely to increase potential growth and thereby stabilising for the debt to GDP ratio as required under article 5.1 of Regulation 1466 (Micossi and Peirce 2014, p. 7). Additionally, under the same article, exceptional circumstances maybe claimed for temporary deviations from the MTO or the adjustment path (Micossi and Peirce 2014, p. 7). Exceptional circumstances may also justify the decision not to open an excessive deficit procedure or to avoid sanctions or to postpone deadlines for correcting excessive deficits within the corrective arm of the pact (Micossi and Peirce 2014, pp. 6-7). Indeed, the persistent stagnation on the verge of deflation of many Euro area economies could certainly provide good arguments to loosen the consolidation course. Most probably, it could even provide the possibility of some positive stimulus for countries under the EDP, if the Council decided, that the necessary spending were financial contributions to achieving Union policy goals: Avoiding a lost decade due to deflationary stagnation in the Euro area would certainly qualify as a sensible Union policy goal.

Thirdly and in combination with the latter point the additional spending should not be counted as a one-to-one increase in the (structural) government deficit. If the EU Commission adopted a realistic attitude as to fiscal multipliers that was in line with the recent results from the literature referred to in Section 2.3, any increase in public (investment) spending would lead to a much smaller increase in the deficit due to its positive macroeconomic repercussions. As seen, spending multipliers – especially for public investment – are well above one which means that such spending increases will be self-financing to a substantial extent (50-75%). If this were taken into account when evaluating national stability programmes and for the remaining temporarily higher deficit the aforementioned leeway within the preventive and corrective arm were used, the potential positive fiscal stance could be substantial (at least twice or triple as large as the resulting increase in the budget deficit). For example an increase in public investment by 1 per cent of GDP would only lead to an increase in the budget deficit of 0.25 to 0.5 per cent of GDP a deviation that may be easy to justify with the structural reform argument or with exceptional circumstances. Furthermore, if the European Commission stuck to its pro-cyclical method of cyclical adjustment the resulting increase in GDP and decrease in unemployment should lead to an upward revision of potential GDP. In addition to this, an increase in public investment should automatically lead to an increase in the investment to GDP level which should in turn increase potential GDP.

	- Structural balance (EU Commission spring 2014 forecast)							
	2012	2013	2014	2015				
Euro area (12 countries)	-2.0	-1.3	-1.1	-1.2				
Belgium	-3.0	-2.3	-2.3	-2.5				
Germany	0.3	0.6	0.5	0.0				
Ireland	-7.9	-6.2	-4.5	-4.2				
Greece	-1.0	2.0	1.0	-0.4				
Spain	-4.1	-2.8	-2.4	-3.4				
France	-3.8	-3.0	-2.3	-2.0				
Italy	-1.5	-0.9	-0.8	-0.7				
Luxembourg	1.7	1.4	0.6	-1.3				
Netherlands	-2.7	-1.3	-1.3	-0.8				
Austria	-1.6	-1.1	-1.2	-1.1				
Portugal	-3.5	-2.6						
Finland	-1.0	-0.6	-0.9	-0.3				
		Structura	al balance					
	(Commission spring	g 2014 forecast corrected fo	r revisions of potential output	ut since spring 2010)				
	2012	2013	2014	2015				
Euro area (12 countries)	-1.5	-0.2	0.4	0.7				
Belgium	-2.7	-1.8	-1.5	-1.5				
Germany	-0.4	0.1	0.0	-0.4				
Ireland	-5.7	-3.2	-0.7	0.2				
Greece	3.9	8.4	9.1	9.5				
Spain	-4.1	-2.1	-0.8	-1.0				
France	-2.6	-1.6	-0.8	-0.3				
Italy	-0.3	1.1	1.9	2.6				
Luxembourg	4.8	5.4	5.7	4.8				
Netherlands	-1.3	1.1	2.0	3.3				
Austria	-1.2	-0.4	-0.3	0.1				
Portugal	-4.2	-2.4						
Finland	0.7	1.7	2.1	3.2				

 Table 5
 General Government Structural Budget Balance, Euro Area Countries 2012-2015 in % of GDP

Source: European Commission (2010a, 2014a, 2014b); ECB (2014); author's calculations.

Fourthly, in combination with the latter two points, a reassessment of the cyclical adjustment procedure underlying the calculation of structural budget balances could help tremendously. As already illustrated in the calculations this could lead to a more realistic picture of the fiscal effort that has already been undertaken by the member states which in turn would make it easier to justify exceptional circumstances under the preventive and the corrective arm. The upward revision of (negative) output gaps (Table 1) would underline the extremely bad cyclical condition in which many member states are trapped. It is simply ridiculous to assume (as the Commission does) that the Greek output gap in 2015 will only be -4% when the Greek economy will have lost about a quarter of its pre-crisis output. Last but not least, the estimates of the structural budget balance would then be revised upwards lifting a number of member states above their MTOs so that they would enjoy additional leeway. For example, Table 5 shows that in addition to Germany, Finland, Luxemburg, Italy, the Netherlands and Ireland would already have reached their MTOs in 2014 if the structural balance had been calculated with the potential growth estimates of the pre-austerity-era in spring 2010.

Taking all the proposals for a more expansionary interpretation of the existing institutional framework together, a Euro area-wide expansionary fiscal stance of two to three per cent of GDP would be quite realistic. One might want to argue that the interpretational changes proposed here are so far-reaching that they might, in fact, be seen as a an abandonment of the existing SGP, involving questions of timeinconsistency and credibility. However, this would hardly seem convincing. Firstly, the interpretation proposed here still uses the terminology and the framework of the existing pact. Therefore, if there is a problem of credibility, then it is one that is inherent in the current framework, with its vague and imprecise terminology that leaves much room for interpretation. Not the particular interpretation, but the current fiscal framework as such would then suffer from problems of credibility. Second, the EU Commission has, for several years in a row, announced strictness in the application of the rules *ex ante*, only to relax the requirements when countries ran into problems ex post. One can well argue that a clear ex ante-relaxation of requirements is more credible than a ritual game of strict announcements that have to be regularly scrapped ex post.

4. Conclusion

In the medium to long run the Euro area (and the EU) will probably need a farreaching reform of its institutional framework to foster growth and employment and to protect and strengthen the welfare state (see e.g. Hein, Truger, and Till van Treck 2012). However, even in the short run, the current institutional framework (SGP, fiscal compact) offers interpretational leeway sufficient to allow for a substantial fiscal expansion that could boost the European economy at least for the next two or three years. If the new European Commission acted responsibly and used the opportunity in a way similar to the one sketched, the prospects for a strong recovery in the Euro area would not be too bad.

References

- Andrade, Joao Sousa, and António Portugal Duarte. 2014. "Output-Gaps in the PIIGS Economies: An Ingredient of a Greek Tragedy." Estudos do Grupo de Estudos Monetários e Financeiros Working Paper 06/2014.
- Arestis, Philip, and Malcolm Sawyer. 2003. "Reinventing Fiscal Policy." Journal of Post Keynesian Economics, 26(1): 3-25.
- Arestis, Philip. 2011. "Fiscal Policy Is Still an Effective Instrument of Macroeconomic Policy." *Panoeconomicus*, 6(2): 143-156.
- Auerbach, Alan J., and Yuriy Gorodnichenko. 2013. "Fiscal Multipliers in Recession and Expansion." In *Fiscal Policy after the Financial Crisis*, ed. Alberto Alesina and Francesco Giavazzi, 63-98. Chicago: University of Chicago Press.
- **Batini, Nicoletta, Giovanni Callegari, and Giovanni Melina.** 2012. "Successful Austerity in the United States, Europe and Japan." International Monetary Fund Working Paper 12/190.
- Baum, Anja, and Gerrit B. Koester. 2011. "The Impact of Fiscal Policy on Economic Activity over the Business Cycle - Evidence from a Threshold VAR Analysis." Deutsche Bundesbank Discussion Paper Series 1, Economic Studies 03/2011.
- Baum, Anja, Marcos Poplawski-Ribeiro, and Anke Weber. 2012. "Fiscal Multipliers and the State of the Economy." International Monetary Fund Working Paper 12/286.
- **Blanchard, Olivier, and Daniel Leigh.** 2013. "Growth Forecast Errors and Fiscal Multipliers." International Monetary Fund Working Paper 13/1.
- Blyth, Mark. 2013. *Austerity. The History of a Dangerous Idea*. New York: Oxford University Press.
- **Bouthevillain, Carine et al.** 2009. "Pros and Cons of Various Fiscal Measures to Stimulate the Economy." *Banco de Espana Economic Bulletin*, 11(9): 123-144.
- Coenen, Günter et al. 2012. "Effects of Fiscal Stimulus in Structural Models." *American Economic Journal: Macroeconomics*, 4(1): 22-68.
- Creel, Jeromé, Eric Heyer, and Mathieu Plane. 2011. "Petit précis de politique budgétaire par tous les temps. Les multiplicateurs budgétaires au cours du cycle." *Revue de l'OFCE*, 116(1): 61-88.
- D'Auria, Francesca, Cécile Denis, Karel Havik, Kiran McMorrow, Christophe Planas, Rafal Raciborski, Werner Röger, and Alessandro Rossi. 2010. "The Production Function Methodology for Calculating Potential Growth Rates and Output Gaps." European Commission Economic Paper 420.
- **DeLong, Bradford J., and Lawrence H. Summers.** 2010. "Fiscal Policy in a Depressed Economy." *Brooking Economic Papers*, 44(1): 233-297.
- **Draghi, Mario.** 2014. "Unemployment in the Euro Area." Annual Central Bank Symposium, Jackson Hole. http://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html.
- Eschenbach, Felix, and Ludger Schuknecht. 2004. "Budgetary Risks from Real Estate and Stock Markets." *Economic Policy*, 19(39): 313-346.
- **European Central Bank (ECB).** 2014. "Economic and Monetary Developments: Part 5, Fiscal Developments." *ECB Montly Bulletin*, 15(9): 84-94.
- **European Commission.** 2010b. *Report on Public Finances in the EMU*. Brussels: European Commission, Directorate-General for Economic and Financial Affairs.
- **European Commission.** 2013a. *Report on Public Finances in the EMU*. Brussels: European Commission, Directorate-General for Economic and Financial Affairs.

- European Commission. 2013b. Annex to the Communication from the Commission: Assessment of Action Taken by Spain, France, Malta, the Netherlands and Slovenia in Response to the Council Recommendations of 21 June 2013 with a View to Bringing an End to the Situation of Excessive Government Deficit, and by Belgium in Response to the Council Decision to Give Notice of 21 June 2013. Brussels: European Commission.
- **European Commission.** 2013c. "The 2013 Stability and Convergence Programmes: An Overview." European Economy Occasional Paper 152.
- **European Commission.** 2014c. "The 2014 Stability and Convergence Programmes: An Overview." European Economy Occasional Paper 199.
- **European Commission.** 2014d. *European Economic Forecast Spring 2014*. Brussels: European Commission, Directorate-General for Economic and Financial Affairs.
- European Commission. 2014e. Recommendation for a Council Recommendation on Germany's 2014 National Reform Programme and Delivering a Council Opinion on Germany's 2014 Stability Programme {SWD(2014)406 final}. Brussels: European Commission.
- **European Council.** 2013. Council Recommendation with a View to Bringing an End to the Situation of an Excessive Government Deficit in Spain. Brussels: Council of the European Union.
- European Council. 2014. European Council 26/27 June 2014 Conclusions, EUCO 79/14, CO EUR 4 CONCL 2. Brussels: European Council.
- **Fazzari, Steven M., James Morley, and Irina Panovska.** 2012. "State Dependent Effects of Fiscal Policy." Australian School of Business Research Paper 2012 ECON 27.
- Gechert, Sebastian. Forthcoming. "What Fiscal Policy Is Most Effective? A Meta-Regression Analysis." Oxford Economic Papers.
- **Guajardo, Jamie, Daniel Leigh, and Andrea Pescatori.** 2011. "Expansionary Austerity: New International Evidence." International Monetary Fund Working Paper 11/158.
- Hein, Eckhard, and Engelbert Stockhammer. 2011. "A Post-Keynesian Macroeconomic Model of Inflation, Distribution and Employment." In A Modern Guide to Keynesian Macroeconomics and Economic Policies, ed. Eckhard Hein and Engelbert Stockhammer, 112-136. Cheltenham: Edward Elgar.
- Hein, Eckhard, Achim Truger, and Till van Treeck. 2012. "The European Financial and Economic Crisis: Alternative Solutions from a (Post-)Keynesian Perspective." In *The Euro Crisis, International Papers in Political Economy*, ed. Philip Arestis and Malcolm Sawyer, 35-78. Basingstoke: Palgrave Macmillan.
- Hein, Eckhard, and Achim Truger. 2014. "Fiscal Policy and Rebalancing in the Euro Area: A Critique of the German Debt Brake from a Post-Keynesian Perspective." *Panoeconomicus*, 61(Special Issue): 21-38.
- Hemming, Richard, Michael Kell, and Selma Mahfouz. 2002. "The Effectiveness of Fiscal Policy in Stimulating Economic Activity: A Review of the Literature." International Monetary Fund Working Paper 02/208.
- Holland, Dawn, and Jonathan Portes. 2012. "Self-Defeating Austerity?" National Institute Economic Review, 222(October): F4-F10.
- Klär, Erik. 2013. "Potential Economic Variables and Actual Economic Policies in Europe." *Intereconomics*, 48(1-2): 33-40.
- Klär, Erik. 2014. Die Eurokrise im Spiegel der Potenzialschätzungen: Lehren für eine alternative Wirtschaftspolitik? Bonn: Friedrich-Ebert-Stiftung.

- Larch, Martin, and Alessandro Turrini. 2010. "The Cyclically Adjusted Budget Balance in EU Fiscal Policymaking." *Intereconomics*, 45(1-2): 48-60.
- Lavoie, Marc. 2009. "Taming the New Consensus: Hysteresis and Some Other Post-Keynesian Amendments." In *Macroeconomics and Macroeconomic Pedagogy*, ed. Giuseppe Fontana and Mark Setterfield, 191-213. Basingstoke: Palgrave Macmillan.
- Logeay, Camille, and Silke Tober. 2006. "Hysteresis and the NAIRU in the Euro Area." *Scottish Journal of Political Economy*, 53(4): 408-429.
- Micossi, Stefano, and Fabricia Peirce. 2014. "Flexibility Clauses in the Stability and Growth Pact." Center for European Policy Studies Policy Brief 319.
- Mourre, Gilles, George-Marian Isbasoiu, Dario Paternoster, and Matteo Salto. 2013. "The Cyclically-Adjusted Budget Balance Used in the EU Fiscal Framework." European Economy Economic Paper 478.
- Observatoire Français des Conjonctures Économiques, Economic Council of the Labour Movement, Institut für Makroökonomie and Konjunkturforschung in der Hans-Böckler-Stiftung, 2013. Independent Annual Growth Survey: First Report. Brussels: Progressive Economy.
- **Perotti, Roberto.** 2012. "The 'Austerity Myth': Gain Without Pain?" Bank for International Settlements Working Paper 362.
- Romer, Christina D., and David H. Romer. 2010. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." *American Economic Review*, 100(3): 763-801.
- **Truger, Achim, and Christoph Paetz.** 2012. "The Economic Effects of Austerity Policies in Europe. Some Back-of-the-Envelope Calculations." Paper presented at the Euromemo-Conference, Poznan.
- **Truger, Achim.** 2013. "Austerity in the Euro Area: The Sad State of Economic Policy in Germany and the EU." *European Journal of Economics and Economic Policies: Intervention*, 10(2): 158-174.
- **Truger, Achim, and Henner Will.** 2013. "The German 'Debt Brake': A Shining Example for European Fiscal Policy?" *Revue de l'OFCE / Debates and Policies, The Euro Area in Crisis*, 127: 155-188.
- Zack, Guido, Pilar Poncela, Eva Senra, and Daniel Sotelsek. 2014. "Some New Results on the Estimation of Structural Budget Balance for Spain." *Hacienda Publica Espanola / Review of Public Economics*, 210(3): 11-31.