

# Working Paper

Achim Truger<sup>1</sup>

## Austerity, cyclical adjustment and the remaining leeway for expansionary fiscal policies in the Euro area<sup>2</sup>

November 2014

### Abstract

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.

**Keywords:** Fiscal policy, austerity, cyclical adjustment of public finances, Euro area

**JEL Classification:** E61, E62, E65, H62, H63

---

<sup>1</sup> Achim Truger, Berlin School of Economics and Law, Achim.Truger@hwr-berlin.de

<sup>2</sup> 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. We would like to thank participants for the discussion and for helpful comments.

# Austerity, cyclical adjustment and the remaining leeway for expansionary fiscal policies in the Euro area<sup>1</sup>

---

## **Abstract:**

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.

**Keywords:** Fiscal policy, austerity, cyclical adjustment of public finances, Euro area

**JEL Classification:** E61, E62, E65, H62, H63

## **Corresponding Author:**

Prof. Dr. Achim Truger  
Berlin School of Economics and Law  
Faculty of Business and Economics  
Badensche Straße 50-51  
D-10825 Berlin  
[www.hwr-berlin.de](http://www.hwr-berlin.de)  
Tel.: +49 (0)30 30877-1465  
Fax: +49 (0)30 30877-1199  
E-Mail: Achim.Truger@hwr-berlin.de

---

<sup>1</sup> Earlier versions and results of this paper were presented at the 11<sup>th</sup> conference 'Developments in Economic Theory and Policy' at the University of the Basque Country, Bilbao, at the 7<sup>th</sup> workshop 'Jahrbuch für öffentliche Finanzen 2015' at the University of Leipzig and at the 20<sup>th</sup> workshop on Alternative Economic Policy in Europe, organized by the Euromemorandum group and *Economia civile* at the Sapienza University, Rome. We would like to thank participants for the discussion and for helpful comments.

## 1. Introduction

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, the 'fiscal compact' for several years. From a (post-)Keynesian perspective and with some basic knowledge about the empirical estimates of the fiscal multiplier the outcome in terms of devastating economic, social and political consequences was predictable (see e.g. OFCE et al. 2012; Truger and Paetz 2012; 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 (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: 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: 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. 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 forward-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. 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 enable a substantially positive fiscal stimulus.

In order to show this section 2 will reconsider the problem 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 fits well with the development of output in most Euro area economies. Section 3 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 4 then tries to identify the remaining leeway for a fiscal boost to the European economy within the existing institutional framework. Section 5 briefly concludes.

## **2. 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 (Larch/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. Therefore, the European Commission 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 (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. Arestis 2012). 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 (Hein/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.

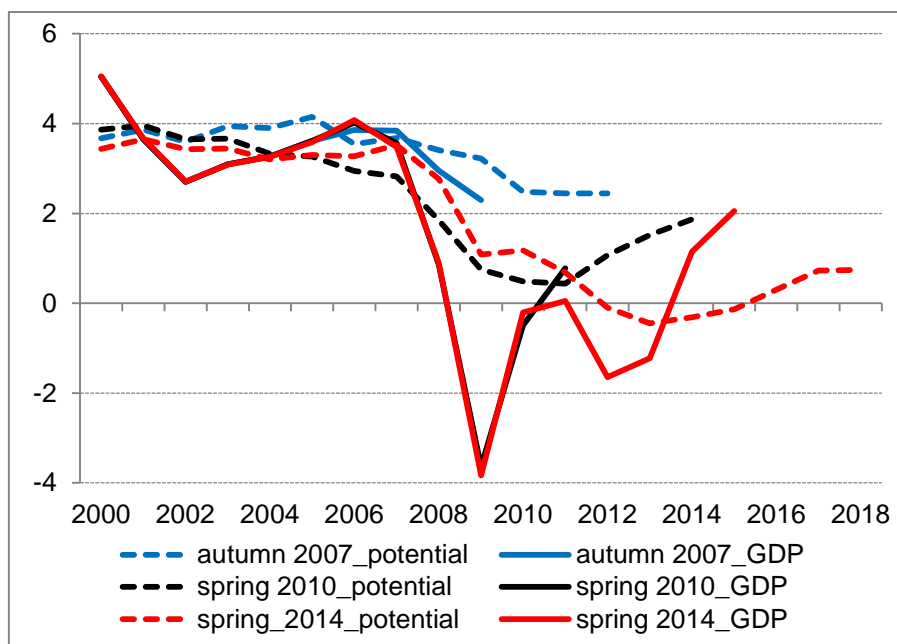
## **2.1 The pro-cyclicity of potential output estimates**

The European Commission estimates potential output by means of a Cobb-Douglas-production 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 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 trend total factor productivity using a Kalman-filter with capacity utilisation as an exogenous variable. The estimate is calculated for all EU Member States using semi-

standardised specifications. The specifications are usually adjusted regularly. The main problem in the current context is that the method employed by the EU-commission 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 Horn/Logeay 2007, Klär 2013 and 2014; Truger 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 (see Klär 2014 in detail and Andrade/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**



**Source: European Commission (2014b), author's calculations.**

It is of course difficult – if not theoretically meaningless – to decide by how much the crisis has really affected potential output (OFCE et al. 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). In the calculations the Spring 2010 forecast is taken 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 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.<sup>2</sup> 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.

---

<sup>2</sup> The Commission (2014b) published potential output estimates until 2014. For the calculation the 2014 potential growth rate was simply reproduced for 2015.



**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	
Greece	3.2	1.5	-1.5	-4.7	-8.7	-12.2	-12.6	-9.3	-4	
Spain	2.8	0.9	-4	-5.3	-5.9	-7.3	-8.1	-6.7	-4.7	
France	3.4	1.8	-2.4	-1.8	-0.9	-2	-2.7	-2.8	-2.4	
Italy	3.4	1.8	-3.5	-1.7	-1.4	-3	-4.3	-3.6	-2.5	
Luxembourg	4.6	1.3	-5	-2.4	-1.8	-3.6	-2.8	-1.6	-0.3	
Netherlands	2.1	2.2	-2.5	-1.4	-1	-2.4	-3.3	-2.6	-1.8	
Austria	2.1	1.9	-2.9	-2	-0.1	-0.4	-1.1	-0.8	-0.4	
Portugal	1.1	0.3	-3	-1.6	-2.6	-5	-5.6	-4	-2.3	
Finland	5.0	3.8	-5.4	-2.5	-0.1	-1.4	-2.7	-2.6	-1.9	
	Output gap with potential GDP from EU Commission spring 2010									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Euro area (12 countries)	2.9	1.9	-3.3	-2.2	-1.7	-3.6	-5.4	-5.7	-5.6	
Belgium	3.9	1.5	-2.4	-1.1	-0.5	-1.7	-2.6	-2.3	-2.0	
Germany	1.4	3.3	-2.8	0.2	2.2	1.2	0.0	0.2	0.6	
Ireland	4.7	0.0	-6.0	-6.2	-4.4	-6.0	-8.9	-10.5	-10.9	
Greece	2.2	1.1	-3.4	-8.9	-16.1	-22.3	-25.7	-25.8	-24.3	
Spain	1.0	0.8	-3.8	-4.4	-4.8	-7.3	-9.9	-10.5	-10.3	
France	3.9	0.0	-4.3	-3.9	-3.0	-4.2	-5.3	-5.7	-5.6	
Italy	3.5	2.3	-3.4	-2.0	-2.2	-5.3	-8.0	-8.7	-8.8	
Luxembourg	4.9	0.4	-7.3	-6.4	-6.9	-9.9	-11.1	-12.0	-12.7	
Netherlands	3.6	2.4	-2.6	-2.0	-2.3	-4.8	-7.3	-8.2	-8.9	
Austria	6.0	3.2	-2.0	-1.7	-0.3	-1.2	-2.5	-2.8	-2.9	
Portugal	1.6	4.2	1.1	2.7	0.9	-3.5	-6.2	-6.6	-6.8	
Finland	5.0	3.7	-6.2	-4.0	-2.6	-4.9	-7.6	-8.8	-9.3	
	Difference									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Euro area (12 countries)	0.1	0.2	0.0	-0.1	-0.3	-1.1	-2.1	-3.0	-3.8	
Belgium	-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	1.6	1.3	1.0	0.9	0.8	
Ireland	-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	-4.3	-7.4	-10.1	-13.2	-16.6	-20.3	
Spain	-1.0	-0.1	0.2	0.9	1.1	0.0	-1.8	-3.8	-5.7	
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	-0.8	-2.3	-3.7	-5.1	-6.3	
Luxembourg	0.1	-0.9	-2.3	-4.0	-5.1	-6.3	-8.2	-10.3	-12.4	
Netherlands	0.4	0.2	-0.1	-0.5	-1.3	-2.4	-4.0	-5.6	-7.1	
Austria	1.5	1.2	0.9	0.3	-0.1	-0.8	-1.4	-2.1	-2.5	
Portugal	3.8	3.9	4.1	4.2	3.5	1.6	-0.5	-2.6	-4.5	
Finland	0.5	-0.1	-0.8	-1.5	-2.5	-3.5	-4.8	-6.2	-7.3	

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

## 2.2 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. These efforts will usually be underestimated because 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.<sup>3</sup> 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 adjusted 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 quite 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.

---

<sup>3</sup> 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: 124-128; Zack et al. 2013 for the case of Spain and Hein/Truger 2014: 24-25 for the case of Germany).

**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**

	<b>Balances</b>								
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
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	-0.1	0.4	0.9	0.8	0.5
Germany	2	2	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	5.9	5.4	4.7
Spain	2.2	-3.1	-6.8	-5.1	-4	-1	0.6	1.1	0.1
France	-2	-1.5	-3.7	-3.5	-2.2	-1.3	-0.7	0	0.5
Italy	1.3	1.2	0.4	0.8	1.3	4	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	-2.1	-1.7	-0.8	0.5	0.4	0.9
Austria	0.8	0.7	0.1	-0.5	0.4	1	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	0.5	0	0.3	0.1	0.6
	<b>Fiscal Stance (2008-2015)</b>								
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
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	
	<b>Cumulative Fiscal Stance (2010 – 2015)</b>								
			<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
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	

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

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.

**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 EU Commission'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	2.4	1.9	0	0.2	0	0.7	1.4	1.5	1.4
Germany	2	1.1	1.1	-0.5	0.7	1.9	2.2	1.9	1.4
Ireland	-1.1	-6.2	-6.8	-5.2	-3.8	-2	1.5	4	5
Greece	-3.3	-4.4	-8.6	-1.2	4.8	8.9	12.4	13.5	14.6
Spain	2.2	-3	-6.9	-5.5	-4.5	-1	1.4	2.7	2.5
France	-2	-0.5	-2.7	-2.3	-1	-0.1	0.6	1.6	2.2
Italy	1.3	1	0.4	1	1.7	5.2	6.3	7.1	7.8
Luxembourg	1.8	3.4	3.2	2.7	4	5.3	5.9	6.1	5.4
Netherlands	1.2	1.4	-1.9	-1.8	-1	0.6	2.9	3.7	5
Austria	0.8	0.1	-0.3	-0.7	0.5	1.4	2.1	2.3	2.6
Portugal	-0.8	-3.4	-7.6	-7.7	-3.8	0.1	1.9		
Finland	4.2	3.9	2	0.7	1.7	1.7	2.7	3	4.2
	<b>Fiscal Stance (2008-2015)</b>								
		<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Euro area (12 countries)		-0.8	-1.6	0.1	1.2	1.9	1.1	0.6	0.3
Belgium		-0.5	-1.9	0.2	-0.2	0.7	0.7	0.1	-0.1
Germany		-0.8	0	-1.6	1.2	1.3	0.3	-0.3	-0.5
Ireland		-5.1	-0.6	1.6	1.4	1.8	3.5	2.5	1.1
Greece		-1.1	-4.2	7.4	6	4.2	3.5	1.1	1.1
Spain		-5.3	-3.9	1.4	1	3.4	2.4	1.4	-0.2
France		1.5	-2.2	0.4	1.3	1	0.7	0.9	0.6
Italy		-0.3	-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		0.2	-3.3	0.2	0.8	1.6	2.3	0.8	1.3
Austria		-0.7	-0.5	-0.3	1.2	0.9	0.7	0.2	0.3
Portugal		-2.6	-4.2	0	3.9	3.9	1.8		
Finland		-0.3	-1.9	-1.3	1	0	1	0.4	1.1
	<b>Cumulative Fiscal Stance (2010 – 2015)</b>								
				<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Euro area (12 countries)				0.1	1.4	3.3	4.4	5	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	4.9	8.3	10.8	11.9
Greece				7.4	13.4	17.5	21	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	2.5	4.8	5.6	6.9
Austria				-0.3	0.8	1.8	2.5	2.6	3
Portugal				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 (2010a, 2014a, 2014b), author's calculations.

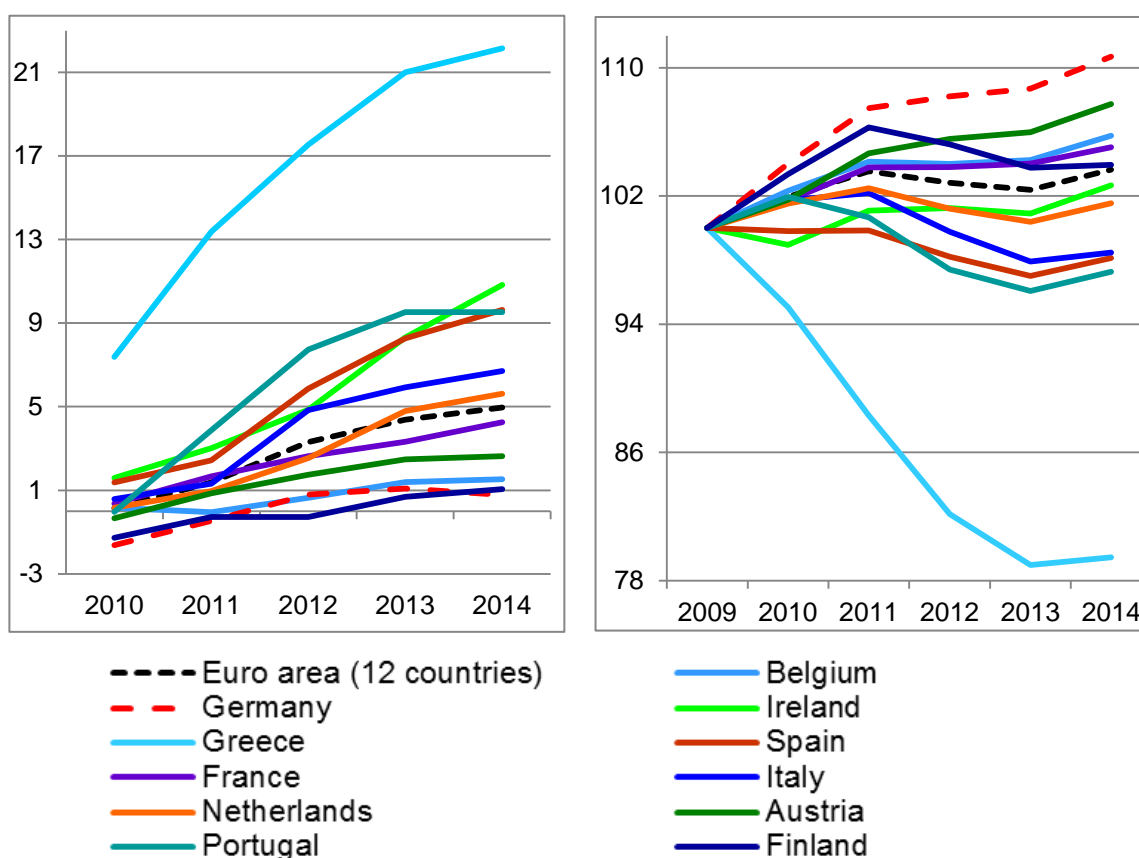
## 2.3 The economic effects of austerity policies

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 et al. (2011) and 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 (Auerbach/Gorodnichenko 2012, Batini et al. 2012, Blanchard/Leigh 2013, Baum et al. 2012, Coenen et al. 2012, De Long/Summers 2012, Holland/Portes 2012). 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 (Auerbach/Gorodnichenko 2012, Batini et al. 2012, Gechert/Will 2012). Fourthly, multipliers tend to be higher during strong recessions (Auerbach/Gorodnichenko 2012, Batini et al. 2012, Baum/Koester 2011, Baum et al. 2012, Creel et al. 2011 and Fazzari et al. 2012; Gechert/Rannenberg 2014). According to Batini et al. (2012: 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 Hemming et al. 2002, Arestis/Sawyer 2003, Bouthevillain et al. 2009 and Creel et al 2011).

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).<sup>4</sup> 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.

**Figure 2: cumulative fiscal effort 2010-2014 (based on EU Commission May 2010 estimate of potential GDP) in % of GDP and real GDP index (2009=100) 2009-2014, Euro area-12.**



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

<sup>4</sup> 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 (see figure A1 in the appendix). It gets stronger if instead of GDP domestic demand is used (see figure A2 in the appendix).

### **3. 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/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: 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: 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: 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: 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: 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: 24-28). However, the reaction was delayed due to protests from European governments, namely the German one (Klär 2014: 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: 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 and 2014c) and its country specific recommendations (ECB 2014: 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.

**Table 4: fiscal stance (change in the general government structural budget balance), Euro area countries 2007-2015 in % of GDP**

	Fiscal Stance (EU Commission spring 2014 forecast) <sup>1</sup>							
	2010	2011	2012	2013	2014	2015	2014+	2015+
Euro area (12 countries)	0.1	0.9	1.5	0.8	0.2	-0.1	0.4	0
Belgium	0.5	0	0.5	0.7	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	3	-1	-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	0.8	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	0.4	1.1	1.4	0	0.5	0.5	0.5
Austria	-0.5	1	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	0.6
	<b>Fiscal Stance (Commission spring 2014 forecast corrected for revisions of potential output since spring 2010)<sup>1</sup></b>							
	2010	2011	2012	2013	2014	2015	2014+	2015+
Euro area (12 countries)	0.2	1	1.9	1.3	0.6	0.3	0.9	0.5
Belgium	0.4	-0.1	0.6	1	0.3	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	1.3	-0.2	1.7	1.3
France	0.4	1.1	1	1	0.8	0.5	1	0.7
Italy	0.7	0.4	3	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	2.7	3.6	1.8				
Finland	-1.2	1	0.1	1.1	0.4	1.1	0.7	0.8

<sup>1</sup> +-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.

#### **4. 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 2013 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.<sup>5</sup> 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 1/20<sup>th</sup> 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

---

<sup>5</sup> Cyprus and Greece face even stronger restrictions as they are subject to financial assistance programmes.

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 safety-margin 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: 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.<sup>6</sup> 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/Peirce 2014: 7). Additionally, under the same article, exceptional circumstances maybe claimed for temporary deviations from the MTO or the adjustment path (Micossi/Peirce 2014: 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/Peirce 2014: 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

---

<sup>6</sup> For an overview of the potential flexibility that is provided within the European fiscal rules see Micossi/Peirce (2014) although the authors' conclusion that the rules provide sufficient flexibility and that therefore there is no need for reform is not shared.

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, every 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 if for the remaining temporarily higher deficit the aforementioned leeway within the preventive and corrective arm was 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 capital stock which should in turn increase potential GDP.

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 which many member states are trapped in. 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 by then 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 is quite realistic.

**Table 5: General government structural budget balance, Euro area countries 2007-2015 in % of GDP**

Structural balance (EU Commission spring 2014 forecast)					Structural balance (Commission spring 2014 forecast corrected for revisions of potential output since spring 2010)				
	2012	2013	2014	2015		2012	2013	2014	2015
Euro area (12 countries)	-2	-1.3	-1.1	-1.2	Euro area (12 countries)	-1.5	-0.2	0.4	0.7
Belgium	-3	-2.3	-2.3	-2.5	Belgium	-2.7	-1.8	-1.5	-1.5
Germany	0.3	0.6	0.5	0	Germany	-0.4	0.1	0	-0.4
Ireland	-7.9	-6.2	-4.5	-4.2	Ireland	-5.7	-3.2	-0.7	0.2
Greece	-1	2	1	-0.4	Greece	3.9	8.4	9.1	9.5
Spain	-4.1	-2.8	-2.4	-3.4	Spain	-4.1	-2.1	-0.8	-1
France	-3.8	-3	-2.3	-2	France	-2.6	-1.6	-0.8	-0.3
Italy	-1.5	-0.9	-0.8	-0.7	Italy	-0.3	1.1	1.9	2.6
Luxembourg	1.7	1.4	0.6	-1.3	Luxembourg	4.8	5.4	5.7	4.8
Netherlands	-2.7	-1.3	-1.3	-0.8	Netherlands	-1.3	1.1	2	3.3
Austria	-1.6	-1.1	-1.2	-1.1	Austria	-1.2	-0.4	-0.3	0.1
Portugal	-3.5	-2.6			Portugal	-4.2	-2.4		
Finland	-1	-0.6	-0.9	-0.3	Finland	0.7	1.7	2.1	3.2

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

## 5. Conclusion

In the medium to long run the Euro area (and the EU) needs a far-reaching reform of its institutional framework to foster growth and employment and to protect and strengthen the welfare state (see e.g. Hein et al. 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.

## 6. References

- Andrade, J.S., Duarte, A. (2014): Output-gaps in the PIIGS Economies: An Ingredient of a Greek Tragedy, Estudos do GEMF No. 06/2014, Coimbra: Faculdade de Economia da Universidade de Coimbra Grupo de Estudos Monetários e Financeiros (GEMF).
- Arestis, P. (2011), 'Fiscal policy is still an effective instrument of macroeconomic policy, *Panoeconomicus*, 6 (2), 143-156.
- Auerbach, A. J., Gorodnichenko, Y. (2012): Fiscal Multipliers in Recession and Expansion. in: Alesina, A., Giavazzi, F. (eds), *Fiscal Policy after the Financial Crisis*, Chicago: University of Chicago Press (forthcoming).
- Batini, N. / Callegari, G. / Melina, G. (2012): Successful Austerity in the United States, Europe and Japan, IMF Working Paper, WP/12/190, Washington D.C
- Baum, A., Koester, G. B. (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, No. 03/2011, Frankfurt a.M.
- Baum, A. / Poplawski-Ribeiro, M. / Weber, A. (2012): Fiscal Multipliers and the State of the Economy, IMF Working Paper WP/12/286, Washington D.C
- Blanchard, O., Leigh, D. (2013): Growth Forecast Errors and Fiscal Multipliers, International Monetary Fund Working Paper No. 13/1, Washington D.C.
- Blyth, M. (2013): *Austerity. The history of a dangerous idea*, New York: Oxford University Press.

- Bouthevillain, C. et al (2009): Pros and cons of various fiscal measures to stimulate the economy, Banco de Espana Economic Bulletin, July 2009, 123-144.
- Coenen C. et al. (2012): Effects of Fiscal Stimulus in Structural Models, in: American Economic Journal: Macroeconomics, 4(1), 22–68.
- Creel J., Heyer, E., Plane, M. (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, F., C. Denis, K. Havik, K. McMorrow, C. Planas, R. Raciborski, R. Röger, A. Rossi, (2010): “The Production Function Methodology for Calculating Potential Growth Rates and Output Gaps.” European Commission, Economic Papers no. 420, Brussels.
- DeLong, J. B. / Summers, L. H. (2012): Fiscal Policy in a Depressed Economy, in: Brookings Economic Papers, 44 (1), 233-297.
- Draghi, M. (2014): Unemployment in the euro area, Speech by Mario Draghi, President of the ECB, Annual central bank symposium in Jackson Hole, 22 August 2014, <http://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html>
- ECB (2014): Economic and Monetary Developments: Part 5, Fiscal Developments, in: ECB Montly Bulletin, September: 84-94.
- European Commission (2010a): Annual macro-economic database (Ameco), May 2010.
- European Commission (2010b): Report on Public Finances in the EMU, European Economy No. 4, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.
- European Commission (2012): European Economic Forecast Autumn 2012, European Economy, 8, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.
- European Commission (2013): Building a Strengthened Fiscal Framework in the European Union: A Guide to the Stability and Growth Pact, European Economy, Occasional Papers, No. 150, May.
- European Commission (2013a): Report on Public Finances in the EMU, European Economy No. 4, 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, 19 November, COM(2013) 901 final/2, annex 1, Brussels.

European Commission (2013c): The 2013 Stability and Convergence Programmes: An Overview, European Economy, Occasional Papers No. 152, June, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.

European Commission (2014a): Annual macro-economic database (Ameco), May 2014.

European Commission (2014b): Circa database on output gaps, May 2014.

European Commission (2014c): The 2014 Stability and Convergence Programmes: An Overview, European Economy, Occasional Papers No. 199, July, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.

European Commission (2014d): European Economic Forecast Spring 2014, European Economy, 3, 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}, 2.6. COM(2014) 406 final, Brussels.

European Council (2013): COUNCIL RECOMMENDATION with a view to bringing an end to the situation of an excessive government deficit in Spain, 20 June, 0560/1/13 REV 1 (en), Ecofin 478, Brussels.

European Council (2014): European Council 26/27 June 2014 Conclusions, EUCO 79/14, CO EUR 4 CONCL 2, Brussels.

Fazzari, S. M., Morley, J., Panovska, I. (2012), State dependent effects of fiscal policy. Australian School of Business Research Paper No. 2012 ECON 27.

Gechert, S. (2013): What fiscal policy is most effective? A meta-regression analysis, IMK Working Paper No. 117, September, Düsseldorf: IMK in der Hans-Böckler-Stiftung.

Gechert, S., Rannenberg, A. (2014): Are Fiscal Multipliers Regime-Dependent? A Meta Regression Analysis, IMK Working Paper No. 139, September, Düsseldorf: IMK in der Hans-Böckler-Stiftung.

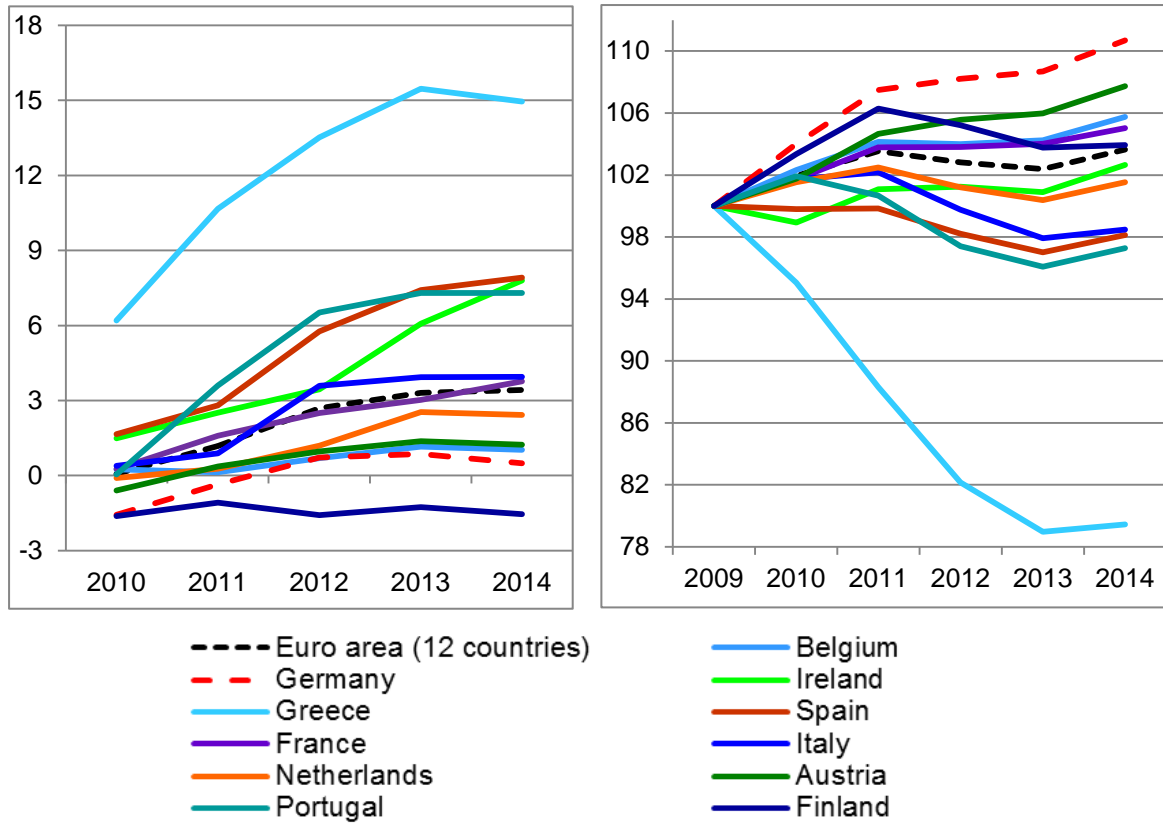
Girouard, N., C. André (2005) "Measuring Cyclically-Adjusted Budget Balances for OECD Countries." OECD Working Paper no. 434, Paris.

- Guajardo, J., Leigh, D., Pescatori, A. (2011): *Expansionary Austerity: New International Evidence*, International Monetary Fund, Working Paper WP/11/158, Washington D.C.
- Hein, E., Stockhammer, E. (2011): A post-Keynesian macroeconomic model of inflation, distribution and employment, in: Hein, E., Stockhammer, E. (eds.): *A Modern Guide to Keynesian Macroeconomics and Economic Policies*, Cheltenham, Edward Elgar.
- Hein, E. and Truger, A. (2007a), 'Fiscal policy and macroeconomic performance in the Euro area: lessons for the future', in J. Bibow, and A. Terzi (eds), *Euroland and the World Economy. Global Player or Global Drag?* (Basingstoke: Palgrave Macmillan).
- Hein, E., Truger, A. (2014): Fiscal policy and rebalancing in the Euro area: A critique of the German debt brake from a Post-Keynesian perspective, *Panoeconomicus* 61 (1): 21-38.
- Hein, E., Truger, A., van Treeck, T. (2012): The European financial and economic crisis: Alternative solutions from a (Post-)Keynesian perspective, in: Arestis, P., Sawyer, M. (2012) *The Euro Crisis*, International Papers in Political Economy, Basingstoke: Palgrave Macmillan: 35-78.
- Hemming, R., Kell, M. and Mahfouz, S. (2002): *The Effectiveness of Fiscal Policy in Stimulating Economic Activity: A Review of the Literature*, International Monetary Fund Working Paper No. 02/208, Washington D.C.
- Holland, D., Portes, J. (2012): *Self-Defeating Austerity?*, National Institute Economic Review No. 222 (October), F4 – F10.
- Horn, G., C. Logeay, S. Tober (2007): "Estimating Germany's Potential Output", IMK Working Paper no. 2/2007, Duesseldorf.
- IMF (2012): *World Economic Outlook October 2012*.
- Klär, E. (2013): Potential Economic Variables and Actual Economic Policies in Europe, in: *Intereconomics*, 48 (1-2): 33 - 40.
- Klär, E. (2014): *Die Eurokrise im Spiegel der Potenzialschätzungen: Lehren für eine alternative Wirtschaftspolitik?*, WiSo-Diskurs, April, Bonn: Friedrich-Ebert-Stiftung.
- Larch, M., Turrini, A. (2010): The Cyclically Adjusted Budget Balance in EU Fiscal Policymaking, in: *Intereconomics* 45 (1-2): 48 - 60.

- Micossi, S. /Peirce, F. (2014): Flexibility clauses in the Stability and Growth Pact: No need for revision CEPS Policy Brief No. 319, 24 July, Brussels: Centre for European Policy Studies.
- Mourre, G., Isbasoiu, G., Paternoster, D., Salto, M. (2013): The cyclically-adjusted budget balance used in the EU fiscal framework: an update, European Economy, Economic Papers 478: Brussels: European Commission.
- OECD (2012): Restoring Public Finances, 2012 Update, Paris.
- OFCE [observatoire français des conjonctures économiques], ECLM [Economic Council of the Labour Movement], IMK [Institut für Makroökonomie und Konjunkturforschung in der Hans-Böckler-Stiftung] (2013): Independent annual growth survey: first report, Brussels: Progressive Economy.
- OFCE, ECLM, IMK (2014): Independent annual growth survey: second report, Brussels: Progressive Economy.
- Perotti, R. (2012): The “Austerity Myth”: Gain Without Pain?, Bank for International Settlements, Working Papers No. 362, Basel.
- Princen, S., Mourre, G., Paternoster, D., Isbasoiu, G.M. (2013): Discretionary tax measures: pattern and impact on tax elasticities, Economic Papers 499, Brussels: European Commission, Directorate-General for Economic and Financial Affairs.
- Truger, A. (2013): Austerity in the euro area: the sad state of economic policy in Germany and the EU, in: European Journal of Economics and Economic Policies, Intervention 2/2013, pp. 158-174.
- Truger, A., Paetz, C. (2012): The Economic Effects of Austerity Policies in Europe: Some back-of-the-envelope calculations, paper prepared for the Euromemo-Conference in Poznan.  
[http://www2.euromemorandum.eu/uploads/truger\\_paetz\\_fiscal\\_policy\\_in\\_the\\_euro\\_area.pdf](http://www2.euromemorandum.eu/uploads/truger_paetz_fiscal_policy_in_the_euro_area.pdf)
- Truger, A. and Will, H. (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, G., Poncela, P., Senra, E., Sotelsek, D. (2013): Towards an effective structural budget balance for economic stability, Documentos de trabajo UC-CIFF-IELAT No 13, June, Madrid: Centro Internacional de Formación Financiera (CIFF), Universidad de Alcalá.

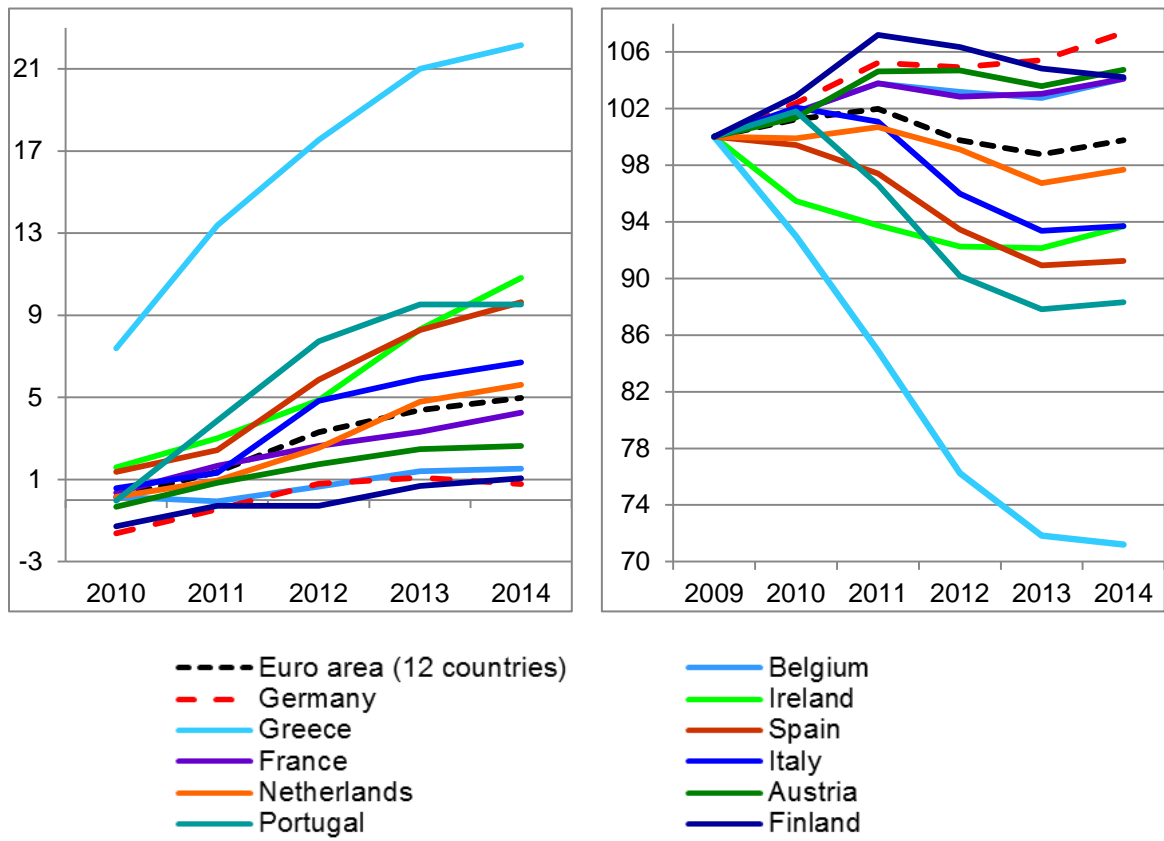
## 7. Appendix

**Figure A1: cumulative fiscal effort 2010-2014 (based on EU Commission May 2014 estimate of potential GDP) in % of GDP and real GDP index (2009=100) 2009-2014, Euro area-12.**



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

**Figure A2: cumulative fiscal effort 2010-2014 in % of GDP and index of total real domestic demand (2009=100) 2009-2014, Euro area-12.**



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

---

**Publisher:** Hans-Böckler-Stiftung, Hans-Böckler-Str. 39, 40476 Düsseldorf, Germany  
**Phone:** +49-211-7778-331, [IMK@boeckler.de](mailto:IMK@boeckler.de), <http://www.imk-boeckler.de>

**IMK Working Paper is an online publication series available at:**  
[http://www.boeckler.de/imk\\_5016.htm](http://www.boeckler.de/imk_5016.htm)

**ISSN:** 1861-2199

The views expressed in this paper do not necessarily reflect those of the IMK or the Hans-Böckler-Foundation.

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

**Hans Böckler  
Stiftung** 

Fakten für eine faire Arbeitswelt.

---