

# EUROPEAN ECONOMY

Economic Papers 353 | December 2008



## Constricted, lame and pro-cyclical? Fiscal policy in the euro area revisited

Servaas Deroose, Martin Larch and Andrea Schaechter

**Economic Papers** are written by the Staff of the Directorate-General for Economic and Financial Affairs, or by experts working in association with them. The Papers are intended to increase awareness of the technical work being done by staff and to seek comments and suggestions for further analysis. The views expressed are the author's alone and do not necessarily correspond to those of the European Commission. Comments and enquiries should be addressed to:

European Commission  
Directorate-General for Economic and Financial Affairs  
Publications  
B-1049 Brussels  
Belgium  
E-mail: [Ecfin-Info@ec.europa.eu](mailto:Ecfin-Info@ec.europa.eu)

This paper exists in English only and can be downloaded from the website  
[http://ec.europa.eu/economy\\_finance/publications](http://ec.europa.eu/economy_finance/publications)

A great deal of additional information is available on the Internet. It can be accessed through the Europa server (<http://europa.eu> )

ISBN 978-92-79-10762-7  
doi: 10.2765/82691

© European Communities, 2008

# Constricted, lame and pro-cyclical? Fiscal policy in the euro area revisited

Servaas Deroose, Martin Larch and Andrea Schaechter

(Directorate-General for Economic and Financial Affairs and Bureau of European Policy  
Advisers, European Commission)

December 2008

## Abstract

It is often argued that fiscal stabilisation in the euro area compares unfavourably with the US, not least because of the perceived limitations of the Stability and Growth Pact. This paper qualifies this perception by taking a closer look at fiscal policy making since the mid-1990s. It examines a number of elements which are generally overlooked or not considered in the analysis of fiscal stabilisation. In particular, on top of discretionary fiscal policy, which generally is at the core of existing studies, it also takes into account the size of automatic stabilisers. Moreover, it considers the difference between policy intentions, as formulated or perceived in real time, and actual outturns, and possible reasons for the gap between the two. On the basis of such a more specific analysis, fiscal stabilisation in the euro area appears less dire than commonly assumed. It also suggests a number of points on how to improve the track record, including by strengthening fiscal governance.

JEL Classification: E61, H3, H6

Key words: fiscal policy, fiscal stabilisation, euro area, automatic stabilisers, output gap

---

**Acknowledgements:** We are indebted to Marco Buti, Lucio Pench, Klaus Regling and Eric Ruscher for helpful comments. All remaining shortcomings are our own.

**Disclaimer:** The views and opinions expressed here are the authors' only and should not be attributed to the European Commission.

## Contents

|   |    |
|---|----|
| 1. Introduction .....   | 3  |
| 2. Fiscal stabilisation in the euro area: what is the evidence?.....                | 5  |
| 3. Fiscal stabilisation: Is there more to it than discretionary measures?.....      | 10 |
| 4. The benefit of hindsight: Deliberate (de)stabilisation or just (bad) luck? ..... | 17 |
| 5. Discretionary or automatic? Drawing an imaginary line .....                      | 22 |
| 6. Summary and conclusions.....   | 25 |
| References .....  | 30 |

## 1. INTRODUCTION

If there was a transatlantic beauty contest for fiscal stabilisation, the euro area would, most likely, end up behind the US when applying conventional assessment criteria. The policy stance resulting from the decentralised system of policy making on this side of the Atlantic is generally taken to be less successful in ironing temporary fluctuations of output compared to the fiscal policy decisions taken in Washington. A frequently invoked episode from the recent past are the early 2000s, when following the bursting of the ICT bubble the US fiscal authorities implemented a marked discretionary fiscal expansion while fiscal policy makers in most euro-area countries did not seem to lean against the wind in spite of a marked economic slowdown. A similar, although still preliminary, assessment is being made of the current policy stance in the sense that fiscal stabilisation in the euro-area Member States seems once more lagging behind that of the US.

Beyond this specific episode, two major flaws are generally held against fiscal stabilisation in the euro area. First, fiscal policy measures are normally judged to be more hesitant and less incisive. Second and more seriously, instead of dampening cyclical swings of output, fiscal policy in the euro area has frequently been pro-cyclical, including the early 2000s: expansionary when the economy boomed and restrictive when the economy turned soar.

Both flaws seem to vindicate critics of the Stability and Growth Pact (SGP) – the EU framework governing fiscal policy making in the Economic and Monetary Union (EMU). They often argue that the 3% of GDP deficit threshold of the EU Treaty puts fiscal policy in the euro area too much into a straight jacket. It is seen as an obstacle for effective fiscal stabilisation because, if binding, it ties hands of fiscal policy makers irrespective of prevailing cyclical conditions.

This paper takes a fresh look at fiscal stabilisation in the euro area and tries to qualify the traditionally unflattering comparison with the US. The analysis calls attention to a number of pivotal aspects of fiscal policy making which even though conventional are generally neglected or considered in isolation.

To begin with, the analysis of fiscal stabilisation is typically limited to discretionary policy making. The effect of so-called automatic stabilisers – budgetary arrangements

which produce a stabilising effect without the explicit intervention of policy makers – is not taken into account. Explicitly or implicitly, such a partial approach could be defended on the ground that a fair judgement can reasonably be passed only on measures resulting from discretionary choices. While one may have some sympathy with this kind of reasoning – i.e. one should be held responsible only for deliberate actions – it turns a blind eye on a number of points that are not immaterial for the assessment of fiscal stabilisation. As a first point, automatic stabilisers can differ across countries in terms of both, their size and composition. Such differences can critically shape the effectiveness of fiscal policy to stabilise output on top of or in spite of discretionary measures.

A second element gradually, yet still insufficiently, grabbing the attention of fiscal policy makers and academics alike, is the at times large gap between the actual effect of fiscal stabilisation, which can be appraised only ex post, and the policy intentions formulated in real time. The gap is not only due to the well-known time lags between identifying stabilisation needs and measures taking effect but mostly due to the notorious uncertainty surrounding the assessment of cyclical conditions. It may induce policy makers to take specific policy measures, which with the benefit of hindsight, may turn out to have been inappropriate, notably pro-cyclical. Clearly, a better understanding of policy intentions does not change the actual impact of fiscal policy. Nevertheless, insights may be exploited to improve the real-time measurement of cyclical conditions and, in turn, of fiscal stabilisation.

The third and final point of our analysis refers to the conventional distinction between discretionary fiscal stabilisation and automatic stabilisers. Although appealing, it is less clear cut and informative than generally believed. Contrary to the commonplace view, the bulk of automatic stabilisers does not originate in progressive tax codes and unemployment benefits. Automatic stabilisation mainly works through the inertia of discretionary expenditure with respect to cyclical swings in output: their share in GDP increases ‘automatically’ in downturns and declines in upturns. Hence, successful stabilisation via automatic stabilisers essentially depends on the type of economic shock that an economy is facing. In the event of a permanent negative shock a given level of discretionary expenditure will become unsustainable in the long run. While this may sound like a truism to some ears, it is far from evident in the policy debate. In particular,

what originally may have been intended as automatic stabilisation may, with the passing of time, be interpreted as a discretionary fiscal policy measure.

Evidently, the qualifications offered in this paper do not alter the ultimate impact of fiscal policy – be it discretionary or automatic – on aggregate output. At the end of the day fiscal policy has either been counter- or pro-cyclical. On the other hand, as hinted at before, a better understanding of details and mechanisms helps rectify the appraisal of fiscal stabilisation and possibly think of ways to improve policy making.

For the sake of completeness and transparency, it is also important to stress what we do not do in our transatlantic comparison of fiscal stabilisation. We do not venture into the thorny field of assessing the exact size of the impact that fiscal measures produce on aggregate demand. We concentrate on changes in fiscal variables which, in the presence of nominal and real rigidities, are taken to produce a short-term impact on the aggregate level of economic activity.

The remainder of the paper is organised as follows. Section 2 reviews the experience with discretionary fiscal policy for the euro area as a whole and the individual Member States and compares it with the evidence for the United States. The rest of the paper substantiates this comparison by analysing in more detail specific aspects of fiscal policy making. In particular, Section 3 shows that assessing fiscal stabilisation records is not complete without reviewing the role of automatic stabilisers. Section 4 contrasts the ex post fiscal outcomes with ex ante or real-time fiscal plans. Section 5 brings both of these elements together and highlights the difficulties in differentiating discretionary from automatic fiscal impulses in practice. Section 6 concludes and provides some policy considerations on how to reduce the euro-area's proneness to fiscal pro-cyclicality.

## **2. FISCAL STABILISATION IN THE EURO AREA: WHAT IS THE EVIDENCE?**

Despite the conventional macroeconomic thinking that fiscal policy can and should contribute to smoothing temporary swings in aggregate economic activity, pro-cyclicality of fiscal policy remains a widespread phenomenon around the world. Studies find that in developing and middle income countries fiscal policy has frequently moved with the cycle. For developed economies the findings are more nuanced and depend on the time period and countries considered. When fiscal policy has been pro-cyclical in industrial

countries, it has mostly been so in good economic times (see for instance Manasse, 2006 and Alesina and Tabellini, 2005). The deficit bias in good times has largely been attributed to political economic motives as policy makers may attach more weight to objectives other than the stabilisation of output. In particular, when competing for public resources ministers neglect the repercussions of their decisions on overall public finances. This 'common pool problem' gets worse in good economic times as more overall resources are available. For a comprehensive review of the political economy of fiscal policy making, including alternative mechanisms that may give rise to pro-cyclical fiscal policy making, see Drazen (2000).

Pro-cyclicality of fiscal policy has also emerged as a characteristic of the euro area (see e.g. Langedijk, 2004). Since the early 1990s, when EU Member States agreed to establish an economic and monetary union and started preparing for the single European currency - which was effectively introduced in 1999 – repeated episodes of pro-cyclical fiscal policy have been observed. On the face of it, these episodes seem to have vindicated critics who have argued that the SGP would seriously hamper the stabilisation function of fiscal policy. Such judgement was passed well before the SGP came into force - for instance by Buiter et al. (1992) - and was reiterated more forcefully – for instance by Canzoneri and Diba (2001) and Calmfors (2003) – a few years after its inception.

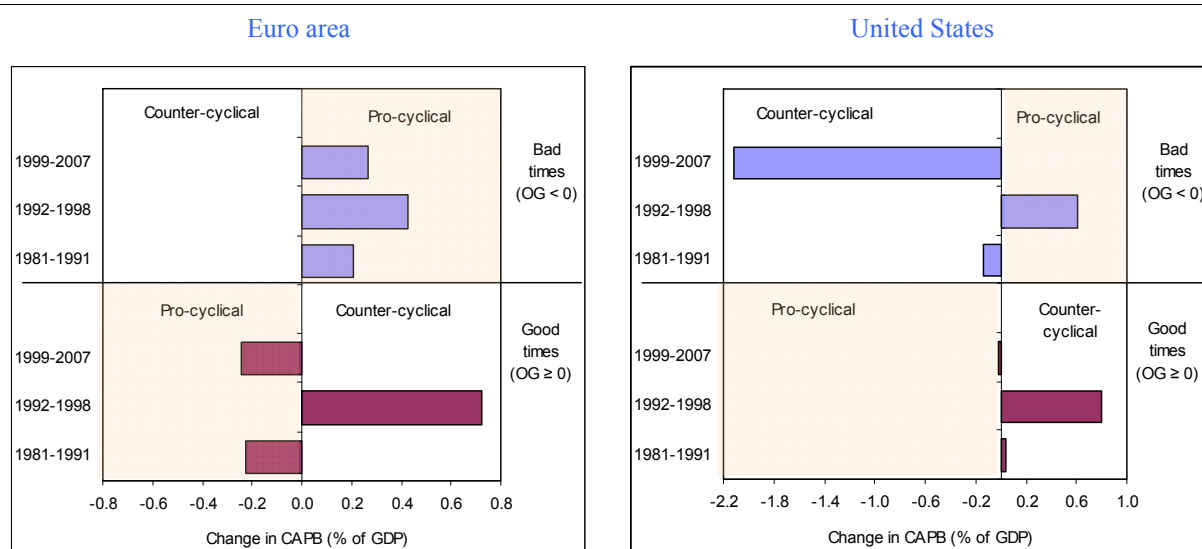
However, available econometric evidence on how the EU fiscal framework may have affected fiscal stabilisation in the countries adopting the single European currency is not necessarily discouraging. The introduction of the euro does not seem to have weakened the ability of fiscal policy to stabilise cyclical swings in general. Gali and Perotti (2003) were among the first to conclude that the SGP has not impaired the stabilisation role of fiscal policy. They actually find that a clear pro-cyclical pattern in the pre-Maastricht period has given way to a more counter- or a-cyclical trend after 1991. Similarly, Fatas and Mihov (2003) document that the SGP constraints seem to have mitigated the various influences that are believed to distort the use of the fiscal policy instrument.

But these findings need to be qualified on at least three accounts. First, the estimated improvement in the stabilisation property of fiscal policy in the euro area after 1991 masks a significant change in the behaviour across the different phases of the economic cycle. **Figure 1**, shows the fiscal stance, as measured by the average change in the cyclically-



adjusted primary balance (CAPB), in the EU-11 countries for three different sub-periods.<sup>(1)</sup> Cyclical conditions are captured by differentiating between years in which the output gap is measured to have been positive (good times) or negative (bad times). In the period preceding Maastricht (1980-1991), there is a clear pro-cyclical stance in both stages of the cycle: the fiscal stance is on average expansionary in good times and contractionary in bad times. The pattern changed in the second sub-period (1992-1998) when the eleven countries, in an effort to fulfil the Maastricht criteria for adopting the euro, ran on average tight fiscal policies irrespective of the cyclical position.<sup>(2)</sup> After the introduction of the SGP and the single currency in 1999, the pattern has shifted back to what it was in pre-Maastricht times with pro-cyclicality in good times being particularly pronounced.

**Figure 1: Ex post fiscal stance in good and bad times, euro area and United States**



*Notes:* CAPB = Cyclically adjusted primary balance. OG = output gap. The fiscal stance in the euro area has been adjusted for UMTS revenues in years 2000-2002. Good times correspond to periods of positive output gaps and bad times to periods of negative output gap. The euro area data are weighted averages and do not include Cyprus, Luxembourg, Malta and Slovenia. Caution is needed for the interpretation of the period 1992-98 since it includes only a single year for good times (1992 for the euro area; 1998 for the US).

*Sources:* Commission services calculations based on OECD data.

<sup>(1)</sup> The EU-11 includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal and Spain.

<sup>(2)</sup> The on average counter-cyclical stance in good times in 1992-1998 must be interpreted with caution since the output gap was positive only in a single year (1992).

A second important *provisio* to keep in mind when considering the findings of Gali and Perotti (2003) is that panel estimates may not necessarily capture the correct policy implications. While ensuring statistical rigour, panel estimates attach the same weight to each country independently of its relative size in the euro area. Consequently, emerging statistical regularities may not reflect the factors that actually shape the policy stance and, in turn, the policy mix in the monetary union as whole. In particular, they do not appropriately highlight the role played by the fiscal performance in large euro-area countries, whose behaviour ran afoul with the provisions of the SGP and eventually led to the crisis of the Pact in 2003 (see e.g. Buti and Pench, 2004). Even if all euro-area countries run a counter-or a-cyclical fiscal policy, except Germany, France and Italy (as was for instance the case in the early 2000s) the overall policy stance of the euro area would still be pro-cyclical.

**Table 1: Ex post fiscal stance in good and bad times, euro-area Member States and the United States**

|                            |        | 1996       | 1997       | 1998        | 1999        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005       | 2006       | 2007        | Average     | Number of years with pro-cyclical policy |
|----------------------------|--------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|--|
| (Change in CAPB, % of GDP) |        |            |            |             |             |             |             |             |             |             |            |            |             |             |  |
| Austria                    | OG ≥ 0 |            |            | <b>-1.2</b> | <b>-0.6</b> | <b>-0.3</b> | 2.6         |             |             |             |            |            | 0.4         | 0.2         | 6  |
|                            | OG < 0 | <b>1.7</b> | <b>1.9</b> |             |             |             |             | 0.0         | -0.2        | -2.5        | <b>2.2</b> | -0.6       |             | <b>0.4</b>  |  |
| Belgium                    | OG ≥ 0 |            |            |             | <b>-0.7</b> | <b>-0.4</b> | 0.7         |             |             |             |            |            |             | -0.1        | 7  |
|                            | OG < 0 | <b>0.7</b> | <b>0.4</b> | <b>1.2</b>  |             |             |             | -0.6        | <b>0.3</b>  | -0.9        | -2.7       | <b>2.1</b> | -0.8        | 0.0         |  |
| Finland                    | OG ≥ 0 |            |            |             | <b>-0.6</b> | 3.9         | <b>-1.9</b> |             |             |             |            | 0.3        | 0.8         | 0.5         | 6  |
|                            | OG < 0 | <b>2.6</b> | <b>1.2</b> | <b>1.7</b>  |             |             |             | -0.6        | -1.2        | -0.6        | <b>0.4</b> |            | <b>0.5</b>  |             |  |
| France                     | OG ≥ 0 |            |            |             | 0.2         | <b>-0.5</b> | 0.2         | <b>-1.0</b> |             |             |            | 0.2        | <b>-0.2</b> | <b>-0.2</b> | 7  |
|                            | OG < 0 | <b>2.0</b> | <b>0.6</b> | -0.1        |             |             |             |             | -0.5        | <b>0.4</b>  | <b>0.5</b> |            | <b>0.5</b>  |             |  |
| Germany                    | OG ≥ 0 |            |            |             |             | <b>-0.8</b> | <b>-1.7</b> | <b>-0.2</b> |             |             |            |            | 1.0         | <b>-0.4</b> | 11                                       |
|                            | OG < 0 | <b>0.2</b> | <b>0.6</b> | <b>0.4</b>  | <b>0.4</b>  |             |             |             | <b>0.5</b>  | <b>0.5</b>  | <b>0.5</b> | <b>0.9</b> | <b>0.5</b>  |             |  |
| Greece                     | OG ≥ 0 |            |            |             |             |             |             |             | <b>-1.7</b> | <b>-1.9</b> | 1.7        | 2.2        | <b>-0.1</b> | 0.0         | 5  |
|                            | OG < 0 | <b>1.8</b> | -1.4       | <b>1.3</b>  | -0.1        | -0.9        | -2.1        | -0.5        |             |             |            |            | -0.3        |             |  |
| Ireland                    | OG ≥ 0 |            |            | <b>-0.1</b> | <b>0.5</b>  | <b>-1.5</b> | 1.0         | <b>-3.9</b> | <b>-1.1</b> | 1.5         | 0.0        | 1.1        |             | <b>-0.3</b> | 6  |
|                            | OG < 0 | <b>0.9</b> |            |             |             |             |             |             |             | <b>1.4</b>  |            |            | -2.5        | -0.1        |  |
| Italy                      | OG ≥ 0 |            |            |             |             | 0.0         | <b>-0.3</b> | <b>-0.3</b> |             |             |            |            |             | <b>-0.2</b> | 4  |
|                            | OG < 0 | -1.3       | -0.5       | -1.4        | -1.3        |             |             |             | -0.7        | <b>0.7</b>  | <b>1.9</b> | 0.0        | 0.0         | -0.3        |  |
| Netherlands                | OG ≥ 0 |            |            | <b>-0.4</b> | <b>-1.6</b> | <b>-0.7</b> | <b>-0.2</b> | 1.2         |             |             |            |            | 0.0         | <b>-0.3</b> | 4  |
|                            | OG < 0 | -0.3       | 0.0        |             |             |             |             |             | <b>1.7</b>  | 0.0         | -0.9       | 0.0        | 0.1         |             |  |
| Portugal                   | OG ≥ 0 |            |            | <b>-0.7</b> | <b>-1.4</b> | <b>-0.1</b> | <b>-1.1</b> | <b>-0.8</b> | 2.1         |             |            |            |             | <b>-0.3</b> | 8  |
|                            | OG < 0 | -0.6       |            |             |             |             |             |             |             | <b>1.2</b>  | -0.4       | -2.4       | <b>2.5</b>  | <b>1.3</b>  |  |
| Spain                      | OG ≥ 0 |            | <b>0.7</b> | <b>-0.8</b> | <b>0.7</b>  | <b>-0.9</b> | 0.4         | 0.3         |             |             |            |            |             | 0.1         | 7  |
|                            | OG < 0 | <b>2.0</b> |            |             |             |             |             |             | <b>0.2</b>  | -0.4        | <b>1.0</b> | <b>0.4</b> | <b>0.1</b>  | <b>0.6</b>  |  |
| Euro area                  | OG ≥ 0 |            |            |             | 0.0         | <b>-0.6</b> | <b>-0.8</b> | <b>-0.3</b> |             |             |            |            | 0.5         | <b>-0.2</b> | 8  |
|                            | OG < 0 | <b>1.1</b> | <b>0.8</b> | -0.1        |             |             |             |             | 0.0         | <b>0.1</b>  | <b>0.3</b> | <b>0.7</b> | <b>0.4</b>  |             |  |
| United States              | OG ≥ 0 |            |            | <b>0.8</b>  | <b>-0.3</b> | 0.3         | <b>-1.8</b> |             |             |             |            |            |             | 0.1         | 5  |
|                            | OG < 0 | <b>0.8</b> | <b>0.9</b> |             |             |             |             | -3.1        | -1.1        | 0.1         | 0.7        | 0.9        | <b>-0.3</b> | -0.6        |  |

*Notes:* Figures in bold indicate that the fiscal stance was pro-cyclical. CAPB = Cyclically adjusted primary balance. The fiscal stance in euro area has been adjusted for UMTS revenues. The euro-area data refer to the EU-11 as defined Footnote 1.

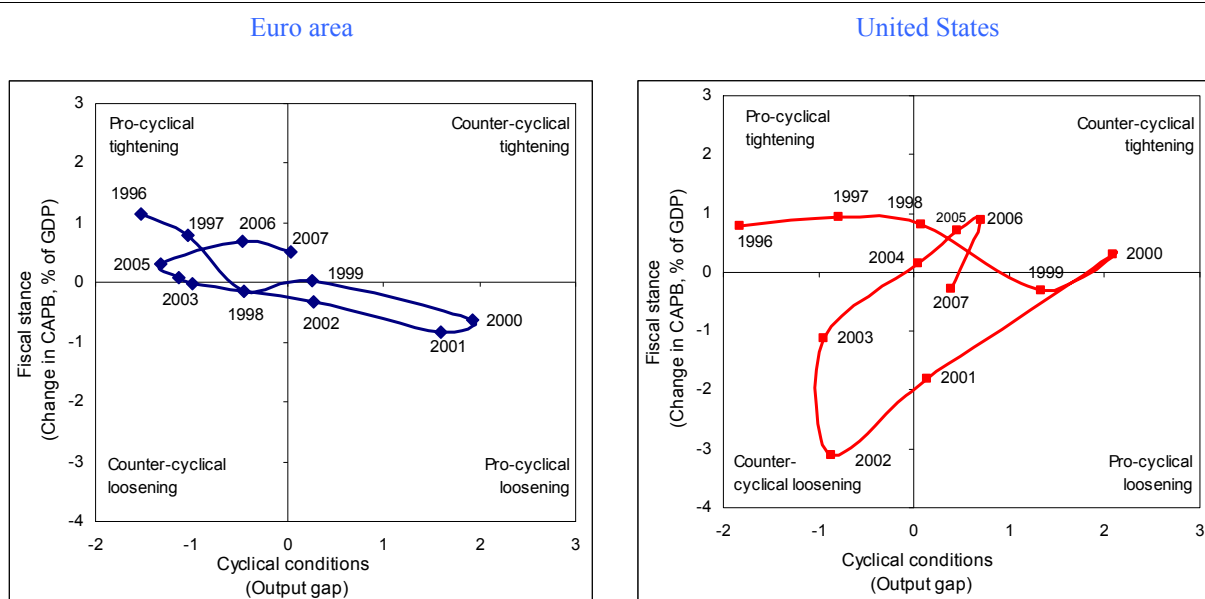
*Sources:* Commission services calculations based on OECD data.

And third, Gali and Perotti's study accounts only for the period up to 2002 and therefore does not capture the pro-cyclical episodes since. Across the EU-11 nearly half the years since 2002 were characterised by a pro-cyclical stance. Since this included the largest

members of the monetary union this has translated into pro-cyclicality for the euro area as a whole ([Table 1](#)).

To underscore the alleged shortcomings of the EU fiscal framework, critics often called attention to the US experience since the mid-1990s where, *prima facie*, fiscal stabilisation appears to have been more successful. Based on the traditional analysis ([Figure 2](#)) which looks only at the role of discretionary fiscal policy, fiscal policy in the euro area emerges as having been more pro-cyclical than that of the US. While this becomes already evident from [Figure 1](#), which shows the discretionary stance over the three time periods in the euro area and the US, it is highlighted further in [Figure 2](#) which depicts the discretionary fiscal stance and the cyclical conditions in both areas since 1996. All data points that lie in the upper left and lower right quadrants indicate times in which fiscal policy has been pro-cyclical, while the other two quadrants depict counter-cyclical periods. As mentioned above, euro-area fiscal policy was characterised by strong pro-cyclical fiscal tightening in the run-up to EMU, followed by an adjustment fatigue that created a pro-cyclical fiscal loosening despite sustained economic growth (2000-2001). When economic conditions deteriorated from 2002, fiscal policy tightened again and then moved towards a neutral stance during the upswing in 2005-2007. This pattern seems to be in contrast with the experience recorded in the US where discretionary fiscal stance has largely helped to stabilise the economy even though this was not the explicit and prime objective of fiscal policy in every year. In particular, the sharp turnaround from a cyclically-adjusted primary surplus in 2000 to a deficit of more than 3% of GDP in 2002 was not only a response to the economic slowdown following the bursting of the ICT bubble in 2001. Rather, it largely reflected (i) the increase in defence spending linked to the war in Iraq and (ii) tax cuts with an electoral motive.

**Figure 2: Ex-post fiscal stance and cyclical conditions, euro area and United States**



*Notes:* CAPB = Cyclically adjusted primary balance. The fiscal stance in the euro area has been adjusted for UMTS revenues. The euro-area refers to the EU-11 as defined in Footnote 1.

*Sources:* Commission services calculations based on OECD data.

### 3. FISCAL STABILISATION: IS THERE MORE TO IT THAN DISCRETIONARY MEASURES?

When analysing and discussing the impact and role for fiscal stabilisation, the focus is mostly on discretionary measures; the role played by automatic stabilisers – arrangements that help smooth output without explicit intervention of fiscal authorities – receives generally less attention, most probably because their stabilising function is, by construction, incontrovertible. However, when comparing fiscal stabilisation across countries the size of automatic stabilisers becomes an important element to take into account. Depending on their size, they may counterbalance or even completely offset pro-cyclical discretionary policies.

When referring to automatic stabilisers, most economists and practitioners typically think of two budgetary elements that feature more or less prominently in the budget of industrialised economies: progressive tax codes and unemployment benefits. Progressive tax codes make tax revenues increase (decrease) more than proportionally when GDP rises (falls). Similarly, unemployment benefits rise and drop with the number of unemployed people, which moves in a countercyclical fashion. Both mechanisms cool (support) the

economy during booms (busts) by giving rise to an increase (decline) in the budget-balance-to-GDP ratio.

**Table 1** and **Figure 3** report the key elements of automatic stabilisers in the US and the euro area. These estimates are derived from a method developed by the OECD (see Van den Noord, 2000 and Girouard and André, 2005) and used by the services of the European Commission for the implementation of the EU fiscal surveillance framework (see European Commission, 2004).

**Table 2: Size and composition of automatic stabilisers  
in the euro area and the United States**

|                  | Semi-elasticities |                     |                    | Elasticities |              |
|------------------|-------------------|---------------------|--------------------|--------------|--------------|
|                  | Revenues<br>(a)   | Expenditures<br>(b) | Total<br>(a) - (b) | Revenues     | Expenditures |
| BE               | 0.00              | -0.50               | 0.49               | 1.00         | -0.16        |
| DE               | -0.01             | -0.53               | 0.51               | 0.97         | -0.27        |
| EL               | 0.03              | -0.37               | 0.40               | 1.07         | -0.04        |
| ES               | 0.03              | -0.36               | 0.39               | 1.09         | -0.16        |
| FR               | -0.01             | -0.51               | 0.50               | 0.98         | -0.12        |
| IE               | 0.04              | -0.32               | 0.37               | 1.14         | -0.16        |
| IT               | 0.07              | -0.41               | 0.48               | 1.17         | -0.04        |
| LU               | 0.06              | -0.40               | 0.47               | 1.14         | -0.04        |
| NL               | 0.00              | -0.55               | 0.56               | 1.01         | -0.42        |
| AT               | -0.02             | -0.47               | 0.45               | 0.96         | -0.08        |
| PT               | 0.03              | -0.43               | 0.46               | 1.08         | -0.09        |
| FI               | -0.03             | -0.53               | 0.49               | 0.92         | -0.21        |
| <b>Euro area</b> | <b>0.01</b>       | <b>-0.48</b>        | <b>0.48</b>        | <b>1.03</b>  | <b>-0.17</b> |
| <b>US</b>        | <b>0.00</b>       | <b>-0.35</b>        | <b>0.34</b>        | <b>1.00</b>  | <b>-0.09</b> |

*Notes:* Euro-area averages are GDP-weighted. A semi-elasticity measures the change in a ratio with respect to a percentage change of the denominator, i.e.

$$\partial \left( \frac{R-G}{Y} \right) / \frac{\partial Y}{Y} = \left( \frac{\partial R}{\partial Y} \frac{Y}{R} - 1 \right) \frac{R}{Y} - \left( \frac{\partial G}{\partial Y} \frac{Y}{G} - 1 \right) \frac{G}{Y} = (\eta_R - 1) \frac{R}{Y} - (\eta_G - 1) \frac{G}{Y}$$

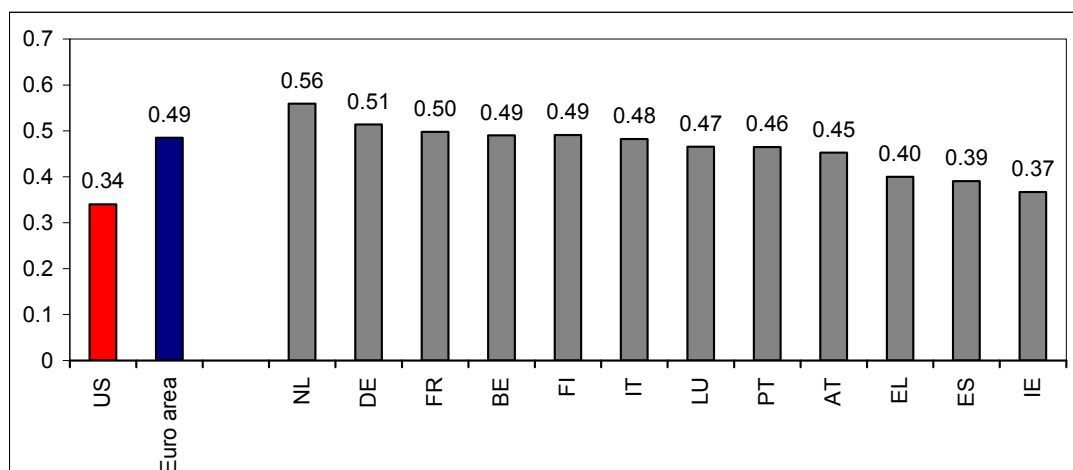
where  $R$  stand for revenues,  $E$  for expenditure,  $Y$  for GDP.  $\eta_R$  and  $\eta_G$  denote the elasticity of revenues and expenditure to GDP respectively.

*Sources:* OECD, European Commission and Girouard and André (2005).

Unsurprisingly, and abstracting from significant cross-country differences within the group of countries having adopted the single European currency, automatic stabilisers are markedly more important in the euro area than in the US. A cyclical drop of GDP of 1% in the euro area raises the fiscal deficit ratio by on average ½ a percentage point as opposed to an increase by around ⅓ of a percentage point in the US.

---

**Figure 3: The size of automatic stabilisers in the euro area and the United States**



Notes: Formally, the estimates represent semi-elasticities, i.e. they measure the change in the budget balance-to-GDP ratio with respect to a relative change of GDP or, equivalently, a percentage change in the output gap. The estimates of the size of automatic stabilisers are derived from a methodology developed by the OECD (see Girouard and André, 2005) and endorsed by the competent committees of the Council of the European Union and the Economic Policy Committee. The euro-area data do not include Cyprus, Malta and Slovenia.

Sources: European Commission services and OECD.

---

The next thing to note is that, on the whole, tax systems tend to be largely proportional. The progressive elements of income taxation are essentially balanced by the regressive character of social contributions. As a result, in both the US and the euro area, including the individual member countries, the elasticity of total taxes with respect to GDP is equal or very close to unity (second column from the right). This means that revenues essentially move in line with GDP, i.e. the revenue-to-GDP ratio remains largely constant over the cycle.

As regards unemployment benefits, the other ‘classical automatic stabiliser’, they represent a very small share of total primary expenditure: around 2% in the US and 3.5% in the euro area as a whole. Taking into account the link between unemployment and aggregate economic activity (Girouard and André, 2005 estimate an elasticity of -5.5 for the US and -4.4 in the euro area) a decline of GDP of one percentage point leads *ceteris paribus* to an increase in the expenditure ratio of merely one decimal point in the US and

less than two decimal points in the euro area as a whole (one decimal point if simple averages are used), hardly a big impulse.<sup>(3)</sup>

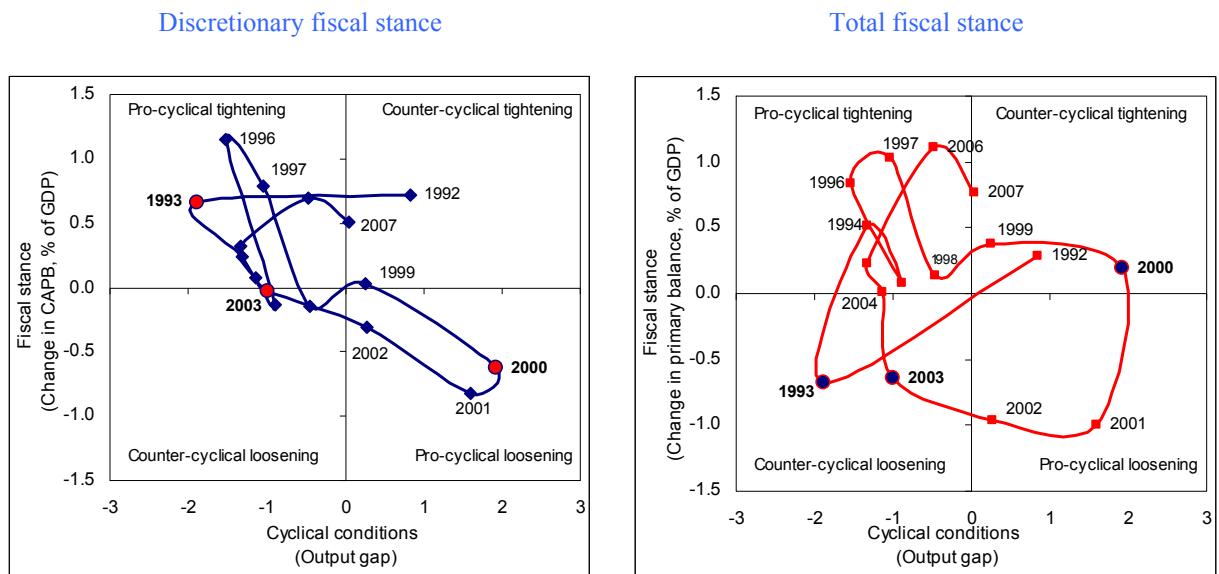
Thus, empirically, progressive tax codes and unemployment benefits only account for a small part of automatic stabilisation. The bulk of automatic stabilisation originates rather from the inertia in adjusting other expenditure components over the cycle. For example, if output declines temporarily, governments do generally not close schools, fire doctors and nurses, lay off judges and soldiers or leave infrastructure projects like roads or buildings unfinished. On the contrary, expenditure plans, if drawn up on optimistic GDP forecasts, may envisage an upward trend for some expenditure categories which would not necessarily be revised in times of negative growth surprises. In other words, the implementation of discretionary expenditure levels in line with plans leans against the decline or increase in aggregate output. It is this mechanism that accounts for the largest part of automatic fiscal stabilisation across the cycle. The two commonplace candidates, progressive taxes and unemployment benefits, play at best a supporting role.

Hence, it is pre-dominantly the differences in size of governments that impact how strong automatic stabilizers are and what role they play for fiscal stabilisation as shown in **Figure 4** and **Figure 5**. The blue lines depict the discretionary fiscal policy stance as measured by the CAPB, while the red lines depict the total 'first-round impact' of fiscal policy as measured by the annual change of the primary deficit. When this full fiscal impact is considered (discretionary and automatic stabilisers), the stabilisation record of the euro area improves visibly (**Figure 4**). This is especially the case in years when the cycle recorded particularly strong swings. In 1993, for instance, when economic activity in the euro area was 2 percentage points below potential, the counter-cyclical effect of the automatic fiscal stabilisers more than offset the pro-cyclical stance of discretionary fiscal policy. This gave rise to an overall expansionary fiscal impulse: The left panel of **Figure 4** shows an improvement in the CAPB and thus a pro-cyclical tightening, while the right panel of the figure shows that the overall primary balance deteriorated, thus providing a countercyclical stimulus. A similar constellation was recorded in 2003, when after the bursting of the ICT bubble the euro area experienced a protracted economic slowdown.

---

<sup>(3)</sup> Darby and Melitz (2008) show that also other expenditure components (health, pension, incapacity benefits and sickness pay) are pro-cyclical and play a greater role in the euro area than in the US.

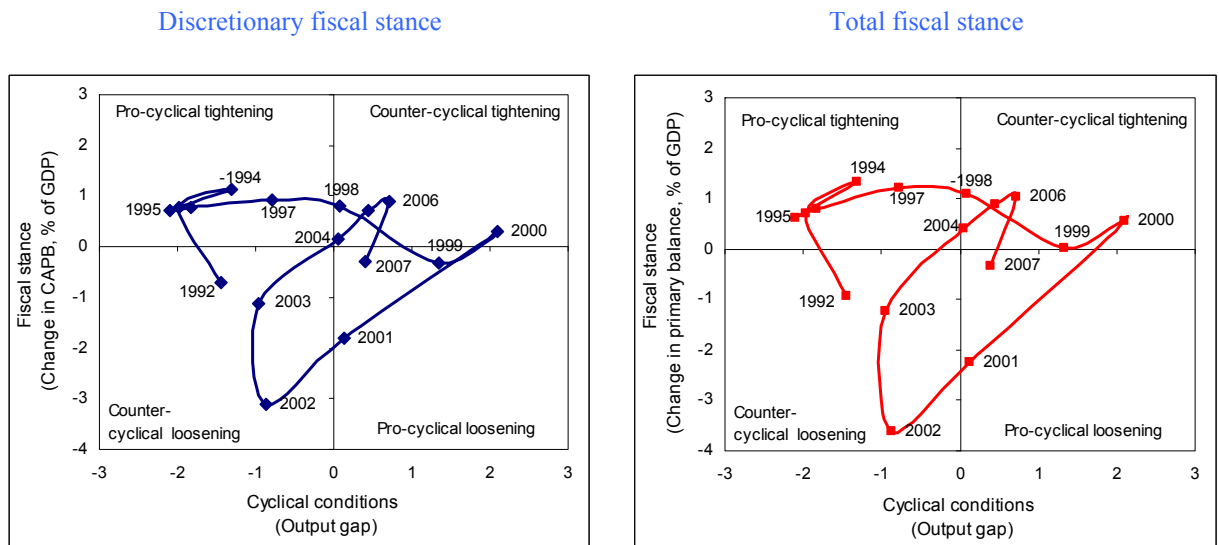
**Figure 4: Ex-post fiscal stance (discretionary and total) and cyclical conditions, euro area**



*Notes:* CAPB = Cyclically adjusted primary balance. The fiscal stance in the euro area has been adjusted for UMTS revenues. The euro-area refers to the EU-11 as defined in Footnote 1.

*Sources:* Commission services calculations based on OECD data.

**Figure 5: Ex-post fiscal stance (discretionary and total) and cyclical conditions, United States**



*Notes:* CAPB = Cyclically-adjusted primary balance. The fiscal stance in the euro area has been adjusted for UMTS revenues. The euro-area refers to the EU-11 as defined in Footnote 1.

*Sources:* Commission services calculations based on OECD data.

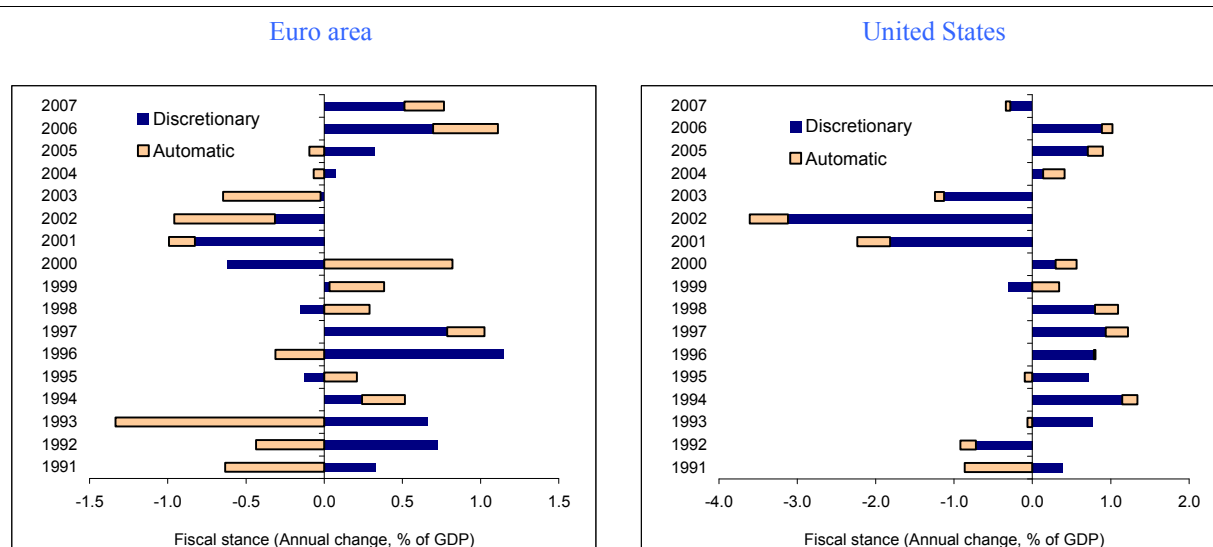
An example of exceptionally good economic times in which automatic stabilisers helped dampen the fiscal stance was the year 2000. In the US, by contrast, the relative weakness of automatic stabilisers did not modify the pro- or counter-cyclicality of discretionary



fiscal policy. In **Figure 5** the blue and red lines in the left and right panel therefore lie very closely together.

**Figure 6** provides an alternative and possibly clearer account of the relative importance of discretionary fiscal stabilisation and automatic stabilisers in the US and the euro area in 1995-2007. When both bars point in the same direction, discretionary fiscal policy and automatic stabilisers worked hand-in-hand; bars pointing in opposite directions indicate that discretionary policies were pro-cyclical.

**Figure 6: Fiscal stabilisation: the relative role of discretionary measures and automatic stabilisers in the US and the euro area**



*Notes:* The discretionary and automatic stabilisation parts of the fiscal stance add up to the total change in the primary fiscal position. CAPB = Cyclically adjusted primary balance. The fiscal stance in the euro area has been adjusted for UMTS revenues. The euro-area refers to the EU-11 as defined in Footnote 1.

*Sources:* Commission services calculations based on OECD data.

In the euro area, the relative strength of automatic stabilisers has, in terms of first-round effect on aggregate demand, more than once counteracted or at least dampened the impact of pro-cyclical discretionary measures. This was particularly evident in the years 1993 and 2000 mentioned before, yet also occurred in a number of other years of the 1990s when discretionary policy was primarily geared towards the achievement of the Maastricht deficit criteria. Hence, automatic stabilisers cushioned or even compensated the fiscal restrictions implemented by a number of EU countries in their pursuit to qualify for the single currency. Noteworthy is also the constellation encountered in 2003, when, in the wake of the protracted economic slowdown following the bursting of the ICT bubble in

2001, the leeway for discretionary measures was limited by the parameters of the SGP in most large euro-area countries. In that year discretionary fiscal policy was essentially neutral in the euro area as a whole, while automatic stabilisers helped support aggregate demand.

The likely lessons to be drawn from this analysis are two-fold. Firstly, the higher and more counter-cyclical fiscal activism in the US can be interpreted as an attempt to make up for weaker automatic stabilisers. And secondly, the comparatively large automatic stabilisers in the euro area can make a difference and outweigh possible 'mistakes' of discretionary policy when the cycle turns particularly soar or particularly buoyant.

This 'European solution' of a greater role for automatic stabilisation has some advantages. To start with, discretionary fiscal policy can be called to pursue more than one objective and therefore trade off stabilisation for sustainability. In that case, stronger automatic stabilisers can provide a more balanced policy stance with respect to possibly competing objectives of fiscal policy. For instance, in some years discretionary fiscal policy may be obliged to implement improvements in the structural budget balance irrespective of economic conditions to ensure long-term sustainability. In such a case the change in the overall balance will still include the effect of automatic stabilisers.

Moreover, and more importantly, automatic stabilisation avoids the negative implications that have been associated with discretionary fiscal policy making in practice. A relatively large body of research documents these shortcomings of fiscal activism. A detailed and balanced account of the 'rise and fall' of discretionary fiscal stabilisation can be found in Gordon (1980). A recent study by the IMF presented in its World Economic Outlook (October 2008) finds mixed evidence for the impact of discretionary fiscal policy on output smoothing and highlights that, if it works at all, it only does so when the underlying fiscal positions are sound. One of the main conclusions of this literature is to favour rules over discretion. Blinder (2004) nuances this conclusion somewhat. He argues that while one should in general be careful with fiscal discretion, he sees a case in favour of discretion in the event of severe negative shocks when monetary policy risks running out of its depths. Blinder's qualification seems to be warranted more by the US context where automatic fiscal stabilisers are relatively small and monetary policy on top of price stability also attempts to smooth output. In the EU by contrast, the relative strength of

automatic stabilisers and sustainability concerns in a number of countries due to population ageing dampens the scope for discretion. These differences underlie also the different positions taken by the US and European fiscal policy makers in the current financial crisis.

The usefulness of automatic stabilisers, however, should not be interpreted as a cause for larger governments.<sup>(4)</sup> Evidence suggests that over longer time spans a larger size of government does not necessarily go along with lower output costs over cycles. Two types of results can be found in this respect in the literature. Firstly, there seems to be an upper limit at which the beneficial effects of automatic stabilisers are being outweighed by long-run costs for economic growth through additional tax burden and inefficient public administrations. Simulations put this threshold at a maximum of 50% of GDP, but depending on economic structures, including the openness of an economy, it can also be significantly lower (see for example Buti et al., 2003 and Debrun et al., 2008). Secondly, work along the lines of Fatas and Mihov (2001) and Koskela and Viren (2003) suggests that government size has a negative effect on output volatility as measured by the standard deviation of output growth.

However, in the face of such findings, it may still be concluded that, the short-term the degree of automatic stabilisation can increase with the share of discretionary government spending. This conclusion is consistent with the mechanics of the government budget, whereby fluctuations in GDP directly translate into an increase or decrease of the discretionary expenditure ratio, as well as with the findings of Gali (1994) and Darby and Melitz (2008).

#### **4. THE BENEFIT OF HINDSIGHT: DELIBERATE (DE)STABILISATION OR JUST (BAD) LUCK?**

When assessing discretionary fiscal policy making, not only outcomes but also policy intentions, based on information about the economic cycle at the time, should be considered. Since output gap estimates are derived from expectations about future

---

<sup>(4)</sup> The markedly lower size of automatic stabilisers in the US does not necessarily mean that fiscal authorities attach a lower weight to the stabilisation of output. It rather reflects a political choice on the degree of government involvement in the economy.

economic growth, policy makers are faced with a forecasting problem.<sup>(5)</sup> This uncertainty surrounding the economic cycle in real time can drive an important wedge between plans and outcomes.<sup>(6)</sup>

To shed light on the difference between outcomes and how things looked at the time, **Figure 7** depicts the information available in real time of both the economic cycle and the budget balance.<sup>(7)</sup> Real time data used are OECD estimates produced in spring of the reporting year  $t$ . This allows to closely match the real-time output gap with the real-time fiscal stance of the same year, which includes both the budget adopted at the end of  $t-1$  plus any additional measures taken or adopted at the beginning of  $t$ . Two important points follow from the graph for the euro area. Firstly, the left panel of **Figure 7** confirms the pro-cyclical stance in the second half of the 1990s reflecting the policy priorities of the EU fiscal framework in the run-up to the euro, notably to bring the government deficit below the 3% of GDP threshold. Secondly, the pro-cyclical loosening recorded in 2000 and 2001 was not in the plans. Based on the information available at the time, the fiscal stance could be taken as a 'reasoned' response to a cyclical position that was perceived to

---

<sup>(5)</sup> The output gap is an unobservable variable. It measures the percentage deviation of actual from potential output, with the latter being a theoretical construct. Most methods to estimate potential output ( $y$ ) for year  $t$  at the current year  $T$  (or the latest year for which historical data are available) involve a centred and symmetric function of GDP or parts of GDP, TFP in the case of the production function method.

$$y_{t|T} = b_0 + \sum_{j=1}^{\infty} b_j y_{t-j} + \sum_{j=1}^{\infty} b_j y_{t+j}. \text{ For potential output estimates of year } T \text{ or beyond this involves the}$$

use of forecasts i.e.:  $y_{T+i|T} = b_0 + \sum_{j=1}^{\infty} b_j y_{T+i-j} + \sum_{j=1}^{\infty} b_j E y_{T+i+j|T}$ . Taking the difference between the 'final' estimate of potential output, the one obtained after the arrival of new data, and the forecast yields:

$$y_{T+i|T+i} - y_{T+i|T} = b_0 + \sum_{j=1}^{\infty} b_j (y_{T+i+j} - E y_{T+i+j|T}). \text{ This implies that forecast errors for real GDP}$$

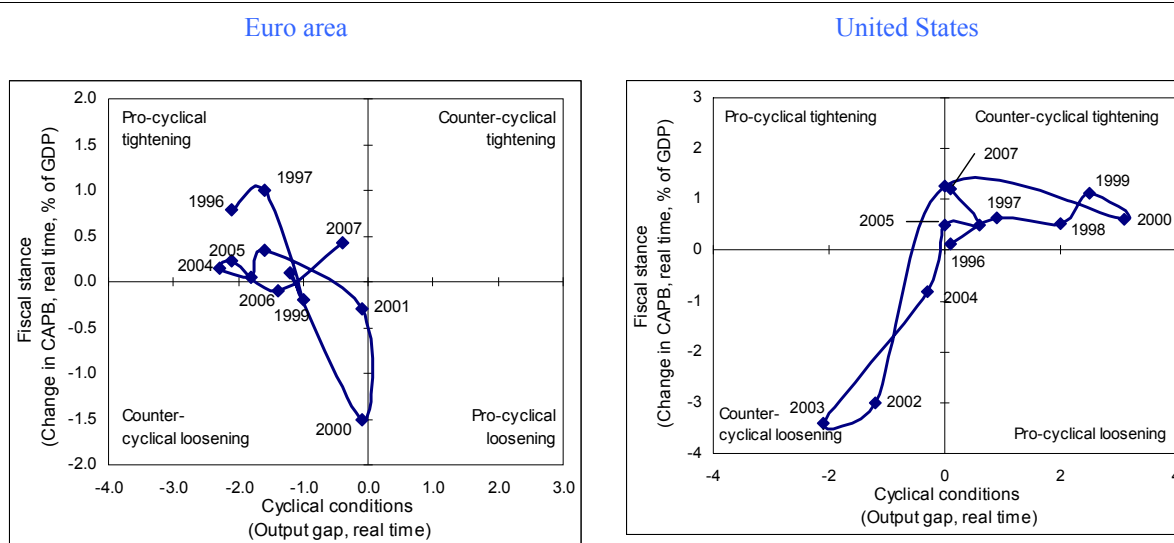
translate into revisions of the output gap. For the European Commission's method see Denis et al. (2005). Statistical data revisions can also explain the difference between real-time and ex post output gaps. In practice, their impact is relatively small compared to forecast errors.

<sup>(6)</sup> For a detailed assessment of the forecast errors of the output gap in the euro area see European Commission (2006b).

<sup>(7)</sup> The two graphs in **Figure 7** are based on OECD data for two reasons. Firstly, the OECD has consistently published real-time output gap estimates since 1995; other available real-time data sets cover a much shorter time period. And secondly, the OECD growth forecasts, which enter the real-time estimates of the output gap, are largely free of the calculated optimism to which governments' forecasts may fall pray.

be moving from potential to below-potential while, over the medium term, the economy was expected to return to the high-growth path of the late 1990s.<sup>(8)</sup>

**Figure 7: Real-time fiscal stance and cyclical conditions, euro area and United States**



*Notes:* OECD estimates of the output gap in year  $t$  produced in spring of the same year. CAPB = Cyclically adjusted primary balance. Fiscal stance in euro area has been adjusted for UMTS revenues. The euro-area refers to the EU-11 as defined in Footnote 1.

*Sources:* Commission services calculations based on OECD data.

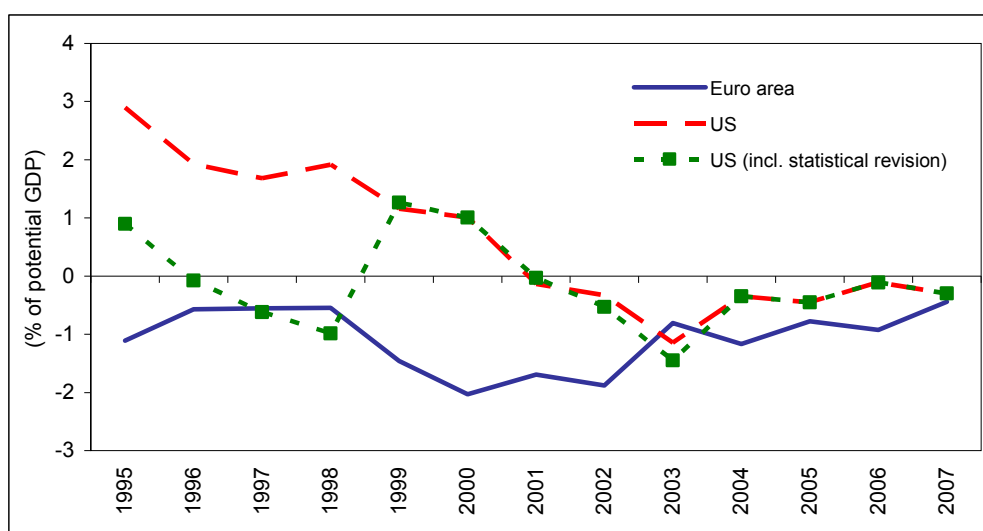
By contrast, the gap between the fiscal stance in real-time and ex-post was generally smaller in the US and, more importantly, did not markedly alter the overall thrust of fiscal policy. The counter-cyclical nature of fiscal plans was largely realised.<sup>(9)</sup>

<sup>(8)</sup> This observation is in line with econometric estimates by Forni and Momigliano (2004) and Cimadomo (2008). The authors find, using panel data of a number of OECD countries from the mid-1990s, that the fiscal stance appeared pro-cyclical if evaluated ex post. However, when real-time data are used, the ex ante stance appears to be counter-cyclical, especially during economic expansions. The authors do not distinguish country groups however and use real-time data published in the December issues of the OECD Economic Outlook in contrast to the Spring issues employed for the analysis here.

<sup>(9)</sup> Using an alternative method for identifying discretionary fiscal policy with real time data von Kalckreuth and Wolff (2007) also show that fiscal policy was counter-cyclical in real time in the US. The authors argue that automatic stabilizers should depend on true (i.e. ex post) GDP, while discretionary policy depends on the information that policy makers have in real time, approximated by GDP data released in real time. They compute the measurement error between real time and ex post GDP. Any changes in the fiscal stance associated with this measurement error are interpreted as discretionary fiscal changes, because, by definition the automatic stabilisation part of fiscal policy is linked to the true state of the economy (thus, the true GDP). Using quarterly data for the US from 1965Q3 to 2005Q3, they find that government expenditure reacts counter-cyclically to the state of the economy as perceived in real time by policy makers.

For the euro area negative growth surprises are one of the culprits in turning ‘well-behaved’ plans into pro-cyclical fiscal policy. Fiscal plans were often built on a rather optimistic view about future economic growth. This translated into growth projections that positioned current GDP levels below potential. Thus, real-time estimates of the output gap were on the pessimistic side and seemed to justify an expansionary fiscal stance.<sup>(10)</sup> In some cases, macro-forecasts have been used strategically to bring budgetary plans in line with the requirements of the SGP from an ex-ante point of view, thereby contributing to systematic slippages from targets ex post.<sup>(11)</sup>

**Figure 8: Forecast errors of the output gap, euro area and the United States**



*Notes:* The forecast errors are measured as the OECD ex post output gap minus real-time estimates by the OECD of the output gap in year  $t$  produced in spring of the same year. The large difference between real-time and ex post estimates for the US in the second half of the 1990s also reflects statistical revisions of national accounts data. The largest revision took place in 1999, when GDP was raised by 1 to 2%. However, assuming that this revision had a full impact on the output gap estimate would not alter the policy implications of the real-time estimates for the US.

*Sources:* Commission services calculations based on OECD data.

<sup>(10)</sup> As shown in Footnote 6, real-time output gap estimates are derived from expectations about future economic growth. To the extent that medium-term growth prospects are overestimated (or underestimated) the real time estimate of the output gap in the current period will be on the pessimistic (or optimistic) side.

<sup>(11)</sup> More generally, studies find a bias for optimism in government growth forecasts (e.g., Jonung and Larch, 2006 and Strauch et al., 2004).

In 1996-2007, the output gap was on average underestimated by around 1 percentage point of GDP based on OECD forecasts. More specifically, throughout the whole period the forecasts consistently erred into one direction (**Figure 8**). The underestimation was even bigger based on government projections. As medium-term growth projections did not materialise, especially after 1999, and taking into account that it is generally easier to cope with positive growth surprises, the planned fiscal stance turned out to be inappropriate from a stabilisation point of view.

By contrast, the US grew more strongly than projected in the late 1990s, giving rise to lower than expected output gaps (**Figure 8**), but since then growth surprises have been small. This seems to be a sign of a more realistic or conservative assessment of medium-term growth prospects, explaining the better track record for fiscal stabilisation.

The series of large negative growth surprises in the euro area could partly reflect its lower adjustment capacity, or equivalently, a backlog of structural reforms, compared to the US. While the euro area's cumulated loss in the output gap that followed the bursting of the ICT bubble in 2000 was very similar to the one observed in the US, the economic slowdown in the euro area was much more protracted. This higher degree of sluggishness in the euro-area cycle is partly due to higher market rigidities, which weigh on an economy's capacity to adjust to adverse economic shocks. Indicators measuring various types of rigidities and frictions such as employment protection legislation, product market regulations or the administrative burden for business firms typically place the euro area behind the US. <sup>(12)</sup>

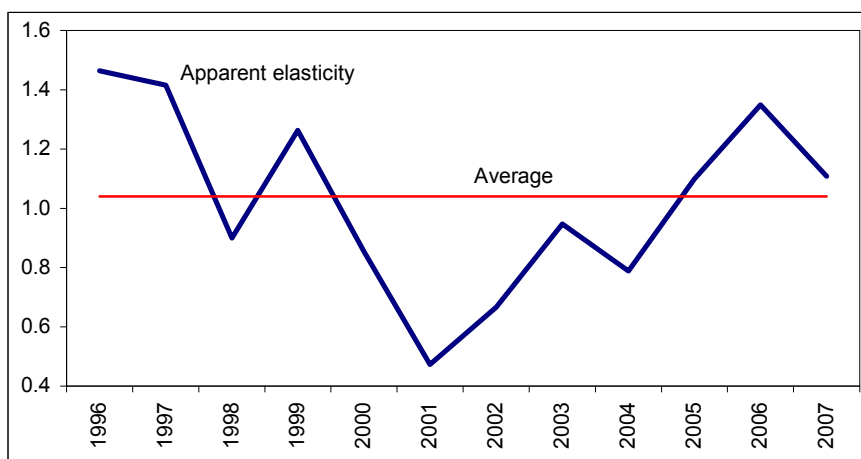
In 2000-2001, when the pro-cyclical nature of fiscal policy in the euro area was particularly evident, fiscal loosening went clearly beyond the effect stemming from the incorrect assessment of the cyclical position in real time. Additional failures played a role. Policy makers had been confronted with buoyant tax revenues since 1996, which went beyond the expansion of aggregate economic activity and led to an increase above the long-term average implicit tax rates (**Figure 9**). Although due diligence should have led to the conclusion that the above average tax content of growth was unlikely to be permanent, the policy response was to reduce taxes or to increase expenditure at a moment when the

---

<sup>(12)</sup> For an analysis of the resilience of the euro area, particularly in comparison with the US, see European Commission (2007b).

economy was *de facto* operating above its potential. This choice turned out to be particularly unfortunate also for the following years, as it substantially reduced the room for macroeconomic stabilisation during the economic slowdown that followed 2001.

**Figure 9: Apparent and average tax elasticities, euro area**



*Notes:* The average tax elasticity is shown as estimated for the euro area-11 by the OECD (see Girouard and André (2005)).

*Sources:* Commission services and OECD.

## 5. DISCRETIONARY OR AUTOMATIC? DRAWING AN IMAGINARY LINE

Egon Fridell, an Austrian philosopher who lived around the turn of the 19<sup>th</sup> and 20<sup>th</sup> century, once said that all classifications are inherently flawed and wrong, yet somehow useful as they help get to grips with the complexity of the world. This principle certainly applies to the distinction between discretionary automatic fiscal stabilisation. Although the decomposition of annual changes of the nominal budget balance into a discretionary and an automatic part is a commonly accepted and widespread practice in economic research and policy analysis alike, it is far from clear cut.

At the heart of the problem, following onto the discussion in Section 4 on the difficulty to correctly and timely assess the economy's position in the cycle, lies the uncertainty about pinpointing the nature of economic fluctuations, i.e. the duration of shocks. In particular, the moment a shock hits an economy it is very difficult to assess whether it will be transient or not. Only the benefit of hindsight allows a more or less robust judgement. However, policy decisions are or have to be taken in real time.



Therefore, any decision to let automatic stabilisers play entails an implicit or explicit judgement on the sustainability of the level of discretionary expenditure. If a government does not adjust discretionary spending when GDP growth slows or even drops, but rather lets the expenditure-to-GDP ratio raise, such a judgement amounts to the assumption or premise that the level of economic activity will eventually move back to the trend prevailing prior to the economic shock. On the contrary, if the assessment finds the shock to be of a permanent nature and the expenditure-to-GDP ratio not to be sustainable, a discretionary expenditure adjustment would need to follow. Thus, whether the change in the fiscal policy stance would be considered as automatic or discretionary largely depends on how the economic shock is viewed. This view may change over time.

For a given annual change of the nominal-budget-balance-to-GDP ratio, any re-assessment of potential output implies a shift in the composition of fiscal stabilisation: from discretionary to automatic or vice versa.<sup>(13)</sup> The late 1990s and early 2000s, when policy makers in a number of euro-area countries built their successive medium-term fiscal plans on the expectation that economic growth would stay or return to the path observed before the ICT burst in 2001, are an interesting example. Because of the assumed stability of the past growth trends, a comparatively large share of the projected annual change in the balance-to-GDP ratio was, in real time, taken to reflect the working of automatic stabilisers. As the economic slowdown drew on and policy makers had to realise that the shock was rather permanent, part of what was thought to be automatic stabilisation turned into discretionary fiscal policy.

In point of fact, the line that separates discretionary and automatic stabilisation is conditional on a given assessment of the medium-term growth prospects. In case a shock is judged to be temporary (permanent) existing decomposition methods are likely to show

---

<sup>(13)</sup> The annual change in the balance to GDP ratio  $db$  can be written as  $db_t = dfp_t + (\varepsilon_r - \varepsilon_g) \left[ \frac{dy_t}{y_t} - \frac{dy_t^p}{y_t^p} \right] \frac{y_t}{y_t^p}$

where  $y$  stands for GDP,  $y^p$  for potential GDP and  $dfp$  for discretionary measures in % of GDP.  $\varepsilon_r$  and  $\varepsilon_g$  denote the semi-elasticity of revenues and expenditure respectively. The second term on the right hand side measures the contribution of automatic stabilisers. Its size depends on the relative strength of actual versus potential growth. If a negative shocks includes a permanent element with  $\frac{dy_t^p}{y_t^p} > 0$  the

share of the discretionary component  $dfp$  increases as opposed to a purely temporary shock  $\frac{dy_t^p}{y_t^p} = 0$ .

For a more detailed discussion of the mechanics of the CAPB see Larch and Salto (2005).

a more prominent contribution of automatic (discretionary) stabilisation. In practice, the assessment of economic fluctuation may evolve over time. At first, shocks are generally taken to be temporary, not least for political economy consideration, and their ‘automatic’ effect on the budget is generally accepted. As time passes and shocks drag on, automatic stabilisers change nature as they become of a more permanent nature and may even trigger further discretionary policy measures to re-establish fiscal sustainability. <sup>(14)</sup>

As an illustration of this mechanism in [Table 3](#) reports the composition of the observed changes in the nominal-budget-balance-to-GDP ratio for the euro area and the US at two different moments in time: in real time, that is on the basis of the assessment of potential output and the output gap made in the reporting year, and ex post, that is on the basis of the latest information, which in our case is the Commission services’ 2008 spring forecast.<sup>(15)</sup> The table contains essentially the same type of information as [Figure 6](#) above yet highlights the shift in the composition of fiscal stabilisation as additional information about the duration of economic shocks becomes available. The calculations show how in 1999 and 2000 the degree of discretionary loosening in the euro area turned out to be significantly higher than assumed in real time. A marginal tightening in the plans for 1999 (of 0.1% of GDP) actually became an expansion of around 1/3% of GDP.

The shift from automatic to discretionary is even more pronounced in terms of expenditure levels. As indicated in the last column of [Table 3](#), in 2000 and 2001 the non-cyclical primary expenditure ratio in the euro area was overestimated by as much as 1 percentage point of GDP; that is primary expenditure in the order of 1% of GDP was first thought to be of a temporary nature in real time, but turned out to stay in the governments books permanently.

---

<sup>(14)</sup> From an ex-post standpoint, such transformations from automatic to discretionary give rise to the pattern discussed by Buti and Sapir (1998). At the beginning of an economic downturn euro-area Member States, on top of the effect of automatic stabilisers, implement discretionary expansions which later on are reversed once it is realised that economic activity does not return to the previous growth path.

<sup>(15)</sup> The difference between the annual change of the budget balance-to-GDP ratio in real time and ex post includes a number of factors, most importantly statistical revisions. In order to abstract from such revisions we perform the decomposition into discretionary and automatic on the real time change of the nominal budget balance-to-GDP ratio. This way, we can isolate the effect stemming from the revision of medium-term growth projections only.

**Table 3: The relative importance of discretionary and automatic stabilisation in real time and ex post: euro-area Member States**

|           |      | Changes in CAPB           |                        |                       |  |                        |                       | Level of CAPE   |
|-----------|------|---------------------------|------------------------|-----------------------|--|------------------------|-----------------------|---|
|           |      | Real time                 |                        |                       | June 2008 output gaps with real-time primary balance |                        |                       |   |
|           |      | Primary balance           | Discretionary measures | Automatic stabilisers | Primary balance                                      | Discretionary measures | Automatic stabilisers | Shift in level due to revisions of the output gap (between real time and June 2008) |
|           |      | Annual changes (% of GDP) |                        |                       |  |                        |                       | (% of GDP)  |
| US        | 1998 | 0.20                      | -0.14                  | 0.34                  | 0.20   | -0.09                  | 0.29                  | -0.65   |
|           | 1999 | 0.10                      | 0.00                   | 0.10                  | 0.10   | -0.33                  | 0.43                  | -0.15   |
|           | 2000 | 0.40                      | 0.00                   | 0.40                  | 0.40   | 0.14                   | 0.26                  | -0.03   |
|           | 2001 | -0.40                     | 0.30                   | -0.70                 | -0.40  | 0.27                   | -0.67                 | 0.27  |
|           | 2002 | -1.80                     | -1.60                  | -0.20                 | -1.80  | -1.46                  | -0.34                 | 0.20  |
| Euro area | 1998 | 0.00                      | 0.33                   | -0.33                 | 0.00   | -0.28                  | 0.28                  | 0.25  |
|           | 1999 | 0.00                      | 0.10                   | -0.10                 | 0.00   | -0.34                  | 0.34                  | 0.61  |
|           | 2000 | -1.00                     | -1.50                  | 0.50                  | -1.00  | -1.80                  | 0.80                  | 1.01  |
|           | 2001 | -0.20                     | -0.30                  | 0.10                  | -0.20  | -0.04                  | -0.16                 | 0.95  |
|           | 2002 | -0.20                     | 0.30                   | -0.50                 | -0.20  | 0.43                   | -0.63                 | 0.53  |

*Notes:* CAPB – Cyclically-adjusted primary balance, CAPE – Cyclically-adjusted primary expenditure. The Real-time primary balance is from the spring 2008 OECD Economic Outlook. The discretionary part is calculated by considering the cyclical position (output gap) in real time and with hindsight (2008). The automatic stabilisation parts are the residuals between the primary balance and the discretionary measures.  
*Sources:* Commission services calculations based on OECD data.

## 6. SUMMARY AND POLICY CONCLUSIONS

By including a number of factors that are generally not considered in standard analyses, this paper argues that fiscal policy in the euro area has been more successful in stabilising output than commonly perceived. As a result, the *prima facie* evidence of a rather unfavourable performance compared with the US since the mid-1990s needs to be qualified.

The apparent tendency in the euro area to run pro-cyclical policies is based on a partial assessment of fiscal stabilisation. Firstly, it is limited to discretionary fiscal policy making and ignores automatic stabilisers, the size of which is significantly larger in the euro area than in the US. In years when the economy takes a particularly steep dive or upturn, the

effect of automatic stabilisers in the euro area can offset (or correct) discretionary measures. Secondly, fiscal policy in the euro area has also been geared towards achieving long-term sustainability. In light of such multiple objectives, the presence of large automatic stabilisers has been useful in ensuring that the output stabilisation goal is not overlooked.

In the US by contrast, automatic stabilisers play a lesser role and fiscal stabilisation has to be brought about by discretionary measures. Even though discretionary stabilisation has been prone to a number of well-recognized shortcomings, relying more on fiscal discretion reflects the American choice against a large size of government.

Part of the apparent weakness of discretionary stabilisation in the euro area originated in (i) the assessment of cyclical conditions in real time coupled with (ii) the temptation of spending revenue windfalls. Fiscal authorities in a number of euro-area countries seem to have been persistently optimistic about the resilience of their economy. This (mis)led them to implement discretionary expansions, sometimes by spending extra revenues, in years when, with the benefit of hindsight, a neutral or restrictive stance would have been warranted. The gap between the optimism of policy makers and the actual underlying strength of the economy is *inter alia* rooted in the political economy of economic policy making. By relying on sanguine growth forecasts fiscal authorities can push out unpopular measures.

The final point of our analysis was to argue that the line of demarcation between discretionary and automatic fiscal stabilisation is not as sharp as generally thought. It essentially depends on the prevailing assumptions about medium-term growth prospects. If, in the wake of an economic shock long-term growth is taken to be unchanged, variations in the fiscal position are going to be interpreted as the working of automatic stabilisers. Conversely, if the shock is assumed to have a permanent component changes in the fiscal position will have a discretionary character. The true stance is only revealed as time passes.

Against the background of our analysis a number of policy conclusions aimed at improving fiscal stabilisation in the euro area are warranted. The first conclusion is more of a short-term nature and refers to the current economic juncture. The others are more of a general nature and go beyond the prevailing conditions of the moment.

*The current economic juncture:* The collapse of the US subprime mortgage market in August 2007 and the ensuing financial crisis, coupled initially with high commodity prices, have acted as a drag on US and European economic growth. In line with the traditional script, US fiscal authorities discussed and approved fiscal measures aimed at softening the impact of the economic slowdown already at the beginning of 2008. A second and additional fiscal stimulus was discussed in October 2008 when we were finalising this paper.

In the euro area by contrast, and except for some un-coordinated and relatively small initiatives (compared to euro-area GDP), Member States started seriously considering discretionary fiscal stabilisation only in autumn 2008 after the financial crisis had reached fairly dramatic levels. The Commission initiative aimed at providing a consistent framework for national fiscal stabilisation (*A European Economic Recovery Plan*) was launched on 26 November 2008.

This seemingly lagged or slow reaction on this side of the Atlantic concerning the role of fiscal stimulus should, however, not be read as a sign of political failure or indifference. Rather, there are good arguments that explain more caution and country-differentiated responses in fiscal stimulus measures in the euro area. To begin with, the on average larger size of government in the euro-area countries compared to the US provides a more comfortable cushion in the economic slowdown, reducing the necessity for immediate discretionary stabilisation. Secondly, in a number of euro-area countries the current crisis reflects a supply shock that requires some adjustment of the economy (e.g. the oversized construction sectors in Ireland and Spain) which cannot be cured with fiscal stabilisation. Therefore, putting aside the structural reform agenda in favour of fiscal expansion carries the risk of building up an unsustainable fiscal position. And thirdly, in spite of the impressive progress made over the past several years, the underlying fiscal situation in a number of euro-area countries does still not ensure sustainability especially in the light of the imminent budgetary impact of ageing. The financial crisis and the contingent liabilities taken on board by governments have further endangered sustainability. As a result, and taking into account that by experience it is difficult to reverse temporary measures, there is a tangible risk of trading of stabilisation for long-term sustainability. However, the delayed discussions in the euro area on the need for fiscal stimulus measures may again

also reflect the overoptimistic assessment of the growth outlook in contrast to the quicker downward adjustments in the US projections.

Turning to the longer-term perspective, the following policy conclusions can be drawn from revisiting the fiscal stabilization record in the euro area.

*Stronger national budgetary institutions:* Experience, including in the EU, has shown that strong budgetary institutions, in particular numerical fiscal rules and medium-term budgetary frameworks, can contribute to greater fiscal discipline and stabilisation.<sup>(16)</sup> Certain types of fiscal rules, especially medium-term nominal expenditure rules, have helped contain pressures for additional expenditure or tax cuts in good times, thereby reducing pro-cyclicality. This success has built on strong political commitment and effective monitoring and enforcement mechanisms.

*More cautious macroeconomic forecasts:* Better fiscal governance could also help remedy the macroeconomic forecast bias. One option would be to involve independent fiscal institutions in preparing macroeconomic assumptions for the budget. Empirical studies indicate that fiscal authorities in the EU counting on forecasts produced by independent agencies have had a better fiscal performance. A detailed discussion of the role of independent fiscal agencies can, for instance, be found in Jonung and Larch (2006) and Debrun et al. (2007).

Aside from institutional improvements, the accuracy of macroeconomic forecasts and the assessment of cyclical conditions in real time can be improved by recurring to real-time indicators that are not revised over time. Promising candidates are survey indicators capturing the capacity utilisation in the manufacturing industries. Simulations carried out by the European Commission (2008), where information on the capacity utilisation was incorporated in the estimation of potential output and the output gap, reveal significant potential for improving on current methods.

However, since the uncertainty surrounding forecasts can at best be reduced not eliminated it should be made clear in practice that an assessment of fiscal stabilisation in real time, in particular the distinction between discretion and automatic, is conditional on

---

<sup>(16)</sup> For an analysis of fiscal frameworks in the euro area and the EU see, for example, European Commission (2006a) and (2007a).

a given macroeconomic forecast. This could easily be achieved by indicating what alternative scenarios imply for the relative importance of discretionary fiscal stabilisation. The advantage of such an option is to enhance transparency by making risks explicit. Under current practice of the EU fiscal surveillance, fiscal policy implications of higher or lower-than-expected economic growth are examined by means of simple sensitivity analyses. This approach should be expanded and given more prominence.

*Greater resilience to shocks:* To enhance the euro area's capacity to absorb economic shocks, structural reforms, as envisaged under the re-launched Lisbon Strategy for Growth and Jobs from 2005 and recalled in the economic recovery plan of 26 November 2008, are the appropriate responses. While first results of the Lisbon Strategy were clearly visible until mid-2008, as structural reforms have contributed to strong increases in employment, not all Member States have undertaken reforms with equal determination and not all economic areas benefited equally. In particular, the opening up of markets and tackling of labour market segmentation have lagged behind. The current crisis will provide a test for the lasting nature of some of the reforms and have highlighted the importance of the Lisbon Strategy to overcome the current crises and withstand future ones (as also stressed in the Commission's *European Economic Recovery Plan* presented on 26 November 2008.).

## REFERENCES

- Alesina, A. and G. Tabellini (2005) "Why Is Fiscal Policy Often Pro-cyclical?", NBER Working Paper No. 11600.
- Blinder, A. (2004) 'The Case Against the Case Against Discretionary Fiscal Policy', CEPS Working Paper No. 100.
- Buiter, W, G. Corsetti, and N. Roubini (1993) 'Excessive Deficits: Sense and Nonsense of the Treaty of Maastricht', *Economic Policy* 8(16), 58-100.
- Buti, M. and G. Giudice (2002), 'Maastricht's Fiscal Rules at Ten: An Assessment', *Journal of Common Market Studies*, (40)5, 823-848.
- Buti, M., C. Martinez-Mongay, K. Sekkat and P. Van den Noord (2003) 'Automatic Fiscal Stabilisers in EMU: A Conflict Between Efficiency and Stabilisation?' *CESifo Economic Studies*, 49(1), 123-140.
- Buti, M. and L. Pench (2004) 'Why Do Large Countries Flout the Stability Pact? And What Can Be Done About it?' *Journal of Common Market Studies*, 42(5), 1025-1032.
- Buti, M. and A. Sapir (1998) *Economic Policy in EMU*, Oxford: Oxford University Press.
- Calmfors, L. (2003b) 'Fiscal Policy and Macroeconomic Stabilisation in the Euro Area: Possible Reforms of the Stability and Growth Pact and National Decision Making Processes', Report on the European Economy 2003, EEAG, European Economic Advisory Group at CESifo, Munich.
- Canzoneri, M.B. and B.T. Diba (2001) 'The SGP: Delicate Balance or Albatross?', in: A. Brunilla, M. Buti and D. Franco (eds.), *The Stability and Growth Pact*, Basingstoke: Palgrave, 53-74.
- Cimadomo, J (2008) 'Fiscal Policy in Real Time', ECB Working Paper No. 919.
- Darby, J. and J. Melitz (2008) 'Social Spending and Automatic Stabilisers in the OECD', *Economic Policy*, 23(56), 715-756.
- Debrun, X., D. Hauner and M.S. Kumar (2007) 'The Role of Fiscal Agencies', in: Kumar, M.S. and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, Washington: IMF.



- Debrun, X., J. Pisani-Ferry and A. Sapir (2008), 'Government size and output volatility: Should we forsake automatic stabilisation', *European Economy – Economic Paper* No. 316 (European Commission).
- Denis, C., D. Grenouilleau, K. Mc Morrow and W. Röger (2005) 'Calculating Potential Growth Rates and Output Gaps - A Revised Production Function Approach', *European Economy - Economic Paper* No.247 (European Commission).
- Drazen, A. (2000) *Political Economy in Macroeconomics*, Princeton: Princeton University Press.
- European Commission (2004) *Public Finances in EMU – 2004*, *European Economy* No. 3, Brussels.
- European Commission (2006a) *Public Finances in EMU – 2006*, *European Economy* No. 3, Brussels.
- European Commission (2006b) 'Adjustment Dynamics in the Euro Area – Experience and Challenges', *European Economy* No. 6, Brussels, 306-307.
- European Commission (2007a) *Public Finances in EMU – 2007*, *European Economy* No. 3, Brussels.
- European Commission (2007b) 'The Resilience of the Euro-Area Economy', *Quarterly Report on the Euro Area*, (6)3, 31-42.
- European Commission (2008) 'Public Finances in EMU – 2008', *European Economy* No. 3, Brussels.
- Fatas, A. and I. Mihov (2001) *Fiscal Policy and Business Cycles: An Empirical Investigation*, *Moneda Y Credito*, 212.
- Fatás, Antonio and Ilian Mihov (2003) 'The Case for Restricting Fiscal Policy Discretion', *Quarterly Journal of Economics*, 118 (4), 1419-1447.
- Forni, L. and S. Momigliano (2004), 'Cyclical Sensitivity of Fiscal Policies Based on Real-Time Data', *Applied Economics Quarterly*, Vol. 50, No. 3.
- Galí, J. (1994) 'Government Size and Macroeconomic Stability', *European Economic Review* 38 ,117-132.

- Gali, J. and R. Perotti (2003) 'Fiscal Policy and Monetary Integration in Europe,' *Economic Policy*, 18(37), October, 533-572.
- Girouard, N. and C. André (2005) 'Measuring Cyclically-Adjusted Budget Balances for OECD Countries', OECD Working Paper No. 434.
- Gordon, R. J. (1980) 'Postwar Macroeconomics: The Evolution of Events and Ideas,' in *The American Economy in Transition*, M.S. Feldstein (ed.), National Bureau of Economic Research Monograph. Chicago: University of Chicago Press, 101-162.
- International Monetary Fund, 2008, 'Fiscal Policy as a Countercyclical Tool', in *World Economic Outlook*, October, 159-196.
- Jonung L. and M. Larch (2006) 'Fiscal Policy in the EU. Are Official Output Forecasts Biased?' *Economic Policy*, 491-534.
- Koskela, E. and M. Viren (2003) 'Government Size and Output Volatility: New International Evidence', University of Helsinki, Department of Economics, Discussion papers, No. 569.
- Langedijk, S. (2004) 'The Pro-cyclicality of Fiscal Policy in EMU', *Quarterly Report on the Euro Area*, Vol. 3, 27-37.
- Larch, M. and M. Salto (2005) 'Fiscal Rules, Inertia and Discretionary Fiscal Policy', *Applied Economics*, (37)10, 1135-1146.
- Manasse, P. (2006) 'Pro-cyclical Fiscal Policy: Shocks, Rules, and Institutions – A View From MARS', IMF Working Paper 06/26.
- Strauch, R., M. Hallerberg and J. von Hagen (2004), 'Budgetary Forecasts in Europe: The Track Record of Stability and Convergence Programmes', ECB Working Paper No. 307.
- Van den Noord, P. (2000) 'The Size and Sole of Automatic Fiscal Stabilisers in the 1990s and Beyond', OECD Economic Department Working Paper No. 230.
- Von Kalckreuth, U. and G.B. Wolff (2007) 'Testing for Contemporary Fiscal Policy Discretion with Real-Time Data', Deutsche Bundesbank Discussion Paper No. 24/2007.