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István Benczes\*

# Fiscal Stimulus and its Effects in the European Union

*In the wake of the financial and economic crisis Keynesian macroeconomic management has once again come into the spotlight. The following article takes a critical look at the practice of expansionary fiscal policy in the EU's old member states between 1980 and 2005 in order to answer the question whether fiscal stimulus can be a successful response to the current crisis in both the short and the long run.*

The subprime crisis of the US mortgage market has now spread over the whole globe and has caused serious economic slowdown in most countries. The decline in economic output, along with the increase in the rate of unemployment, have put Keynesian macroeconomic management once again in the spotlight. According to Keynesian economics, fiscal stimulus can substantially increase aggregate demand and thus economic activity. The textbook-type anti-cyclical policies, designed basically for closed economies, are constrained severely, however, by a number of special factors in an economic and political community such as the European Union. The single market, for instance, makes it impossible for countries by law to adopt protective measures in order to keep national flagships alive. Any violation of the single market would undermine the *raison d'être* of the whole community. Members of the euro-zone cannot apply one of the most classical national devices for reinforcing economic competitiveness: currency devaluation. Furthermore, interest-rate policy is determined solely by a supranational authority, the European Central Bank, which has to harmonise the needs of 16 countries and should remain deaf to individual voices.

In principle, fiscal policy is the only instrument by which governments in most of the EU countries can accelerate economic activity somewhat or at least cushion the perverse effects of economic crisis. The success of fiscal stimulus, however, is highly dependent on several conditions that may or may not prevail in a given economy. Based on the past experiences of old member states, this study tries to explore those

conditions which can result in success (i.e. accelerated economic growth) in times of fiscal expansion. It also elaborates on the issue whether fiscal stimulus can be an adequate and successful response to the current financial and economic crisis.

We shall first present a concise review of theoretical and empirical literature on fiscal policy and its growth effects. A stylised facts analysis will then be applied in order to study the practice of fiscal expansions by old EU member states between 1980 and 2005, with a special emphasis on those conditions which proved to be more prone to success. Following the systematic analysis of the past, we shall then turn to the current financial and economic crisis and raise the question whether EU countries have enough fiscal room for manoeuvre for the artificial stimulus of their economies.

## Real and Alleged Effects of Expansionary Fiscal Policy

According to Keynesian macroeconomics, fiscal stimulus can substantially increase aggregate demand through the multiplier effect. Assuming sticky prices and underutilised capacities, a successful anti-cyclical fiscal policy can stimulate current economic activity or cushion severe decline.<sup>1</sup> The ultimate effect of government stimulus (i.e. the value of the fiscal multiplier), however, is a function of a multitude of factors. The crowding-out effect can dampen expansionary effects enormously. Private investment, for instance, can be kept back by the increased interest rate or the unfavourable movement in the rate of exchange in times of fiscal laxity. Also, a substitution effect may evolve in the production of goods and services: instead of domestic private agents, the government itself, or foreigners,

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<sup>1</sup> In standard Keynesian models, households make their consumption decisions according to their disposable income. The fiscal multiplier is different, therefore, in the case of increased public spending or reduced taxes. In principle, the latter induces a smaller multiplier effect than the former.

will step into the market in order to deliver goods and services. Beyond interest rate sensitivity and price rigidity, the degree of exposure to world markets and the applied exchange-rate regime can also have a significant effect on the effectiveness of fiscal stimulus. Closed economies with fixed parities have a higher chance of having a larger multiplier effect. The central bank can also have an influence on the ultimate size of the fiscal multiplier.<sup>2</sup>

The success of expansionary fiscal actions depends on initial conditions, too. In the case of a relatively high and accelerating public debt and deficit, along with a high risk premium, the fiscal multiplier can be rather small.<sup>3</sup> Fiscal laxity may not deliver the expected growth effects in times of general (i.e. global) economic slowdown, either – this is especially the case with small and open economies.<sup>4</sup>

Reviewing the literature on the fiscal multiplier, Hemming and his colleagues came to the conclusion that the size of the multiplier – in the short run at least – tends to be positive but small.<sup>5</sup> Studying the large EU countries, and assuming the accommodative reaction of the central bank, Roeger and Veld claimed that the fiscal multiplier was close to 1 in the short run, but declined to 0 in the longer term.<sup>6</sup> Perotti calculated a multiplier of +0.8 for Germany between 1974 and 2000, whereas this figure was slightly negative in the UK.<sup>7</sup> Van Aarle and colleagues found that EU countries

in general had a relatively small and non-persistent multiplier-effect.<sup>8</sup> They also showed that variance in the data was substantial. The authors therefore underlined that a generalisation could overshadow the differences amongst member states. All studies agreed, however, that the USA had a significantly larger fiscal multiplier than countries in the EU.<sup>9</sup>

The success of discretionary fiscal intervention can also depend on the specific instrument that a government selects. Additional spending on public investment and so-called core functions, such as education and research and development, have a higher chance to promote economic growth than other fiscal items (see especially Lucas and Afonso et al.)<sup>10</sup> The latter also underlined that expansionary policies with a redistributive character can devalue the potential rate of economic growth. Somewhat surprisingly, in a recent study, Freedman and his colleagues classified budget transfers, too, as pro-growth items, on the condition that they are properly targeted.<sup>11</sup> Afonso and Furceri have come to the conclusion that government consumption (both size and volatility), social transfers (size and volatility), indirect taxes (size and volatility), subsidies (size) and government investment (volatility) have a robust and statistically significant negative effect on economic growth.<sup>12</sup>

#### Fiscal Expansions in the EU between 1980 and 2005

In our stylised facts approach, those episodes (years) of fiscal expansion will first be identified which have exceeded a set limit.<sup>13</sup> In order to identify politically motivated fiscal actions (independent of busi-

<sup>2</sup> Assuming perfect capital mobility and a fixed exchange-rate system, the central bank has no other option than to accommodate to fiscal expansion by reducing the interest rate, thereby dampening the revaluation pressure on the domestic currency. In a flexible exchange-rate system, however, the monetary authority has a certain degree of autonomy. In such a scenario, the central bank can effectively influence the size of the multiplier. Cf. R. A. Mundell: *International economics*, New York 1968, Macmillan.

<sup>3</sup> Cf. for instance R. Bhattacharya: Private sector consumption behaviour and non-Keynesian effects of fiscal policy, in: IMF Working Paper, No. 112, August 1999; O. Blanchard: Comment, in: O. Blanchard, S. Fischer (eds.): *NBER Macroeconomics Annual*, Cambridge MA 1990, MIT Press, pp. 111-116. In fact, the fiscal multiplier can turn into the negative beyond a critical value of the public debt (a phenomenon called non-Keynesian effects). Fiscal expansion induces households to save more, as the lax fiscal policy can trigger a crisis in the short run. Households accordingly adopt a Ricardian behaviour, instead of the general Keynesian one.

<sup>4</sup> J. von Hagen, A. H. Hallett, R. Strauch: Budgetary consolidation in EMU, in: *Economic Papers*, European Commission, No. 148, March 2001.

<sup>5</sup> R. Hemming, M. Kell, S. Mahfouz: The effectiveness of fiscal policy in stimulating economic activity – a review of the literature, in: IMF Working Paper, No. 208, December 2002.

<sup>6</sup> W. Roeger, J. in't Veld: Some selected simulation experiments with the European Commission's QUEST Model, CEPR/ZEI conference on Empirical models of the Euroeconomy Euroconference: Macro Performance, Bonn, June 2002.

<sup>7</sup> R. Perotti: Estimating the effects of fiscal policy in OECD countries, in: ECB Working Paper, No. 168, August 2002.

<sup>8</sup> B. van Aarle, H. Garrestsen, N. Gobbin: Monetary and fiscal policy transmission in the Euro area: Evidence from a structural VAR analysis, Vienna Institute for International Economic Studies, Vienna, January 2001.

<sup>9</sup> Cf. especially O. Blanchard, R. Perotti: An empirical characterization of the dynamic effects of changes in government spending and taxes on output, in: *Quarterly Journal of Economics*, Vol. 117, 2002, pp. 1329-1368.

<sup>10</sup> R. E. Lucas: On the mechanics of economic development, in: *Journal of Monetary Economics*, Vol. 21, 1988, pp. 1113-1144; A. Afonso, W. Ebert, L. Schuknecht, M. Thöne: Quality of public finances and growth, in: S. Deroose, C. Kastrop (eds.): *The quality of public finances*, in: *European Economy – Occasional Papers*, No. 37, March 2008, pp. 39-60.

<sup>11</sup> C. Freedman, M. Kumhof, D. Laxton, J. Lee: The case for global fiscal stimulus, in: IMF Staff Position Note, SPN/09/09, 6 March 2009.

<sup>12</sup> A. Afonso, D. Furceri: Government size, composition, and economic growth, in: *ECB Working Paper Series*, No. 849, January 2008.

<sup>13</sup> Data have been taken from the following sources: AMECO online data base of ECOFIN; EC: *European Economy – Statistical annex*, Spring 2006; EC: *European Economy*, No. 68; EC: *Cyclical adjustment of budget balances*, DG ECFIN, Spring 2006. Luxembourg has been omitted from the sample.

**Table 1**  
**Expansionary Fiscal Episodes of EU14**

	Year of fiscal expansion	Total number of episodes
Austria	1993	1
Belgium	1980, 1981, 2005	3
Denmark	1982, 1994	2
Finland	1982, 1987, 2003	3
France	–	0
Germany	1990, 2001	2
Greece	1981, 1985, 1988, 1989, 1995, 2000, 2003, 2004	8
Ireland	1990, 1999, 2001	3
Italy	1981	1
Netherlands	1986, 1989,	2
Portugal	1985, 1993, 2005	3
Spain	1982	1
Sweden	1992, 2002	2
UK	1983, 1990, 1992, 2003	4

Source: own compilation.

ness cycles), the cyclically adjusted primary balance has been chosen for analysis. Concentrating only on large fiscal steps, filtering out the effects of business cycles and disregarding interest payments may together guarantee that only the discretionary parts of fiscal policy will come under scrutiny.

*Definition no. 1:* A fiscal year is called “expansionary” if the cyclically adjusted primary general government balance has deteriorated by at least 1.5 per cent of the GDP as compared to the previous year.<sup>14</sup>

Second, the consequences of expansionary fiscal actions will be analysed in the set population; most importantly, the success of fiscal expansion will be defined and analysed accordingly.

*Definition no. 2:* A fiscal expansion is called “successful” if the average growth rate of the real GDP in the year of the fiscal action plus the following two years – that is, in years  $t$ ,  $t+1$  and  $t+2$  – exceeded the previous two years’ ( $t-1$  and  $t-2$ ) growth performance.

Since the ultimate objective of this paper is to elaborate on the conditions of a successful fiscal expansion, as a third step the analysis will turn to the composition of fiscal laxity. According to the political economy literature on fiscal policy and its effects, the composition of discretionary fiscal measures may effectively deter-

<sup>14</sup> The chosen critical value (1.5 per cent of the GDP) is generally considered in the relevant literature to be a significant change; see especially A. Alesina, R. Perotti: Fiscal expansions and adjustment in OECD countries, in: *Economic Policy*, Vol. 10, No. 21, 1995, pp. 207-248.

mine the final outcome.<sup>15</sup> Our population will therefore be divided into three groups: expenditure-side expansions, revenue-side expansions and mixed stimulations.

*Definitions no. 3:* a) fiscal expansion is called “expenditure-side” if the change (increase, measured in the GDP) in total expenditures from year  $t-1$  to year  $t$  exceeded the opposite change (decline, measured in the GDP) of total revenues from year  $t-1$  to year  $t$  by at least 30 per cent.

b) A fiscal expansion is called “revenue-side” if the change (decline, measured in the GDP) in total revenues from year  $t-1$  to year  $t$  exceeded the opposite change (increase, measured in GDP) of total expenditures from year  $t-1$  to year  $t$  by at least 30 per cent.

c) A fiscal expansion is called “mixed” if the difference between the change in total expenditures from year  $t-1$  to year  $t$  and the change in total revenues from year  $t-1$  to year  $t$  was not more than 30 per cent of the larger change.<sup>16</sup>

Besides the composition, the reaction of the monetary authority will also be taken into account in searching for relevant conditions for successful expansionary fiscal policies. The central bank can have an effect on short-term interest rates only (if at all). The focus will therefore be on how real interest rates in the year of expansion and the following year changed.

*Definition no. 4:* Monetary policy is called “accommodative” if the difference in short-term real interest rates between years  $t$  and  $t+1$  had a negative value.

### Discussion of Results

The total number of observations was 364 (26 years times 14 countries). Applying definition no. 1 made it possible to categorise 35 episodes as expansionary; that is, almost 10 per cent of the total observations showed a large deterioration of the cyclically adjusted primary balance of the general government. The average size of the (relatively large) expansions was 2.5 per cent of the GDP (standard deviation: 1 per cent). Amongst the 14 countries under scrutiny, Greece applied expansionary measures the most frequently:

<sup>15</sup> Cf. A. Alesina, S. Ardagna: Tales of fiscal adjustments. Why they can be expansionary? in: *Economic Policy*, Vol. 13, No. 27, 1998, pp. 489-545; I. Benczes: Trimming the sails. The comparative political economy of expansionary fiscal consolidations, New York, Budapest 2008, CEU Press; R. Perotti, R. Strauch, J. von Hagen: Sustainability of public finances, Bonn 1998, ZEI.

<sup>16</sup> The classification of fiscal expansions has been implemented according to a different base, too. Instead of total expenditures and revenues, current expenditures and revenues were applied in the definition, but no significant change evolved.

**Table 2**  
**Main Characteristics of Fiscal Expansions**

	Entire population	Successful expansions	Unsuccessful expansions
Number of episodes	35	18	17
Average size	2.47	2.56	2.38
Standard deviation	1.01	1.15	0.86
Highest value	6.73	6.73	3.97
Growth effect*	+0.17 (2.33)	+1.93 (1.43)	-1.70 (1.47)

\* measures the average growth difference before and after the fiscal action as in definition no. 2. Standard deviation is in brackets.

Source: own compilation.

8 times between 1980 and 2005. The UK, second in rank, pursued lax policies only 4 times. Besides Greece (1988 and 1989), only Belgium (1980 and 1981) conducted large-scale stimulations in two consecutive years; no other country decided to do so.

The time distribution of expansionary measures was also uneven. The eighties experienced 15 lax episodes throughout Europe. The nineties, on the other hand, were spent by initiating large-scale fiscal consolidation in order to qualify for the euro-zone. Accordingly, only 10 episodes proved to be expansionary in the whole decade. None of these episodes occurred in the immediate years of the changeover to the euro, i.e. in 1996, 1997 or 1998. The new millennium again witnessed a recurrence of fiscal profligacy. With a guaranteed membership in the euro-bloc, it was tempting to embark on large-scale fiscal expansions: 10 episodes were counted in just six years.<sup>17</sup>

The growth difference following the expansive fiscal measures was practically zero (0.17 per cent) in the whole population, with a standard deviation of 2.33. Whereas the overall picture is rather disappointing, the division of the total sample into a group with positive and another with negative growth differences implies more hope. Based on definition no. 2, 18 episodes proved to be successful out of the total 35. Moreover, in 14 cases the recovery in growth rates achieved at least 1 percentage point of the GDP. On the other hand, more than half of the unsuccessful attempts (10 out of 17) provided an at least 1 per cent point decline.

<sup>17</sup> In Europe, a "reform-fatigue" emerged amongst member states after the introduction of the euro (G. M. Briotti: Fiscal adjustment between 1991 and 2002: stylised facts and policy implications, in: ECB Occasional Papers, No. 9, February 2004). While in the first years it simply meant a postponement of further reforms of the general government, later on, as a consequence of the global economic slowdown in 2001, the Maastricht reference values were violated by many. Countries such as Italy and France, as well as Germany, the one-time forerunner of stabilisation culture, entered the forbidden deficit zone.

**Table 3**  
**The Composition of Fiscal Expansions**

	Expenditure-based expansions	Revenue-based expansions	Mixed expansions
Number of episodes	21	8	6
Average size	2.54	2.29	2.51
Standard deviation	1.18	0.61	0.82
Highest value	6.73	3.41	3.97
Number of successful episodes	10 (47%)	5 (62.5%)	3 (50%)

Source: own compilation.

The data also reveal that the size of expansion itself does not tell us anything about the growth consequences of fiscal laxity. The average size of successful and unsuccessful fiscal attempts was almost the same (cf. Table 2).

The division of the population into three groups, based on the composition of expansion, can reveal which policy had a higher rate of success, i.e. a positive fiscal multiplier. The population of 35 episodes is, however, not a sizeable group. Therefore, the partitioning may question the relevance of our findings. Still, some basic tendencies can be disclosed even in this case. According to the findings presented in Table 3, each of the three types of fiscal expansion could bring about a successful economic stimulus. Expenditure-side expansions had, however, a smaller chance of being successful than mixed or especially revenue-based ones.

The overall impression would be the same if the 35 episodes were divided into successful and unsuccessful ones. In the former group, total revenues declined by 0.8 per cent of the GDP on average (std. dev. 1.25), whereas total expenditures increased by 1.5 per cent (std. dev. 2.25). In the case of the failed attempts, revenues declined by 0.6 per cent only (std. dev. 1), and spending increased by 2 per cent (std. dev. 2). Unsuccessful expansions therefore witnessed a less robust revenue decline and a more ambitious expenditure stimulus. By and large, these data seem to support the hypothesis that extra public spending can have a lesser chance of success than reduced revenues.

Disaggregating total expenditure and revenue, however, makes this evidence more complex. Public investment was the most often stimulated fiscal instrument in the entire sample. Somewhat surprisingly, the average size of fiscal stimulus on investment was twice



as large in the group of unsuccessful episodes as in the case of successful ones (in numbers: 7.2 per cent versus 3.6 per cent; with an almost identical standard deviation of 8 per cent – the data are not in GDP but as compared to the previous year's base value.) The most striking difference between the successes and the failures was that compensation to public sector employees increased by less than 1 per cent in the former group, whereas it increased by 2 per cent in the latter one. Similar trends evolved with social transfers paid to households. Social transfers in kind displayed a 2.4 per cent increase amongst successful attempts versus 3.6 per cent increase with regard to the failed episodes. Figures for social transfers in cash: 1.4 per cent versus 2.6 per cent.<sup>18</sup>

As far as the revenue side is concerned, a reduction in direct taxes (such as wealth or income taxes) turned out to have a much higher chance of success than indirect taxes. This claim could be more straightforwardly supported within the group of revenue-side and mixed expansions. As a corollary, if a government was ready to adopt expansionary measures which were partly at least on the revenue side and those tax reducing measures were linked to income and/or wealth, the growth difference following the stimulus proved to be positive. (Nevertheless, there is no reason to claim that direct taxes and economic growth correlated negatively in the *whole* population. In fact, the value of the correlation was zero.)

According to Keynesian macroeconomics, a reaction of monetary policy is key to the ultimate effect of fiscal stimulus. The central bank can respond to fiscal laxity in two ways. It can either increase the nominal interest rate in order to keep the nominal output constant, thereby defending price stability. Or if price stability is not endangered by the proposed fiscal stimulus, it can react in an accommodative manner. In the latter case, the mix of fiscal and monetary policy can leave the overall interest rate unchanged and boost national income.

Monetary policy, however, did not seem to play a role in the success of fiscal stimuli in Europe between 1980 and 2005. The average short-term real interest-rate difference (as defined by definition no. 4) remained relatively low, although it had a negative (expected) value on the whole sample (-0.68; std. dev. 2.46). Nevertheless, there was no statistically significant correla-

tion between the change in real interest rates on the one hand and growth differences on the other hand. To put it differently: fiscal expansions did not become successful because of the accommodative reaction of central banks.

In sum, our stylised facts analysis of EU countries has provided only modest food for thought regarding the conditions for successful fiscal stimuli. Admittedly, revenue-side expansions are more likely to be successful than expenditure-side ones (especially if combined with a reduction in direct taxes), but the picture is not unambiguous. Increasing public spending may trigger positive growth effects, too. The ultimate effects of expansionary fiscal policy are surely influenced by other factors as well. However, those factors might be either beyond the authority of the governments (such as the international economic climate or the behaviour of individuals), or they can be time and place specific factors which do not allow for the drawing of general conclusions.

#### Fiscal Expansion in Times of Crises

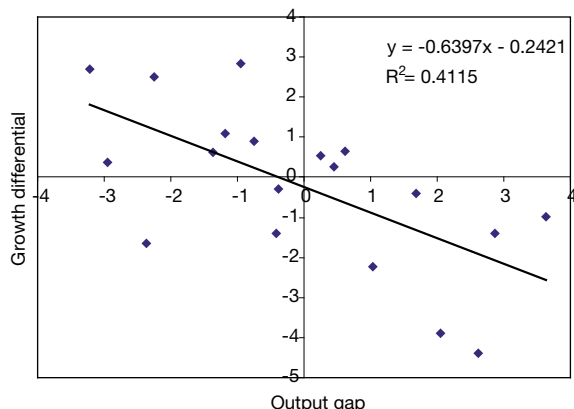
The current affairs of the world economy are, however, largely different from those of earlier times in many respects. First, the current crisis is not a local or regional phenomenon but a global one. Second, the crisis has undermined several fundamental pillars of both the world economy and national economies, which are now claiming simultaneous remedies. Even our understanding of the classic results of macroeconomics is considered in a different light. The well-known trade-off with regard to fiscal expansion between the short-term benefits (more income for redistribution) and the long-term costs (increased indebtedness and/or interest rate etc.) has come under crucial reconsideration. The benefits should now be interpreted on a much wider base than ever before. Fiscal stimulus does not simply dampen the fall of aggregate demand but also, and more importantly, it should prevent solid and wealthy capacities from breaking (and melting) down entirely, thereby stabilising employment and economic output.<sup>19</sup>

Nevertheless, it is worth underlining that any discretionary fiscal action should take into account the following two constraints. First, in an overheated economy, the benefit of additional public expenditure can never be a boost to output, but only an increase in price level. Second, fiscal intervention should be restricted exclusively to bad times and should be exerted

<sup>18</sup> Standard deviations were, however, rather high in the case of social transfers, ranging from 3 to 6 per cent. Relative standard deviations were the highest within this category. Countries used social transfers rather diversely in both the successful and unsuccessful groups.

<sup>19</sup> Even the IMF has called for a fiscal stimulus in as many countries as possible to maximise the net benefit of fiscal loosening (cf. C. Freedman, M. Kumhof, D. Laxton, J. Lee, op. cit.).

**Figure 1**  
Output Gap and Growth Differentials in Times of Fiscal Expansion



Note: Correlation is -0.64 (statistically significant).

Source: own compilation.

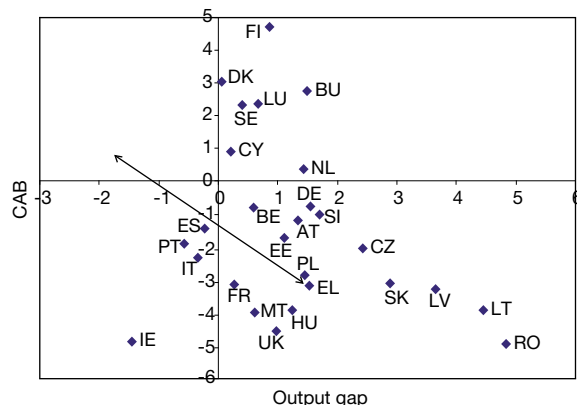
temporarily; fiscal policy must follow an anti-cyclical pattern. These two conditions manifest themselves quantitatively in the concept of the output gap and the cyclically adjusted general government balance.

In the *Broad Economic Policy Guidelines*, fiscal recommendations are formulated for both the member states and the EU itself by the European Commission, based on the phase of the business cycle in which they find themselves. Our sample of the EU14's fiscal expansions seems to validate the adopted practice of the Commission. The correlation between the output gap and the growth difference (following the fiscal stimulus) is strong and significant. The results are displayed in Figure 1.<sup>20</sup> A fiscal expansion is more likely to provide positive growth effects if the output gap is relatively small (possibly negative). To put it differently: the possibility of a successful fiscal stimulus is higher if fiscal policy is anti-cyclical, as opposed to a pro-cyclical policy, when actual output is already exceeding the potential one.

As far as the current trends are concerned, in most of the 27 member states of the EU, the output gap has turned positive (that is, the actual growth rate exceeded the potential one) by 2008. These economies have apparently been overheated in the first year of the crisis. How could this be the case? One possible explanation could be that, in fact, the actual rate was

<sup>20</sup> Data are available for the period 1990 to 2005 only; the number of episodes has therefore narrowed down to 20. The correlation is even more robust if the outlier Portugal (1993), where data accuracy is not evident, is left out of the sample.  $R^2$  exceeds 0.5 in this case.

**Figure 2**  
Output Gap and Cyclically Adjusted General Government Balance in the EU27, 2008



Note: CAB: cyclically adjusted (general government) balance. The adjustment was based on potential GDP (excessive deficit procedure). The gap between actual and potential gross domestic product was calculated at 2000 market prices.

Source: own compilation, based on the AMECO database online.

not relatively high in 2008, but the potential rate of growth was unexpectedly low. It seems reasonable to assume that deep structural problems evolved in the EU (well) before 2008, which in turn devaluated the trend-GDP, causing the output gap to turn positive in the year of the crisis. The situation is, however, even worse because fiscal discipline has been seriously undermined after the changeover to the euro. The cyclically adjusted general balance was negative in most of the countries in the last couple of years. In short, 2008 found the large majority of EU countries with both a positive output gap and a high deficit (cf. Figure 2).

Since the net position of the cyclically adjusted balance of the general government was negative in most of the countries (in 20 member states), the relatively high level of the actual growth rate (as compared to the potential rate) was already maintained by a high level of extra public spending. Room for fiscal policy manoeuvre has evidently been restricted by now.<sup>21</sup> Both the Stability and Growth Pact and international financial markets would push these EU countries towards robust fiscal consolidations under *normal* circumstances. This scenario is indicated by the north-west direction of the arrow in Figure 2. In the current crisis situation, however, no such sce-

<sup>21</sup> Only Finland, Denmark, Sweden and to a lesser extent the Netherlands could provide a positive structural general balance amongst the old member states of the EU. These were also the countries which initiated wide-scale reforms in their general government.

nario can be politically viable. Instead, countries are expected to embark on further fiscal expansion, with the hope of successfully dampening a further decline in economic activity. Fiscal laxity, however, will also end up in an even more substantial deterioration in the fiscal balance. The south-east direction of the arrow therefore displays an optimistic (i.e. successful) crisis management scenario. The relatively low level of potential GDPs on the one hand and the high level of structural deficits on the other hand can make the success of the government intervention rather unlikely, however. In fact, according to the latest estimates of the European Commission, the output gap will become negative in most of the countries in 2009.<sup>22</sup> This change will occur not because of an increase in the potential rates but due to a dramatic decline in actual growth rates. In terms of Figure 2, this would mean an unfortunate shift towards the south-west.

### Conclusion

The major international financial institutions are unanimously demanding active state intervention. However, the final effect of fiscal stimulus may be ambiguous in those situations where countries suffer from structural deficiencies. And most of the EU member states indeed do so. The analysis of the experience of European expansionary fiscal policies pointed out that success (that is, accelerated economic growth) came about in countries which preferred tax reduction rather than the increase of public spending. Furthermore, a negative output gap seemed to be an important condition for success.

Nevertheless, in the current economic situation, where private demand has declined substantially, countries may have no other option than to fuel aggregate demand by boosting public spending. Governments should concentrate on extra spending,

<sup>22</sup> EC: European Economy, No. 6, 2008.

however, in the sphere of so-called core functions (such as education or R&D) on the one hand and the recapitalisation of the banking sector on the other. By pursuing such an approach, additional public money can contribute to the increase of potential GDP in the long run, beyond the short-term demand effect. The EU, unfortunately, has reached the current crisis with a trend-GDP expanding only at a decelerated pace and a positive output gap in the majority of the countries. Sadly enough, this has happened mostly in those countries where fiscal discipline already melted away years ago. Neither the earlier experiences, nor the current prospects are therefore too encouraging.<sup>23</sup>

Furthermore, it is worth underlining that in times of crisis

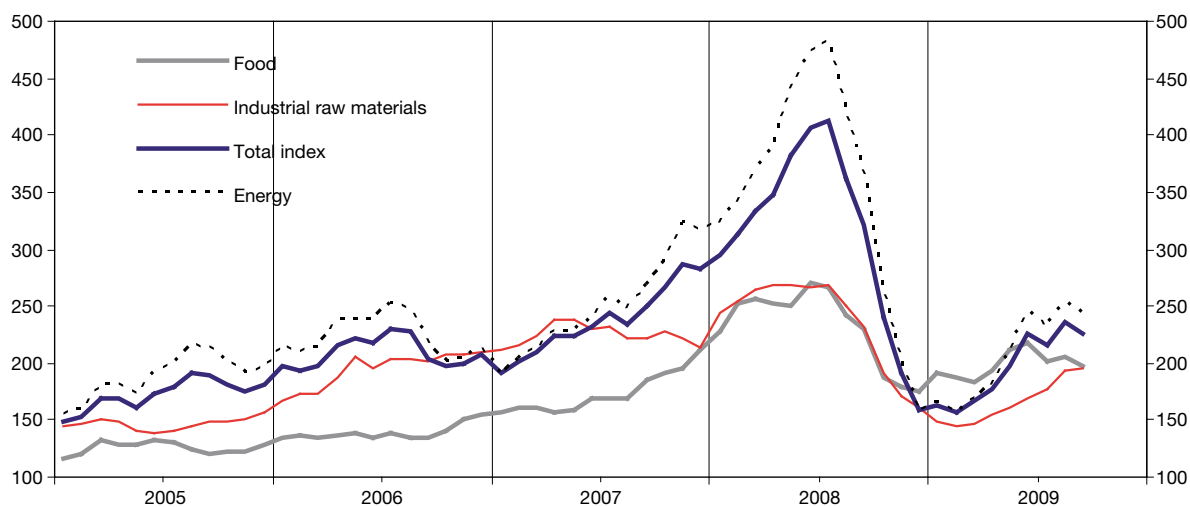
- Crisis management cannot culminate in a prisoner's dilemma-type situation, where the gain of one party is the loss of the others. The EU needs to coordinate its actions amongst the member states and should refrain from adopting protective measures which would endanger political and economic integration.
- Not all member states can adopt expansionary fiscal measures. The degree of fiscal room for manoeuvre differs significantly from one country to another in the EU.
- Extra budgetary spending must only be temporary and cannot threaten economic sustainability in the long run. The problem of an ageing population can be disregarded only for the relatively short period of crisis management; in the long term, however, attention should be directed again towards the consolidation of public finances.

<sup>23</sup> Moreover, one of the most lasting effects of expansionary fiscal policies in the EU was not an accelerated economic output but increased indebtedness. This was especially the case if the government decided to increase the compensation of public sector employees or household transfers. In our EU14 sample the debt-to-GDP ratio increased by 5.5 per cent on average after three years of the expansion.



## HWWI Index of World Market Prices of Commodities<sup>1</sup>

(2000=100)



Commodity Groups <sup>1</sup>	2008	Jan. 09	Feb. 09	Mar. 09	Apr. 09	May 09	June 09	July 09	Aug. 09	Sep. 09
Total Index	315.8 (33.4)	163.4 (-44.7)	157.6 (-49.5)	166.2 (-50.2)	176.7 (-49.2)	198.3 (-48.3)	226.2 (-44.4)	216.2 (-47.7)	235.9 (-35.0)	226.9 (-29.5)
Total, excl. energy	236.0 (12.9)	161.6 (-32.2)	157.6 (-37.7)	158.4 (-39.7)	167.0 (-36.5)	176.8 (-32.8)	184.4 (-31.2)	183.6 (-31.5)	197.0 (-20.7)	195.4 (-15.3)
Food total	233.0 (34.3)	192.4 (-15.3)	187.0 (-25.6)	184.0 (-28.3)	194.1 (-22.9)	212.7 (-15.3)	217.5 (-19.5)	200.5 (-25.0)	205.9 (-15.3)	196.5 (-14.5)
Industrial raw materials	237.4 (5.7)	148.1 (-39.2)	144.8 (-42.9)	147.2 (-44.5)	155.1 (-42.2)	161.1 (-40.0)	169.9 (-36.3)	176.2 (-34.3)	193.1 (-23.0)	194.9 (-15.7)
Agricultural raw materials	150.7 (-3.5)	109.8 (-31.9)	104.6 (-34.5)	104.5 (-35.7)	107.2 (-33.6)	112.0 (-30.8)	116.7 (-29.0)	122.6 (-25.9)	131.5 (-16.0)	138.4 (-8.7)
Non-ferrous metals	242.2 (-11.1)	124.9 (-50.0)	121.6 (-56.1)	128.4 (-56.9)	144.5 (-51.1)	151.8 (-46.4)	167.1 (-39.4)	173.8 (-37.9)	203.7 (-20.0)	199.8 (-14.8)
Iron ore, steel scrap	482.2 (60.8)	323.9 (-31.1)	326.2 (-30.9)	324.6 (-33.0)	326.2 (-36.5)	331.9 (-39.3)	335.3 (-38.8)	342.5 (-37.1)	348.3 (-33.2)	349.8 (-23.8)
Energy	354.4 (41.6)	164.3 (-49.1)	157.6 (-53.8)	169.9 (-53.9)	181.4 (-53.3)	208.6 (-52.7)	246.4 (-48.1)	231.9 (-52.1)	254.7 (-39.1)	242.1 (-33.8)

<sup>1</sup> On a US dollar basis. averages for the period; figures in brackets: percentage year-on-year change.

Further information: <http://www.hwwi-rohindex.org/>