

The Effectiveness of Fiscal Policy Coordination in the Economic and Monetary Union

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Abstract

This paper examines whether fiscal policy coordination in EMU is effective or not. To do so, the reasons for conducting fiscal policy coordination in EMU are set out first. This paper argues that fiscal policy coordination in EMU should aim at financial sustainability and flexibility in short term budgetary positions in order to counter economic 'bad times'. It is found that the current institutional framework is insufficient to really influence EMU Member States. Therefore, an independent institution is proposed that has to deal with enforcing the guidelines and criteria established by the SGP. Furthermore, more flexibility is needed in the corrective part of the SGP.

Contents

Introduction

1. Fiscal policy theory

1.1.1 Crowding out

1.1.2 Ricardian equivalence, credibility and the supply side effects of fiscal policy

1.2 The new role of fiscal policy

1.3 Fiscal policy in EMU

1.3.1 A model of fiscal policy in a monetary union

1.4 Empirical evidence on the effectiveness of fiscal policy

2. Coordination of fiscal policy in EMU

2.1 A short history of fiscal policy coordination in the EMU

2.2 The framework of fiscal policy coordination in the EMU; institutions, instruments and goals

2.2.1 The Stability and Growth Pact

2.2.2 Economic coordination (BEPG)

3. Performance of the SGP

4. Conclusion

5. References

Introduction

Individual sovereign nation states have numerous ways to influence their economies. Countries can adjust the money supply or the level of government spending and taxes to affect the structure and distribution of economic activity. In a monetary union (MU) member states adopt a single common currency and thus lose their monetary autonomy, the money supply is determined at a central level for the entire union. This has large consequences for the way in which fiscal policies of one member state affect the economies of the other member states.

Currently the largest and most important MU is the European ‘Economic and Monetary Union’ (EMU). The EMU consists of 16 member states while several more countries are preparing to join the MU¹. Money supply in the EMU is determined by the European Central Bank (ECB), individual member states determine their individual fiscal policies. The economies of EMU members are highly interdependent; a single currency means that there is no floating exchange rate to protect member states from macroeconomic shocks in other member states. This interdependency calls for strict coordination of fiscal policy. To achieve this coordination the Stability and Growth (SGP) pact has been put in place. The SGP puts restrictions on the national annual budget deficit and total national debt². The main goals of the SGP are to achieve long term sustainability of public finances in EMU and prevent negative externalities originating from domestic fiscal policies.

The recent economic downturn has led governments to adopt huge fiscal stimulus packages in order to get their economies out of recession. This has led to large budgetary deficits and rising government debts. Moreover, EMU Member States have run large budgetary deficits long before the current crisis. Even in economic good times, government deficits have been high in countries like Greece, France and Germany. The aim of this paper is to look at the effectiveness of fiscal

¹ Currently the EMU consists of: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain. Several new EU members are preparing to join the EMU, including Estonia, Latvia, and Lithuania.

² The budget deficit may not be greater than 3% of GDP and the total government debt may not be more than 60% of GDP.

policy coordination in EMU. Furthermore, recommendations will be given on how to better achieve fiscal policy coordination in EMU. In the first section of this paper the question will be answered what the general theoretical effects of fiscal policy are and why fiscal policy coordination is necessary in a monetary union. Attention will also be given to empirical proof on the effects of fiscal policy. It will be shown that domestic fiscal policies potentially have large influences on economic conditions in the rest of the union. On the basis of this section some recommendations are established on what the framework of fiscal policy coordination should achieve. In the next section the current framework of fiscal policy coordination in EMU will be discussed. The two main institutions are the SGP and the 'Broad Economic Policy Guidelines' (BEPG). It is found that these institutions lack the authority to achieve everything they should. The result is that a large focus is on recommendations and peer pressure instead of clear and strict sanctions. In the final section of this paper the actual performance of the SGP is analyzed by looking at budgetary positions in EMU Member States and the excessive deficit procedure. It is found that the excessive deficit procedure has been initiated a lot but has never resulted in actual sanctions. Furthermore, countries do not seem to be influenced by recommendations made in the BEPGs or SGP. The result is that countries do not consolidate in economic good times, which they should, so that when fiscal expansion *is* necessary there is not much room to let budget deficits increase. It is recommended that the preventive arm of the SGP and the BEPGs should be able to enforce their recommendations on Member States. At the same time, the excessive deficit procedure should be more flexible to allow larger deficits in economic bad times while being more strict in economic good times.

1. Fiscal policy theory

Before directly addressing actual fiscal policy coordination in EMU, it is important to first pay attention to the varied theoretical stances on fiscal policy. In the economic profession, the role of fiscal policy is a much debated topic. While most economists agree on the function and role of monetary policy, there is no consensus on the proper role and effectiveness of fiscal policy. In the following section this paper will address some of the classical literature on fiscal policy while also looking at the shift in popularity from fiscal policy to monetary policy. Special attention will be given to the use of fiscal policy within a MU.

The classical theory of Keynes was very popular for a large part of the 20th century. If governments wanted to give the economy a boost or control the level inflation, fiscal policy was the preferred choice as a policy instrument. In the simplest Keynesian model, fixed prices and excess capacity are assumed so that output is determined by aggregate demand. In the Keynesian approach countries increase or decrease government expenditure and taxes in order to counter the cyclical movements of the economy. An important assumption in this model is that a significantly large and positive fiscal multiplier is assumed. For example, in the basic Keynesian model a rise in government expenditure or a cut in taxes leads to an increase in aggregate demand which leads to higher consumption, the higher consumption in turn also stimulates demand, thus creating a multiplier effect. The upper level of the multiplier is determined by the marginal propensity to consume (MPC). Consumers will only spend a part of their extra income on consumption and the rest will be savings. The higher the MPC, the more money will flow back into the economy and the higher the multiplier will be. The existence and magnitude of the fiscal multiplier determines for a large part the effectiveness of fiscal policy. There are a number of factors identified in the literature that determine the size and sign of the multiplier which will be discussed hereafter.

1.1.1 Crowding out

One of the factors that diminish the effect of fiscal policy is crowding out. The most direct form of crowding out takes place when goods and services produced or financed by the government form a direct substitute for goods and services provided by the private sector. Another direct form of crowding out is when a part of the increased demand flows out of the country through import leakages. More important for this paper are the effects of a fiscal expansion or consolidation on the interest rate and exchange rate levels.

An increase in government expenditure financed by increased government borrowing (as opposed to a rise in taxes) leads to higher demand for money and thus a higher interest rate. Higher interest rates negatively affect the level of private investments. Furthermore, a higher interest rate attracts foreign capital flows and thus leads to an appreciation of the domestic currency. These two effects thus counteract an expansionary fiscal policy. The effects are exactly the opposite in the case of a rise in taxes or a cut in spending; the lower aggregate demand causes a fall in the demand for money and thus in the interest rate. The lower interest rate stimulates investments while at the same time causing a capital outflow and depreciation. As was the case with a fiscal expansion, the effect of a fiscal consolidation might diminish by the change in the interest rate and exchange rate levels. How strong this crowding out effect is depends on multiple factors;

Private investment sensitivity to interest rates and income: The more sensitive private investments are to changes in the interest rate, the stronger the crowding out effect will be. If investments react very strongly to a rise in the interest level the multiplier could very well be zero or even negative. If investments depend very strongly (and positively) on the income level, an increase in government spending (and thus in total national income) could have a positive effect on private investments. If investments prove to be much more sensitive to interest rate changes than to disposable income changes, the crowding out effect could be very large.

Money demand sensitivity: In the Keynesian approach money demand is a function of total domestic income and the interest rate. The magnitude of crowding out depends on the sensitivity of the money demand with respect to income and the interest rate. A higher interest rate will

cause a fall in the demand for money and thus offset some of the increased demand for money caused by the increase in government borrowing and income. The more sensitive the money demand is to the interest level, the less crowding out there will be. Conversely, the stronger the relation between money demand and the income level, the stronger the crowding out effect will be.

Exchange rate regime and degree of openness: Whether a country has a floating or fixed exchange rate regime and whether it is open or not has a large influence on the effectiveness of fiscal policy. With a floating exchange rate a higher interest rate will cause a capital inflow and thus an appreciation of the domestic currency. The appreciation decreases domestic competitiveness and thus counteracts the effectiveness of an expansionary fiscal policy. With perfect capital mobility and a perfectly floating exchange rate, the effect of fiscal policy is completely offset by the appreciation of the domestic currency.³ With a fixed exchange rate the inflow of capital will finance the increased domestic output thus the increased demand for money will be met with a rise in money supply so that the interest rate remains unchanged. Because the exchange rate is fixed, the inflow of capital will not lead to an appreciation and fiscal policy will be very effective.

Price flexibility: An expansionary fiscal policy in a closed economy will tend to cause a rise in the price level. This effect will diminish the increase in aggregate demand. The effect is different in an open economy with a floating exchange rate. The appreciation caused by a higher domestic interest rate will cause the price of imports (and conversely the aggregate domestic price level) to fall. If the domestic price level proves to move very closely with the exchange rate, the crowding out effect will actually be less strong because prices will not rise as much as in a closed economy. With a fixed exchange rate regime, there can be no appreciation and thus the price level will rise more than with a floating exchange rate. Furthermore the increase in the price level means a real appreciation of the domestic currency and thus a deterioration of the current account. The overall result is a very strong crowding out effect,

³ Allowing for exchange rate expectations yields somewhat different results. This will be addressed in section 1.3.1 when dealing with the special case of fiscal policy a monetary union

Wealth effects: A rise in the interest rate means households will have to adjust the nominal value of their outstanding loans and other future payments. Net current wealth is calculated by discounting future payments with the interest rate. A higher interest rate means a higher discount rate and thus lower net current wealth. If private consumption is a function of current financial wealth, then consumption might fall if households translate the higher interest into a lower current value of their outstanding loans. More or less the same effects can occur in the case of an appreciation. Households possessing foreign currency assets will see their assets drop in value as a result of the appreciation. The effect is lower financial wealth and this might have an effect on the level of consumption for these households. Whether these effects actually occur depends on how forward looking consumers are in practice and in how far consumption depends on net current wealth.

From the above it can be concluded that the effect of fiscal policy on the economy is highly depended on various country and time specific variables. This might explain why there have been so many different views on the effectiveness of fiscal policy throughout the years. So far mostly Keynesian effects of fiscal policy have been discussed. Now some other theories regarding the effectiveness of fiscal policy will be addressed. The Ricardian equivalence theory, financial credibility of governments and supply side effects of fiscal policy will be shortly discussed.

1.1.2 Ricardian equivalence, credibility and the supply side effects of fiscal policy

Ricardian equivalence: In the Keynesian model the fiscal multiplier occurs because the higher aggregate demand caused by a fiscal expansion means a higher income and thus more consumption by households. This rests on the assumption that consumption depends on current income. How the term current income is defined determines whether consumers will change their behavior in the case of a fiscal expansion or not. In the Ricardian equivalence theory, consumers are perfectly rational forward looking people who know of the existence of the intertemporal budget constraint for the government. The intertemporal budget constraint for a government determines that an increase in government spending now will have to be financed by a rise in taxes later. The increase in spending will have to be financed by either a rise in taxes or a rise in national debt. In the case of a rise in the tax level now, aggregate demand remains unchanged

and fiscal policy will have no effect. If the government finances the extra spending by borrowing, the debt level increases which means that this extra debt will have to be paid for by a rise in taxes in the future. Consumers know this and this means that their permanent income is unaffected; as a result consumption will not change and the fiscal multiplier will be zero⁴.

The Ricardian equivalence rests on strong and somewhat unrealistic assumptions. Perfect capital mobility, perfect foresight, rational consumers and having no preference for taxes now or passing the tax burden to a next generation are all assumptions that do not hold in practice.

In the special case of the EMU it can be argued that consumers are more likely to behave in somewhat the same way as the Ricardian equivalence predicts. EMU citizens know of the budget and debt level constraints imposed on their governments by the EU. So they know that any fiscal expansion that breaches the SGP constraints will have to be reversed in the not so far future. Moreover the exact recommended adjustment path to return to budgetary balance is available publicly⁵. So in this special case it is not too farfetched to assume that consumers will at least have some understanding that the increase in aggregate demand now has to be paid for in the future.

Government credibility: National debt levels and government credibility influence the risk premium on interest rates. The higher the national debt and the lower the credibility of the government, the greater the risk premium will be to reflect the greater chance of default. In Greece interest rates have been rising very strongly as a result of rising government's debts and clearly unsustainable public expenditure. So expansionary fiscal policy should be less efficient the higher a country's debt level is and the lower its credibility is. On the contrary, a high debt country that is committed to a credible consolidation of public finances might experience negative fiscal multipliers. Thus, a cut in expenditure in order to improve the sustainability of public finances might actually have a beneficial effect on aggregate demand⁶.

⁴ Barro (1974)

⁵ More on this in section 2.2.1

⁶ This is an expansionary fiscal contraction. The idea that this might be caused by commitment to sustainable public finances and a lower risk premium is brought forward by Giavazzi and Pagano (1990) and Alsina and Perotti (1997).

Supply side effects of fiscal policy: So far only the effects of fiscal policy on aggregate demand have been considered. Fiscal policy can of course also affect the supply side of the economy and thus the capacity of the economy. Governments can for example try to increase labor productivity by offering schooling or cut income taxes to increase the labor supply. An increase in maximum capacity yields higher growth rates in the long run. If consumers are rational and forward looking, they will anticipate the higher growth rate and possibly increase their consumption.

1.2 The new role of fiscal policy

The role of fiscal policy has changed significantly over time. While it used to be the preferred instrument choice with regards to dealing with inflation and stabilization policies, this responsibility is now attributed to monetary policy. The central bank of the US (FED) for example is responsible for achieving maximum employment, stable prices and moderate long term interest rates; *'The Federal Reserve sets the nation's monetary policy to promote the objectives of maximum employment, stable prices, and moderate long-term interest rates. The challenge for policy makers is that tensions among the goals can arise in the short run and that information about the economy becomes available only with a lag and may be imperfect.'*⁷

The ECB has only one main goal; keep inflation under control, which in practice means inflation must not exceed 2%. The EMU system can be described as a monetary inflation targeting system⁸; the central bank ensures price stability and uses only monetary policy instruments to get the job done. The new attribution of tasks between fiscal and monetary policy is called 'the new consensus assignment (NCA)' by Allsop and Vines (2005). Because the interest rate is now the main instrument to deal with macroeconomic problems, the role of fiscal policy in this new assignment has been subject to much debate. According to Balls (2006) the new task of fiscal policy is to maintain sustainable expenditures while focusing on things like resource allocation and distributing income. In this view fiscal authorities should only worry about keeping debt levels in check and aim for budgetary balance. On the other hand there are authors who still believe in fiscal policy as a stabilization instrument⁹.

⁷ Quote from: The Federal Reserve System: Purposes and Functions (2005) pp. 15

⁸ See Begg et al. (2002)

⁹ For example, see Allsop and Vines (2005) and Krugman (2005)

To better understand the current functioning of fiscal policy it is useful to demonstrate (although in a very simplified way) the current inflation targeting system¹⁰.

$$y = \alpha - \beta r + \gamma_1 x \quad (1.1)$$

In (1.1), a basic aggregate demand function is given where aggregate demand (y) is a function of the interest rate (r) and the budget deficit (x). The budget deficit variable shows the effect of fiscal policy; a higher budget deficit will result in a higher value of x and thus in higher aggregate demand.

$$\Delta\pi = \phi(y - y^*) + v_\pi \quad (1.2)$$

In (1.2) a Philips curve relationship is shown. The change in inflation is depicted by the symbol $\Delta\pi$. The term $y - y^*$ shows the output gap; the difference between the output capacity and aggregate demand. As can be seen from the equation the inflation will increase with aggregate demand.

$$r = r_n + \theta(\pi - \pi_T) \quad (1.3)$$

A simple interest rate reaction function is given by (1.3)¹¹. In this simple equation, the interest rate reacts to changes in the inflation rate. Specifically if the inflation rate is above target (depicted by π_T) the interest rate will rise in order to bring the inflation level back to its target. From (1.1) it can be seen that a rise in the interest level decreases aggregate demand. The lower demand in turn decreases the output gap and thus lowers inflation. In this simple framework, a central bank uses the interest rate to adjust demand, the output gap and eventually the inflation rate.

From these three equations two things stand out;

First of all, if the central bank sticks to its reaction function fiscal policy in this framework will be countered by a change in the interest rate initiated by the central bank. An expansionary fiscal policy will increase demand and increase the output gap. As a reaction, inflation will rise and the central bank will react by increasing the interest rate and will thus decrease aggregate demand again. *Second*, formally the interest rate and fiscal policy seem to be perfect substitutes. Formally it doesn't matter if the interest rate is lowered or if government expenditure (and thus the budget deficit) rises. Both will increase demand and eventually lead to a higher inflation rate. In practice

¹⁰ This model comes from Allsop and Vines (2005)

¹¹ See Surico (2003) for an estimated reaction function of the ECB

however the interest rate has completely replaced fiscal policy as an inflation targeting instrument. There are a number of factors that have caused this shift¹²;

- The ease of changing the interest rate compared to changing expenditure levels or cutting taxes. The level of the interest rate is controlled by the central bank and can be adjusted whenever the central bank wants it. Cutting taxes or increasing spending however involves a (sometimes long) political process.
- Consistently using fiscal policy to stabilize the economy can lead to huge deficits and thus costs.
- Monetary policy can be attributed to the independent central bank while fiscal policy is dominated by political interests.
- As a result of the above, Alesina et al. (2001) finds that the cost of using fiscal policy as a stabilization instrument is much higher than that of monetary policy.

From the above it could look like fiscal policy is useless. There are two important arguments however why it is not dead. *First* of all it should be noted from (1.1), (1.2) and (1.3) that it is the deficit level and thus the government that determines the exchange rate and interest rate levels. Changes in spending or taxes will change the output gap and thus inflation levels. The central bank will have to react by changing the interest rate level which in turn influences the current account and exchange rate levels. The *second* argument is much more important in practice. The main monetary policy instrument is the interest rate. In times of recession, the central bank will want to lower the interest rate to stimulate economic activity. If however the interest is close to zero, it will not be available as a policy instrument. This situation is known as the ‘liquidity trap’. Krugman (2005) argues that this problem is the main reason for the recent comeback of fiscal policy. Krugman specifically uses the case of Japan to show why fiscal policy is the only escape in case of a liquidity trap. Since 2005 however more or less the same problems have occurred in the US and EU. With interest rates near zero, fiscal stimulus packages are the only way to get the economy out of recession. The result in the EU has been a large increase in government spending and deficits.¹³

¹² The choice of monetary policy over fiscal policy is discussed in Allsop and Vines (2005) and Alesina et al. (2001)

¹³ More on this in section 3

The change in focus from fiscal policy towards monetary policy has made the role and functioning of fiscal policy somewhat unclear. On the one hand fiscal policy has been surpassed by monetary policy in the past 30 years. On the other hand the recent recession shows that in a low interest rate environment, fiscal policy could be the only option. The role of fiscal policy is important because as will be shown in section 3, most of the differences in SGP reform proposals come from a fundamental disagreement on the role that fiscal policy should play.

1.3 Fiscal policy in EMU

So far fiscal policy and monetary policy have been discussed in a single country framework. Fiscal policy within the EMU is different in its effect and use. The first important difference in the EMU is the existence of a single currency for all involved countries. A single currency regime has practically the same characteristics as an irrevocably fixed exchange rate between all countries. The effect is that there is no exchange rate mechanism available to cushion the effects of asymmetric shocks within the union. The second important aspect of the EMU is that monetary policy is attributed to the autonomous and independent European Central Bank (ECB). This leaves individual member states with only fiscal policy as a policy instrument. For individual countries this means that fiscal policy is both more important and more difficult to execute properly. For the Union as a whole the question rises on how to effectively coordinate fiscal and monetary policy in order to achieve the best results.

In the basic framework of the EMU, the ECB is responsible for operating an inflation targeting regime¹⁴. This means that the ECB targets a specific level of inflation and thus the output gap.

An estimation of the ECB interest rate reaction function is given by Surico (2003).

The possible loss of monetary autonomy has been very important for the UK in its debate on whether to join the EMU or not. The debate in the UK focused, among others, on the question of whether a fiscal policy reaction function could replace the interest rate reaction function for individual countries¹⁵. Problematic is that the use of fiscal policy as a stabilization instrument is surrounded by a lot of practical problems as was discussed in the previous section. In the HM

¹⁴ The ECB is described as operating an inflation targeting regime by Begg et al. (2002) and Alesina et al. (2001)

¹⁵ HM Treasury (2003a)

Treasury (2003a) discussion paper it is argued that with a fiscal policy reaction function at least the effect of an asymmetric country specific shock could be offset. A common shock however will still urge the ECB to adjust interest rates and thus counteract the effect of fiscal policy. The literature identifies a number of other factors that make a fiscal policy in a monetary union problematic;

*The Walters Critique*¹⁶: According to this critique, a fiscal reaction function can lead to a destabilizing effect. For example, if there is a country specific negative inflation shock (a lower inflation rate) this will not be countered by a lower interest rate. The ECB targets the inflation rate for the union as a whole so it will not react to a country specific shock. The unchanged interest rate and lower inflation means higher real interest rates. This causes a fall in demand which in turn decreases inflation rates even further.

Real exchange rate changes: If a member state has higher inflation rates than in the rest of the union this could affect the real exchange rate through the domestic price level. Fiscal policy therefore has to make sure that inflation rates return back to normal level while at the same time readjusting the real exchange rate to maintain competitiveness. This could lead to overshooting and instability¹⁷.

Fiscal policy spill-over: Perhaps the most important danger of fiscal policy within a monetary union is the possibility of negative spill-over's from domestic fiscal policies. By changing the level of government expenditure or taxes a country influences economic conditions in the whole union. As explained in the previous section, in an inflation targeting system the fiscal authorities determine the interest rate and exchange rate levels. As the fiscal authorities influence aggregate demand, the output gap changes. The ECB in turn reacts by changing the interest rate (which influences the exchange rate) to bring the output gap back to the previous level. The consequence of this is that individual member states can use fiscal policy to affect economic conditions in the entire union. Obviously this calls for some sort of coordination mechanism for fiscal policy. The

¹⁶ This critique originally comes from Sir Alan Walters who opposed to the membership of the exchange rate mechanism (ERM).

¹⁷ Westaway (2003) finds that demand shocks lead to more fluctuations for EMU countries than for outside countries

current system in place (the SGP) will be addressed in section 2.2.1. In the next section the effects of fiscal policy on economic conditions in the union will be formally shown.

1.3.1 A model of fiscal policy in a monetary union

In this section the effects of fiscal policy within a single currency union will be demonstrated formally. For this purpose a two-country model¹⁸ will be used to show the effects of an expansionary or consolidating fiscal policy on interest rate, exchange rate and output levels.

In this simplified setting, the euro is assumed to be freely floating without intervention by the ECB. Governments are free to adjust either the domestic tax level or their government spending. The money supply is determined exclusively by the ECB. Furthermore, perfect capital mobility is assumed and prices are fixed.

$$Y_1 = C_1(Y_1, T_1) + I_1(r) + G_1 + N_1(Y_1, Y_2, Y_w, k) \quad 1.4$$

$$Y_2 = C_2(Y_2, T_2) + I_2(r) + G_2 + N_2(Y_2, Y_1, Y_w, k) \quad 1.5$$

In (1.4) an aggregate demand function is given for country one. GDP for country one (Y_1) is a function of domestic consumption (C), taxes (T), private investments (I), government expenditure (G) and net exports (N). Consumption is a function of income (given by total output Y_1 which is equal to total domestic income) and taxes. The private investments of country one vary negatively with the interest rate as expected. The net exports of country one depend on a number of variables. First of all the higher domestic income, the higher the level of imports will be. So Y_1 has a negative impact on net exports. The income levels in country two and the rest of the world will increase exports and thus have a positive effect on net exports. Finally the exchange rate (depicted by k , direct quotation) has a positive influence on net exports; a higher level of the exchange rate (a depreciation) increases competitiveness and thus increases net exports. In (1.5) the same aggregate demand function is given for country two. From these two equations it can be seen that the output levels in country one and two are positively related. If output in country one rises, some of the increase in income will spill over to country two through net exports (N_2). The consequent rise of output will in turn spill over to country one. So there is a small multiplier effect for increases in output in country one and two.

¹⁸ This model used here comes from 'An economic analysis of the EC' by Hansen, Heinrich and Nielsen

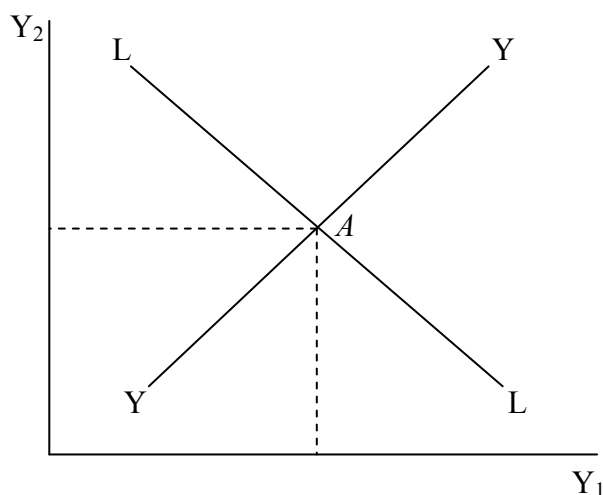
The equilibrium condition between the money supply (M) and money demand can be seen in (1.6). The demand for money is a function of aggregate demand in country one and two and a proportionality factor (L).

$$M = (Y_1 + Y_2)L(r) \quad 1.6$$

$$V(r) = \frac{Y_1 + Y_2}{M} = \frac{1}{L}(r) \quad 1.7$$

The proportionality factor reflects the income velocity of money given by (1.7). The proportionality factor is a decreasing function of the interest rate. With a higher interest rate, the income velocity of money increases and the proportionality factor drops. The lower level of L creates room for a higher level of output in country one and two. It should also be noted that there is a negative relation between output levels of country one and two on the money market. Money supply is determined by the central bank and is given, this means that country one and two have to ‘share’ the total money supply. In this situation, the interest rate is determined by the central bank and is fixed.

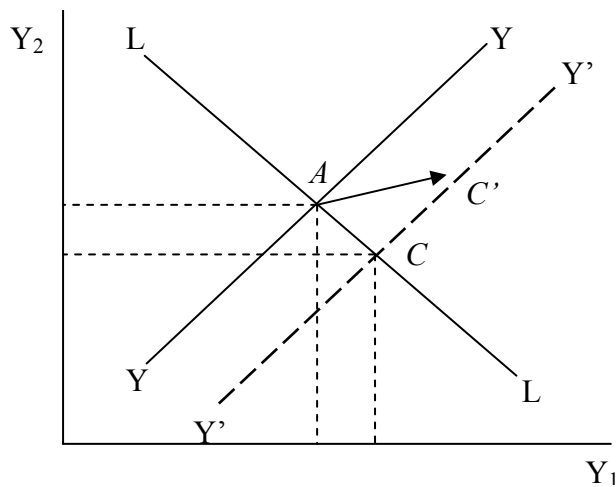
Figure 1



The initial situation is depicted in Figure 1. From the YY curve it can be seen that there is indeed a positive relation between Y_1 and Y_2 while the LL curve shows a negative relation. The initial equilibrium is given by point A . If country one now pursues an expansionary fiscal policy, aggregate demand in country one will rise and the YY curve will shift outwards (see Fig. 2). As a

result of the positive relation between y_1 and y_2 , aggregate demand will rise in both countries and the new temporary equilibrium of C' will be reached. This new equilibrium however is not sustainable. From (1.6) it can be seen that the higher Y_1 and Y_2 increases money demand while the proportionality factor remains unchanged (the interest rate is still fixed). The result is an excess demand for money which can only be met by an inflow of foreign capital. The result is an appreciation of the union currency. The appreciation lowers aggregate demand in both countries until total demand is back to the initial level. In the end output in country one will have increased with the amount of the initial fiscal stimulus while output in country 2 has decreased by the same amount. The new equilibrium is depicted by point C in Fig. 2.

Figure 2



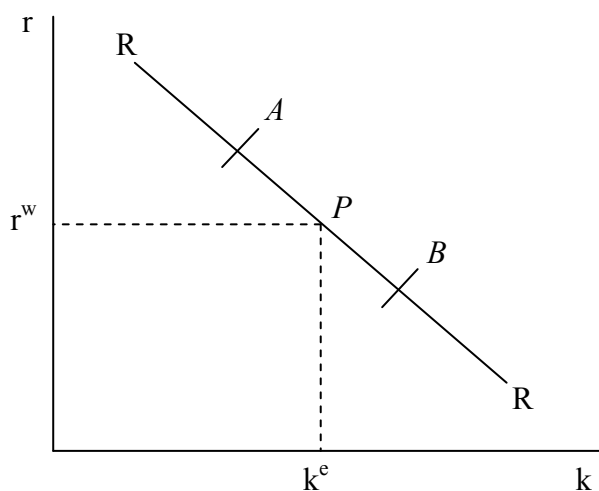
This kind of policy is classified as a ‘beggar thy neighbor’ policy because a rise in output in either country can only be realized by a decrease in output in the other country. The result here can be compared with the situation of the single country with a floating exchange regime and perfect capital mobility in section 1.1.1. For the single country, the effect of fiscal policy was completely diminished by the appreciation of the currency. In the two-country model, the result is the same for the union as a whole. Important to note is however, that output levels in country one and two did change. Obviously this is an important argument for fiscal policy coordination in a monetary union. Introducing exchange rate expectations however will give different results.

$$r = r_w + a - \left(\frac{a}{k^e}\right)k \quad 1.8$$

In (1.8) r is again the union interest rate, r_w is the world interest rate, k^e depicts the long run equilibrium value of k (the current exchange rate), a is a parameter that depicts the rate of

adjustment of k (how fast will k adjust to the expected level: k^e). If the exchange rate is equal to its long run level, the union interest rate will be equal to the world interest rate. A difference between the world and union interest rate can thus only exist in the case of an exchange rate level that is above or under its long run equilibrium level. In the short run the exchange rate may vary considerably, in the long run however the exchange rate is assumed to diverge to the underlying real value k^e . This expected appreciation or depreciation can cause the interest rate of the union to respectively fall or rise. From this it can be seen that there is a negative relation between the union interest rate and the current exchange rate. So a depreciation (a higher level of k) will cause the interest rate to fall, while an appreciation will cause the interest rate to rise. The relationship between the interest rate and exchange rate is depicted in Fig. 3. In the initial situation the exchange rate is equal to its long run equilibrium level and the union interest rate is equal to the world interest rate.

Figure 3



The introduction of exchange rate expectations modifies the results of the previous model. If either country now decides to cut taxes or increase government spending, the aggregate demand levels will rise in both countries as was the case in the simple model. The increased demand for money will result in an inflow of capital and an appreciation of the union currency. This appreciation leads to expectations of a depreciation in the future and thus the interest rate will rise. In Fig. 3, the appreciation means a lower k and thus a rise in r . The new equilibrium is given by point A . Going back to (1.6) and (1.7) it can be seen that as a result of the higher interest rate,

the income velocity of money will increase and the proportionality factor in (1.6) will drop. So the increase in the interest rate accommodates a higher level of aggregate demand for the union as a whole. Some of the increase in output is still offset by the appreciation, but because of the higher interest rate fiscal policy does not end up in a 'zero sum game'. The overall effectiveness of fiscal policy depends on a number of factors that are more or less the same as the ones discussed in section 1.1.1;

Sensitivity of investments to the interest rate: A change in the interest rate not only affects the demand for money but also the level of investments. As in the single country case, the more sensitive investments are to the interest rate, the less effective fiscal policy will be. It is important to note that the sensitivity of investments to the interest rate might be different for the two countries. The overall effect of fiscal policy could be very different from one country to the other.

Export level and export sensitivity: One of the problems of a monetary union is that differences in economic conditions and thus economic needs and interests can be large within a monetary union. A country that depends strongly on exports will be hit much harder by an appreciation of the union currency than a relatively closed economy. Also, the more sensitive export levels are to an appreciation, the less effect a fiscal expansion will have.

Money demand sensitivity: As explained earlier, a higher interest rate will cause the income velocity of money to increase. The more sensitive the income velocity is to the interest rate, the lower the proportionality factor will be and thus the more aggregate demand is allowed to rise. The money demand sensitivity is the same for both countries because they share a single currency.

1.4 Empirical evidence on the effectiveness of fiscal policy

In the previous sections this paper has given an overview of the theoretical literature on the effects and effectiveness of fiscal policy. In this section attention will be given to empirical evidence on the effectiveness of fiscal policy. First empirical proof on the fiscal multiplier will be discussed. After this, empirical tests on the Ricardian equivalence will be discussed. The final part of this section will deal with empirical proof on the relationship between fiscal policy and the interest rate, the exchange rate and money demand.

The Fiscal multiplier: Hemming et al. (2000) gives an overview of the empirical literature on fiscal multipliers. They find that two different kinds of simulations are used in the literature; simulations of empirically estimated macroeconomic models and simulations of general equilibrium models¹⁹. In the first category all estimates of the fiscal multiplier are positive. Most multipliers related to government expenditure are found to be in the range of 0.6 to 1.4. Tax policy proves to be less effective; most results are between 0.3 and 0.8. An important finding is that most simulations find that the choice of monetary regime does not affect the fiscal multiplier. The general equilibrium models are used to estimate the long run impact of fiscal policy. Most studies show positive (but smaller than for the macroeconomic models) fiscal multipliers. The results range from 0.3 – 1.2 for shocks in government spending. The effect of a tax cut depends on the way the tax cut is financed. Dotsey (1994) finds that a deficit-financed tax cut leads to higher output levels. When the tax cut is financed by a rise in taxes in the future, output will actually decrease in the short run. Next to simulations, Hemming et al. (2000) also looks at studies using time-series data to estimate the effect of fiscal policy on output. For example, Barro (1981) finds that changes in defense spending in the US lead to high fiscal multipliers in the short run and smaller multipliers in the long run.

Ricardian equivalence: The Ricardian equivalence theory rests on very strong assumptions. Some of the empirical literature has tested if these assumptions are empirically valid. Seater (1993) and Barro (1989) both find that full Ricardian equivalence does not exist after concluding that the assumptions do not hold. If the Ricardian equivalence holds, consumption would not change when taxes government expenditure changes. Various studies have estimated the

¹⁹ Hemming, Kell and Mahfouz (2000)

marginal propensity to consume after a change in taxes or government spending. Hemming et al. (2000) finds that estimates for the MPC range between 0.2 and 0.5²⁰. Based on this result it can be seen that true Ricardian equivalence does not exist. If it did, the MPC would have to be zero.

Fiscal policy and the interest rate: There is mixed evidence on the effect of fiscal policy on the interest rate. The way fiscal policy is measured makes a big difference for the results. Using government debt as a measure of fiscal policy yields different results than using government deficit. Barro and Sala-i-Martin (1990) find that both the level of government debt and the government deficit do not affect the interest rate. Feldstein (1986) finds that only the government deficit has a significant influence on the interest rate. Gale and Hozzag (2002) have compiled a number of empirical results from various authors and conclude that the government deficit in the US has a large and significant impact on the US interest rate. They find that the level of government debt does affect the interest rate but a lot less than the deficit level. The estimated impact of fiscal policy is a 50 to 70 basis point increase in the interest rate if the deficit to GDP ratio increases by one percent. Estimates for the EU are given by Afonso and Strauch (2003). They find that a one percent increase in the debt to GDP ratio increases the interest rate on government bonds by 10 basis points. Although the above estimates differ quite a lot, most of the studies find a positive relation between the deficit to GDP ratio and the interest rate.

Investments and the interest rate: There is hardly proof in the empirical literature that investment is sensitive to interest rates. Chirinko (1993) has done a large review of the empirical literature on this subject. It is found that investment is mostly determined by output levels and that the cost of capital (the interest rate) does not significantly affect investment levels. Fazzari (1994) and Zarnowitz (1999) do find that the interest rate affects investment levels but the effect is found to be very small.

Fiscal policy and the exchange rate: From the empirical literature it can be concluded that a fiscal expansion negatively affects the exchange rate.²¹ Feldstein (1986) finds a strong and significant relation between fiscal expansions and the exchange rate. Kumar (1996) reaches more

²⁰ The MPC is estimated (among others) by Bernheim (1989), Barsky et al. (1986) and Giavazzi et al. (2000).

²¹ The exchange rate (direct quotation) will fall (this is an appreciation) as a result of a fiscal expansion.

or less the same conclusion and finds that unexpected fiscal expansions cause an appreciation and a worsening of the current account.

The Empirical evidence on the fiscal multiplier at least proves that fiscal policy can indeed be successful in stimulating (or diminishing) economic activity. The actual size (and even sign in case of an expansionary fiscal contraction) of the multiplier depends on a lot of country specific circumstances. Another important result is that fiscal policy does indeed affect the interest rate and exchange rate levels. This further establishes the need for fiscal policy coordination in EMU. As explained before domestic fiscal policy can (and will) affect economic conditions in the entire union as explained in section 1.3.1. It can be concluded on both a theoretical basis and on empirical proof that fiscal policy coordination is a necessity in EMU. It should also be noted that even in an inflation targeting regime (which is used in EMU) fiscal policy might still be necessary as a stabilization instrument. This means that when designing a coordination system for fiscal policy in EMU, attention should be given to more than just sustainability and the control of negative spill-over's. In times of economic downturn and low interest rates, fiscal policy will be needed to stimulate the economy. This leads to high budgetary deficits in the short run. The fiscal framework should therefore be aimed at two things. *First* of all, the framework should ensure financial sustainability and prevent negative spill-overs by effectively limiting budget deficits and government debt. *Second*, this system must accommodate for the fact that in times of recession or a depreciation deficits will rise very sharply. This means that additional fiscal consolidation in economic good times is required so that Member States have room to run high budgetary deficits in the short run if necessary.

2. Coordination of fiscal policy in EMU

In the previous section the theoretical aspects of fiscal policy were discussed as well as empirical proof on the effectiveness of fiscal policy. The specific case of fiscal policy in a monetary union proved to be potentially problematic. In the EMU, 16 countries conduct their own individual fiscal policies while at the same time the ECB independently controls the money supply. This unique situation calls for some form of coordination. As will be shown in this section the views on how this coordination should be achieved diver among various economists. The EMU countries have tried to achieve some form of coordination by introducing the ‘Stability and Growth Pact’ and the ‘Broad Economic Policy Guidelines’ (BEPG). This section starts with a short overview of the history of fiscal policy coordination in the EMU. After this, the institutional framework of the SGP and the BEPG will be discussed. Finally, this paper will look at the performance of the SGP and BEPG both in an economic and institutional sense.

2.1 A short history of fiscal policy coordination in the EMU

The need for fiscal policy coordination has been expressed in some of the earliest reports in the European Community. The Werner report (1970) looked at the realization of an economic and monetary union for the Community. Among the stages needed for the union they defined the coordination of economic and budgetary policies;

‘Short-term economic policy will be decided in its broad outlines at a Community level. (...) The margins within which the main budget aggregates must be held both for the annual budget and the multi-year projections will be decided at the Community level, taking account of the economic situation and the particular structural features of each country’²²

In 1989 a committee of central bankers (mandated by the European Council) presented the ‘Report on Economic and Monetary union’.²³ In this report, a high degree of macroeconomic coordination is proposed including binding budgetary rules for the Member States. In Lamfalussy (1989, part of the Delors report) the argument for fiscal policy coordination is

²² Werner, P. (1970) ‘Report to the Council and the Commission on the realization by stages of Economic and Monetary Union in the Community’.

²³ Delors, J. (1989) *Report on Economic and Monetary Union in the EC*

featured prominently. The basic idea behind this is that the Community budget is very small compared to the independently determined budgets of Member States. Without coordination Lamfalussy (1989) states that ‘the global fiscal policy of the EMU would be the accidental outcome of decisions taken by Member states’. In this view the adoption of harmonized fiscal policies in the Community should be the main goal. Sustainability and avoiding budgetary deficits are seen as positive side effects but of less importance than harmonization.

The Treaty of Maastricht (signed February 7th 1992) established the European Union and led to the creation of the Euro. An important part of the negotiations was the role of fiscal policy in the EMU. Especially Germany was afraid that Member States would lose the incentive to achieve budgetary balance once countries had passed the convergence tests. Germany proposed rules and automatically applied sanctions to control the budget deficit and debt levels. France on the other hand proposed strong fiscal policy coordination by establishing an ‘economic government’²⁴. The Maastricht treaty in the end provided something for both parties. Art. 104 of the Maastricht Treaty states that ‘Member States shall avoid excessive government deficits’ while Art. 99 provides for fiscal policy coordination: ‘Member States shall regard their economic policies as a matter of common concern and shall regard co-ordinate them within the Council’. These two articles form the basis of the SGP and BEPG.

The initiative for the SGP was taken by the German minister of Finance Theo Waigel. In 1995 he proposed a ‘Stability Pact for Europe’. This pact consisted mainly of the 3% budget deficit upper ceiling and automatic sanctions for countries exceeding this upper ceiling. The SGP was officially introduced in 1997 by a Commission regulation. This regulation was substantially less mechanical than the pact proposed by Waigel. The regulation provided mainly in a clarification of Art. 104 and a budgetary objective of ‘close to balance or in surplus’. More important, no automatic sanctions were introduced so that the binding character of these rules remained uncertain. Both the SGP and the Maastricht Treaty have been revised over the years. The current framework will be discussed in the next section.

²⁴ Pisani-Ferry, J. (2006) ‘Only One Bed for Two Dreams: A Critical Retrospective on the Debate over the Economic Governance of the Euro Area’

2.2 The framework of fiscal policy coordination in EMU; institutions, instruments and goals

The most important institution for fiscal policy coordination is the SGP. The specific workings of this pact will be discussed in following section. The BEPG will be discussed in section 2.2.2.

2.2.1 The Stability and Growth Pact

The SGP is based on articles 121 and 126²⁵ of the Treaty on the Functioning of the European Union (TFEU). The SGP consists of two parts: the preventive arm and the dissuasive arm. The first is based on Article 121 and the second is based on Art. 126.

The *preventive arm* revolves around the ‘Medium term budgetary objective’ (MTO). Member states in the euro-area provide yearly stability programs containing (among others) the MTO for their country. The MTO is a target for the budgetary position of a country and contains a nominal goal (for example a medium term budget deficit of 0.5 percent) and the adjustment path towards the MTO. Apart from the MTO, the stability program contains a detailed description of intended policy measures that are required to reach the MTO.²⁶ The stability program has three main goals²⁷:

- The most important goal is to keep budgetary positions away from the 3% deficit limit. The idea is that budgets should be balanced or close to balanced so that when it’s necessary (in times of a recession for example) the deficits have some space to increase and still remain within the 3% limit.
- The second goal is to make sure that countries pursue viable and believable adjustment paths towards their MTO.
- Finally, by ensuring a budgetary buffer the stability program creates room for public investments if the economic situation calls for it. The goal is to promote sustainability while at the same time making sure that economic growth is not hampered.

The stability program is submitted to the Commission and the Council on December 1st of each year. The program is then reviewed by the Commission and by the Economic and Financial

²⁵ These articles are based upon the former articles 99 and 104 of the Maastricht Treaty.

²⁶ Source: ECOFIN website

²⁷ From: Specifications on the implementation of the Stability and Growth Pact (2009).

Committee (EFC). Special attention is given to country specific circumstances. First of all the debt level of a country determines how ambitious the MTO should be. Countries with a low debt level are allowed to have a less rigorous adjustment path and MTO in general than higher debt countries. Moreover, countries with a debt level exceeding 60% are expected to pursue an extra strict and fast adjustment path towards a level of government debt below the 60% reference value. The ageing population in many EMU countries also receives special attention. Countries are expected to start adjusting their public finances in order to accommodate for the increase in government expenditure (mainly higher healthcare costs) in the future.

Member States are expected to pursue an adjustment of 0.5% of GDP each year.²⁸ The Commission and the Council monitor the fiscal adjustment efforts. Based on economic conditions, the Commission determines if the adjustment effort is sufficient. If the output gap is positive or slightly negative but moving towards zero very fast, the Commission will qualify the economic situation as 'good'. In economic good times, countries should use the extra income to reduce deficits and government debt. In a recession this would allow Member States to temporarily let go of their adjustment effort. In order to facilitate economic growth, countries are also allowed to diverge from their adjustment path in the case of structural reforms. These reforms include reforms that have a positive effect on growth rates and long term sustainability such as labour market and healthcare reforms. The Commission cannot force a country to change their MTO or to follow their intended adjustment path. Since the 2005 reform of the SGP, the Commission can give a *policy advice* to a Member State. In this advice the Commission will address what the implications of the fiscal policies of the Member State are. This advice is not binding so there is a big risk that a Member State will just ignore the advice. If the Member State indeed does not change its MTO or adjustment effort, the Council²⁹ can then issue an *early warning*. In the warning, the Council asks the Member State to change their MTO and/or adjustment path so that an excessive deficit is prevented. Again this warning is not binding; the Member State does not have to do what the Council recommends.

²⁸ From: Specifications on the implementation of the Stability and Growth Pact (2009). The budgetary positions are calculated in cyclically adjusted terms. In economic good times budgetary positions could improve a lot as a result of higher tax income. In this case the Commission would determine what the budgetary position would be without the higher tax income. The 3% reference value for budget deficits however is the actual (not cyclically adjusted) budget deficit.

²⁹ The Commission will determine if an early warning is necessary and then recommend this to the Council. The Council will then decide if they publish an early warning.

If an excessive deficit does occur, the *dissuasive arm* of the SGP will be used. The instrument used when a country breaches the 3% deficit or 60% government debt limit is the *excessive deficit procedure*. This procedure is based on Art. 126 TFEU and consists of multiple stages. In the first stage the Commission will prepare a report if it notices that a Member State has breached either the deficit or the debt limit. In the report, the Commission will state if and why the deficit/debt is excessive in the sense of Art. 126 TFEU. According to this article, a deficit of more than 3% is tolerated if the deficit ratio is declining fast and approaching the reference value or if the deficit is temporary and the result of ‘exceptional’ circumstances. A government debt of more than 60% is tolerated if it’s declining and *‘approaching the reference value at a satisfactory pace’*³⁰. The definitions of exceptional and temporary are described in Council Regulation 1467/97. A deficit is exceptional if it’s the result of *‘an unusual event outside the control of the Member State concerned and which has a major impact on the financial position of the general government, or when resulting from a severe economic downturn’*³¹. The Commission sees severe economic downturn as a situation of negative annual GDP growth and/or an accumulated loss of output combined with very low GDP growth rates. The indicator used for determining the loss of output is the output gap³². An excessive deficit is considered temporary if the deficit is expected to return to normal levels after the economic downturn or unusual event has ended.

In the next stage, the Commission report is reviewed by the EFC and send to the Council. It is the Council that decides whether the deficit is excessive or not. If the Council decides that there is indeed an excessive deficit and none of the exceptions apply, they can issue recommendations on how to return the deficit or debt level to below the reference values within a given period. The minimal annual adjustment to be made in the Member state’s cyclically adjusted balance is 0.5% of GDP. If the Member State fails to comply with the Council recommendations, the Council can give notice to the Member State to take specific measures to achieve the minimum annual adjustment that is required.

³⁰ From Art. 126 TFEU

³¹ Council Regulation 1467/97, Article 2

³² Specifications on the implementation of the Stability and Growth Pact (2005)

The measures discussed so far are not legally binding for the Member States. A Member State cannot be prosecuted at a national court or the European Court of Justice. If however a Member State still fails to reduce their deficit or debt, the council can decide to ‘punish’ the Member State. The Council can fine a country, require the Member State to make a non-interest-bearing deposit with the Union, demand additional information and urge the European investment bank to follow a stricter lending policy towards the Member State. All of the Council decisions discussed so far have to be taken by a qualified majority. It is important to note here that the politically independent Commission cannot force a Member State to do anything. Instead, the Council that is dominated by political interests makes all the important decisions.

Table 1: the Stability and Growth Pact

	Preventive arm	Dissuasive arm
<i>Goals</i>	Prevent excessive deficits, diminish government debts and promote long term sustainability of public finances	Correct excessive deficits and government debts
<i>Instruments</i>	MTO, early warning mechanism and policy advice	Excessive deficit procedure
<i>Constitutional basis</i>	Article 121 TFEU (ex Article 99 of the Maastricht Treaty)	Article 126 TFEU (ex Article 104 of the Maastricht Treaty)
<i>Regulations</i>	Resolution of the European Council on the Stability and Growth Pact (1997), Council Regulation 1466/97	Resolution of the European Council on the Stability and Growth Pact (1997), Council Regulation 1467/97 ³³ , Council Regulation 479/09

2.2.2 Economic coordination (BEPG)

The SGP is the most important institution for fiscal policy coordination in the EMU. In section 1.3.1 it was shown that an expansionary fiscal policy can have negative spillover effects to other EMU countries. The SGP mainly tries to prevent these spillover effects by imposing limits to the budget deficit and government debt of Member States. However, it only tells Member States what not to do. It doesn’t try to tell Member States how to coordinate their fiscal policies to

³³ The regulations 1466 and 1467 have been amended in 2005.

achieve the best result for the EMU. As discussed earlier, the French tried to achieve harmonization of fiscal policies by introducing an economic government. This idea is controversial because it implies a great loss of freedom for the Member States. The economic government has never been realized and the main instruments for harmonizing fiscal policies are now the BEPGs.

The BEPGs are based on Article 121 TFEU; *'The Council shall, on a recommendation from the Commission, formulate a draft for the broad guidelines of the economic policies of the Member States and of the Union, and shall report its findings to the European Council.'*³⁴ The guidelines deal with 'economic policies' of the Member States which is much more than budgetary policies alone. The BEPG covers a broad range of topics such as employment issues, supply side reforms, social cohesion, innovation and R&D.

A BEPG is initiated by the Commission and consists of general recommendations to EU Member States as well as country specific recommendations. The initial recommendations are discussed in the European Council. The European Council will then present its conclusions to the Council. The Council will use these conclusions to adopt the final recommendations after having consulted the European Parliament. After the recommendations are adopted, the Commission will monitor in how far countries follow the recommendations. In contrary to the SGP, the Council and Commission cannot impose any real sanctions in case of non-compliance. Instead, the BEPGs rely on peer pressure and 'naming and shaming'. According to Article 121 TFEU the Council or Commission can address warnings and additional recommendations for corrective action to Member States. The recommendations can be made public so that peer pressure from other Member States might urge the addressed Member State to change its policies.

The BEPGs have dealt with a wide range of topics throughout the years. The first BEPGs in 1993 mostly dealt with employment issues and price stability. From 1998 on, country specific recommendations (mostly dealing with budgetary issues) were introduced. From 2000 to 2005 additional guidelines were adopted dealing with promoting economic growth, employment, the transition to a knowledge based economy and social cohesion. From 2002 on, BEPGs were

³⁴ Quote from Art. 121 TFEU

established for a three-year period. The 2003-2005 BEPGs contained guidelines specifically dealing with EMU issues. These recommendations were addressed only to euro area Member States³⁵. Currently the most important guidelines are the 2008-2010 BEPGs and the new ‘Europe 2020’ guidelines. For the purpose of this paper only the guidelines dealing with fiscal (budgetary) policy will be discussed.

In the 2008 – 2010 BEPGs³⁶ special attention is given to fiscal sustainability and its effect on employment. Guideline 6 specifically addresses EMU Member States: *‘To contribute to a dynamic and well-functioning EMU, euro-area Member States need to ensure better coordination of their economic and budgetary policies (...).’*³⁷ According to this guideline, Member States should specifically aim to achieve a policy mix that stimulates economic activity and thus economic recovery in the short run. At the same time Member States should pursue long term sustainability by adhering to the rules of the SGP. Special attention is also given to the ageing of the population and Member States are encouraged to take appropriate measures. The guidelines are very general and no specific targets are given. The ‘Europe 2020’ guidelines are not yet formally adopted; the Council however has adopted a recommendation for a Council Recommendation on new broad guidelines³⁸. The new guidelines are dominated by the need for fiscal consolidation because of the deficits the crisis has caused. Member States are urged to achieve a consolidation effort of at least 0.5% a year (in line with the SGP). The guidelines here are more specific; Member States are expected to start their consolidation at least at the beginning of 2011. Furthermore, Member States should focus on increasing growth enhancing expenditure while cutting ‘inefficient’ expenditure. Especially investments in education, R&D, employability and innovation are encouraged. Taxes should be reformed to be more employment friendly. Specific attention is also given to imbalances within EMU. Large differences in the current account balance of Member States are seen as a problem. Especially countries with a current account deficit are encouraged to increase domestic competitiveness by reforming labor markets and adjusting wages and prices.

³⁵ The evolution of the BEPGs and the topics they cover is discussed in Deroose et al. (2008).

³⁶ Council recommendation on the broad economic policy guidelines for the Member States and the Community (2008-2010), Council of the European Union, 2008

³⁷ Quote from Guidline 6 of the 2008 – 2010 BEPG

³⁸ Council of the European Union (2010)

The effectiveness of these recommendations is uncertain. So far only one country has been ‘punished’ for not behaving according to the BEPGs. In 2000, Ireland experienced high economic growth rates. The BEPG called for fiscal consolidation and debt reduction. Instead, the Irish government adopted tax cuts. As a reacting, ECOFIN issued a recommendation for corrective action in 2001. The problem is that it’s just a recommendation; the Commission cannot force a country to follow their guidelines. In the case of Ireland, the cyclically adjusted budgetary position was worrying, which is why Ireland was asked to consolidate³⁹. The actual budget however was in surplus and growth rates were high. The result was that the recommendation received a lot of criticism and was basically ignored by Ireland. From the Ireland example it can be seen that the institutions dealing with fiscal policy overlap each other and sometimes contradict each other. While the BEPGs and the preventive arm mainly look at cyclically adjusted budget deficits, the dissuasive arm of the SGP only looks at the actual level of the budget deficit and government debt.

In this section the main institutions dealing with fiscal policy coordination in EMU have been discussed. The SGP is the most important and most robust institution. While within the SGP framework Member States can be forced to consolidate by imposing sanctions, the BEPGs rely on ‘peer pressure’ and ‘naming and shaming’ alone. It should be noted however that only the Council can impose the SGP sanctions and not the independent Commission. At the end of section 1 it was argued that the framework of fiscal policy coordination should make sure that countries consolidate in economic good times so that in bad times deficits have some room to increase. From the current SGP framework it can be seen that hard sanctions only come into play after the 3% deficit limit has been breached. The BEPGs and the preventive arm are in place to encourage Member States to go for a budgetary balance or surplus. This never surpasses the status of an encouragement however as there are not real sanctions associated with the MTO and BEPGs.

³⁹ From Deroose et al.

3. Performance of the SGP

The most easy and straightforward way to judge the performance of the SGP is to look at the developments of budget deficits and the government debt over time. From Table 2 it can be seen that various countries have breached the SGP criterion of a 3% maximum budget deficit. The most notable offenders are the big countries France and Germany and Greece.

country\year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Belgium	-0.9	-0.6	0	0.4	-0.1	-0.1	-0.3	-2.7	0.3	-0.2	-1.2	-6
Germany	-2.2	-1.5	1.3	-2.8	-3.7	-4	-3.8	-3.3	-1.6	0.2	0	-3.3
Ireland	2.4	2.7	4.8	0.9	-0.3	0.4	1.4	1.6	3	0.1	-7.3	-14.3
Greece	:	:	-3.7	-4.5	-4.8	-5.6	-7.5	-5.2	-3.6	-5.1	-7.7	-13.6
Spain	-3.2	-1.4	-1	-0.6	-0.5	-0.2	-0.3	1	2	1.9	-4.1	-11.2
France	-2.6	-1.8	-1.5	-1.5	-3.1	-4.1	-3.6	-2.9	-2.3	-2.7	-3.3	-7.5
Italy	-2.8	-1.7	-0.8	-3.1	-2.9	-3.5	-3.5	-4.3	-3.3	-1.5	-2.7	-5.3
Netherlands	-0.9	0.4	2	-0.2	-2.1	-3.1	-1.7	-0.3	0.5	0.2	0.7	-5.3
Austria	-2.4	-2.3	-1.7	0	-0.7	-1.4	-4.4	-1.7	-1.5	-0.4	-0.4	-3.4
Portugal	-3.4	-2.8	-2.9	-4.3	-2.8	-2.9	-3.4	-6.1	-3.9	-2.6	-2.8	-9.4
Euro area	-2.2	-1.3	0.1	-1.8	-2.5	-3.1	-2.9	-2.5	-1.3	-0.6	-2	-6.3
EU (27 countries)	-1.9	-1	0.6	-1.4	-2.5	-3.1	-2.9	-2.5	-1.4	-0.8	-2.3	-6.8

Table 2 Actual budget deficits as a % of GDP for 11 EMU countries, the euro zone and the total EU, source: Eurostat

Country/year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Belgium	117.4	113.7	107.9	106.6	103.5	98.5	94.2	92.1	88.1	84.2	89.8	96.7
Germany	60.3	60.9	59.7	58.8	60.4	63.9	65.8	68	67.6	65	66	73.2
Ireland	53.6	48.5	37.8	35.6	32.2	31	29.7	27.4	24.9	25	43.9	64
Greece	94.5	94	103.4	103.7	101.7	97.4	98.6	100	97.8	95.7	99.2	115.1
Spain	64.1	62.3	59.3	55.5	52.5	48.7	46.2	43	39.6	36.2	39.7	53.2
France	59.4	58.9	57.3	56.9	58.8	62.9	64.9	66.4	63.7	63.8	67.5	77.6
Italy	114.9	113.7	109.2	108.8	105.7	104.4	104	105.8	106.5	103.5	106	115.8
Netherlands	65.7	61.1	53.8	50.7	50.5	52	52.4	51.8	47.4	45.5	58.2	60.9
Austria	64.8	67.2	66.5	67.1	66.5	65.5	64.8	63.9	62.2	59.5	62.6	66.5
Portugal	52.1	51.4	50.5	52.9	55.6	56.9	58.3	63.6	64.7	63.6	66.3	76.8
Euro area	72.8	71.5	68.8	68.4	68.2	69.4	69.8	70.4	68.7	66.2	69.7	78.7
EU (27 countries)	66.4	65.8	61.9	61	60.4	61.9	62.2	62.8	61.4	58.8	61.6	73.6

Table 3 Government debt as a % of GDP, source: Eurostat

As expected, budget deficits in 2009 rose sharply as a result of the economic downturn. From Table 3 it can be seen that the level of government debt has been problematic as well. Here, Belgium, Greece and Italy are the biggest offenders. From these two tables it's easy to reach two main conclusions. *First* of all countries do not seem to be impressed by the possible sanctions that might be imposed on them. *Second*, budgetary positions have not improved over the last 11 years but this seems mainly to be caused by the economic crisis. For example, all countries in Table 2 have achieved a substantial fiscal consolidation in 2006 and 2007 except for Greece and France.

<i>Country</i>	Currently in EDP	Current procedure started (year)	Previous EDP procedures	Time period of previous EDP procedure	Result of previous EDP procedure
Austria	yes	2009	no	-	-
Belgium	yes	2009	no	-	-
Cyprus	yes	2010	yes	2004 - 2006	Art. 126 7/12
Finland	yes	2010	no	-	-
France	yes	2009	yes	2003 - 2007	Art. 126 9/12
Germany	yes	2009	yes	2002 - 2007	Art. 126 9/12
Greece	yes	2009	yes	2004 - 2007	Art. 126 9/12
Ireland	yes	2009	no	-	-
Italy	yes	2009	yes	2005 - 2008	Art. 126 7/12
Luxembourg	yes	2010	no	-	-
Malta	yes	2009	yes	2004 - 2007	Art. 126 7/12
Netherlands	yes	2009	yes	2004 - 2005	Art. 126 7/12
Portugal	yes	2009	yes	2002 – 2004 and 2005 - 2008	Both Art. 126 7/12
Slovakia	yes	2009	yes	2004 - 2008	Art. 126 7/12
Slovenia	yes	2009	no	-	-
Spain	yes	2009	no	-	-

Table 4 Total EDP procedures by country, source: ECOFIN

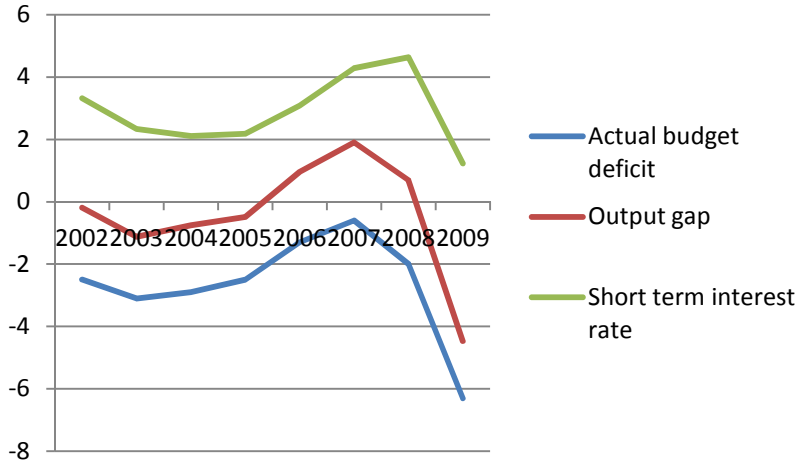
The reason that these deficits could occur can be seen from Table 4. In this table the first column lists whether the specific country is currently being involved in an excessive deficit procedure. Because of the economic crisis and thus large deficits, all EMU members are currently being under examination in an EDP. In the last three columns any previous EDPs are listed. In the last

column the final result of these EDPs is given. All cases are closed by either a Council decision based on Art. 126 sub 7 and 12 or Art. 126 sub 9 and 12. This means that in the case of Art. 126 sub 7 countries receive a recommendation on how to return their deficit levels to normal. Art. 126 sub 9 is a procedure where the Member States is given notice to change their policies, formally this is a slightly heavier 'punishment'. In the end however all cases have ended with a council decision based on Art. 126 sub 12 which means the abrogation of any further measures.

From the start of SGP, a total of 26 EDPs have been started but none of them have resulted in actual sanctions against a Member State. Countries like Greece, Portugal and Germany could and should have received sanctions to correct their behaviour. The reason that they did not receive sanctions is political. As explained in section 2.2.1, the Council is the institution that must adopt the final recommendations or impose sanctions in case of non-compliance. The Council decisions require a qualified majority. In practice this means that a number of large countries can together block any measure that they don't agree with. In 2003, the Council had to decide whether to take further steps against Germany. The Commission recommendation to start the procedure to impose sanctions was blocked by France, Germany, Italy and the UK. The countries who voted in favour of sanctions were mainly small countries with small deficits or a surplus. The political game played by Germany has practically killed off the possibility of sanctions in case of non-compliance. The SGP is currently dominated by political interests which is one of the two biggest problems for the SGP.

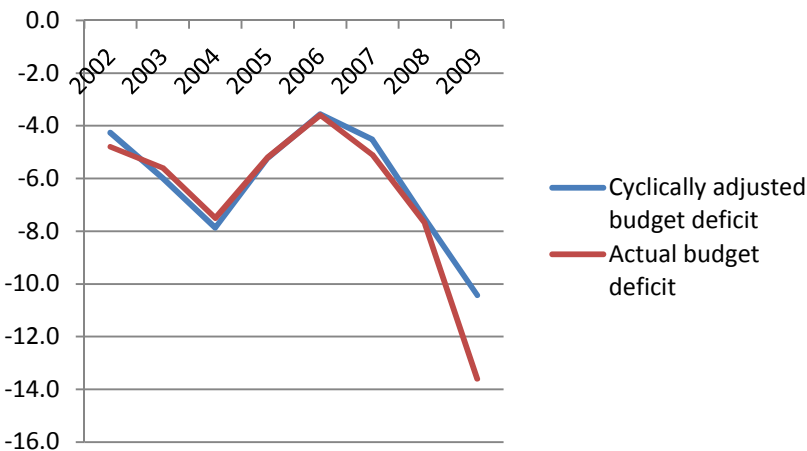
The other problem is that the 3% deficit rule is very static. Countries can only be punished when the 3% deficit is already breached. Usually this will happen in economic bad times so that countries basically have no choice but to let their deficits increase. The dissuasive arm of the SGP does not accommodate for the fact that in a recession large fiscal expansions might be necessary to boost the economy. Fig. 4 depicts the budget deficit, the output gap and the short term interest rate for the euro area. With short term interest rates close to zero and a large, negative output gap, fiscal policy will have to be used as a stabilization instrument (as explained in section 1.2). The dissuasive arm of the SGP will have to be more flexible so that it is stricter in economic good times and allows large fiscal stimuli in economic bad times.

Figure 4 Budget deficit, interest rate and output gap for the euro area⁴⁰



One possibly way to force Member States to consolidate in economic good times could be to take the cyclically adjusted budget deficit as the main criterion. The idea is that the cyclically adjusted budget reflects the real budgetary position without temporary increases or decreases due to the cyclical movement of the economy. A country with a structural to high expenditure could have a budgetary surplus in times of an economic boom. The cyclical adjusted budgetary position should however still reveal the underlying budgetary problems. By taking this indicator as a measure Member States could be forced to consolidate even when all seems to go well.

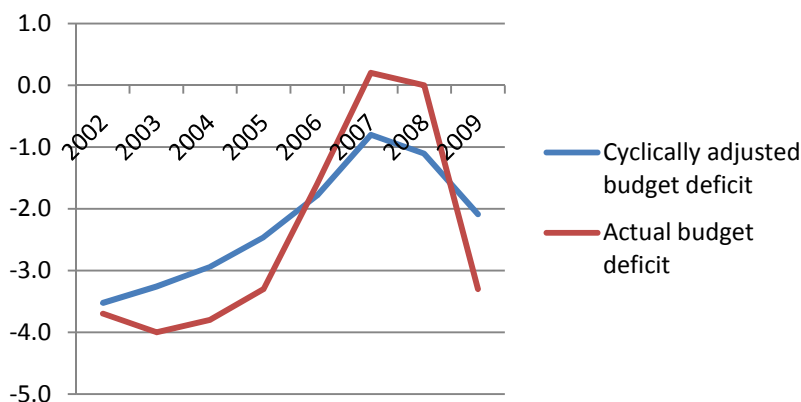
Figure 5 Actual and cyclically adjusted budget deficits as a % of GDP for Greece



⁴⁰ Actual budget deficit data comes from Eurostat. Measures of the output gap and short term interest rates come from OECD; Economic Outlook no 86, december 2009, Annual projections for OECD countries

From Fig. 5 it can be seen that the cyclically adjusted balance for Greece is very close to the actual budgetary balance. In this case changing from the actual to the cyclically adjusted indicator will not change much.

Figure 6 Actual and cyclically adjusted budget deficits as a % of GDP for Germany⁴¹



From Fig. 6 it can be seen that the cyclically adjusted budget deficit is much less volatile than the actual budget deficit. In this case, it would be better for Germany to base its policies on the cyclically adjusted budget in order to avoid large fluctuations in the level of government spending. Evidence for France and Portugal⁴² show the same result as for Greece; there is no substantial difference between the two different indicators.

In section 1 it was established that preventing negative spill-over's from fiscal policy should be the main focus of a fiscal policy coordination framework within the Union. From the above it can be concluded that the current system does not succeed in preventing these spill-over's from occurring. Based on the amount of EDPs but lack of any real sanctions, an independent institution is needed to monitor compliance with the SGP and impose sanctions in case of non-compliance. The current crisis has shown that the cost of letting deficits and government debts rise unchecked can be very large. This situation however might be the necessary wake up call for European Politicians. The first important conclusion is that to be more effective, sanctions

⁴¹ The data for the cyclically adjusted budget deficit in Figures 3 and 4 comes from OECD; Economic Outlook no 86, december 2009, Annual projections for OECD countries. The actual budget deficit data comes from Eurostat.

⁴² The graphs for Portugal and France are given in the appendix.

should be imposed by an independent institution. The second conclusion is that the SGP should be more flexible to accommodate for the 'new role' that fiscal policy plays in the inflation targeting regime of EMU. In section 1.2 it was argued that fiscal policy can play an important part in times of economic downturn and interest rates close to zero. The SGP should be proactive in its efforts to maintain fiscal sustainability. From Table 2 it can be seen that deficits have increased by more than 6% for some countries in one year. The SGP should therefore make sure that countries achieve at least a budgetary balance (a surplus would be even better) in economic good times. At the same time, countries should be able to let their deficits increase by as much as 6 or 7 % if that is necessary in times of an economic crisis.

Since the start of the SGP, a large amount of reform proposals have originated from both academics and policy makers. Fischer et al. have compiled 101 reform proposals in order to find out why there are so many different views on how the SGP should be working. They find that the large differences between the various reform proposals come from different beliefs on the role that fiscal policy and thus the SGP should play. The reform proposals are separated according to the desired policy objective into seven different categories. The different policy objectives are; short term stabilization, short term budgetary discipline, long run sustainability, optimal policy mix, economic growth, a combination of these categories and a group of people who do not believe in fiscal policy coordination in the first place. To begin with the last group, both theory and empirical results have proven that spill-over effects from fiscal policy exist in a monetary union. This is enough reason to at least have some rules in place to prevent 'beggar thy neighbour' policies from occurring. As for the other policy objectives, obviously choosing one over the other might lead to very different conclusions. In this paper it is argued that the new objective of fiscal policy is that of fiscal sustainability with stabilization policies only coming into play when monetary policy is not available. As a result of this, in this section it is argued that the SGP should be reformed so that fiscal sustainability is guaranteed in the long run while allowing for fiscal policy to execute its stabilization role in the short run.

4. Conclusion

This paper started by establishing the factors that determine the effectiveness of fiscal policy in a general one country framework. It was argued that the effect of fiscal policy depends on a number of country and time specific circumstances. In the empirical literature the existence of a positive but generally small multiplier is found. This finding is important because it shows that fiscal policy does affect output levels and thus can play a stabilization role. The effects of fiscal policy are somewhat different in a monetary union such as EMU. Formally it can be clearly seen that domestic fiscal policies affect economic conditions in the entire Union. The empirical literature confirms that fiscal policy indeed changes the interest rate and exchange rate levels and thus creates Spill-over's in a monetary Union. The shift in fiscal policy as the dominant instrument to monetary policy has led to doubts about the usefulness of fiscal policy. The SGP seems to be designed with a very narrow task for fiscal policy in mind. As was explained however, in low interest rate economies, fiscal policy might be the only way out of a recession. The conclusion here is that in order to effectively coordinate fiscal policy within EMU, the system should make sure that budgetary positions are in surplus or at least in balance. This will allow Member States to safely raise their spending level in case fiscal policy is necessary as a stabilization instrument.

In the second part of this paper the institutional framework of the SGP and BEPG was discussed. The BEPG only plays a marginal role in fiscal policy coordination and has not received much further attention. The SGP is an extensive system of both preventive measures as well as corrective measures. The difficulty lies in its application. The preventive arm cannot be enforced while the dissuasive arm can be enforced but is dominated by political interests. The effect of this can be seen in part three of this paper. First of all, budgetary deficits larger than 3% have been a normal occurrence in EMU so far. For the government debt the numbers are even less encouraging, a large number of countries have exceeded the 60% reference value for large periods of time. In Table 4 it was shown that the EDP does not work in practice. It is therefore recommended that sanctions are imposed by an expert and independent institution. It was also shown that deficits have increased by a huge amount in only a year time. This was the effect of a severe economic downturn combined with low interest rates. This confirms the need for the SGP to enforce fiscal policy consolidation in economic good times. Therefore four main conclusion

can be established. *First* of all, the current situation with the large increase in government expenditure in 2009 proves the need for fiscal policy as a stabilization instrument. *Second*, negative Spill-over's from fiscal policy are real and need to be contained by the SGP. *Third*, the SGP and BEPGs have failed to achieve this as a result of political involvement in the application and enforcement of the SGP. *Finally*, fiscal policy coordination can be improved by establishing an independent institution that aims at sustainability and allows fiscal policy to execute its stabilization role.

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Appendix

country\year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Belgium	-0.9	-0.6	0	0.4	-0.1	-0.1	-0.3	-2.7	0.3	-0.2	-1.2	-6
Germany	-2.2	-1.5	1.3	-2.8	-3.7	-4	-3.8	-3.3	-1.6	0.2	0	-3.3
Ireland	2.4	2.7	4.8	0.9	-0.3	0.4	1.4	1.6	3	0.1	-7.3	-14.3
Greece	:	:	-3.7	-4.5	-4.8	-5.6	-7.5	-5.2	-3.6	-5.1	-7.7	-13.6
Spain	-3.2	-1.4	-1	-0.6	-0.5	-0.2	-0.3	1	2	1.9	-4.1	-11.2
France	-2.6	-1.8	-1.5	-1.5	-3.1	-4.1	-3.6	-2.9	-2.3	-2.7	-3.3	-7.5
Italy	-2.8	-1.7	-0.8	-3.1	-2.9	-3.5	-3.5	-4.3	-3.3	-1.5	-2.7	-5.3
Cyprus	-4.1	-4.3	-2.3	-2.2	-4.4	-6.5	-4.1	-2.4	-1.2	3.4	0.9	-6.1
Luxembourg	3.4	3.4	6	6.1	2.1	0.5	-1.1	0	1.4	3.6	2.9	-0.7
Malta	-9.9	-7.7	-6.2	-6.4	-5.5	-9.8	-4.7	-2.9	-2.6	-2.2	-4.5	-3.8
Netherlands	-0.9	0.4	2	-0.2	-2.1	-3.1	-1.7	-0.3	0.5	0.2	0.7	-5.3
Austria	-2.4	-2.3	-1.7	0	-0.7	-1.4	-4.4	-1.7	-1.5	-0.4	-0.4	-3.4
Portugal	-3.4	-2.8	-2.9	-4.3	-2.8	-2.9	-3.4	-6.1	-3.9	-2.6	-2.8	-9.4
Slovenia	-2.4	-3	-3.7	-4	-2.5	-2.7	-2.2	-1.4	-1.3	0	-1.7	-5.5
Slovakia	-5.3	-7.4	-12.3	-6.5	-8.2	-2.8	-2.4	-2.8	-3.5	-1.9	-2.3	-6.8
Finland	1.5	1.6	6.8	5	4	2.4	2.3	2.7	4	5.2	4.2	-2.2
Euro area	-2.2	-1.3	0.1	-1.8	-2.5	-3.1	-2.9	-2.5	-1.3	-0.6	-2	-6.3
EU (27 countries)	-1.9	-1	0.6	-1.4	-2.5	-3.1	-2.9	-2.5	-1.4	-0.8	-2.3	-6.8

Table 5 Actual government deficit for all EMU countries, the euro area and EU (27), source: eurostat

Country/year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Belgium	117.4	113.7	107.9	106.6	103.5	98.5	94.2	92.1	88.1	84.2	89.8	96.7
Germany	60.3	60.9	59.7	58.8	60.4	63.9	65.8	68	67.6	65	66	73.2
Ireland	53.6	48.5	37.8	35.6	32.2	31	29.7	27.4	24.9	25	43.9	64
Greece	94.5	94	103.4	103.7	101.7	97.4	98.6	100	97.8	95.7	99.2	115.1
Spain	64.1	62.3	59.3	55.5	52.5	48.7	46.2	43	39.6	36.2	39.7	53.2
France	59.4	58.9	57.3	56.9	58.8	62.9	64.9	66.4	63.7	63.8	67.5	77.6
Italy	114.9	113.7	109.2	108.8	105.7	104.4	104	105.8	106.5	103.5	106	115.8
Cyprus	51.2	51.8	48.7	52.1	64.6	68.9	70.2	69.1	64.6	58.3	48.4	56.2
Luxembourg	7.1	6.4	6.2	6.3	6.3	6.1	6.3	6.1	6.5	6.7	13.7	14.5
Malta	53.4	57.1	55.9	62.1	60.1	69.3	72.3	70.1	63.7	61.9	63.7	69.1
Netherlands	65.7	61.1	53.8	50.7	50.5	52	52.4	51.8	47.4	45.5	58.2	60.9
Austria	64.8	67.2	66.5	67.1	66.5	65.5	64.8	63.9	62.2	59.5	62.6	66.5
Portugal	52.1	51.4	50.5	52.9	55.6	56.9	58.3	63.6	64.7	63.6	66.3	76.8
Slovenia	:	:	:	26.8	28	27.5	27.2	27	26.7	23.4	22.6	35.9
Slovakia	34.5	47.9	50.3	48.9	43.4	42.4	41.5	34.2	30.5	29.3	27.7	35.7
Finland	48.4	45.7	43.8	42.5	41.5	44.5	44.4	41.7	39.7	35.2	34.2	44
Euro area	72.8	71.5	68.8	68.4	68.2	69.4	69.8	70.4	68.7	66.2	69.7	78.7
EU (27 countries)	66.4	65.8	61.9	61	60.4	61.9	62.2	62.8	61.4	58.8	61.6	73.6

Tabel 6 Government debt for all EMU countries, the euro area and EU (27), source: eurostat

Figure 7 Actual and cyclically adjusted budget deficits for France

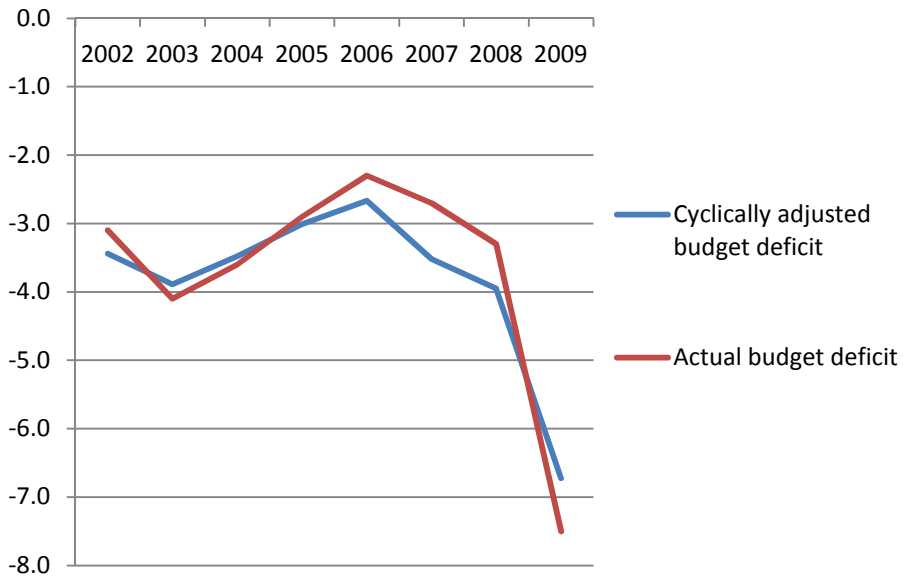


Figure 8 Actual and cyclically adjusted budget deficits for Portugal

