

Comment on Beetsma, Debrun and Klaassen: Is fiscal policy coordination in EMU desirable?

Marco Buti*

A classic result in the literature on strategic analysis in macroeconomics is that, in the event of a symmetric shock, each country acting alone tends to over-react, because it will proceed on the assumption that the other country will take no action. Take the case of a negative shock. Non-coordination implies that fiscal authorities do not take into account that they will benefit from the leakage of the fiscal expansion in other countries via foreign trade. Hence, domestic and foreign demand add up, resulting in an excessive fiscal boost, which would have been prevented had governments coordinated their policies. In contrast, no sizeable gains from coordination arise in the event of country-specific shocks.

In their most startling result, Beetsma, Debrun and Klaassen (hereafter BDK) turn this conventional wisdom on its head: policy coordination improves social welfare under asymmetric shocks, but would most likely be counter-productive in the event of symmetric shocks. The key reasons for this finding are three elements: Rogoff's (1985) theorem on the potentially negative impact of coordination among a subset of actors (in this case the two fiscal authorities, leaving out the common central bank); "instrument smoothing", which implies that there is a cost for the government in departing from the preferred level of the cyclically-adjusted budget balance (a position that should be "close to balance or in surplus", according to the Stability and Growth Pact—SGP) and for the central bank in changing the interest rate; and, finally, the assumption that using the budget deficit for smoothing the cycle carries a cost not only for the government but for society as a whole.

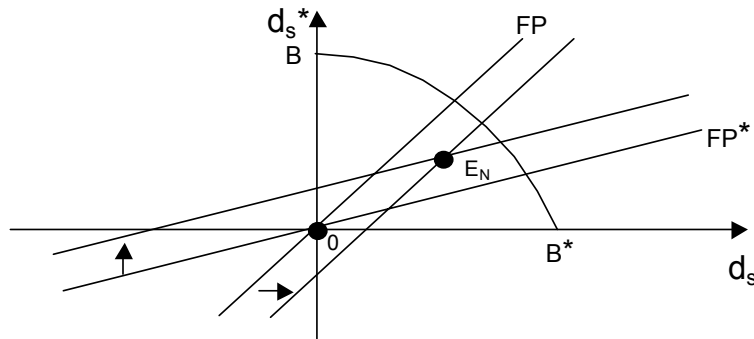
In the case of a symmetric negative shock, BDK's story goes as follows. Unlike the traditional case sketched out above, an expansionary policy is costly for the government because it implies moving away from the preferred budget position. If national authorities coordinate their actions, they will be able to internalise the positive effects on the partner country in setting domestic fiscal policy and thereby be

* *Marco Buti is economic adviser to the President of the European Commission.*

more willing to accept changes in the budget deficit. This leads to a more active response to the shock under coordination, but will also affect monetary policy. Here, the nature of the shock is important. In the event of a demand shock—which implies a fall in inflation and a negative output gap—monetary and fiscal authorities have the same goal because stabilising output is tantamount to stabilising inflation. Hence, the central bank will free-ride on the stabilisation provided by fiscal authorities and loosen monetary policy by less than would otherwise be the case. In the event of supply shocks—which cause output and inflation to move in opposite directions—the stronger fiscal response under fiscal coordination will exacerbate the conflict between price and output stability and entail a stronger offsetting reaction of monetary policy. In either case, fiscal coordination may turn out to be counter-productive. The opposite holds in the event of country-specific shocks, where the adverse reaction of the central bank would not take place or be limited.

BDK's result in the case of a symmetric negative demand shock is illustrated in Figure 1.

Figure 1. Fiscal policy reactions under a negative shock



Lines FP and FP^* are the reaction functions of the two fiscal authorities in the instrument space (the cyclically-adjusted deficits, d_s and d_s^*), which show how the deficit in one country depends on that in the other. The reaction functions are upward-sloping, because we take the case of monetary spillovers, dominating the direct foreign trade

spillovers, which implies that the two fiscal policies are complements.¹ A negative demand shock will shift the two reaction functions as indicated in the diagram, since it becomes optimal to pursue more expansive fiscal policies. Following the shock both countries will enact an expansionary fiscal policy under non-coordination and the new equilibrium will be E_N . As discussed above, since governments internalise the positive demand effect on each other, they will run a more expansionary fiscal policy under fiscal policy coordination than under non-coordination. Where will the new cooperative equilibrium lie? That depends on the relative negotiating power of the two governments. Clearly, each country prefers to be as close as possible to its bliss point (B for the domestic country and B^* for the foreign country), where its structural balance remains unchanged and the whole fiscal response falls on the other country. The new equilibrium will be a point on the contract curve BB^* . At the opposite side of the spectrum, if, instead of pursuing active fiscal management, the two countries simply let automatic stabilisers play, the initial equilibrium does not change. As will be discussed below, this behaviour would be in line with the non-activist fiscal philosophy of the SGP.

Coordination may well entail higher stabilisation of inflation and output than non-coordination—which is indeed the case in most of BDK's numerical examples—but this is achieved by a larger use of the socially costly instrument—the budget deficit—thereby implying a possible welfare loss. As shown by BDK, in case fiscal authorities play Stackelberg leaders vis-à-vis the central bank (which means that they take into account the ensuing monetary reaction in deciding the fiscal stance), the equilibrium will be close to E_N .

Since fiscal coordination implies that the two fiscal authorities behave as one, BDK's analysis is complementary to that of Buti et al. (2001), who examine the implications of coordination between fiscal and monetary policy in a single-country setting. That paper finds that fiscal-monetary coordination is beneficial in the event of supply shocks, since it reduces the movements of monetary and fiscal policies in the opposite direction. The paper also finds that the gains from monetary-fiscal coordination, if any, are limited in the event of demand shocks where both policies move in the same direction.

Although Buti et al. (2001) consider the welfare loss of the policy authorities and not the social loss as is the case in BDK's analysis,

¹ See Figure 4 in BDK's article.

some tentative conclusions can nonetheless be drawn on the likely benefits of coordination. Taking the two papers together, one would conclude that, in the case of symmetric shocks, Stackelberg fiscal leadership is likely to give a better social outcome under demand shocks, while full coordination between fiscal and monetary policies would be preferable when shocks originate on the supply side. In either case, fiscal policy coordination alone may not create welfare gains as compared to non-coordination.

1. Does the model capture core EMU features? Steady-state versus transition

BDK's model implicitly applies to a steady state of the EMU: countries are "close to balance or in surplus", according to the SGP, and have sufficient room for manoeuvre to run fiscal policies without infringing on the three per cent of GDP deficit ceiling. Monetary policy has also earned high anti-inflationary credibility. However, in the early years of EMU, when countries remain too close to the three per cent-of-GDP deficit limit and the ECB is still building its anti-inflationary reputation, the situation may be different.

Take once more the case of a negative symmetric demand shock. Following upon the drop in output, fiscal policy becomes expansionary and, as a direct response to the shock, monetary policy will relax. However, if the initial budgetary position was too close to the deficit ceiling, a fiscal loosening may shift the deficit into the "credibility danger" zone, which may prompt the newly-created ECB to respond by increasing the interest rate. If so, the non-cooperative equilibrium would be characterised by higher budget deficits and a restrictive monetary stance. Given the credibility effect attached to the deficit ceiling, monetary policy may then be more restrictive than without a Pact.

Barring ex ante coordination between monetary and fiscal authorities, a better outcome would be achieved if the fiscal authorities played Stackelberg leaders and, anticipating the reaction of the ECB, enacted a coordinated fiscal tightening which would allow a substantial drop in the interest rate. The case against non-cooperative behaviour is even stronger when a supply shock gives rise to a trade-off between output and inflation stabilisation and hence, creates a potentially serious policy conflict.

The SGP can be seen as a coordination device for reducing the likelihood of such a conflict and attaining a favourable policy mix at the outset of EMU: as stressed by Allsopp and Vines (1996, p. 99), “only if all (countries) act together will the monetary offset to fiscal tightening be likely to eventuate. Thus, participating governments will not only want to commit themselves, they will want to impose commitment on others as well”. Without such a common undertaking, the likelihood of an over-restrictive monetary stance would increase. The experiences of the Asian crisis in 1999 and, to some extent, the oil price hike in 2000 seem to be in line with this “early years” story (Buti and Sapir, 2002).

2. Active fiscal policies versus automatic stabilisers

In BDK’s model, countries use fiscal policy to fine tune aggregate demand. The underlying philosophy of the SGP is different. According to the Pact, countries should set appropriate medium-term targets and let automatic stabilisers play symmetrically over the business cycle. As a consequence, the implicit model of fiscal policy coordination is one of “negative” or pre-emptive coordination, whose main task is the surveillance of compliance with the announced national budgetary targets and consolidation efforts.

In line with much of the recent literature, the SGP reflects a sceptical view of active fiscal management, which is undermined by model uncertainty implying long and uncertain impact lags; the risk of procyclical behaviour due to cumbersome parliamentary approval and implementation; irreversibility of spending decisions leading to ratcheting up of public spending; and supply-side inefficiency linked to excessive volatility of tax rates. In other words, fiscal fine tuning would not only enter the social loss function, but would also have an economic cost.

While the BDK model is not suitable to account for these concerns, it is still instructive to compare the social effects of optimising governments to those of a neutral fiscal policy.² In the baseline parameter setting, active fiscal management makes it possible to attain higher welfare in the event of demand shocks, regardless of the colour of the government. However, in the case of supply shocks, the simple operation of automatic stabilisers is preferable to an active fiscal policy from a social welfare standpoint if the government is liberal

² As previously pointed out, this is represented by point 0 in Figure 1.

(and only marginally worse in the case of a representative government). The result of numerical simulations under supply shocks and a liberal government is even starker if the latter is characterised not only by a lower weight on inflation in its loss function, but also by a lower weight on the deficit.³ All in all, and taking into account the above concerns about active fiscal management, a neutral budgetary stance may lead to a better social outcome, especially if supply shocks tend to dominate.

3. In sum

In spite of the limitations of their model, BDK provide an interesting contribution to a growing literature on macroeconomic coordination in the EMU. Their result that partial coordination may not necessarily be welfare-improving could well apply also in other areas of the EMU policy game.

³ The authors find that excluding inflation in the loss function of a liberal government implies less activist fiscal policy in the event of demand shocks. However, a liberal government is better characterised by a lower weight on *both* inflation and deficit relative to output stabilisation. Calculations kindly performed by the authors of the paper show that if a liberal government is described by $\theta = 4$ instead of $\theta = 2$, Nash coordination implies a more active fiscal policy than non-coordination. Hence, as in the other cases in BDK's simulations, coordinated fiscal policies are welfare-reducing.

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