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Fiscal autonomy vs. fiscal federalism in the euro zone

Andrew Hughes Hallett[1,2]

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1 Introduction

For at least a decade, a prime reform topic in the Euro-zone has been a proposal to introduce an integrated set of fiscal policies, a single finance ministry and joint "euro-bonds" to finance them.[1]

The European Union, more particularly the Euro-zone, has always been a "would be, maybe" federal union; and since the difficulties thrown up in the financial crisis of 2008, it has become a de facto emerging economic federation. However, the weak economic performance since the introduction of the Euro, and a poor performance since the debt crisis of 2008–2012 (most evident in the difficulty of getting out of that crisis), has revealed the EU to be an accidental and incomplete economic federal union. The real difficulty is that, despite much technical analysis and political advice on how specific policies should be designed, there is no conceptual framework to guide the policy making process and little coherence between the existing institutions in its implementation. Some forward thinking is needed here.

In the delegation literature, principally that concerned with monetary policy and the design of central bank operating procedures, a distinction derived from

[1] For a review of these proposals, see *Deepening of the Economic and Monetary Union*, European Commission, 31 May 2017.

✉ Andrew Hughes Hallett
ahughesh@gmu.edu;
http://ahughesh.wix.com/website; http://ideas.repec.org/e/phu74.html

1 George Mason University, 3351 Fairfax Drive, Arlington, VA 22201, USA

2 Copenhagen Business School, Porcelaenshaven 16A, 2000 Frederiksberg, Denmark

principal-agent models is drawn between instrument independence vs. target independence. Under the former, regional decision makers act as agents for the federal government and have no responsibility beyond being held accountable for having reached the criteria that others have set for them as efficiently as possible and at least cost—without wasting resources, creating additional uncertainties, or absconding with the money. They have no responsibility for designing those criteria; or for considering whether they are the best criteria or best policy priorities; or for whether the policymakers in question have been allocated the most effective policy instruments to do the job.

Agents under instrument independence have the freedom to use their policy instruments as they see fit and are held accountable for having done so in the most efficient manner as defined by pre-assigned criteria. But they are not responsible for the overall performance of their economy or the federal economy of which it is a part, or for spill-overs imposed on others, or whether the criteria are consistent. In the absence of explicit coordination, a coincidence of preferences and a detailed knowledge of the region's exact circumstances at the federal level, those criteria will not achieve the best performance.

Target independence is different. Here the regional policymakers set both the criteria and the priorities for good performance, and pick instrument values so as to produce the best outcomes for themselves within the wider economy, taking into account local conditions, preferences and spill-overs. There is still a coordination problem if there are conflicts between regional optimality and optimality at the union level. But that is true for a fully independent economy too. Some safeguards may need to be inserted to ensure that we all benefit from the spill-overs from a better performing federal economy and better outcomes in national economies. In this case, regional policymakers are held accountable for their instrument settings *and* for the performance of their own economy. And they have the capacity to create better outcomes because they can make a wider set of choices in a problem which is otherwise the same as instrument independence.

The distinction between instrument independence and target independence is a useful way to demarcate the differences between systems with full autonomy, and those with partial autonomy but otherwise dependent on grants, assigned tax revenues, or shares of domestic taxes. Examples of the former, with target independence and extensive autonomy include the US, Canada, and some Spanish and Italian regions; examples of the latter are Australia and Germany who redistribute regional revenues through a grants commission and the *Finanzausgleich* process respectively.[2]

Any government faces the challenge of supporting economic activity in the face of constrained public finances. In the Euro zone, this creates a debate over how much autonomy nation states should have to address the problems which they face, vs. the problems the union faces (recognising that gains in union performance improve national outcomes, but only imperfectly. It is not a one-for-one replacement). This forces us to distinguish between funding mechanisms in which

[2] This begs the question, why decentralize economic policymaking at all? Section 2.3 addresses that point explicitly.

policy makers are held accountable for raising and spending a defined stream of money on pre-specified objectives, vs. regimes which give national parliaments the capacity and responsibility to raise and spend the sums of money that they think would most improve economic performance and the standard of living of its citizens.

Our argument is developed along three lines. First, after setting out the fiscal federalism framework within which the argument is set, we offer a critique of the rules for a partial devolution (usually restricted to income and sales taxes with restricted borrowing powers). Second, we review a model of fiscal federalism where comprehensive powers over taxes and spending are devolved, but are constrained to remain consistent within the macroeconomic framework and constitutional integrity of a Federal Union.

Third, and most important in the current state of the debate, we emphasise that coordinating fiscal policies, possibly through a unified budget, is only one theme. It is more important in practice to ensure a proper coordination between monetary and fiscal policies, to make sure that they are used consistently in support of one another. To this end, I introduce the idea of GDP bonds to make that coordination automatic and to make each policy more effective than when acting alone. This adds an element of automatic, but reversible, "monetary federalism".

The purpose of this rather formal approach is to make clear the key implications:

1. There has to be a central budget of sufficient size, alongside national budgets decided on by national policymakers. This is necessary to ensure that any federalism effects are "by design", not by default as happens in highly centralised systems, such as France or the UK. It also gives the national governments ownership and a direct input via their own fiscal choices.
2. Policymakers must decide on the degree of federalism; that is, how large the devolved taxes and spending should be in proportion to union-wide income. This is to prevent the union budget and federalist effects becoming too small to be effective or to be redistributed in the wrong places.
3. But there is *no* need to have a central (federal) finance minister in charge. The redistributions are automatic; they do not need parliamentary approval each time they occur. However, it would be helpful to have a joint oversight council to monitor that the system is running smoothly, is consistent with our objectives, and that unreasonable spillovers are not being imposed on individual participants.
4. By manipulating the balance between vertical and horizontal transfers (see below), it is possible to control who bears the costs of running the system.

2 Financing regimes

We may start from a position of no policy autonomy. This is not the same as having no federalism as default transfers still occur between regions in strictly centralised economies. But it is the same as having no federalist effects by design. Simple

funding mechanisms, such as a block grant or tax assignments, cannot give a government the capacity to improve the economy on a systematic basis. Instead they are just different ways to secure a pre-assigned stream of funding.

2.1 Partial fiscal autonomy

It is easy to criticise a block grant system. On the other hand, devolving just one or two taxes or spending streams would be unworkable because it requires information on future tax revenues that no policymaker can have when making spending allocations. And without borrowing, we have no mechanism to reconcile contractual spending (most of the budget) with variable revenue flows.

Hence, borrowing and risk sharing is an essential component of the package. But that raises the question of how to control excessive deficits and debt. This is *very* hard to do with a single, narrowly defined and variable revenue stream. Moreover, any attempt to fix this problem by using official forecasts of future tax revenues, allowing borrowing, and reconciling the forecasts with actual revenues later, inevitably introduces four further difficulties: new grounds for quarrels between the centre and national governments, a long-term deflation bias,[3] a gradual loss of devolution, and no effective mechanism for risk sharing across revenue streams or economies.

2.2 Efficiency and political accountability

Generally, more devolution is better than less for two reasons. First because wider devolution is better as a matter of design (internal diversification to stabilise revenues, and insurance against external policy changes or shocks). Second because it creates a responsibility as well as accountability for creating a better economic performance. Since both are desirable, more is better than less. But how do we attain greater economic efficiency? Legal accountability alone creates no responsibility for extra efficiency. And how do we make sure that the spillovers to/from the economies in the rest of the union are consistent with a stable macroeconomic framework?

2.3 Fiscal federalism: why decentralise at all?

There is an extensive literature on the economics of fiscal decentralisation, or "fiscal federalism", following the work of Musgrave in the 1950s and Oates in the 1970s. The conclusion of that literature is that decentralisation, hence fiscal responsibility, typically leads to better economic performance—in both the national and union economies. The argument is usually put in terms of economic efficiency: decentralisation provides an efficient way to correct various forms of market

[3] A deflation bias because income taxes grow slower than other sources of revenue that drive spending allocations, and because historically income tax forecasts have overestimated actual outcomes—so too much will be taken off the grant in lieu of own resources. A loss of devolution because spending decisions will increasingly be driven by what others say you can spend based on a status quo, not what has to be spent to improve the economy's outcomes.

failure, ensure an equitable distribution of resources, and stabilise regional economies and employment. To deny that, one must show that a single, centralised, monolithic government could and would succeed in maximising social welfare across all regions out of a sense of benevolence, despite electoral pressures and special interests in a multi-region democracy.

In practice, where there are regional differences in structure or resources, or in the way economies respond to shocks or policies, or in a region's position in the cycle, it would be hard (if not impossible) for a union government to come up with one set of policies that satisfies everyone. Different regions will require different solutions to suit their particular circumstances. It would be doubly difficult if:

- the central government has less precise information on local needs/conditions; or
- if its policies are helpful in one place, but have adverse spillovers on another; or
- if central government is less accountable because of political distance from the regions;
- or is subject to special interest groups because of the electoral calculus of majority rule.

As a result, the provision of public goods, and stabilisation of employment would be inefficient, and the performance of the national and union economies below potential.

This line of argument is sufficient to demonstrate the decentralisation theorem of Oates (1972): in multilevel governments, under decentralisation, each level of government (including central government) will maximise social and economic welfare within its own jurisdiction. That provides a higher level of economic welfare than can be attained in a regime in which central government provides a uniform set of policies and public goods for all—since national policymakers can always choose to replicate the central government's common policies if they wish, but have the freedom to search for better outcomes by resetting their *national* policies.

This, then, is the case for devolved policies: decentralisation will always produce better and more efficient (or at least as good) outcomes for all, including for the central government—subject to not devolving so far as to create diseconomies of scale in the delivery of public services. To make the point another way, decentralization automatically implies a larger number of policy decisions are available to achieve the same policy goals and their component parts. That will lead to better outcomes since governments could always have chosen the same policies that they had before decentralization. But, with extra instruments, they can always choose to improve on that. The only reason they might not is if there were severe diseconomies of small scale, or if countries found it worthwhile to impose serious spill-overs on their neighbours.

3 Fiscal federalism at work

Fiscal federalism is a form of fiscal devolution in which the EU and national authorities first agree which taxes and expenditures are to be devolved and which remain at the union level. The national authorities then decide tax and expenditure rates to be applied to their part of the system. National budgets may not be balanced; but redistributions between regions are induced automatically unless the national economies are identical in structure, shocks and cyclical position. That limits the size of any individual imbalances. By the same argument, any such redistributions are reversible.

3.1 Qualifiers

First, there is a difference between long run redistributions towards a particular region vs. and short-term transfers between regions for the purposes of stabilisation. Some governments prefer the former (transfers between upper and lower levels of government) as flows designed to achieve a better measure of vertical equalisation; and some the latter, transfers between regions, to achieve horizontal rebalancing [for stability, or better risk sharing].

Second, addressing horizontal imbalances reflects a concern for national imbalances and regional stability. By contrast, vertical imbalances can redistribute between regions to achieve greater inter-country equality. These two objectives are not the same: there may be a choice between helping regions with lower average incomes but little inequality, and regions with higher incomes but pockets of genuine poverty. Inter-country equity is not the only criterion at stake: an economy may legitimately forego inter-economy equity for a system that delivers better outcomes internally.

Third, and most important of all, there is still a need for discipline and new institutions to provide the necessary support. Many countries have had to resort to special rules or an independent agency to limit debt, enforce discipline and monitor fiscal deficits. This remains true at the EU level too.

3.2 Financing and automatic redistributions under fiscal federalism

Taxes and spending assigned to the union government can be of the same type, but charged and spent at different rates to those assigned to national governments; or they can be of different types, with those assigned to national governments set at rates that differ between economies.

Suppose there are two regions at different stages of development because their cycles are out of phase. To the extent that taxes and spending are devolved, both regions will run their own budgets and finance their expenditures from taxes collected locally. But the region enjoying a relative boom (with output above trend) will have a stronger budget, perhaps a surplus, because tax revenues are above trend and cyclically sensitive expenditures (such as business support or social projects) below trend. Meanwhile the region in relative recession will have below average tax

revenues, above average expenditures, and a latent budget deficit. If nothing is devolved, as in a centralized economy, the relative surplus and deficit would be their contributions to the central budget. The implied redistributions are automatic. But if certain taxes/expenditures are devolved, those taxes and expenditures will stay at home. The recession region would need to issue debt, if temporarily, and the boom region to acquire assets.

However, there is compensation for the recession country. Federal taxes from the boom region will be higher than usual, and federal expenditures lower, so that region will transfer *some* of its surplus to the centre. The recession country will be transferring lower taxes but drawing on above average expenditures from the centre. It will receive a temporary net transfer from the centre. If the centre balances its budget, that implies an indirect transfer from the surplus to the deficit region.[4]

Moreover, the transfers are automatic and reversible over time. There are no monitoring or decision lags, no calls for parliamentary consent, and no biases except in so far as the central government chooses to include long-term transfers "on average" based on needs. The recession economy therefore receives two expansionary boosts; one from the local deficit, one from the net transfer from the federal budget. Likewise, the boom region gets two contractions to slow it down; from the local surplus and from transfers to the federal budget. Moreover, the stabilising power of this regime increases as more tax and spending instruments are devolved. Thus, fiscal federalism introduces risk sharing, by taking regional surpluses/deficits into the federal budget and recycling them as temporary redistributions from those in good times (relative to trend) to those in bad times.

4 Implicit fiscal-monetary coordination

It is widely recognised that the fact that monetary policy had to act alone is the main reason why the Eurozone economy, in contrast to its peers, has been slow to exit the 2008–2012 crisis. In the view of many policymakers, this is prime evidence of the need to coordinate with other policies to offset the effects of deleveraging, fiscal austerity, and tighter bank regulation that constrain the effectiveness of the ECB's low interest rate policies. Indeed Fazi (2015) argues that the inability to take advantage of a coordinated package of fiscal policy and asset purchases is a prime reason why the impact of the ECB's asset purchasing programme has remained relatively modest. It is the combination of the two which is important—implicit recognition that low interest rates (and monetary policy in general) may not be sufficient on their own to resolve a major recession.

Of course, there are many reasons why fiscal policy has not been used in practice: extended deficits and the sovereign debt crisis among them. But if monetary policy is forced to operate alone because fiscal deficits/debt are already too large, interest rates will tend to adjust by too much to compensate (up in recovery, down in recessions) damaging the thrust of that policy. It would be useful to coordinate with

[4] If the centre does not balance its budget, there is still a net transfer (vertical imbalance) in addition to any horizontal transfers.

other policies to offset the effects of deleveraging, inflation, tighter regulation or financial instability which have impose an extra burden on interest rates. A natural partner is fiscal policy. And a crucial point in favour of this approach is that the additional fiscal policies can be used *without* Euro-bonds or inter-country loans/transfers at the European level.

To justify this approach formally, note that to give fiscal policymakers long-term objectives, such as preserving sustainable public finances, automatically leads to *implicit* coordination between fiscal and monetary policy (Hughes Hallett and Jensen 2012). Imposing long-term objectives means that fiscal policies lead (go first) in the sense that other players have to condition their policy choices on what they expect the first player to choose. That then imposes a degree of coordination between them. A simple way to do this is to give policymakers an explicit debt target. The result is pareto improvements over single policies or the usual competitive policies, without having reduced either policymaker's ability to act independently with respect to their short run objectives. And targeting public debt, which is a stock not a flow, has the advantage that it implies persistence—especially in countries with high debt. In other words, it creates a long term commitment.

5 Monetary federalism

The key point here is that even countries with large fiscal imbalances can contribute to fiscal policy support by exploiting the fall in borrowing rates that QE has made possible. Refinancing debt would enable the average euro-economy to increase spending or reduce taxes by 0.45% of GDP after a fall of 1/2% in interest rates, without increasing its debt or deficit ratios. For France, the contribution could be 0.5% of GDP; for Germany 0.4%, and so on. The contribution from high debt countries could be higher, depending on how much the local risk premia have been lowered. For Italy, the contribution could be 0.7% or more. Italy and Portugal have already exercised this option; whereas, reversing the argument, half of the improvement in Germany's deficit ratio since 2014 represents three years of fiscal stimulus withdrawn.

Extending the expansionary power of low interest rates in this way may appear to be entirely opportunistic. It depends on being able to exploit an external change (a deliberate policy change, a secular slowdown, an unanticipated shock like Brexit) when it happens. But it can also be made to operate systematically, in every period, by introducing GDP-linked bonds. In these bonds, the interest payments are adjusted down by an agreed formula whenever GDP growth is below trend or potential output; and up when GDP growth rises above trend or potential output. That makes the adjustments symmetric, with no systematic bias and no loss of discipline in the long term (because governments are forced to "save for a rainy day" or pay down past debt in good times). That requires the interest rates payable on past or new debt to vary up and down as growth varies above or below its trend or potential—expanding the fiscal space available for new policy in bad times, but paying down debt in good times.

This process can be represented formally using the expression for the evolution of the debt burden over time (Bank of England 2016, on behalf of the G20):

$$\Delta d_t = (r_t - g_t)d_{t-1} - pb_t, \tag{1}$$

where Δd_t is the change in the debt to GDP ratio, d_{t-1}, at t; r_t the interest rate payable on past debt at t; g_t the growth rate at t; and pb_t the primary balance (a deficit is $pd_t < 0$). Thus, if r_t falls whenever g_t falls, the primary deficit can increase to match the corresponding change in fiscal space (defined as a prespecified, or permissible, or zero change in the debt ratio). Moreover

$$var(\Delta d_t) = var(pb_t) + d_{t-1}^2 var(r_t - g_t) - 2d_{t-1}\rho_{r-g,pb}\sqrt{var(pb_t)\cdot var(r_t - g_t)}, \tag{2}$$

where $var(r_t - g_t) = var(r_t) + var(g_t) - 2p_{r,g}\sqrt{var(r_t)\cdot var(g_t)}$ and both correlation coefficients $\rho_{r-g,pb}$ and $p_{r,g}$ will be positive if GDP-linked bonds are used; i.e. if r_t falls whenever g_t falls, but rises if g_t rises. If r_t falls one-to-one with g_t, then $var(\Delta d_t) = var(pb_t)$ and the additional fiscal policy will fill up all the newly available fiscal space. But in the more likely event that r_t falls by less than that, the degree of new fiscal space used up will be less.

Several observations follow. Equation (1) shows that extra fiscal space will always open up in times of low borrowing costs, allowing additional fiscal stimulus to be applied at little or no cost in extra debt. But, if done on a case-by-case basis, this depends on “good luck” or external events. Equation (2) shows that GDP-linked bonds can make this approach *systematic* since $\rho_{r-g,pb}$ and $p_{r,g}$ will be positive which reduces the variability of the changes in debt for permitted or proposed changes in the primary deficit, given a fixed/reduced $r_t - g_t$ differential. What GDP bonds do is make exploiting the extra fiscal space automatic[5] instead of just a possible opportunity.

Hence we can distinguish two cases: (a) where r_t and g_t are negatively correlated, so borrowing costs or risks rise whenever g_t falls—the conventional case for high debt countries; vs. (b) where r_t and g_t are positively correlated—leading to lower interest payments and budget savings if g_t falls. GDP bonds institutionalise the latter, not only for new issues but also the entire debt stock if the latter is refinanced. And the markets will know in advance that this can be expected. So GDP bonds reduce the risk that debt becomes unsustainable (lower risk premia), while at the same time opening up space for additional fiscal policies to support monetary policy in the participating economies—creating, in effect, a system of “monetary federalism”.

[5] Larger debt repayments in good times do the same. The principle drawback to GDP bonds is that investors will require some premium to compensate them for the variability in their interest payments, estimated at between 0.35 to 1.5% points (Bank of England 2016), although the expected net payment foregone is zero if correctly calculated. This aspect needs further research.

6 Conclusions: lessons learned

(a) There are many ways to reach fiscal integration without one size fits all policies, a single finance ministry and finance minister, or even euro-bonds.
(b) The regimes considered here allow individual economies to retain fiscal policies, within certain limits, tailor made to suit their own circumstances within an integrated framework.
(c) Fiscal discipline is not lost; in fact restraint is easier to maintain as economies retain ownership of their own policies supported by temporary redistributions from those in a stronger position.

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