More Commitment is Needed to Improve Efficiency in EU Fiscal Spending

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The member states of the European Union coordinate on many policy areas. The joint implementation of public good type projects, however, has stalled. Centralized fiscal spending in the European Union remains small and there exists an overwhelming perception that the available funds are inefficiently allocated. Too little commitment, frequent rounds of renegotiation and unanimous decision rules can explain this pattern.

Currently, the EU allocates only about 0.4% of its aggregate GDP to centralized public goods spending (European Commission (2014)). This is surprising given the fiscal federalism literature's classic predictions of efficiency gains from coordinated public goods provision (see for example Oates (1972) and the more recent contributions of Lockwood (2002) and Besley and Coate (2003) for a discussion). Yet, recent proposals to expand centralized fiscal spending in the EU have been met with skepticism if not outright rejection. The most frequently cited argument claims existing funds are already being allocated inefficiently and any expansion of centralized spending would turn the EU into a mere transfer union (Dellmuth and Stoffel (2012) provide a review).

Centralized fiscal spending in the EU is provided through the "Structural and Cohesion Funds", which are part of the EU's so called "Regional Policy" and were initially instituted in 1957 by the Treaty of Rome for the union to "develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion" (TFEU (1957), Article 174). At that point, the six founding members agreed it was important to "strengthen the unity of their economies and to ensure their harmonious development by reducing the difference existing between the various regions and the backwardness of the less favoured regions" (stated in the preamble of the same treaty). A reform in 1988 has further emphasized this goal by explicitly naming cohesion and convergence as the main objectives of regional policy in the EU.

Today, actual fiscal spending in the EU is far from achieving this goal. The initially agreed upon contribution schemes are often reduced by nation specific discounts and special provisions as the most recent budget negotiations for the 2014-2020 spending cycle showed yet again. Moreover, the perception is that available funds are being spent inefficiently (see for example Sala-i-Martin (1996) and Boldrin and Canova (2001)).

Figure 1. 2011 EU Structural and Cohesion Funds

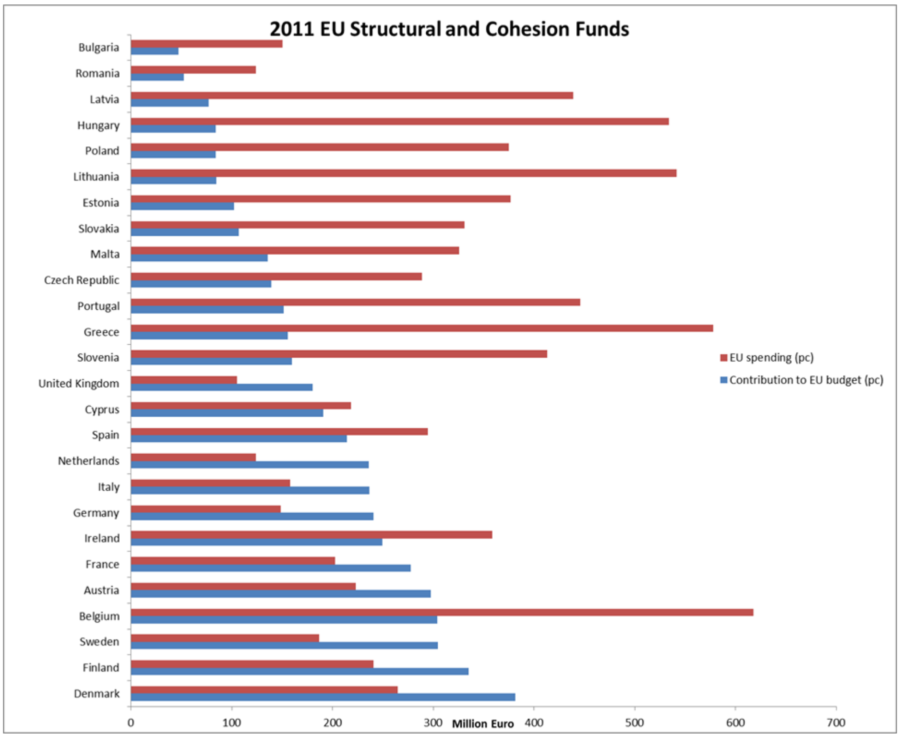


Figure 1 shows the national contributions to the structural funds as well as EU spending from that same budget in each member nation in per capita terms (data published by the European Commission). If fiscal spending was efficiently structured to achieve the above mentioned goal of convergence, one would observe a strong negative correlation between contributions and spending. The data shows, however, that while some redistribution is clearly implemented, rich nations still receive large amounts of the funds meant to alleviate inequality in the union (see Swidlicki et al. (2012) for a detailed analysis of this pattern for the contributions to and spending of structural funds in the UK).

What prevents a group of sovereign nations from effectively conducting the basic fiscal task of raising and allocating a budget to achieve an agreed upon common goal? In a recent paper, we theoretically examine the structure of the bargaining and allocation process employed by the EU (Simon and Valasek (2013)). Our analysis suggests that efficiency both in terms of raising contributions and allocating fiscal spending cannot be expected under the current institutional setting. While poorly performing local governments, low human capital in recipient regions, and corruption might all play a role in creating inefficiency (see for example Pisani-Ferry et al. (2011) for a discussion of the Greek case), improving upon those will only solve part of the problem.

We demonstrate that the inefficiency of EU spending in promoting the goal of convergence can be explained by the underlying institutional structure of the EU, where sovereign nations bargain over outcomes in the shadow of veto. Specifically, we model the outcome of the frequent negotiation rounds employed by the EU as the so-called Nash bargaining solution, explicitly taking into account the possibility for each member nation to veto and to withdraw its contribution (as the UK threatened in the most recent budget negotiations). It turns out that it is precisely the combination of voluntary participation, unanimity decision rule and the lack of a binding commitment to contribute to the joint budget that generally prevents efficient fiscal spending. In such a supranational setting, the distribution of relative bargaining power arises endogenously from countries' contributions and their preferences over different joint projects. This creates a link between contributions to and allocation of the budget that is absent in federations, where contributions to the federal budget cannot simply be withdrawn and spending vetoed. Since the EU members lack such commitment, this link will necessarily lead to an inefficient outcome.

Why Does the EU Have These Institutions?

If the currently employed bargaining process cannot lead to an efficient outcome, why then did the EU member nations not institute a different allocation process right from the start? Of course, agreeing on a binding contract without the possibility for individual veto is politically difficult. More complicated bargaining processes may also be much more costly in terms of administration than is relying on informal negotiations and mutual agreement. Our analysis suggests another alternative: If the potential members of the union are homogeneous with respect to their income and the social usefulness (or spillovers) of the projects they propose to be implemented in the union, then Nash bargaining will actually lead to the budget being raised and allocated efficiently. The intuition behind this result is simple: If all countries have the same endowment, their opportunity costs of contributing to the joint budget are the same. Moreover, symmetric spillovers do not give one country a higher incentive to participate in the union than the other. Consequently, all countries have the exact same bargaining position. Thus, equilibrium in the bargaining game must produce equal surpluses for all nations. At the same time, with incomes and spillovers perfectly symmetric, the efficient allocation also produces the same surplus for each nation, so that it coincides with the Nash bargaining solution. It is important to notice, though, that symmetric income and spillovers do not imply homogeneous preferences: Each nation can still prefer its "own" project to the others. Instead, symmetry leads to a perfectly uniform distribution of bargaining power in equilibrium. Moreover, our analysis shows that efficiency is achieved if the union budget is small relative to domestic consumption *and* member countries have similar incomes.

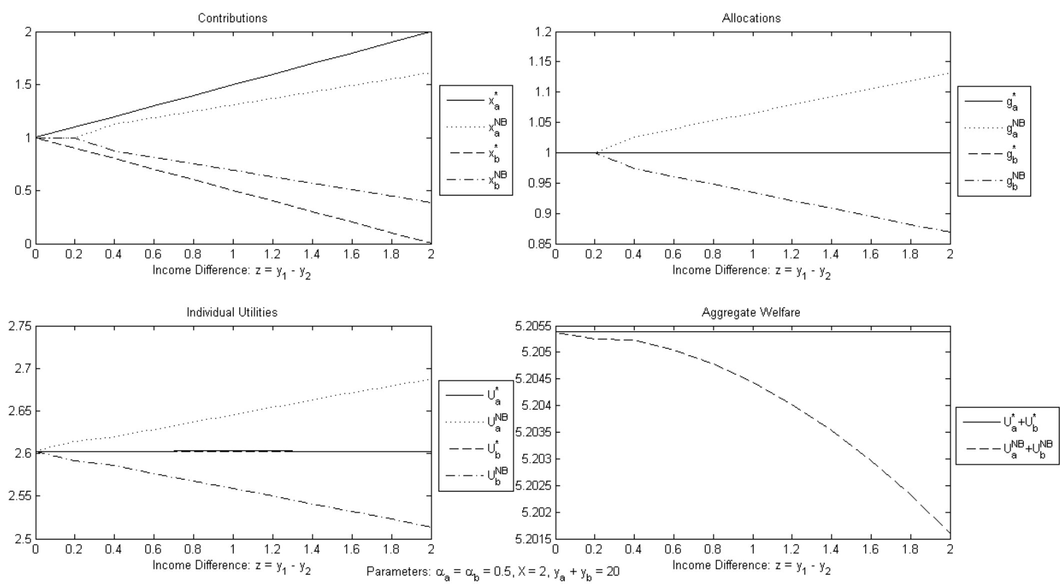
This resonates well with the history of the European Union. In fact, the disparities between the founding members were not large, so that the current bargaining institutions could reasonably have been expected to yield efficiency. Only the inclusion of Greece, Ireland, Portugal and Spain created a more economically diverse community (European Movement (2010)). Our model shows that as the asymmetries between member countries or the importance of the union relative to domestic consumption grow, Nash bargaining leads to increasingly inefficient outcomes. Figure 2 shows this effect for a union of two nations. Keeping aggregate income constant and assuming symmetric spillovers between the two nations' preferred projects, we vary asymmetry in their domestic incomes. The graphs show the Nash bargaining outcome (marked with superscript NB) compared to the generally efficient solution. As country A's income increases, so does its outside option (i.e. *all else equal*, the higher the income, the less a country would lose if the joint projects were not implemented). Thus, country A's bargaining position relative to country B increases in equilibrium, leading to an inefficient outcome. The allocation of funds to the union projects (upper right panel) depicts this channel very clearly: While the efficient allocation is independent from the distribution of national incomes, the Nash bargaining solution reflects the changing distribution of power. Nation A is able to tilt the allocation more toward its own preferred project the higher its income. Moreover, it is able to negotiate a "discount" for its contribution. While its contribution (labeled x_a) does increase with its income (labeled y_a), country A still pays less than would be budgetary efficient given its higher income (upper left panel). As a result of the inefficiencies introduced by the bargaining process, aggregate welfare in the union declines as asymmetry grows. Again, it is worth noting, that the loss in aggregate welfare is relatively small when asymmetry is small, but grows more than proportionally as the countries become more and more unequal (lower right panel).

This has troubling implications for the EU, as income asymmetry has increased with every subsequent round of expansion while the bargaining procedure for the fiscal funds has essentially stayed the same. It is not surprising then that a larger and more asymmetric EU has resulted in supranational spending that is increasingly inefficient.

The EU as a "Transfer Union"

We go on to show that the level of redistribution inherent in the Nash bargaining solution depends crucially on the overall size of the budget the union intends to raise. Increasing the EU's budget for centralized fiscal spending would indeed lead to more "transfers" to low income members (in terms of *net* contributions), bringing the EU closer to the original goal of convergence. In fact, the EU could pick a budget such that inequality in terms of total welfare between member nations is completely alleviated. Such an outcome necessarily implies that the net gain from being part of the union for high-income nations is lower (albeit still positive) than for low-income members. However, this in turn has consequences for the endogenous distribution of bargaining power: Richer nations would be able to assert even more power and push even further for their own preferred projects, rendering the allocation of funds across projects less efficient. This trade-off between equality and efficiency implies that complete convergence is not necessarily socially desirable.

Figure 2. The Effect of a Union of Two Countries



Arguably, this trade-off might be more important for a transition period than in the long run. If fiscal spending does not only lead to convergence in instantaneous welfare, but also has a positive effect on long-run performance and GDP growth, income asymmetries across countries will decrease even if the allocation of spending across projects is not entirely efficient. Less inequality in turn will lead to a more efficient allocation process in the future and endogenously reduce the level of necessary transfers. However, whether the growth effect of the EU's structural funds is indeed positive remains a much-debated empirical question (see for example Becker et al. (2012)).

Institutions Fit for a Diverse Union

As the EU has expanded from the original six nations to the current 27, there has been a concurrent evolution of decision-making rules. A qualified majority rule is now used in many areas of competency. We show that the allocation of fiscal spending could also benefit from the implementation of a majority rule. Efficiency would be improved as long as the low-income member nations endogenously select into the majority coalition while their contributions to the budget remain relatively low. In connection to this, the EU might benefit from enforcing rules specifying contributions as a function of national income (such rules exist, but are easily and often circumvented), forcing wealthier member nations to pay more. An exogenous tax rule without the possibility to negotiate a discount, for example, may indeed improve overall efficiency.

It is important to note, however, that a unanimous approval of such a change is unlikely. The institutional mechanism of Nash bargaining is an "absorbing state" after the constitution stage, in the sense that not all member nations can be made better off by switching to an alternative institution. Therefore, the discussion of alternative institutions and decision making processes is particularly relevant when considering *new* mechanisms that increase fiscal spending at the union level, such as the proposed EU growth pact. If the same bargaining process remains to be employed even for new initiatives, even though a majority rule is preferable and implementable relative to the status quo, the opportunity for the EU to achieve efficiency in its fiscal spending is lost.

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