**“If you want me to stay, pay: a model of asymmetric federalism in centralised countries”**

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## Abstract

Highly centralised countries like Italy and Spain have devolved fiscal power to regions in an asymmetric way. Some well-off regions get transfers that turn them into net recipients of the fiscal system. We demonstrate in a political economy model of fiscal federalism that in centralised countries, side-payments are used to compensate regions that are set back by the fiscal system and can credibly threaten to secede. Compensation blocks political negotiation on alternative –more efficient– fiscal systems. We study two regions, Valle d’Aosta in Italy and País Vasco in Spain, as an example.

Keywords: fiscal federalism, equalisation, decentralisation, secession, transfer schemes, side-payment, political economy, Valle d’Aosta, País Vasco.

JEL classification: H70, H73, H77.

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**Abstract**

Highly centralised countries like Italy and Spain have devolved fiscal power to regions in an asymmetric way. Some well-off regions get transfers that turn them into net recipients of the fiscal system. We demonstrate in a political economy model of fiscal federalism that in centralised countries, side-payments are used to compensate regions that are set back by the fiscal system and can credibly threaten to secede. Compensation blocks political negotiation on alternative –more efficient– fiscal systems. We study two regions, Valle d'Aosta in Italy and País Vasco in Spain, as an example.

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## 1. Introduction

Formerly highly centralised countries like Italy and Spain have made gradual steps in devolution. A peculiar feature of this process is the asymmetry in the fiscal treatment of different regions. Differentiation has primarily been justified by linguistic and cultural diversity, geographical circumstances or economic backwardness. But some well-off regions receive financial resources above those of equally rich regions. They obtained special arrangements that turn them into net recipients of the fiscal system.

We argue that in centralised countries, a government that maintains a rather strict control on local fiscal autonomy, agrees to compensate regions that are set back in the fiscal system and can credibly threaten to secede. We extend a political economy model of fiscal federalism with majority voting between regions to allow for secession and side-payments, following Lockwood (2006) and Harstad (2008). We derive conditions under which asymmetric fiscal arrangements or secession happen. We demonstrate that asymmetric federalism is an inefficient way of devolution as the compensation just redistributes the available resources under centralisation. Decentralisation by contrast would result in higher welfare. Federalism *à la carte* foregoes economic opportunities for all regions, and those losses may worsen over time as asymmetric systems risks creating a political stalemate that makes it impossible to set further steps towards decentralisation (Keating, 1998, 1999).

We illustrate the model with two case studies. One is an Italian region with special status, Valle d'Aosta/Vallée d'Aoste; the other a Spanish region with a *foral* fiscal system, País Vasco/Euskadi. In contrast to other regions, Valle d'Aosta receives almost all tax revenues collected on its territory; País Vasco collects all tax revenues and afterwards compensates the central government for services delivered on its territory. These asymmetric arrangements result in net benefits, as financial resources per inhabitant turn out higher than in equally rich regions. Supplementary tax financing exempts both regions from contributing to fiscal equalisation. This peculiar financing regime has its origins in centuries of fiscal autonomy. Linguistic and political differences created pressure – including secession threats– to obtain additional rights at a moment that the central government in Rome or Madrid was still reluctant to develop a nation-wide decentralised system. Difficulties to implement fiscal federalism in Italy or Spain, due to economic and institutional differences, clash with the necessity for some regions to develop real tax and spending powers. The preferential treatment finds the middle ground between both demands. The economic losses from compensation are visible in inefficiently high spending and tax levels, and a suboptimally low level of debt. Moreover, compensation has favoured rent-seeking over reform. Reform measures over the last decade, which aimed at matching higher spending autonomy with increased taxing power in all regions, have not brought substantial changes to the special arrangements.

## 2. The model

Political studies emphasize that asymmetry in federal systems reflects a different culture, history and language (Keating, 1998; Requejo and Nagel, 2011). Economic theories of fiscal federalism lay emphasis on economic forces and study homogenous fiscal systems (Besley and Coate, 2003). We adapt both lines of research and use a political economy model –similar to Lockwood (2006)– of regions having conflicting interests over regional public good provision. Asymmetry results from political negotiations between regions to prevent a break-away from the country with compensation.

## 2.1. The set-up

We have a country with 3 regions. A local public good $g_i$ in region $i$ is a discrete project i.e. $g_i \in \{0,1\}$ carrying a cost $c_i$ when implemented. In addition to the local public good, all regions share a fixed cost F of running the administration of the country, following Alesina and Wacziarg (1998).

Decisions on the provision of public goods are not made by a benevolent social planner, but by elected political delegates of each region. In a decentralised country, citizens elect the region's representative, who then chooses the level of public goods to maximise payoff, taking the level of public goods in the other regions as given. In a centralised country, each region elects a delegate to negotiate with the other regions' delegates the financing of local public goods. The single central government then implements the outcome, imposing uniform taxes in all regions. Negotiations between regions are simple majority votes. As there are many possible ways to vote over alternative propositions, Lockwood (2006) demonstrates that the voting rule of Baron and Ferejohn (1989) results in a unique equilibrium. Under this rule, one region proposes an allocation of $g_i$ ($i=1,2,3$) for all regions, and puts it at vote against the status quo. If this proposal is voted down, another region proposes an alternative allocation and let it vote. This voting continues until some proposal is accepted.

We make some simplifying assumptions. All households have identical preferences and so they all gain the same benefit $\theta_i$ from realising the project $g_i$ in their region. We exclude strategic delegation from households to delegates, hence preferences of citizens and policymakers coincide. Public goods are purely local so they do not create spillover. Finally, all agents, households and delegates, have full information on preferences and costs.

### 2.2. The voting rule

Under decentralisation, the regional delegate can decide on the level of public goods without constraints. As all households are identical and the delegate shares their preference for the public project, $\theta_i$, then the local public good is produced if the benefits of the project exceed its costs, plus a share in the fixed cost. We will assume that this is always the case. Region *i* then receives payoff $u^D$

$$u_i^D = \theta_i (g_i - c_i) - \tfrac{1}{3} F . \qquad (1)$$

This allocation maximises the utility of households.

In a centralised country, regions vote on the allocation of $g_i$. If two vote in favour of an allocation, the third can only accept. Assume now that the public good in region 3 is the most costly one ($c_1 < c_2 < c_3$), yet also generates the highest economic payoff, i.e. $\theta_3 - c_3 > \theta_2 - c_2 > \theta_1 - c_1$, and this payoff is positive $\theta_3 > c_3$. If a benevolent social planner were to choose the project, it would evidently choose $g_3$. However, this is not the case anymore with voting. Suppose that $\frac{c_1 + c_2}{3} < \theta_i < \frac{c_i + c_3}{3}$ which implies that costs for regions 1 and 2 of joining region 3 in a coalition that votes in favour of projects in region 3 would always result in a loss for these regions. In that case, as Lockwood (2006) demonstrates, in equilibrium, regions 1 and 2 coalesce against region 3. As a result, the least costly public goods in those two regions are financed, at the expense of region 3. The total surplus for the country (2)

$$u^C = \theta_1 + \theta_2 - (c_1 + c_2) - F , \qquad (2)$$

is the payoff of public goods in regions 1 and 2, minus a fixed cost of government F. With uniform taxation, all regions contribute equally to the financing of the projects in region 1 and 2. Region 3 is therefore a net contributor to the common pool and its payoff is $u_3^C = -\frac{1}{3}(c_1 + c_2 + F)$ whereas for region 1 or 2 it is $u_i^C = \theta_i - \frac{1}{3}(c_1 + c_2 + F)$.

The total surplus under decentralisation instead is

$$u^D = \theta_1 + \theta_2 + \theta_3 - (c_1 + c_2 + c_3) - F . \tag{3}$$

and region 3 gets a part of its payoff by financing its preferred public good. Overall welfare is lower under centralisation, since the project with the greatest economic payoff is not realised. Optimal preference-matching improves welfare and is the main argument of the political economy literature in favour of decentralisation.

### 2.3. Secession and side-payments

Region 3 may –as a net contributor paying for the realisation of public goods in other regions– want to secede from this country. Other regions may oppose the secession. One way out of the political conflict is to offer a side-payment to region 3 to accept to stay.[3] We extend the Lockwood (2006) model with a secession option and negotiations on transfers between regions. We look for the different subgame perfect Nash equilibria of this two-stage game.

Region 3 may come to doubt staying in the centralised country, as secession can be an attractive alternative. When the costs of centralisation for region 3 exceed the costs of secession, as in (4)

$$-\frac{1}{3}(c_1 + c_2 + F) < \theta_3 - c_3 - F , \tag{4}$$

region 3 could realise its local public goods even if running the newly independent country would require an extra fixed cost to pay for. If condition (4) is not satisfied, then regions 1 and 2 will not consider renegotiating with region 3, and we stay in the voting equilibrium

[3] Regions do not offer reopening discussions on the structure of the delegation process or the country.

(2) of the first stage. But if it is, then region 3 may credibly threaten regions 1 and 2 with secession. The latter do not have to consent but can make a counterproposal. We follow Harstad (2008) and allow regions 1 and 2 to transfer part of their gains from the centralised voting outcome to region 3.[4] The renegotiations at this second stage converge to a Nash equilibrium, as in Harstad (2008). Since regions are similar, except for their preferences, the outcome of the negotiation equally divides the entire surplus under centralisation over all regions. This means that each region receives a third of the surplus in (2):

$$\tfrac{1}{3}\left(\theta_1 + \theta_2 - (c_1 + c_2) - F\right). \tag{5}$$

The compensation is a side-payment that fully equalises the gains under centralisation (even if they do not fully compensate the net loss of region 3). This offer does not necessarily make region 3 desist from secession. Although region 3 receives part of the total surplus, region 3 may still prefer to secede if this payment is smaller than the net gain of independence. I.e., when

$$\theta_3 - c_3 - F > \tfrac{1}{3}\left(\theta_1 + \theta_2 - c_1 - c_2 - F\right). \tag{6a}$$

A net gain for region 3 is more likely when the net gains of both regions 1 and 2 are minute, and fixed costs are limited. For example, in a more heterogeneous country with large differences in the preferences for public goods and a small state administration, secession would be more likely.

Similarly, regions 1 and 2 need not accept the claims by region 3 if this makes them worse off than under the voting arrangement. Region 1 will not secede if the payoff under centralisation is sufficiently large, i.e.,

$$\theta_1 - c_1 - \tfrac{1}{2}F < \tfrac{1}{3}\left(\theta_1 + \theta_2 - c_1 - c_2 - F\right), \tag{6b}$$

and similarly for region 2,

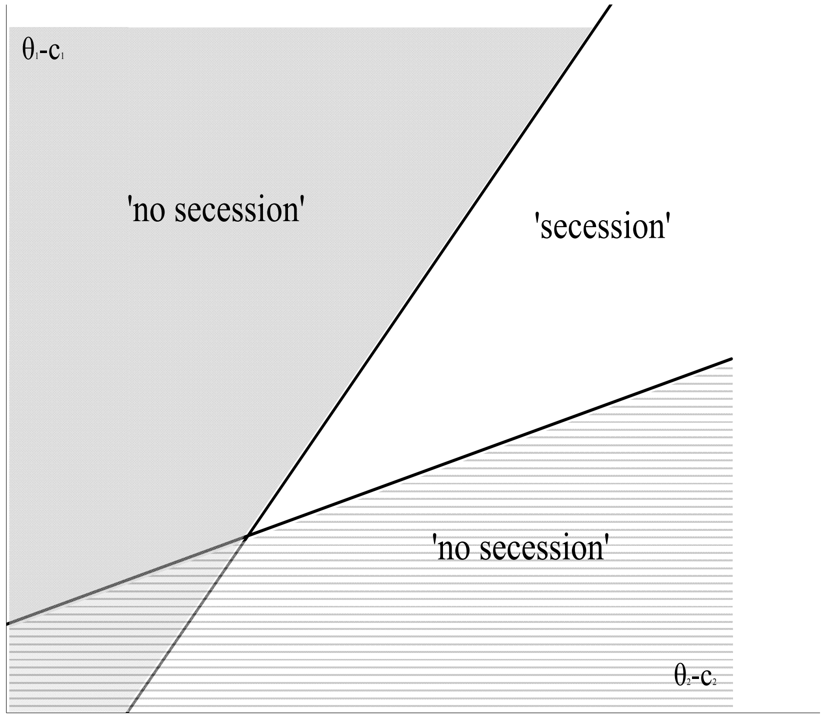
[4] For simplicity, we assume regions 1 and 2 agree on the common realisation of public goods –even after region 3 secedes– and do not split the country.

$$\theta_2 - c_2 - \tfrac{1}{2} F < \tfrac{1}{3}\left(\theta_1 + \theta_2 - c_1 - c_2 - F\right). \tag{6c}$$

Constraints (6a) to (6c) make the Nash equilibrium with side-payments secession proof. In contrast to Le Breton and Weber (2003), who show that secession-proof equalisation schemes should only provide partial compensation, in our political economy model the Nash equilibrium implies full equalisation between all regions. As regions 1 and 2 realise smaller gains than region 3, the transfer flows to the well-off region.

The three constraints, together with the constraint that the secession threat should be credible, are necessary to keep a country united. The solution of this system of four inequalities gives a set of equilibria in the space of payoffs $\theta_i - g_i$. We plot in Figure 1 the net payoffs for regions 1 and 2 with the different political outcomes, for a given payoff of region 3. The payoffs and the fixed cost of independence F determine the size of the set of secession proof equilibria (the shaded areas in Figure 1). Higher payoffs raise the compensation for region 3 and allay secession. But even at very low payoffs, secession is an unattractive outside option for region 3 if F is large. Hence, the net gain of realising local public goods minus the fixed cost of independence will become progressively more expensive compared to the alternative of receiving compensation.

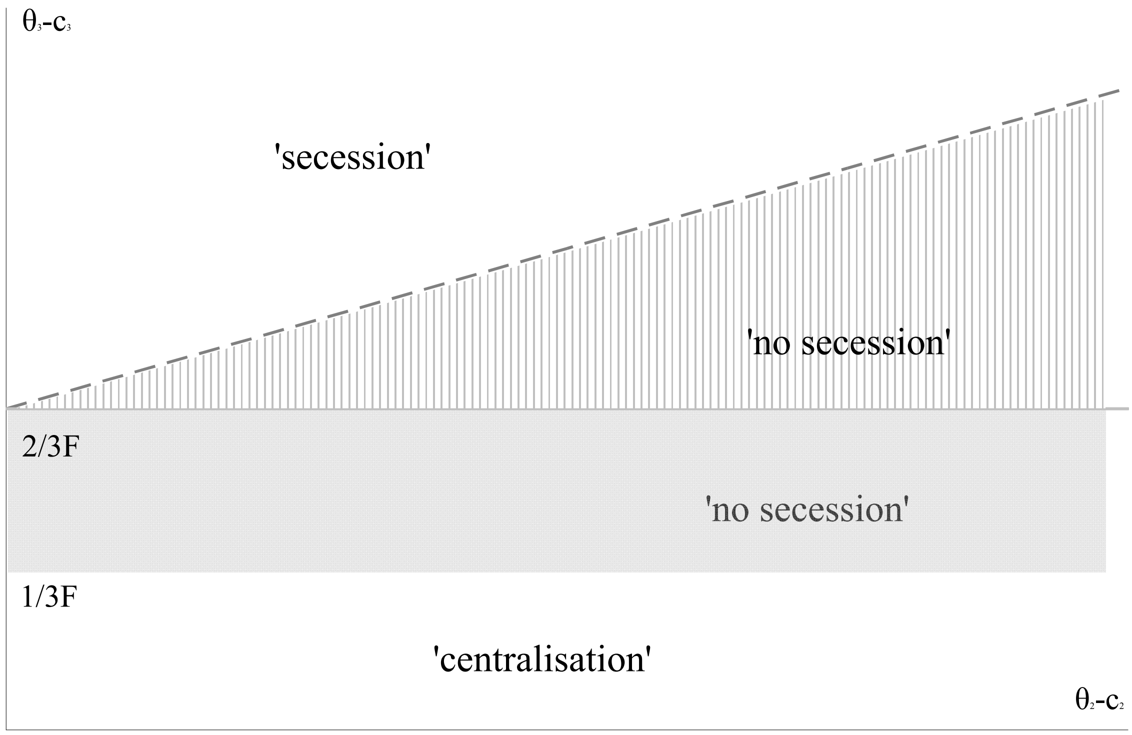
**Figure 1. Secession proof equilibria for regions 1 and 2.**




Instead, region 3 will strive for secession the stronger it values the net gains from realising regional projects. We can see this in Figure 2 where we plot the set of equilibria for net payoffs for regions 2 and 3 (at zero net gains for region 1). If the net gains of region 3 were smaller than the sum of the payments by regions 1 and 2 (2/3 of the fixed cost), the threat of seceding would just be bluffing as the fixed cost of independence is too high.[5] Compensation becomes increasingly interesting for higher payoffs for region 2 (the shaded triangle).

[5] We assumed that gains for region 3 are always larger than 1/3F, to make region 3 prefer the decentralised outcome, but this constraint does not bite in the case of centralisation with side-payments. If F=0, then secession would become much more likely, even for small gains of public goods in region 3.

**Figure 2. Secession proof equilibria for regions 2 and 3.**




The model could be extended by relaxing some of the assumptions, but even with strategic delegation or spillover, the core message remains.[6,7] Negotiations with compensatory side-payments may keep a centralised country united.

## 2.4. Welfare consequences

Asymmetric devolution comes at a cost (Keating, 1998). Although renegotiations improve preference matching for region 3, preventing secession with side-payments does not change the total surplus (3) under centralisation. The compensation only redistributes the existing gains. Hence, the outcome is inferior to decentralisation. Moreover, it is even inferior to the outcome under secession, in which case region 3 would receive

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[6] Strategic delegation of voters to regional politicians makes them overbid aggressively, and vote for more public goods in the voting model of section 2.2 (Besley and Coate, 2003). But aggressive negotiation with side-payments results in too few public goods because delegates put excessive claims on other regions (Harstad, 2008). Strategic delegation reduces the possibilities of a compromise, and makes secession more likely.

[7] Positive spillover from public goods increases the cost of secession for region 3 as it gets a benefit from public goods in other regions.

$$\theta_3 - c_3 - F \tag{7a}$$

and regions 1 and 2 receive in total

$$\theta_1 + \theta_2 - c_1 - c_2 - F \tag{7b}$$

Decentralisation yields higher payoff than secession, as both new countries have to assume a fixed cost of government that would otherwise be shared. And if secession is credible, it pays off more than centralisation.

The welfare consequences of a renegotiation with side-payments that keep the country united and centralised are decidedly negative. The compensation improves preference matching, but only approximates the outcome under full decentralisation. Even secession is to be preferred to centralisation. Given the range in empirical findings on the degree of devolution and economic growth (Martinez-Vazquez and McNab, 2003; Thiessen, 2003; Rodriguez-Pose and Gill, 2005), our model suggests that tests of this relationship should account for the type of devolution. Some papers have taken steps in that direction (Rodden, 2003; Thornton, 2007; Feld and Schnellenbach, 2011; or Sorens, 2011).

## 3. Devolution in Spain and Italy

All countries with a more or less regionalized fiscal system have equalisation schemes that distribute resources from poorer to richer regions. The coverage varies from country to country, but the schemes are uniformly applied and envisage a partial compensation. Fiscal schemes that provide side-payments to specific regions are unusual in federal countries, but are rather common in centralised countries. Requejo and Nagel (2011) discuss several examples in Europe. We study an example of asymmetric schemes in Italy (Valle d'Aosta) and Spain (País Vasco) to illustrate the model.

### 3.1. The asymmetric structure of the financing arrangement

Valle d'Aosta is one of five Italians regions with special autonomy. Its particular regime goes back to the Middle Ages under the Savoy rule,[8] and survived with minor changes until the Fascist regime abolished it. At the end of the Second World War, a strong nationalist movement sprung up, deeply divided between a faction favouring autonomy within Italy, and a separatist group in favour of an independent state or annexation to France. Political unrest with violent clashes resulted in a call to the United Nations for a referendum on independence. Tensions eased after the Italian referendum on the republic and parliamentary elections in 1946. The pro-Italian factions won the 1946 elections and started negotiating the creation of an autonomous region with its own Statute (Riccarand, 2004). The post-war Constitution restored in 1948 the peculiar status of autonomy of Valle d'Aosta, and approval of this Statute put a definite end to the confrontation with the separatists (Zanotto, 1986).

Bilateral agreements between the central government and the regional administration detail the financial resources as a share of all fiscal revenues collected on the territory of Valle d'Aosta. This tax share is the sum of fixed and variable percentages on different tax bases. The agreement further allows for raising specific regional taxes.[9] The agreement cannot be unilaterally modified by the Italian Parliament nor by the Regional Council, but only after the approval of a joint committee composed by members appointed by both assemblies. Initially, Rome could unilaterally set –within some limits– the percentages to attribute but these so-called *tap policies*[10] caused great instability in the regional budget, and were often

[8] The valdôtains got self-government and a specific judicial regime based on customs.
[9] Own taxes, surcharges on state taxes and levies, and administrative acts.
[10] The term '*politiche del rubinetto*' was coined by Brosio and Revelli (2000).

used as a political lever. The 1981 reform fixed the share at 90 per cent for the majority of taxes and levies,[11] and arrangement is still in force.

País Vasco is one of the two regions in Spain –together with Navarra– with a peculiar fiscal status. The Spanish Constitution of 1978 ruled one system of financing for the Comunidades Autonomas (CCAA),[12] but reinstated a foral regime with medieval roots. The three territories of País Vasco –Alava, Guipuzcoa and Vizcaya– had maintained their own legal system, with administrative, military and fiscal autonomy, until the end of the nineteenth century. Closer economic integration with Spain reduced the extent of foral rights gradually, and by 1876, only the specific fiscal regime was kept in place (Zubiri, 2000). This regime granted Alava, Guipuzcoa and Vizcaya the right to collect all taxes and afterwards pay a contribution (*cupo*) for the costs the central government has in delivering some common services (defence, foreign affairs, etc.) on their territories.[13] Five-year revisions of this *Concierto Economico* continued till 1931, when a new Basque Statute should have transformed it in a model guaranteeing complete fiscal autonomy. Civil War and Franco's dictatorship interrupted its application. Only the return to democracy re-established fiscal autonomy with the 1978 Constitution, along with the Statute of Guernika, approved in 1979. The new Concierto Economico was approved in 1981, and followed in its main principles the agreements set up in 1876.[14] Reform in 2001 further regulated the financial relations between País Vasco and the central government, after some conflicts with other Spanish regions and the EU on unfair tax competition. The modifications imply

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[11] The percentage was cut to 70 per cent in 1982 and 1983 due to harsh political contrasts between the regional and the central administration.

[12] Even among the CCAA under the common regime, there are quite some differences in their fiscal treatment, but these are not of first order.

[13] The system is a bit more complicated as the cupo is a net compensation, after accounting for some tax income the central government has received on the few taxes the region does not collect and some other receipts. For more details, see Zubiri (2000).

[14] Although formally, foral power shifted from the three territories to País Vasco, this is just a coordinating role and the three territories finance together País Vasco.

a greater contribution of País Vasco to equalisation with other Spanish regions, stronger guarantees on budget stability, the creation of a commission to discuss revisions of the Concierto Economico and the set-up of an arbitrage body.

The political situation in País Vasco is very different from Valle d'Aosta. The region has been striving for independence throughout its history. Since the Guernika Statute of 1979, calls for more autonomy or outright independence have been frequent. It is the mainstream movement in Basque politics and not just limited to marginal terrorist groups.[15] After the democratic transition, País Vasco initially adopted a cautious attitude to improve its negotiating position as unilateral changes risked putting off other regions at granting additional competences (Garcia-Mila and McGuire, 2007). But tax competition has led to conflicts between the Basque government and other Spanish regions and the EU. The region has pushed for more political autonomy too. In 2001, the then *lehendakari* (Basque president) Ibarretxe presented a plan for a confederation that for some fell just short of independence. The plan was approved by the Basque Parliament by simple majority, but was voted down in the Cortes in Madrid.

### 3.2. A centralised fiscal system with limits to tax autonomy

The legal provisions of both financing arrangements are similar in granting a very high degree of spending and tax autonomy to both regions *de jure.* However, this authority is *de facto* quite restricted. Limits to tax autonomy combined with spending discretion required further control measures on regional debt. We compare both regions' degree of budget autonomy as compared to other regions in Italy and Spain.

[15] ETA dominated Spanish politics till it announced a ceasefire in 2011.

## Autonomous decisions on spending and taxes

Regional government spending amounts to 30 per cent of total government spending in Italy and Spain (Table 1).[16] Their special statute attributes much more spending power to Valle d'Aosta or País Vasco than fellow regions (Garcia-Milà and McGuire, 2007). Ordinary Italian regions on average spend 3900€ per head whereas Valle d'Aosta spends three times as much (12465€). Some Spanish regions, like Andalucía, Catalonia or Galicia, have a similar degree of spending autonomy as País Vasco, which explains why the difference in terms of spending per capita is much less outspoken than in Italy. While the Basque people receive public services for about 5600€, other regions spend 4446€.

**Table 1. Spending, all functions, average 1995–2005.**

| share of regional spending in general government spending | | spending in euros per inhabitant | |
|---|---|---|---|
| Italy | Spain | Italy, ordinary regions | Spain, CCAA |
| 20.0% | 32.2% | 3900 | 4446 |
| (29.6%) | (45%) | Valle d'Aosta | País Vasco |
| | | 12465 | 5601 |

Note: data in brackets include local government; source: OECD National Accounts and Ambrosanio *et al.* (2008).

The differences between regions are more outspoken on the revenue side. Table 2 compares the financing of an average region via grants or taxes in percentage of total regional revenues. There is a fifty/fifty split in Italy, whereas tax financing prevails in Spain. The financing of Valle d'Aosta and País Vasco has a different source: tax revenues

[16] If we include spending by local government, this number is higher in Spain.

account for more than 95 per cent of total income, and grants have only a minor role to play.[17]

**Table 2. Revenue structure of regional government, as per cent of total regional revenue, 2005**

| | Valle d'Aosta | Italy | País Vasco | Spain |
|---|---|---|---|---|
| taxes | 95 | 48 | 97 | 59 |
| grants | 5 | 52 | 3 | 41 |

Source: OECD Fiscal Relations Network, Valle d'Aosta budget and Informe Integrado de la Hacienda Vasca (2008).

## Limits to autonomy

The simple expenditure shares in Table 1 are a misleading indicator of regional spending power. Spending has to correspond to certain criteria that are homogenous over a country to avoid large disparities in public services and to correct for spillover effects. Legislative control from Rome or Madrid influences regional decisions on spending, even in Valle d'Aosta or País Vasco. The central government keeps significant regulation powers on the provision of services. In Italy, common standards in education or social policies apply to all regions. In Spain, similar standards are implicit in the cost calculations prior to the distribution of tax shares.

Numerical indicators of spending discretion are hard to obtain as budgeting practices differ across countries, yet recent OECD studies have made some headway in their classification (Bach *et al.*, 2009). One indicator of co-decision in local policies by the central government is the level of earmarked grants to regions. These transfers –in contrast to automatic grants– are attached to a specific task, and aim at securing minimum standards

[17] In Valle d'Aosta the number is not precisely 90 per cent as it fully receives some minor taxes –such as excises on lotteries, electricity, spirits and fuel.

in public services.[18] Table 3 shows that in Italy and Spain, most grants are unconditional and mandatory (Blöchliger and Rabesona, 2009). Of the fewer earmarked grants, most are decided at the discretion of the central government, but regions need not provide a matching level of spending. By contrast, the few grants to Valle d'Aosta are earmarked, and mainly concern investment in infrastructure and shared participations in public entities. For País Vasco, grants are minor and mostly go towards specific items detailed in the Concierto Economico. All Italian or Spanish regions retain a strong degree of discretion in spending (Mora, 2008).

**Table 3. Grant revenue of regional governments, as % of total revenue, 2005**

| | | Valle d'Aosta | Italy | País Vasco | Spain |
|---|---|---|---|---|---|
| **total grants** | | **5.0** | **51.7** | **3.0** | **44.1** |
| earmarked | total | | 15.4 | | 7.8 |
| | mandatory, matching | **5.0** | 2.3 | | 0.3 |
| | mandatory, non-matching | | 2.6 | **3.0** | 5.7 |
| | discretionary, matching | | - | | 0.9 |
| | discretionary, non-matching | | 10.5 | | 0.9 |
| non earmarked | total | | 36.3 | | 36.3 |
| | mandatory, general purpose | | 36.3 | | 36.3 |
| | mandatory, block | | - | | - |
| | discretionary | | - | | - |

Source: Blöchliger and Rabesona (2009), Valle d'Aosta budget and Informe Integrado De La Hacienda Vasca (2008).

By contrast, constraints on the tax system are more stringent. The effective revenue raising power of regions is not as high as Table 2 suggests. Regions often share a large part of tax revenues with other governments and this vertical division limits discretion. Sometimes, regions have a collective say in the set-up of tax sharing formulas, but in other cases, the

[18] All grants can either be mandatory or at the discretion of the central government. They may be conditional or require matching funding.

central government can decide unilaterally to modify tax rates. As tax sharing has become a means to redistribute resources horizontally, equalisation schemes often impose restrictions on the use of regional taxes to avoid tax competition. As a result, the distinction between shared tax revenues and grants has become blurred (Blöchliger and Petzold, 2009). Recent work at the OECD has started to classify different types of revenues –grants, shared tax revenues and autonomous taxes– and the degree of discretion regions exert. Table 4 reports the proportion of these three main types of revenues for an average region in Italy and Spain. We follow the method of Blöchliger and Rabesona (2009) and compute similar indices for Valle d'Aosta and País Vasco.

**Table 4. Revenue structure of regional government, as % of total revenue, 2005**

| | | Valle d'Aosta | Italy | País Vasco | Spain |
|---|---|---|---|---|---|
| autonomous taxes | **total** | **-** | **28.4** | **88.0** | **32.7** |
| | discretion on rates and reliefs | | - | | 32.6 |
| | discretion on rates | | 28.4 | | 0.1 |
| | discretion on reliefs | | - | | - |
| tax sharing | **total** | **88.0** | **19.9** | **4.0** | **23.3** |
| | revenue split set by region | | - | | - |
| | revenue split set with region consent | 88.0 | 11.4 | | 23.3 |
| | revenue split set by central government pluriannually | | 8.5 | 94.0 | - |
| | revenue split set by central government annually | | - | | - |
| other taxes | **total** | **7.0** | **-** | **5.0** | **0.0** |
| grants | **total** | **5.0** | **51.7** | **3.0** | **44.1** |
| | earmarked | 5.0 | 14.8 | | 7.0 |
| | non earmarked | | 36.9 | 3.0 | 37.1 |

Source: OECD Fiscal Relations Network, Valle d'Aosta budget and Informe Integrado De La Hacienda Vasca (2008).

Table 4 shows that the structure of tax financing is quite similar in Italy and Spain: about half of regional financing comes from grants, and own taxes account for about 30 per cent of regional income. Shared taxes finance the remaining 20 per cent of regional budgets.

Table 2 may have given the impression that Valle d'Aosta and País Vasco can freely use tax resources to finance public spending. Table 4 shows that in practice, both regions may find it actually quite difficult to adjust their revenues. Valle d'Aosta never used the possibility of introducing own taxes, and 90 per cent of taxes are shared. Although their shares are smaller, even ordinary regions seem to have more autonomy than Valle d'Aosta. The reason is that the gradual devolution process has given larger regions a stronger voice in the co-decisions on tax rates. Given its particular statute, Valle d'Aosta stands alone in defending its arrangement, and has hardly any political power to modify the agreement.[19]

Discretion is more comprehensive in País Vasco. Autonomous taxes are the major source of income, and shared taxes represent only a minor part of revenues. This stands in contrast to the situation of the CCAA. They too have quite some discretion on many (autonomous) taxes, but they have to decide together on some modifications, sometimes pending approval of the central government. But even País Vasco must follow the clause that overall tax pressure in a region shall not deviate from the average. This clause in the Law on Autonomous Financing does not define average tax pressure, but has been invoked by Madrid and other regions to dispute the Basque business tax credits. A strict interpretation of the clause does not allow for large differences in taxation, despite discretion.

Substantial spending autonomy and a lack of tax discretion in taxation makes regions prone to fiscal profligacy. Taxpayers' money from other regions comes in more cheaply than taxing the own citizens so regional governments will tend to overspend.[20] This problem of soft budget constraints is exacerbated if the central government is weak in its

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[19] The region sends just a single deputy and senator to Rome.

[20] The size of this problem can be measured by the vertical fiscal imbalance, which is the gap between regional spending and own tax revenues, as a ratio of regional transfers. Given the predominance of grants and shared tax arrangements, the measure evidently indicates a high imbalance in Valle d'Aosta (0.68 against 0.72 in Italy), but much less so in País Vasco (0.11 against 0.86 in Spain).

commitment not to intervene (Rodden *et al.*, 2003). Governments therefore attempt to control potential debt problems with controls on the sustainability of public finances at lower tiers. In Italy, a Domestic Stability Pact imposes annual limits on the deficit of every single region, and these percentages are negotiated directly with the Treasury. Debt service cannot exceed 25 per cent of current revenues, and is only allowed for capital investments or under special conditions. These rules are somewhat looser for Valle d'Aosta, as it may issue bonds up to the total amount of current tax revenues, which corresponds to about 30 per cent of regional GDP.[21] Control is strict, since violations automatically imply stricter limits as in other regions.

In Spain, the Budgetary Stability Law obliges each government to maintain a balanced budget except in an economic crisis or to finance capital expenses (Joumard and Giorno, 2005). This borrowing always requires authorisation from the Ministry of Finance if annual debt service and repayments exceed 25 per cent of current revenues. Regions that incur a deficit need to present a plan to the Fiscal and Financial Policy Council –including representatives from the Ministry of Finance and all regions– that sets out a return to budget balance. The central government can impose stricter limits on borrowing for reasons of macroeconomic policy. País Vasco has to obey to these limits, and has no stronger autonomy to plan budget decisions over time.

Debt is actually quite low in both regions (Figure 3). Despite a jump in 2001, the debt to GDP ratio does not raise above 20 per cent of regional GDP in Valle d'Aosta.[22] For País Vasco, debt has been declining over time and is the lowest of all Spanish regions.

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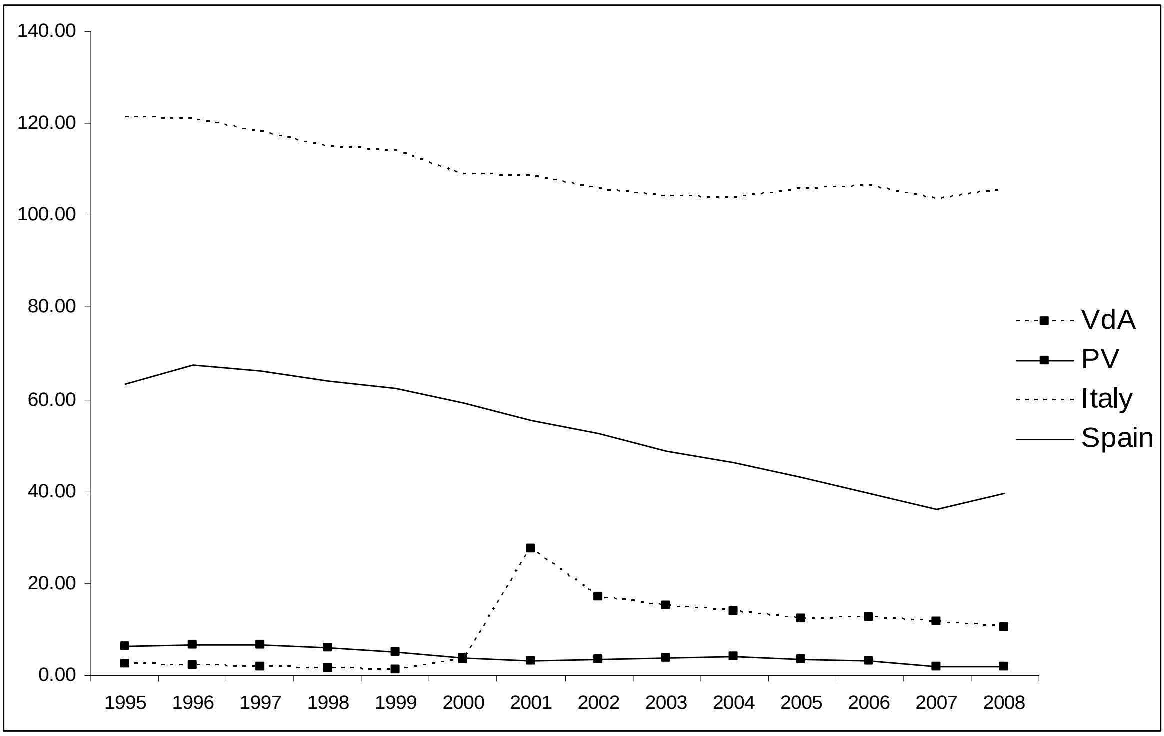
[21] Debt can only be used to finance investment, or to buy participation in public-private enterprises working locally.

[22] Due to the acquisition of local hydroelectric power plants.

**Figure 3. Debt ratio to GDP.**




*Source*: regional government of Aosta, Statistical Bulletin Bank of Italy (Supplement), OECD

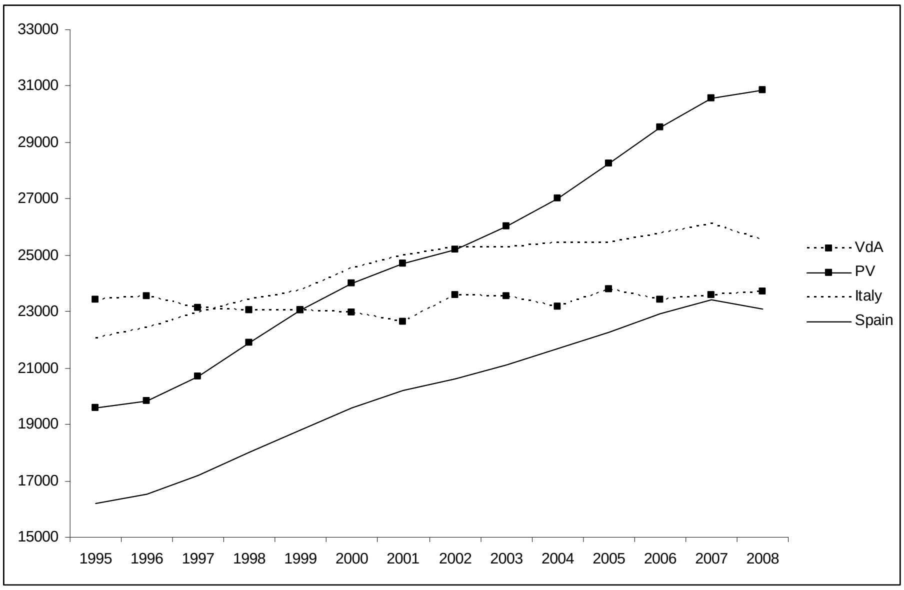
### 3.3. Equalisation and compensation

We expect richer regions to be net contributors to the financing system, as fiscal arrangements typically redistribute in favour of poorer regions. Both Valle d'Aosta and País Vasco are the richest regions as measured by GDP per capita (Figure 4). We should therefore expect both regions to contribute to fiscal equalisation. Table 7 ranks the regions by the net financial flows they receive. The data compare the situation before and after including social security transfers, and have been computed by Barberan and Uriel (2006) for Spain, and Ambrosanio *et al.* (2008) for Italy. The results are representative of those in other studies.[23]

[23] Arachi *et al.* (2006) or Brosio and Revelli (2003) arrive at even higher net benefits for Valle d'Aosta. For País Vasco and Navarra, Castells (2000) estimates the net benefits to be of a similar order.

Table 7 shows that in absolute numbers, poorer regions receive less money than rich regions. But once social security transfers are included, rich regions become net payers into the system while poorer regions are net recipients. The top and bottom part of the ranking correspond to the poorest and richest regions. The correlation between the net flows and GDP per capita is negative. Surprisingly, Valle d'Aosta still receives net around 890 euros per inhabitant once we take into account social security flows. Likewise, País Vasco receives net 792 euros. Hence, both receive relatively more financial resources than their economic position would suggest.[24]

**Figure 4. GDP per capita.**




Source: Istat, Eustat.

[24] The correlation between GDP per capita and net flows is -0.86 in Italy, and -0.77 in Spain. Other Spanish regions with a special statute (Navarra) also deviate from this norm.

**Table 5. Net benefits of financing system, net fiscal flows per capita, in euro**

| | net flows | flows without social security | | net flows | flows without social security |
|---|---|---|---|---|---|
| Calabria | 2817 | 2059 | Melilla | 3394 | 3711 |
| Sicilia | 2661 | 2277 | Ceuta | 2970 | 3240 |
| Molise | 2510 | 2682 | Extremadura | 2375 | 2013 |
| Sardegna | 2361 | 3076 | Asturias | 2148 | 1268 |
| Basilicata | 2313 | 2370 | Canarias | 1544 | 2056 |
| Campania | 2311 | 2223 | Castilla La Mancha | 1528 | 1500 |
| Puglia | 2056 | 2431 | Galicia | 1422 | 1080 |
| Umbria | 1785 | 4088 | Andalucía | 1421 | 1237 |
| Abruzzo | 1394 | 3425 | Castilla and Leon | 1420 | 1160 |
| Liguria | 1386 | 5180 | Murcia | 860 | 959 |
| **Valle d'Aosta** | **890** | **6120** | **País Vasco** | **792** | **1050** |
| Marche | 146 | 4299 | Cantabria | 674 | 427 |
| *Italy* | *0* | *4666* | Navarra | 584 | 1207 |
| Toscana | -160 | 5061 | Aragon | 346 | 485 |
| Friuli-Venezia Giulia | -212 | 5394 | *Spain* | *297* | *482* |
| Trentino Alto Adige | -388 | 5746 | La Rioja | 232 | 425 |
| Piemonte | -469 | 5225 | Com. Valenciana | -37 | 195 |
| Lazio | -737 | 5693 | Baleares | -915 | -368 |
| Emilia-Romagna | -1751 | 6068 | Catalonia | -1094 | -643 |
| Veneto | -1836 | 5128 | Madrid | -2302 | -1256 |
| Lombardia | -3653 | 6696 | | | |

*Source*: Ambrosanio *et al.* (2008), Barberan and Uriel (2006).

## 3.4. A preferential treatment to thwart secession

Our model predicts that in a centralised country, regional side-payments to one region can under some circumstances keep the country together, even though this asymmetry in the fiscal system comes at a cost. Both Valle d'Aosta and País Vasco fit those characteristics.

Italy and Spain, from being very centralised countries, have only recently started to devolve competences to their regions but with difficulties in developing a decentralised structure with full spending and tax autonomy for the entire country (Garcia-Milà and McGuire, 2007; Ambrosanio and Bordignon, 2008). The fiscal system is still characterised by tight controls on tax autonomy and the issuance of public debt. Although both Valle d'Aosta and País Vasco receive close to 100 per cent of all tax revenues, the *de facto* autonomy to decide on tax revenues and the budget –as in other regions– is rather limited.

Pressures to secede existed in Valle d'Aosta, and still persist in País Vasco, albeit with evident differences. The favourable net position of Valle d'Aosta and País Vasco is a compensatory transfer to keep those secessionist pressures at bay. Both regions are as a result net recipients from the national equalisation scheme, even if by their economic position, they should be net contributors.

This preferential treatment is a political equilibrium for all parties. The central government and other regions prefer compensation to secession or decentralisation. A break-away from the richest parts of the country would be politically and economically unacceptable for countries with historically strong centralist tendencies. Decentralisation is difficult to implement for the same reason. More intense tax competition would exacerbate demands by other rich regions to be treated in a similarly favourable way, and poorer regions would request more fiscal equalisation. Tax and spending autonomy would spark fear in poor regions of not being able to provide a sufficient level of public services. A limited form of decentralisation is the lesser of evils, as the rebate to Valle d'Aosta and País Vasco is a compensation for equalising fiscal capacity and controlling the sustainability of public finances across the country. In return, Valle d'Aosta and País Vasco do not question limits on fiscal power. The side-payments have softened gradually the anti-Rome or Madrid sentiments in both regions. In Valle d'Aosta, the separatist movement has lost political power to finally disappear; in País Vasco, political violence has been marginalised.

The fiscal system may have lifted both regions to an economic prosperity they would otherwise not have known (Rodriguez-Pose, 1996; Bibbee, 2007). But the limits to autonomy put constraints on further economic development. The cost of an asymmetric financing arrangement can be seen from inefficiently high tax and spending levels, and a suboptimally low debt ratio. Decentralisation would permit reducing taxes, tailoring public goods to local needs and optimising debt issuance.

Our model does not explicitly consider dynamic effects, but there are reasons to believe that this reverse redistribution –albeit curbing the excess transfers in the Spanish and Italian fiscal system– exacerbates rent-seeking by the rich regions. The generous side-payments keep Valle d'Aosta and País Vasco on a lifeline that prevents structural reform. Regional politicians may be happy to spend generously resources to buy political consensus at home, and voters are reluctant to diminish the high level of public services.
We assumed in the model that renegotiations do not discuss other structures of the country. It would be possible to talk on decentralisation, instead of secession. Ordinary regions or CCAA have little incentive to do so, as they may lose. But even Valle d'Aosta or País Vasco would gain economically from more autonomy, yet they never called for decentralisation. Of course, for a small region to drive constitutional reform at national level may be too ambitious a goal. But this reinforces the pressure to continue with the status quo, despite calls by other regions for further reform. The losses in side-payments of increased decentralisation in the short term probably outweigh the gains of more tax autonomy in the long term.

## 5. Conclusions and policy implications

Italy and Spain are setting gradual steps towards devolution. But some regions, like Valle d'Aosta or País Vasco, obtained specific fiscal arrangements that make them net beneficiaries of the fiscal system. We argue this preferential treatment is a compensation for the lack of fiscal autonomy and so prevents secession.

Our simple political economy model of fiscal systems with side-payments extends the literature in several directions. First, we do not limit the analysis to common pool problems, in which all regions pay for costs due to uniform taxation, but introduce negotiations on side-payments between regions (Lockwood, 2006). Second, we extend previous work by Le Breton and Weber (2003) with verifying conditions for the existence of secession proof fiscal schemes. Finally, we apply a model with side-payments following Harstad (2008) for the specific case of fiscal equalisation.

We confirm the results of Lockwood (2006) on the inefficiencies of centralisation, and findings by Harstad (2008) that side-payments may indeed reduce the possibilities of compromise on more efficient outcomes. When the outside option of secession is available, the second best solution of independence is at hand for a region that is set back in fiscal schemes of centralised countries. But other regions may find it more beneficial to give side-payments to thwart the threat.

Our model suggests that the growth effects of different fiscal systems depend on their structure. Tests of this relationship should account for the type of devolution. An extension of this paper is a complete cost-benefit analysis to evaluate the effects of asymmetric current financing arrangements, for example, by linking it to efficiency measures of spending and taxation (Kyriacou and Roca, 2011; Boetti *et al.*, 2012).

Asymmetric federalism creates quite some economic inefficiency. Federalism *à la carte* also complicates further steps in negotiations as it petrifies positions of net winners and losers of a reform (Tanzi, 1995). Beneficiaries stick to living from economic rents. Asymmetric devolution exacerbates the problems of stability and equity of fiscal federalism. An increasingly complex web of overlapping responsibilities and exceptions to tax schemes complicates control on fiscal imbalances and observance of the homogeneity of economic conditions (Blöchliger *et al.*, 2009).

The key to restoring an efficient federalism in Italy and Spain is an overhaul of fiscal relations that relies less on hierarchical control and more on granting real tax autonomy (Garcia-Mila and McGuire, 2007; Bibbee, 2007). Reform measures over the last decade have gone in that direction, at least for the ordinary regions and CCAA. It did not bring substantial changes to the special arrangements of Valle d'Aosta and País Vasco.

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