

The new Spanish Autonomous Communities fiscal stability framework

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ABSTRACT:

From to beginning of year 2002, the Spanish Autonomous Communities (CC. AA.) fiscal performance is conditioned by a new legal framework compounded from the financial agreement and the legislation on budget stability. This new framework implies a change in the CC. AA. fiscal behaviour. Are the CC. AA. ready to provide its citizens the public services they demand and fulfil its fiscal stability commitments? Are all the CC. AA. in the same position?. Using political economic models and data on past budgets execution, this paper is aimed at shedding light over the factors that jeopardize the CC. AA. budget stability in the future and the differences between CC. AA. relevant to its fiscal performance.

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During the last 25 years, in Spain it has been built a fiscal federal system from nothingness. Today, the “Comunidades Autónomas” (CC. AA.), the Spanish political entities in the regions, originated in 1977, manage more than 50% of the Spanish public expenditure and the two main public functions: health and education.

The CC. AA. development process has been continuous as they have been receiving transferred public services all along this period. When this public services, previously managed by the “Administración General del Estado” (AGE), the Spanish general government, are transferred, the CC. AA. get the means needed to finance them.

The 17 Spanish CC. AA. can be divided in two types, in regard only to its tax competences, because all the CC. AA. have the same level of potential expenditure

competences. The division is based on the Spanish Constitution, which maintains the historical regime of the “foral” CC. AA.

The foral CC. AA. (País Vasco y Navarra) own and collect all the taxes levied in its territory and pay the AGE a transfer that covers the AGE expenditures cost in these CC. AA.¹. The remaining 15 CC. AA., so called “comunes” (common), are financed mainly by transfers from the AGE. This paper only deals with the latter.

Before 2002, the CC. AA. main financial resource was a general transfer intended to cover the minimum level of public services managed by the CC. AA. At the beginning of 2002, there was a sentiment that the regional spending had not direct cost, for the citizens the regional governments are providing services without collecting revenue. As most revenue was provided by AGE transfers, there was an absence of a fiscal accountability of regional authorities to taxpayers, whereas the AGE tax burden was regarded as too high.

In 2002 a new legal framework compounded from the financial agreement and the legislation on budget stability has been brought into force. This new framework implies a change in the CC. AA. fiscal behaviour. First, the new financial agreement is based on the fiscal responsibility of the CC. AA., i. e., the CC. AA. prime financial resources are the taxes paid by their citizens and the transfers from the AGE are to play a marginal role. Secondly, the legislation on budget stability has two basic implications for the CC. AA., they have to approve and execute a no-deficit budget and public debt can only be used to finance financial assets acquisitions.

In this context, there is a need to know if the CC. AA. are able to deal with the new financial environment and what are the differences between CC. AA. related to its future fiscal sustainability. The modern literature on fiscal sustainability, the new political economics, considers the social and institutional features as the main explanations for the differences in the fiscal performance across countries.

This paper is divided in four parts. The first part shortly surveys the literature on political economics. The second part explains the CC. AA. financial resources and the

¹ Technically, the subjects of the financial relationships with AGE are the three provincial entities (*Diputaciones*) in *País Vasco* and the *Diputación de Navarra*; not all the taxes paid in *País Vasco* and *Navarra* belong to the *Diputaciones* and the transfers paid by the *Diputaciones* to the AGE are determined indirectly, as a (fixed) percentage of the budgetary programs managed by the AGE in *País Vasco* and *Navarra*.

main elements of the financial relationships between AGE and CC. AA. It ends with a model based in the common pool problem that shows a bias to an excess of expenditure in the CC. AA. The third part deals with the sources of information about the CC. AA. budgetary performance, the problems that come up when using them and the two dependent variables used in the empirical test. The fourth part is devoted to explain the empirical test results and the paper is closed with some conclusions.

1. The political economics of budget processes.

The neoclassical theory of fiscal policy and the Keynesian models of aggregate demand management both give arguments for the use of deficit and debt as fiscal policy instruments (Milesi, 1999). The tax-smoothing theory stresses that tax rates should be kept constant to avoid distortions of the private agents decisions, so budget deficits should be used to cover temporary increases in government spending.

Keynesian models of aggregate demand consider budget deficit as a fiscal policy instrument: in order to moderate business cycle fluctuations, there can be deficits during recessions.

Both theories provide explanations for budget deficits in developed countries, but not for the differences in the fiscal performance across countries. The political economy models of fiscal policy focus on the political and institutional factors to explain the differences in fiscal policy across countries at a similar level of economic and social development.

Alesina and Perotti (1995) classify the political economy models into six groups: models based in “fiscal illusion”, models of debt as a strategic variable, of distributional conflict, of intergenerational redistribution, of geographic dispersed interests and models emphasizing the effects of budgetary institutions.

The political economy models can be regrouped in two categories: models based in fragmentation and the common pool problem and models based in the political cycle.

The concept of fragmentation (Weingast et al, 1981) emphasizes the bias to inefficiency created by the distributive politics, namely the projects, programs and grants that concentrate the benefits in geographically or socially defined groups of citizens, while spreading their costs across all citizens through general taxation (common pool of resources).

Perotti (1998) distinguish three types of fragmentation: political, procedural and social. Political fragmentation is related to the political process of bargaining and negotiations among parties within the government or the parliament. Procedural fragmentation focus on the role and relative power of players participating in the budget process (prime minister, finance minister and spending ministers). Social fragmentation emphasizes the relations among government and different interest groups.

The **political fragmentation** models (Hallerberg y Hagen, 97; Persson et al., 00; Milesi et al., 01 and Persson et al., 03) link the electoral systems and political regimes with the weakness in the government that leads to an excess of expenditure.

Electoral institutions are the legal rules that convert the citizens votes into representatives in the parliament. Electoral institutions influence the likelihood of one party winning a majority of legislative seats and consequently having the ability to form a one-party majority government. There are two electoral systems, proportional and plurality systems. In plurality systems only one representative is elected per district and in proportional systems more than one representative is elected per district. The latter tend to have a larger number of political parties in parliament than plurality systems, so that plurality systems tend to have one-party majority parliaments and governments and proportional systems are likely to have a multi-party parliament majority and multi-party or minority governments.

Minority governments are weaker and more fragmented than majority ones. Multi-party majority governments are more fragmented than one-party majority governments (Persson et al., 03). In one-party governments there are conflicts between government and opposition in parliament and in multi-party governments are these conflicts and also among different party ministers.

The empirical test of these models do not show a definitive evidence that minority and coalition governments (more fragmented governments) spend more and generate more deficits than majority and one-party governments. Roubini y Sachs, (1989a) find evidence that political fragmentation is related with budget deficit, but Haan and Sturm (1994 y 1997) criticize the political Roubini and Sachs' fragmentation index and do not find statistical evidence that political fragmentation is correlated with public debt and expenditure.

In a 19 industrialized countries panel covering the 1970-1995 period, Perotti and Kontopoulos (2002) find a significant link between political fragmentation and public expenditure and budget deficits. Persson et al (2003) find that coalition governments tend to spend more than one-party governments.

Procedural fragmentation occurs when representatives of particular (geographic or social) spending interest are allowed to make spending decisions without taking the full cost of public policy programs into consideration (Perotti et al., 1997). Procedural fragmentation can be overcome by strengthening elements of centralization in the budget process, i. e., institutions that force the budget agents to take into account the full costs and benefits of budgetary decisions.

There are two approaches to centralization in the budget process: delegation of significant budgetary powers to the finance minister and contracting spending and deficit targets among the spending ministers before the beginning of the budget process. The first approach is more likely to produce an effective control on expenditures and deficits.

Hagen (1992) developed a methodology to test the empirical effects of budgeting procedures on the fiscal instability in the European Community countries. He characterized the budgeting process as divided in three stages: the government prepares the budget draft, the legislative approves the budget law and the administration executes the budget law. In each stage there are interests in conflict and the budgeting procedures are the framework where these conflicts have to be resolved.

Hagen suggests that the budgeting procedures oriented to enforce long-run orientation of fiscal policies are conducive to fiscal stability (long-term constraint hypothesis) and budgeting procedures that give strong powers to the finance minister, limit parliamentary amendments and facilitate strict execution of the budget law lead to greater fiscal discipline (structural hypothesis). He finds strong empirical support for the structural hypothesis but not significant results for the long-term hypothesis.

Alesina et al (1996) use this methodology to explain cross country differences in fiscal positions considering a sample of Latin American countries. They find that budgeting procedures that attribute a strong role to the finance minister, limit the role of the legislative in amending the budget draft and limit the prerogatives of the spending ministers lead to lower primary deficits.

In the United States of America, most states have a constitutional or statutory limitation restricting the government ability to run deficits, that can be prospective, or beginning of the year requirements, or retrospective, or end of the year requirements. Using data for the period 1970-1991, Bohn and Inman (1996) find that not every limitation has positive effects on limiting state's deficit. Only constitutional end of the year requirements have significant positive effects.

Political cycles models are based on the predominant motivation of politicians (Alesina, 1989). Politicians are driven by two main motivations: electoral and partisan. Electoral motivations characterizes the electoral cycles theory: politicians try to create the most desirable economic conditions immediately before the elections, before any elections the economy is overstimulated with expansionary policies.

Partisan motivations characterizes the partisan cycles theory: political parties have different preferences over the trade-off between inflation and unemployment because of the redistributive consequences and over the size of the public sector. Left-wing parties choose a combination of lower unemployment (higher inflation) because it favours lower rent classes. Right-wing parties choose a combination of lower inflation (higher unemployment) that favours upper rent classes. Left-wing parties tend to spend more and produce more deficits than right-wing parties.

Using a panel of 13 countries for the period 1961-1993, Alesina et al. (1997) find statistical evidence of the electoral cycle theory, but no statistical evidence of the partisan cycle. Buti and Noord (2003) use data from the countries that are in the European Monetary Union for the period 1998-2002 and find a discretionary loosening in the fiscal policy in pre- and early election years.

Seitz (2000) examines fiscal performance of the German Laender since 1970 and does not find evidence of partisan cycles.

2. The financial relationships between AGE and CC. AA.

The CC. AA. financial resources before the 2002 financial agreement can be grouped in three classes, each of them linked to one of its financial system basic principles: sufficiency, autonomy and solidarity.

The resources linked to **sufficiency** are the general transfer that covers the minimum level of public services, the normative level of revenue to be obtained from the taxes managed by the CC. AA. and the earmarked transfers from AGE and the European Union.

The general transfer from AGE, the so-called Participation in State revenues, has been the CC. AA. main source of revenues before 2002. Two periods can be distinguish: the current cost period and the definitive period.

From 1978 to 1987 (current cost period) the CC. AA. received from the AGE a transfer calculated yearly. Each Autonomous Community transfer was the addition of the current cost of all the public services managed by the Community, individually considered. A transferred service cost was defined as the amount of money that the AGE would have spent in this service in case it would had not been transferred to the Autonomous Community.

After 1987 (definitive period) the general transfer was calculated employing the rules and figures contained in the financial agreement between AGE and CC. AA. in force each year. From 1987 to 2001 there has been three financial agreements, covering periods 1987-1991, 1992-1996 and 1997-2001.

Every financial agreement has a base-year, namely a year to refer the global cost of all services² transferred to each Autonomous Community: 1996 (period 1987-1991), 1990 (1992-1996) and 1996 (1997-2001). These base-year global funds were determined through a political bargaining between AGE and the CC. AA. and as new services were transferred to a particular Autonomous Community, its costs calculated in terms of the base-year were added to the base-year global fund for this Community.

The CC. AA. received yearly a transfer calculated increasing its base-year global fund by a same index for all of them. Generally, this index was the increase of the AGE tax revenues between base-year and current year if higher than the nominal Spanish Gross Domestic Product (GDP) increase, because the nominal Spanish GDP growth was the yearly guaranteed increase.

Before 1984 the CC. AA. were transferred the taxes levied on inheritance, wealth and sales not taxed by the Value Added Tax. A normative (estimated minimum) level of revenue from these taxes was deducted from the base-year global fund.

Finally, the CC. AA. receive from AGE and the European Union a number of earmarked transfers. The most important is the transfer linked to the health services,

² But health services.

because the cost of these transferred services was not included in the base-year global fund for the CC. AA. that managed them after 2002; *Cataluña. Galicia, Andalucía, Comunidad Valenciana* and *Canarias*.

The financial resources linked to **autonomy** are the difference between actual and normative level of revenue obtained from the taxes managed by CC. AA., revenues from properties and no-public services and credit operations.

As it is been said, before 1984 the CC. AA. were transferred the taxes levied on inheritance, wealth and sales not taxed by the Value Added Tax. They have competences no only to tax the citizens in its territory, but also to increase the general rates established by the AGE. As a minimum level of revenue from this taxes was deducted from the general fund, the CC. AA. have an incentive to increase the revenues from these taxes and a disincentive to do that because of the political costs involved in a tax increase.

The CC. AA. have the competence to issue public debt. Before 1992 there was only two limits and a binding procedure: the new long-term debt has to be used only to finance new investments, the financial expenditures had to be less than 25% of current revenues and the AGE had to allow all bonds issues and foreign-currency nominated debts. Additionally, in 1992 all the CC. AA. agreed with AGE deficit scenarios that, supposedly, limited the deficit and debt growth from 1992 to 2002, but the scenarios are not public and the CC. AA. in fact have been increasing its public debt.

The financial resources linked to **solidarity** are the Interterritorial Compensation Fund (FCI) and the transfers from the social and structural European Union funds. The FCI is aimed at help the less developed CC. AA. by transferring resources for new public investments.

The financial resources' grouping by financial basic principles allows us to identify two types of CC. AA. expenditures: minimum expenditure and autonomous expenditure.

Minimum expenditure is the lowest level of expenditure that an Autonomous Community can execute and is financed by the resources linked to sufficiency and solidarity.

Autonomous expenditure is the extra money that an Autonomous Community decide to expend over the minimum level. It can be seen as the extra money that the Autonomous Community settles on to better off the quality of the public services it manages. The resources linked to autonomy fund this autonomous expenditure.

Previous to the empirical analysis, we develop a simple model of fiscal relationship between AGE and CC. AA. that reveal some relevant ideas about fiscal CC. AA. fiscal responsibility. The model is inspired in Persson and Tabellini (1994 and 2002).

Consider the 15 common CC. AA. with a population N^J , $\sum_J N^J = N$, where N is the whole population in the Spanish common CC. AA. We suppose that all the individuals in each Autonomous Community have the same quasi-linear preferences:

$$w^J = c^J + H(g^J)$$

c^J is the consumption of private goods (the same for every individual) and g^J is the per capita supply of the publicly provided goods. $H(.)$ is a concave and increasing function.

The individual consumption is:

$$c^J = (1 - \tau^J)y$$

Government spending is financing by taxing the income of every individual (y) at a common rate τ .

The optimum level of public goods provision in each Autonomous Community can be obtained maximizing the Benthamite welfare function, $\sum_J \frac{N^J}{N} w^J$, subject to the resource constraint $\sum_J N^J (g^J + c^J) = N^* y$.

The optimal provision of J local public goods is determined where the average marginal benefit in each Autonomous Community equals the marginal social cost of unity:

$$H_g(g^*) - 1 = 0$$

where g^* is the vector of optimum level of J local public goods.

This allocation could be implemented if lump-sum taxes levied in each Autonomous Community (τ^J) financed each of the J local public goods.

But this is not the case. There are three groups of publicly provided goods in each Autonomous Community:

$$g_j = g_j^{\text{AGE}} + g_j^{\text{SUF}} + g_j^{\text{AUT}}$$

g_j^{AGE} are the public services supplied by the AGE (not transferred to CC. AA.).

g_j^{SUF} denote the minimum level of expenditures on transferred services, those financed by the resources linked to sufficiency and solidarity.

g_j^{AUT} denote the Autonomous Community j autonomous expenditure.

The taxes paid by every individual can be divided as follows:

$$\tau = \tau^{AGE} + \tau^{CA}$$

τ^{AGE} are the taxes paid to the AGE and τ^{CA} are the taxes paid to the Autonomous Community.

Public services supplied by AGE and minimum level of expenditures on transferred services are financed out of a common pool of AGE tax revenues ($N * \tau_J^{AGE}$) and each Autonomous Community autonomous expenditures are financed through its own taxes.

Individual utility in Autonomous Community J can then be written as:

$$w_J = y - \tau_J^{AGE} - \tau_J^{CA} + H(g_J^{AGE}, g_J^{SUF}, g_J^{AUT})$$

Where

$$\tau_J^{AGE} = \frac{1}{N} \sum_J g_J N_J = \frac{1}{N} \left[\sum_J g_J^{SUF} N_J + \sum_J g_J^{AGE} N_J \right]$$

Equilibrium spending on Autonomous Community j autonomous expenditure (g_j^{AUT}) satisfies:

$$H_g(g_j^{AUT}) - 1 = 0$$

The equilibrium spending condition of public services supplied by the AGE and minimum level of expenditures on transferred services shows the common-pool problem:

$$H_g(g_j^{AGE}) - 1 = \frac{N_J}{N} - 1$$

$$H_g(g_j^{SUF}) - 1 = \frac{N_J}{N} - 1$$

As the right hand side of these equations is negative, there is a bias to overspending to the social optimum. Each Autonomous Community internalizes the benefit of the

expenditure located in its territory but internalizes only the fraction (N_J/N) of the social marginal cost of higher AGE taxes needed to finance them.

The following conclusions can be extracted from the model:

First, in all the negotiations between AGE and CC. AA. to determine the year-base initial funds there has been a CC. AA. strong incentive to overvalue the costs of the services they manage, because these costs determined its initial resources fund, i. e. the part of the common pool of resources they became. This means that every year-base negotiation, the AGE has been obliged to increase the part of the general taxes revenues apportioned to the CC. AA. in order to reach a financial agreement.

Secondly, there is a CC. AA. great disincentive to finance the transferred services with own taxes, because they internalize all the costs, and an incentive to finance them with transfers from the AGE, because they internalise only part of the costs. The AGE prefers exactly the opposite. This conflict means that CC. AA. only accept more fiscal responsibility (less AGE transfers and more own tax resources) if the change implies more net financial resources to finance its expenditure competences.

3. The CC. AA. financial data.

Previous to the development of the empirical analysis, some words are to be said on the CC. AA. financial information used in this paper. First, is explained why it is used budgetary instead of national accounts data and why the data sources are not the CC. AA., but the Spanish Ministry of Finance publications. Secondly, there is an explanation of how are defined the two dependent variables used in the empirical tests.

The financial activity of a public entity can be displayed through budgetary or national accounts data. The latter uses an international common methodology, so it can be interpreted without having to understand the Spanish public accountability rules, but there are some reasons that lead us to use the budgeting information.

The first reason is the length of the time series. There are national accounts data separated for each Autonomous Community only from 1995 and budgetary data from 1986. The second reason is the level of aggregation of national accounts data, which makes impossible to distinguish between minimum and autonomous expenditure.

There are two types of budgetary data, pre-execution and executed data. Pre-execution data are the figures included in the budget approved by the parliament. Executed

data are those that result of the budget execution. As the figures that show the actual revenues and expenditures are the budget executed ones, those are used in this paper.

The sources of budget executed data are not the CC. AA., but the Spanish Ministry of Finance publications because of two reasons: availability and homogeneity. The executed budget data are not directly available from the CC. AA., because there is no legal obligation to publish them. Also, as an aspect of its political autonomy, the CC. AA. are empowered to decide its budget accounting rules so, in practice, its data are not homogeneous.

The Spanish Ministry of Finance publish annually a survey of the budget execution homogenized data of all the CC. AA. This publications, alongside with the information of the payments made by the AGE to the CC. AA., also published by the Spanish Ministry of Finance, allows to generate the pool time series used in the empirical analysis. The last year with available complete data is 2000, so we lack of data of the last year of the 1997-2001 period.

In the empirical studies where the subjects are the countries, the dependent variables are public expenditure and deficit, generally as percentage on GDP to avoid the problem with the counties different size. The empirical analysis of the CC. AA. has to deal with the different number of services transferred to the CC. AA. in every year of the period considered (1986-2000).

It is necessary to find a variable that equalize the data of CC. AA. with different levels of public services managed. This variable is the amount of the resources linked to the principle of sufficiency, because they are proporcional to the cost of the services managed every year.

The dependent variables used in the empirical tests are two: financial authonomy (autfin) and budget deficit (defpre). Financial autonomy is defined as the autonomuos expenditure divided by the resources linked to the principle of sufficiency. It measures, for every Autonomous Community and every year from 1986 to 2000, the financial effort of the Community to improve the services it manages.

Budget deficit is defined as the actual expenditure not covered with current and capital revenues divided by the resources linked to the principle of sufficiency. It measures, for every Autonomous Community and every year from 1986 to 2000, the actual budgetary deficit.

4. Empirical analysis of the CC. AA. financial data.

The empirical analysis is divided in two parts: the relationship and evolution of financial autonomy and budget deficit and the causes of the differences among CC. AA.

The two firsts columns of Table 1 show a great disparity in financial autonomy and budgetary deficit. Usually, bigger deficits are related to more expenditure. In order to verify it for the CC. AA., two statistical tests are made to measure the relationship between these variables.

First, for each Autonomous Community a least square regression with budget deficit is the dependent variable and financial autonomy the independent variable. As can be seen, only 5 Communities have a significant coefficient and in one of them (*Castilla y León*) the sign is positive (more expenditures are related with less deficit).

Secondly, the last two columns show the results of a Granger causality test, with two lags in each variable. The null hypothesis is that financial autonomy does not cause budgetary deficit and can only be rejected in two cases: *Galicia* and *La Rioja*.

The great disparity among CC. AA. in both financial autonomy and budgetary deficit and the lack of relationship between these variables can be interpreted as follows: the CC. AA. are very different in its ability to generate autonomous revenues and the decisions about incurring in budget deficit are not related with more expenditure.

Table 2 shows the evolution of financial autonomy and budget deficit along the period 1986-2000. As the years past, there is a clear convergence in the figures (the statistical deviations of both financial autonomy and budget deficit decrease progressively) and the means are smaller.

In order to analyze the causes of differences in financial autonomy and budget deficit, number of tests have been made inspired by the political economy models surveyed in section 1. There is no analysis related to procedural fragmentation because the budgetary rules are identical in all the CC. AA.. Tables 3 to 7 show the results of the tests.

As commented in relation with table 2, as the year considered is closer to the end of the period (year 2000), there is more convergence in the CC. AA. figures. It has an important consequence on the econometric analysis, because it can generate heterokedasticity. Also, it is very plausible that CC. AA. fiscal performances in the same year are correlated, so there can be a autocorrelation problem.

In order to deal with these circumstances, all variances and standard errors are White's heteroscedasticity-consistent and the coefficients are estimated using feasible generalized least squares (Gujarati, 2003).

All the regressions include the dependent variable lagged one period as control variable.

In table 3 there is an analysis on the relationship between fiscal performance and the amount of competences managed by the CC. AA. by means of three variables. The first variable (*finpib*) is defined as the proportion of the revenues linked to sufficiency to the regional GDP. The greater the variable is the more level of competences has the Autonomous Community.

The two biggest public services managed by the CC. AA. are health and education. Because of that, two dummy variables are defined: education management (*ejeedu*), value 0 when the Autonomous Community does not manage education and 1 when does, and health management (*ejesan*), value 0 when the Autonomous Community does not manage health and 1 when does.

Table 3 shows that sufficiency revenues divided to GDP are significant in explaining both financial autonomy and budget deficit. But the coefficients seem to have the contrary sign as expected: more competences (sufficiency revenues) should have been related to more autonomous expenditures and deficit.

This paradox can be explained. First, there is no relation between more services transferred to an Autonomous Community and the ability to generate autonomous revenues. The most important source of autonomous revenues, the taxes levied on inheritance, wealth and sales not taxed by the Value Added Tax, were transferred to all the CC. AA. in 1984 disregard for the level of services managed. Secondly, as the CC. AA. are transferred new services, they are financed by the general transfer, so there is no increase in its ability to generate autonomous revenues.

The management of the education services does not explain both financial autonomy and budget deficit. The (significant) coefficients of the variable *ejesan* show the commented paradox, before 2002 the health services were completely financed by an earmarked transfer.

Political fragmentation is measured by two variables: majority in parliament (*mayabs*), value 1 when the government has majority in parliament and 0 when not and

coalition government, value 0 when the government is one-party and 1 in other cases. Table 4 shows little evidence of the political fragmentation model, because only more budgeting deficit can be explained by minority governments.

Looking for partisan cycles, three variables are defined. The first is the common one: political orientation of the main government party (sigpol), value 1 when the main party in government is left-wing and 0 when right-wing.

The second variable is political orientation of the party in AGE government related to political orientation of the main party in the Autonomous Community government (gobnac). Takes value 0 when both parties are the same and 1 when the main party in the Autonomous Community government is opposed to the party in AGE government. We expect more financial autonomy and budget deficit when the main party in the Autonomous Community government is opposed to the party in AGE government.

The third variable is nationalist party in the Autonomous Community government (parnac). Takes value 0 when there is no nationalist party in the Autonomous Community government and 1 in the other cases (a nationalist party is main or minority in the Autonomous Community government). We expect more financial autonomy and budget deficit when the party in the Autonomous Community government is nationalist.

Table 5 shows no evidence for partisan cycles in the Spanish CC. AA.

The electoral cycles models are estimated through the common variables. Electoral year (añoele) takes value 1 in years when there is a regional election and 0 in the rest. Postelectoral year (añospos) takes value 1 in postelectoral years and 0 in the rest.

Table 6 does not include significant coefficients for electoral years, only a significant coefficient relating postelectoral years and financial autonomy. This coefficient has the expected sign.

The last analysis in this paper tries to find the relationships between business cycles and the fiscal variables. The common theory explains that in expansionary years there are less expenditures and deficits.

The CC. AA. relative situation in respect of the business cycle is measured by the GDP gap. Using regional GDPs published by the Spanish Statistical Institute and the Hodrick-Prescott filter, it has been built the variable GDP gap (pibgap) as the difference between real and potential GDP yearly growth.

The relationship between regional and Spanish general GDP gaps is also relevant, as the CC. AA. main resource (general transfer) increases as does the Spanish general GDP. The variable difference between regional and general GDP gap (difgap) is constructed subtracting Spanish general GDP gap from regional GDP gap. It measures the position of the Autonomous Community in the cycle relative to the Spanish general economy one.

Table 7 reflects some annoying results. A positive regional GDP gap means bigger autonomous revenues, but the coefficient (elasticity) is very small: one percentage point of GDP gap means only a quarter of percentage point increase in autonomous revenues.

Worse than that, a positive GDP gap is related not with less deficits but with bigger ones. And the coefficient is astonishing big: one percentage point of GDP gap means much more than one percentage point increase in budget deficit.

The relationship between regional and general GDP gap gives no tranquility either. As expected, the financial autonomy coefficient is not significant (the difference between regional and general relative situation has no relationship with the CC. AA. autonomous revenues). But the budget deficit coefficient is significant, negative and quite big.

5. Conclusions.

1. The analysis of the relationship between financial autonomy and budget deficit shows that the CC. AA. are very different in its ability to generate autonomous revenues and the decisions about incurring in budget deficit are not related with more expenditure.
2. The analysis of the relationships between the level of public services managed and the fiscal variables shows a paradox: more expenditure is related with less financial autonomy and less budget deficit. The financial systems in law before 2002 justify the paradox.
3. There is very little evidence of the political economic models in the Spanish CC. AA. Only minority governments explain more deficits and postelectoral years are significantly related to a decrease in autonomous expenditures.
4. The business cycle analysis evidences some alarming results. Positive GDP gaps have very little impact on the CC. AA. autonomous expenditures but a great negative impact on budget deficits. Better relative positions in the business cycle than the Spanish general economy (positive difference between regional and general GDP gap) are related with bigger budget deficits.

5. The CC. AA. that are more prone to suffer long variations in its GDP growth and whose business cycle tend to differ more from the Spanish business cycle, i. e. the smaller and less developed ones, are more likely to suffer episodes of expenditure growth and uncontrollable deficits.

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List of variables.

Name	Abreviation	Explanation
Financial autonomy	autfin	Autonomous expenditure divided by the resources linked to the principle of sufficiency.
Budgetary deficit	defpre	Actual expenditure not covered with current and capital revenues divided by the resources linked to the principle of sufficiency
Sufficiency revenues to GDP	finpib	Proportion of the revenues linked to the principle of sufficiency to the regional GDP
Education management	ejeedu	0 when the Autonomous Community does not manage education services and 1 when does.
Health management	ejesan	0 when the Autonomous Community does not manage health services and 1 when does.
Majority in parliament	mayabs	0 when the government has majority in parliament and 1 when not.
Coalition government	coalgo	0 when the government is one-party and 1 in other cases.
Orientation of the government party	sigpol	0 when the main party in regional government is left-wing and 1 when right-wing.
Orientation of AGE government party	gobnac	0 when the main party in the Autonomous Community government is opposed to the party in AGE government and 1 if not.
Nationalist party	parnac	0 when there is no nationalist party in the Autonomous Community government and 1 when a nationalist party is main or minority in the Autonomous Community government.
Electoral year	añoele	1 in years when there is a regional election and 0 in the rest
Post electoral year	añospos	1 in postelectoral years and 0 in the rest
Regional GDP gap	pibgap	Difference between real and potential GDP yearly growth
Difference between regional and general GDP gap	difgap	Regional GDP gap less general GDP gap.

Table 1. Relationship between financial autonomy and budgetary deficit.

CC. AA.	autfin (Mean)	defpre (Mean)	Regression analysis			Granger causality test	
			Coefficient	significance	R ²	F-value	Probability
Cataluña	0,2314	-0,2261	0,0665	--	0,0031	0,0301	0,9704
Galicia	0,1386	-0,0962	-0,7173	99%	0,4414	4,2371	0,0556
Andalucía	0,1280	-0,0869	-0,6289	95%	0,3916	1,3345	0,3161
Asturias	0,3556	-0,2097	0,2133	--	0,0606	0,4369	0,6606
Cantabria	0,4256	-0,2319	-0,5936	--	0,1771	3,1847	0,0961
La Rioja	0,3367	-0,0903	0,2505	--	0,0377	9,3677	0,0080
Murcia	0,4545	-0,2500	-0,6660	99%	0,7139	2,7520	0,1232
C. Valenciana	0,1578	-0,1076	0,1068	--	0,0029	2,7804	0,1211
Aragón	0,3573	-0,1639	-0,3422	--	0,1168	1,1050	0,3769
Castilla-La Mancha	0,2167	-0,0503	0,0924	--	0,0074	0,3922	0,6879
Canarias	0,4391	-0,0420	0,1690	--	0,0996	0,7714	0,4939
Extremadura	0,2840	-0,0370	0,0036	--	0,0000	0,7526	0,5018
Islas Baleares	0,6676	-0,1942	-0,1368	--	0,0312	1,3646	0,3091
Madrid	0,5162	-0,1899	-0,5167	99%	0,5847	1,6751	0,2477
Castilla y León	0,4395	0,1530	0,4928	99%	0,5484	1,8406	0,2200
Mean	0,3432	-0,1215					
St. deviation	0,2500	0,2294					
Median	0,2739	-0,1018					

Table 2. Financial autonomy and budgetary deficit. Evolution.

	Current cost period		1987-1991		1992-1996		1997-2001	
	autfin	defpre	autfin	defpre	autfin	defpre	autfin	defpre
Mean	0,4425	-0,0485	0,4530	-0,1518	0,3366	-0,1421	0,2628	-0,0933
St. deviation	0,2993	0,2672	0,2304	0,2615	0,1710	0,1275	0,1508	0,0777
Median	0,3618	-0,0350	0,4906	-0,1194	0,3075	-0,1361	0,2659	-0,0855

Table 3. Public services managed by CC. AA.

Dependent variable	autfin	defpre	autfin	defpre
Intercept	0,137 (7,058)***	-0,073 (-6,182)***	0,073 (5,836)***	-0,058 (-4,418)***
finpib	-0,770 (-5,666)***	0,328 (3,974)***		
ejeedu			0,007 (0,801)	0,006 (0,399)
ejesan			-0,042 (-5,624)***	0,020 (1,890)*
Dependent variable (-1)	0,666 (18,159)***	0,645 (14,039)***	0,697 (19,732)***	0,657 (12,926)***
R ²	0,648	0,583	0,833	0,579

Table 4. Political fragmentation.

Dependent variable	autfin	defpre	autfin	defpre
Intercept	0,038 (6,367)***	-0,033 (-4,437)***	0,043 (6,786)***	-0,041 (-5,445)***
mayabs	0,011 (1,515)	-0,021 (-2,740)***		
coalgo			-0,006 (-0,822)	-0,003 (-0,242)
Dependent variable (-1)	0,763 (24,172)***	0,667 (14,420)***	0,771 (24,931)***	0,662 (13,416)***
R ²	0,691	0,577	0,674	0,563

Table 5. Partisan cycle.

Dependent variable	autfin	defpre	autfin	defpre	autfin	defpre
Intercept	0,044 (5,112)***	-0,038 (-5,666)***	0,043 (7,241)***	-0,041 (-5,925)***	0,045 (6,180)***	-0,040 (-5,633)***
sigpol	-0,005 (-0,711)	-0,010 (-1,320)				
gobnac			-0,012 (-1,538)	-0,002 (-0,200)		
parnac					-0,010 (-1,500)	-0,006 (-0,721)
Dependent variable (-1)	0,768 (24,460)***	0,661 (14,423)***	0,778 (25,813)***	0,660 (14,197)***	0,771 (24,717)***	0,662 (14,187)***
R ²	0,677	0,572	0,693	0,561	0,671	0,565

Table 6. Electoral cycle.

Dependent variable	autfin	defpre	autfin	defpre
Intercept	0,039 (6,109)***	-0,039 (-5,914)***	0,046 (6,567)***	-0,041 (-6,340)***
añoele	0,007 (1,016)	-0,009 (-1,207)		
añospos			-0,018 (-2,421)**	-0,005 (-0,055)
Dependent variable (-1)	0,771 (25,529)***	0,662 (14,338)***	0,773 (25,825)***	0,659 (14,166)***
R ²	0,684	0,565	0,693	0,560

Table 7. Business cycle.

Dependent variable	autfin	defpre	autfin	Defpre
Intercept	0,032 (6,460)***	-0,038 (-9,246)***	0,032 (6,075)***	-0,043 (-7,075)***
Pibgap	0,241 (2,698)***	-1,209 (16,151)***		
difgap			0,016 (0,081)	-0,653 (-4,739)***
Dependent variable (-1)	0,795 (31,809)***	0,632 (17,793)***	0,801 (29,942)***	0,631 (13,387)***
R ²	0,798	0,736	0,778	0,580

Common notes for tables 3 to 7:

* significance at 90%.

** significance at 95%.

*** significance at 99%

All coefficients estimated using feasible generalized least squares and variances and standard errors are White's heterocedasticity-consistent.