

# THE ECONOMIC CHALLENGES OF THE EUROPEAN UNION. HOW WILL THE AUTONOMOUS COMMUNITIES BE AFFECTED BY THE NEW FISCAL INTEGRATION?

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FEASIBILITY OF CATALONIA AS A STATE.  
ANALYSIS OF PUBLIC FUNDS

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# 1. Introduction

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Many citizens of Catalonia hope that this country gets to have the best and highest full sovereignty within the European Union. In this sense, Catalonia as an independent state within the EU is a horizon that we must consider, and that comes up the question of feasibility. What would be the cost, if any? Which would be the advantages?

This study analyzes the feasibility of Catalonia as a state from the point of view of public finances. Trying to answer questions like the following:

- The potential revenues generated would allow us to maintain the current state of wellness?
- What additional costs would have as a State?
- Which European states could we compare with, nowadays?

This analysis is mainly based on the fiscal balance studies made by the Government of Catalonia. These studies allow us to know the tax revenue that Catalonia would have if there were not a part reversed to Spain, so it does not stay in Catalonia. We also analyze the additional costs that would Catalonia have, either because it had to assume responsibilities that are now in charge of Spain, as the social security system, or because it was forced to create it from the beginning, for example the expenditure in foreign policy and external representation.

Thus, the study estimates the income and additional expenses that would have Catalonia as state, and this allows us to see its viability. It will begin from some series of hypotheses, such as the maintenance of the same tax system, the same tax burden and the same level of public services we have these days.

It worth to say that, the analysis only recognizes income and expense flows and is not evaluating the assets on the patrimonial distribution that would take place between Catalonia and Spain in the event of an independent Catalonia.

The period analyzed is 2006-2009. The last year of the period is determined by the fiscal balance studies between Catalonia and the central public sector, being

2009 the last year when the fiscal balance was calculated<sup>1</sup>.

It should also be noted that the institutional level that is considered in this study is the Spanish central public administration, understood as a set comprising the State, the autonomous bodies and other public entities and the Social Security and the investor public companies.

This study consists of six sections, including this introduction. The second section locates Catalonia within the EU from its macroeconomic point of view. The third section recognizes the additional revenue that would have Catalonia if it remained the same tax system and the same tax burden as today, but not obligated to do any contribution to Spain. The fourth section analyzes the additional expense that would have Catalonia as State, based on the assumption of the maintenance of the current level and quality of public services. The fifth section analyzes the feasibility of Catalonia as a State and compares the public sector with other European countries. Finally, the sixth section is for conclusions.

## 2. Macroeconomic characteristics of Catalonia in relation to EU-15

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In this section we analyze Catalonia within the EU-15, which is the group of countries that are closest to the characteristics of the Catalan economy.

If Catalonia were a state, would be one of the small states in the EU-15 (Table #1 and Graphic #1). It would have 1.84% of the population according to 2010 data, about 7,300,000 inhabitants. It would be a little smaller State than Sweden, with 9,340,682 people, and Austria, with 8,375,290 million. In contrast, it would be above Denmark, with 5,534,738 million, and Finland 5,351,427.

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<sup>1</sup> Specifically, the study from which we begin is GENERALITAT DE CATALUNYA (2012) Resultats de la balança fiscal de Catalunya amb el sector públic central 2006-2009. Departament d'economia i coneixement, Generalitat de Catalunya, Monografia número 14, Barcelona (Outcome of the fiscal balance between Catalonia and the central public sector 2006-2009. Department of Economics and Knowledge, Government of Catalonia, Monograph No. 14, Barcelona.)

Table 1

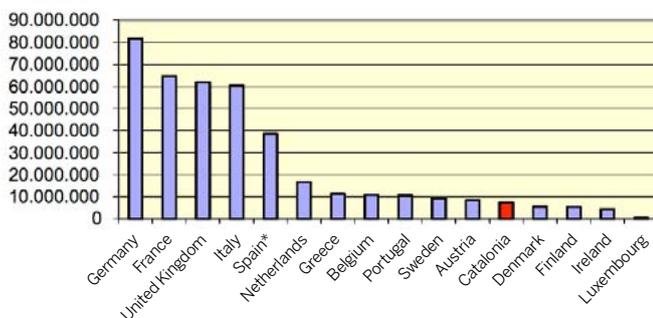
Population of EU-15 countries. Relative position of Catalonia

		% s/ total
Germany	81.802.257	20,58
France	64.694.497	16,26
United Kingdom	62.026.962	15,59
Italy	60.340.328	15,17
Spain*	38.571.716	9,72
Netherlands	16.574.989	4,17
Greece	11.305.118	2,84
Belgium	10.839.905	2,73
Portugal	10.637.713	2,87
Sweden	9.340.682	2,35
Austria	8.375.290	2,11
<b>Catalonia</b>	<b>7.317.300</b>	<b>1,84</b>
Denmark	5.534.738	1,30
Finland	5.351.427	1,35
Ireland	4.467.854	1,12
Luxembourg	502.066	0,13
<b>TOTAL</b>	<b>397.782.842</b>	<b>100,00</b>

(\*) It has subtracted the population of Catalonia  
Source: Eurostat.

Graphic 1

**Population of EU-15 countries. Relative position of Catalonia 2010.**



(\*) It has subtracted the population of Catalonia  
Source: Eurostat.

When it comes to the level of GDP per capita, Catalonia would be a relatively rich State within the EU-15. Table #2 and Graphic #2 show the GDP per capita of the EU-15 countries and of Catalonia in Purchasing Price Allocation (PPA). Note that Catalonia has, with 2009 data, a GDP per

capita of 28,200 euros when the average of the EU-15 is 25,956. This represents a 9% above the average.

With a the same or higher GDP per capita would the following countries: Luxembourg (63,018 euros, 143% above the average), the Netherlands (31,044, 20%), Ireland (30,081, 16%), Austria (29,439, 13%), Denmark (28,921, 11%) and Sweden (28 270, 9%). Note that Catalonia is much closer to the GDP per capita of other small states in population, such as Denmark and Sweden.

With a lower GDP per capita would the following countries: Belgium (27,786 euros, 7% above the average), Germany (27 127, 5%), Finland (26 934, 4%), the UK (26,223, 1%), France (25,429, 98% below average), Italy (24,364, 94%), Spain excluding Catalonia (23,541, 91%), Greece (22 189, 85%) and Portugal (18 803, 72%).

Table 2

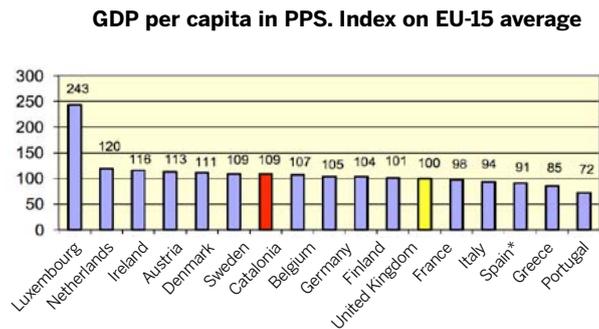
**GDP per capita in PPS in the EU-15 countries. Relative position of Catalonia**

	GDP per capita in PPS	Index on EU-15 average
Luxembourg	63.018	243
Denmark	31.044	120
Ireland	30.081	116
Austria	29.439	113
Denmark	28.921	111
Sweden	28.270	109
<b>Catalonia</b>	<b>28.200</b>	<b>109</b>
Belgium	27.786	107
Germany	27.127	105
Finland	26.934	104
United Kingdom	26.223	101
France	25.429	98
Italy	24.364	94
Spain*	23.541	91
Greece	22.189	85
Portugal	18.803	71
<b>EU-15 average</b>	<b>25.856</b>	<b>100</b>

\* Figures without Catalonia. If it is consider, Spain has a GDP per capita of 24.282 euros and an index of 94.

Source: Eurostat and personal compilation

Graphic 2



(\* ) Figures without Catalonia  
Source: Eurosta

Table 3

**Exports of goods and services as % of GDP**

Luxembourg	175,93
Belgium	82,55
Ireland	80,23
Netherlands	74,20
Austria	58,90
Denmark	52,22
<b>Catalonia*</b>	<b>52,20</b>
Sweden	51,87
Germany	47,17
Finland	45,81
Portugal	31,19
Italy	28,85
Spain**	27,29
United Kingdom	26,92
France	26,86
Greece	23,52

\*Exports are recorded to Spain (27%) and to the rest of the world (25,20%)

\*\* Figure without Catalonia

Source: Eurostat, for Catalonia: Intereg (2010), The intra and inter-regional commerce of Catalonia: 1995-2009 (table 3)

Table #3 shows the degree of openness of the Catalan economy. In 2007 Catalonia exported goods and services in a value of the 52.20% of GDP, including exports to the rest of Spain (27% of GDP) and to the rest of the world (25.20% of GDP). It is noticed that the degree of openness is equivalent to countries such as Denmark, with exports of 52.22% of its GDP, and Sweden, with a 51.87%. These countries are also the closest to Catalonia

regarding the production level.

### 3. Additional revenue of Catalonia as State.

Catalans are nowadays paying taxes in Spain, the Regional government (Generalitat) and local governments. From the taxes paid in Spain, some returns in Catalonia in public expenses directly made by the central government, or in the form of transfers of resources to the Regional Government (Generalitat), local governments and the private sector. Another part does not return, and helps the State to finance the general expenses and the solidarity with other autonomous regions. To count what would be the additional revenue if Catalonia became a state, we assume the following two hypotheses:

- Suppose we keep the same tax system that exists today, that is, the same type of taxes.
- Suppose the level of the tax burden is the same as today.

In this context, the additional revenue that would Catalonia have would be the taxes we are currently paying in Spain, except the transfers of resources that the State (Spain) directly does to the regional government (Generalitat), because these, necessarily, wouldn't be given anymore. Nowadays, the State is doing transfers of resources to the regional Government (Generalitat), local government, and municipalities; Logically, it would stop being received. We are taking transfers to regional governments and municipalities as a cost that a new Government must take, because they must be kept, however, those that the Government receives we subtract them from the additional income tax, obtained because of having an own state, since in net terms, in fact, the government would have additional income from the taxes Catalans are now paying in Spain, but also some less income, those from the transfers that nowadays the State (Spain) is doing and would stop.

The data for the contribution tax that Catalans are currently doing in Spain come from the calculation of the fiscal balance between Catalonia and the central public sector in the period 2006-2009<sup>2</sup>

According to the studies of the fiscal balance, there are two methods for calculating the income tax that Catalans

<sup>2</sup> GENERALITAT DE CATALUNYA (2012) .op.cit

pay in the state: the approach to profit and the cash flow approach<sup>3</sup>.

The first method imputes income to the territory where people who finally bear the burden are residing. For example, tax increase on companies, such as VAT, can be turned into price increases of its products, which means that the actual incidence of the tax would affect on the consumers of these products. This effect is important when consumers and producers are living in different autonomous regions.

The approach to the income cash imputes the income to the region where is located the economic taxable, that is, where the taxable object is located. The corporation tax paid by a company which has its headquarters in Madrid and, therefore, the tax is collected in Madrid but the producing factory is located in Catalonia, according to this system is the tax is imputed in Catalonia, which is where the taxable object is located.

For the purposes of our study, we assume the perspective of the cash flow, which more clearly tells us the tax revenues generated in Catalonia by level of income, wealth and consumption, regardless who is supporting the tax burden or where takes place the collection of taxes, that depends on the organization of Tax Administration. This approach shows us which tax revenue would generate Catalonia if it was an independent State. In the example set before, if Catalonia was a state, the company based in Madrid but with its production in Catalonia should pay taxes in Catalonia, as the object of taxation is found in this country.

According to this method, to carry into the territorial revenues, the indicators which reveal the volume of different objects of tax generated in Catalonia are set. Specifically, the allocation in Catalonia of the different tax types takes place as follows<sup>4</sup>:

- The revenues generated by income taxes are allocated according to the weight of Catalonia respect the rest of the Spanish regions with a regular taxation system from the State part of the liquid quota.

- The corporation tax, based on the weight of Catalonia respect the whole of the autonomous regions with regular taxation system in the gross operating surplus.

- The income tax for non-residents, according to the amount

3 GENERALITAT DE CATALUNYA (2012) .op.cit . p.14

4 See GENERALITAT DE CATALUNYA (2012) .op.cit., p.14-28

of the collection in Catalonia in the whole regions with regular taxation system.

- The quota of passive rights, according to the total number of civil servants mutual members in Catalonia.

- VAT, according to the estimated final consumption indicator made by INE for the regional allocation of VAT in Catalonia.

- Special taxes, according to the indexes created by the INE for the regional allocation of these taxes in Catalonia

- The tax on insurance premiums, according to the value of the premiums contracted in Catalonia over the total amount.

- The tax on foreign trade and the quotation on sugar and isoglucose depending on the weight of the final consumption of households in Catalonia in relation to the total.

- Taxes and other income, based on the weight of Catalonia's GDP<sup>5</sup>.

- Revenues of autonomous institutions, State agencies and public bodies, under the weight of Catalonia's GDP.

- Income from Social Security contributions, according to the weight of Catalan collection of the total amount.

- Other income from Social Security, according to the weight of Catalonia's GDP<sup>6</sup>.

- Operating revenues of public enterprises, considering the State Harbors and AENA. In the first case income from the Catalan ports; In the second case income have been organized by territories, according to the percentage of passengers at Catalan airports.

Table 4

**Additional income of Catalonia as a state (in millions of euros)**

	2006	2007	2008	2009
<b>Direct Taxes</b>	<b>17.676</b>	<b>20.809</b>	<b>15.750</b>	<b>11.715</b>
Income tax	9.488	11.024	9.587	6.901
Corporation tax	7.836	9.358	5.756	4.393
Non-resident tax	275	341	317	329
Quotes de drets pasius	77	86	90	92

5 The main income of this institutions are taxes and other revenues.

6 It is basically formed by taxes, public prices and other revenues.

<b>Indirect taxes</b>	<b>9.688</b>	<b>9.623</b>	<b>7.876</b>	<b>6.014</b>
VAT	7.204	6.850	5.208	3.615
Special taxes	1.916	2.183	2.089	1.863
Tax on insurances premiums	286	290	305	304
Foreign trade	281	300	273	231
Contribution and extraction of sugar and isoglucose	1	-	1	1
<b>Fees and other incomes</b>	<b>738</b>	<b>757</b>	<b>1201</b>	<b>2191</b>
<b>Incomes from autonomous bodies, state agencies and other public organization</b>	<b>224</b>	<b>231</b>	<b>250</b>	<b>270</b>
<b>Incomes from Social Security contribution</b>	<b>22.890</b>	<b>24.573</b>	<b>25.590</b>	<b>24.908</b>
<b>Other incomes from the Social Security</b>	<b>351</b>	<b>275</b>	<b>293</b>	<b>312</b>
<b>Public corporation incomes</b>	<b>700</b>	<b>799</b>	<b>812</b>	<b>783</b>
<b>SUBTOTAL</b>	<b>52.267</b>	<b>57.067</b>	<b>51.772</b>	<b>46.193</b>
<b>(-) Except transfers to public administration</b>	<b>2.997</b>	<b>3.152</b>	<b>4.852</b>	<b>5.316</b>
<b>TOTAL</b>	<b>49.270</b>	<b>53.915</b>	<b>46.920</b>	<b>40.877</b>

Source: Tables # 2.1.4, 2.2.2, 2.3.5 i 2.4.2 Generalitat de Catalunya (2012): Outcome of the fiscal balance between Catalonia and the central public sector 2006-2009, Barcelona.

Table 4 shows the additional revenue that Catalonia would get as an independent State under the established assumptions and the calculation methodology used. There are income taxes, revenue of autonomous institutions, State agencies and other public bodies, the Social Security income, and the income of Public companies (State Harbors and AENA). Of all these income, the transfers of resources of the public sector that now is transferring the central Government are removed, as explained above.

It is important to note the reduction of income that occurs since 2008 due to the economic crisis. In the 2006 are counted some additional income of 49,270 million euros, increased to 53,915 in 2007, whereas in 2008 these descend to 46,920 million euros and to 40,877 in 2009. When considering the impact of the economic cycle is more appropriate to analyze the period 2006-2009, which includes crisis years and years in which it had not affected public revenue yet.

## 4. Additional costs of Catalonia as a State.

If Catalonia were a State Government should take a series of competencies that are still in the hands of Spain, such as scholarships, or

those which are associated with the existence of a State, such as foreign policy. The exercise of these competencies is implemented through the development of a regulatory framework and through a series of spending policies included in the State general budget.

This sections is specifically focuses on this latter aspect. Specifically, it intends to carry out an estimate of the increased cost to the Government would assume that all these functions.

To do so, we start from the estimation of the study on the fiscal balance of the public sector in Catalonia 2006-2009 prepared by the Generalitat in 2012, as they provide very detailed information on the volume and the composition of central government spending made in Catalonia (eg, payment of pensions) and those which benefit the Catalans (eg, foreign policy). Before starting to the estimation required, it must remember that there are two main criteria for territorial allocating for public spending: The approach to profit and the cash flow approach. According to the cash flow approach, spending is attributed to the territory where is materialized, regardless of where the beneficiaries of this decision are located. Therefore, the expense is recognized where there are the employees, the use of goods and services, transfers perception and the realization of investments. According to the approach to profit, the allocation of costs is in the area where the beneficiary resides, regardless of where it occurs or is made public service investment. In this case, we establish hypotheses about the scope of beneficiaries and the quantification of the benefits to the goods and services they provide. Among the functions carried out by the Spanish State and that the Generalitat should assume, we find essential public services, such as justice, defense, public security and penal institutions, and foreign policy. In the case of justice, the main action in terms of volume of expenditure that has not been transferred to the Generalitat is the Courts Program and the Attorney General's office, where the most important item is the payment of salaries and wages of non-transferred employees, ie, judges, court clerks and prosecutors, among others. In this case, we chose to consider added expense for the Generalitat that from applying the criteria of the cash flow, that is, which the central government is directly giving in Catalonia in this function.

As for the service of defense, we must remember that it is a pure public good, characterized by a joint bid and the impossibility of excluding citizens for pricing. These properties make the benefits to all citizens equally, regardless of where they reside and where the troops are located. The-

Therefore it has been considered that the estimation that may better reflect the cost of service of defense in Catalonia is derived from the calculation of the flow of profit. Assuming the hypothesis that the Catalan government would have a behavior similar to the Spanish and would assign the same amount of resources per capita, the most appropriate approach is to apply the profit flow, whereby defense spending is based on population. Thus, under the income approach, the cost of all defense programs has been allocated in Catalonia in terms of population.

Public safety and correctional services are also a basic public service. In this case, since prisons is a service that is fully transferred to Generalitat, is not necessary to allocate any cost for this item. Therefore, only remains to allocate the cost of public safety that corresponds to expenditures related to police and Guardia Civil. As in this case Catalonia has also transferred police powers, the most appropriate indicator when considering what additional cost would be is the derived by applying the criteria of cash flow, that is, considering the spending done by the central government in Catalonia in this area, which is primarily embodied in personnel costs.

The budget programs related to foreign policy refer to Spain relations with other countries. Obviously, much of this spending is situated overseas because of the particularities of this kind of spending. So that, this does not mean that this is not a cost to any government. To impute the cost of this service can mean to the Generalitat, it has been used as an approximation the derived from the calculation of the benefit principle, which distributes government spending for such programs by population. Naturally, in this case we also assume that the Catalan government would have the same overall spending patterns of the current Spanish government.

A second group of expenditure policies which are currently on Spain and the Generalitat should assume are related to protection and social promotion. In this section we find the largest pension programs (to civil servants, military, non-contributory, etc.), Social services and social development, employment promotion, access to housing and building promotion and management and administration of Social Security. It is important to point that in this point has been hypothesized that the Generalitat accepts the commitments made by Spain with all these groups. Most of these programs are articulated in the form of direct transfers. Thus, being direct transfers, the criteria for estimating the amount of spending that could lead to the Generalitat the cost of these programs is the derived from the calculation of cash flow, and the extra expense is the

amount of such transfers. Must say that it is virtually coincident with the flow of profit. A third group of political spending made by the State are linked to the production of preference public goods. In particular, the costs for health care, education and culture. In this case it is considered that these competences are fully transferred to the Generalitat and makes no sense to impute the cost still done by the State in these areas. Therefore, these costs are not considered, except in two cases. On the one hand, in the role of education, it is considered the program of scholarships and grants to students, since it is a program that has not been transferred to the autonomous regions and is still held by the State. To estimate what this would cost, we have decided to consider directly the amount of scholarships and grants that the State gives to Catalan students.

The second exception relates to the health. The major spending program that is under this heading is hospital care in the Armed Forces. For consistency with the treatment given to other programs related to national defense, it was thought advisable to consider the additional expense that this service would cause to the Generalitat such as in other defense programs.

A fourth group of spending policies owned by State and nowadays carried out by the central government is the one on Economic policies. Within this section there are actions relating to different economic sectors, infrastructure, transportation and activities related to research, development and innovation. Regarding public expenditure aimed at productive sectors, it is considered as additional costs to the Generalitat that made directly by the State in the Catalan territory and, therefore, derived from the allocation based on territorial criteria of cash flow. It has followed the same approach for other policies registered under this section, as it is basically grants or direct investment.

Finally, the group of other spending policies classified as general measures, in which there are programs for senior management, general services, financial and tax administration, transfers to other institutions and public debt.

Inside the senior management there are programs such as the head of the State, legislative activity, public sector external audit, Head of Government, among others. In this case has not been assigned any additional cost because the Generalitat already has a government organization with its own executive, legislative and control powers.

Regarding the role of general services, the program with the largest expenditure is the peripheral administration of the State. Obviously, for this service does not make sense

to impute any money because, again, the Generalitat already has its own offices along the Catalan territory. It also happens in the case of programs related to financial and tax administration. It is worth mentioning that this does not mean that is not needed the reinforcement of some of these services, but they don't have to be implemented again.

When it comes transfers to other public authorities, just needed to be allocated as additional cost to the Generalitat those given by the State to local Catalan authorities, as those given to the autonomous region in concept of regional funding, doesn't make sense anymore.

With regard to public debt, it has been considered that Catalonia should take care of part of the Spanish debt and, that means accepting an annual financing cost of amortization and payment of interests. Specifically, is allocated to Catalonia a part of the financial cost (depreciation and interest) of the Spanish debt. Is calculated by applying the weight of spending of the State in Catalonia according to the criteria of cash flow in the period 2002-2005 over the total annual cost of debt finance.

Apart from the spending that the State directly does and, if Catalonia were a State would have to accept, it must also be considered the spending by other agencies and public entities. In particular, the whole amalgam of autonomous organizations, state agencies and other public bodies, have been considered necessary to set up a State. Thus, it has been considered the expenditure in Catalonia by the State Agency for Tax Administration, as Catalonia should have the means to cope with the management and collection of taxes. Such means may be equivalent to those that currently AEAT has in Catalonia. A similar argument can be used in the case of the Higher Council for Scientific Research (CSIC) if considering that Catalonia should continue to invest in research.

The detailed analysis of all agencies and organizations shows that more than a half of the total spending corresponds to the Spanish Agricultural Guarantee Fund (FEGA), which serves to share the resources of the FEOGA-Garantia between regions. This is an organization that involves no additional cost to the Generalitat, since its mission is to manage the resources of the Common Agricultural Policy.

In addition to these organizations, there are others who also act in Catalonia, but have a shoestring budget and in many cases, the Generalitat already has an agency or similar entity. This is the case, for example, of the Women's Institute and the National Institute of Statistics, among others. Therefore, in these cases has not been allocated of

any expenditure. A third administration to consider is Social Security and its agencies. Currently this is a completely centralized administration, and therefore, we must consider the amount of spending that would be the assumption by the Generalitat of this competence. We start from the assumption that it would maintain the current level of benefits, and therefore, the current level of spending. So, given that this cost is very territorialized, the estimated cost to the Generalitat would be as what today is doing the Social Security Administration and its agencies in Catalonia at the discretion of cash flow. This basically means allocating the current amount of the financial benefits that Social Security is carrying out in Catalonia.

As mentioned, in this study are included public companies aimed at the creation of large investment projects that contribute significantly to increasing the stock of public capital. In this case it was considered that the increased cost to the Generalitat would directly match to the investments of these companies in Catalonia.

Table #5 shows the results of the estimation according to aforementioned criteria. As can be noted, between 2006 and 2009, the additional costs that Generalitat would have to assume increased substantially, going from 30,304 million in 2006 to 39,955 in 2009. The main reasons for the increase was the rise of resources needed by the Public Employment Service to meet the payment of unemployment benefits. Also worth mentioning the increase in state transfers to local authorities in 2009 as a result of Plan E (Spanish Plan for Stimulating the Economy and Employment) and the optimistic forecasts of revenue done by the Spanish government which granted to local authorities, as a share of the revenue, an amount greater than that actually would have been entitled, which has meant that local authorities have to return a portion of the resources in the form of advances, granted by the State before. Therefore, the expenses to assume vary depending on the year, according to state policy, since, as noted, is based on the hypothesis of maintaining the same levels of spending and public services. Obviously, an independent Catalonia would not necessarily follow these guidelines of spending.

Table 5

#### Additional expenses of Catalonia as a State

	2006	2007	2008	2009
Expenses of State policies				
<b>Basic public Services</b>	<b>1.957</b>	<b>2.147</b>	<b>2.245</b>	<b>1.651</b>
Justice	142	104	99	82
Defense	1.225	1.328	1.406	1.332

Public safety and prisons	468	585	605	99
Foreign policy	122	130	135	138
<b>Measures of protection and social promotion</b>	<b>1.081</b>	<b>1.166</b>	<b>1.153</b>	<b>894</b>
Pensions	794	832	875	558
Social services and social promotion	72	104	111	101
Employment promotion	2	2	2	0
Building access and building promotion	207	224	160	231
Management and administration of social security	6	4	5	4
<b>Protection of public goods of preferential treatment</b>	<b>116</b>	<b>131</b>	<b>155</b>	<b>177</b>
Health (Armed Forces Hospital care)	37	40	36	38
Education (grants)	79	91	117	139
Culture	0	0	0	0
<b>Measures of economic nature</b>	<b>1.406</b>	<b>1.604</b>	<b>1.850</b>	<b>2.425</b>
Administració financera i tributaria	78	62	86	144
Industry and energy	7	8	27	42
Trade, tourism and SMEs	17	15	14	13
Transport subsidies	382	242	263	353
Infrastructures	689	980	1.147	1.387
Research, development and innovation	225	290	306	479
Other measures of economic nature	8	7	7	7
<b>Measures of general nature</b>	<b>3.992</b>	<b>4.245</b>	<b>4.433</b>	<b>5.704</b>
Senior management	0	0	0	0
General services	0	0	0	0
Financial and tax administration	0	0	0	0
Transfers to other public authorities (in EELL)	2.474	2.825	2.879	3.979
Public debt	1.518	1.420	1.554	1.725
<b>TOTAL STATE</b>	<b>8.551</b>	<b>9.294</b>	<b>9.836</b>	<b>10.851</b>
<b>Agencies and public bodies</b>				
State agency of tax administration	212	224	239	236
Scientific Research Council (CSIC)	97	114	59	187
<b>TOTAL GOVERNMENT AGENCIES AND ORGANIZATIONS</b>	<b>309</b>	<b>338</b>	<b>298</b>	<b>423</b>
<b>Social Security and its agencies</b>				
TGSS and managing organizations	15.037	16.203	17.142	18.076
Mutual AT & MP	1.053	1.294	1.580	1.534
Public service of employment	3.383	3.596	4.167	6.617
Wage Guarantee Fund	93	109	132	174
General Judicial mutual	8	8	9	10
Social Institute of the Armed Forces	22	22	23	24
Mutual Fund for Civil Servants	<b>125</b>	<b>132</b>	<b>136</b>	<b>141</b>
<b>TOTAL SOCIAL SECURITY</b>	<b>19.721</b>	<b>21.364</b>	<b>23.189</b>	<b>26.476</b>
<b>Public companies of identifiable investment</b>				
AENA	485	723	686	554
Waters of the Ebro Basin (ACESA)		28	57	84
Waters of the Mediterranean Basin (AQUAMET)	3	1	4	17
Water treatment plant of lower Llobregat	41	0	0	0
Railway Infrastructure Manager (GIF / ADIF)	905	826	930	1.134
State harbors	250	162	170	147

State Agricultural Society Infrastructure North-East SA	39	20	19	12
State Company for Land Transport Infrastructure (SEITSA)		88	150	257
<b>TOTAL PUBLIC COMPANIES INVESTORS</b>	<b>1.723</b>	<b>1.848</b>	<b>2.016</b>	<b>2.205</b>
<b>TOTAL ADDITIONAL COSTS</b>	<b>30.304</b>	<b>32.844</b>	<b>35.339</b>	<b>39.955</b>

Source: Generalitat de Catalunya (2012): Outcome of the fiscal balance between Catalonia and the central public sector 2006-2009, Barcelona.

## 5. The Catalan public funds as a State.

### 5.1. Feasibility

Once recognized income and additional expenses that would have Catalonia as a State, we analyze the fiscal feasibility. Table #6 shows that the additional revenue exceed costs in all years analyzed. The balance (the gain that would get as an independent state) varies depending on the economic situation. Thus, the gain in 2007 would have been 21,071 million, while in 2009, only about 922 million. This performance is mainly a result of the fall of tax revenues due to the economic crisis and the increased costs associated with unemployment benefits, and those counter cyclical measures taken by the central government. Thus, it makes sense to calculate the average of the period of 2006-2009, which includes years of economic prosperity as well as years of economic crisis. The average, in terms of standard euros of 2009, is 13,617 million euros, which represents 7.1% of the GDP.

Table 6

#### Catalonia's fiscal feasibility as a State (Millions of euros)

	2006	2007	2008	2009	Average 2006-2009(*)	%s/PIB
Additional Incomes	49.270	53.915	46.920	40.877	49.018	25,6
Additional Costs	30.304	32.844	35.339	39.955	35.400	18,5
<b>GAIN</b>	<b>18.966</b>	<b>21.071</b>	<b>11.581</b>	<b>922</b>	<b>13.617</b>	<b>7,1</b>

(\*) In constant 2009 euros. Source: Tables 4 & 5.

It should be noted again that these results are conditioned, as noted throughout the study, by the hypothesis that we assume. On the one hand, we believe Catalonia would maintain the tax structure and tax burden in Spain and on the other hand, we part from the level and structure of Central government spending has done over the years. Obviously, if Catalonia became an independent state should not necessarily follow these guidelines and tax expense.

It must also be mentioned that the results obtained do not agree exactly with Catalonia's fiscal deficit figures

with the Central Government. First, because the additional costs that are allocated are not the exactly those counted in the calculation of the fiscal balance, and, secondly, due to the neutralizing effect of the central public sector deficit, which is not necessary here. What makes neutralization is to allocate the State's public deficit as a future tax burden, however, that, here, makes no sense because what we are measuring is the ability to self-finance of Catalonia as an independent State; what is considered is that Catalonia inherits a part of the public debt of the State and the financial charge, already counted.

Table 7

**Economic feasibility of social security benefits (million euros)**

	2006	2007	2008	2009	Average 2006-2009 (*)
Additional Incomes	23.241	24.848	25.883	25.220	25.399
Additional Costs	19.721	21.364	23.189	26.476	23.202
<b>GAIN</b>	<b>3.520</b>	<b>3.484</b>	<b>2.694</b>	<b>-1.256</b>	<b>2.198</b>

(\*) In constant 2009 euros. Source: Tables 4 & 5.

Table #7 shows the economical viability of Social Security. As you can see, the first three years analyzed generate a profit, since revenues exceed expenses for pension contributions and unemployment benefits, while in 2009 this behavior is reversed and generates a deficit of 1,256 million due to the economic crisis.

It is important to take into account that in 2009 Social Security of the Spanish State, without counting Catalonia, had a deficit of 21,966 million euros. In other words, expenses were 21% higher than revenues. In relative terms, this deficit was much lower in Catalonia since the expenses of Social Security were only 5% higher than revenues. However, this deficit is more than offset by other tax revenues, as is evident in Table #6.

In the case of Social Security, we should mention that Catalonia, as a state, should get a portion of the reserve current fund of the Spanish Social Security system. It is an active part that Catalonia should take over, as well as a part of the Spanish public debt.

**5.2. Comparative with the EU-15**

Table #8 shows which volume would have the public sector in an independent Catalonia. In 2009, public spending in Catalonia would be around 39% of the Catalan GDP. So, table #9 shows the level of tax burden of the 31% in 2009. These figures should be analyzed based on the assumption that Catalonia inherits the level and the structure of income and current expenditures of Spain.

Table 8

**Weight of the public sector in Catalonia as a State (Millions of euros)**

	No financial expense (recognized obligations)			
	2006	2007	2008	2009
Additional costs as State*	30.304	32.844	35.339	39.955
Regional Administration	23.899	25.722	28.327	32.516
Local authority	9.124	10.213	10.816	12.086
<b>Total unconsolidated</b>	<b>63.328</b>	<b>68.778</b>	<b>74.482</b>	<b>84.557</b>
<b>Total consolidated</b>	<b>57.178</b>	<b>61.947</b>	<b>67.377</b>	<b>76.213</b>
<b>% s/GDP</b>	<b>31%</b>	<b>31%</b>	<b>33%</b>	<b>39%</b>

\*Includes financial expense

Source: Table 5 and Ministry of Finance and Public Administration.

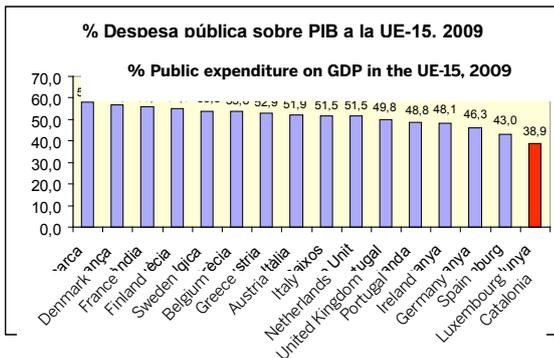
Table 9

Tax burden on Catalonia	Taxes (recognized rights)			
	2006	2007	2008	2009
Additional taxes	50.254	55.505	49.216	42.637
Regional Administration	15.837	16.140	15.570	14.929
Local authorities	3.490	3.609	3.668	3.758
<b>Total Taxes</b>	<b>69.381</b>	<b>74.754</b>	<b>58.463</b>	<b>61.326</b>
<b>% s/GDP</b>	<b>38%</b>	<b>38%</b>	<b>34%</b>	<b>31%</b>

Source: Table 4 and Ministry of Finance and Public Administration.

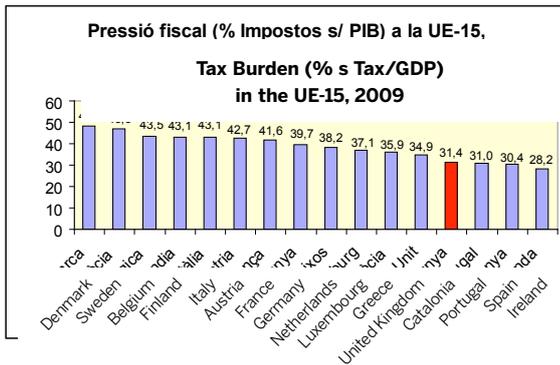
The comparative analysis with other countries in the EU-15 context the figures above. Regarding the weight of public spending to GDP, Catalonia is the last in the ranking (Graphic #3). This position is influenced by the methodology used, which takes into account the additional costs that Catalonia would take as a state, counting from the spending that Spain is currently doing in our country, and that is relatively low, representing just the 14% of total public spending Spanish versus the 17% that represents the Catalan population. Note that the average cost of Spain in relation to GDP is higher than Catalonia's: a 46.3% versus 38.9%. This is due to the effect above. Obviously, if Catalonia were an independent state it would allocate additional resources that this matter represents to increase public services and the welfare state, so it would be closer to similar socioeconomically countries, such as Sweden or Denmark.

Graphic 3



Source: Eurostat and table 8.

Graphic 4



Source: Eurostat and table 9.

Regarding the level of taxation, Catalonia is also in the last positions of the ranking, 31.4% (Graphic #4), in this case, however, one point above the tax burden across Spain, with 30.4%.

## 6. Conclusions

This paper makes an approach to the analysis of the feasibility of Catalonia as an independent state from the perspective of its public finances. It has been recorded additional income that Catalonia would have if it didn't have to pay taxes in Spain and the additional costs that would have to assume, just because they are costs of the jurisdiction of the State or because they are expenses that Catalonia should do as an independent state, such as foreign policy.

To calculate these revenues and additional costs, we part from the level and structure of costs and revenues in Spain in the period 2006-2009, since it is assumed that some of

these should be transferred to Catalonia. This means that the results are conditioned by these issues.

The main conclusions drawn from the study are:

- Comparing Catalonia with the U-15, which is the group of European countries that makes more sense to compare it with from a social and economic point of view, we note that it would be a small state in terms of population, but it would be above average in terms of GDP per capita in purchasing power parity; in particular, it would be a 9% above the average, with a very similar position to countries such as Sweden and Denmark.

- According to the volume of exports, so that, sales outside its territory, whether in Spain or the rest of the world, Catalonia has a very open economy (exports represent around 52% of GDP) and very similar to the openness of Denmark and Sweden.

- Taking the level and structure of earnings and current public spending in Spain and on the assumption that Catalonia inherited them, if it became an independent State, it would experience a net gain in terms of public revenues depending on the year of analysis. Thus, the gain in 2007 would have been 21,071 million, while in 2009 would have been 922 million euros, a figure much lower due to the effects of the economic crisis on government revenues. The average for the period in standard euros of 2009 is 13,617 million euros. Therefore, Catalonia is completely feasible as an independent state with regard to its treasury, since it would maintain current spending levels and tax burden.

- Taking the above circumstances, Catalonia would be a state with a volume of spending in relation to the low GDP compared to other countries in the EU-15, of a 38.9% of GDP. This is conditioned by the fact that we consider the Spanish current spending in Catalonia, which is lower than in the rest of the State. Regarding the tax burden (% of GDP taxes) it also would be placed at the bottom of countries in the EU-15, with a 31.4%.

- The final conclusion of the study is that Catalonia, as an independent State, and considering the present situation of the Spanish public sector, would clearly have additional net revenues that could be devoted to increasing public services (more services or higher level or higher quality) or cutting taxes.